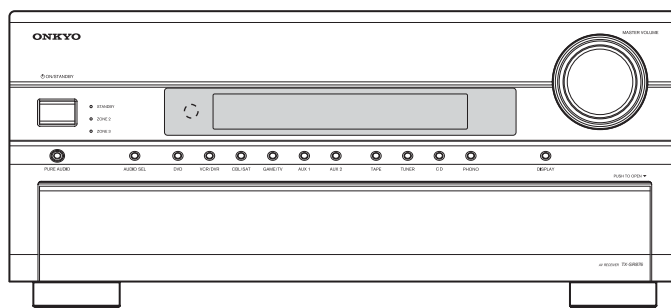


# ONKYO SERVICE MANUAL

## AV RECEIVER

### MODEL TX-SR876 MODEL TX-SA876



RC-690M

#### TX-SR876 Black, Golden and Silver models

|                            |                      |
|----------------------------|----------------------|
| B MDC, S MDD, GMDT         | 120V AC, 60Hz        |
| B MMP, S MMP, B MMB, S MMB | 220-240V AC, 50Hz    |
| G MMT                      | 220-240V AC, 50/60Hz |

#### TX-SA876 Golden model

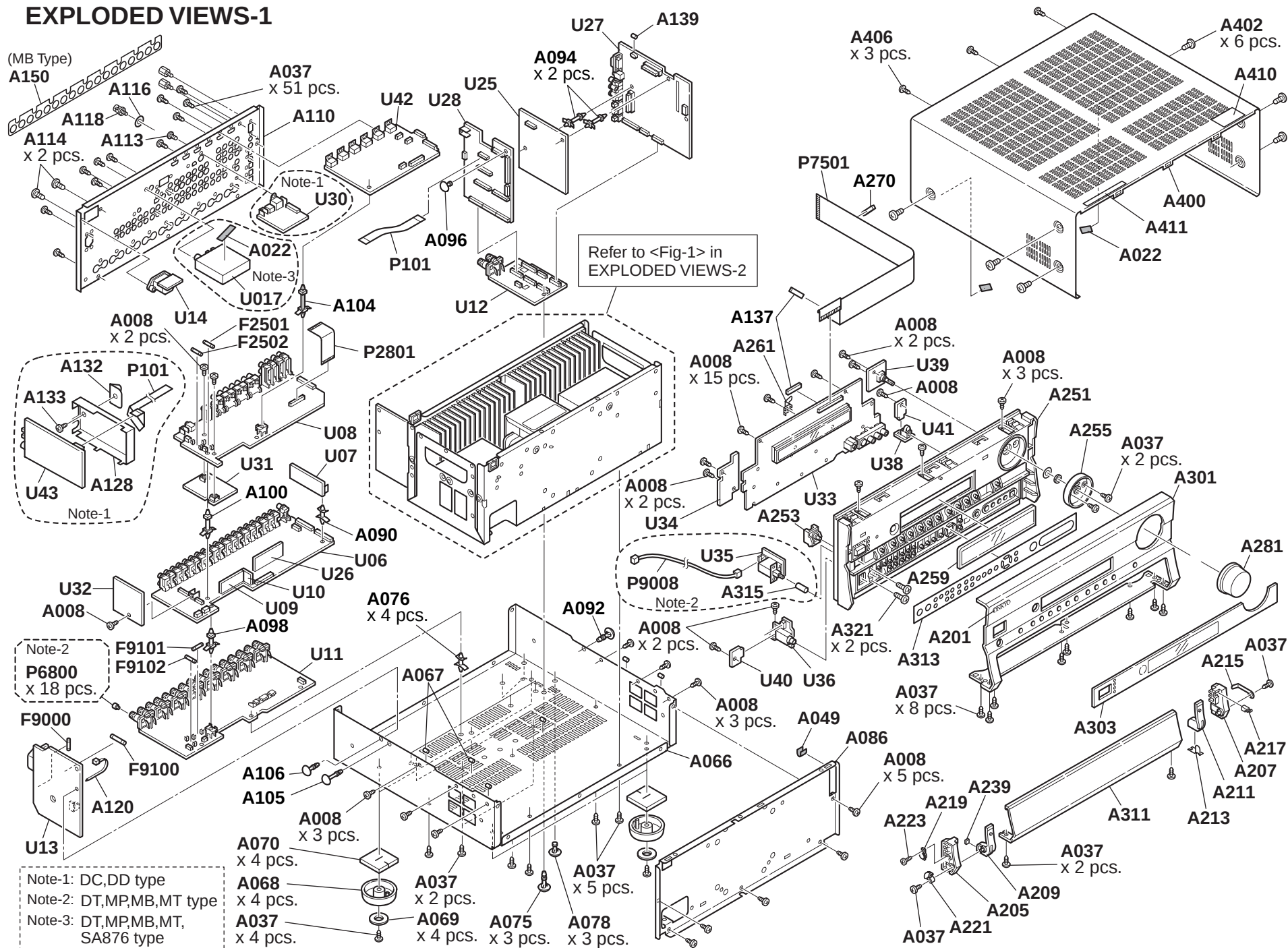
|       |                      |
|-------|----------------------|
| G MMR | 220-240V AC, 50/60Hz |
|-------|----------------------|

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

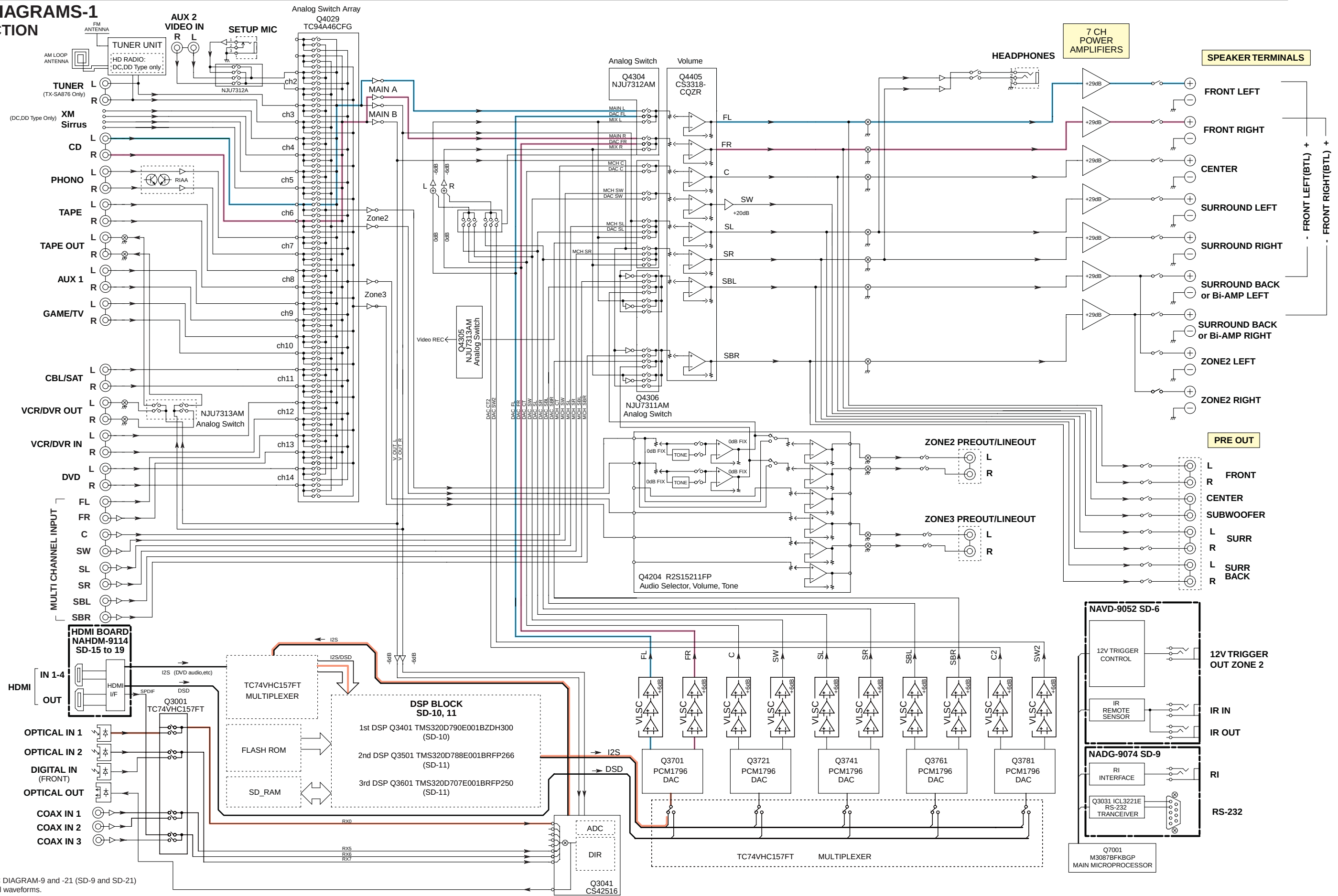
MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

## EXPLODED VIEWS-1





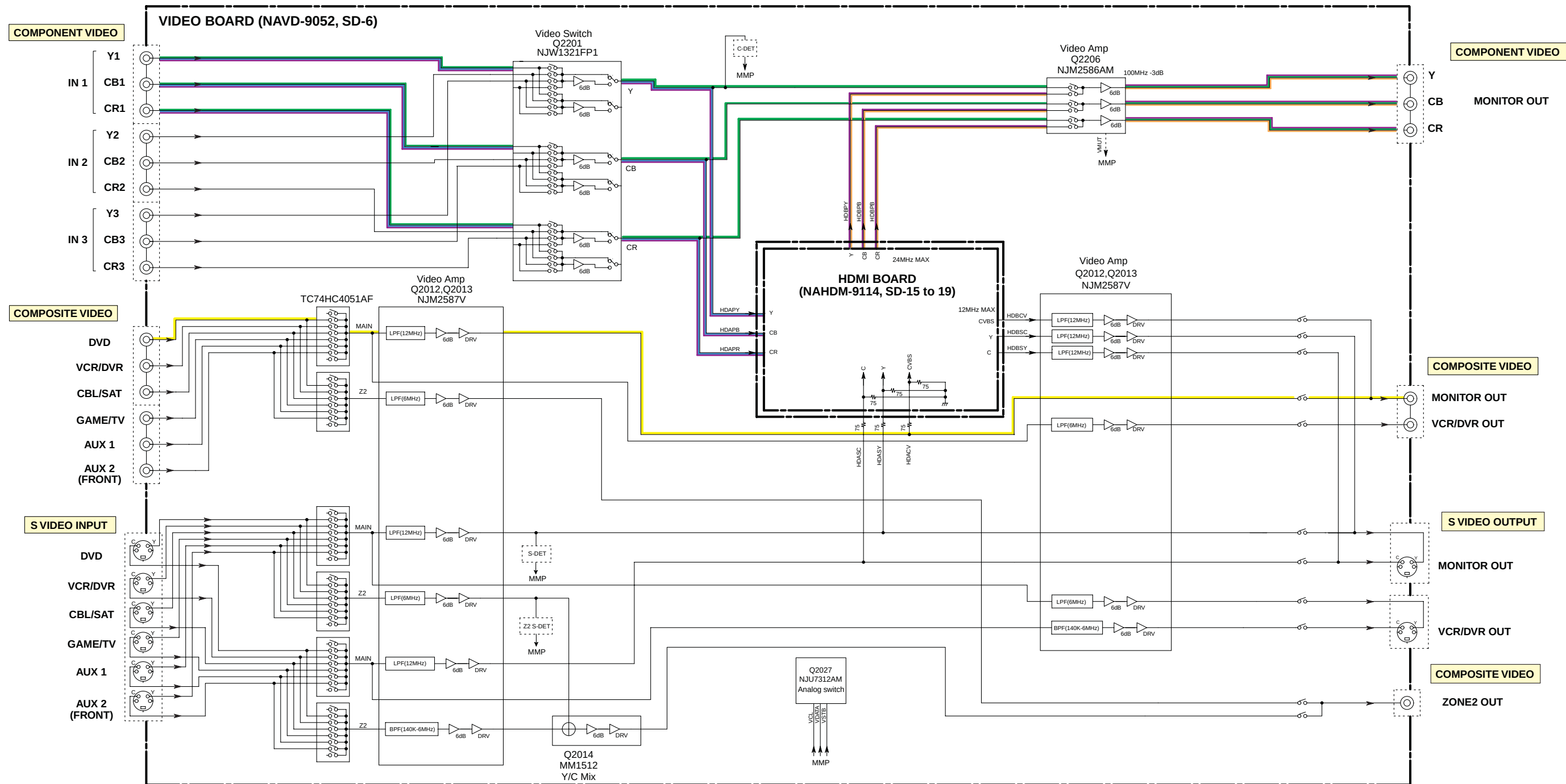
# BLOCK DIAGRAMS-1 AUDIO SECTION



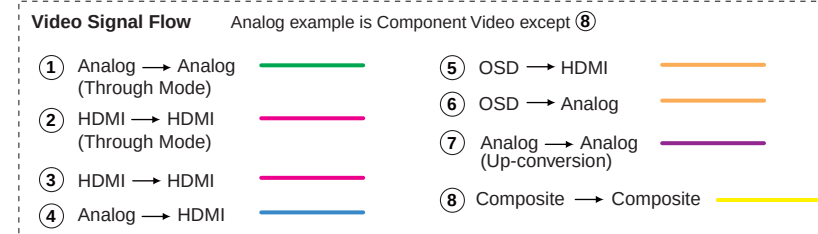
<Note>  
Refer to SCHEMATIC DIAGRAM-9 and -21 (SD-9 and SD-21)  
for digital audio signal waveforms.

# BLOCK DIAGRAMS-2

## VIDEO SECTION

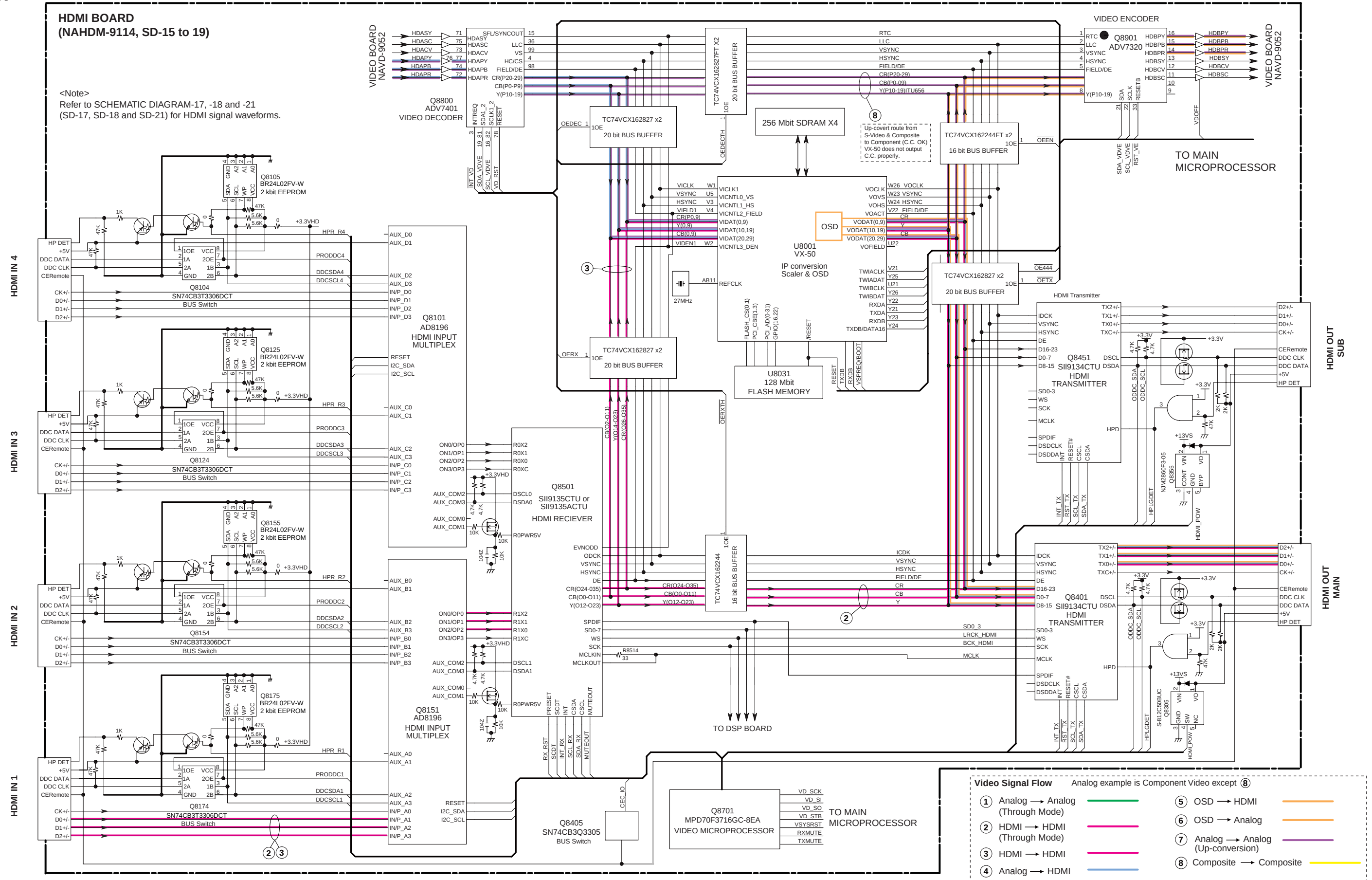


<Note>  
Refer to SCHEMATIC DIAGRAM-6, -17, -18 and -21 (SD-6, SD-17, SD-18 and SD-21)  
for video and HDMI signal waveforms.



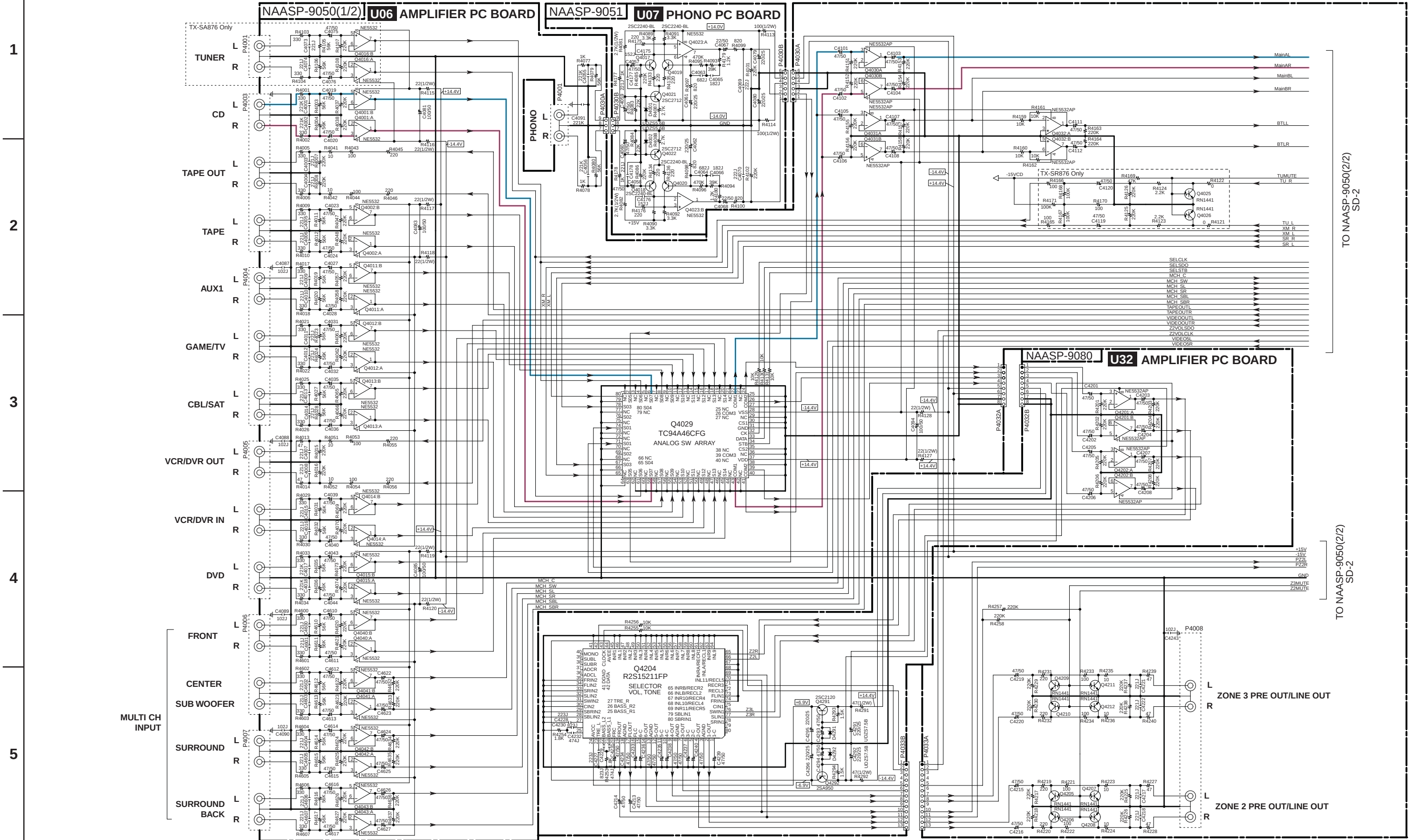
## BLOCK DIAGRAMS-3

### HDMI SECTION



**SCHEMATIC DIAGRAMS-1 (SD-1)**  
**AUDIO SECTION-1**

<Note>  
SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

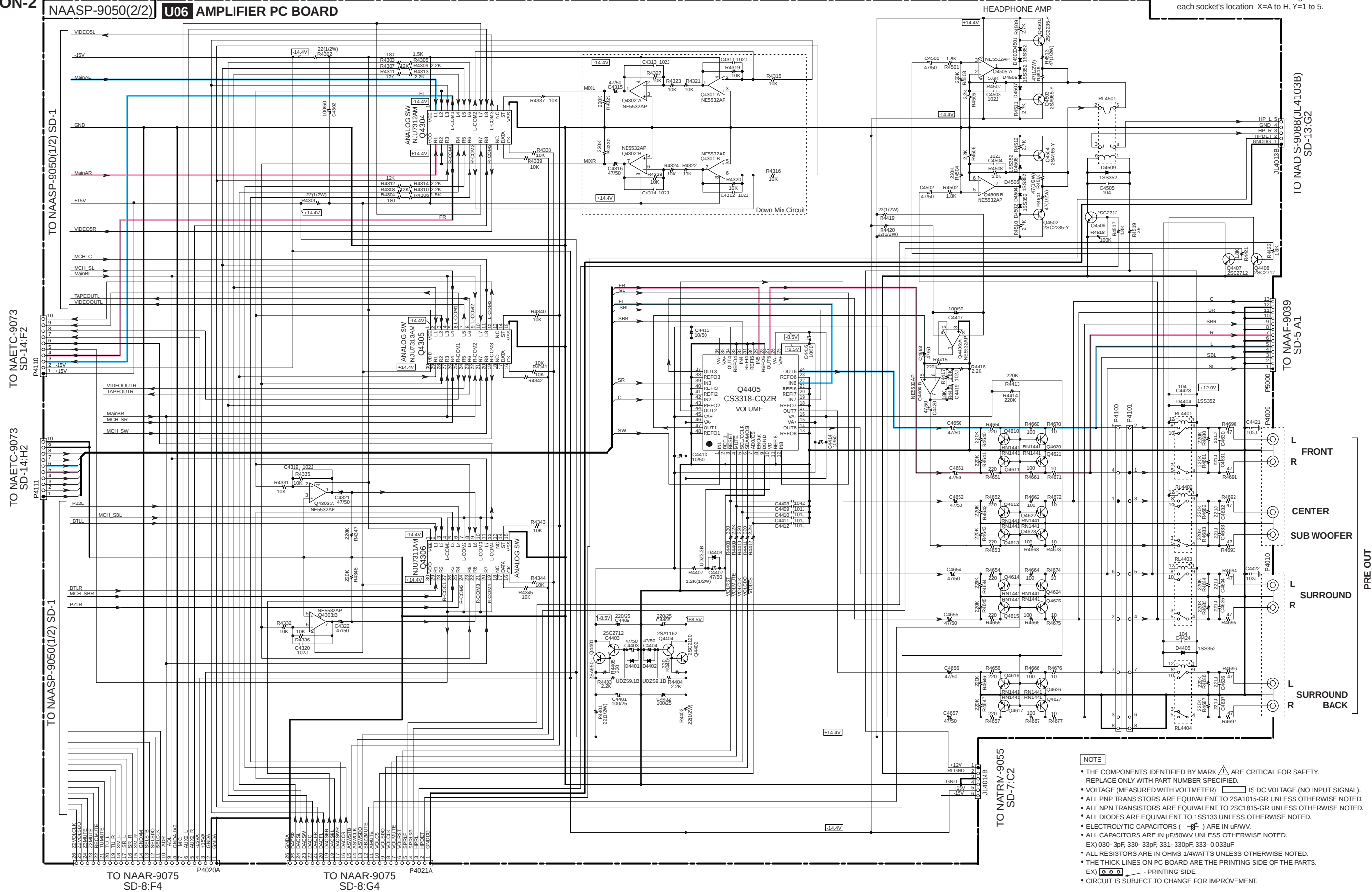


## SCHEMATIC DIAGRAMS-2 (SD-2)

## AUDIO SECTION-2

## NAASP-9050(2/2) U06 AMPLIFIER PC BOARD

<Note>  
SD-X:XY is short for Shcematic Diagram-x and  
each socket's location, X=A to H, Y=1 to 5.







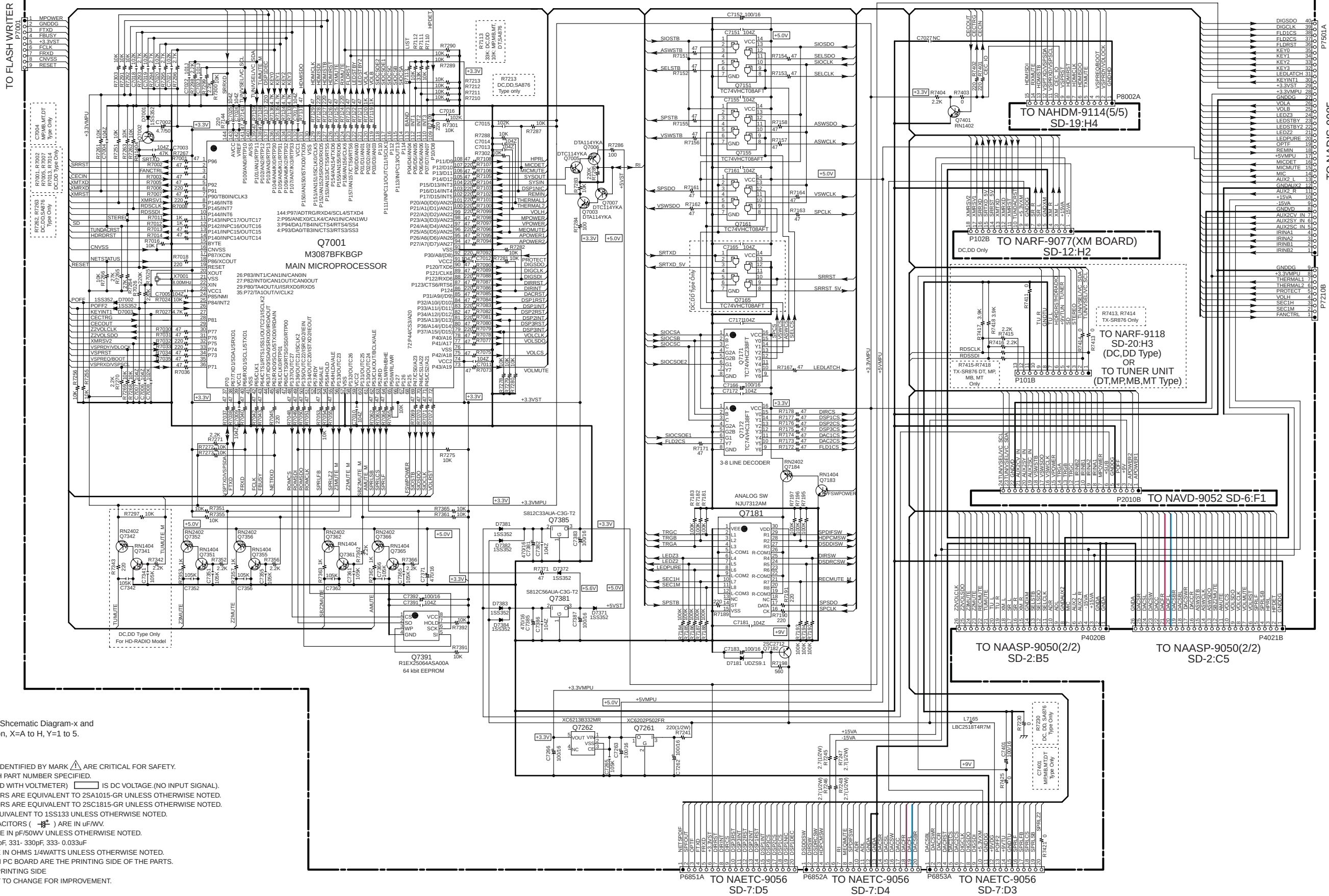
|                          |                          |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| TO NACLA-9066<br>SD-3:E4 | TO NACLA-9068<br>SD-3:E2 | TO NACLA-9063<br>SD-3:E1 | TO NACLA-9064<br>SD-3:A1 | TO NACLA-9069<br>SD-3:A3 | TO NACLA-9067<br>SD-3:A4 | TO NACLA-9065<br>SD-3:A5 |
| TO NACLA-9066<br>SD-3:H3 | TO NACLA-9068<br>SD-3:H2 | TO NACLA-9063<br>SD-3:H1 | TO NACLA-9064<br>SD-3:D1 | TO NACLA-9069<br>SD-3:D2 | TO NACLA-9067<br>SD-3:D4 | TO NACLA-9065<br>SD-3:D5 |





SCHEMATIC DIAGRAMS-8 (SD-8)  
MICROPROCESSOR SECTION

NAAR-9075 U28 MICROPROCESSOR PC BOARD



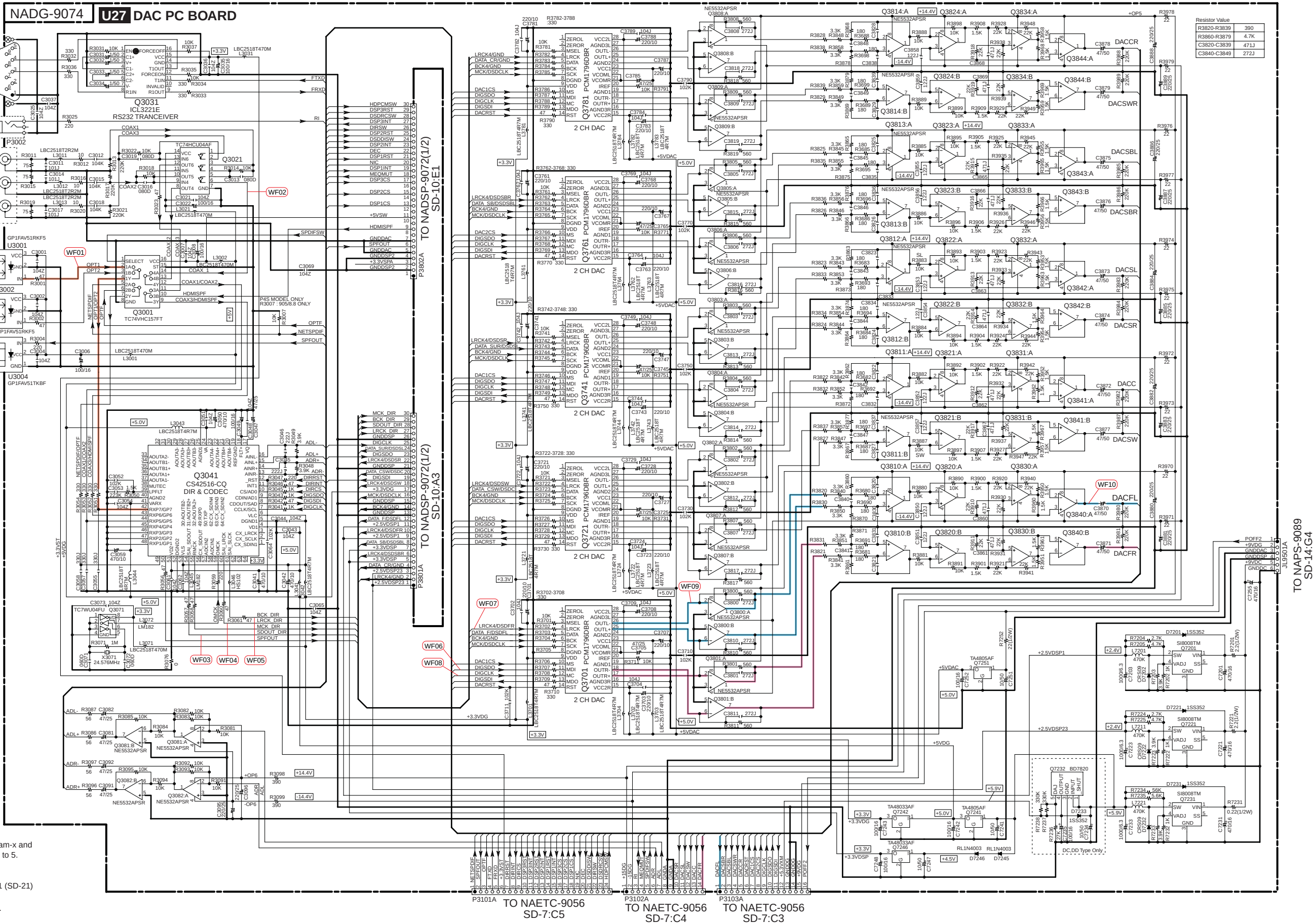
<Note>  
SD-x:XY is short for Shcematic Diagram-x and  
each socket's location, X=A to H, Y=1 to 5.

NOTE

- THE COMPONENTS IDENTIFIED BY MARK ARE CRITICAL FOR SAFETY.  
REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) IS DC VOLTAGE.(NO INPUT SIGNAL).
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS ( ) ARE IN uF/MV.
- ALL CAPACITORS ARE IN pF/50VWV UNLESS OTHERWISE NOTED.  
EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.  
EX) PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

# SCHEMATIC DIAGRAMS-9 (SD-9)

## DAC SECTION



TO NADG-9074  
SD-9:C2

TO NADSP-9072(2/2)  
SD-11:A4



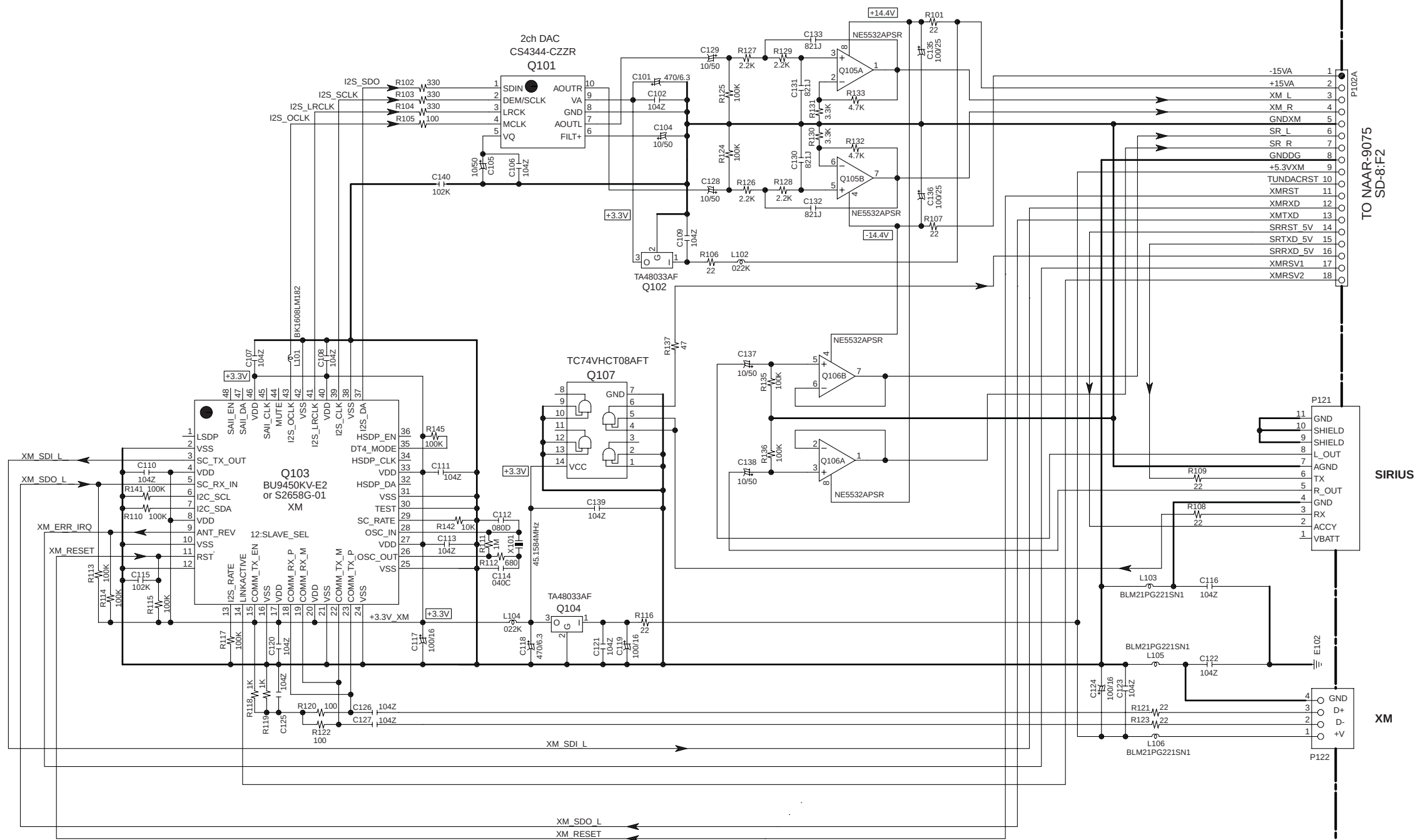


# SCHEMATIC DIAGRAMS-12 (SD-12)

## XM/SIRIUS SECTION

NARF-9077

U30 XM PC BOARD



<Note>  
SD-x:XY is short for Shcematic Diagram-x and  
each socket's location, X=A to H, Y=1 to 5.

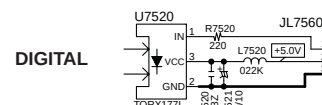
SCHEMATIC DIAGRAMS-13 (SD-13)  
DISPLAY SECTION

<Note>  
SD-x:XY is short for Shcematic Diagram-x and  
each socket's location, X=A to H, Y=1 to 5.

## NOTE

- THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLT METER)  IS DC VOLTAGE (NO INPUT SIGNAL).
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (  ) ARE IN uF/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
- EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.
- EX)  PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

<Note>  
Refer to SCHEMATIC DIAGRAM-21 (SD-21)  
for FL driver IC control waveforms.

NAETC-9090  
U38 FRONT OPT PC BOARD

AUDIO

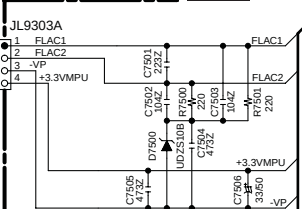
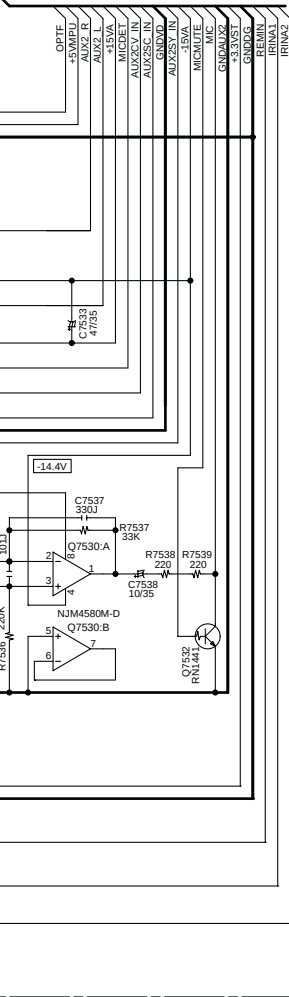
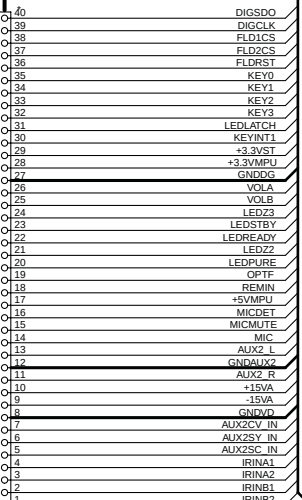
VIDEO

S VIDEO

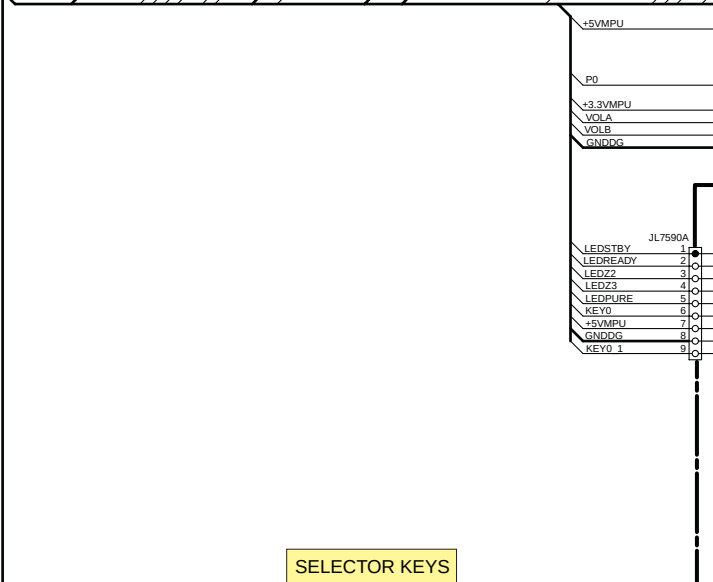
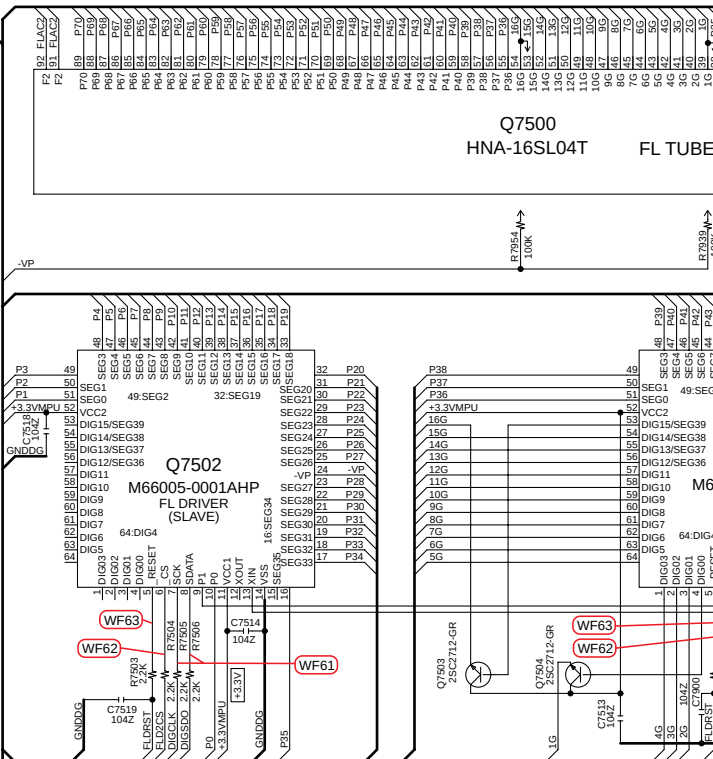
SETUP MIC

AUX 2 INPUT  
(FRONT)

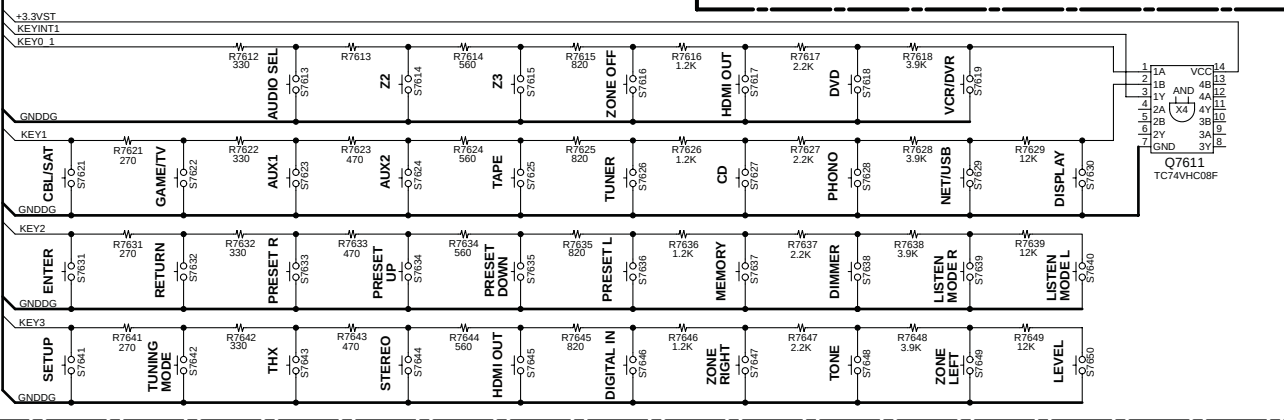
## NADIS-9085 U33 DISPLAY PC BOARD

TO NAPS-9089  
SD-14:G5TO NAAR-9075  
SD-8:H2

D



SELECTOR KEYS

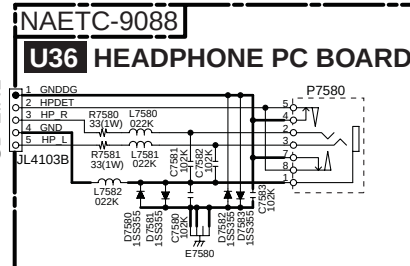


E

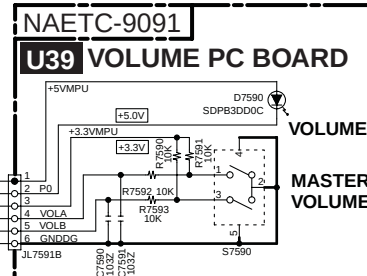
F

G

H

TO NAASP-9050(2/2)  
JL4013B)  
SD-2:H1

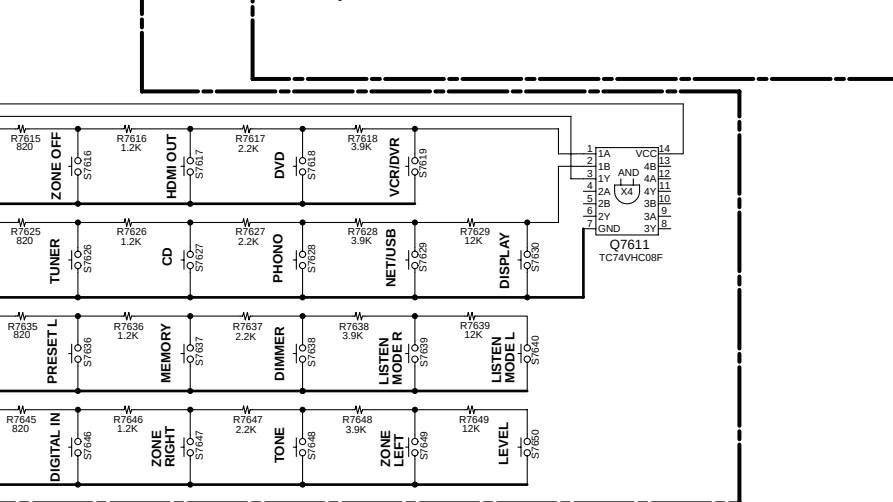
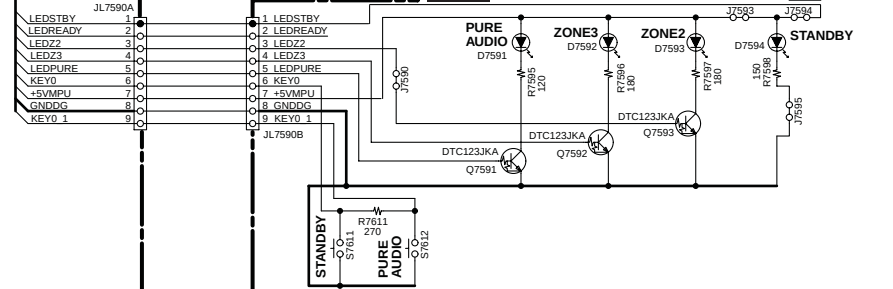
HEADPHONE



VOLUME

MASTER VOLUME

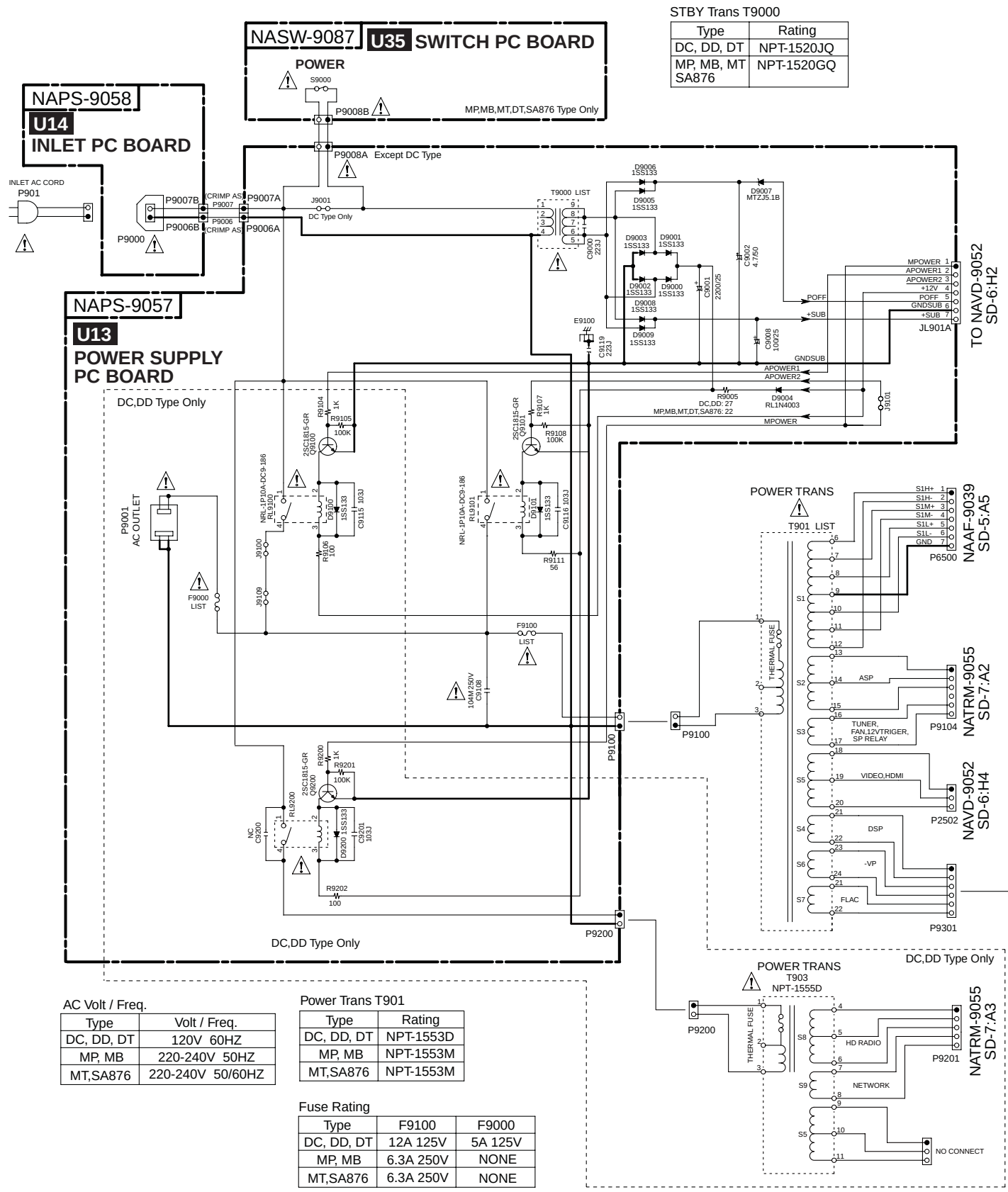
## NADIS-9086 U34 DISPLAY PC BOARD

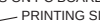


SCHEMATIC DIAGRAMS-14 (SD-14)  
POWER SUPPLY SECTION-2

<Note>  
SD-x:XY is short for Shcematic Diagram-x and  
each socket's location, X=A to H, Y=1 to 5.

1  
2  
3  
4  
5



- NOTE
- THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
  - VOLTAGE (MEASURED WITH VOLTMETER)  IS DC VOLTAGE, (NO INPUT SIGNAL).
  - ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
  - ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
  - ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
  - ELECTROLYTIC CAPACITORS (  ) ARE IN uF/WV.
  - ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.  
EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
  - ALL RESISTORS ARE IN OHMS 1/4WATTS UNLESS OTHERWISE NOTED.
  - THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.  
EX)  PRINTING SIDE
  - CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

**CAUTION**

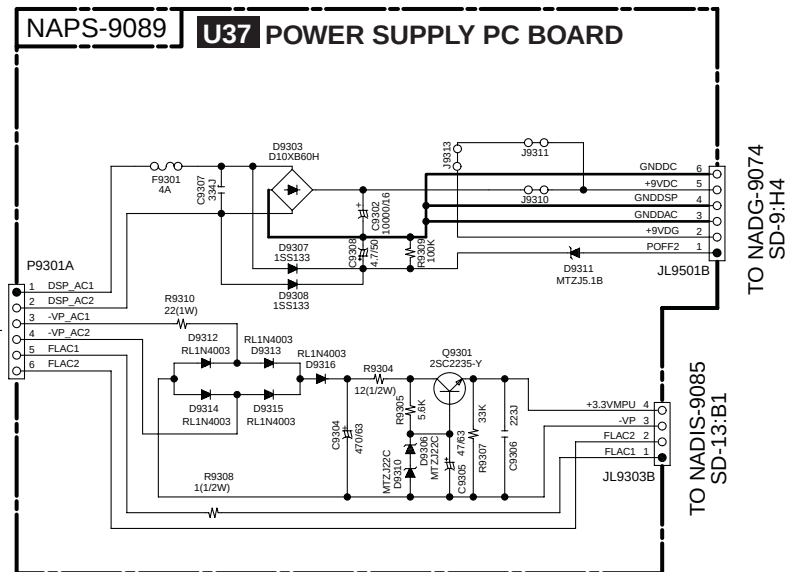
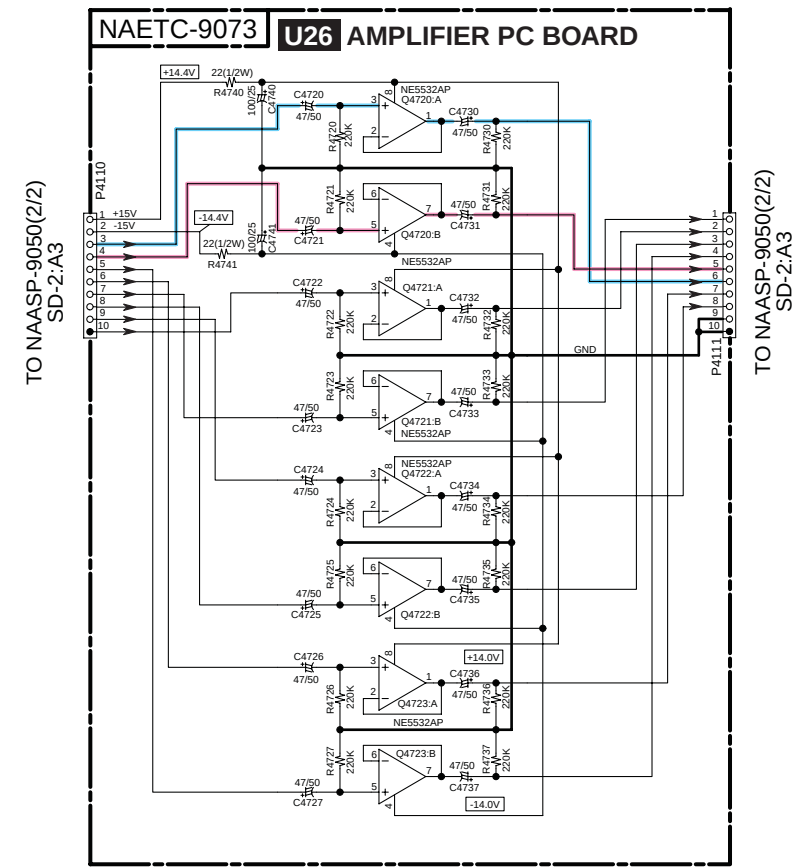
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH FUSE OF SAME TYPE AND RATING INDICATED.

**ATTENTION**

AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET CALIBRATION COMME INDIQUE.

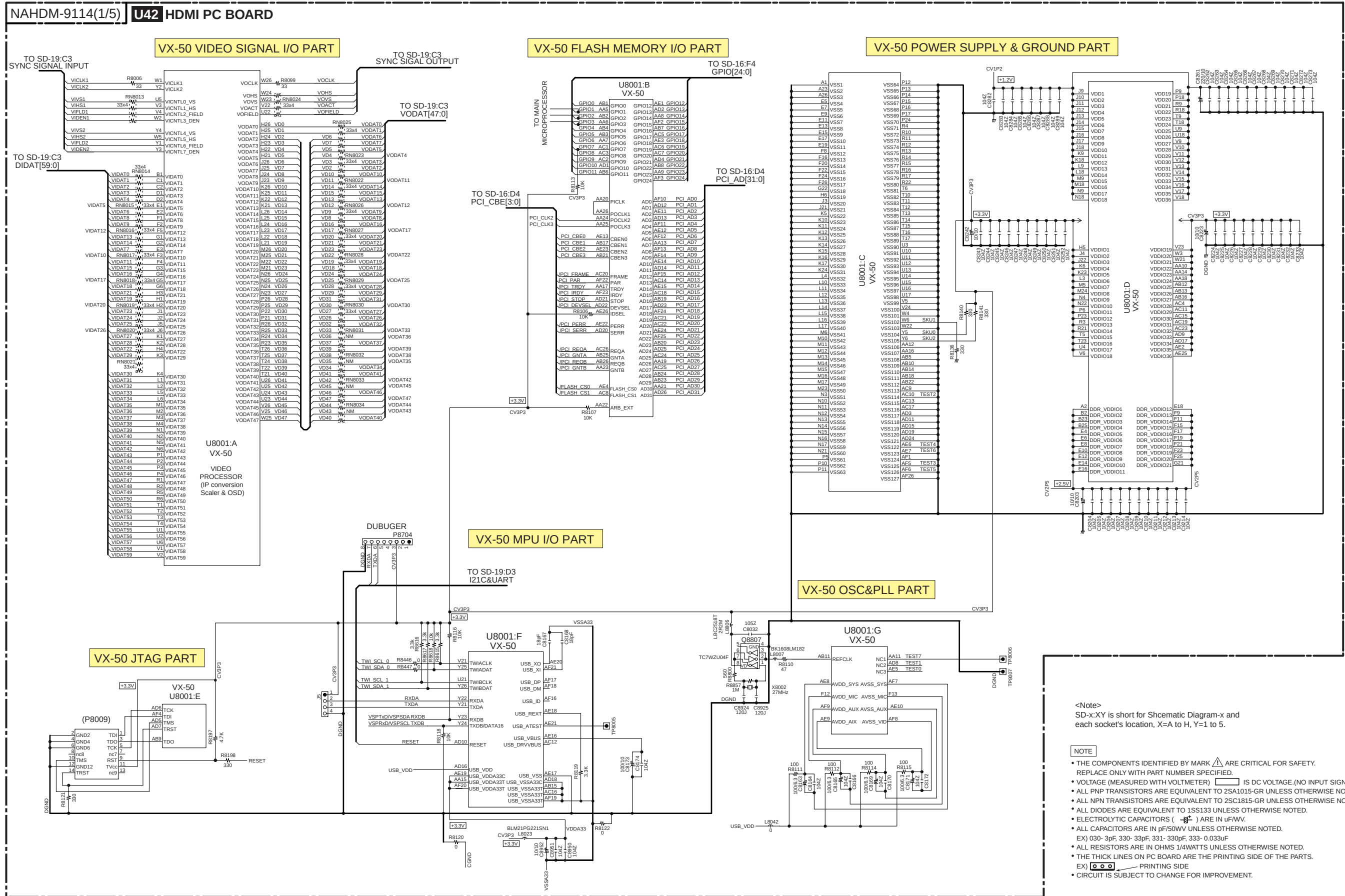
THIS SYMBOL LOCATED NEAR THE FUSE INDICATES THAT THE FUSE USED IS SLOW OPERATING TYPE FOR CONTINUED PROTECTION AGAINST FIRE FUSE HAZARD. REPLACE WITH SAME TYPE FUSE. FOR FUSE RATING REFER TO THE MAKING ADJACENT TO THE SYMBOL.

CE SYMBOLE INDIQUE QUE LE FUSIBLE UTILISE EST A LENT, E POUR UNE PROTECTION PERMANENTE. N'UTILISER QUE DES FUSIBLES DE MEME TYPE. CE DARNIER EST INDIQUE LA QU LE PRESENT SYMBOL EST APPOSE.



**SCHEMATIC DIAGRAMS-15 (SD-15)**

## HDMI SECTION-1







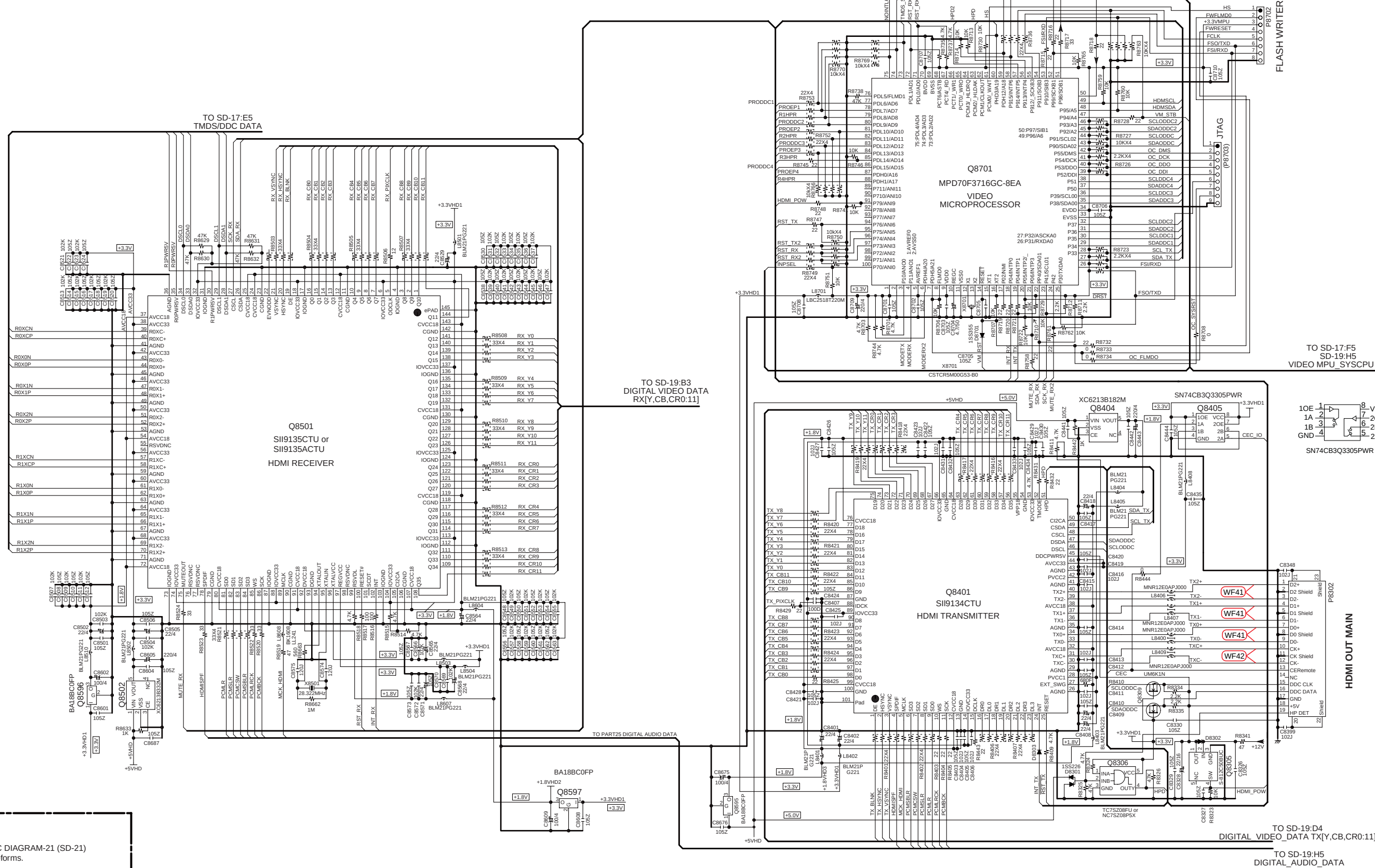
# SCHEMATIC DIAGRAMS-18 (SD-18)

## HDMI SECTION-4

<Note>  
SD-X:XY is short for Shcematic Diagram-x and  
each socket's location, X=A to H, Y=1 to 5.

NAHDM-9114(4/5)

U42 HDMI PC BOARD



<Note>  
Refer to SCHEMATIC DIAGRAM-21 (SD-21)  
for HDMI signal waveforms.

<Note>  
SD-x:XY is short for Schematic Diagram-x and  
each socket's location, X=A to H, Y=1 to 5.

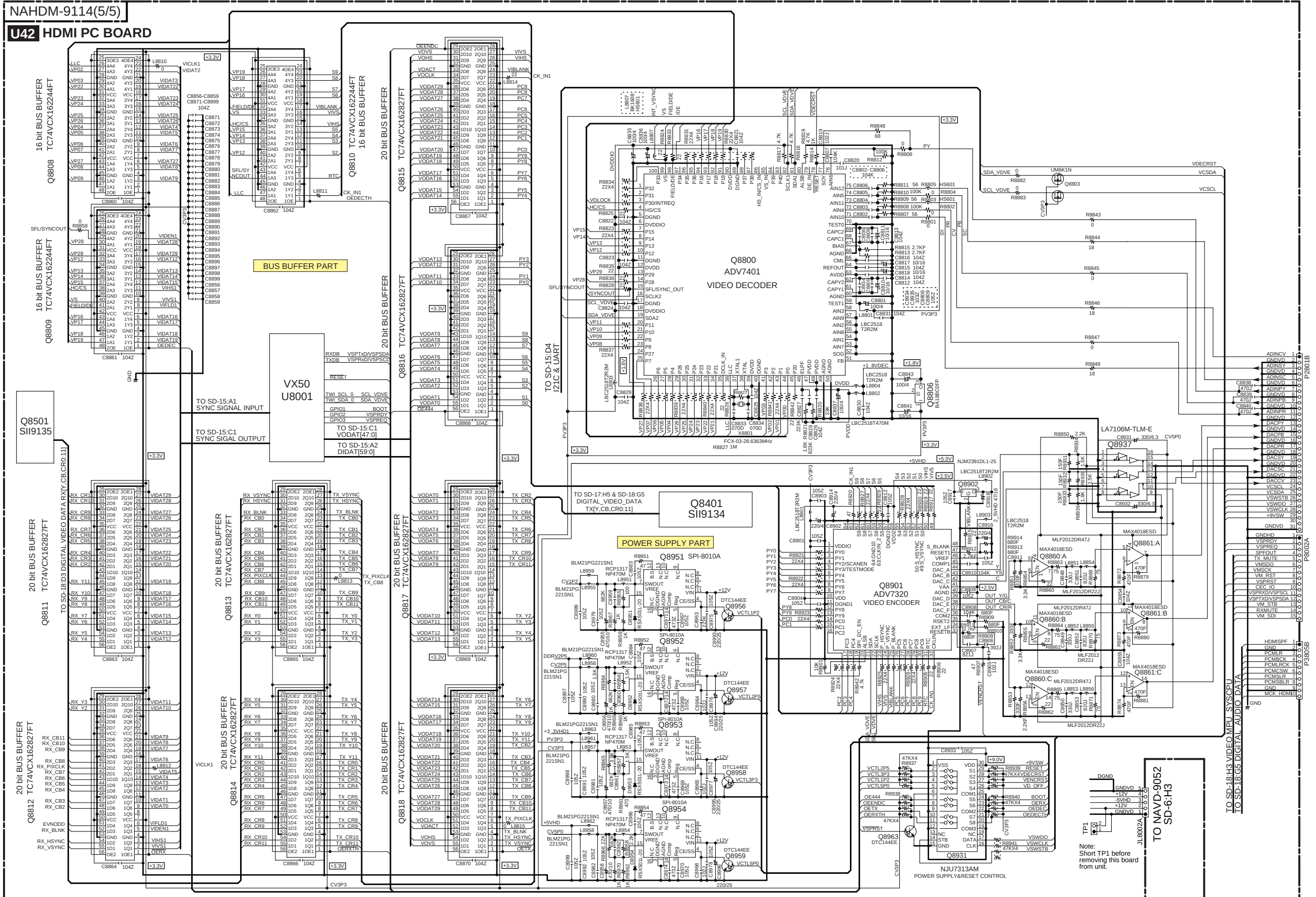
**1**

2

3

4

5



Note:  
Short TP1 before

**1**



3

4

5

- THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER)  IS DC VOLTAGE. (NO INPUT SIGNAL).
- ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.
- ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.
- ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (  ) ARE IN uF/VW.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.  
EX) 030- 3pF, 330- 33pF, 331- 330pF, 333- 0.033uF
- ALL RESISTORS ARE IN OHMS 1/4Watts UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.  
EX)  ← PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

A

B

C

D

E

F

G

H

SCHEMATIC DIAGRAM-21(SD-21)

WAVEFORM SECTION

1

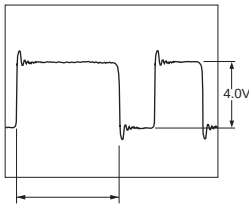
Digital Audio Waveform Part

NOTE:  
1. (WF01) is short for (Waveform01)  
2. Refer to SD-9(SCHEMATIC DIAGRAM-9) for the location of each waveform on circuit.  
3. SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.

LR CLOCK (SAI\_LRCK, LRCK\_DIR)  
Fs=48kHz : DVD, Clock width=20.8us  
Fs=44.1kHz : CD, Clock width=22.7us

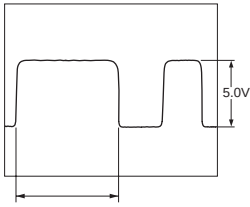
BIT CLOCK (SAI\_SLCK, BCK\_DIR)  
64Fs=3072kHz : DVD, Clock width=325ns  
64Fs=2822.4kHz : CD, Clock width=354ns

(WF01) OPT1 (SD-9:B2)



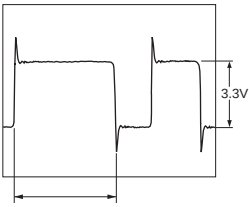
Duty varies according to audio data

(WF02) COAX1 (SD-9:C2)



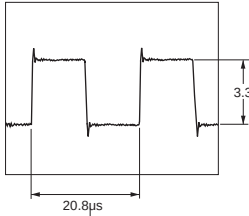
Duty always varies according to audio data

(WF03) SAI\_SDOUT (SD-9:B4)

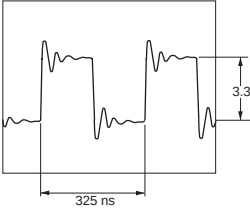


Duty varies according to audio data

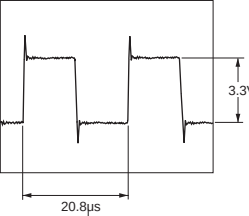
(WF04) SAI\_LRCK (SD-9:C4)



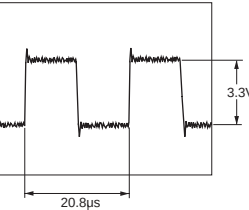
(WF05) SAI\_SLCK (SD-9:C4)



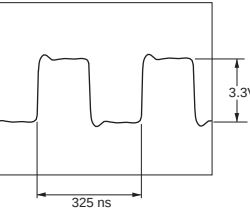
(WF06) DIGSDO (SD-9:D4)



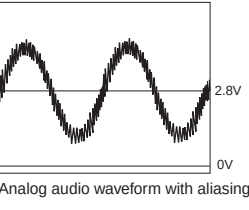
(WF07) LRCK4 (SD-9:D4)



(WF08) DIGCLK (SD-9:D4)

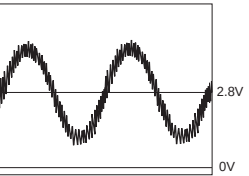


(WF09) OUTL- (SD-9:E4)



Analog audio waveform with aliasing noise

(WF10) DACFL (SD-9:G3)



Analog audio waveform with aliasing noise

(WF10) DACFL (SD-9:G3)



Aliasing noise in no audio data

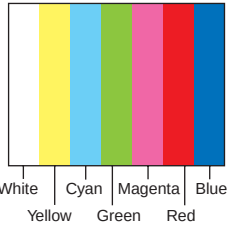
2

3

4

5

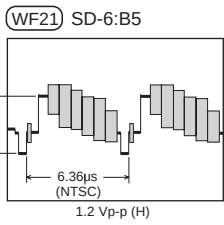
Video source color and pattern



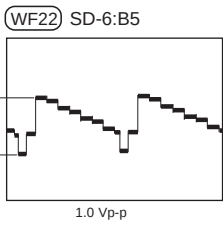
NOTE:  
1. (WF21) is short for (Waveform21)  
2. Refer to SD-6(SCHEMATIC DIAGRAM-6) for the location of each waveform on circuit.  
3. SD-x:XY is short for Shcematic Diagram-x and each socket's location, X=A to H, Y=1 to 5.  
4. In the case that video outputs are not connected to video devices, video signal output levels are doubled.

Video Waveform Part

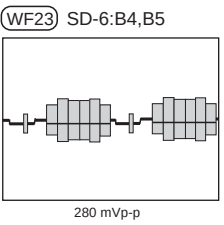
Composite waveform



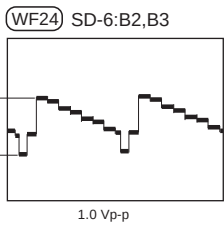
S-Video Y waveform



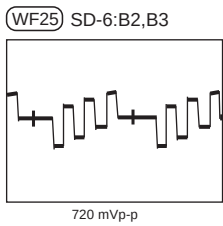
S-Video C waveform



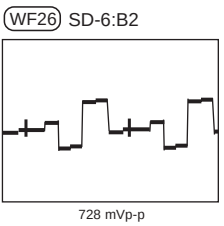
Component Y waveform



Component PB waveform



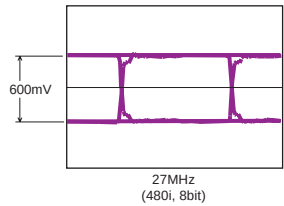
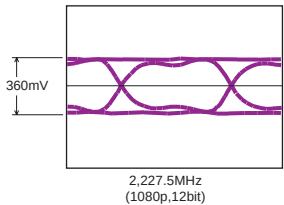
Component PR waveform



HDMI Waveform Part

HDMI D0,D1,D2 waveform

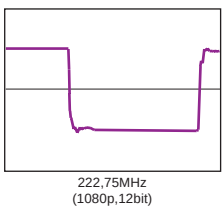
(WF41) SD-17:B5 / SD-18:4G



D0,D1,D2 Eye-pattern waveform, frequency and level vary according to video resolution, aspect and profile. Waveforms above are examples.

HDMI CK waveform

(WF42) SD-17:B4 / SD-18:4G

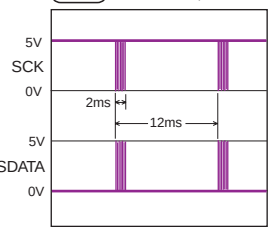


CK waveform, frequency and level differ according to video resolution, aspect and profile. D0,D1,D2 are just CK x10.

FL Driver IC Control Waveform Part

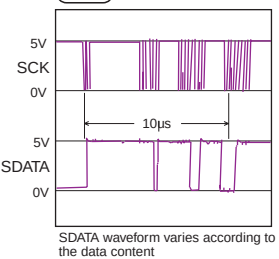
SCK/SDATA waveform

(WF61) SD-13:D2, F2



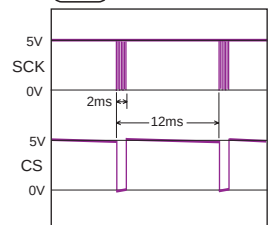
SCK/SDATA waveform

(WF61) SD-13:D2, F2



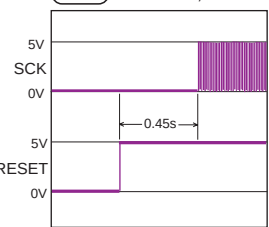
\_CS waveform

(WF62) SD-13:D2, F2



\_RESET waveform

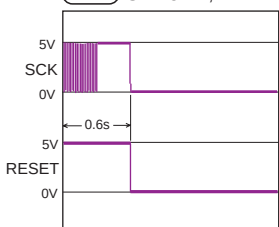
(WF63) SD-13:D2, F2



When power on

\_RESET waveform

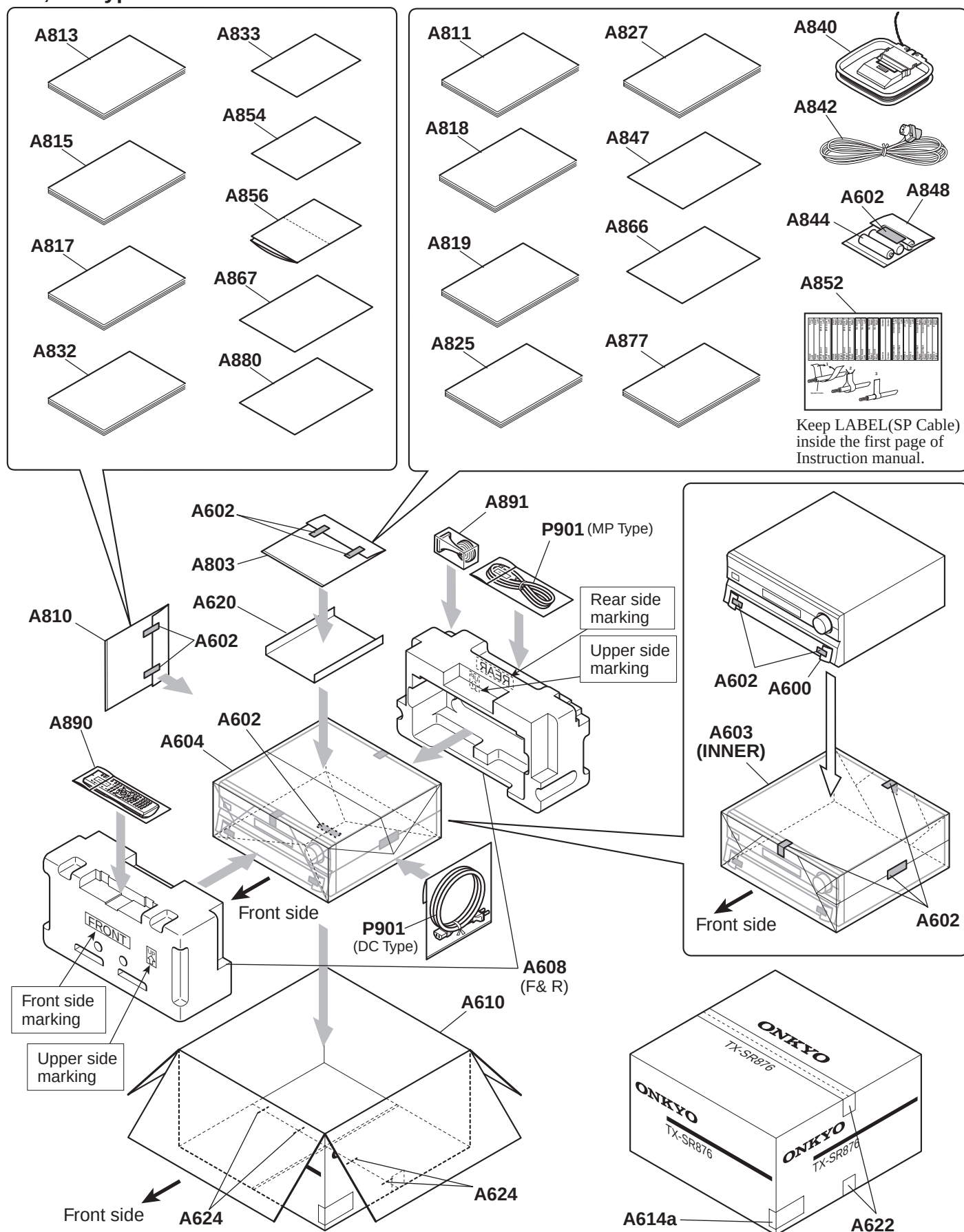
(WF63) SD-13:D2, F2



When power off

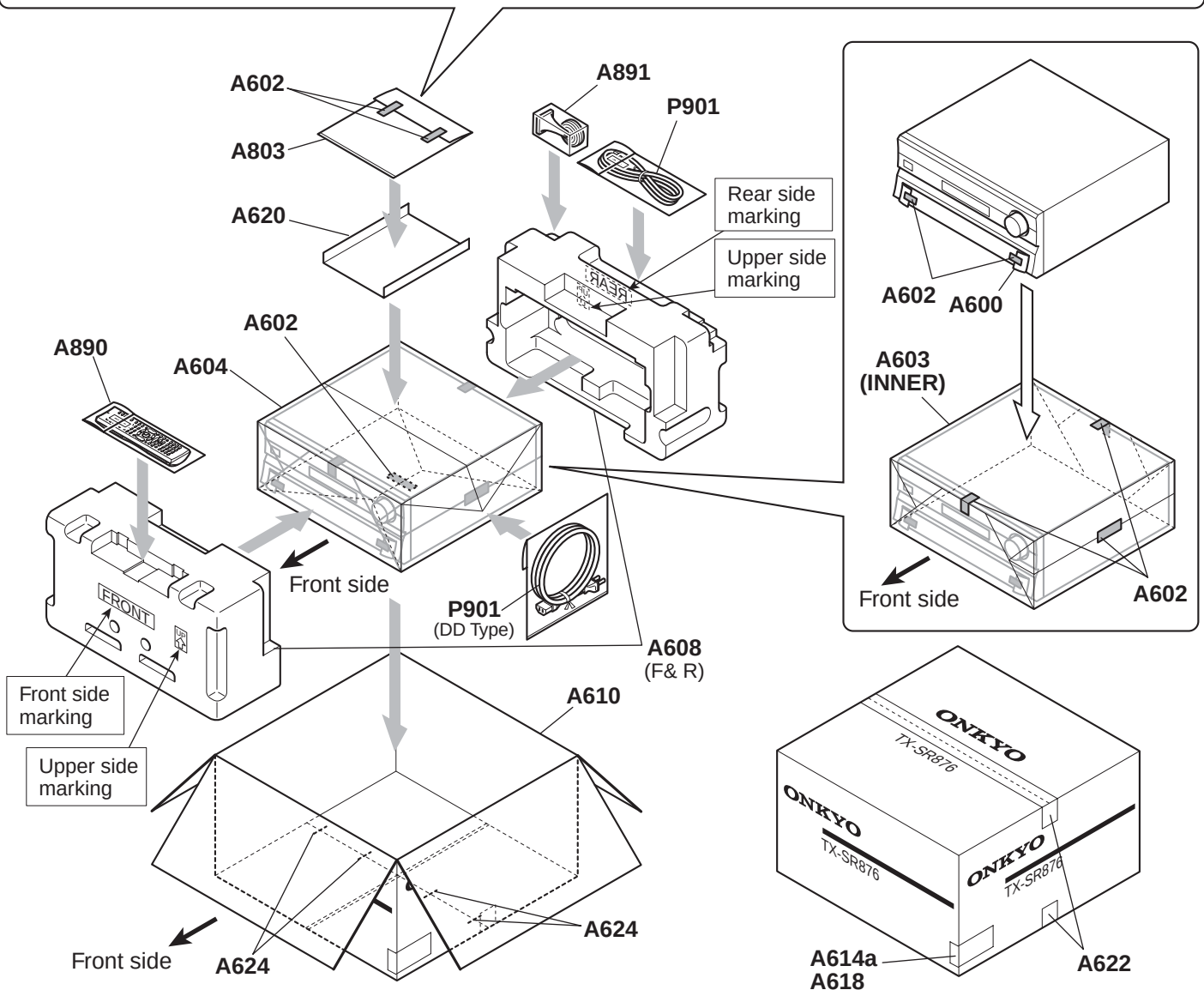
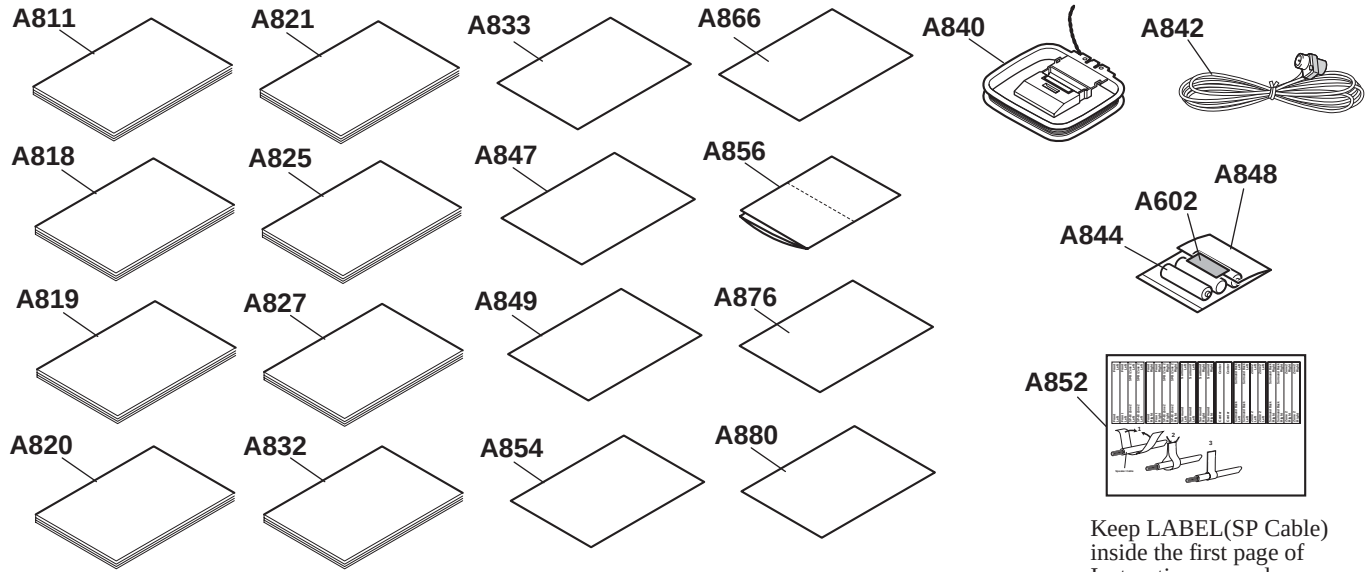
## PACKING PROCEDURE-1

**DC, MP Type**



## PACKING PROCEDURE-2

DD, DT, MT, MB, SA876 Type



A B C D E F G H

PRINTED CIRCUIT BOARD VIEWS-1

**U01** AMPLIFIER PC BOARD (NAAF-9039)  
Component side

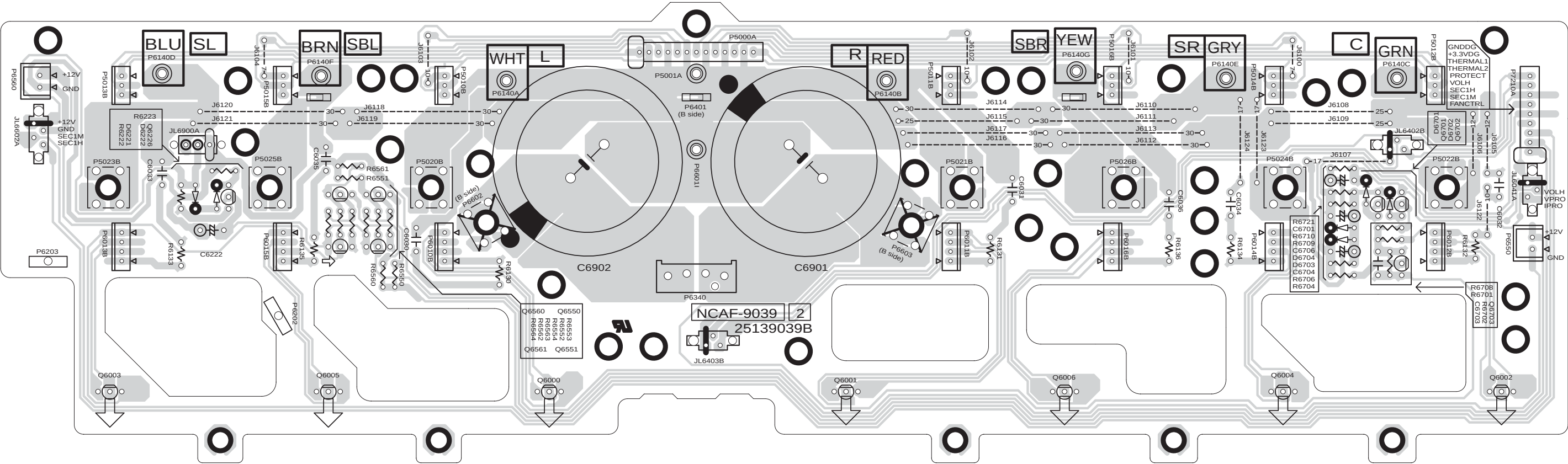
1

2

3

4

5



A

B

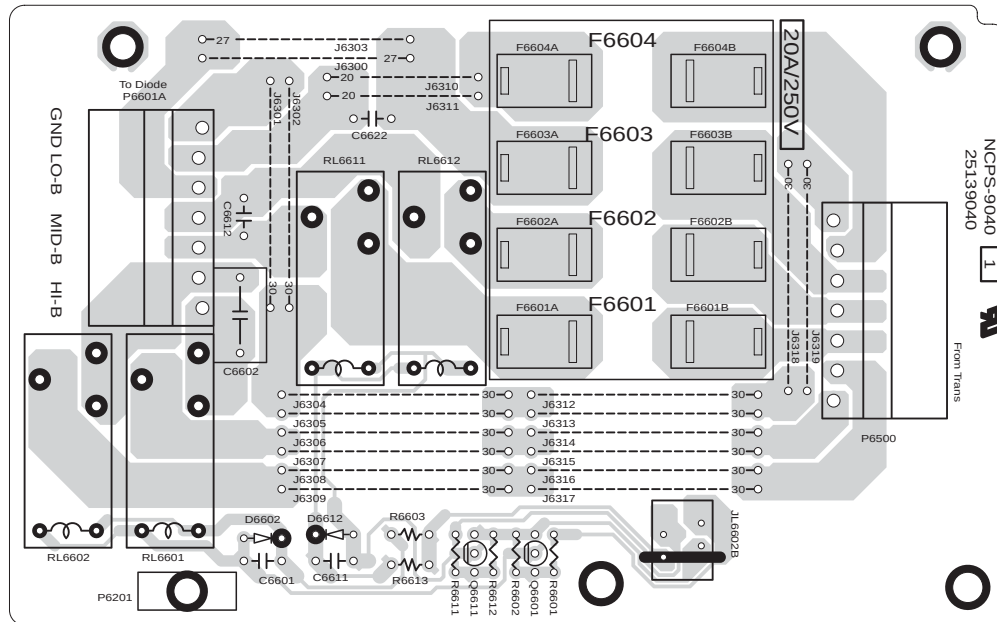
C

D

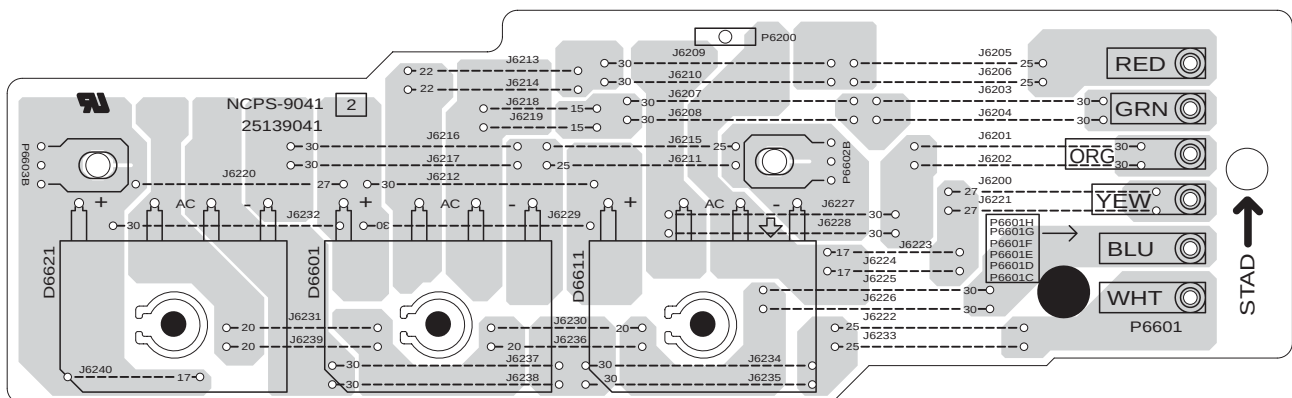
## PRINTED CIRCUIT BOARD VIEWS-2

**U02** POWER SUPPLY PC BOARD (NAPS-9040)

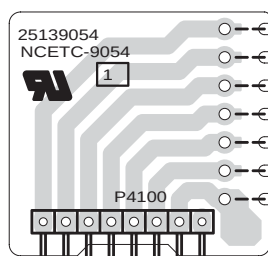
Component side

**U03** POWER SUPPLY PC BOARD (NAPS-9041)

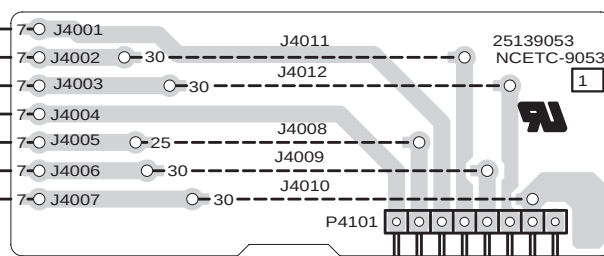
Component side

**U10** CONNECTOR PC BOARD (NAETC-9054)

Component side

**U09** CONNECTOR PC BOARD (NAETC-9053)

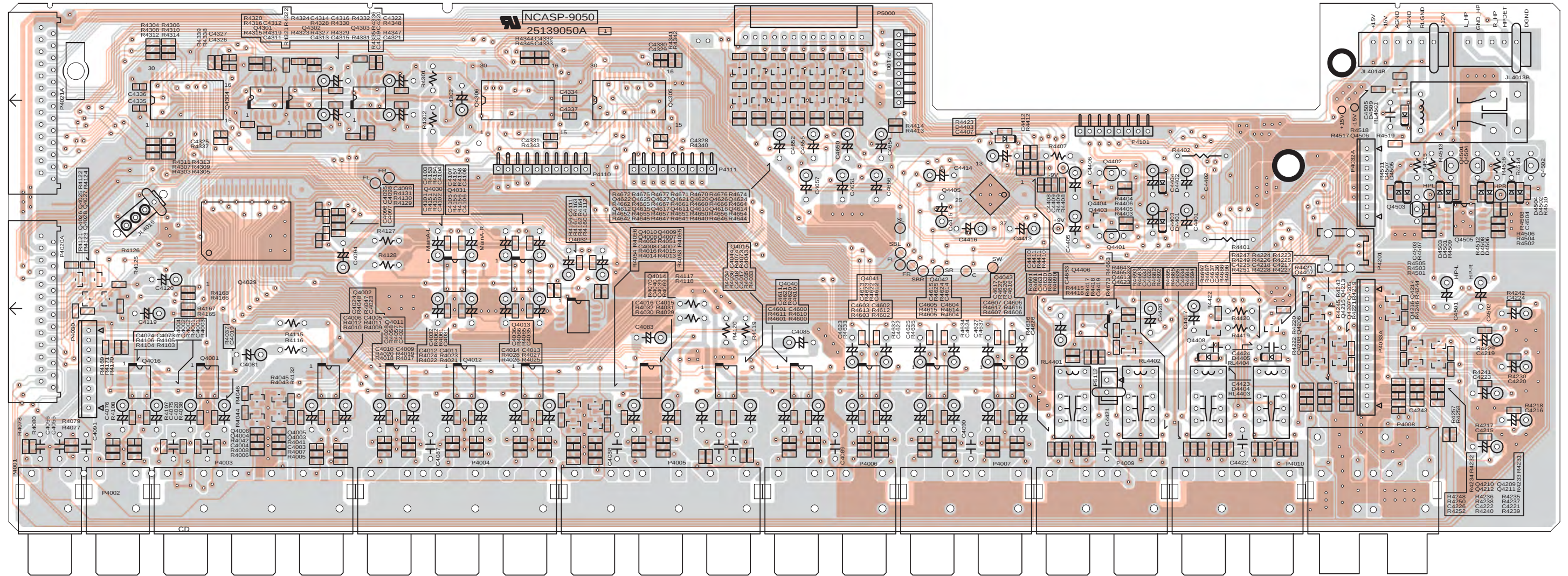
Component side



| A                             | B |
|-------------------------------|---|
| PRINTED CIRCUIT BOARD VIEWS-3 |   |

## U06 AMPLIFIER PC BOARD (NAASP-9050)

Side-A



## U08 VIDEO PC BOARD (NAVD-9052)

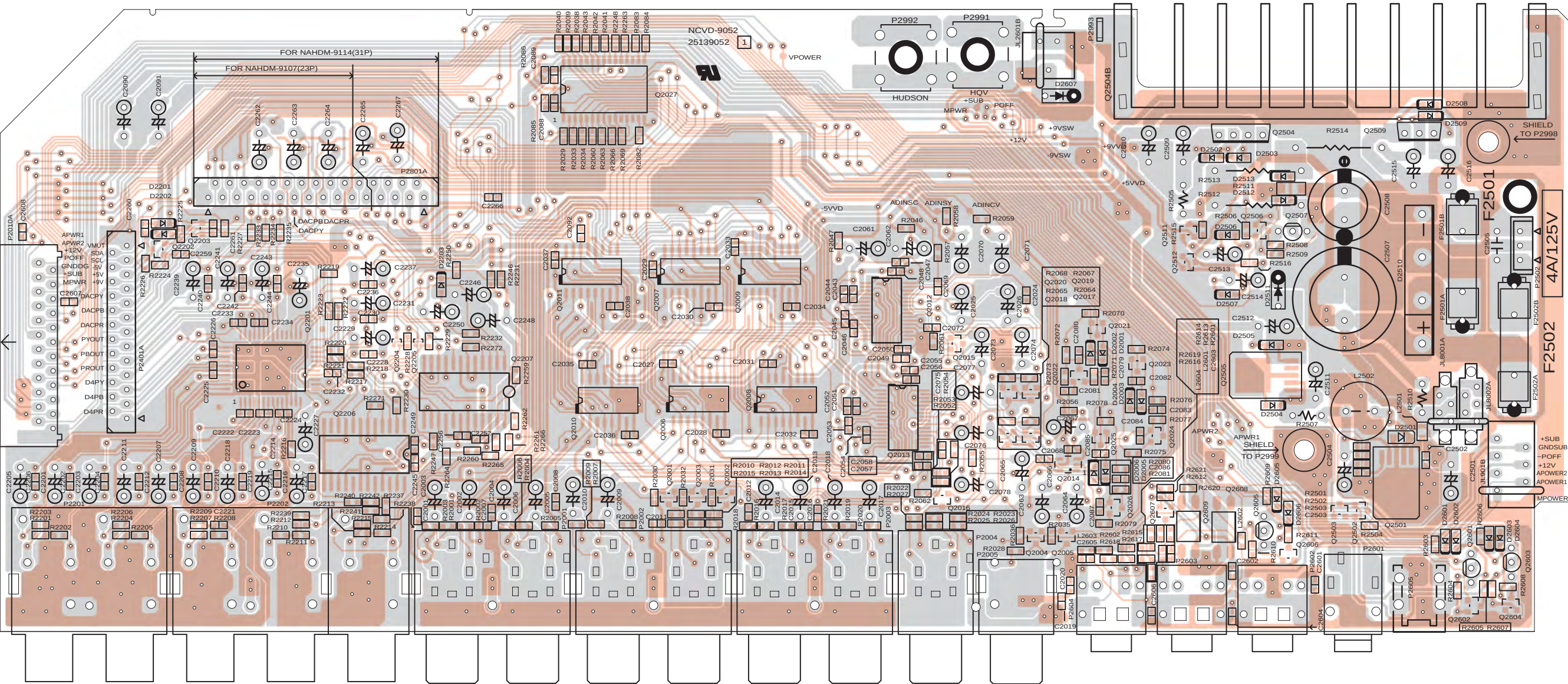
**1**

2

3

4

5



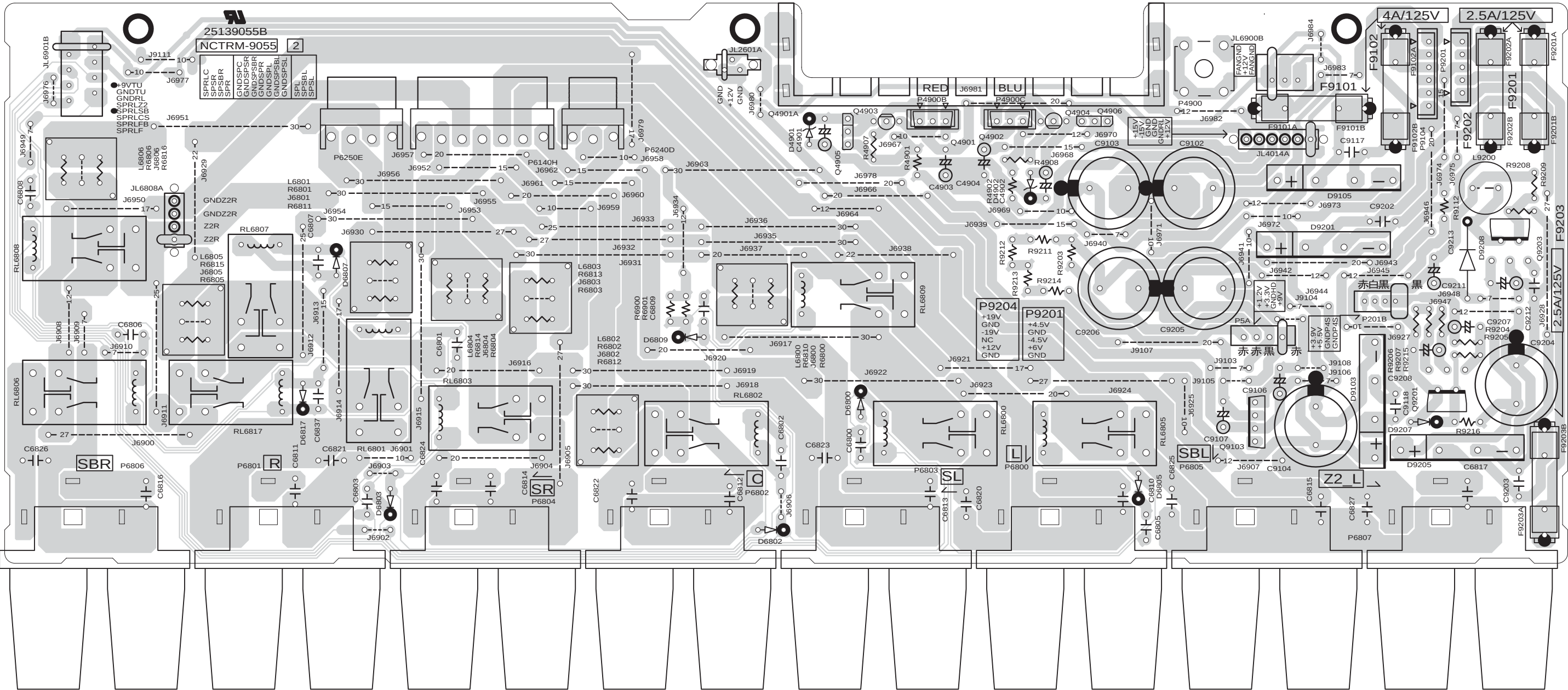
**U11** SP TERMINAL PC BOARD (NATRM-9055)  
Component side

2

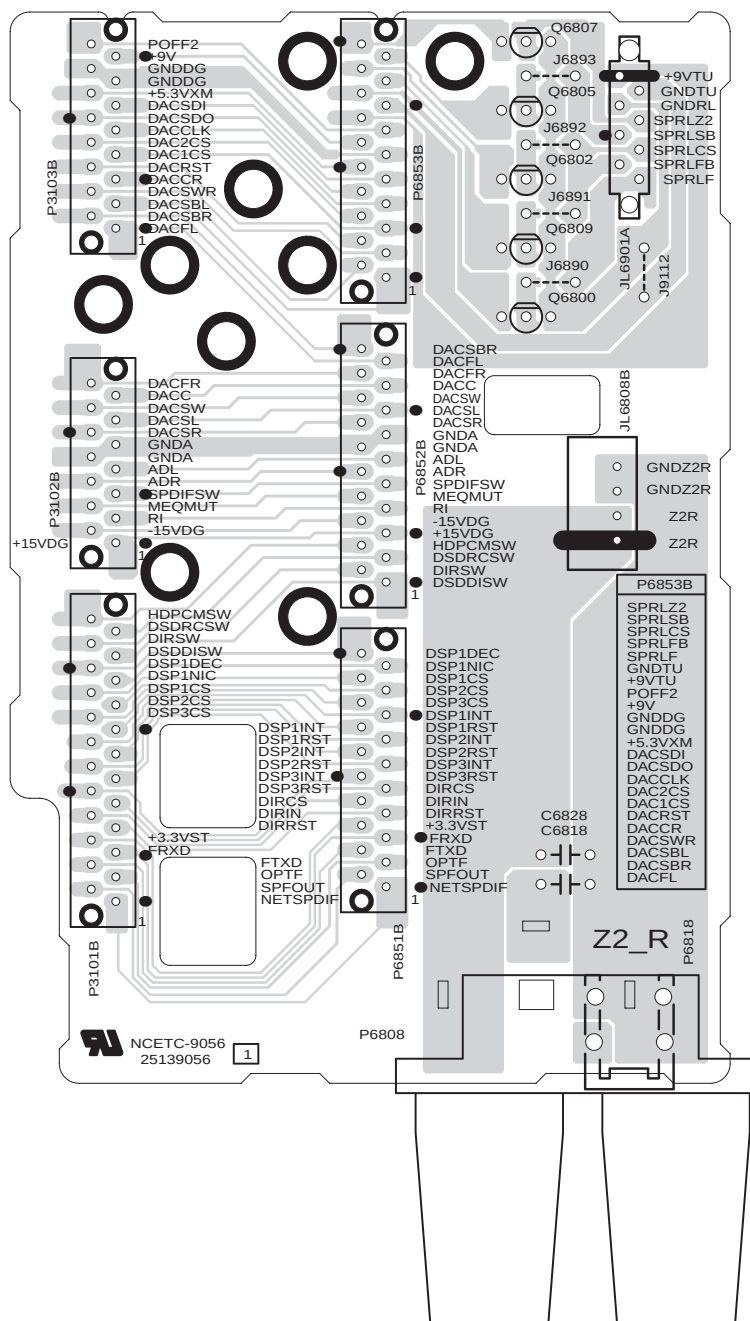
3

4

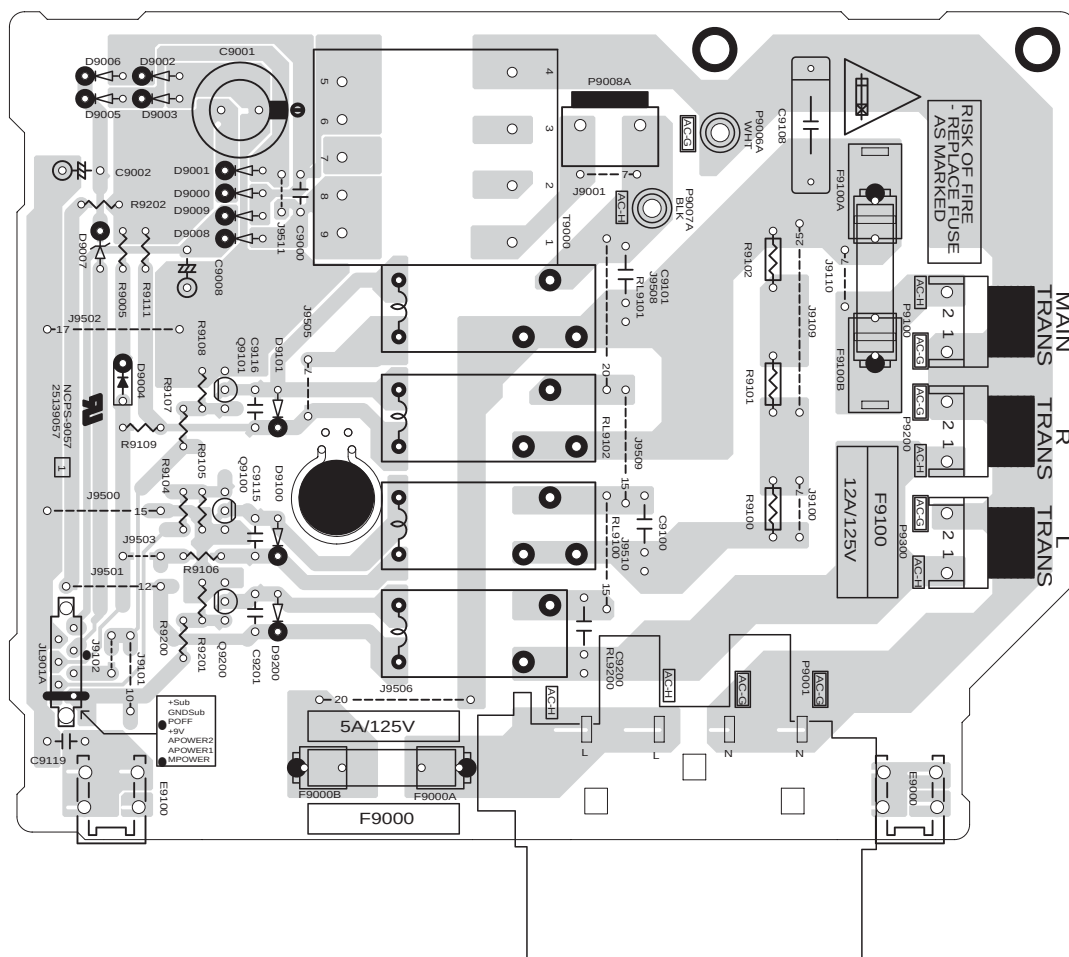
5



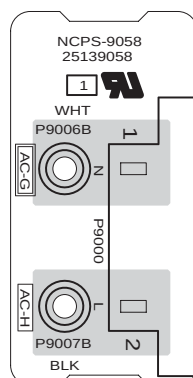
### Component side



### Component side



### Component side



A

B

C

D

## PRINTED CIRCUIT BOARD VIEWS-8

**U16** POWER AMP PC BOARD (NAAMP-9061)

Component side

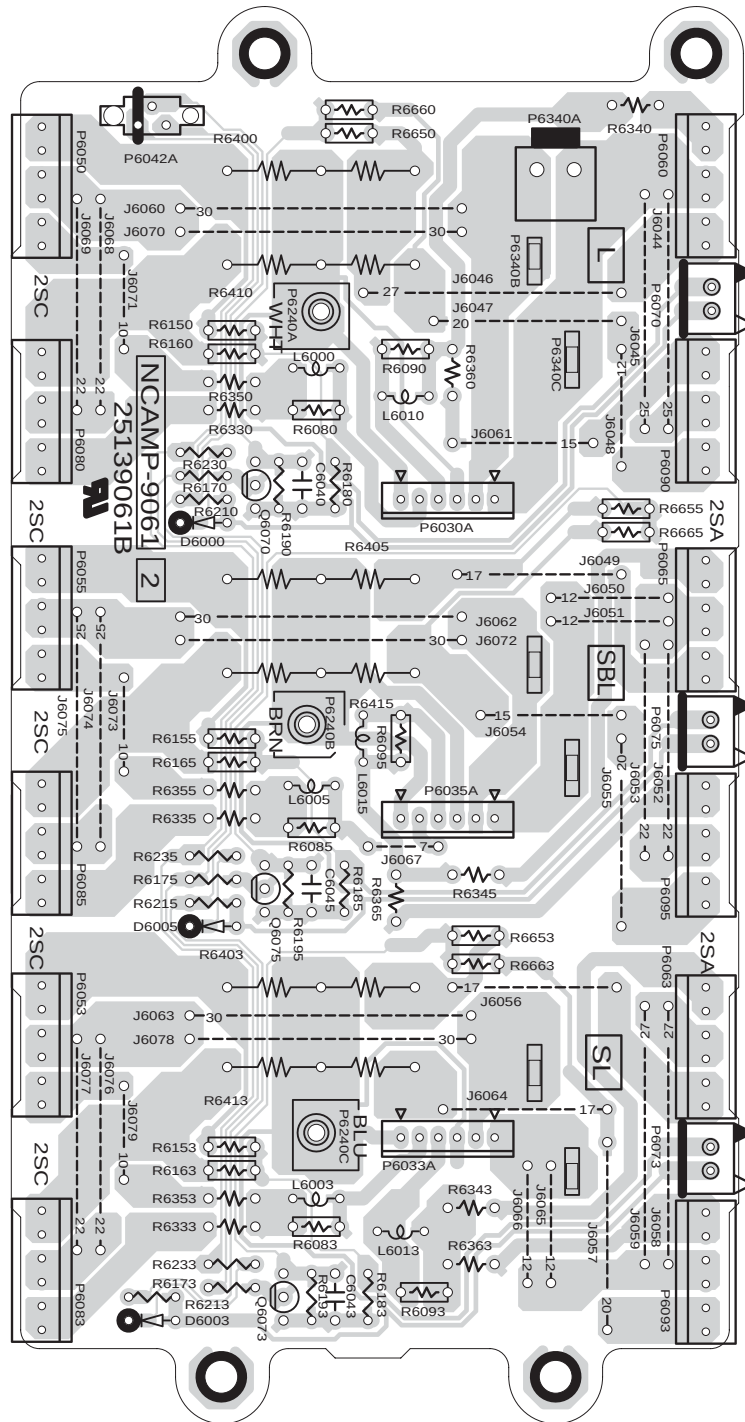
1

2

3

4

5



A

B

C

D

## PRINTED CIRCUIT BOARD VIEWS-9

**U17** POWER AMP PC BOARD (NAAMP-9062)

Component side

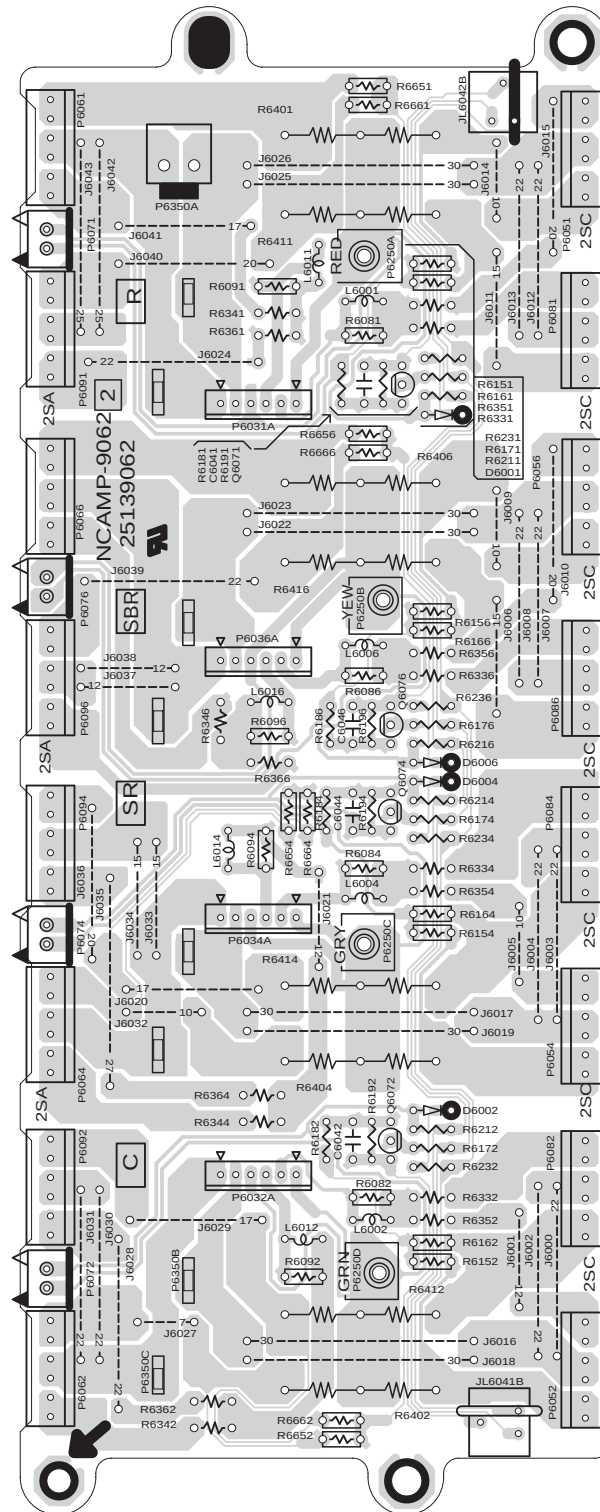
1

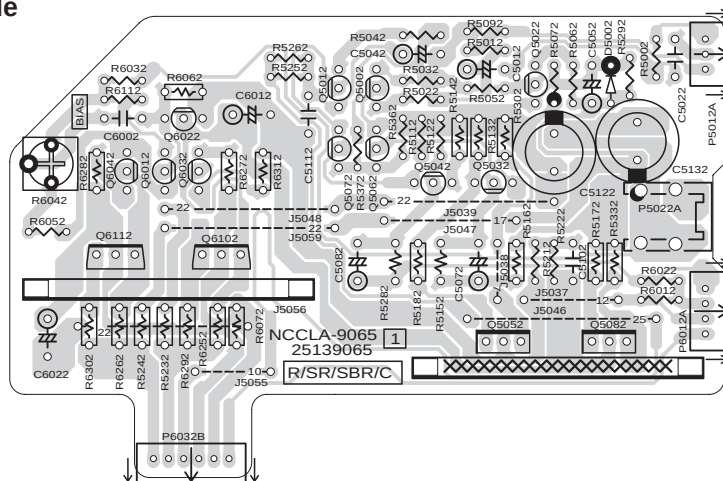
2

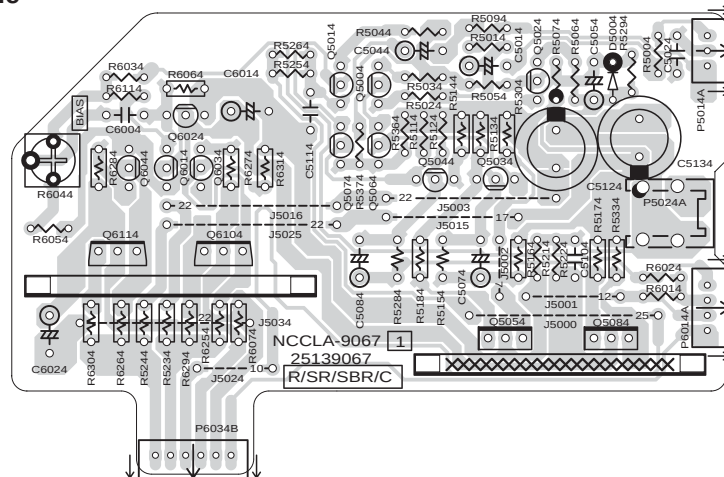
3

4

5



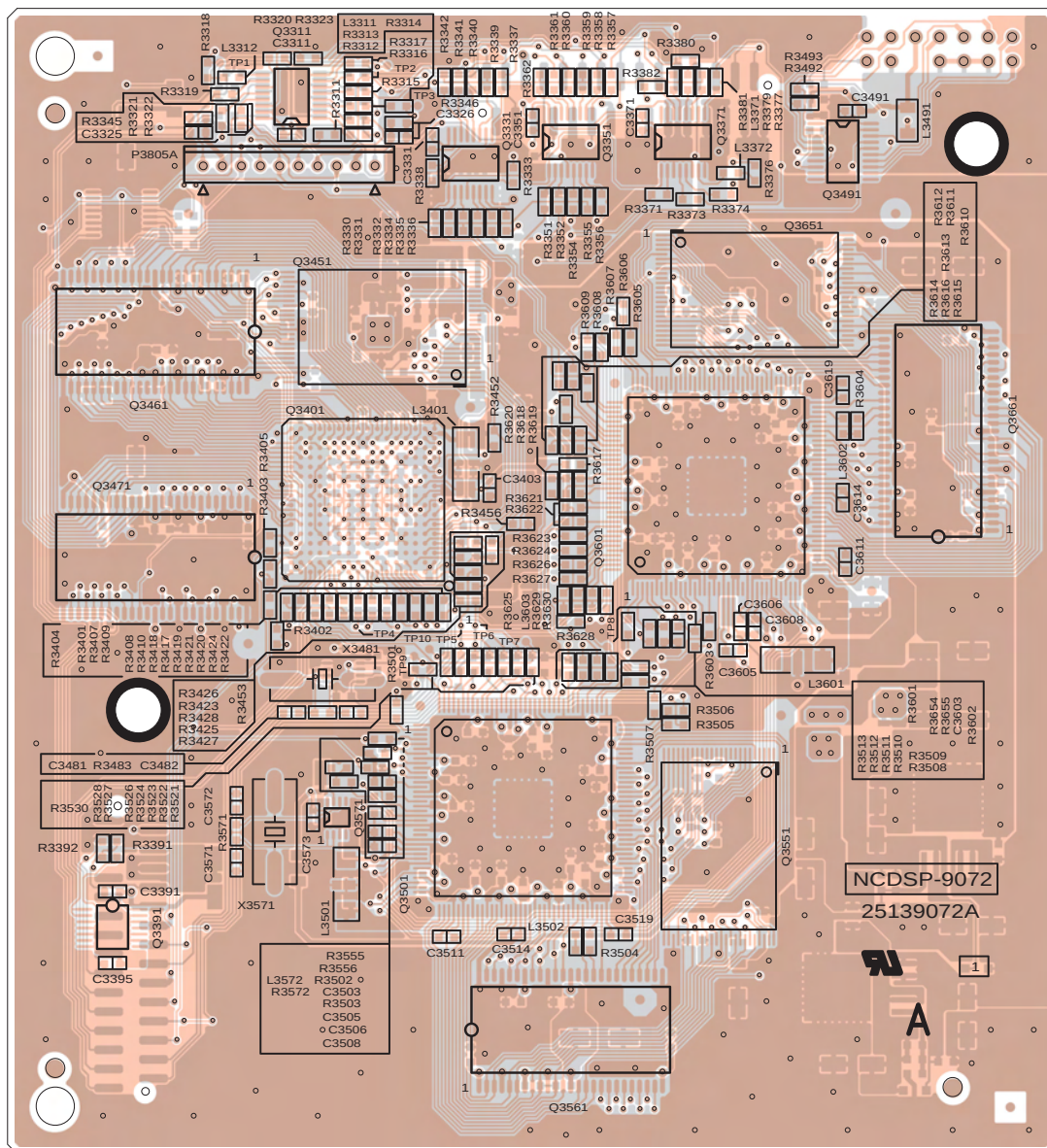




5

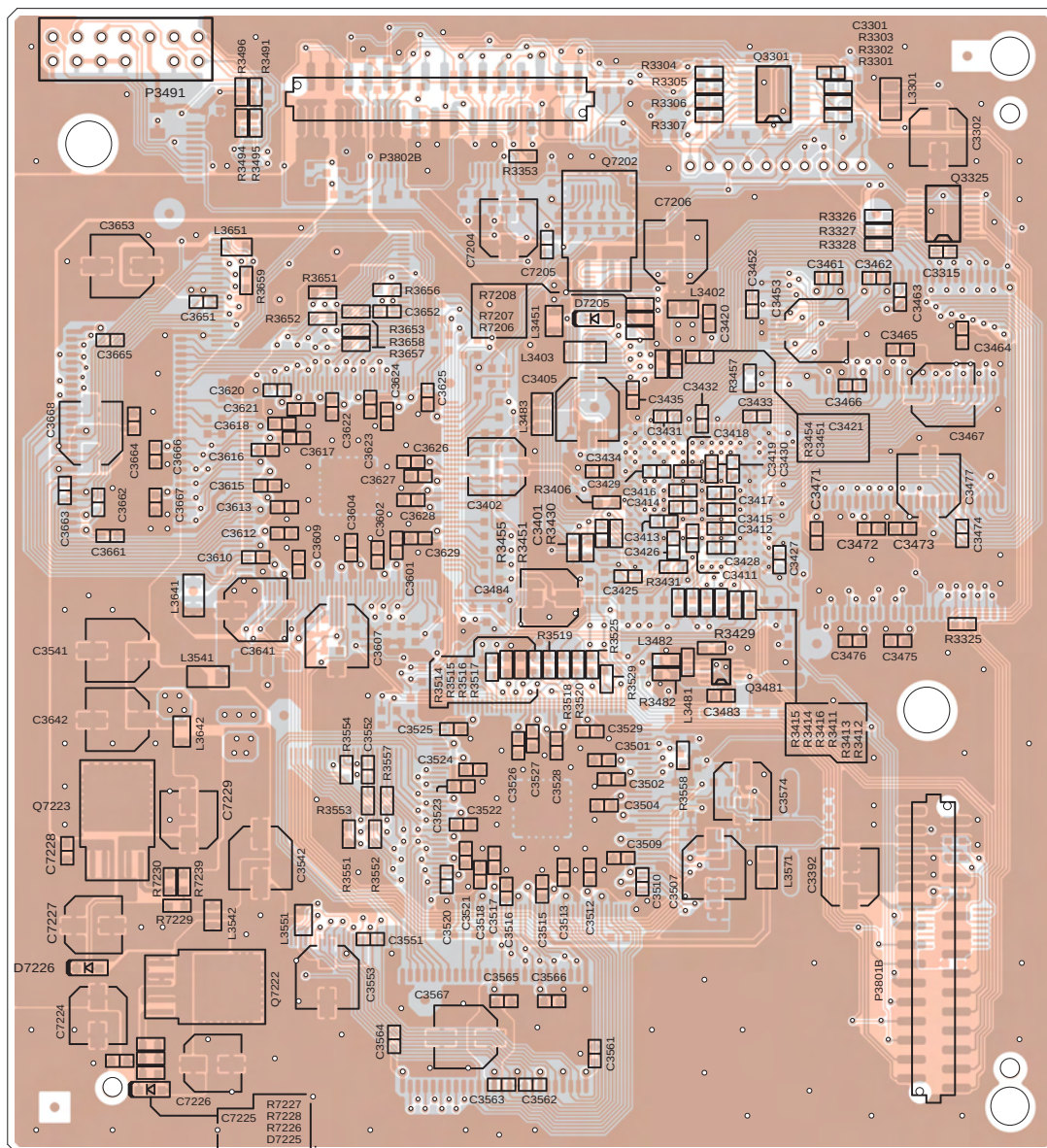
### Side-A

5



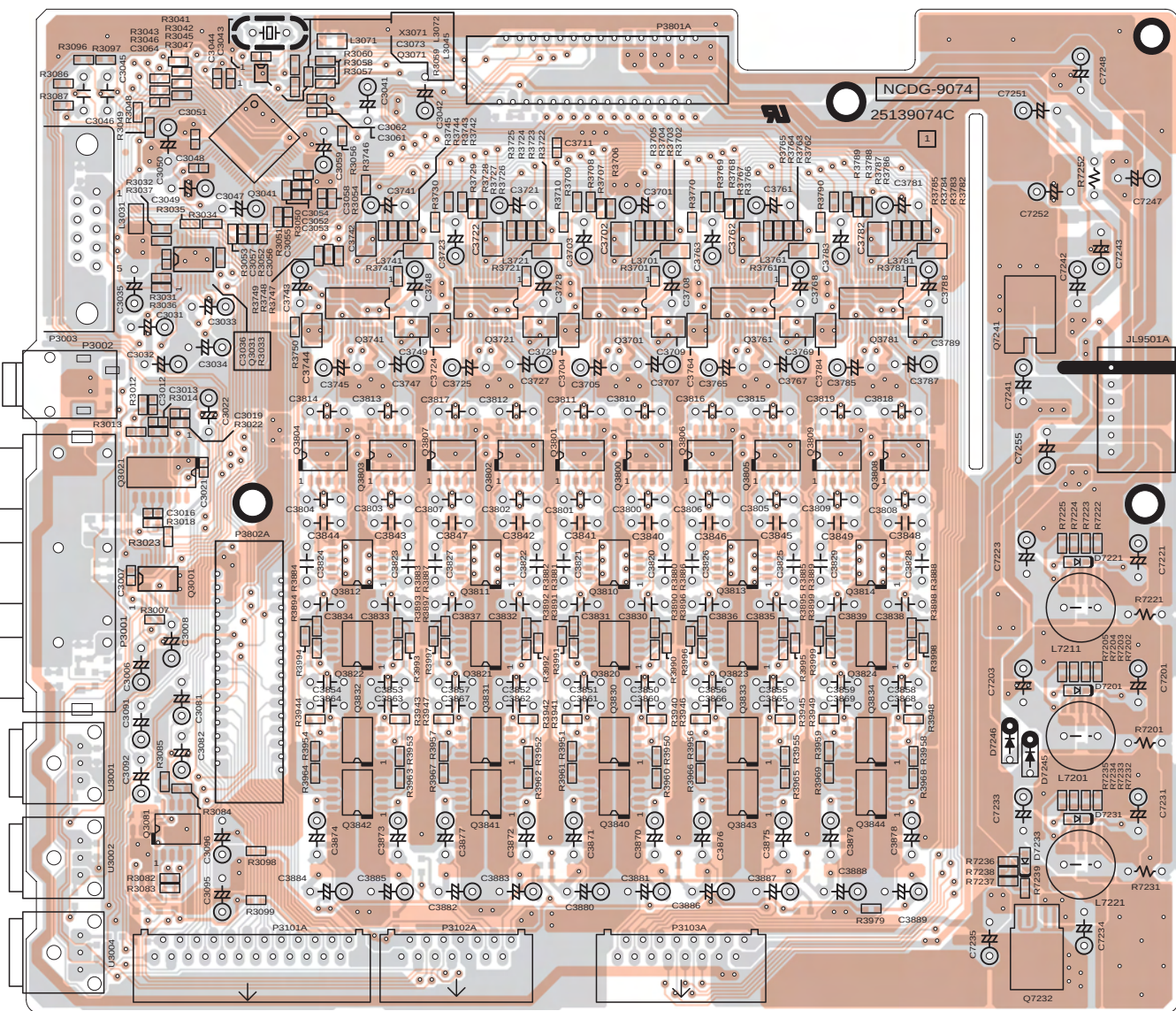
### Side-B

5



### Side-A

5



A

B

C

D

## PRINTED CIRCUIT BOARD VIEWS-16

**U27** DAC PC BOARD (NADG-9074)

Side-B

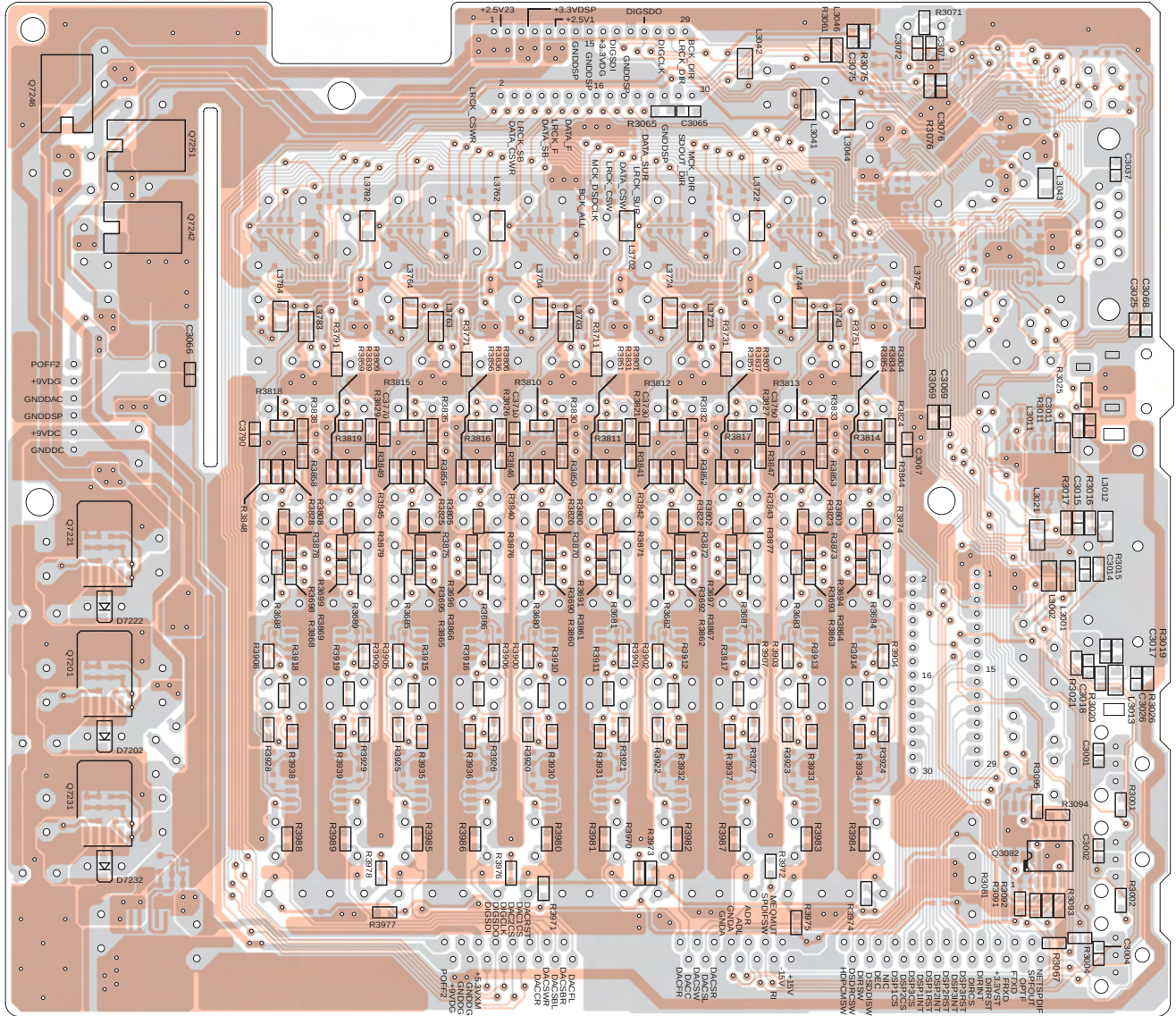
1

2

3

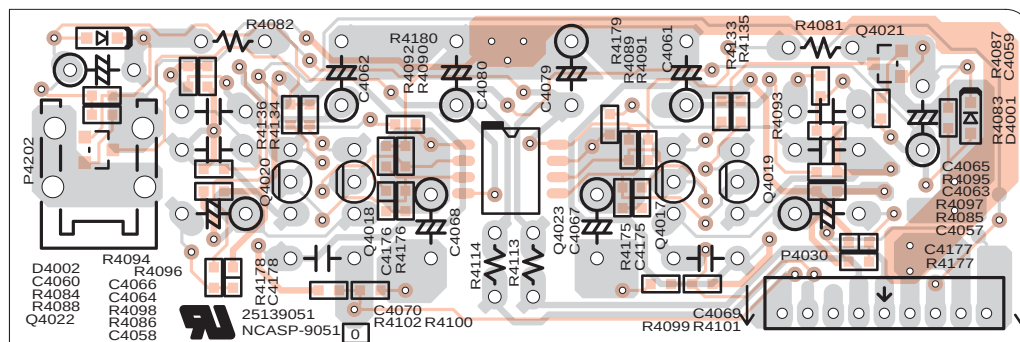
4

5



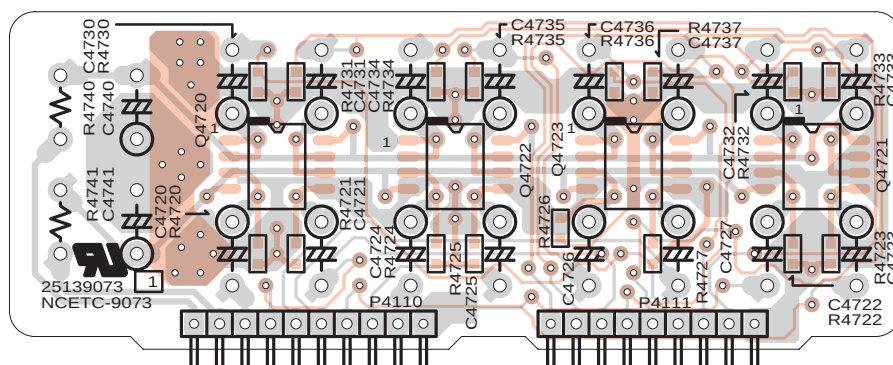
## 2

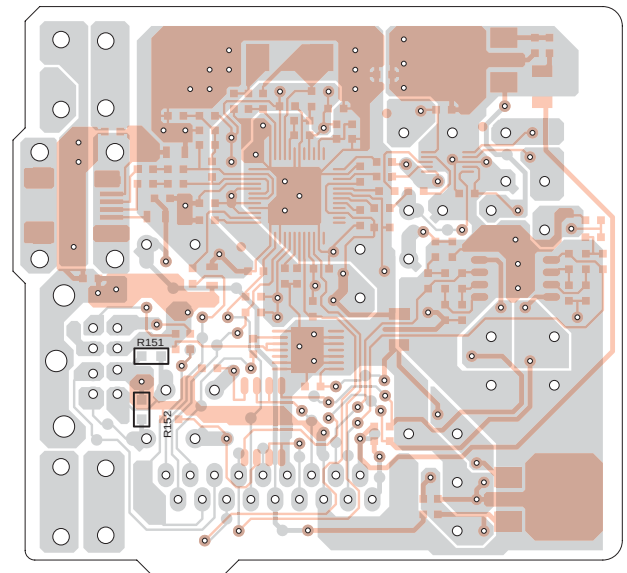
### Side-A



3

### Side-A





### Side-A

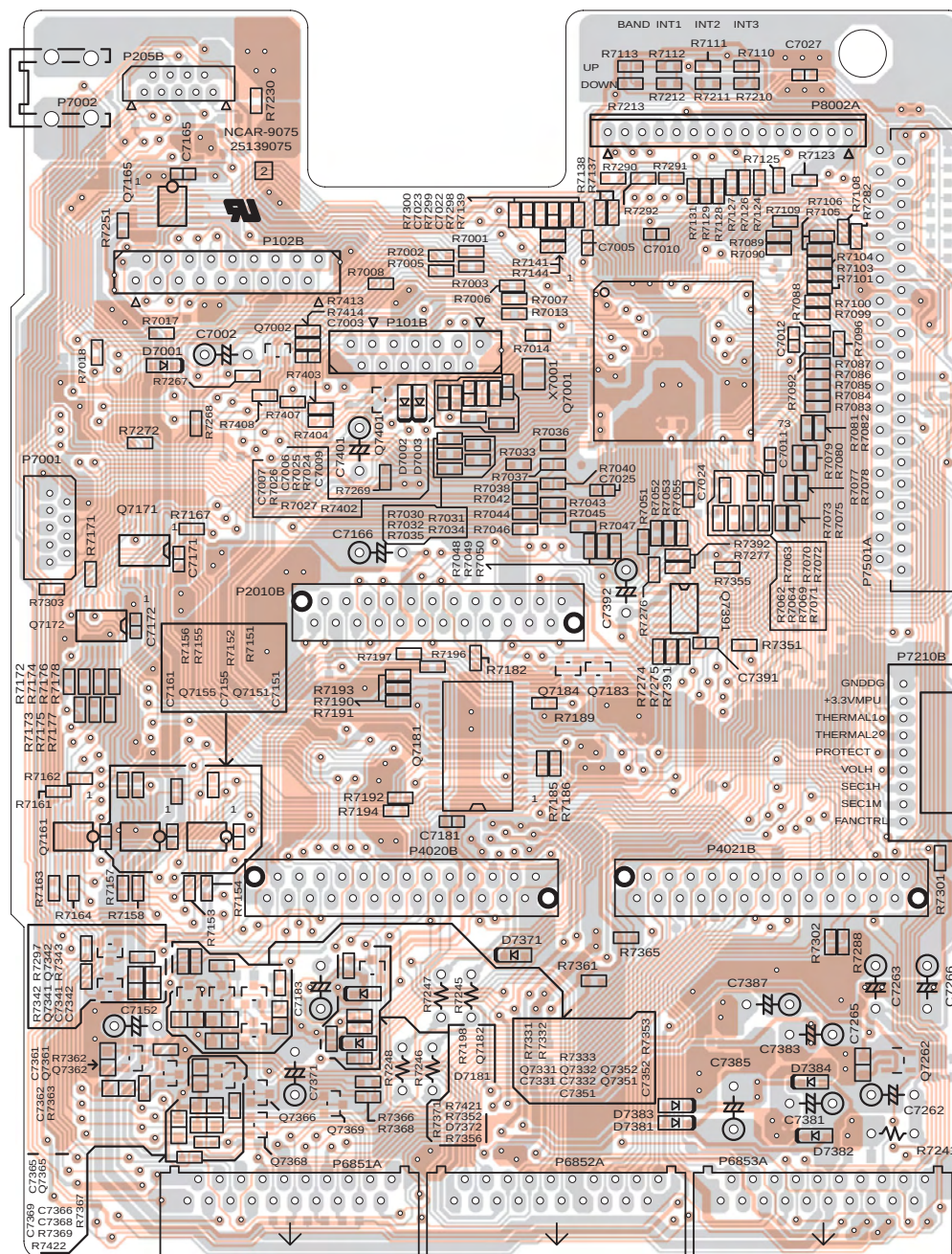
1

2

3

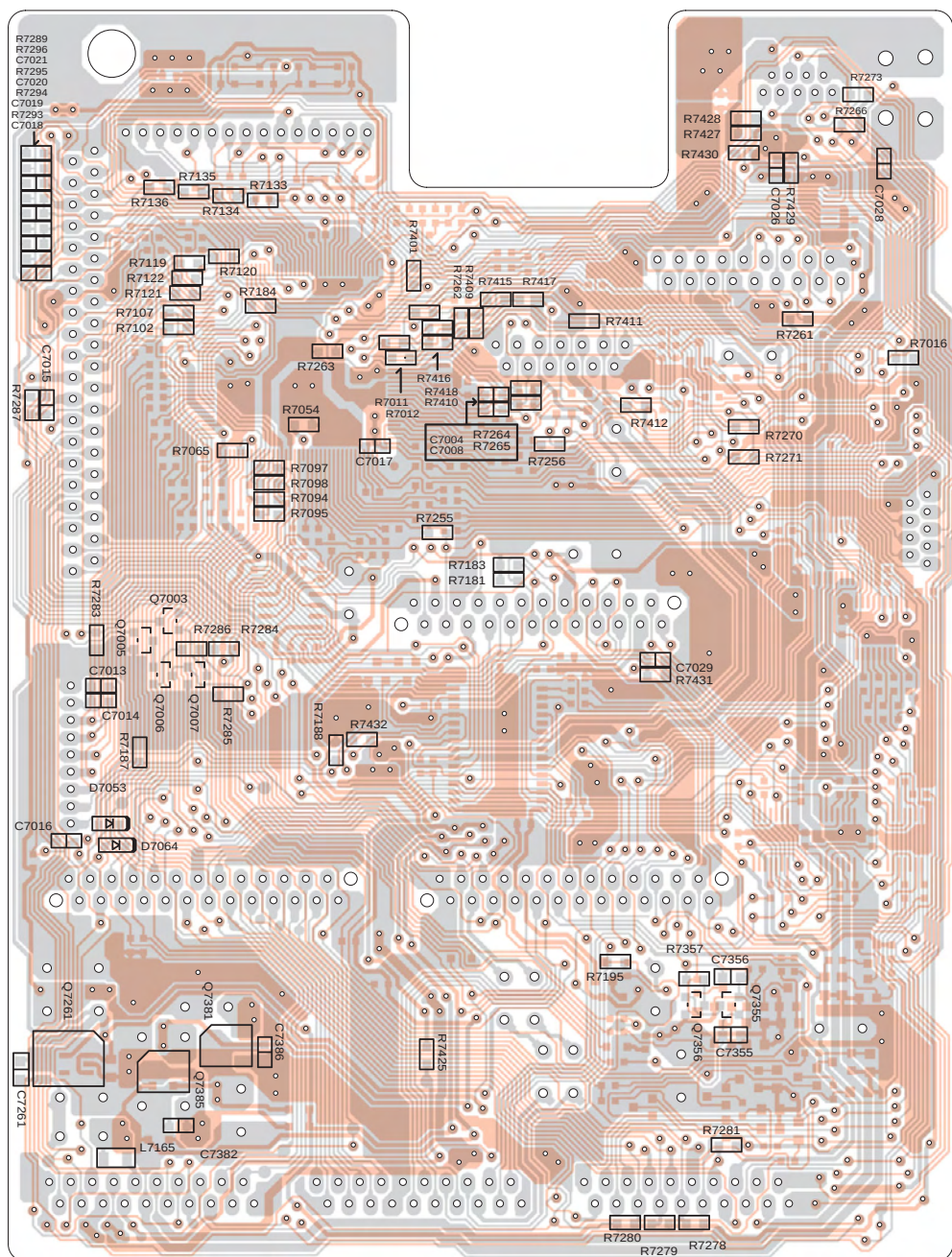
4

5

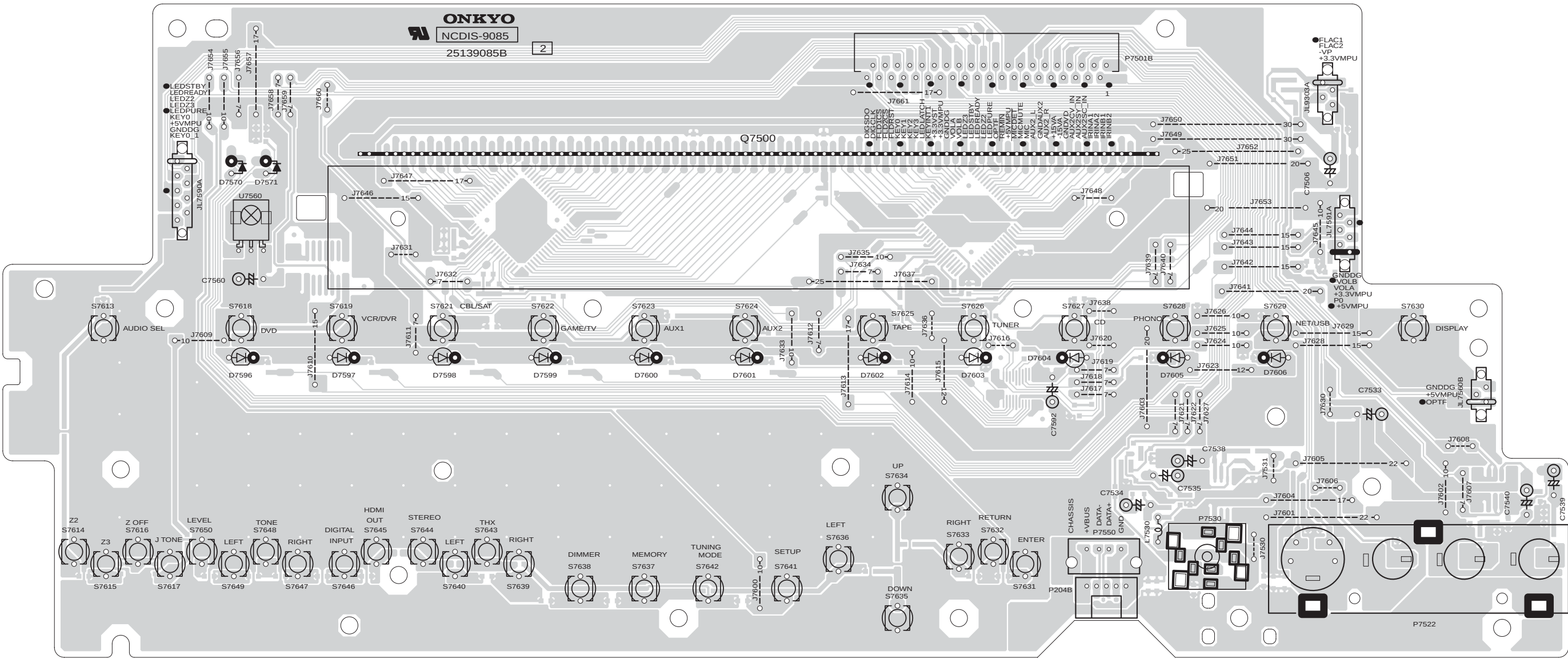


### Side-B

5



## Component side

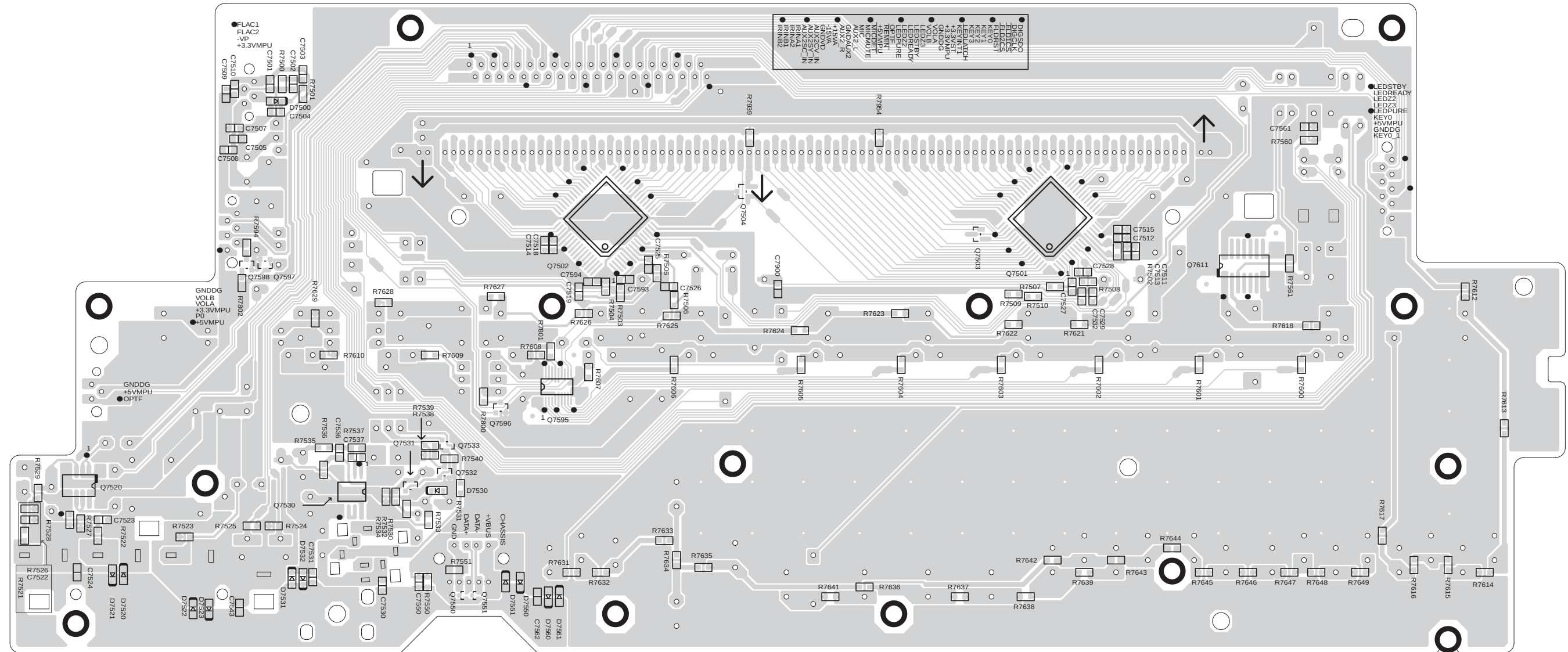


| A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
|---|---|---|---|---|---|---|---|

## PRINTED CIRCUIT BOARD VIEWS-22

### U33 DISPLAY PC BOARD (NADIS-9085)

### Soldering side



A

B

C

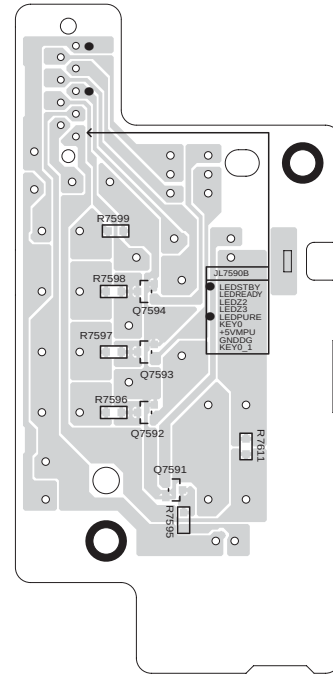
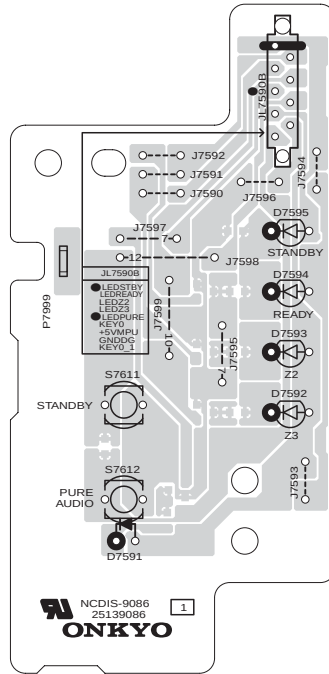
D

## PRINTED CIRCUIT BOARD VIEWS-23

**U34** DISPLAY PC BOARD (NADIS-9086)

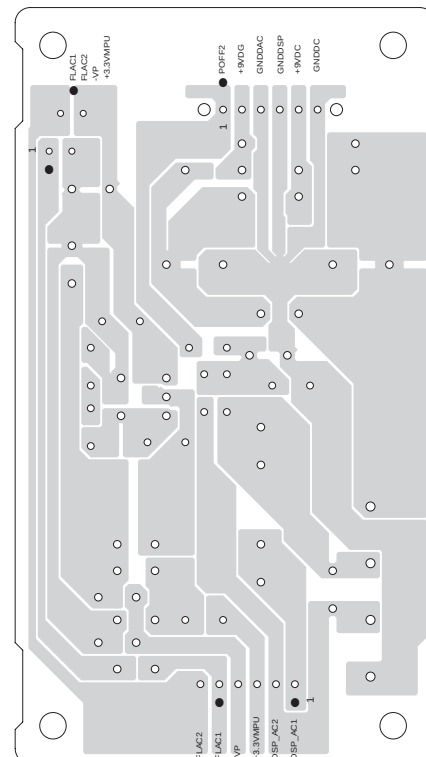
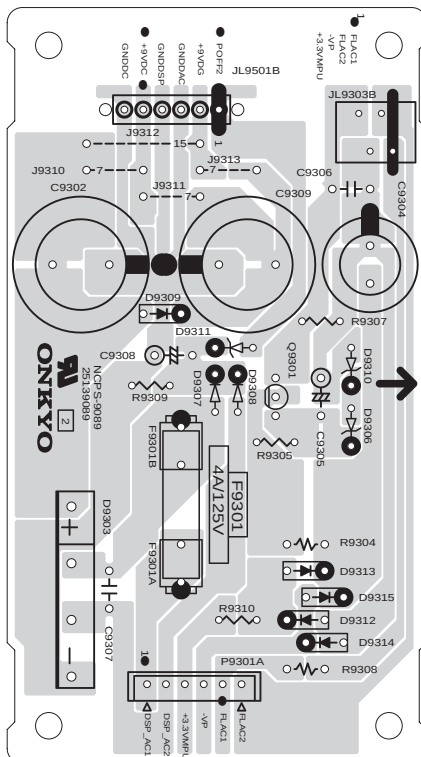
Component side

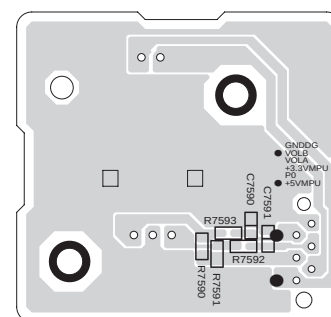
Soldering side

**U37** POWER SUPPLY PC BOARD (NAPS-9089)

Component side

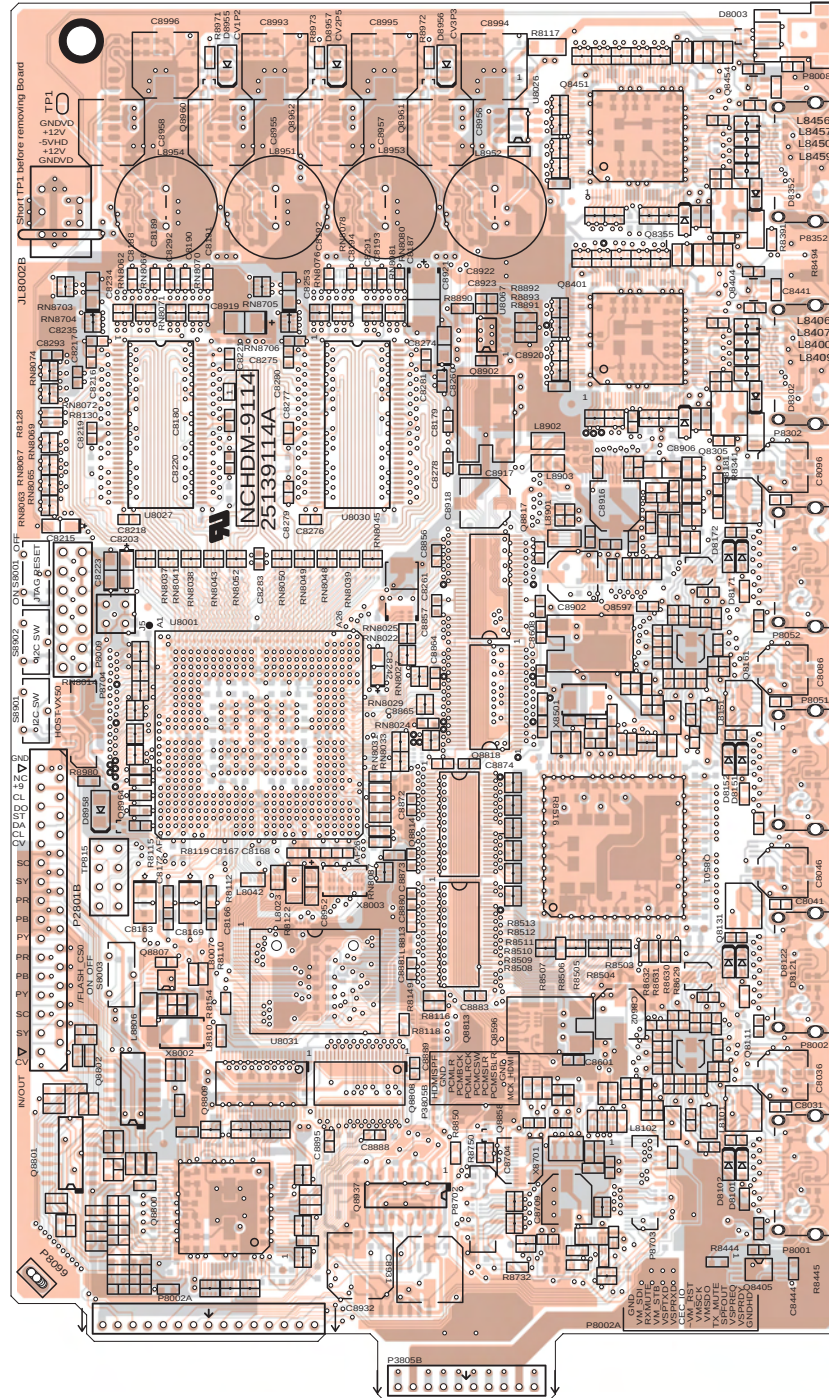
Soldering side





### Side-A

5



A

B

C

D

## PRINTED CIRCUIT BOARD VIEWS-26

**U42** HDMI PC BOARD (NAHDM-9114)

Side-B

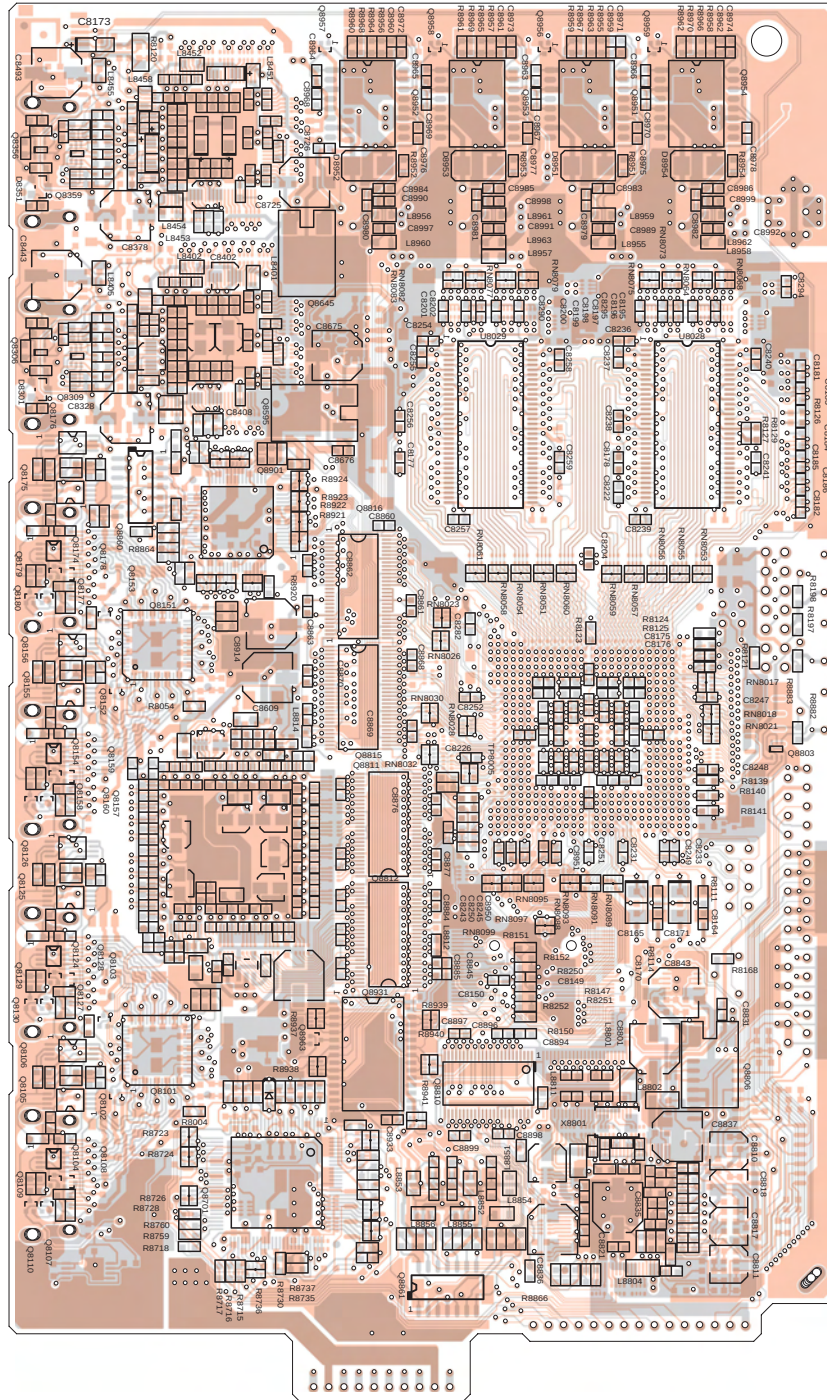
1

2

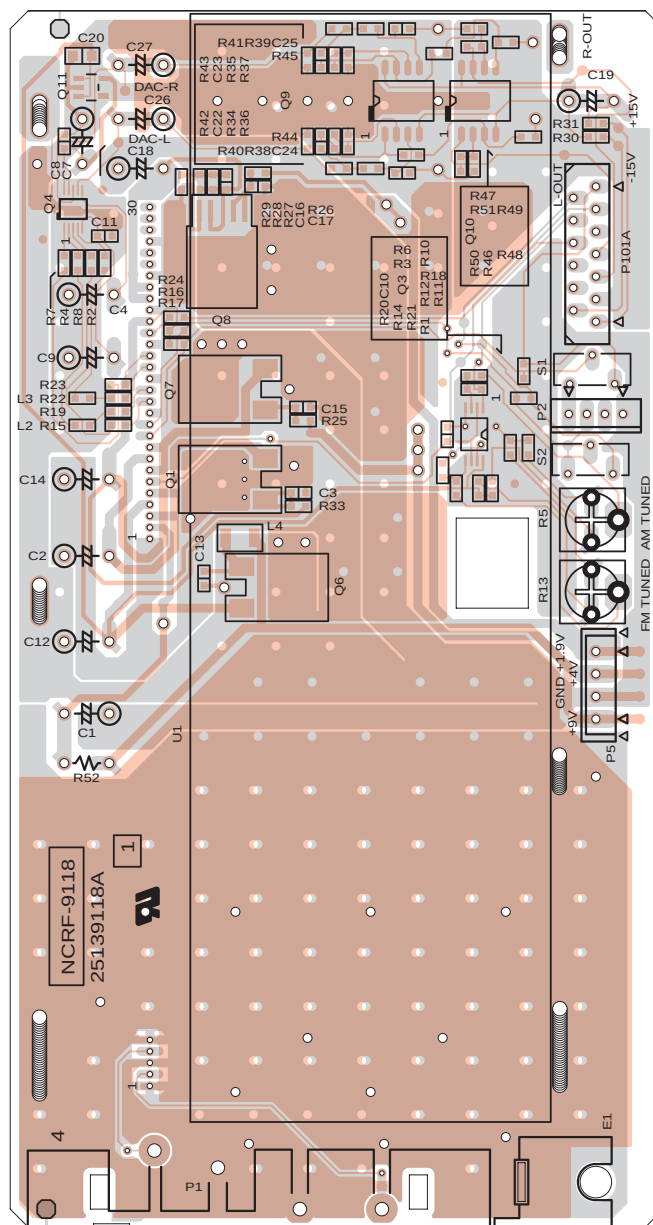
3

4

5



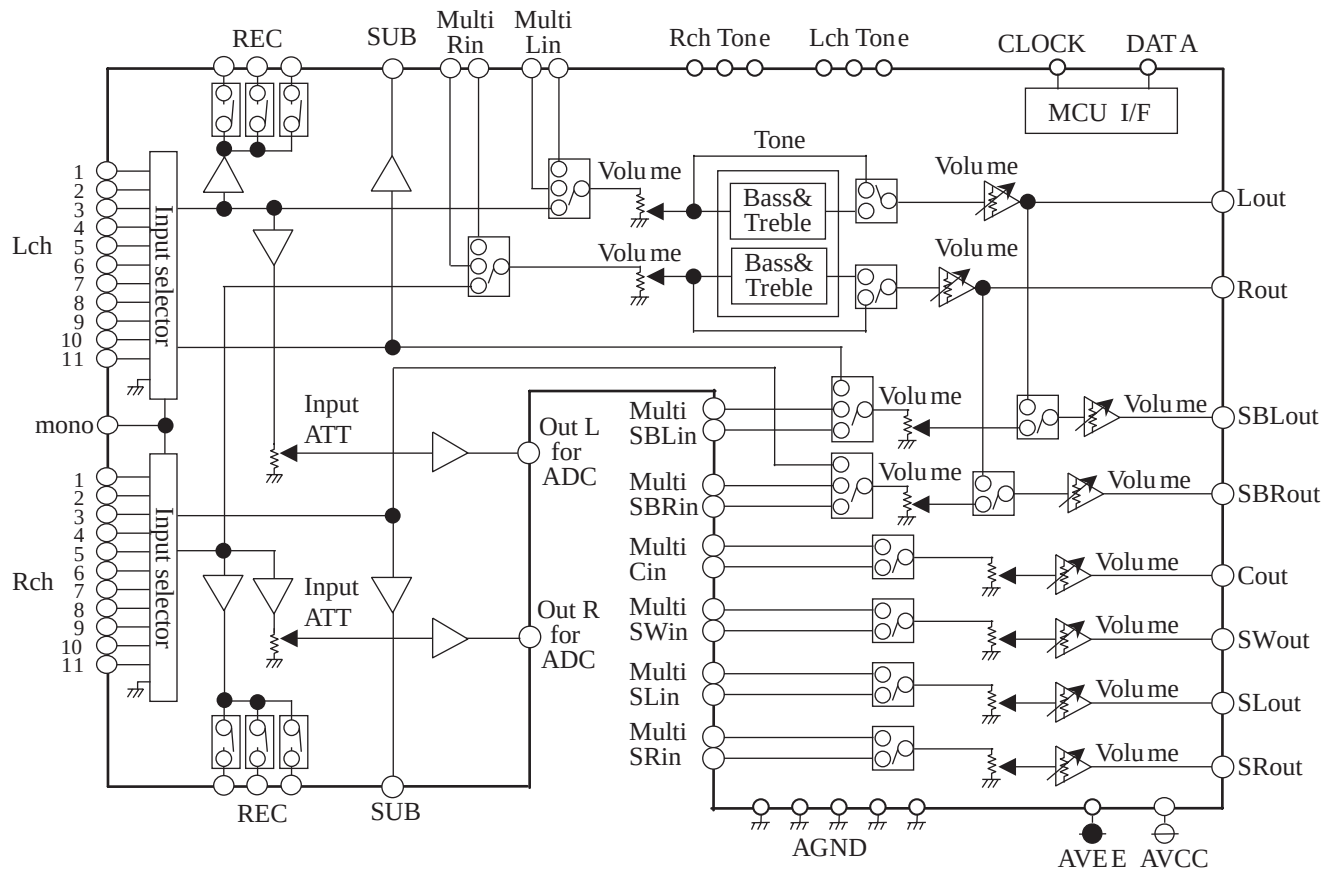
### Side-A



# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -1

Q4204: R2S15211FP (8 ch Electronic Volume, 11 Input Selector and Tone Control)

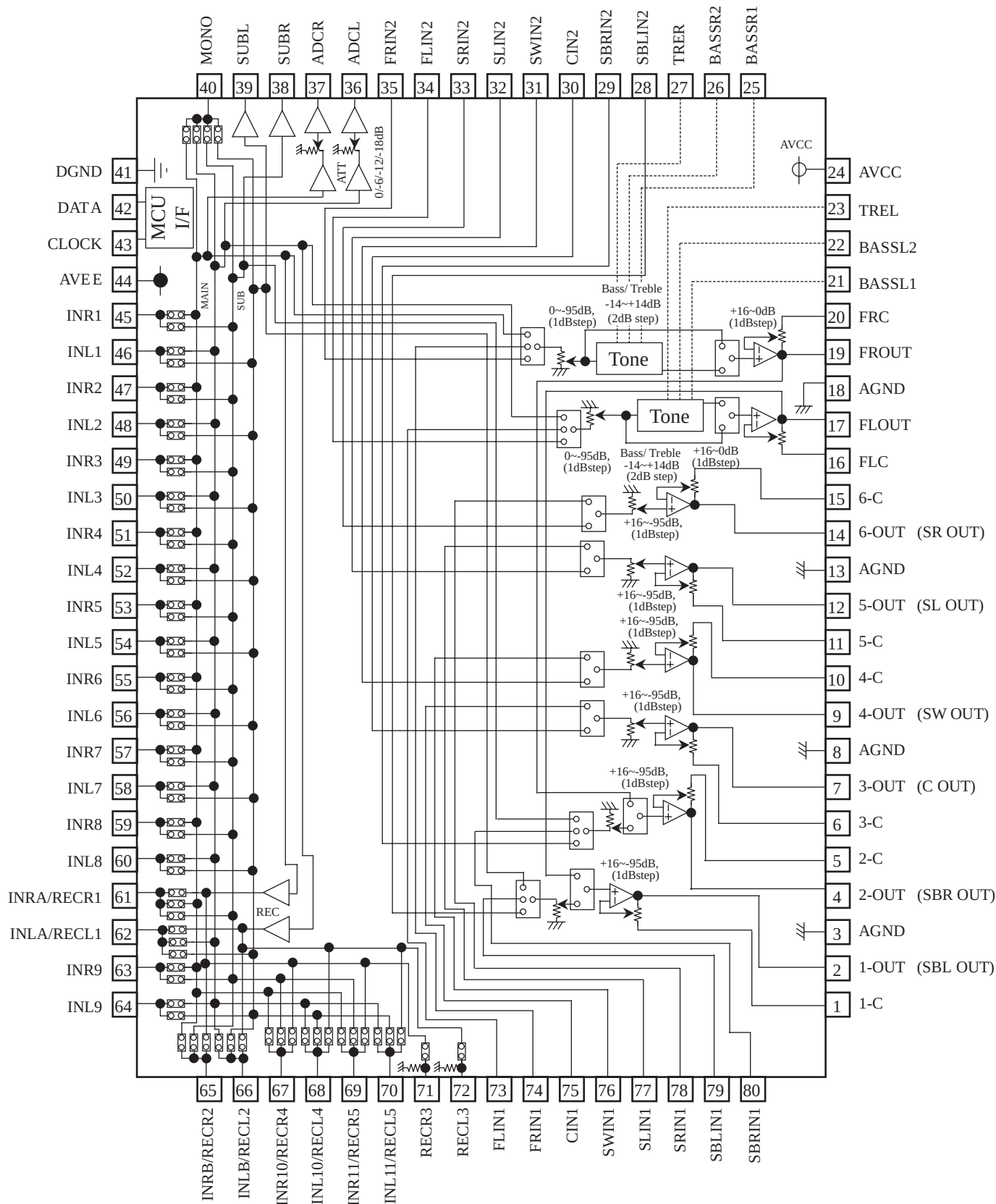
## SYSTEM BLOCK DIAGRAM



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -2

Q4204: R2S15211FP (8 ch Electronic Volume, 11 Input Selector and Tone Control)

## BLOCK DIAGRAM AND PIN CONFIGURATION



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -3

### Q4204: R2S15211FP (8 ch Electronic Volume, 11 Input Selector and Tone Control)

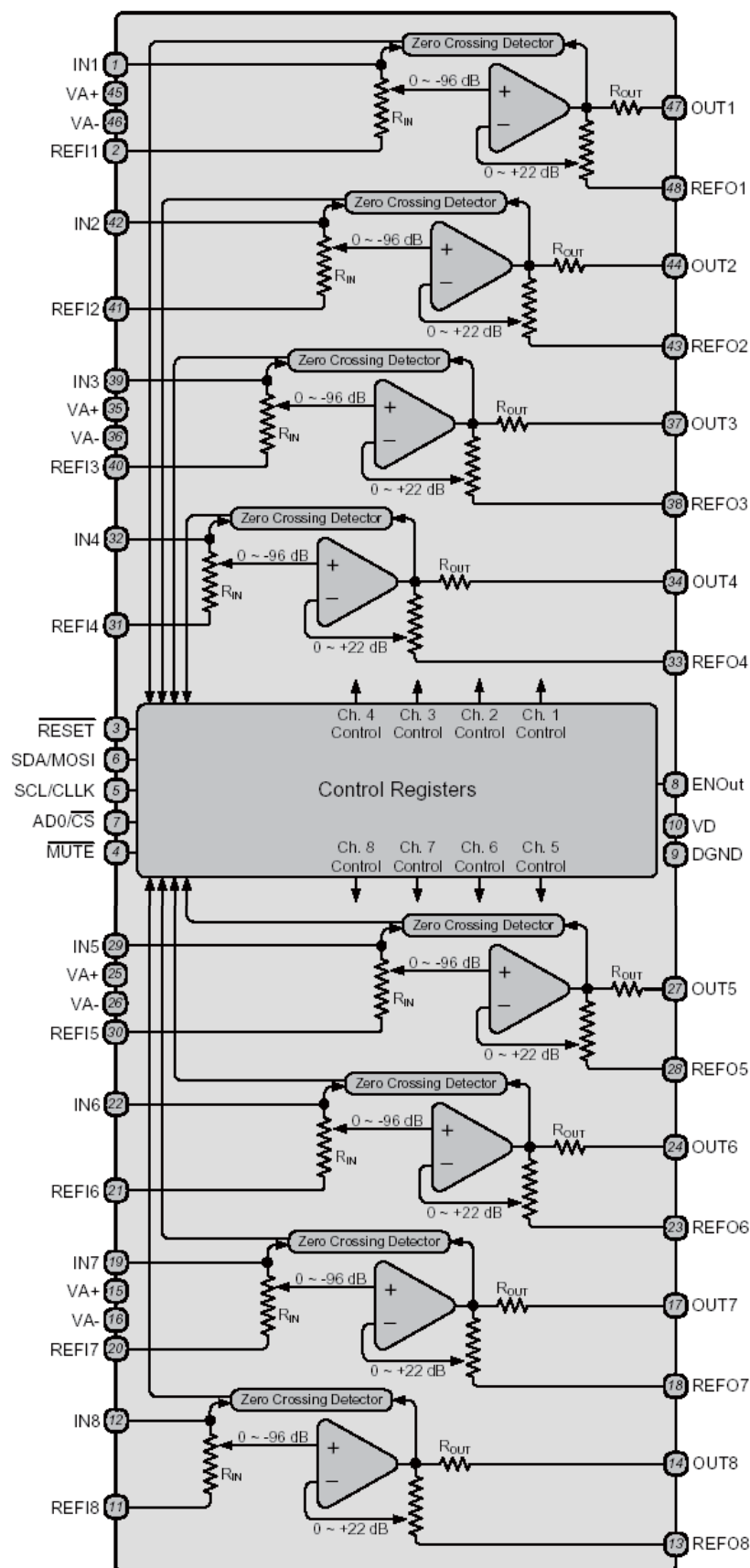
#### TERMINAL DESCRIPTION

| PIN No.                             | Name                                                                                                    | Function                                                                                |
|-------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 19,17,<br>14,12,<br>9,7,<br>4,2     | FROUT,FLOUT,<br>6-OUT,5-OUT,<br>4-OUT, 3-OUT,<br>2-OUT,1-OUT                                            | Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel                                          |
| 20,16,<br>15,11,<br>10,6,<br>5,1    | FRC,FLC,<br>6-C,5-C,<br>4-C,3-C,<br>2-C,1-C                                                             | Connects capacitor for reducing click noise of<br>L/R/C/SW/SL/SR/SBL/SBR channel volume |
| 3,8,<br>13,18                       | AGND                                                                                                    | Analog ground of internal circuit                                                       |
| 23,27                               | TREL, TRER                                                                                              | Frequency characteristic setting pin of L/R channel tone control (Treble)               |
| 21,22,<br>25,26                     | BASSL1,BASSL2<br>BASSR1,BASSR2                                                                          | Frequency characteristic setting pin of L/R channel tone control (Bass)                 |
| 24                                  | AVCC                                                                                                    | Positive power supply to internal circuit                                               |
| 35,34,<br>33,32,<br>31,30,<br>29,28 | FRIN2, FLIN2,<br>SRN2,SLIN2,<br>SWIN2,CIN2,<br>SBRIN2,SBLIN2                                            | Input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)                              |
| 73,74,<br>75,76,<br>77,78,<br>79,80 | FLIN1, FRIN1,<br>CIN1,SWIN1,<br>SLIN1,SRIN1,<br>SBLIN1,SBRIN1                                           |                                                                                         |
| 41                                  | DGND                                                                                                    | Digital ground of internal circuit                                                      |
| 42                                  | DATA                                                                                                    | Input pin of control data                                                               |
| 43                                  | CLOCK                                                                                                   | Input pin of control clock                                                              |
| 44                                  | AVEE                                                                                                    | Negative power supply to internal circuit                                               |
| 46,48,50,<br>52,54,56,<br>58,60,64  | INL1,INL2, INL3,<br>INL4,INL5,INL6,<br>INL7,INL8,INL9                                                   | Input pin of L/R channel (Input Selector)                                               |
| 45,47,49,<br>51,53,55,<br>57,59,63  | INR1,INR2, INR3,<br>INR4,INR5,INR6,<br>INR7,INR8,INR9                                                   |                                                                                         |
| 40                                  | MONO                                                                                                    | Input pin of monaural (Input Selector)                                                  |
| 38,39                               | SUBL,SUBR                                                                                               | Output pin for L/R channel SUB Output                                                   |
| 36,37                               | ADCL, ADCR                                                                                              | Output pin for L/R channel ADC                                                          |
| 72                                  | RECL3                                                                                                   | Output pin for L/R channel REC Output                                                   |
| 71                                  | RECR3                                                                                                   |                                                                                         |
| 61,62,<br>65,66,<br>67,68,<br>69,70 | INRA/RECR1,INLA/RECL1,<br>INRB/RECR2,INLB/RECL2,<br>INR10/RECR4,INL10/RECL4,<br>INR11/RECR5,INL11/RECL5 | Input pin of L/R channel (Input Selector)/<br>Output pin for L/R channel REC Output     |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -4

## Q4405: CS3318-CQZR (8 Channel Analog Volume Control)

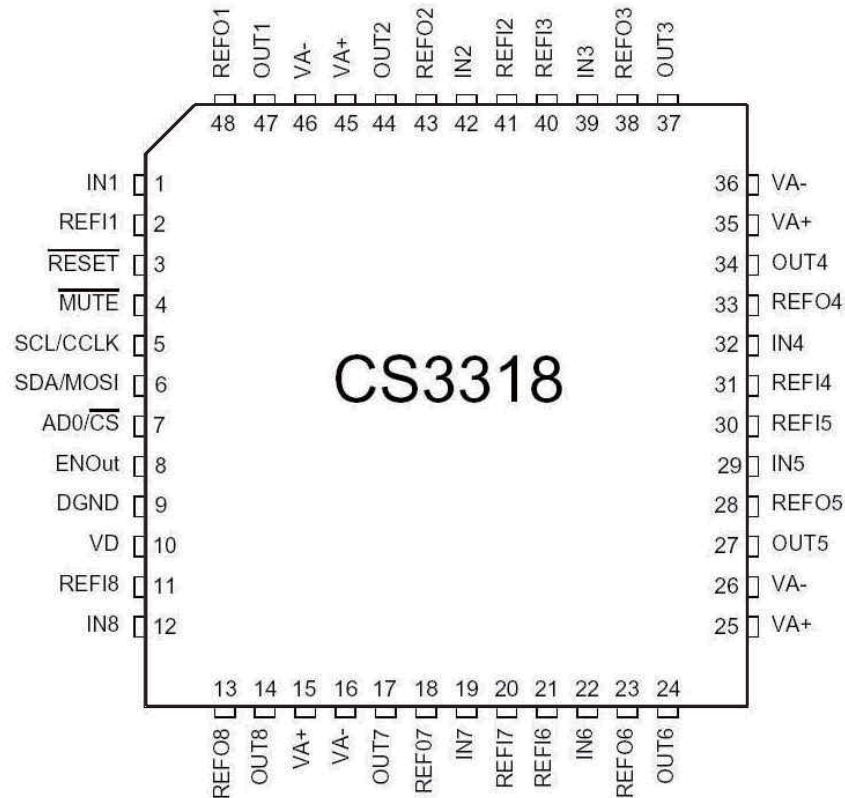
## BLOCK DIAGRAM



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -5

### Q4405: CS3318-CQZR (8 Channel Analog Volume Control)

#### PIN CONFIGURATION



#### TERMINAL DESCRIPTION(1/2)

| Pin Name | #  | Pin Description                                                                                                     |
|----------|----|---------------------------------------------------------------------------------------------------------------------|
| IN1      | 1  |                                                                                                                     |
| IN2      | 42 |                                                                                                                     |
| IN3      | 39 |                                                                                                                     |
| IN4      | 32 | <b>Analog Inputs (Input)</b> - The full-scale level is specified in the Analog Characteristics specification table. |
| IN5      | 29 |                                                                                                                     |
| IN6      | 22 |                                                                                                                     |
| IN7      | 19 |                                                                                                                     |
| IN8      | 12 |                                                                                                                     |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -6

### Q4405: CS3318-CQZR (8 Channel Analog Volume Control)

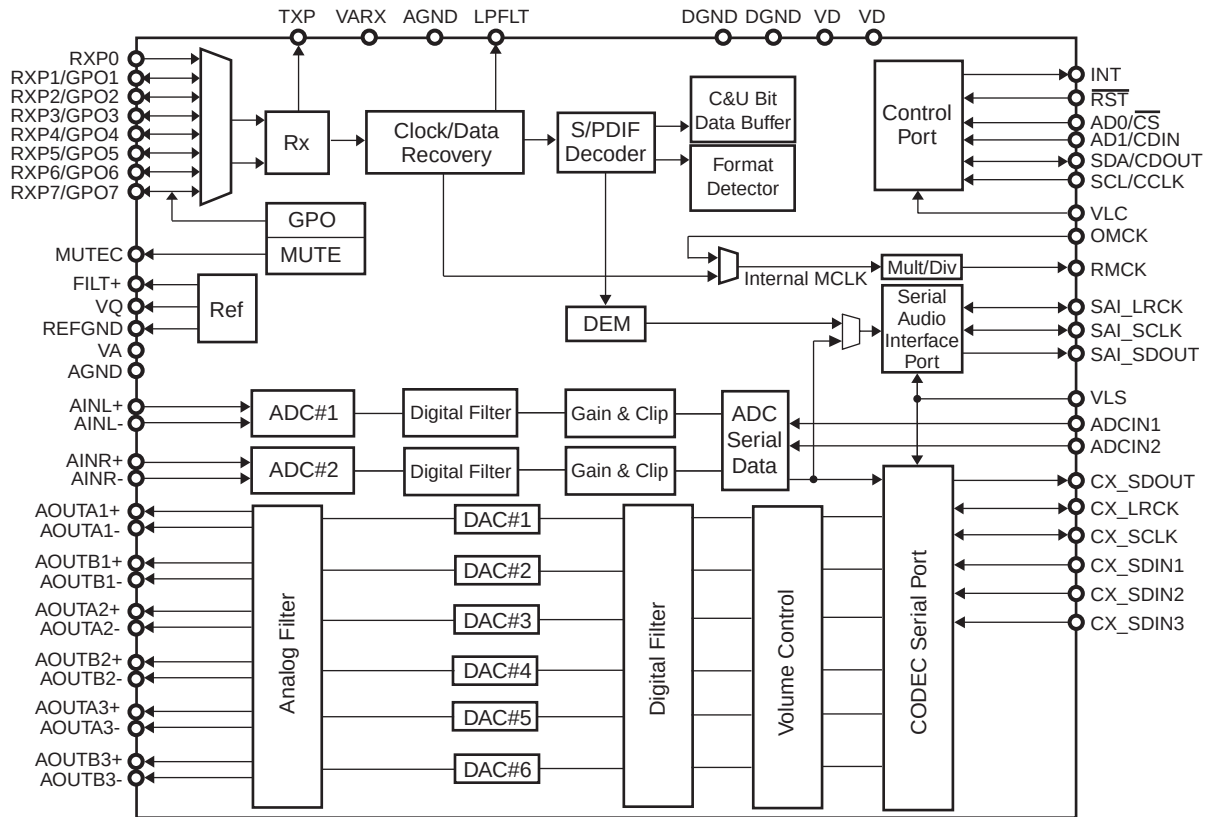
#### TERMINAL DESCRIPTION(2/2)

| Pin Name                    | #                       | Pin Description                                                                                                                                                                                                                  |
|-----------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OUT1                        | 47                      | <b>Analog Outputs (Output)</b> - The full-scale output level is specified in the Analog Characteristics specification table.                                                                                                     |
| OUT2                        | 44                      |                                                                                                                                                                                                                                  |
| OUT3                        | 37                      |                                                                                                                                                                                                                                  |
| OUT4                        | 34                      |                                                                                                                                                                                                                                  |
| OUT5                        | 27                      |                                                                                                                                                                                                                                  |
| OUT6                        | 24                      |                                                                                                                                                                                                                                  |
| OUT7                        | 17                      |                                                                                                                                                                                                                                  |
| OUT8                        | 14                      |                                                                                                                                                                                                                                  |
| REF11                       | 2                       | <b>Reference In (Input)</b> - Analog reference pin.                                                                                                                                                                              |
| REF12                       | 41                      |                                                                                                                                                                                                                                  |
| REF13                       | 40                      |                                                                                                                                                                                                                                  |
| REF14                       | 31                      |                                                                                                                                                                                                                                  |
| REF15                       | 30                      |                                                                                                                                                                                                                                  |
| REF16                       | 21                      |                                                                                                                                                                                                                                  |
| REF17                       | 20                      |                                                                                                                                                                                                                                  |
| REF18                       | 11                      |                                                                                                                                                                                                                                  |
| REFO1                       | 48                      | <b>Reference Out (Output)</b> - Analog reference pin.                                                                                                                                                                            |
| REFO2                       | 43                      |                                                                                                                                                                                                                                  |
| REFO3                       | 38                      |                                                                                                                                                                                                                                  |
| REFO4                       | 33                      |                                                                                                                                                                                                                                  |
| REFO5                       | 28                      |                                                                                                                                                                                                                                  |
| REFO6                       | 23                      |                                                                                                                                                                                                                                  |
| REFO7                       | 18                      |                                                                                                                                                                                                                                  |
| REFO8                       | 13                      |                                                                                                                                                                                                                                  |
| VA+                         | 15,<br>25,<br>35,<br>45 | <b>Positive Analog Power (Input)</b> - Positive power for the internal analog section.                                                                                                                                           |
| VA-                         | 16,<br>26,<br>36,<br>46 | <b>Negative Analog Power (Input)</b> - Negative power for the internal analog section.                                                                                                                                           |
| RESET                       | 3                       | <b>Reset (Input)</b> - The device enters a low-power mode when this pin is driven low.                                                                                                                                           |
| MUTE                        | 4                       | <b>Mute (Input)</b> - This pin defaults to an active low mute input, and may be configured as an active high mute input.                                                                                                         |
| SCL/CCLK                    | 5                       | <b>Serial Control Port Clock (Input)</b> - Serial clock for the serial control port.                                                                                                                                             |
| SDA/MOSI                    | 6                       | <b>Serial Control Data (Input/Output)</b> - SDA is a data I/O line for the control port interface in I <sup>2</sup> C Mode. MOSI is the input data line for the control port interface in SPI Mode.                              |
| AD0/ $\overline{\text{CS}}$ | 7                       | <b>Default Address Bit 0 (I<sup>2</sup>C) / Control Port Chip Select (SPI) (Input)</b> - AD0 sets the LSB of the default chip address in I <sup>2</sup> C Mode. $\overline{\text{CS}}$ is the chip-select signal for SPI format. |
| ENOut                       | 8                       | <b>Enable Output (Output)</b> - Enable output signal for multi-device serial control chain configuration.                                                                                                                        |
| DGND                        | 9                       | <b>Digital Ground (Input)</b> - Ground reference for the internal digital section.                                                                                                                                               |
| VD                          | 10                      | <b>Digital Power (Input)</b> - Positive power for the internal digital section.                                                                                                                                                  |

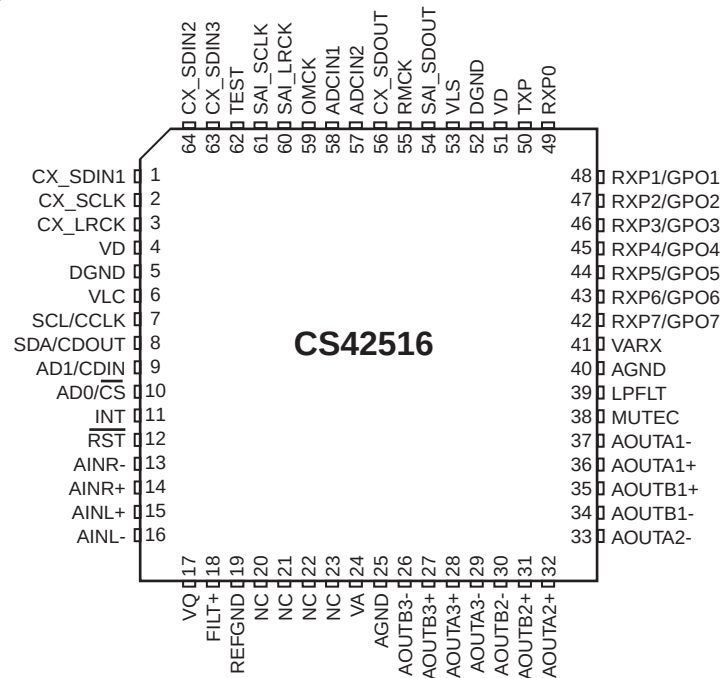
# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -7

## Q3041 : CS42516-CQZ (192 kHz, 6-Ch Codec with S/PDIF Receiver)

### BLOCK DIAGRAM



### PIN CONFIGURATION



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -8

### Q3041 : CS42516-CQZ (192 kHz, 6-Ch Codec with S/PDIF Receiver)

#### TERMINAL DESCRIPTION(1/2)

| Pin Name                    | #       | Pin Description                                                                                                                                                                                                                                                                             |
|-----------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CX_SDIN1                    | 1       | <b>Codec Serial Audio Data Input (Input)</b> - Input for two's complement serial audio data.                                                                                                                                                                                                |
| CX_SDIN2                    | 64      |                                                                                                                                                                                                                                                                                             |
| CX_SDIN3                    | 63      |                                                                                                                                                                                                                                                                                             |
| CX_SCLK                     | 2       | <b>CODEC Serial Clock (Input/Output)</b> - Serial clock for the CODEC serial audio interface.                                                                                                                                                                                               |
| CX_LRCK                     | 3       | <b>CODEC Left Right Clock (Input/Output)</b> - Determines which channel, Left or Right, is currently active on the CODEC serial audio data line.                                                                                                                                            |
| VD                          | 4<br>51 | <b>Digital Power (Input)</b> - Positive power supply for the digital section.                                                                                                                                                                                                               |
| DGND                        | 5<br>52 | <b>Digital Ground (Input)</b> - Ground reference. Should be connected to digital ground.                                                                                                                                                                                                    |
| VLC                         | 6       | <b>Control Port Power (Input)</b> - Determines the required signal level for the control port.                                                                                                                                                                                              |
| SCL/CCLK                    | 7       | <b>Serial Control Port Clock (Input)</b> - Serial clock for the serial control port. Requires an external pull-up resistor to the logic interface voltage in I <sup>2</sup> C mode as shown in the Typical Connection Diagram.                                                              |
| SDA/CDOUT                   | 8       | <b>Serial Control Data (Input/Output)</b> - SDA is a data I/O line in I <sup>2</sup> C mode and requires an external pull-up resistor to the logic interface voltage, as shown in the Typical Connection Diagram. CDOUT is the output data line for the control port interface in SPI mode. |
| AD1/CDIN                    | 9       | <b>Address Bit 1 (I<sup>2</sup>C)/Serial Control Data (SPI) (Input)</b> - AD1 is a chip address pin in I <sup>2</sup> C mode; CDIN is the input data line for the control port interface in SPI mode.                                                                                       |
| AD0/ $\overline{\text{CS}}$ | 10      | <b>Address Bit 0 (I<sup>2</sup>C)/Control Port Chip Select (SPI) (Input)</b> - AD0 is a chip address pin in I <sup>2</sup> C mode; $\overline{\text{CS}}$ is the chip select signal in SPI mode.                                                                                            |
| INT                         | 11      | <b>Interrupt (Output)</b> - The CS42516 will generate an interrupt condition as per the Interrupt Mask register.                                                                                                                                                                            |
| $\overline{\text{RST}}$     | 12      | <b>Reset (Input)</b> - The device enters a low power mode and all internal registers are reset to their default settings when low.                                                                                                                                                          |
| AINR-                       | 13      | <b>Differential Right Channel Analog Input (Input)</b> - Signals are presented differentially to the delta-sigma modulators via the AINR+/- pins.                                                                                                                                           |
| AINR+                       | 14      |                                                                                                                                                                                                                                                                                             |
| AINL+                       | 15      | <b>Differential Left Channel Analog Input (Input)</b> - Signals are presented differentially to the delta-sigma modulators via the AINL+/- pins.                                                                                                                                            |
| AINL-                       | 16      |                                                                                                                                                                                                                                                                                             |
| VQ                          | 17      | <b>Quiescent Voltage (Output)</b> - Filter connection for internal quiescent reference voltage.                                                                                                                                                                                             |
| FILT+                       | 18      | <b>Positive Voltage Reference (Output)</b> - Positive reference voltage for the internal sampling circuits.                                                                                                                                                                                 |
| REFGND                      | 19      | <b>Reference Ground (Input)</b> - Ground reference for the internal sampling circuits.                                                                                                                                                                                                      |
| NC                          | 20      | <b>No Connect Pins</b> - Do not make any connection to these pins.                                                                                                                                                                                                                          |
|                             | 21      |                                                                                                                                                                                                                                                                                             |
|                             | 22      |                                                                                                                                                                                                                                                                                             |
|                             | 23      |                                                                                                                                                                                                                                                                                             |
| AOUTA1 +,-                  | 36,37   | <b>Differential Analog Output (Output)</b> - The full-scale differential analog output level is specified in the Analog Characteristics specification table.                                                                                                                                |
| AOUTB1 +,-                  | 35,34   |                                                                                                                                                                                                                                                                                             |
| AOUTA2 +,-                  | 32,33   |                                                                                                                                                                                                                                                                                             |
| AOUTB2 +,-                  | 31,30   |                                                                                                                                                                                                                                                                                             |
| AOUTA3 +,-                  | 28,29   |                                                                                                                                                                                                                                                                                             |
| AOUTB3 +,-                  | 27,26   |                                                                                                                                                                                                                                                                                             |
| VA                          | 24      | <b>Analog Power (Input)</b> - Positive power supply for the analog section.                                                                                                                                                                                                                 |
| VARX                        | 41      |                                                                                                                                                                                                                                                                                             |
| AGND                        | 25      | <b>Analog Ground (Input)</b> - Ground reference. Should be connected to analog ground.                                                                                                                                                                                                      |
|                             | 40      |                                                                                                                                                                                                                                                                                             |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -9

### Q3041 : CS42516-CQZ (192 kHz, 6-Ch Codec with S/PDIF Receiver)

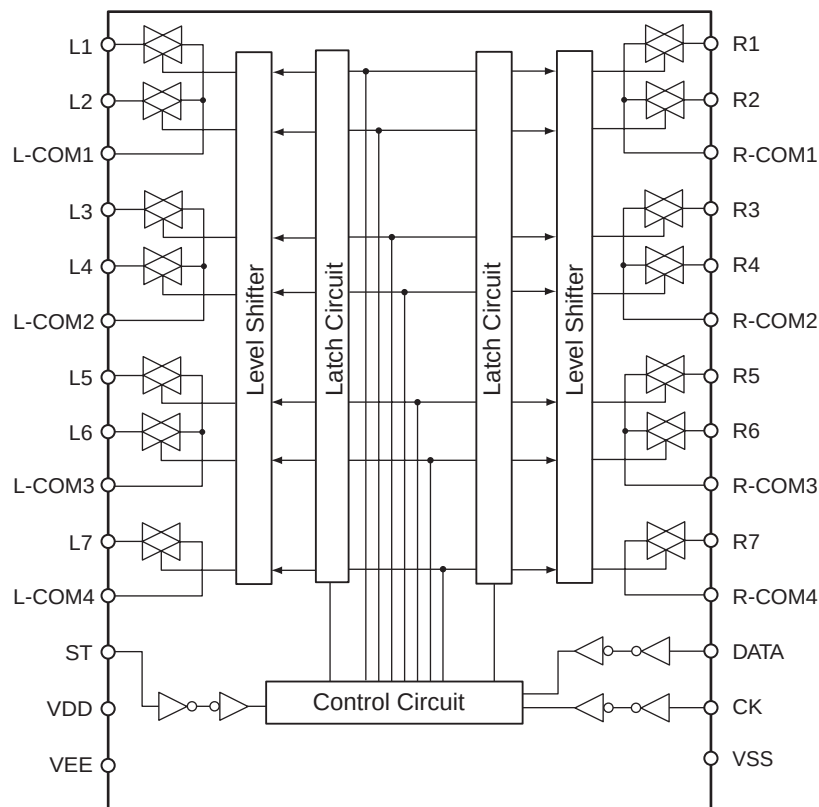
#### TERMINAL DESCRIPTION(2/2)

| Pin Name  | #  | Pin Description                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RXP7/GPO7 | 42 | <b>S/PDIF Receiver Input/ General Purpose Output (Input/Output)</b> - Receiver inputs for S/PDIF encoded data. The CS42516 has an internal 8:2 multiplexer to select the active receiver port, according to the Receiver Mode Control 2 register. These pins can also be configured as general purpose output pins, ADC Overflow indicators or Mute Control outputs according to the RXP/General Purpose Pin Control registers. |
| RXP6/GPO6 | 43 |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| RXP5/GPO5 | 44 |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| RXP4/GPO4 | 45 |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| RXP3/GPO3 | 46 |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| RXP2/GPO2 | 47 |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| RXP1/GPO1 | 48 |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| RXP0      | 49 | <b>S/PDIF Receiver Input (Input)</b> - Dedicated receiver input for S/PDIF encoded data.                                                                                                                                                                                                                                                                                                                                        |
| TXP       | 50 | <b>S/PDIF Transmitter Output (Output)</b> - S/PDIF encoded data output, mapped directly from one of the receiver inputs as indicated by the Receiver Mode Control 2 register.                                                                                                                                                                                                                                                   |
| VLS       | 53 | <b>Serial Port Interface Power (Input)</b> - Determines the required signal level for the serial port interfaces.                                                                                                                                                                                                                                                                                                               |
| SAI_SDOUT | 54 | <b>Serial Audio Interface Serial Data Output (Output)</b> - Output for two's complement serial audio PCM data from the S/PDIF incoming stream. This pin can also be configured to transmit the output of the internal and external ADCs.                                                                                                                                                                                        |
| RMCK      | 55 | <b>Recovered Master Clock (Output)</b> - Recovered master clock output from the External Clock Reference (OMCK, pin 59) or the PLL which is locked to the incoming S/PDIF stream or CX_LRCK.                                                                                                                                                                                                                                    |
| CX_SDOUT  | 56 | <b>CODEC Serial Data Output (Output)</b> - Output for two's complement serial audio data from the internal and external ADCs.                                                                                                                                                                                                                                                                                                   |
| ADCIN1    | 58 | <b>External ADC Serial Input (Input)</b> - The CS42516 provides for up to two external stereo analog to digital converter inputs to provide a maximum of six channels on one serial data output line when the CS42516 is placed in One-Line Mode.                                                                                                                                                                               |
| ADCIN2    | 57 |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| OMCK      | 59 | <b>External Reference Clock (Input)</b> - External clock reference                                                                                                                                                                                                                                                                                                                                                              |
| TEST      | 62 | <b>Test Pin (Input)</b> - This pin must be connected to DGND.                                                                                                                                                                                                                                                                                                                                                                   |
| SAI_LRCK  | 60 | <b>Serial Audio Interface Left/Right Clock (Input/Output)</b> - Determines which channel, Left or Right, is currently active on the serial audio data line.                                                                                                                                                                                                                                                                     |
| SAI_SCLK  | 61 | <b>Serial Audio Interface Serial Clock (Input/Output)</b> - Serial clock for the Serial Audio Interface.                                                                                                                                                                                                                                                                                                                        |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -10

### Q4306: NJU7311AM(Analog Function Switch)

#### BLOCK DIAGRAM



#### TERMINAL DESCRIPTION

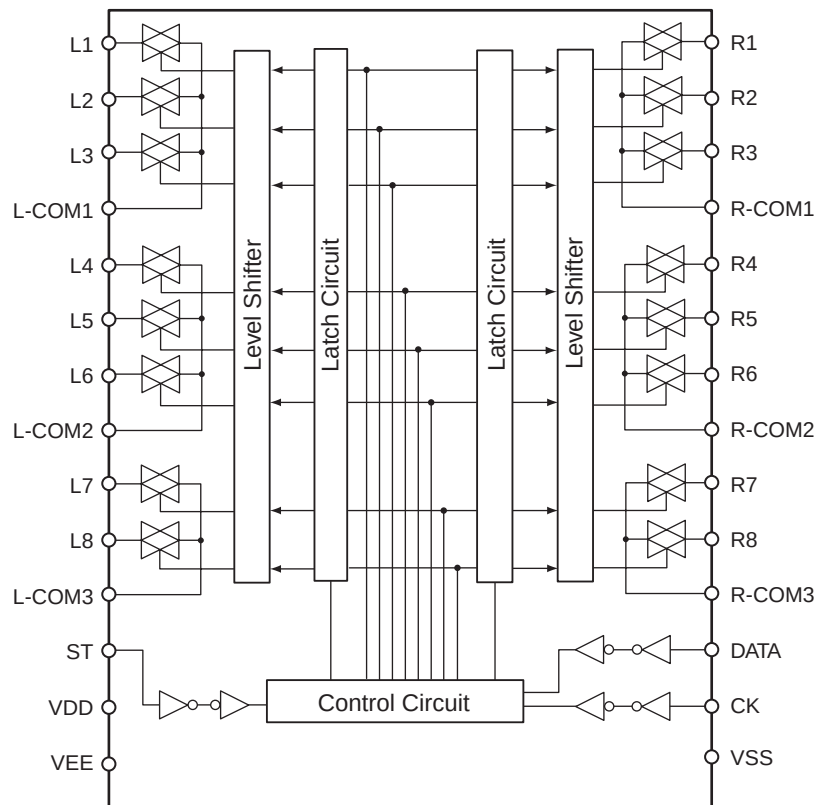
| Pin No. | Pin Name | Description                |
|---------|----------|----------------------------|
| 1       | VEE      | Negative Voltage Supply    |
| 2       | L1       | Analog switch input/output |
| 3       | L2       | Analog switch input/output |
| 4       | L-COM1   | L1, L2, Common             |
| 5       | L3       | Analog switch input/output |
| 6       | L4       | Analog switch input/output |
| 7       | L-COM2   | L3, L4 common              |
| 8       | L5       | Analog switch input/output |
| 9       | L6       | Analog switch input/output |
| 10      | L-COM3   | L5, L6 Common              |
| 11      | L7       | Analog switch input/output |
| 12      | L-COM4   | L7 Common                  |
| 14      | ST       | Chip enable                |
| 15      | VSS      | GND                        |

| Pin No. | Pin Name | Description                |
|---------|----------|----------------------------|
| 16      | CK       | Clock input                |
| 17      | DATA     | Data input                 |
| 19      | R-COM4   | R7 Common                  |
| 20      | R7       | Analog switch input/output |
| 21      | R-COM3   | R5, R6 Common              |
| 22      | R6       | Analog switch input/output |
| 23      | R5       | Analog switch input/output |
| 24      | R-COM2   | R3, R4 Common              |
| 25      | R4       | Analog switch input/output |
| 26      | R3       | Analog switch input/output |
| 27      | R-COM1   | R1, R2, Common             |
| 28      | R2       | Analog switch input/output |
| 29      | R1       | Analog switch input/output |
| 30      | VDD      | Positive voltage supply    |

# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -11

Q2027, Q4304, Q7181: NJU7312AM(Analog Function Switch)

## BLOCK DIAGRAM



## TERMINAL DESCRIPTION

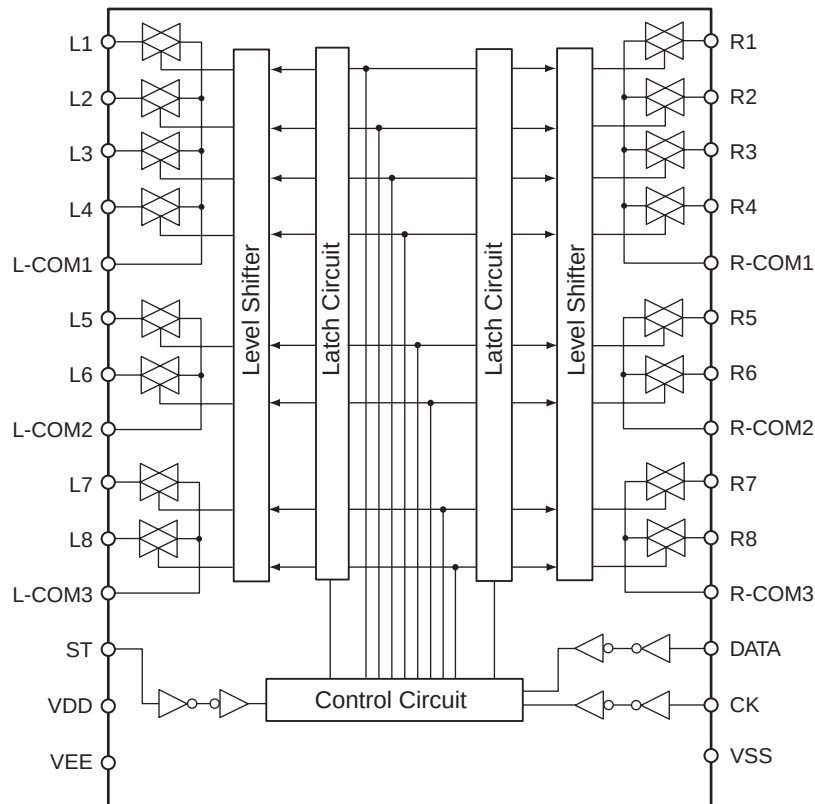
| Pin No. | Pin Name | Description                |
|---------|----------|----------------------------|
| 1       | VEE      | Negative Voltage Supply    |
| 2       | L1       | Analog switch input/output |
| 3       | L2       | Analog switch input/output |
| 4       | L3       | Analog switch input/output |
| 5       | L-COM1   | L1, L2, L3 Common          |
| 6       | L4       | Analog switch input/output |
| 7       | L5       | Analog switch input/output |
| 8       | L6       | Analog switch input/output |
| 9       | L-COM2   | L4, L5, L6 common          |
| 10      | L7       | Analog switch input/output |
| 11      | L8       | Analog switch input/output |
| 12      | L-COM3   | L7, L8 Common              |
| 14      | ST       | Chip enable                |
| 15      | VSS      | GND                        |

| Pin No. | Pin Name | Description                |
|---------|----------|----------------------------|
| 16      | CK       | Clock input/output         |
| 17      | DATA     | Data input                 |
| 19      | R-COM3   | R7, R8 Common              |
| 20      | R8       | Analog switch input/output |
| 21      | R7       | Analog switch input/output |
| 22      | R-COM2   | R4, R5, R6 Common          |
| 23      | R6       | Analog switch input/output |
| 24      | R5       | Analog switch input/output |
| 25      | R4       | Analog switch input/output |
| 26      | R-COM1   | R1, R2, R3 Common          |
| 27      | R3       | Analog switch input/output |
| 28      | R2       | Analog switch input/output |
| 29      | R1       | Analog switch input/output |
| 30      | VDD      | Positive voltage supply    |

# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -12

## Q4305: NJU7313AM (Analog Function Switch)

### BLOCK DI AGRAM



### TERMINAL DESCRIPTION

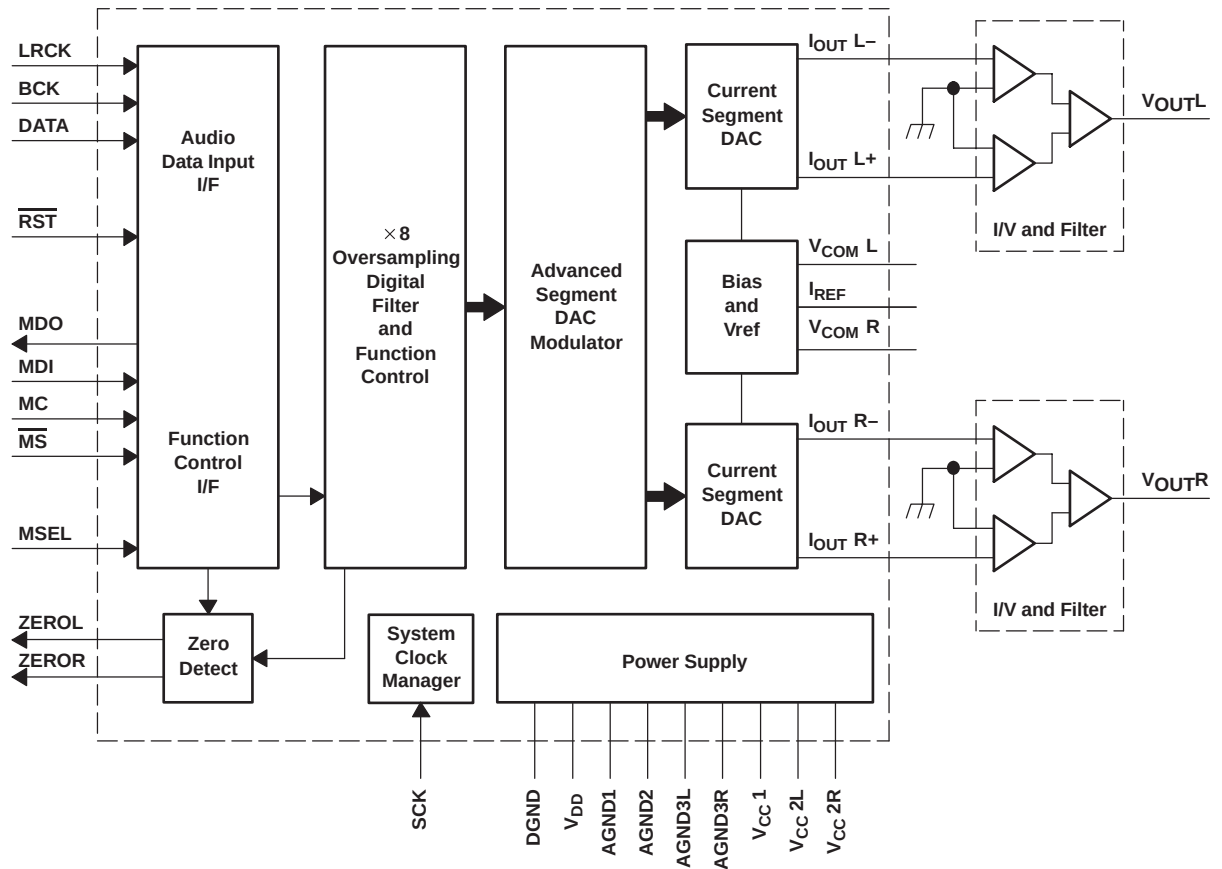
| Pin No. | Pin Name | Description                |
|---------|----------|----------------------------|
| 1       | VEE      | Negative Voltage Supply    |
| 2       | L1       | Analog switch input/output |
| 3       | L2       | Analog switch input/output |
| 4       | L3       | Analog switch input/output |
| 5       | L4       | Analog switch input/output |
| 6       | L-COM1   | L1, L2, L3, L4 Common      |
| 7       | L5       | Analog switch input/output |
| 8       | L6       | Analog switch input/output |
| 9       | L-COM2   | L5, L6 common              |
| 10      | L7       | Analog switch input/output |
| 11      | L8       | Analog switch input/output |
| 12      | L-COM3   | L7, L8 Common              |
| 14      | ST       | Chip enable                |
| 15      | VSS      | GND                        |

| Pin No. | Pin Name | Description                |
|---------|----------|----------------------------|
| 16      | CK       | Clock input                |
| 17      | DATA     | Data input                 |
| 19      | R-COM3   | R7, R8 Common              |
| 20      | R8       | Analog switch input/output |
| 21      | R7       | Analog switch input/output |
| 22      | R-COM2   | R5, R6 Common              |
| 23      | R6       | Analog switch input/output |
| 24      | R5       | Analog switch input/output |
| 25      | R-COM1   | R1, R2, R3, R4 Common      |
| 26      | R4       | Analog switch input/output |
| 27      | R3       | Analog switch input/output |
| 28      | R2       | Analog switch input/output |
| 29      | R1       | Analog switch input/output |
| 30      | VDD      | Positive voltage supply    |

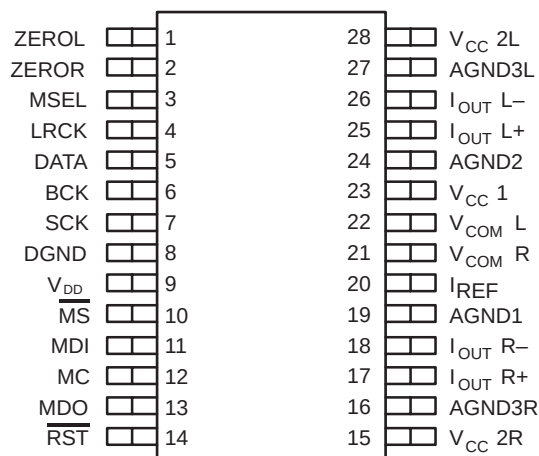
## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -13

Q3701,Q3721,Q3741,Q3761,Q3781: PCM1796DBR (24 bit, 192 kHz, 2ch DAC)

## BLOCK DIAGRAM



## PIN CONFIGURATION



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -14

Q3701,Q3721,Q3741,Q3761,Q3781: PCM1796DBR (24 bit, 192 kHz, 2ch DAC)

## TERMINAL DESCRIPTION

| TERMINAL<br>NAME        | PIN | I/O | DESCRIPTIONS                                                |
|-------------------------|-----|-----|-------------------------------------------------------------|
| AGND1                   | 19  | –   | Analog ground (internal bias)                               |
| AGND2                   | 24  | –   | Analog ground (internal bias)                               |
| AGND3L                  | 27  | –   | Analog ground (L-channel DACFF)                             |
| AGND3R                  | 16  | –   | Analog ground (R-channel DACFF)                             |
| BCK                     | 6   | I   | Bit clock input <sup>(1)</sup>                              |
| DATA                    | 5   | I   | Serial audio data input <sup>(1)</sup>                      |
| DGND                    | 8   | –   | Digital ground                                              |
| I <sub>OUT</sub> L+     | 25  | O   | L-channel analog current output+                            |
| I <sub>OUT</sub> L–     | 26  | O   | L-channel analog current output–                            |
| I <sub>OUT</sub> R+     | 17  | O   | R-channel analog current output+                            |
| I <sub>OUT</sub> R–     | 18  | O   | R-channel analog current output–                            |
| I <sub>REF</sub>        | 20  | –   | Output current reference bias pin                           |
| LRCK                    | 4   | I   | Left and right clock (f <sub>S</sub> ) input <sup>(1)</sup> |
| MC                      | 12  | I   | Mode control clock input <sup>(1)</sup>                     |
| MDI                     | 11  | I   | Mode control data input <sup>(1)</sup>                      |
| MDO                     | 13  | I/O | Mode control readback data output <sup>(3)</sup>            |
| $\overline{\text{MS}}$  | 10  | I/O | Mode control chip-select input <sup>(2)</sup>               |
| MSEL                    | 3   | I   | I <sup>2</sup> C/SPI select <sup>(1)</sup>                  |
| $\overline{\text{RST}}$ | 14  | I   | Reset <sup>(1)</sup>                                        |
| SCK                     | 7   | I   | System clock input <sup>(1)</sup>                           |
| V <sub>CC</sub> 1       | 23  | –   | Analog power supply, 5 V                                    |
| V <sub>CC</sub> 2L      | 28  | –   | Analog power supply (L-channel DACFF), 5 V                  |
| V <sub>CC</sub> 2R      | 15  | –   | Analog power supply (R-channel DACFF), 5 V                  |
| V <sub>COM</sub> L      | 22  | –   | L-channel internal bias decoupling pin                      |
| V <sub>COM</sub> R      | 21  | –   | R-channel internal bias decoupling pin                      |
| V <sub>DD</sub>         | 9   | –   | Digital power supply, 3.3 V                                 |
| ZEROL                   | 1   | I/O | Zero flag for L-channel <sup>(2)</sup>                      |
| ZEROR                   | 2   | I/O | Zero flag for R-channel <sup>(2)</sup>                      |

(1) Schmitt-trigger input, 5-V tolerant

(2) Schmitt-trigger input and output. 5-V tolerant input and CMOS output

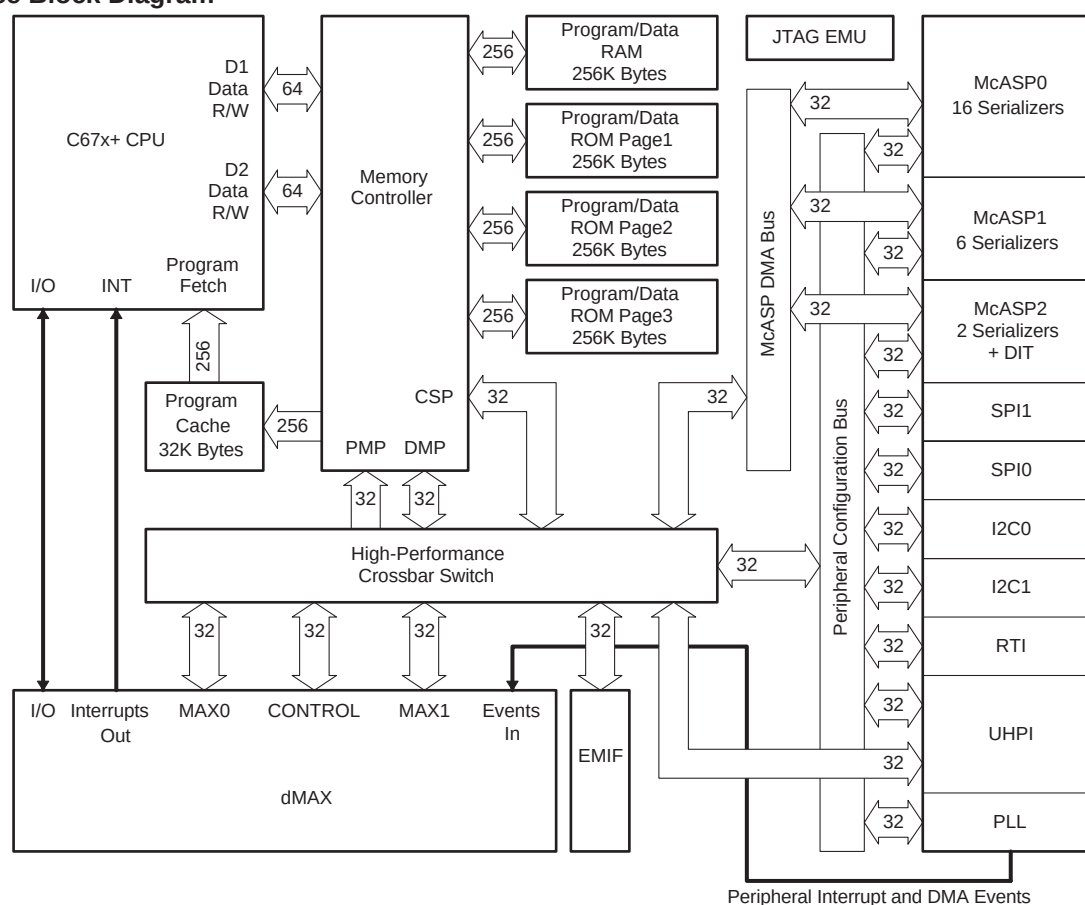
(3) Schmitt-trigger input and output. 5-V tolerant input. In I<sup>2</sup>C mode, this pin becomes an open-drain 3-state output; otherwise, this pin is a CMOS output.

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -15

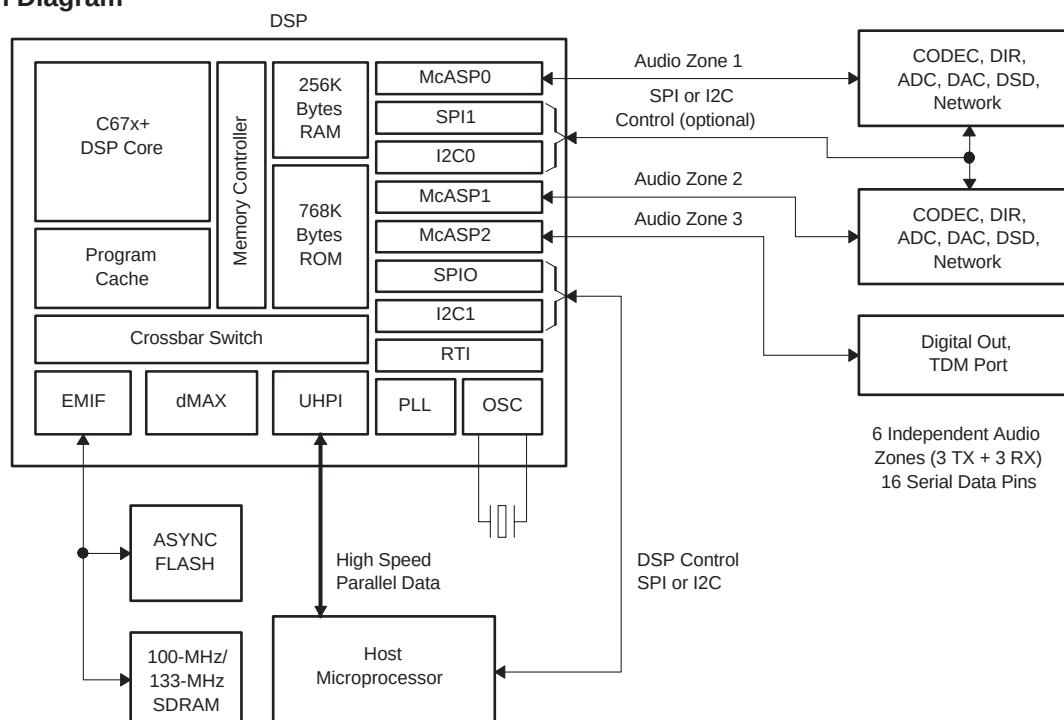
### Q3401, Q3501: D790E001BZDH300 (Audio DSP)

### BLOCK DIAGRAM

## Device Block Diagram



## System Diagram



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -16

## Q3401, Q3501: D790E001BZDH300 (Audio DSP)

## PIN CONFIGURATION(1/2)

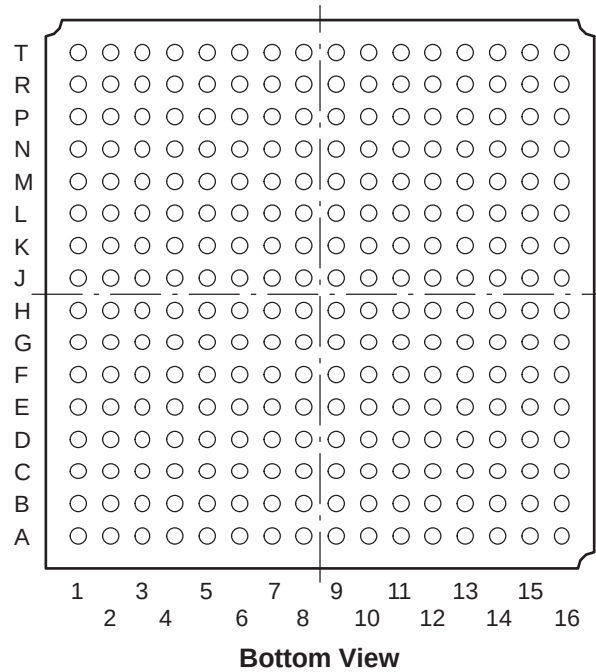
## PIN MAP

|   | 1                          | 2                                | 3                           | 4                                 | 5                                | 6                                | 7                                | 8                             | 9                                 | 10                       | 11                      | 12               | 13                                | 14                     | 15                                         | 16                                         |   |
|---|----------------------------|----------------------------------|-----------------------------|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------|-------------------------|------------------|-----------------------------------|------------------------|--------------------------------------------|--------------------------------------------|---|
| T | V <sub>SS</sub>            | DV <sub>DD</sub>                 | $\overline{\text{EM\_WE}}$  | EM_D[7]                           | EM_D[5]                          | EM_D[3]                          | V <sub>SS</sub>                  | EM_D[0]                       | EM_D[14]                          | V <sub>SS</sub>          | EM_D[11]                | EM_D[9]          | EM $\overline{\text{WE}}$ _DQM[1] | EM_CKE                 | DV <sub>DD</sub>                           | V <sub>SS</sub>                            | T |
| R | DV <sub>DD</sub>           | EM_D[23]<br>/UHPI_HA[7]          | $\overline{\text{EM\_CAS}}$ | EM $\overline{\text{WE}}$ _DQM[0] | EM_D[6]                          | EM_D[4]                          | EM_D[2]                          | EM_D[1]                       | EM_D[15]                          | EM_D[13]                 | EM_D[12]                | EM_D[10]         | EM_D[8]                           | EM_CLK                 | EM $\overline{\text{WE}}$ _DQM[3]          | DV <sub>DD</sub>                           | R |
| P | TCK                        | UHPI_HD[24]                      | EM_D[21]<br>/UHPI_HA[5]     | EM_D[20]<br>/UHPI_HA[4]           | EM_D[19]<br>/UHPI_HA[3]          | EM_D[17]<br>/UHPI_HA[1]          | EM_D[31]<br>/UHPI_HA[15]         | DV <sub>DD</sub>              | EM_D[28]<br>/UHPI_HA[12]          | EM_D[26]<br>/UHPI_HA[10] | EM_D[24]<br>/UHPI_HA[8] | EM_A[12]         | EM $\overline{\text{WE}}$ _DQM[2] | UHPI_HD[7]             | EM_A[11]                                   | EM_A[9]                                    | P |
| N | $\overline{\text{EMU}}[1]$ | UHPI_HD[25]                      | UHPI_HD[26]                 | EM_D[22]<br>/UHPI_HA[6]           | DV <sub>DD</sub>                 | EM_D[18]<br>/UHPI_HA[2]          | EM_D[16]<br>/UHPI_HA[0]          | EM_D[30]<br>/UHPI_HA[14]      | EM_D[29]<br>/UHPI_HA[13]          | EM_D[27]<br>/UHPI_HA[11] | EM_D[25]<br>/UHPI_HA[9] | DV <sub>DD</sub> | UHPI_HD[5]                        | UHPI_HD[6]             | EM_A[8]                                    | EM_A[7]                                    | N |
| M | $\overline{\text{EMU}}[0]$ | TDO                              | UHPI_HD[27]                 | DV <sub>DD</sub>                  | V <sub>SS</sub>                  | CV <sub>DD</sub>                 | CV <sub>DD</sub>                 | CV <sub>DD</sub>              | CV <sub>DD</sub>                  | CV <sub>DD</sub>         | CV <sub>DD</sub>        | V <sub>SS</sub>  | DV <sub>DD</sub>                  | UHPI_HD[2]             | EM_A[6]                                    | EM_A[5]                                    | M |
| L | TDI                        | UHPI_HD[30]                      | UHPI_HD[28]                 | UHPI_HD[29]                       | V <sub>SS</sub>                  | V <sub>SS</sub>                  | V <sub>SS</sub>                  | V <sub>SS</sub>               | V <sub>SS</sub>                   | V <sub>SS</sub>          | V <sub>SS</sub>         | V <sub>SS</sub>  | UHPI_HD[3]                        | UHPI_HD[4]             | EM_A[4]                                    | EM_A[3]                                    | L |
| K | V <sub>SS</sub>            | PLLHV                            | TMS                         | $\overline{\text{TRST}}$          | CV <sub>DD</sub>                 | V <sub>SS</sub>                  | V <sub>SS</sub>                  | V <sub>SS</sub>               | V <sub>SS</sub>                   | V <sub>SS</sub>          | V <sub>SS</sub>         | CV <sub>DD</sub> | UHPI_HD[0]                        | UHPI_HD[1]             | EM_A[2]                                    | V <sub>SS</sub>                            | K |
| J | OSCV <sub>SS</sub>         | OSCIN                            | OSCCOUT                     | OSCV <sub>DD</sub>                | CV <sub>DD</sub>                 | V <sub>SS</sub>                  | V <sub>SS</sub>                  | V <sub>SS</sub>               | V <sub>SS</sub>                   | V <sub>SS</sub>          | V <sub>SS</sub>         | CV <sub>DD</sub> | UHPI_HD[15]                       | DV <sub>DD</sub>       | EM_A[1]                                    | EM_A[0]                                    | J |
| H | UHPI_HD[16]<br>/HHWIL      | CLKIN                            | V <sub>SS</sub>             | UHPI_HD[31]                       | CV <sub>DD</sub>                 | V <sub>SS</sub>                  | V <sub>SS</sub>                  | V <sub>SS</sub>               | V <sub>SS</sub>                   | V <sub>SS</sub>          | V <sub>SS</sub>         | CV <sub>DD</sub> | UHPI_HD[14]                       | UHPI_HD[13]            | EM_A[10]                                   | EM_BA[1]                                   | H |
| G | V <sub>SS</sub>            | $\overline{\text{RESET}}$        | UHPI_HD[17]                 | UHPI_HD[18]                       | CV <sub>DD</sub>                 | V <sub>SS</sub>                  | V <sub>SS</sub>                  | V <sub>SS</sub>               | V <sub>SS</sub>                   | V <sub>SS</sub>          | V <sub>SS</sub>         | CV <sub>DD</sub> | UHPI_HD[12]                       | UHPI_HD[11]            | EM_BA[0]                                   | V <sub>SS</sub>                            | G |
| F | AFSR1                      | AFSX1                            | UHPI_HD[19]                 | UHPI_HD[20]                       | V <sub>SS</sub>                  | V <sub>SS</sub>                  | V <sub>SS</sub>                  | V <sub>SS</sub>               | V <sub>SS</sub>                   | V <sub>SS</sub>          | V <sub>SS</sub>         | V <sub>SS</sub>  | UHPI_HD[10]                       | UHPI_HD[9]             | $\overline{\text{EM\_CS}}[0]$              | $\overline{\text{EM\_RAS}}$                | F |
| E | ACLKR1                     | ACLKX1                           | UHPI_HD[21]                 | DV <sub>DD</sub>                  | V <sub>SS</sub>                  | CV <sub>DD</sub>                 | CV <sub>DD</sub>                 | CV <sub>DD</sub>              | CV <sub>DD</sub>                  | CV <sub>DD</sub>         | CV <sub>DD</sub>        | V <sub>SS</sub>  | DV <sub>DD</sub>                  | UHPI_HD[8]             | $\overline{\text{EM\_CS}}[2]$              | EM $\overline{\text{RW}}$                  | E |
| D | AHCLKX1                    | AMUTE1                           | UHPI_HD[22]                 | DV <sub>DD</sub>                  | DV <sub>DD</sub>                 | $\overline{\text{UHPI\_HRDY}}$   | $\overline{\text{UHPI\_HDS}}[1]$ | UHPI_HRW                      | UHPI_HCNTL[0]                     | AMUTE2/<br>HINT          | ACLKX2                  | DV <sub>DD</sub> | DV <sub>DD</sub>                  | EM_WAIT                | $\overline{\text{EM\_OE}}$                 | $\overline{\text{SPIO\_ENA}}$<br>/I2C1_SDA | D |
| C | AMUTE0                     | AHCLKX0<br>/AHCLKX2              | UHPI_HD[23]                 | $\overline{\text{UHPI\_HBE}}[2]$  | $\overline{\text{UHPI\_HBE}}[1]$ | $\overline{\text{UHPI\_HBE}}[0]$ | $\overline{\text{UHPI\_HDS}}[2]$ | $\overline{\text{UHPI\_HCS}}$ | $\overline{\text{UHPI\_HAS}}$     | UHPI_HCNTL[1]            | AFSX2                   | AFSR2            | ACLKR2                            | AHCLKR2                | $\overline{\text{SPIO\_SCS}}$<br>/I2C1_SCL | $\overline{\text{SPIO\_CLK}}$<br>/I2C0_SCL | C |
| B | DV <sub>DD</sub>           | $\overline{\text{UHPI\_HBE}}[3]$ | AHCLKR0<br>/AHCLKR1         | AFSR0                             | AXR0[15]<br>/AXR2[0]             | AXR0[13]<br>/AXR1[0]             | AXR0[12]<br>/AXR1[1]             | AXR0[10]<br>/AXR1[3]          | AXR0[8]<br>/AXR1[5]<br>/SPI1_SOMI | AXR0[7]<br>/SPI1_CLK     | AXR0[5]<br>/SPI1_SCS    | AXR0[3]          | AXR0[1]                           | SPIO_SOMI<br>/I2C0_SDA | SPIO_SIMO                                  | DV <sub>DD</sub>                           | B |
| A | V <sub>SS</sub>            | DV <sub>DD</sub>                 | AFSX0                       | ACLKX0                            | ACLKR0                           | AXR0[14]<br>/AXR2[1]             | V <sub>SS</sub>                  | AXR0[11]<br>/AXR1[2]          | AXR0[9]<br>/AXR1[4]<br>/SPI1_SIMO | V <sub>SS</sub>          | AXR0[6]<br>/SPI1_ENA    | AXR0[4]          | AXR0[2]                           | AXR0[0]                | DV <sub>DD</sub>                           | V <sub>SS</sub>                            | A |
|   | 1                          | 2                                | 3                           | 4                                 | 5                                | 6                                | 7                                | 8                             | 9                                 | 10                       | 11                      | 12               | 13                                | 14                     | 15                                         | 16                                         |   |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -17

### Q3401, Q3501: D790E001BZDH300 (Audio DSP)

#### PIN CONFIGURATION(2/2)



#### TERMINAL DESCRIPTION(1/5)

| SIGNAL NAME                     | BALL NO.                                                                                                                                                                                                                                                 | TYPE <sup>(1)</sup> | PULL <sup>(2)</sup> | GPIO <sup>(3)</sup> | DESCRIPTION                                                  |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|--------------------------------------------------------------|
| <b>Clocks</b>                   |                                                                                                                                                                                                                                                          |                     |                     |                     |                                                              |
| OSCIN                           | J2                                                                                                                                                                                                                                                       | I                   | -                   | N                   | 1.2-V Oscillator Input                                       |
| OSCOUT                          | J3                                                                                                                                                                                                                                                       | O                   | -                   | N                   | 1.2-V Oscillator Output                                      |
| OSCV <sub>DD</sub>              | J4                                                                                                                                                                                                                                                       | PWR                 | -                   | N                   | Oscillator 1.2-V V <sub>DD</sub> tap point (for filter only) |
| OSCV <sub>SS</sub>              | J1                                                                                                                                                                                                                                                       | PWR                 | -                   | N                   | Oscillator V <sub>SS</sub> tap point (for filter only)       |
| CLKIN                           | H2                                                                                                                                                                                                                                                       | I                   | -                   | N                   | Alternate clock input (3.3-V LVCMOS Input)                   |
| PLLHV                           | K2                                                                                                                                                                                                                                                       | PWR                 | -                   | N                   | PLL 3.3-V Supply Input (requires external filter)            |
| <b>Device Reset</b>             |                                                                                                                                                                                                                                                          |                     |                     |                     |                                                              |
| RESET                           | G2                                                                                                                                                                                                                                                       | I                   | -                   | N                   | Device reset pin                                             |
| <b>Emulation/JTAG Port</b>      |                                                                                                                                                                                                                                                          |                     |                     |                     |                                                              |
| TCK                             | P1                                                                                                                                                                                                                                                       | I                   | IPU                 | N                   | Test Clock                                                   |
| TMS                             | K3                                                                                                                                                                                                                                                       | I                   | IPU                 | N                   | Test Mode Select                                             |
| TDI                             | L1                                                                                                                                                                                                                                                       | I                   | IPU                 | N                   | Test Data In                                                 |
| TDO                             | M2                                                                                                                                                                                                                                                       | OZ                  | IPU                 | N                   | Test Data Out                                                |
| TRST                            | K4                                                                                                                                                                                                                                                       | I                   | IPD                 | N                   | Test Reset                                                   |
| EMU[0]                          | M1                                                                                                                                                                                                                                                       | IO                  | IPU                 | N                   | Emulation Pin 0                                              |
| EMU[1]                          | N1                                                                                                                                                                                                                                                       | IO                  | IPU                 | N                   | Emulation Pin 1                                              |
| <b>Power Pins</b>               |                                                                                                                                                                                                                                                          |                     |                     |                     |                                                              |
| Core Supply (CV <sub>DD</sub> ) | E6, E7, E8, E9, E10, E11, G5, G12, H5, H12, J5, J12, K5, K12, M6, M7, M8, M9, M10, M11                                                                                                                                                                   |                     |                     |                     |                                                              |
| IO Supply (DV <sub>DD</sub> )   | A2, A15, B1, B16, D4, D5, D12, D13, E4, E13, J14, M4, M13, N5, N12, P8, R1, R16, T2, T15                                                                                                                                                                 |                     |                     |                     |                                                              |
| Ground (V <sub>SS</sub> )       | A1, A7, A10, A16, E5, E12, F5, F6, F7, F8, F9, F10, F11, F12, G1, G6, G7, G8, G9, G10, G11, G16, H3, H6, H7, H8, H9, H10, H11, J6, J7, J8, J9, J10, J11, K1, K6, K7, K8, K9, K10, K11, K16, L5, L6, L7, L8, L9, L10, L11, L12, M5, M12, T1, T7, T10, T16 |                     |                     |                     |                                                              |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -18

### Q3401, Q3501: D790E001BZDH300 (Audio DSP)

#### TERMINAL DESCRIPTION(2/5)

| SIGNAL NAME                                                 | BALL NO. | TYPE <sup>(1)</sup> | PULL <sup>(2)</sup> | GPIO <sup>(3)</sup> | DESCRIPTION                                                         |
|-------------------------------------------------------------|----------|---------------------|---------------------|---------------------|---------------------------------------------------------------------|
| <b>External Memory Interface (EMIF) Address and Control</b> |          |                     |                     |                     |                                                                     |
| EM_A[0]                                                     | J16      | O                   | -                   | N                   | EMIF Address Bus                                                    |
| EM_A[1]                                                     | J15      | O                   | -                   | N                   |                                                                     |
| EM_A[2]                                                     | K15      | O                   | -                   | N                   |                                                                     |
| EM_A[3]                                                     | L16      | O                   | -                   | N                   |                                                                     |
| EM_A[4]                                                     | L15      | O                   | -                   | N                   |                                                                     |
| EM_A[5]                                                     | M16      | O                   | -                   | N                   |                                                                     |
| EM_A[6]                                                     | M15      | O                   | -                   | N                   |                                                                     |
| EM_A[7]                                                     | N16      | O                   | -                   | N                   |                                                                     |
| EM_A[8]                                                     | N15      | O                   | -                   | N                   |                                                                     |
| EM_A[9]                                                     | P16      | O                   | -                   | N                   |                                                                     |
| EM_A[10]                                                    | H15      | O                   | -                   | N                   |                                                                     |
| EM_A[11]                                                    | P15      | O                   | -                   | N                   |                                                                     |
| EM_A[12]                                                    | P12      | O                   | IPD                 | N                   |                                                                     |
| EM_BA[0]                                                    | G15      | O                   | -                   | N                   | SDRAM Bank Address and Asynchronous Memory Low-Order Address        |
| EM_BA[1]                                                    | H16      | O                   | -                   | N                   |                                                                     |
| EM_CS[0]                                                    | F15      | O                   | -                   | N                   | SDRAM Chip Select                                                   |
| EM_CS[2]                                                    | E15      | O                   | -                   | N                   | Asynchronous Memory Chip Select                                     |
| EM_CAS                                                      | R3       | O                   | -                   | N                   | SDRAM Column Address Strobe                                         |
| EM_RAS                                                      | F16      | O                   | -                   | N                   | SDRAM Row Address Strobe                                            |
| EM_WE                                                       | T3       | O                   | -                   | N                   | SDRAM Write Enable                                                  |
| EM_CKE                                                      | T14      | O                   | -                   | N                   | SDRAM Clock Enable                                                  |
| EM_CLK                                                      | R14      | O                   | -                   | N                   | SDRAM Clock                                                         |
| EM_WE_DQM[0]                                                | R4       | O                   | -                   | N                   | Write Enable or Byte Enable for EM_D[7:0]                           |
| EM_WE_DQM[1]                                                | T13      | O                   | -                   | N                   | Write Enable or Byte Enable for EM_D[15:8]                          |
| EM_WE_DQM[2]                                                | P13      | O                   | IPU                 | N                   | Write Enable or Byte Enable for EM_D[23:16]                         |
| EM_WE_DQM[3]                                                | R15      | O                   | IPU                 | N                   | Write Enable or Byte Enable for EM_D[31:24]                         |
| EM_OE                                                       | D15      | O                   | -                   | N                   | SDRAM Output Enable                                                 |
| EM_RW                                                       | E16      | O                   | -                   | N                   | Asynchronous Memory Read/not Write                                  |
| EM_WAIT                                                     | D14      | I                   | IPU                 | N                   | Asynchronous Wait Input (Programmable Polarity) or Interrupt (NAND) |

- (1) TYPE column refers to pin direction in functional mode. If a pin has more than one function with different directions, the functions are separated with a slash (/).
- (2) PULL column:  
IPD = Internal Pulldown resistor  
IPU = Internal Pullup resistor
- (3) If the GPIO column is 'Y', then in GPIO mode, the pin is configurable as an IO unless otherwise marked.

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -19

### Q3401, Q3501: D790E001BZDH300 (Audio DSP)

#### TERMINAL DESCRIPTION(3/5)

| SIGNAL NAME                                                                                                | BALL NO. | TYPE <sup>(1)</sup> | PULL <sup>(2)</sup> | GPIO <sup>(3)</sup> | DESCRIPTION                                                     |
|------------------------------------------------------------------------------------------------------------|----------|---------------------|---------------------|---------------------|-----------------------------------------------------------------|
| <b>External Memory Interface (EMIF) Data Bus / Universal Host-Port Interface (UHPI) Address Bus Option</b> |          |                     |                     |                     |                                                                 |
| EM_D[0]                                                                                                    | T8       | IO                  | -                   | N                   | EMIF Data Bus [Lower 16 Bits]                                   |
| EM_D[1]                                                                                                    | R8       | IO                  | -                   | N                   |                                                                 |
| EM_D[2]                                                                                                    | R7       | IO                  | -                   | N                   |                                                                 |
| EM_D[3]                                                                                                    | T6       | IO                  | -                   | N                   |                                                                 |
| EM_D[4]                                                                                                    | R6       | IO                  | -                   | N                   |                                                                 |
| EM_D[5]                                                                                                    | T5       | IO                  | -                   | N                   |                                                                 |
| EM_D[6]                                                                                                    | R5       | IO                  | -                   | N                   |                                                                 |
| EM_D[7]                                                                                                    | T4       | IO                  | -                   | N                   |                                                                 |
| EM_D[8]                                                                                                    | R13      | IO                  | -                   | N                   |                                                                 |
| EM_D[9]                                                                                                    | T12      | IO                  | -                   | N                   |                                                                 |
| EM_D[10]                                                                                                   | R12      | IO                  | -                   | N                   |                                                                 |
| EM_D[11]                                                                                                   | T11      | IO                  | -                   | N                   |                                                                 |
| EM_D[12]                                                                                                   | R11      | IO                  | -                   | N                   |                                                                 |
| EM_D[13]                                                                                                   | R10      | IO                  | -                   | N                   |                                                                 |
| EM_D[14]                                                                                                   | T9       | IO                  | -                   | N                   |                                                                 |
| EM_D[15]                                                                                                   | R9       | IO                  | -                   | N                   |                                                                 |
| EM_D[16]/UHPI_HA[0]                                                                                        | N7       | IO/I                | IPD                 | N                   | EMIF Data Bus [Upper 16 Bits (IO)] or<br>UHPI Address Input (I) |
| EM_D[17]/UHPI_HA[1]                                                                                        | P6       | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[18]/UHPI_HA[2]                                                                                        | N6       | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[19]/UHPI_HA[3]                                                                                        | P5       | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[20]/UHPI_HA[4]                                                                                        | P4       | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[21]/UHPI_HA[5]                                                                                        | P3       | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[22]/UHPI_HA[6]                                                                                        | N4       | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[23]/UHPI_HA[7]                                                                                        | R2       | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[24]/UHPI_HA[8]                                                                                        | P11      | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[25]/UHPI_HA[9]                                                                                        | N11      | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[26]/UHPI_HA[10]                                                                                       | P10      | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[27]/UHPI_HA[11]                                                                                       | N10      | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[28]/UHPI_HA[12]                                                                                       | P9       | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[29]/UHPI_HA[13]                                                                                       | N9       | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[30]/UHPI_HA[14]                                                                                       | N8       | IO/I                | IPD                 | N                   |                                                                 |
| EM_D[31]/UHPI_HA[15]                                                                                       | P7       | IO/I                | IPD                 | N                   |                                                                 |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -20

### Q3401, Q3501: D790E001BZDH300 (Audio DSP)

#### TERMINAL DESCRIPTION(4/5)

| SIGNAL NAME                                           | BALL NO. | TYPE <sup>(1)</sup> | PULL <sup>(2)</sup> | GPIO <sup>(3)</sup> | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------|----------|---------------------|---------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Universal Host-Port Interface (UHPI) Data and Control |          |                     |                     |                     |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[0]                                            | K13      | IO                  | IPD                 | Y                   | UHPI Data Bus [Lower 16 Bits]                                                                                                                                                                                                                                                                                                                                            |
| UHPI_HD[1]                                            | K14      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[2]                                            | M14      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[3]                                            | L13      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[4]                                            | L14      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[5]                                            | N13      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[6]                                            | N14      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[7]                                            | P14      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[8]                                            | E14      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[9]                                            | F14      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[10]                                           | F13      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[11]                                           | G14      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[12]                                           | G13      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[13]                                           | H14      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[14]                                           | H13      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[15]                                           | J13      | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[16]/HHWIL                                     | H1       | IO/I                | IPD                 | Y                   | UHPI Data Bus [Upper 16 Bits (IO)] in the following modes:<br>• Fullword Multiplexed Address and Data<br>• Fullword Non-Multiplexed<br><br>UHPI_HHWIL (I) on pin UHPI_HD[16]/HHWIL and GPIO on other pins in the following mode:<br>• Half-word Multiplexed Address and Data<br>In this mode, UHPI_HHWIL indicates whether the high or low half-word is being addressed. |
| UHPI_HD[17]                                           | G3       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[18]                                           | G4       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[19]                                           | F3       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[20]                                           | F4       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[21]                                           | E3       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[22]                                           | D3       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[23]                                           | C3       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[24]                                           | P2       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[25]                                           | N2       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[26]                                           | N3       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[27]                                           | M3       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[28]                                           | L3       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[29]                                           | L4       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[30]                                           | L2       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HD[31]                                           | H4       | IO                  | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| Universal Host-Port Interface (UHPI) Control          |          |                     |                     |                     |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HBE[0]                                           | C6       | I                   | IPD                 | Y                   | UHPI Byte Enable for UHPI_HD[7:0]                                                                                                                                                                                                                                                                                                                                        |
| UHPI_HBE[1]                                           | C5       | I                   | IPD                 | Y                   | UHPI Byte Enable for UHPI_HD[15:8]                                                                                                                                                                                                                                                                                                                                       |
| UHPI_HBE[2]                                           | C4       | I                   | IPD                 | Y                   | UHPI Byte Enable for UHPI_HD[23:16]                                                                                                                                                                                                                                                                                                                                      |
| UHPI_HBE[3]                                           | B2       | I                   | IPD                 | Y                   | UHPI Byte Enable for UHPI_HD[31:24]                                                                                                                                                                                                                                                                                                                                      |
| UHPI_HCNTL[0]                                         | D9       | I                   | IPD                 | Y                   | UHPI Control Inputs Select Access Mode                                                                                                                                                                                                                                                                                                                                   |
| UHPI_HCNTL[1]                                         | C10      | I                   | IPD                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HAS                                              | C9       | I                   | IPD                 | Y                   | UHPI Host Address Strobe for Hosts with Multiplexed Address/Data bus                                                                                                                                                                                                                                                                                                     |
| UHPI_HRW                                              | D8       | I                   | IPD                 | Y                   | UHPI Read/not Write Input                                                                                                                                                                                                                                                                                                                                                |
| UHPI_HDS[1]                                           | D7       | I                   | IPU                 | Y                   | UHPI Select Signals which create the internal HSTROBE active when:                                                                                                                                                                                                                                                                                                       |
| UHPI_HDS[2]                                           | C7       | I                   | IPU                 | Y                   |                                                                                                                                                                                                                                                                                                                                                                          |
| UHPI_HCS                                              | C8       | I                   | IPU                 | Y                   | (UHPI_HCS == '0') & (UHPI_HDS[1] != UHPI_HDS[2])                                                                                                                                                                                                                                                                                                                         |
| UHPI_HRDY                                             | D6       | O                   | IPD                 | Y                   | UHPI Ready Output                                                                                                                                                                                                                                                                                                                                                        |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -21

### Q3401, Q3501: D790E001BZDH300 (Audio DSP)

#### TERMINAL DESCRIPTION(5/5)

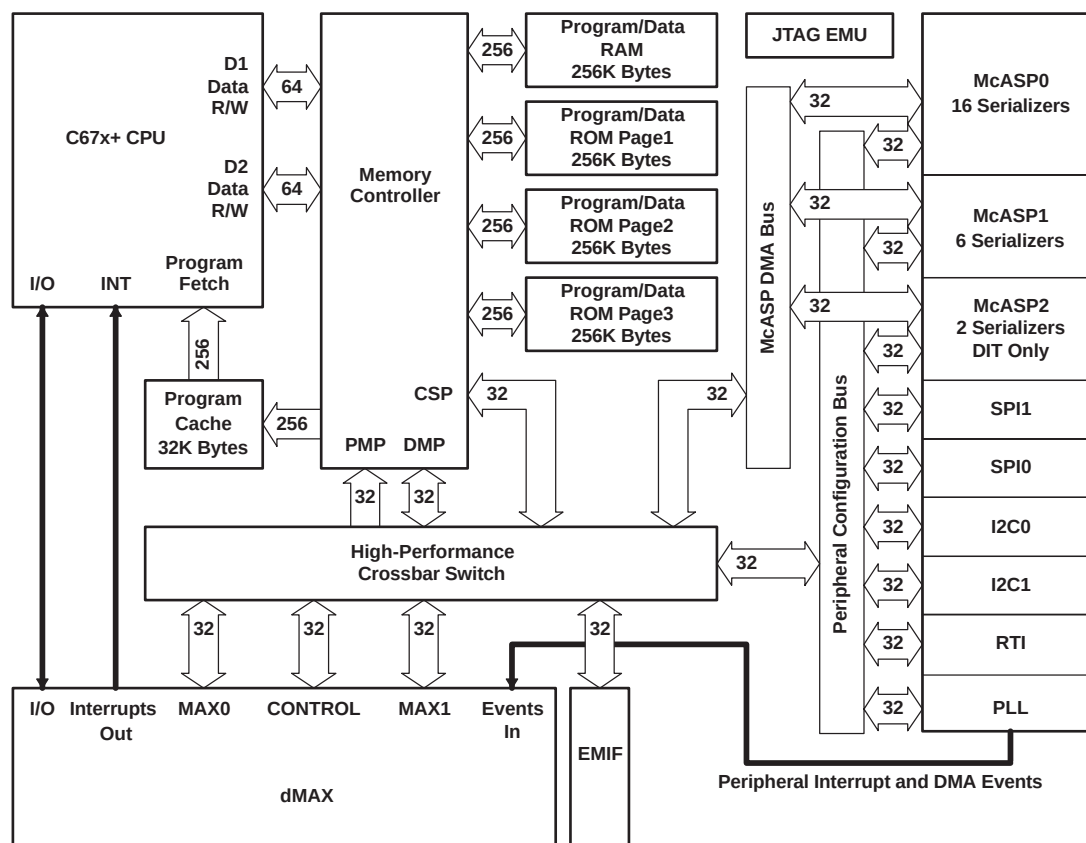
| SIGNAL NAME                                          | BALL NO. | TYPE <sup>(1)</sup> | PULL <sup>(2)</sup> | GPIO <sup>(3)</sup> | DESCRIPTION                                                                                     |
|------------------------------------------------------|----------|---------------------|---------------------|---------------------|-------------------------------------------------------------------------------------------------|
| <b>McASP0, McASP1, McASP2, and SPI1 Serial Ports</b> |          |                     |                     |                     |                                                                                                 |
| AHCLKR0/AHCLKR1                                      | B3       | IO                  | -                   | Y                   | McASP0 and McASP1 Receive Master Clock                                                          |
| ACLKR0                                               | A5       | IO                  | -                   | Y                   | McASP0 Receive Bit Clock                                                                        |
| AFSR0                                                | B4       | IO                  | -                   | Y                   | McASP0 Receive Frame Sync (L/R Clock)                                                           |
| AHCLKX0/AHCLKX2                                      | C2       | IO                  | -                   | Y                   | McASP0 and McASP2 Transmit Master Clock                                                         |
| ACLKX0                                               | A4       | IO                  | -                   | Y                   | McASP0 Transmit Bit Clock                                                                       |
| AFSX0                                                | A3       | IO                  | -                   | Y                   | McASP0 Transmit Frame Sync (L/R Clock)                                                          |
| AMUTE0                                               | C1       | O                   | -                   | Y                   | McASP0 MUTE Output                                                                              |
| AXR0[0]                                              | A14      | IO                  | -                   | Y                   | McASP0 Serial Data 0                                                                            |
| AXR0[1]                                              | B13      | IO                  | -                   | Y                   | McASP0 Serial Data 1                                                                            |
| AXR0[2]                                              | A13      | IO                  | -                   | Y                   | McASP0 Serial Data 2                                                                            |
| AXR0[3]                                              | B12      | IO                  | -                   | Y                   | McASP0 Serial Data 3                                                                            |
| AXR0[4]                                              | A12      | IO                  | -                   | Y                   | McASP0 Serial Data 4                                                                            |
| AXR0[5]/SPI1_SCS                                     | B11      | IO                  | -                   | Y                   | McASP0 Serial Data 5 <b>or</b> SPI1 Slave Chip Select                                           |
| AXR0[6]/SPI1_ENA                                     | A11      | IO                  | -                   | Y                   | McASP0 Serial Data 6 <b>or</b> SPI1 Enable (Ready)                                              |
| AXR0[7]/SPI1_CLK                                     | B10      | IO                  | -                   | Y                   | McASP0 Serial Data 7 <b>or</b> SPI1 Serial Clock                                                |
| AXR0[8]/AXR1[5]/SPI1_SOMI                            | B9       | IO                  | -                   | Y                   | McASP0 Serial Data 8 <b>or</b> McASP1 Serial Data 5 <b>or</b> SPI1 Data Pin Slave Out Master In |
| AXR0[9]/AXR1[4]/SPI1_SIMO                            | A9       | IO                  | -                   | Y                   | McASP0 Serial Data 9 <b>or</b> McASP1 Serial Data 4 <b>or</b> SPI1 Data Pin Slave In Master Out |
| AXR0[10]/AXR1[3]                                     | B8       | IO                  | -                   | Y                   | McASP0 Serial Data 10 <b>or</b> McASP1 Serial Data 3                                            |
| AXR0[11]/AXR1[2]                                     | A8       | IO                  | -                   | Y                   | McASP0 Serial Data 11 <b>or</b> McASP1 Serial Data 2                                            |
| AXR0[12]/AXR1[1]                                     | B7       | IO                  | -                   | Y                   | McASP0 Serial Data 12 <b>or</b> McASP1 Serial Data 1                                            |
| AXR0[13]/AXR1[0]                                     | B6       | IO                  | -                   | Y                   | McASP0 Serial Data 13 <b>or</b> McASP1 Serial Data 0                                            |
| AXR0[14]/AXR2[1]                                     | A6       | IO                  | -                   | Y                   | McASP0 Serial Data 14 <b>or</b> McASP2 Serial Data 1                                            |
| AXR0[15]/AXR2[0]                                     | B5       | IO                  | -                   | Y                   | McASP0 Serial Data 15 <b>or</b> McASP2 Serial Data 0                                            |
| ACLKR1                                               | E1       | IO                  | -                   | Y                   | McASP1 Receive Bit Clock                                                                        |
| AFSR1                                                | F1       | IO                  | -                   | Y                   | McASP1 Receive Frame Sync (L/R Clock)                                                           |
| AHCLKX1                                              | D1       | IO                  | -                   | Y                   | McASP1 Transmit Master Clock                                                                    |
| ACLKX1                                               | E2       | IO                  | -                   | Y                   | McASP1 Transmit Bit Clock                                                                       |
| AFSX1                                                | F2       | IO                  | -                   | Y                   | McASP1 Transmit Frame Sync (L/R Clock)                                                          |
| AMUTE1                                               | D2       | O                   | -                   | Y                   | McASP1 MUTE Output                                                                              |
| AHCLKR2                                              | C14      | IO                  | IPD                 | Y                   | McASP2 Receive Master Clock                                                                     |
| ACLKR2                                               | C13      | IO                  | IPD                 | Y                   | McASP2 Receive Bit Clock                                                                        |
| AFSR2                                                | C12      | IO                  | IPD                 | Y                   | McASP2 Receive Frame Sync (L/R Clock)                                                           |
| ACLKX2                                               | D11      | IO                  | IPD                 | Y                   | McASP2 Transmit Bit Clock                                                                       |
| AFSX2                                                | C11      | IO                  | IPD                 | Y                   | McASP2 Transmit Frame Sync (L/R Clock)                                                          |
| AMUTE2/HINT                                          | D10      | O                   | IPD                 | Y                   | McASP2 MUTE Output <b>or</b> UHPI Host Interrupt                                                |
| <b>SPI0, I2C0, and I2C1 Serial Port Pins</b>         |          |                     |                     |                     |                                                                                                 |
| SPI0_SOMI/I2C0_SDA                                   | B14      | IO                  | -                   | Y                   | SPI0 Data Pin Slave Out Master In <b>or</b> I2C0 Serial Data                                    |
| SPI0_SIMO                                            | B15      | IO                  | -                   | Y                   | SPI0 Data Pin Slave In Master Out                                                               |
| SPI0_CLK/I2C0_SCL                                    | C16      | IO                  | -                   | Y                   | SPI0 Serial Clock <b>or</b> I2C0 Serial Clock                                                   |
| SPI0_SCS/I2C1_SCL                                    | C15      | IO                  | -                   | Y                   | SPI0 Slave Chip Select <b>or</b> I2C1 Serial Clock                                              |
| SPI0_ENA/I2C1_SDA                                    | D16      | IO                  | -                   | Y                   | SPI0 Enable (Ready) <b>or</b> I2C1 Serial Data                                                  |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -22

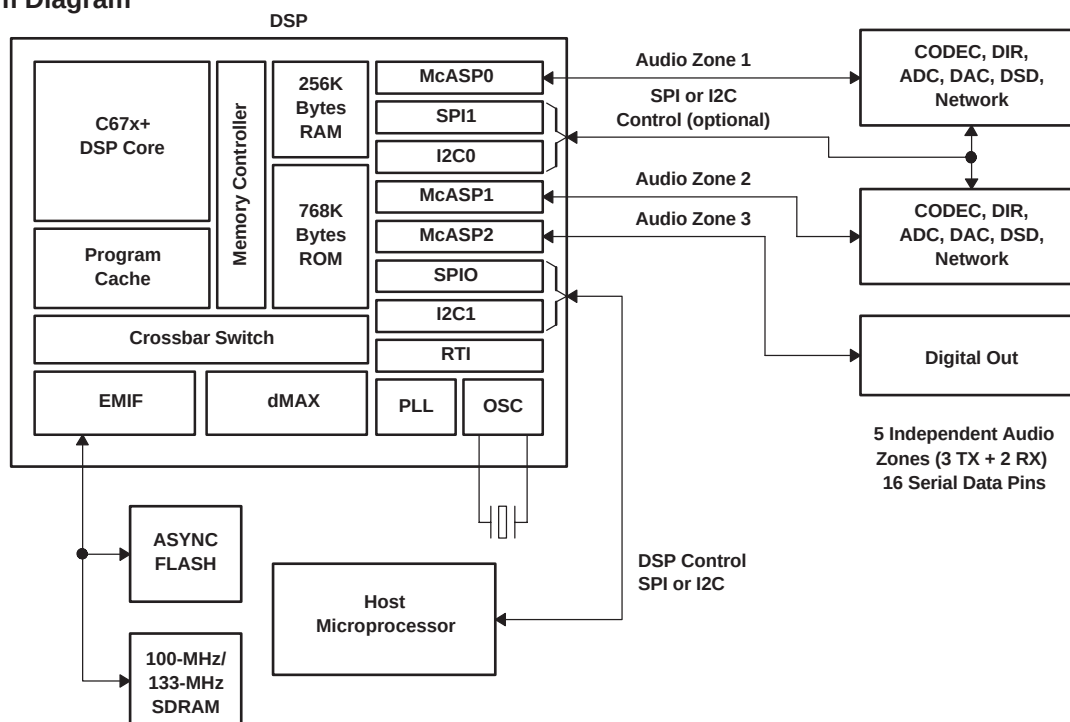
Q3501: D788E001BRFP266/D708E001BRFP266 (Audio DSP)

## BLOCK DIAGRAM

Device Block Diagram



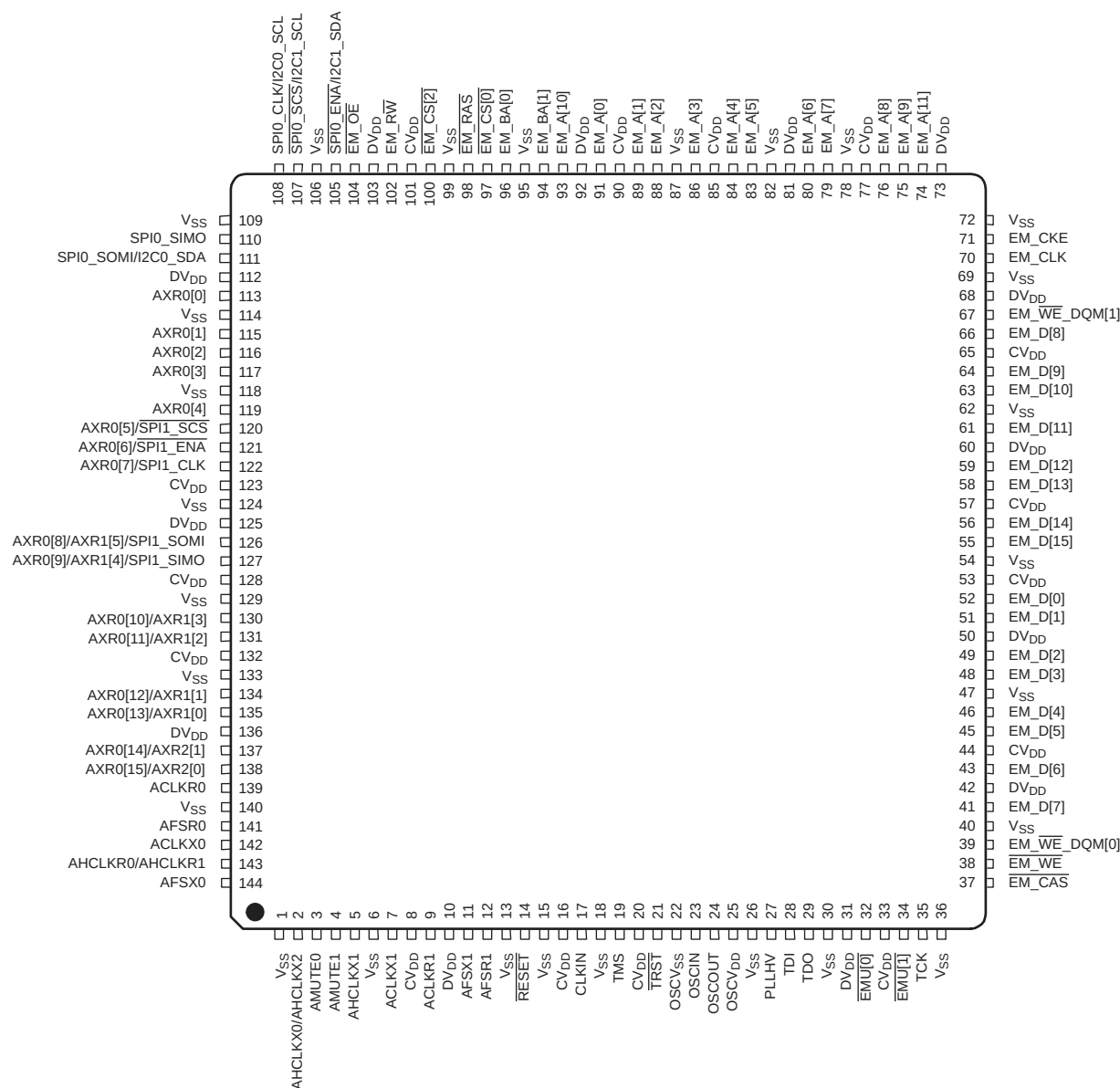
System Diagram



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -23

## Q3501: D788E001BRFP266/D708E001BRFP266 (Audio DSP)

## PIN CONFIGURATION



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -24

## Q3501: D788E001BRFP266/D708E001BRFP266 (Audio DSP)

## TERMINAL DESCRIPTION(1/3)

| SIGNAL NAME                                                 | PIN NO. | TYPE <sup>(1)</sup> | PULL <sup>(2)</sup> | GPIO <sup>(3)</sup> | DESCRIPTION                                                  |
|-------------------------------------------------------------|---------|---------------------|---------------------|---------------------|--------------------------------------------------------------|
| <b>External Memory Interface (EMIF) Address and Control</b> |         |                     |                     |                     |                                                              |
| EM_A[0]                                                     | 91      | O                   | -                   | N                   | EMIF Address Bus                                             |
| EM_A[1]                                                     | 89      | O                   | -                   | N                   |                                                              |
| EM_A[2]                                                     | 88      | O                   | -                   | N                   |                                                              |
| EM_A[3]                                                     | 86      | O                   | -                   | N                   |                                                              |
| EM_A[4]                                                     | 84      | O                   | -                   | N                   |                                                              |
| EM_A[5]                                                     | 83      | O                   | -                   | N                   |                                                              |
| EM_A[6]                                                     | 80      | O                   | -                   | N                   |                                                              |
| EM_A[7]                                                     | 79      | O                   | -                   | N                   |                                                              |
| EM_A[8]                                                     | 76      | O                   | -                   | N                   |                                                              |
| EM_A[9]                                                     | 75      | O                   | -                   | N                   |                                                              |
| EM_A[10]                                                    | 93      | O                   | -                   | N                   |                                                              |
| EM_A[11]                                                    | 74      | O                   | -                   | N                   |                                                              |
| EM_BA[0]                                                    | 96      | O                   | -                   | N                   | SDRAM Bank Address and Asynchronous Memory Low-Order Address |
| EM_BA[1]                                                    | 94      | O                   | -                   | N                   |                                                              |
| EM_CS[0]                                                    | 97      | O                   | -                   | N                   | SDRAM Chip Select                                            |
| EM_CS[2]                                                    | 100     | O                   | -                   | N                   | Asynchronous Memory Chip Select                              |
| EM_CAS                                                      | 37      | O                   | -                   | N                   | SDRAM Column Address Strobe                                  |
| EM_RAS                                                      | 98      | O                   | -                   | N                   | SDRAM Row Address Strobe                                     |
| EM_WE                                                       | 38      | O                   | -                   | N                   | SDRAM Write Enable                                           |
| EM_CKE                                                      | 71      | O                   | -                   | N                   | SDRAM Clock Enable                                           |
| EM_CLK                                                      | 70      | O                   | -                   | N                   | SDRAM Clock                                                  |
| EM_WE_DQM[0]                                                | 39      | O                   | -                   | N                   | Write Enable or Byte Enable for EM_D[7:0]                    |
| EM_WE_DQM[1]                                                | 67      | O                   | -                   | N                   | Write Enable or Byte Enable for EM_D[15:8]                   |
| EM_OE                                                       | 104     | O                   | -                   | N                   | SDRAM Output Enable                                          |
| EM_RW                                                       | 102     | O                   | -                   | N                   | Asynchronous Memory Read/not Write                           |

(1) TYPE column refers to pin direction in functional mode. If a pin has more than one function with different directions, the functions are separated with a slash (/).

(2) PULL column:

IPD = Internal Pulldown resistor

IPU = Internal Pullup resistor

(3) If the GPIO column is 'Y', then in GPIO mode, the pin is configurable as an IO unless otherwise marked.

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -25

## Q3501: D788E001BRFP266/D708E001BRFP266 (Audio DSP)

## TERMINAL DESCRIPTION(2/3)

| SIGNAL NAME                                          | PIN NO. | TYPE <sup>(1)</sup> | PULL <sup>(2)</sup> | GPIO <sup>(3)</sup> | DESCRIPTION                                                                       |
|------------------------------------------------------|---------|---------------------|---------------------|---------------------|-----------------------------------------------------------------------------------|
| <b>McASP0, McASP1, McASP2, and SPI1 Serial Ports</b> |         |                     |                     |                     |                                                                                   |
| AHCLKR0/AHCLKR1                                      | 143     | IO                  | -                   | Y                   | McASP0 and McASP1 Receive Master Clock                                            |
| ACLKR0                                               | 139     | IO                  | -                   | Y                   | McASP0 Receive Bit Clock                                                          |
| AFSR0                                                | 141     | IO                  | -                   | Y                   | McASP0 Receive Frame Sync (L/R Clock)                                             |
| AHCLKX0/AHCLKX2                                      | 2       | IO                  | -                   | Y                   | McASP0 and McASP2 Transmit Master Clock                                           |
| ACLKX0                                               | 142     | IO                  | -                   | Y                   | McASP0 Transmit Bit Clock                                                         |
| AFSX0                                                | 144     | IO                  | -                   | Y                   | McASP0 Transmit Frame Sync (L/R Clock)                                            |
| AMUTE0                                               | 3       | O                   | -                   | Y                   | McASP0 MUTE Output                                                                |
| AXR0[0]                                              | 113     | IO                  | -                   | Y                   | McASP0 Serial Data 0                                                              |
| AXR0[1]                                              | 115     | IO                  | -                   | Y                   | McASP0 Serial Data 1                                                              |
| AXR0[2]                                              | 116     | IO                  | -                   | Y                   | McASP0 Serial Data 2                                                              |
| AXR0[3]                                              | 117     | IO                  | -                   | Y                   | McASP0 Serial Data 3                                                              |
| AXR0[4]                                              | 119     | IO                  | -                   | Y                   | McASP0 Serial Data 4                                                              |
| AXR0[5]/SPI1_SC $\overline{\text{S}}$                | 120     | IO                  | -                   | Y                   | McASP0 Serial Data 5 or SPI1 Slave Chip Select                                    |
| AXR0[6]/SPI1_EN $\overline{\text{A}}$                | 121     | IO                  | -                   | Y                   | McASP0 Serial Data 6 or SPI1 Enable (Ready)                                       |
| AXR0[7]/SPI1_CLK                                     | 122     | IO                  | -                   | Y                   | McASP0 Serial Data 7 or SPI1 Serial Clock                                         |
| AXR0[8]/AXR1[5]/SPI1_SOMI                            | 126     | IO                  | -                   | Y                   | McASP0 Serial Data 8 or McASP1 Serial Data 5 or SPI1 Data Pin Slave Out Master In |
| AXR0[9]/AXR1[4]/SPI1_SIMO                            | 127     | IO                  | -                   | Y                   | McASP0 Serial Data 9 or McASP1 Serial Data 4 or SPI1 Data Pin Slave In Master Out |
| AXR0[10]/AXR1[3]                                     | 130     | IO                  | -                   | Y                   | McASP0 Serial Data 10 or McASP1 Serial Data 3                                     |
| AXR0[11]/AXR1[2]                                     | 131     | IO                  | -                   | Y                   | McASP0 Serial Data 11 or McASP1 Serial Data 2                                     |
| AXR0[12]/AXR1[1]                                     | 134     | IO                  | -                   | Y                   | McASP0 Serial Data 12 or McASP1 Serial Data 1                                     |
| AXR0[13]/AXR1[0]                                     | 135     | IO                  | -                   | Y                   | McASP0 Serial Data 13 or McASP1 Serial Data 0                                     |
| AXR0[14]/AXR2[1]                                     | 137     | IO                  | -                   | Y                   | McASP0 Serial Data 14 or McASP2 Serial Data 1                                     |
| AXR0[15]/AXR2[0]                                     | 138     | IO                  | -                   | Y                   | McASP0 Serial Data 15 or McASP2 Serial Data 0                                     |
| ACLKR1                                               | 9       | IO                  | -                   | Y                   | McASP1 Receive Bit Clock                                                          |
| AFSR1                                                | 12      | IO                  | -                   | Y                   | McASP1 Receive Frame Sync (L/R Clock)                                             |
| AHCLKX1                                              | 5       | IO                  | -                   | Y                   | McASP1 Transmit Master Clock                                                      |
| ACLKX1                                               | 7       | IO                  | -                   | Y                   | McASP1 Transmit Bit Clock                                                         |
| AFSX1                                                | 11      | IO                  | -                   | Y                   | McASP1 Transmit Frame Sync (L/R Clock)                                            |
| AMUTE1                                               | 4       | O                   | -                   | Y                   | McASP1 MUTE Output                                                                |
| <b>SPI0, I2C0, and I2C1 Serial Port Pins</b>         |         |                     |                     |                     |                                                                                   |
| SPI0_SOMI/I2C0_SDA                                   | 111     | IO                  | -                   | Y                   | SPI0 Data Pin Slave Out Master In or I2C0 Serial Data                             |
| SPI0_SIMO                                            | 110     | IO                  | -                   | Y                   | SPI0 Data Pin Slave In Master Out                                                 |
| SPI0_CLK/I2C0_SCL                                    | 108     | IO                  | -                   | Y                   | SPI0 Serial Clock or I2C0 Serial Clock                                            |
| SPI0_SC $\overline{\text{S}}$ /I2C1_SCL              | 107     | IO                  | -                   | Y                   | SPI0 Slave Chip Select or I2C1 Serial Clock                                       |
| SPI0_EN $\overline{\text{A}}$ /I2C1_SDA              | 105     | IO                  | -                   | Y                   | SPI0 Enable (Ready) or I2C1 Serial Data                                           |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -26

## Q3501: D788E001BRFP266/D708E001BRFP266 (Audio DSP)

## TERMINAL DESCRIPTION(3/3)

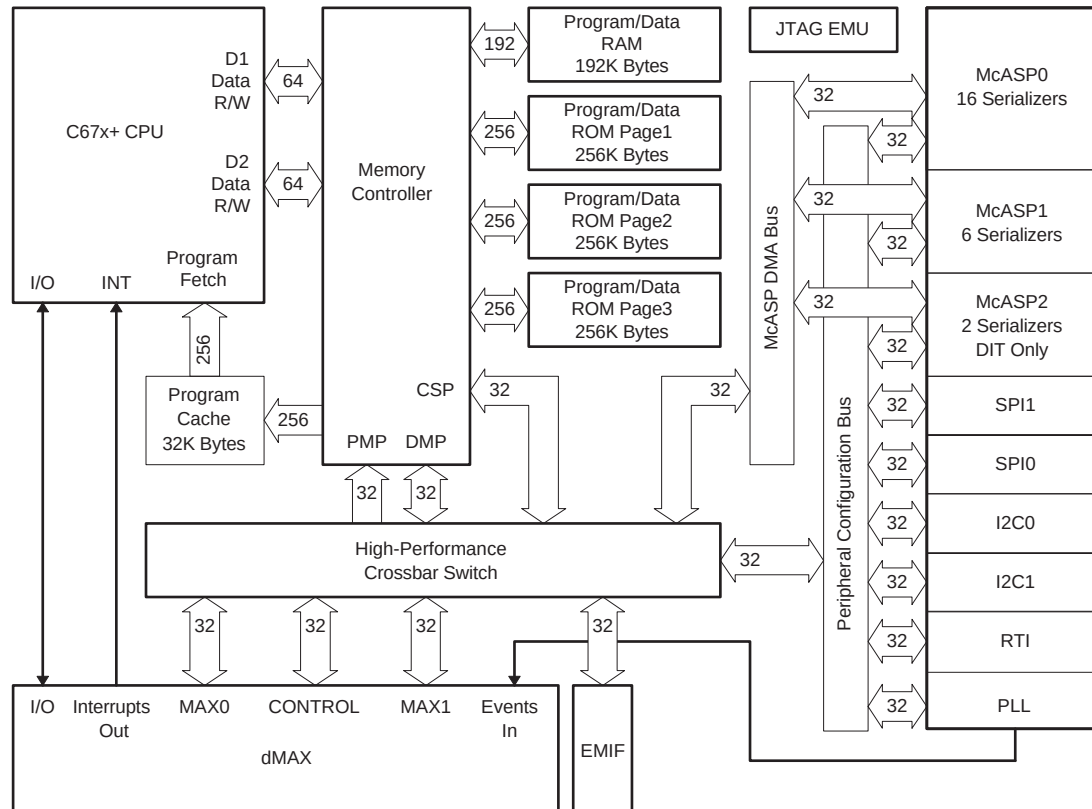
| SIGNAL NAME                                      | PIN NO. | TYPE <sup>(1)</sup> | PULL <sup>(2)</sup> | GPIO <sup>(3)</sup> | DESCRIPTION                   |
|--------------------------------------------------|---------|---------------------|---------------------|---------------------|-------------------------------|
| <b>External Memory Interface (EMIF) Data Bus</b> |         |                     |                     |                     |                               |
| EM_D[0]                                          | 52      | IO                  | -                   | N                   | EMIF Data Bus [Lower 16 Bits] |
| EM_D[1]                                          | 51      | IO                  | -                   | N                   |                               |
| EM_D[2]                                          | 49      | IO                  | -                   | N                   |                               |
| EM_D[3]                                          | 48      | IO                  | -                   | N                   |                               |
| EM_D[4]                                          | 46      | IO                  | -                   | N                   |                               |
| EM_D[5]                                          | 45      | IO                  | -                   | N                   |                               |
| EM_D[6]                                          | 43      | IO                  | -                   | N                   |                               |
| EM_D[7]                                          | 41      | IO                  | -                   | N                   |                               |
| EM_D[8]                                          | 66      | IO                  | -                   | N                   |                               |
| EM_D[9]                                          | 64      | IO                  | -                   | N                   |                               |
| EM_D[10]                                         | 63      | IO                  | -                   | N                   |                               |
| EM_D[11]                                         | 61      | IO                  | -                   | N                   |                               |
| EM_D[12]                                         | 59      | IO                  | -                   | N                   |                               |
| EM_D[13]                                         | 58      | IO                  | -                   | N                   |                               |
| EM_D[14]                                         | 56      | IO                  | -                   | N                   |                               |
| EM_D[15]                                         | 55      | IO                  | -                   | N                   |                               |

| SIGNAL NAME                     | PIN NO.                                                                                                          | TYPE <sup>(1)</sup> | PULL <sup>(2)</sup> | GPIO <sup>(3)</sup> | DESCRIPTION                                                  |
|---------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|--------------------------------------------------------------|
| <b>Clocks</b>                   |                                                                                                                  |                     |                     |                     |                                                              |
| OSCIN                           | 23                                                                                                               | I                   | -                   | N                   | 1.2-V Oscillator Input                                       |
| OSCOUT                          | 24                                                                                                               | O                   | -                   | N                   | 1.2-V Oscillator Output                                      |
| OSCV <sub>DD</sub>              | 25                                                                                                               | PWR                 | -                   | N                   | Oscillator 1.2-V V <sub>DD</sub> tap point (for filter only) |
| OSCV <sub>SS</sub>              | 22                                                                                                               | PWR                 | -                   | N                   | Oscillator V <sub>SS</sub> tap point (for filter only)       |
| CLKIN                           | 17                                                                                                               | I                   | -                   | N                   | Alternate clock input (3.3-V LVCMOS Input)                   |
| PLLHV                           | 27                                                                                                               | PWR                 | -                   | N                   | PLL 3.3-V Supply Input (requires external filter)            |
| <b>Device Reset</b>             |                                                                                                                  |                     |                     |                     |                                                              |
| RESET                           | 14                                                                                                               | I                   | -                   | N                   | Device reset pin                                             |
| <b>Emulation/JTAG Port</b>      |                                                                                                                  |                     |                     |                     |                                                              |
| TCK                             | 35                                                                                                               | I                   | IPU                 | N                   | Test Clock                                                   |
| TMS                             | 19                                                                                                               | I                   | IPU                 | N                   | Test Mode Select                                             |
| TDI                             | 28                                                                                                               | I                   | IPU                 | N                   | Test Data In                                                 |
| TDO                             | 29                                                                                                               | OZ                  | IPU                 | N                   | Test Data Out                                                |
| TRST                            | 21                                                                                                               | I                   | IPD                 | N                   | Test Reset                                                   |
| EMU[0]                          | 32                                                                                                               | IO                  | IPU                 | N                   | Emulation Pin 0                                              |
| EMU[1]                          | 34                                                                                                               | IO                  | IPU                 | N                   | Emulation Pin 1                                              |
| <b>Power Pins</b>               |                                                                                                                  |                     |                     |                     |                                                              |
| Core Supply (CV <sub>DD</sub> ) | 8, 16, 20, 33, 44, 53, 57, 65, 77, 85, 90, 101, 123, 128, 132                                                    |                     |                     |                     |                                                              |
| IO Supply (DV <sub>DD</sub> )   | 10, 31, 42, 50, 60, 68, 73, 81, 92, 103, 112, 125, 136                                                           |                     |                     |                     |                                                              |
| Ground (V <sub>SS</sub> )       | 1, 6, 13, 15, 18, 26, 30, 36, 40, 47, 54, 62, 69, 72, 78, 82, 87, 95, 99, 106, 109, 114, 118, 124, 129, 133, 140 |                     |                     |                     |                                                              |

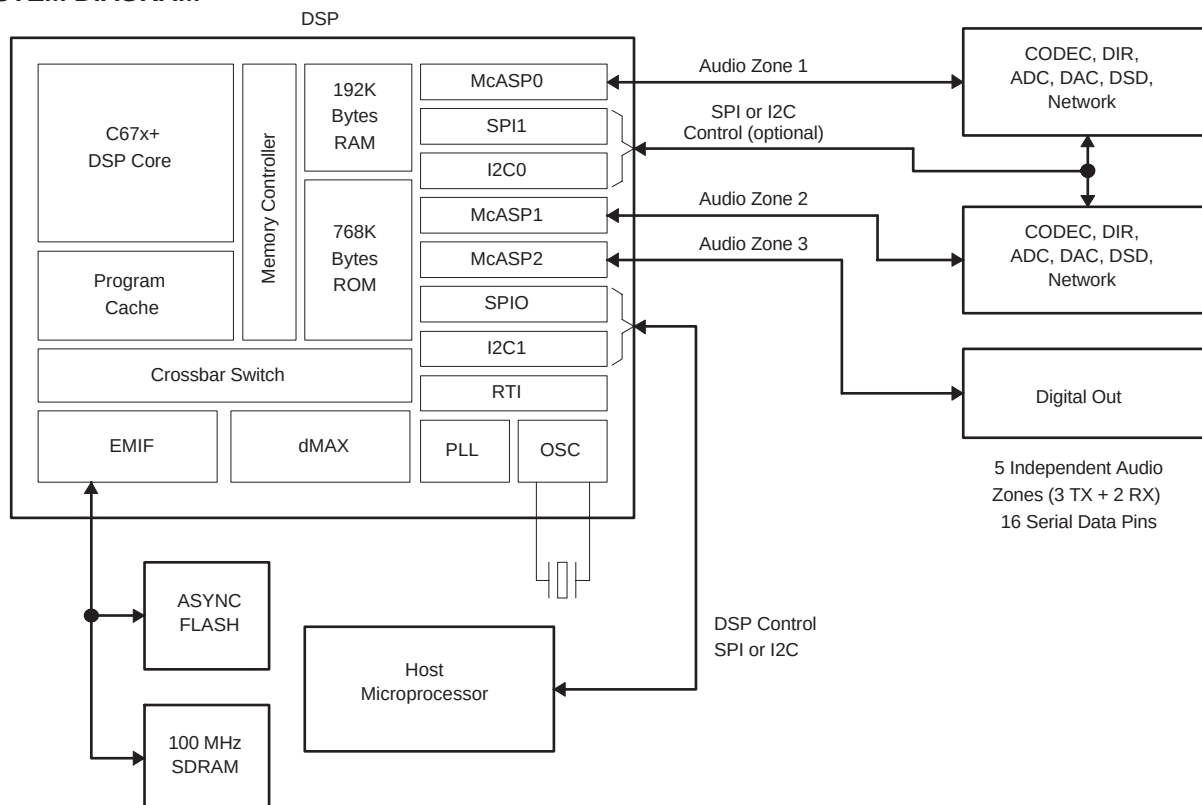
# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -27

## Q3601 : D707E001BRFP250 (32 bit Floating-Point Digital Signal Processor)

### BLOCK DIAGRAM



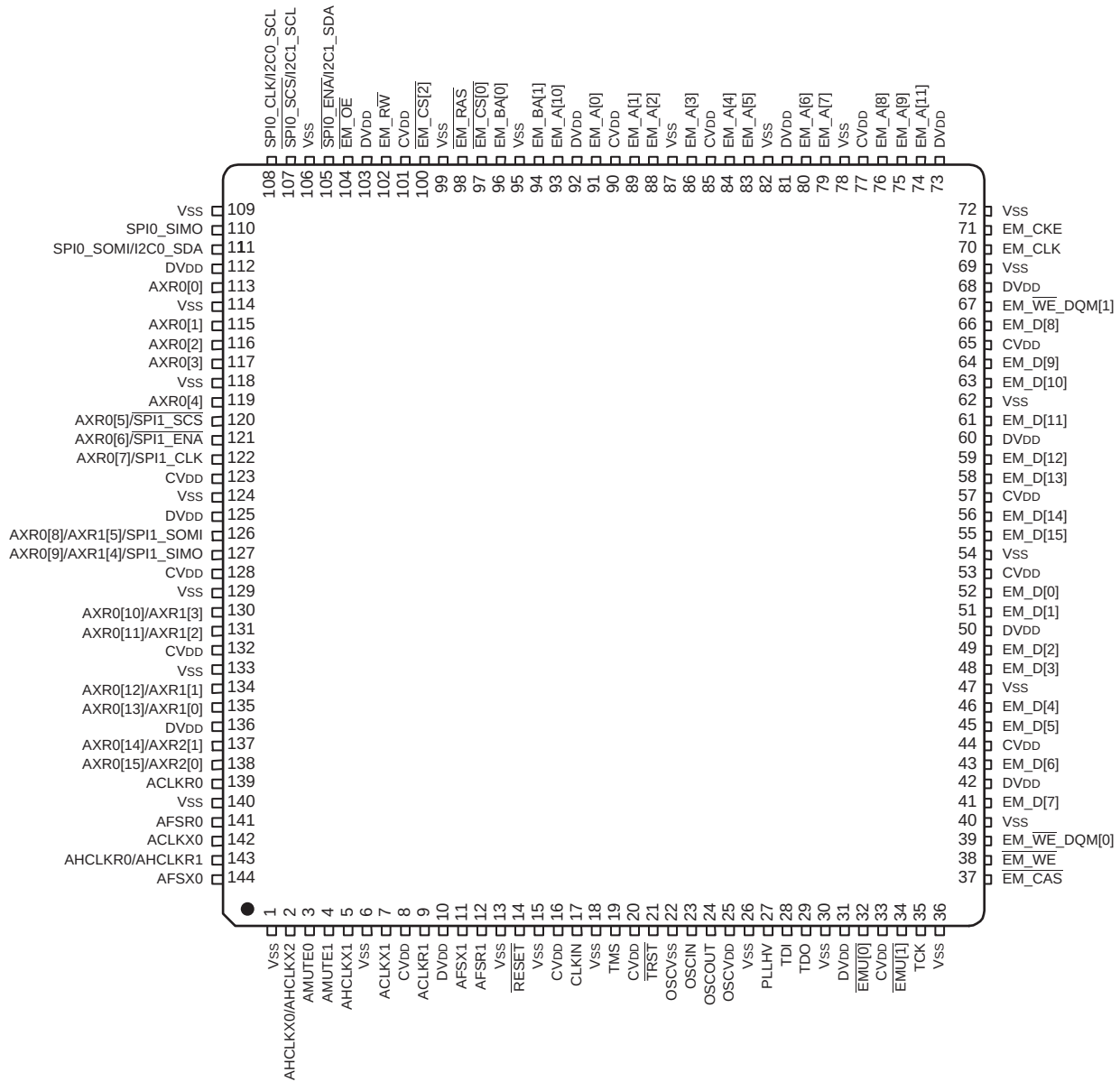
### SYSTEM DIAGRAM



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -28

## Q3601 : D707E001BRFP250 (32 bit Floating-Point Digital Signal Processor)

## PIN CONFIGURATION



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -29

## Q3601 : D707E001BRFP250 (32 bit Floating-Point Digital Signal Processor)

## TERMINAL DESCRIPTION(1/3)

| SIGNAL NAME                                                 | PIN NO. | TYPE | DESCRIPTION                                                  |
|-------------------------------------------------------------|---------|------|--------------------------------------------------------------|
| <b>External Memory Interface (EMIF) Address and Control</b> |         |      |                                                              |
| EM_A[0]                                                     | 91      | O    | EMIF Address Bus                                             |
| EM_A[1]                                                     | 89      | O    |                                                              |
| EM_A[2]                                                     | 88      | O    |                                                              |
| EM_A[3]                                                     | 86      | O    |                                                              |
| EM_A[4]                                                     | 84      | O    |                                                              |
| EM_A[5]                                                     | 83      | O    |                                                              |
| EM_A[6]                                                     | 80      | O    |                                                              |
| EM_A[7]                                                     | 79      | O    |                                                              |
| EM_A[8]                                                     | 76      | O    |                                                              |
| EM_A[9]                                                     | 75      | O    |                                                              |
| EM_A[10]                                                    | 93      | O    |                                                              |
| EM_A[11]                                                    | 74      | O    |                                                              |
| EM_BA[0]                                                    | 96      | O    | SDRAM Bank Address and Asynchronous Memory Low-Order Address |
| EM_BA[1]                                                    | 94      | O    |                                                              |
| EM_CS[0]                                                    | 97      | O    | SDRAM Chip Select                                            |
| EM_CS[2]                                                    | 100     | O    | Asynchronous Memory Chip Select                              |
| EM_CAS                                                      | 37      | O    | SDRAM Column Address Strobe                                  |
| EM_RAS                                                      | 98      | O    | SDRAM Row Address Strobe                                     |
| EM_WE                                                       | 38      | O    | SDRAM Write Enable                                           |
| EM_CKE                                                      | 71      | O    | SDRAM Clock Enable                                           |
| EM_CLK                                                      | 70      | O    | SDRAM Clock                                                  |
| EM_WE_DQM[0]                                                | 39      | O    | Write Enable or Byte Enable for EM_D[7:0]                    |
| EM_WE_DQM[1]                                                | 67      | O    | Write Enable or Byte Enable for EM_D[15:8]                   |
| EM_OE                                                       | 104     | O    | SDRAM Output Enable                                          |
| EM_RW                                                       | 102     | O    | Asynchronous Memory Read/not Write                           |
| <b>External Memory Interface (EMIF) Data Bus</b>            |         |      |                                                              |
| EM_D[0]                                                     | 52      | IO   | EMIF Data Bus [Lower 16 Bits]                                |
| EM_D[1]                                                     | 51      | IO   |                                                              |
| EM_D[2]                                                     | 49      | IO   |                                                              |
| EM_D[3]                                                     | 48      | IO   |                                                              |
| EM_D[4]                                                     | 46      | IO   |                                                              |
| EM_D[5]                                                     | 45      | IO   |                                                              |
| EM_D[6]                                                     | 43      | IO   |                                                              |
| EM_D[7]                                                     | 41      | IO   |                                                              |
| EM_D[8]                                                     | 66      | IO   |                                                              |
| EM_D[9]                                                     | 64      | IO   |                                                              |
| EM_D[10]                                                    | 63      | IO   |                                                              |
| EM_D[11]                                                    | 61      | IO   |                                                              |
| EM_D[12]                                                    | 59      | IO   |                                                              |
| EM_D[13]                                                    | 58      | IO   |                                                              |
| EM_D[14]                                                    | 56      | IO   |                                                              |
| EM_D[15]                                                    | 55      | IO   |                                                              |

# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -30

## Q3601 : D707E001BRFP250 (32 bit Floating-Point Digital Signal Processor)

### TERMINAL DESCRIPTION(2/3)

| SIGNAL NAME                                          | PIN NO. | TYPE | DESCRIPTION                                                                       |
|------------------------------------------------------|---------|------|-----------------------------------------------------------------------------------|
| <b>McASP0, McASP1, McASP2, and SPI1 Serial Ports</b> |         |      |                                                                                   |
| AHCLKR0/AHCLKR1                                      | 143     | IO   | McASP0 and McASP1 Receive Master Clock                                            |
| ACLKR0                                               | 139     | IO   | McASP0 Receive Bit Clock                                                          |
| AFSR0                                                | 141     | IO   | McASP0 Receive Frame Sync (L/R Clock)                                             |
| AHCLKX0/AHCLKX2                                      | 2       | IO   | McASP0 and McASP2 Transmit Master Clock                                           |
| ACLKX0                                               | 142     | IO   | McASP0 Transmit Bit Clock                                                         |
| AFSX0                                                | 144     | IO   | McASP0 Transmit Frame Sync (L/R Clock)                                            |
| AMUTE0                                               | 3       | O    | McASP0 MUTE Output                                                                |
| AXR0[0]                                              | 113     | IO   | McASP0 Serial Data 0                                                              |
| AXR0[1]                                              | 115     | IO   | McASP0 Serial Data 1                                                              |
| AXR0[2]                                              | 116     | IO   | McASP0 Serial Data 2                                                              |
| AXR0[3]                                              | 117     | IO   | McASP0 Serial Data 3                                                              |
| AXR0[4]                                              | 119     | IO   | McASP0 Serial Data 4                                                              |
| AXR0[5]/SPI1_SCS                                     | 120     | IO   | McASP0 Serial Data 5 or SPI1 Slave Chip Select                                    |
| AXR0[6]/SPI1_ENA                                     | 121     | IO   | McASP0 Serial Data 6 or SPI1 Enable (Ready)                                       |
| AXR0[7]/SPI1_CLK                                     | 122     | IO   | McASP0 Serial Data 7 or SPI1 Serial Clock                                         |
| AXR0[8]/AXR1[5]/SPI1_SOMI                            | 126     | IO   | McASP0 Serial Data 8 or McASP1 Serial Data 5 or SPI1 Data Pin Slave Out Master In |
| AXR0[9]/AXR1[4]/SPI1_SIMO                            | 127     | IO   | McASP0 Serial Data 9 or McASP1 Serial Data 4 or SPI1 Data Pin Slave In Master Out |
| AXR0[10]/AXR1[3]                                     | 130     | IO   | McASP0 Serial Data 10 or McASP1 Serial Data 3                                     |
| AXR0[11]/AXR1[2]                                     | 131     | IO   | McASP0 Serial Data 11 or McASP1 Serial Data 2                                     |
| AXR0[12]/AXR1[1]                                     | 134     | IO   | McASP0 Serial Data 12 or McASP1 Serial Data 1                                     |
| AXR0[13]/AXR1[0]                                     | 135     | IO   | McASP0 Serial Data 13 or McASP1 Serial Data 0                                     |
| AXR0[14]/AXR2[1]                                     | 137     | IO   | McASP0 Serial Data 14 or McASP2 Serial Data 1                                     |
| AXR0[15]/AXR2[0]                                     | 138     | IO   | McASP0 Serial Data 15 or McASP2 Serial Data 0                                     |
| ACLKR1                                               | 9       | IO   | McASP1 Receive Bit Clock                                                          |
| AFSR1                                                | 12      | IO   | McASP1 Receive Frame Sync (L/R Clock)                                             |
| AHCLKX1                                              | 5       | IO   | McASP1 Transmit Master Clock                                                      |
| ACLKX1                                               | 7       | IO   | McASP1 Transmit Bit Clock                                                         |
| AFSX1                                                | 11      | IO   | McASP1 Transmit Frame Sync (L/R Clock)                                            |
| AMUTE1                                               | 4       | O    | McASP1 MUTE Output                                                                |
| <b>SPI0, I2C0, and I2C1 Serial Port Pins</b>         |         |      |                                                                                   |
| SPI0_SOMI/I2C0_SDA                                   | 111     | IO   | SPI0 Data Pin Slave Out Master In or I2C0 Serial Data                             |
| SPI0_SIMO                                            | 110     | IO   | SPI0 Data Pin Slave In Master Out                                                 |
| SPI0_CLK/I2C0_SCL                                    | 108     | IO   | SPI0 Serial Clock or I2C0 Serial Clock                                            |
| SPI0_SCS/I2C1_SCL                                    | 107     | IO   | SPI0 Slave Chip Selector I2C1 Serial Clock                                        |
| SPI0_ENA/I2C1_SDA                                    | 105     | IO   | SPI0 Enable (Ready) or I2C1 Serial Data                                           |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -31

### Q3601 : D707E001BRFP250 (32 bit Floating-Point Digital Signal Processor)

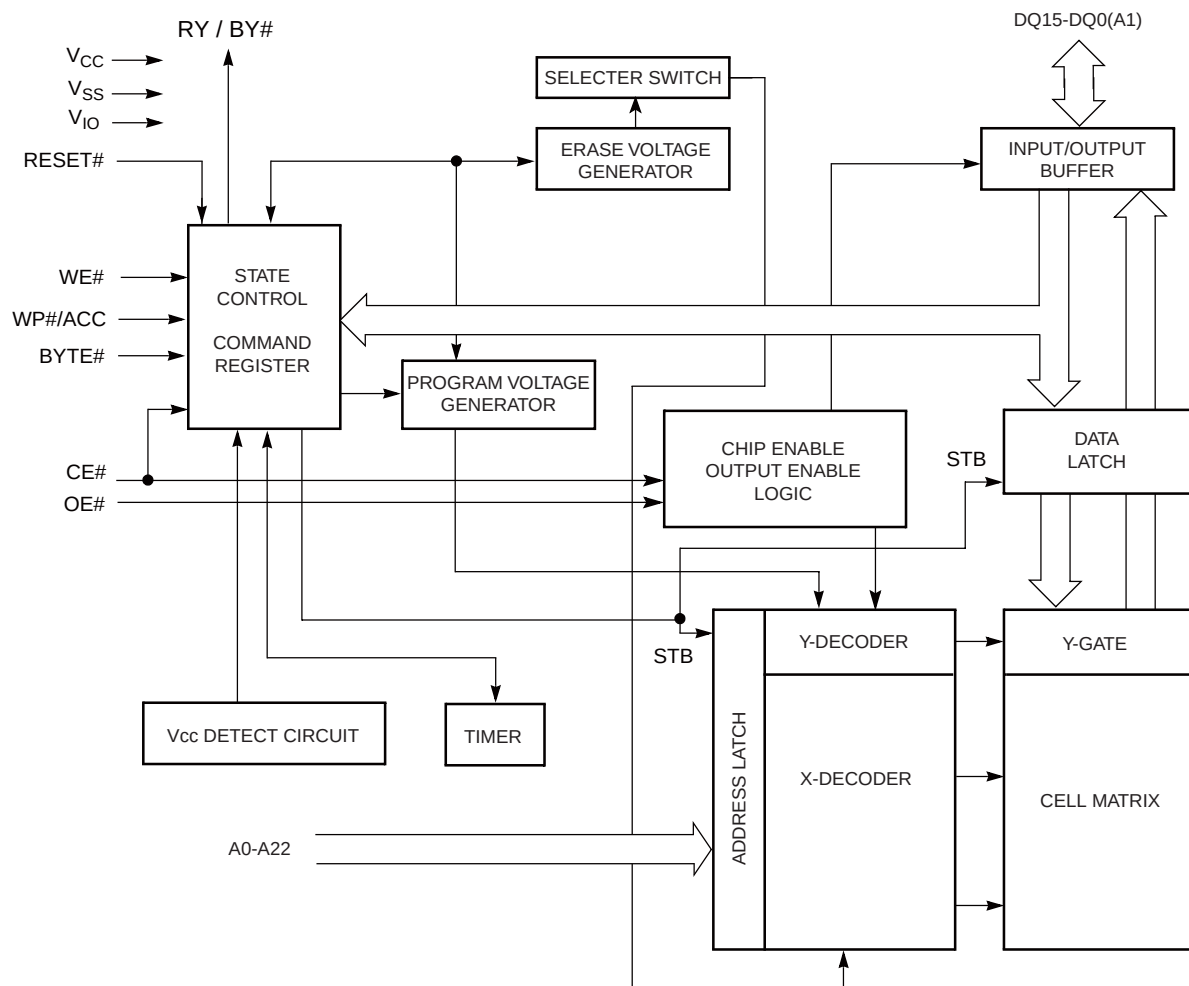
#### TERMINAL DESCRIPTION(3/3)

| SIGNAL NAME                | PIN NO.                                                                                                          | TYPE | DESCRIPTION                                       |
|----------------------------|------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------|
| <b>Clocks</b>              |                                                                                                                  |      |                                                   |
| OSCIN                      | 23                                                                                                               | I    | 1.2-V OscillatorInput                             |
| OSCOU                      | 24                                                                                                               | O    | 1.2-V OscillatorOutput                            |
| OSCVDD                     | 25                                                                                                               | PWR  | Oscillator 1.2-V VDD tap point (for filter only)  |
| OSCVSS                     | 22                                                                                                               | PWR  | Oscillator VSS tap point (for filter only)        |
| CLKIN                      | 17                                                                                                               | I    | Alternate clock input (3.3-V LVCMOS Input)        |
| PLLHV                      | 27                                                                                                               | PWR  | PLL 3.3-V Supply Input (requires external filter) |
| <b>Device Reset</b>        |                                                                                                                  |      |                                                   |
| RESET                      | 14                                                                                                               | I    | Device reset pin                                  |
| <b>Emulation/JTAG Port</b> |                                                                                                                  |      |                                                   |
| TCK                        | 35                                                                                                               | I    | Test Clock                                        |
| TMS                        | 19                                                                                                               | I    | Test Mode Select                                  |
| TDI                        | 28                                                                                                               | I    | Test Data In                                      |
| TDO                        | 29                                                                                                               | OZ   | Test Data Out                                     |
| TRST                       | 21                                                                                                               | I    | Test Reset                                        |
| EMU[0]                     | 32                                                                                                               | IO   | Emulation Pin 0                                   |
| EMU[1]                     | 34                                                                                                               | IO   | Emulation Pin 1                                   |
| <b>Power Pins</b>          |                                                                                                                  |      |                                                   |
| Core Supply (CVDD)         | 8, 16, 20, 33, 44, 53, 57, 65, 77, 85, 90, 101, 123, 128, 132                                                    |      |                                                   |
| IO Supply (DVDD)           | 10, 31, 42, 50, 60, 68, 73, 81, 92, 103, 112, 125, 136                                                           |      |                                                   |
| Ground (VSS)               | 1, 6, 13, 15, 18, 26, 30, 36, 40, 47, 54, 62, 69, 72, 78, 82, 87, 95, 99, 106, 109, 114, 118, 124, 129, 133, 140 |      |                                                   |

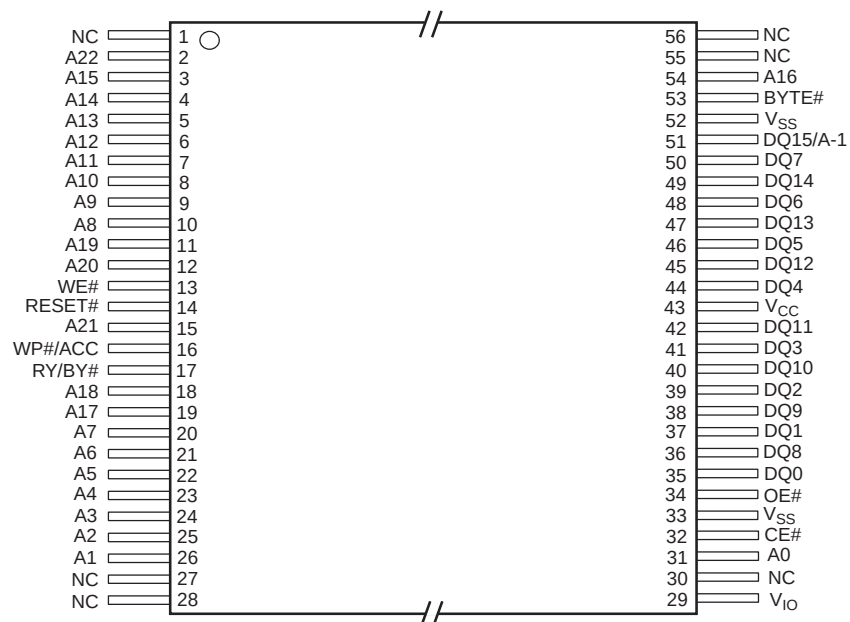
# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -32

## U8031: S29GL128N (128 Mbit Flash Memory)

### BLOCK DIAGRAM



### PIN CONFIGURATION



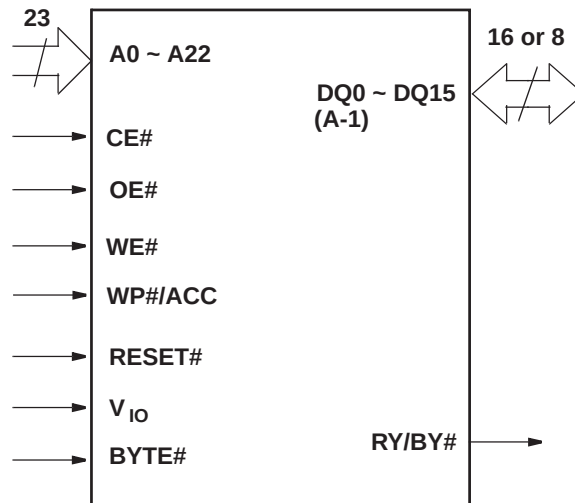
# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -33

## U8031: S29GL128N (128 Mbit Flash Memory)

### TERMINAL DESCRIPTION

| PIN             | DESCRIPTION                                                          |
|-----------------|----------------------------------------------------------------------|
| A0 ~ A22        | Adress Input(23 pins)                                                |
| DQ0 ~ DQ14      | Data Input/Output(15 pins)                                           |
| DQ15 / A-1      | DQ15(Data Input/Output: Word Mode), A-1(LSB Adress Input: Bite Mode) |
| BYTE#           | Selector of 8 bit Mode and 16 bit Mode                               |
| CE#             | Chip Enable                                                          |
| OE#             | Output Enable                                                        |
| WE#             | Write Enable                                                         |
| RESET#          | Hardware Reset Pin                                                   |
| WP# / ACC       | Hardware Write Protect Input/Acceleration Input                      |
| RY / BY#        | Ready / Busy Output                                                  |
| V <sub>CC</sub> | 3.0V Power Supply                                                    |
| V <sub>IO</sub> | Output Buffer Power Supply                                           |
| V <sub>SS</sub> | GND                                                                  |
| NC              | No Connection                                                        |

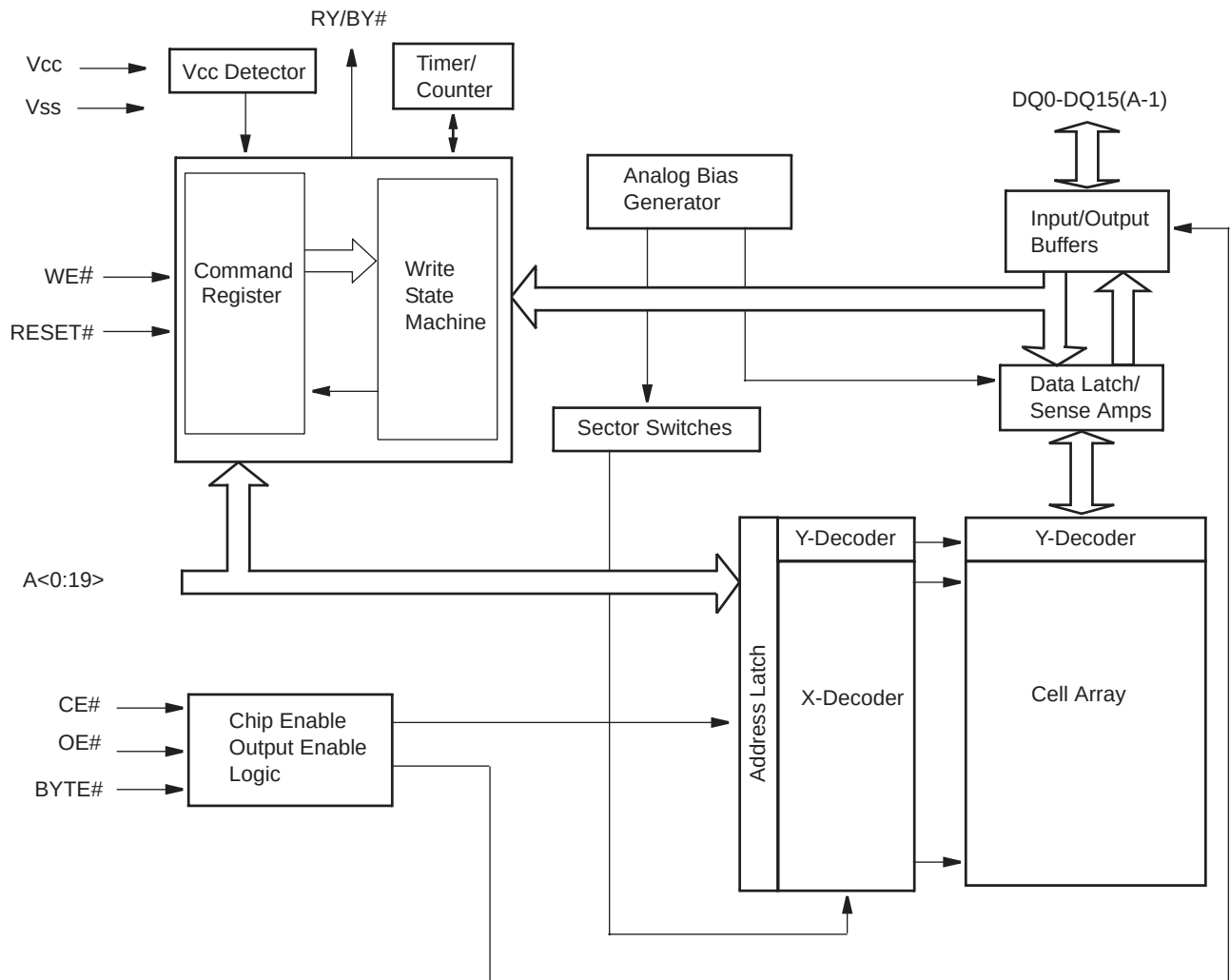
### LOGIC SYMBOL



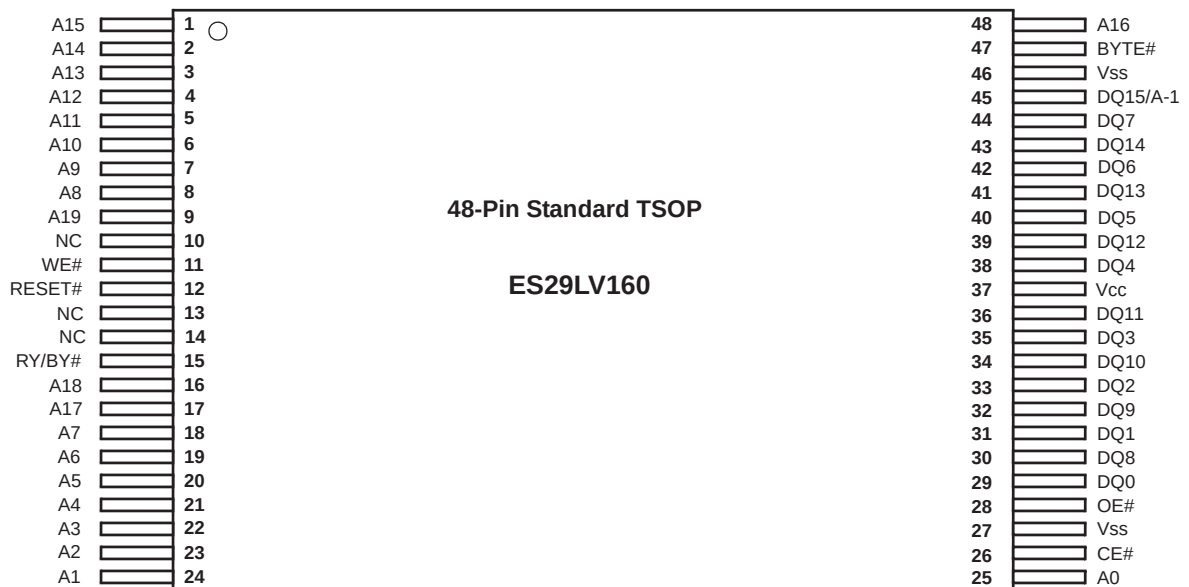
# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -34

## Q3451: ES29LV160ET-70TG (16 Mbit Flash Memory)

### BLOCK DIAGRAM



### PIN CONFIGURATION



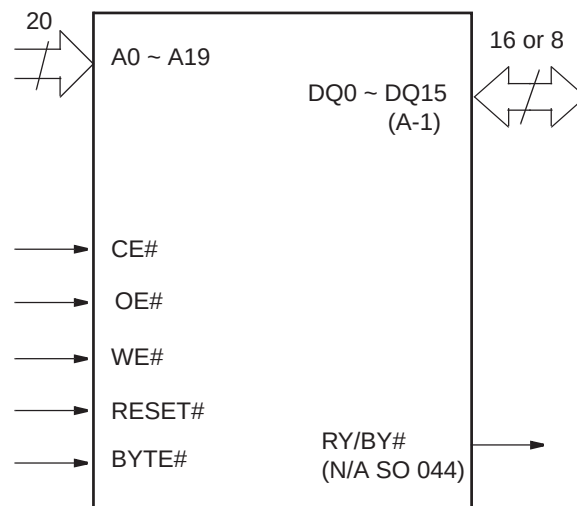
# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -35

## Q3451: ES29LV160ET-70TG (16 Mbit Flash Memory)

### TERMINAL DESCRIPTION

| Pin      | Description                                                                                                       |
|----------|-------------------------------------------------------------------------------------------------------------------|
| A0-A19   | 20 Addresses                                                                                                      |
| DQ0-DQ14 | 15 Data Inputs/Outputs                                                                                            |
| DQ15/A-1 | DQ15 (Data Input/Output, Word Mode)<br>A-1 (LSB Address Input, Byte Mode)                                         |
| CE#      | Chip Enable                                                                                                       |
| OE#      | Output Enable                                                                                                     |
| WE#      | Write Enable                                                                                                      |
| RESET#   | Hardware Reset Pin, Active Low                                                                                    |
| BYTE#    | Selects 8-bit or 16-bit mode                                                                                      |
| RY/BY#   | Ready/Busy Output (N/A SO 044)                                                                                    |
| Vcc      | 3.0 volt-only single power supply<br>(see Product Selector Guide for speed options and voltage supply tolerances) |
| Vss      | Device Ground                                                                                                     |
| NC       | Pin Not Connected Internally                                                                                      |

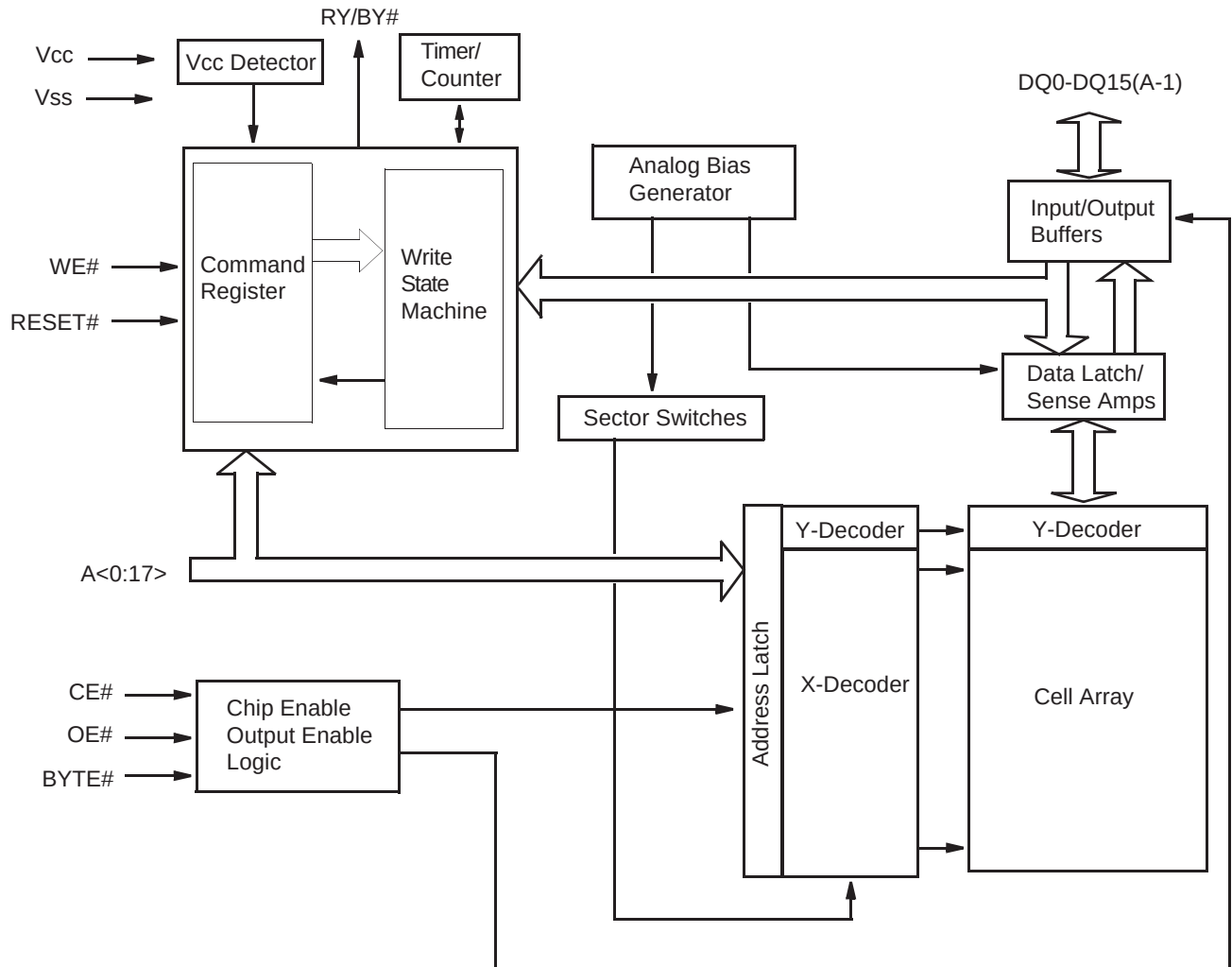
### LOGIC SYMBOL



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -36

Q3551 : ES29LV400ET-70TG (4 Mbit Flash Memory)

## BLOCK DIAGRAM



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -37

### Q3551 : ES29LV400ET-70TG (4 Mbit Flash Memory)

#### PIN CONFIGURATION



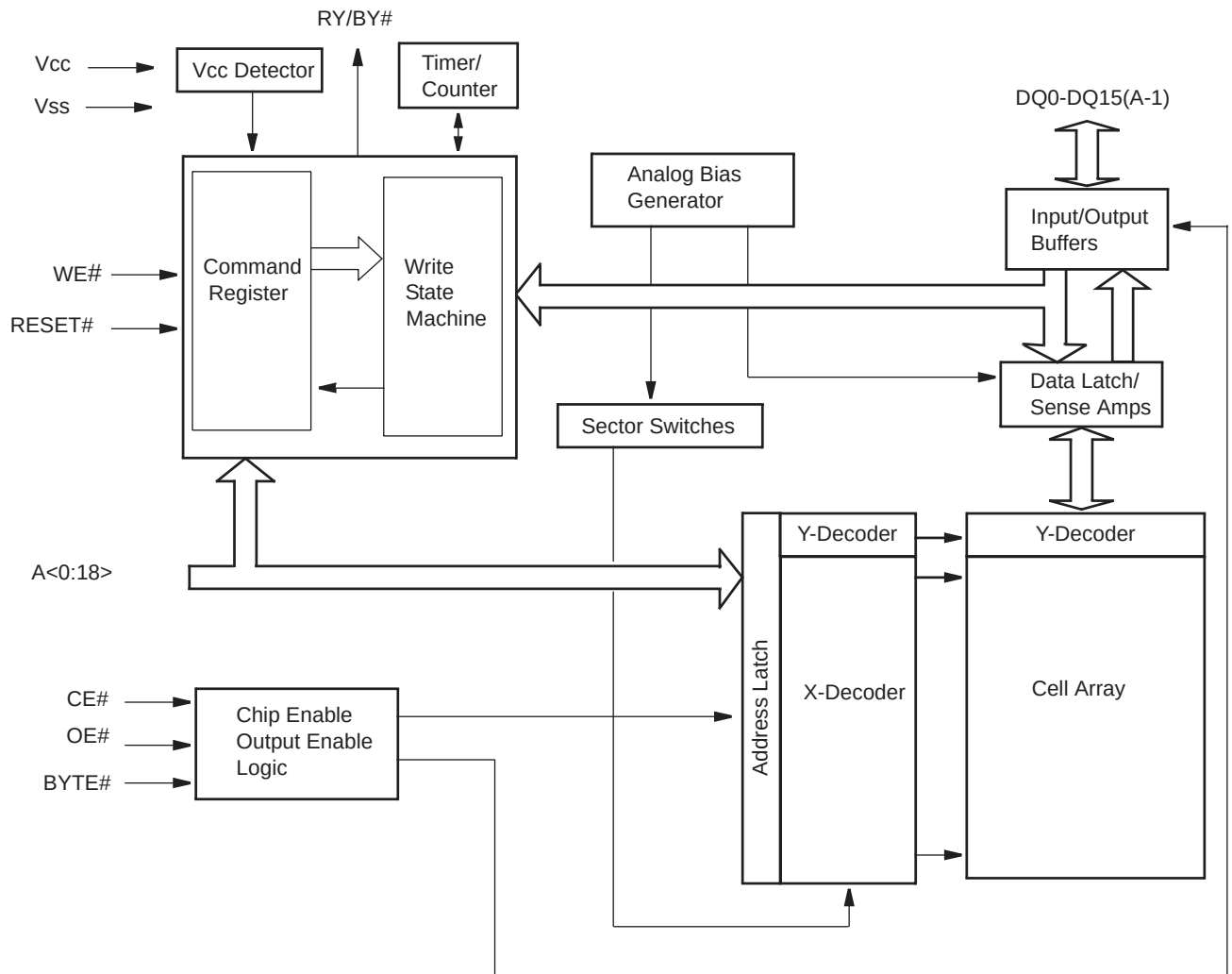
#### TERMINAL DESCRIPTION

| Terminal | Description                                                                                                       |
|----------|-------------------------------------------------------------------------------------------------------------------|
| A0-A17   | 18 Addresses                                                                                                      |
| DQ0-DQ14 | 15 Data Inputs/Outputs                                                                                            |
| DQ15/A-1 | DQ15 (Data Input/Output, Word Mode)<br>A-1 (LSB Address Input, Byte Mode)                                         |
| CE#      | Chip Enable                                                                                                       |
| OE#      | Output Enable                                                                                                     |
| WE#      | Write Enable                                                                                                      |
| RESET#   | Hardware Reset Pin, Active Low                                                                                    |
| BYTE#    | Selects 8-bit or 16-bit mode                                                                                      |
| RY/BY#   | Ready/Busy Output                                                                                                 |
| Vcc      | 3.0 volt-only single power supply<br>(see Product Selector Guide for speed options and voltage supply tolerances) |
| Vss      | Device Ground                                                                                                     |
| NC       | Pin Not Connected Internally                                                                                      |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -38

Q3551 : ES29LV800ET-70TG (8 Mbit Flash Memory)

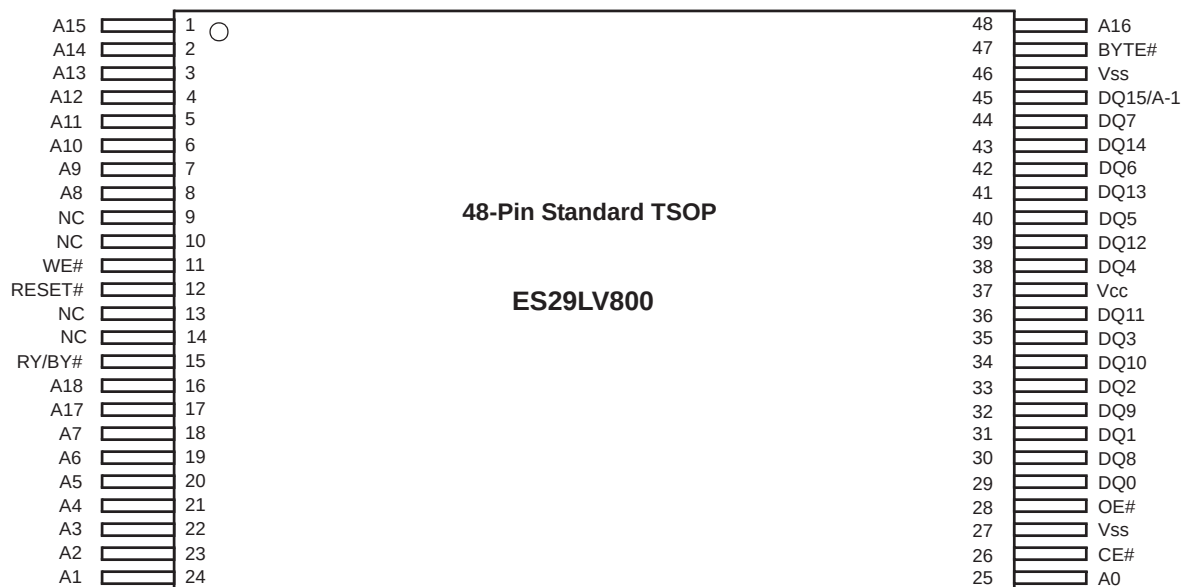
## BLOCK DIAGRAM



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -39

### Q3551 : ES29LV800ET-70TG (8 Mbit Flash Memory)

#### PIN CONFIGURATION



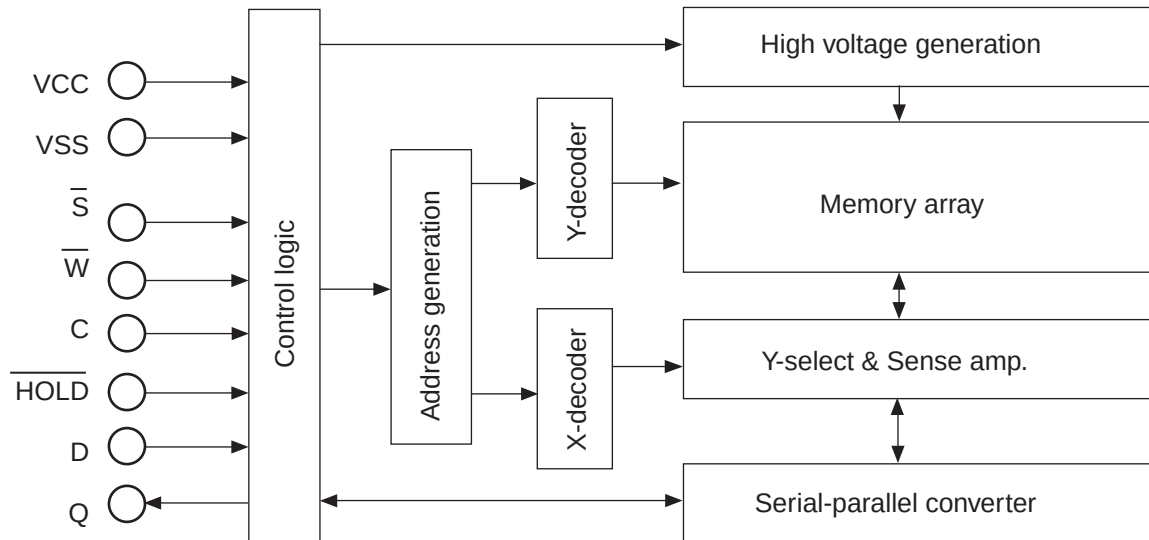
#### TERMINAL DESCRIPTION

| Pin      | Description                                                                                                       |
|----------|-------------------------------------------------------------------------------------------------------------------|
| A0-A18   | 19 Addresses                                                                                                      |
| DQ0-DQ14 | 15 Data Inputs/Outputs                                                                                            |
| DQ15/A-1 | DQ15 (Data Input/Output, Word Mode)<br>A-1 (LSB Address Input, Byte Mode)                                         |
| CE#      | Chip Enable                                                                                                       |
| OE#      | Output Enable                                                                                                     |
| WE#      | Write Enable                                                                                                      |
| RESET#   | Hardware Reset Pin, Active Low                                                                                    |
| BYTE#    | Selects 8-bit or 16-bit mode                                                                                      |
| RY/BY#   | Ready/Busy Output                                                                                                 |
| Vcc      | 3.0 volt-only single power supply<br>(see Product Selector Guide for speed options and voltage supply tolerances) |
| Vss      | Device Ground                                                                                                     |
| NC       | Pin Not Connected Internally                                                                                      |

# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -40

## Q1022: R1EX25064ASA(8192 x 8 bit EEPROM)

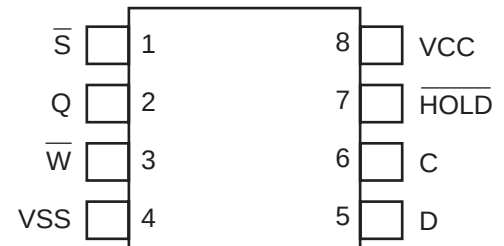
### BLOCK DIAGRAM



### TERMINAL DESCRIPTION

| PIN NAME          | FUNCTION           |
|-------------------|--------------------|
| C                 | Serial clock       |
| D                 | Serial data input  |
| Q                 | Serial data output |
| $\overline{S}$    | Chip select        |
| $\overline{W}$    | Write protect      |
| $\overline{HOLD}$ | Hold               |
| VCC               | Supply voltage     |
| VSS               | Ground             |

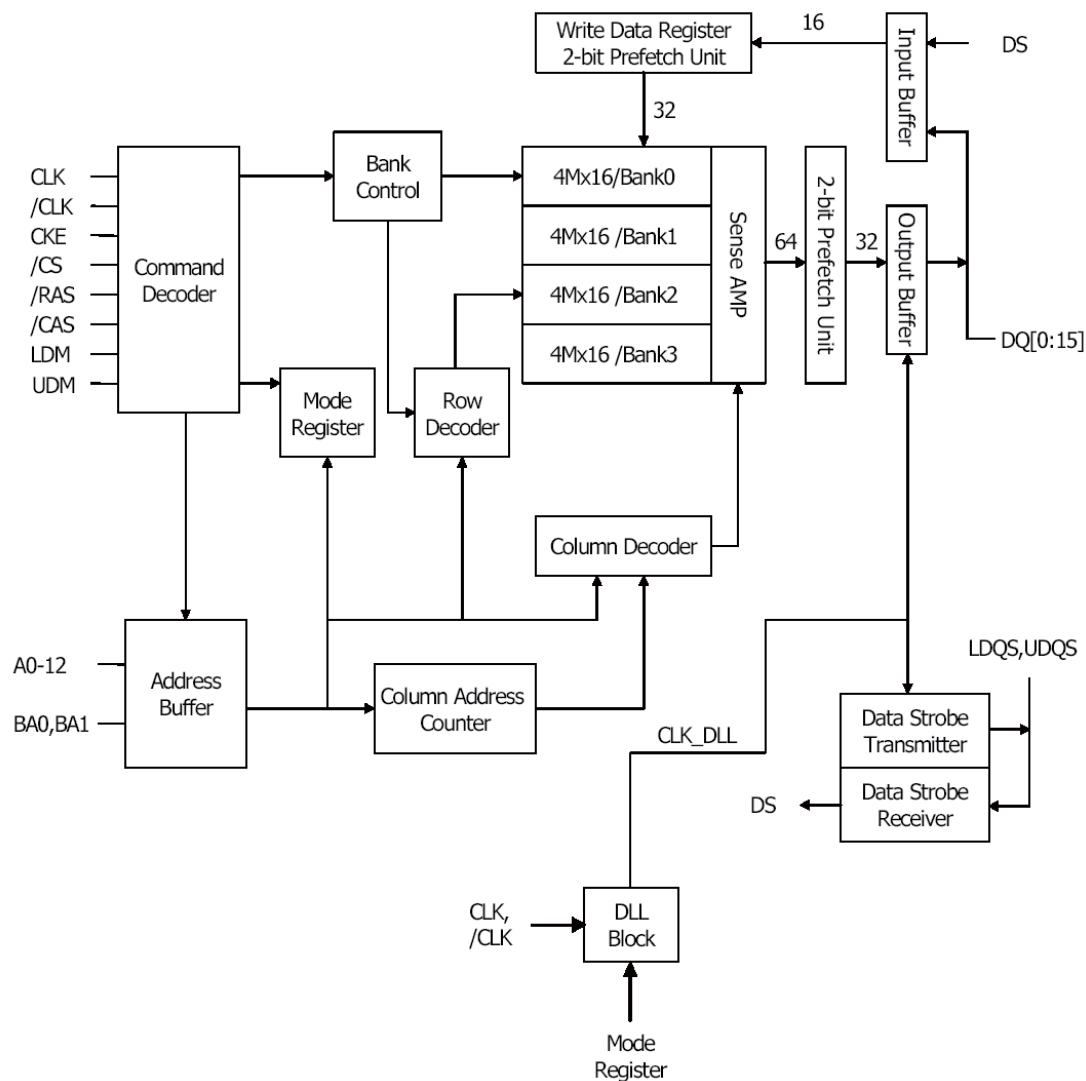
### PIN LAYOUT



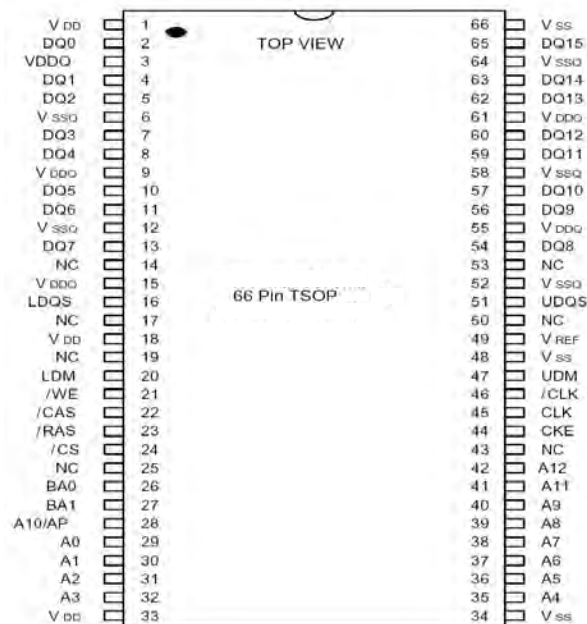
# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -41

## U8027, U8028, U8029, U8030: HY5DU561622ETP (256 Mbit DDR SDRAM)

### BLOCK DIAGRAM



### PIN CONFIGURATION



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -42

### U8027, U8028, U8029, U8030: HY5DU561622ETP (256 Mbit DDR SDRAM)

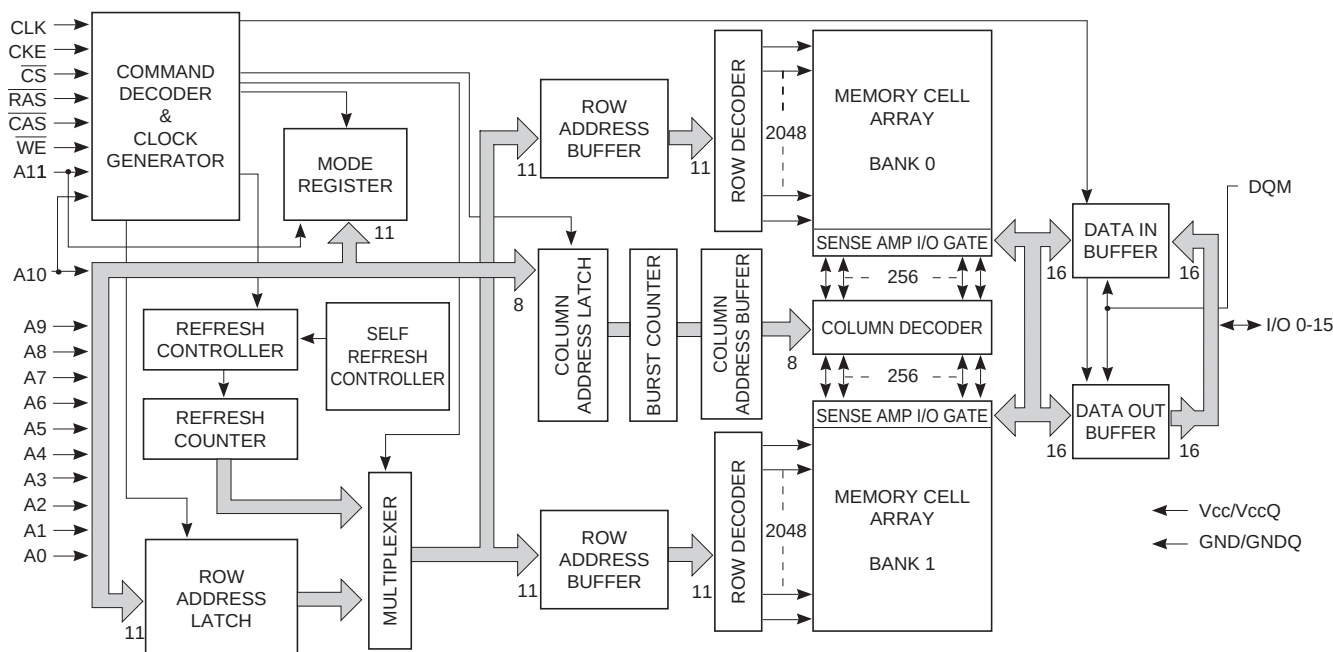
#### TERMINAL DESCRIPTION

| PIN             | TYPE   | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CK, /CK         | Input  | Clock: CK and /CK are differential clock inputs. All address and control input signals are sampled on the crossing of the positive edge of CK and negative edge of /CK. Output (read) data is referenced to the crossings of CK and /CK (both directions of crossing).                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| CKE             | Input  | Clock Enable: CKE HIGH activates, and CKE LOW deactivates internal clock signals, and device input buffers and output drivers. Taking CKE LOW provides PRECHARGE POWER DOWN and SELF REFRESH operation (all banks idle), or ACTIVE POWER DOWN (row ACTIVE in any bank). CKE is synchronous for POWER DOWN entry and exit, and for SELF REFRESH entry. CKE is asynchronous for SELF REFRESH exit, and for output disable. CKE must be maintained high throughout READ and WRITE accesses. Input buffers, excluding CK, /CK and CKE are disabled during POWER DOWN. Input buffers, excluding CKE are disabled during SELF REFRESH. CKE is an SSTL_2 input, but will detect an LVCMOS LOW level after Vdd is applied. |
| /CS             | Input  | Chip Select : Enables or disables all inputs except CK, /CK, CKE, DQS and DM. All commands are masked when CS is registered high. CS provides for external bank selection on systems with multiple banks. CS is considered part of the command code.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| BA0, BA1        | Input  | Bank Address Inputs: BA0 and BA1 define to which bank an ACTIVE, Read, Write or PRECHARGE command is being applied.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| A0 ~ A12        | Input  | Address Inputs: Provide the row address for ACTIVE commands, and the column address and AUTO PRECHARGE bit for READ/WRITE commands, to select one location out of the memory array in the respective bank. A10 is sampled during a precharge command to determine whether the PRECHARGE applies to one bank (A10 LOW) or all banks (A10 HIGH). If only one bank is to be precharged, the bank is selected by BA0, BA1. The address inputs also provide the op code during a MODE REGISTER SET command. BA0 and BA1 define which mode register is loaded during the MODE REGISTER SET command (MRS or EMRS).                                                                                                        |
| /RAS, /CAS, /WE | Input  | Command Inputs: /RAS, /CAS and /WE (along with /CS) define the command being entered.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| LDM, UDM        | Input  | Input Data Mask: DM(LDM,UDM) is an input mask signal for write data. Input data is masked when DM is sampled HIGH along with that input data during a WRITE access. DM is sampled on both edges of DQS. Although DM pins are input only, the DM loading matches the DQ and DQS loading. LDM corresponds to the data on DQ0-Q7; UDM corresponds to the data on DQ8-Q15.                                                                                                                                                                                                                                                                                                                                             |
| LDQS, UDQS      | I/O    | Data Strobe: Output with read data, input with write data. Edge aligned with read data, centered in write data. Used to capture write data. LDQS corresponds to the data on DQ0-Q7; UDQS corresponds to the data on DQ8-Q15.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| DQ0 ~ DQ15      | I/O    | Data input / output pin : Data Bus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| VDD/VSS         | Supply | Power supply for internal circuits and input buffers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| VDDQ/VSSQ       | Supply | Power supply for output buffers for noise immunity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| VREF            | Supply | Reference voltage for inputs for SSTL interface.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| NC              | NC     | No connection.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

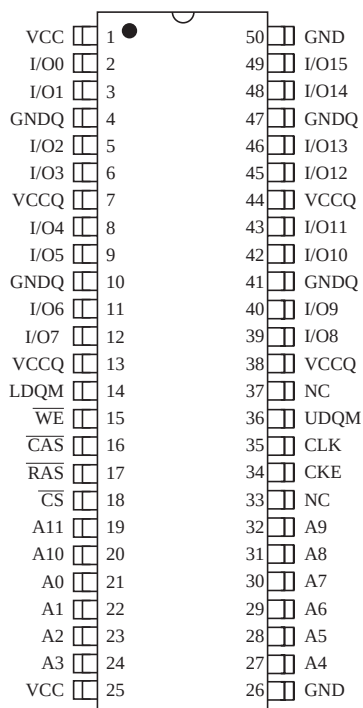
## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -43

### Q3461, Q3471, Q3561: IC42S16100 (16-Mbit Synchronous Dynamic RAM)

### BLOCK DIAGRAM



## PIN CONFIGURATION



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -44

### Q3461, Q3471, Q3561: IC42S16100 (16-Mbit Synchronous Dynamic RAM)

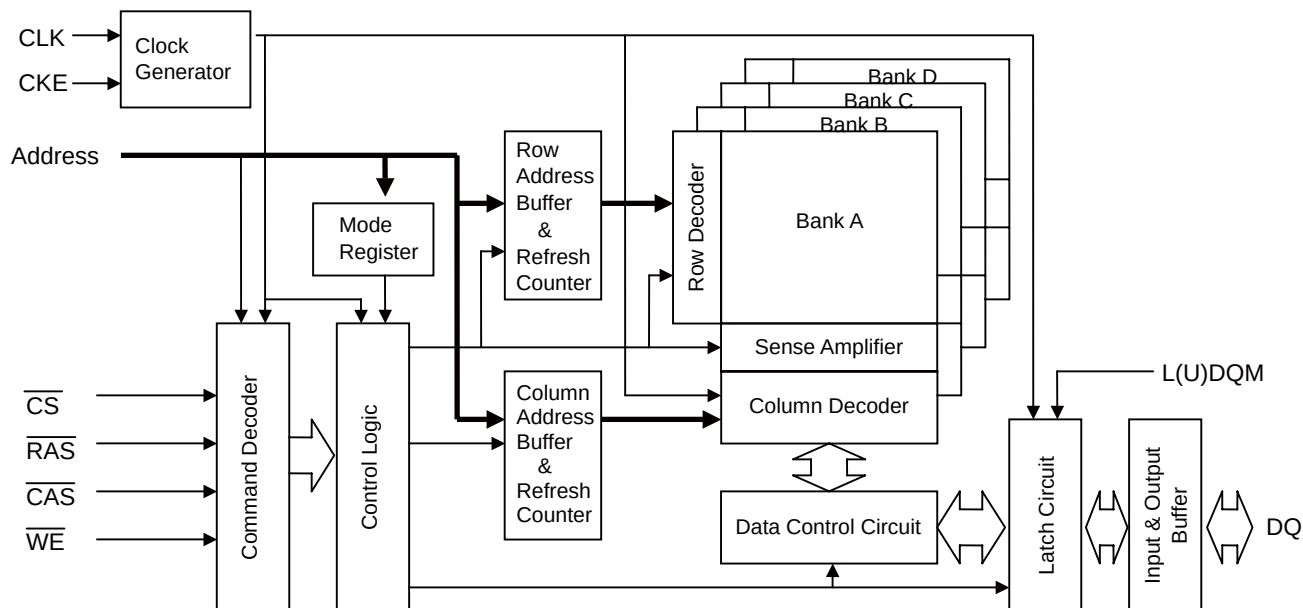
#### TERMINAL DESCRIPTION

| Pin No.                                                           | Pin name                | Function (In Detail)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 20 to 24<br>27 to 32                                              | A0-A10                  | A0 to A10 are address inputs. A0-A10 are used as row address inputs during active command input and A0-A7 as column address inputs during read or write command input. A10 is also used to determine the precharge mode during other commands. If A10 is LOW during precharge command, the bank selected by A11 is precharged, but if A10 is HIGH, both banks will be precharged. When A10 is HIGH in read or write command cycle, the precharge starts automatically after the burst access.<br>These signals become part of the OP CODE during mode register set command input.                                               |
| 19                                                                | A11                     | A11 is the bank selection signal. When A11 is LOW, bank 0 is selected and when high, bank 1 is selected. This signal becomes part of the OP CODE during mode register set command input.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 16                                                                | $\overline{\text{CAS}}$ | $\overline{\text{CAS}}$ , in conjunction with the $\overline{\text{RAS}}$ and $\overline{\text{WE}}$ , forms the device command. See the "Command Truth Table" item for details on device commands.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 34                                                                | CKE                     | The CKE input determines whether the CLK input is enabled within the device.<br>When is CKE HIGH, the next rising edge of the CLK signal will be valid, and when LOW, invalid. When CKE is LOW, the device will be in either the power-down mode, the clock suspend mode, or the self refresh mode. The CKE is an asynchronous input.                                                                                                                                                                                                                                                                                           |
| 35                                                                | CLK                     | CLK is the master clock input for this device. Except for CKE, all inputs to this device are acquired in synchronization with the rising edge of this pin.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 18                                                                | $\overline{\text{CS}}$  | The $\overline{\text{CS}}$ input determines whether command input is enabled within the device. Command input is enabled when $\overline{\text{CS}}$ is LOW, and disabled with $\overline{\text{CS}}$ is HIGH. The device remains in the previous state when $\overline{\text{CS}}$ is HIGH.                                                                                                                                                                                                                                                                                                                                    |
| 2, 3, 5, 6, 8, 9,<br>11, 12, 39, 40,<br>42, 43, 45, 46,<br>48, 49 | I/O0<br>to<br>I/O15     | I/O0 to I/O15 are I/O pins. I/O through these pins can be controlled in byte units using the LDQM and UDQM pins.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 14, 36                                                            | LDQM,<br>UDQM           | LDQM and UDQM control the lower and upper bytes of the I/O buffers. In read mode, LDQM and UDQM control the output buffer. When LDQM or UDQM is LOW, the corresponding buffer byte is enabled, and when HIGH, disabled. The outputs go to the HIGH impedance state when LDQM/UDQM is HIGH. This function corresponds to $\overline{\text{OE}}$ in conventional DRAMs. In write mode, LDQM and UDQM control the input buffer.<br>When LDQM or UDQM is LOW, the corresponding buffer byte is enabled, and data can be written to the device. When LDQM or UDQM is HIGH, input data is masked and cannot be written to the device. |
| 17                                                                | $\overline{\text{RAS}}$ | $\overline{\text{RAS}}$ , in conjunction with $\overline{\text{CAS}}$ and $\overline{\text{WE}}$ , forms the device command. See the "Command Truth Table" item for details on device commands.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 15                                                                | $\overline{\text{WE}}$  | $\overline{\text{WE}}$ , in conjunction with $\overline{\text{RAS}}$ and $\overline{\text{CAS}}$ , forms the device command. See the "Command Truth Table" item for details on device commands.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7, 13, 38, 44                                                     | V <sub>CCQ</sub>        | V <sub>CCQ</sub> is the output buffer power supply.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1, 25                                                             | V <sub>CC</sub>         | V <sub>CC</sub> is the device internal power supply.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4, 10, 41, 47                                                     | GNDQ                    | GNDQ is the output buffer ground.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 26, 50                                                            | GND                     | GND is the device internal ground.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

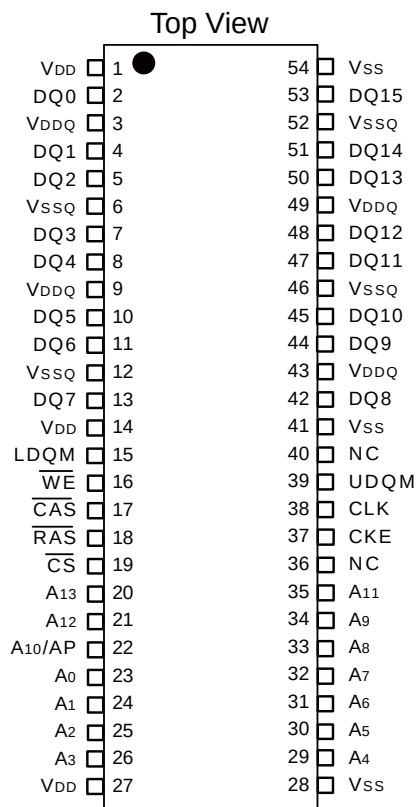
## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -45

### Q3661:M12L64164A-7TG (64 Mbit Synchronous DRAM)

#### BLOCK DIAGRAM



#### PIN CONFIGURATION



#### FEATURES

- JEDEC standard 3.3V power supply
- LVTTTL compatible with multiplexed address
- Four banks operation
- MRS cycle with address key programs
  - CAS Latency (2 & 3)
  - Burst Length (1, 2, 4, 8 & full page)
  - Burst Type (Sequential & Interleave)
- All inputs are sampled at the positive going edge of the system clock
- Auto & self refresh
- 15.6  $\mu$ s refresh interval

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -46

### Q3661:M12L64164A-7TG (64 Mbit Synchronous DRAM)

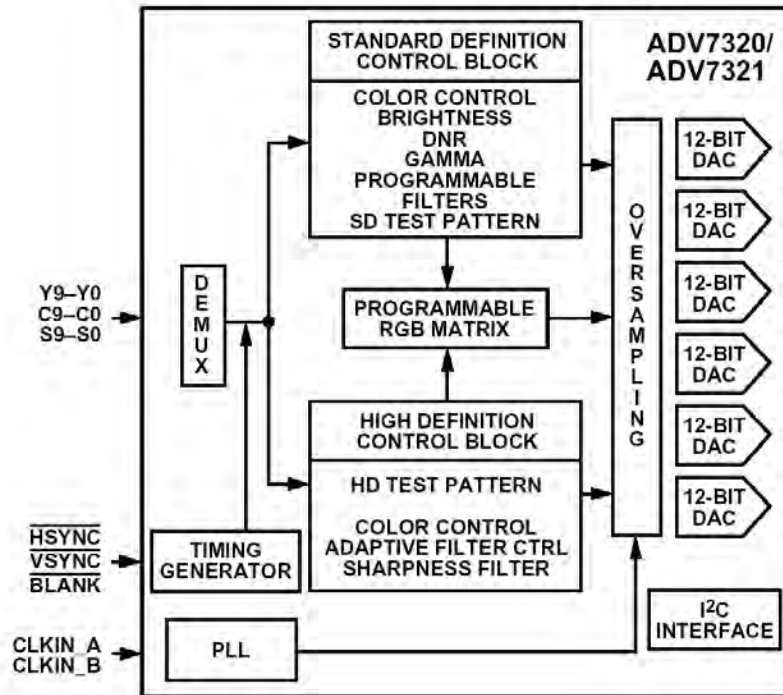
#### TERMINAL DESCRIPTION

| PIN                     | NAME                       | INPUT FUNCTION                                                                                                                                                                 |
|-------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CLK                     | System Clock               | Active on the positive going edge to sample all inputs                                                                                                                         |
| $\overline{\text{CS}}$  | Chip Select                | Disables or enables device operation by masking or enabling all inputs except CLK , CKE and L(U)DQM                                                                            |
| CKE                     | Clock Enable               | Masks system clock to freeze operation from the next clock cycle. CKE should be enabled at least one cycle prior new command. Disable input buffers for power down in standby. |
| A0 ~ A11                | Address                    | Row / column address are multiplexed on the same pins.<br>Row address : RA0~RA11, column address : CA0~CA7                                                                     |
| A12 , A13               | Bank Select Address        | Selects bank to be activated during row address latch time.<br>Selects bank for read / write during column address latch time.                                                 |
| $\overline{\text{RAS}}$ | Row Address Strobe         | Latches row addresses on the positive going edge of the CLK with $\overline{\text{RAS}}$ low.<br>Enables row access & precharge.                                               |
| $\overline{\text{CAS}}$ | Column Address Strobe      | Latches column address on the positive going edge of the CLK with $\overline{\text{CAS}}$ low.<br>Enables column access.                                                       |
| $\overline{\text{WE}}$  | Write Enable               | Enables write operation and row precharge.<br>Latches data in starting from $\overline{\text{CAS}}$ , $\overline{\text{WE}}$ active.                                           |
| L(U)DQM                 | Data Input / Output Mask   | Makes data output Hi-Z, $t_{\text{SHZ}}$ after the clock and masks the output. Blocks data input when L(U)DQM active.                                                          |
| DQ0 ~ DQ15              | Data Input / Output        | Data inputs / outputs are multiplexed on the same pins.                                                                                                                        |
| VDD / VSS               | Power Supply / Ground      | Power and ground for the input buffers and the core logic.                                                                                                                     |
| VDDQ / VSSQ             | Data Output Power / Ground | Isolated power supply and ground for the output buffers to provide improved noise immunity.                                                                                    |
| NC                      | No Connection              | This pin is recommended to be left No Connection on the device.                                                                                                                |

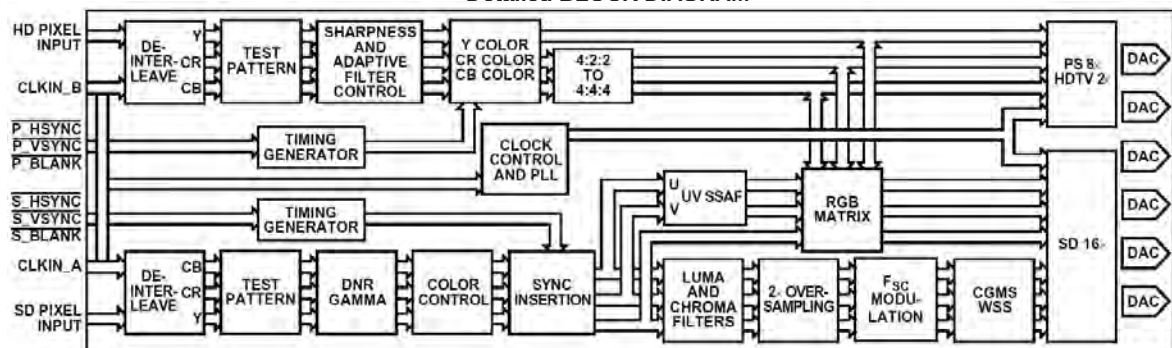
## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -47

## Q8901: ADV7320 (Video Encoder with Six 12-bit DACs)

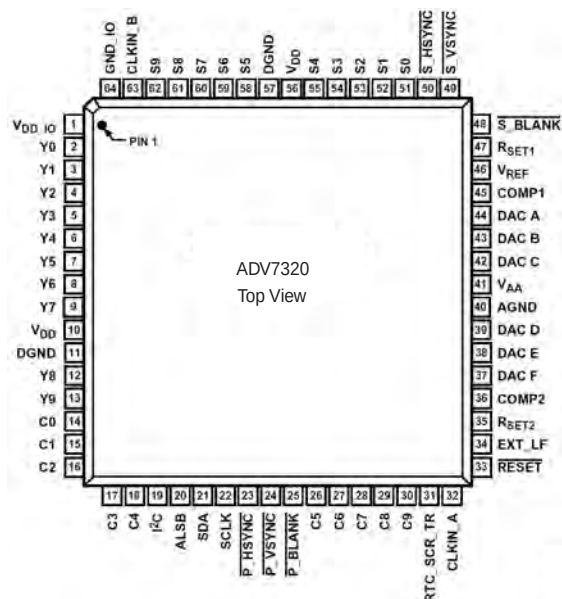
## BLOCK DIAGRAM



## Detailed BLOCK DIAGRAM



## PIN CONFIGURATION



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -48

## Q8901: ADV7320 (Video Encoder with Six 12-bit DACs)

## TERMINAL DESCRIPTION

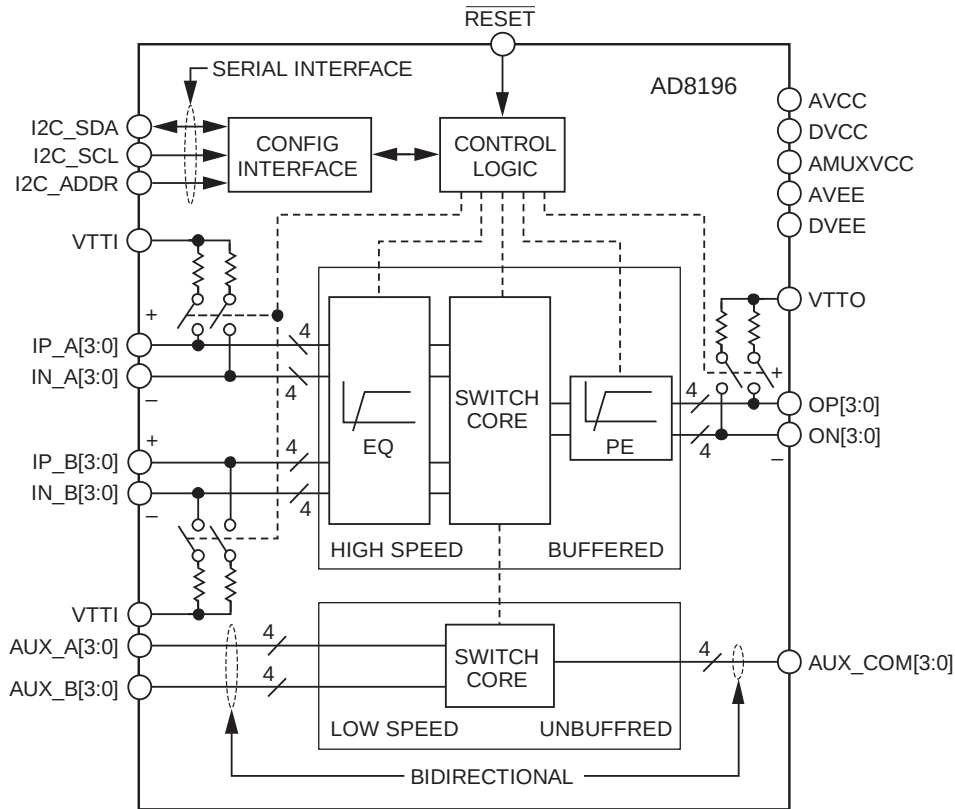
| Pin No.               | Mnemonic        | Input/Output | Description                                                                                                                                                        |
|-----------------------|-----------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11, 57                | DGND            | G            | Digital Ground.                                                                                                                                                    |
| 40                    | AGND            | G            | Analog Ground.                                                                                                                                                     |
| 32                    | CLKIN_A         | I            | Pixel Clock Input for HD Only (74.25 MHz), PS Only (27 MHz), and SD Only (27 MHz).                                                                                 |
| 63                    | CLKIN_B         | I            | Pixel Clock Input. Requires a 27 MHz reference clock for PS mode or a 74.25 MHz (74.1758 MHz) reference clock in HDTV mode. This clock is only used in dual modes. |
| 45, 36                | COMP1,<br>COMP2 | O            | Compensation Pin for DACs. Connect 0.1 $\mu$ F capacitor from COMP pin to $V_{AA}$ .                                                                               |
| 44                    | DAC A           | O            | CVBS/Green/Y/Y Analog Output.                                                                                                                                      |
| 43                    | DAC B           | O            | Chroma/Blue/U/Pb Analog Output.                                                                                                                                    |
| 42                    | DAC C           | O            | Luma/Red/V/Pr Analog Output.                                                                                                                                       |
| 39                    | DAC D           | O            | In SD Only Mode: CVBS/Green/Y Analog Output; in HD Only Mode and Simultaneous HD/SD Mode: Y/Green [HD] Analog Output.                                              |
| 38                    | DAC E           | O            | In SD Only Mode: Luma/Blue/U Analog Output; in HD Only Mode and Simultaneous HD/SD Mode: Pr/Red Analog Output.                                                     |
| 37                    | DAC F           | O            | In SD Only Mode: Chroma/Red/V Analog Output; in HD Only Mode and Simultaneous HD/SD Mode: Pb/Blue [HD] Analog Output.                                              |
| 23                    | P_HSYNC         | I            | Video Horizontal Sync Control Signal for HD in Simultaneous SD/HD Mode and HD Only Mode.                                                                           |
| 24                    | P_VSYNC         | I            | Video Vertical Sync Control Signal for HD in Simultaneous SD/HD Mode and HD Only Mode.                                                                             |
| 25                    | P_BLANK         | I            | Video Blanking Control Signal for HD in Simultaneous SD/HD Mode and HD Only Mode.                                                                                  |
| 48                    | S_BLANK         | I/O          | Video Blanking Control Signal for SD Only.                                                                                                                         |
| 49                    | S_VSYNC         | I/O          | Video Vertical Sync Control Signal for SD Only.                                                                                                                    |
| 50                    | S_HSYNC         | I/O          | Video Horizontal Sync Control Signal for SD Only.                                                                                                                  |
| 13, 12,<br>9 to 2     | Y9 to Y0        | I            | SD or PS/HDTV Input Port for Y Data. Input port for interleaved progressive scan data. The LSB is set up on Pin Y0. For 8-bit data input, LSB is set up on Pin Y2. |
| 30 to 26,<br>18 to 14 | C9 to C0        | I            | PS/HDTV Input Port 4:4:4 Input Mode. This port is used for the Cb[Blue/U] data. The LSB is set up on Pin C0. For 8-bit data input, LSB is set up on Pin C2.        |

| Pin No.               | Mnemonic           | Input/Output | Description                                                                                                                                                                                                 |
|-----------------------|--------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 62 to 58,<br>55 to 51 | S9 to S0           | I            | SD or PS/HDTV Input Port for Cr[Red/V] Data in 4:4:4 Input Mode. LSB is set up on Pin S0. For 8-bit data input, LSB is set up on Pin S2.                                                                    |
| 33                    | RESET              | I            | This input resets the on-chip timing generator and sets the ADV7320/ADV7321 into default register setting. RESET is an active low signal.                                                                   |
| 47, 35                | RSET1, RSET2       | I            | A 3040 $\Omega$ resistor must be connected from this pin to AGND and is used to control the amplitudes of the DAC outputs.                                                                                  |
| 22                    | SCLK               | I            | I <sup>2</sup> C Port Serial Interface Clock Input.                                                                                                                                                         |
| 21                    | SDA                | I/O          | I <sup>2</sup> C Port Serial Data Input/Output.                                                                                                                                                             |
| 20                    | ALSB               | I            | TTL Address Input. This signal sets up the LSB of the I <sup>2</sup> C address. When this pin is tied low, the I <sup>2</sup> C filter is activated, which reduces noise on the I <sup>2</sup> C interface. |
| 1                     | V <sub>DD_IO</sub> | P            | Power Supply for Digital Inputs and Outputs.                                                                                                                                                                |
| 10, 56                | V <sub>DD</sub>    | P            | Digital Power Supply.                                                                                                                                                                                       |
| 41                    | V <sub>AA</sub>    | P            | Analog Power Supply.                                                                                                                                                                                        |
| 46                    | V <sub>REF</sub>   | I/O          | Optional External Voltage Reference Input for DACs or Voltage Reference Output (1.235 V).                                                                                                                   |
| 34                    | EXT_LF             | I            | External Loop Filter for the Internal PLL.                                                                                                                                                                  |
| 31                    | RTC_SCR_TR         | I            | Multifunctional Input. Real-time control (RTC) input, timing reset input, subcarrier reset input.                                                                                                           |
| 19                    | I <sup>2</sup> C   | I            | This input pin must be tied high (V <sub>DD_IO</sub> ) for the ADV7320/ADV7321 to interface over the I <sup>2</sup> C port.                                                                                 |
| 64                    | GND_IO             |              | Digital Input/Output Ground.                                                                                                                                                                                |

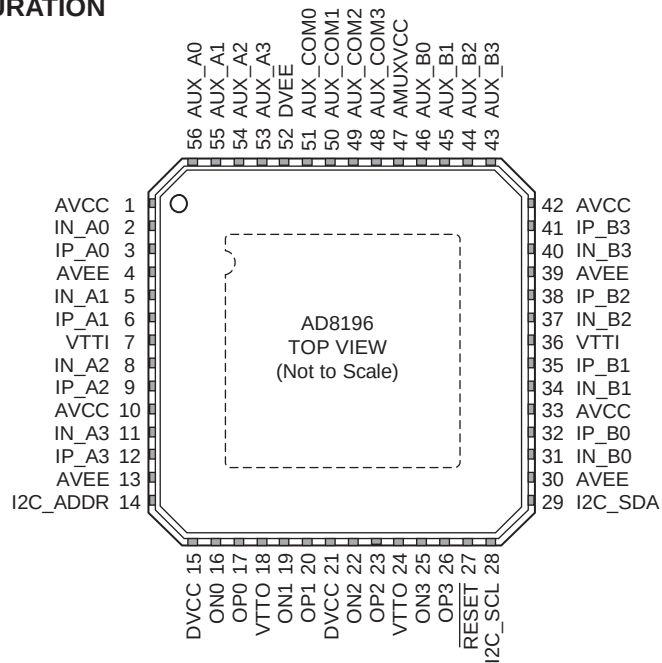
# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -49

## Q8101 : AD8196 (HDMI/DVI Switch with Equalization)

### BLOCK DIAGRAM



### PIN CONFIGURATION



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -50

### Q8101 : AD8196 (HDMI/DVI Switch with Equalization)

#### TERMINAL DESCRIPTION

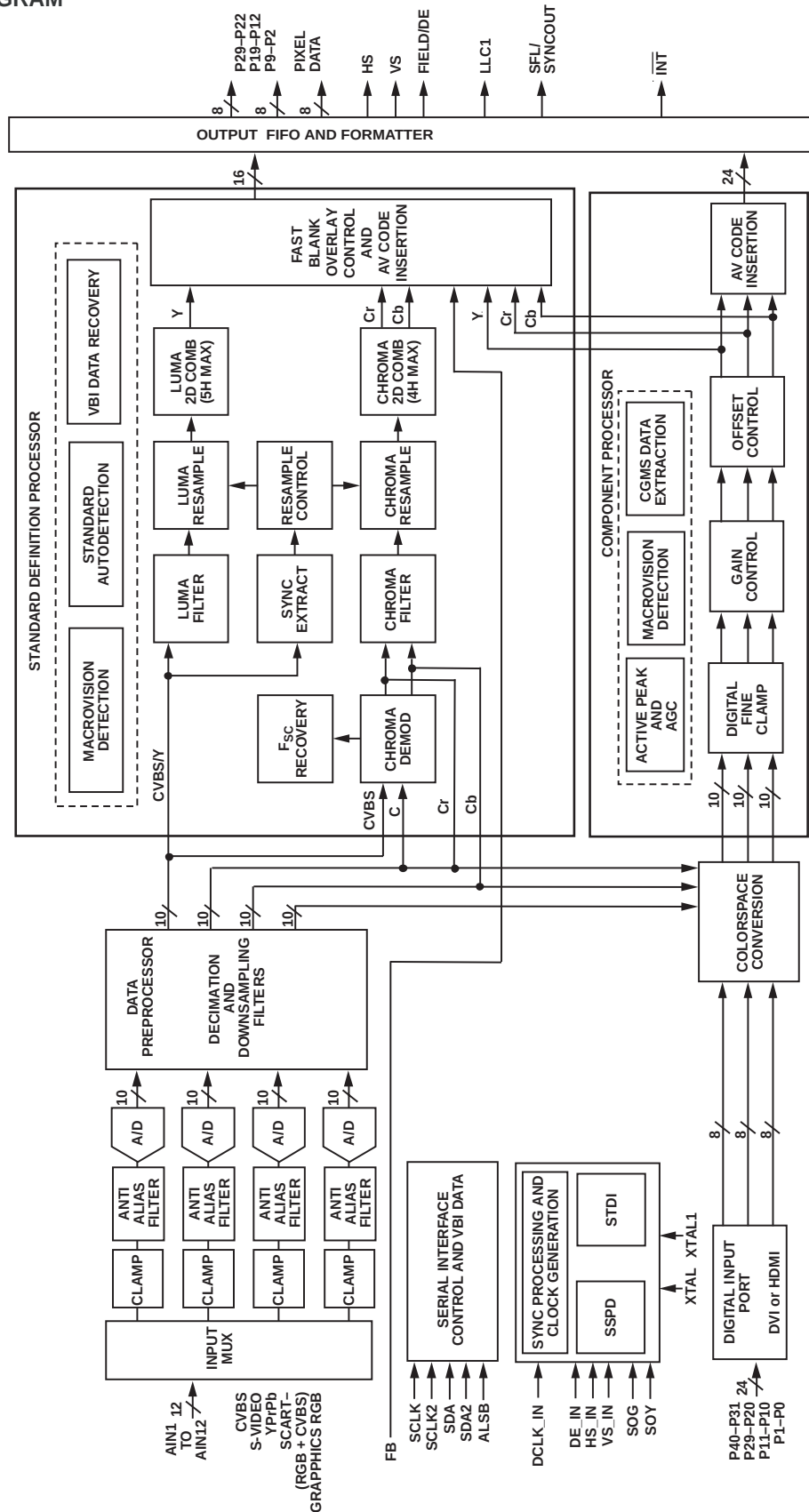
| Pin No.             | Mnemonic | Type    | Description                                                            |
|---------------------|----------|---------|------------------------------------------------------------------------|
| 1, 10, 33, 42       | AVCC     | Power   | Positive Analog Supply. 3.3 V nominal.                                 |
| 2                   | IN_A0    | HS I    | High Speed Input Complement.                                           |
| 3                   | IP_A0    | HS I    | High Speed Input.                                                      |
| 4, 13, 30, 39, ePAD | AVEE     | Power   | Negative Analog Supply. 0 V nominal.                                   |
| 5                   | IN_A1    | HS I    | High Speed Input Complement.                                           |
| 6                   | IP_A1    | HS I    | High Speed Input.                                                      |
| 7, 36               | VTTI     | Power   | Input Termination Supply. Nominally connected to AVCC.                 |
| 8                   | IN_A2    | HS I    | High Speed Input Complement.                                           |
| 9                   | IP_A2    | HS I    | High Speed Input.                                                      |
| 11                  | IN_A3    | HS I    | High Speed Input Complement.                                           |
| 12                  | IP_A3    | HS I    | High Speed Input.                                                      |
| 14                  | I2C_ADDR | Control | I <sup>2</sup> C Address LSB.                                          |
| 15, 21              | DVCC     | Power   | Positive Digital Power Supply. 3.3 V nominal.                          |
| 16                  | ON0      | HS O    | High Speed Output Complement.                                          |
| 17                  | OP0      | HS O    | High Speed Output.                                                     |
| 18, 24              | VTTO     | Power   | Output Termination Supply. Nominally connected to AVCC.                |
| 19                  | ON1      | HS O    | High Speed Output Complement.                                          |
| 20                  | OP1      | HS O    | High Speed Output.                                                     |
| 22                  | ON2      | HS O    | High Speed Output Complement.                                          |
| 23                  | OP2      | HS O    | High Speed Output.                                                     |
| 25                  | ON3      | HS O    | High Speed Output Complement.                                          |
| 26                  | OP3      | HS O    | High Speed Output.                                                     |
| 27                  | RESET    | Control | Configuration Registers Reset. This pin is normally pulled up to DVCC. |
| 28                  | I2C_SCL  | Control | I <sup>2</sup> C Clock.                                                |
| 29                  | I2C_SDA  | Control | I <sup>2</sup> C Data.                                                 |
| 31                  | IN_B0    | HS I    | High Speed Input Complement.                                           |
| 32                  | IP_B0    | HS I    | High Speed Input.                                                      |
| 34                  | IN_B1    | HS I    | High Speed Input Complement.                                           |
| 35                  | IP_B1    | HS I    | High Speed Input.                                                      |
| 37                  | IN_B2    | HS I    | High Speed Input Complement.                                           |
| 38                  | IP_B2    | HS I    | High Speed Input.                                                      |
| 40                  | IN_B3    | HS I    | High Speed Input Complement.                                           |
| 41                  | IP_B3    | HS I    | High Speed Input.                                                      |
| 43                  | AUX_B3   | LS I/O  | Low Speed Input/Output.                                                |
| 44                  | AUX_B2   | LS I/O  | Low Speed Input/Output.                                                |
| 45                  | AUX_B1   | LS I/O  | Low Speed Input/Output.                                                |
| 46                  | AUX_B0   | LS I/O  | Low Speed Input/Output.                                                |
| 47                  | AMUXVCC  | Power   | Positive Auxiliary Switch Supply. 5 V typical.                         |
| 48                  | AUX_COM3 | LS I/O  | Low Speed Common Input/Output.                                         |
| 49                  | AUX_COM2 | LS I/O  | Low Speed Common Input/Output.                                         |
| 50                  | AUX_COM1 | LS I/O  | Low Speed Common Input/Output.                                         |
| 51                  | AUX_COM0 | LS I/O  | Low Speed Common Input/Output.                                         |
| 52                  | DVEE     | Power   | Negative Digital and Auxiliary Switch Power Supply. 0 V nominal.       |
| 53                  | AUX_A3   | LS I/O  | Low Speed Input/Output.                                                |
| 54                  | AUX_A2   | LS I/O  | Low Speed Input/Output.                                                |
| 55                  | AUX_A1   | LS I/O  | Low Speed Input/Output.                                                |
| 56                  | AUX_A0   | LS I/O  | Low Speed Input/Output.                                                |

HS = high speed, LS = low speed, I = input, O = output.

# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -51

## Q8800: ADV7401 (Multi-Format SDTV/HDTV Video Decoder)

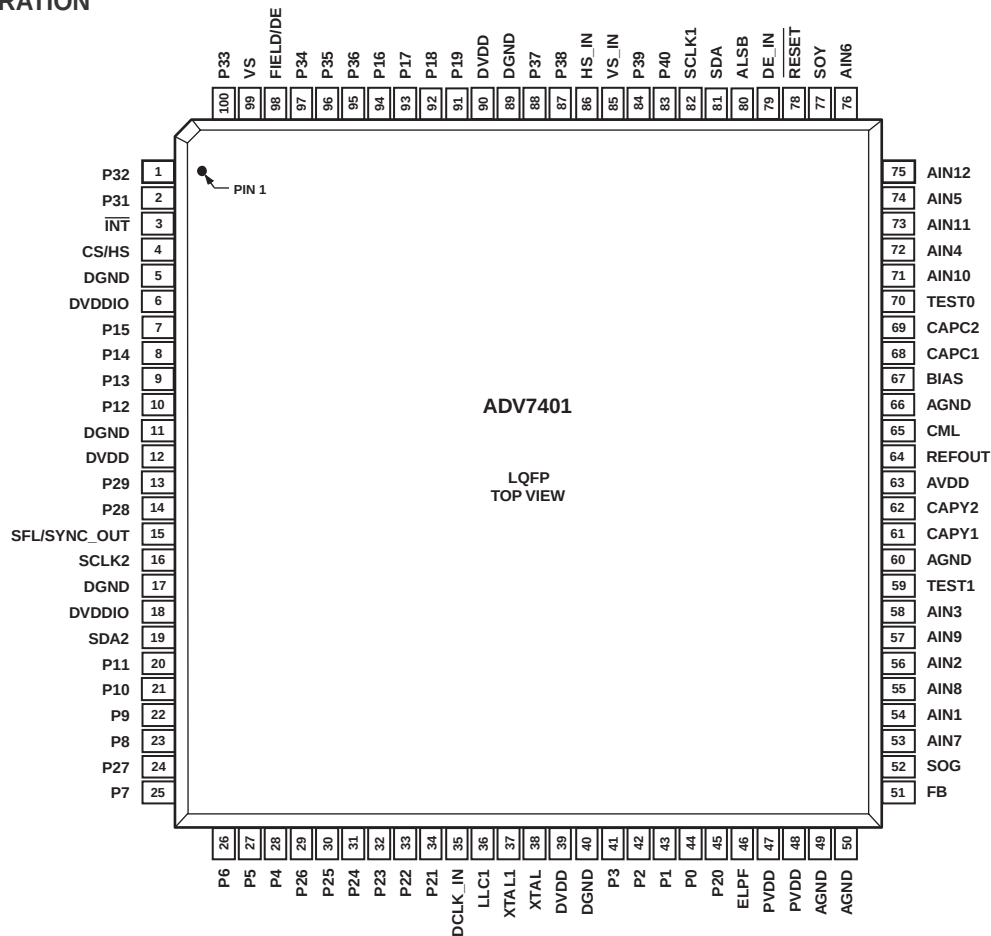
### BLOCK DIAGRAM



# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -52

## Q8800: ADV7401 (Multi-Format SDTV/HDTV Video Decoder)

### PIN CONFIGURATION



### TERMINAL DESCRIPTION(1/3)

| Pin No.                                                     | Mnemonic       | Type | Function                                                                             |
|-------------------------------------------------------------|----------------|------|--------------------------------------------------------------------------------------|
| 5, 11, 17, 40, 89                                           | DGND G         |      | Digital ground                                                                       |
| 49, 50, 60, 66                                              | AGND G         |      | Analog ground                                                                        |
| 6, 18                                                       | DVDDIO         | P    | Digital I/O supply voltage (3.3 V).                                                  |
| 12, 39, 90                                                  | DVDD           | P    | Digital core supply voltage (1.8 V).                                                 |
| 63                                                          | AVDD           | P    | Analog supply voltage (3.3 V).                                                       |
| 47, 48                                                      | PVDD           | P    | PLL supply voltage (1.8 V).                                                          |
| 51                                                          | FB             | I    | FB is a fast switch overlay input that switches between CVBS and RGB analog signals. |
| 54, 56, 58, 72, 74, 76, 53, 55, 57, 71, 73, 75              | AIN1–AIN12     | I    | Analog video input channels.                                                         |
| 42, 41, 28, 27, 26, 25, 23, 22, 10, 9, 8, 7, 94, 93, 92, 91 | P2–P9, P12–P19 | O    | Video pixel output port.                                                             |

# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -53

## Q8800: ADV7401 (Multi-Format SDTV/HDTV Video Decoder)

### TERMINAL DESCRIPTION (2/3)

| Pin No.                                                                      | Mnemonic                            | Type | Function                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------|-------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 33, 32, 31,<br>30, 29, 24,<br>14, 13                                         | P22-P29                             | I/O  | Video input/output port                                                                                                                                                                                                                                                                                                                                      |
| 44, 43, 21,<br>20, 45, 34,<br>2, 1, 100,<br>97, 96, 95,<br>88, 87, 84,<br>83 | P0-P1, P10-P11, P20-P21,<br>P31-P40 | I    | Video pixel input port.                                                                                                                                                                                                                                                                                                                                      |
| 3                                                                            | INT                                 | O    | Interrupt pin, can be active low or active high. When SDP/CP status bits change this pin will trigger. The set of events which will trigger an interrupt are under user control.                                                                                                                                                                             |
| 4                                                                            | HS/CS                               | O    | HS is a horizontal synchronization output signal in SDP and CP modes. CS is a digital composite synchronization signal that can be selected while in CP mode.                                                                                                                                                                                                |
| 99                                                                           | VS                                  | O    | VS is a vertical synchronization output signal in SDP and CP modes.                                                                                                                                                                                                                                                                                          |
| 98                                                                           | FIELD/DE                            | O    | FIELD is a field synchronization output signal in all interlaced video modes. This pin also can be enabled as a DE (Data Enable) signal in CP mode to allow direct connection to a HDMI/DVI Tx IC.                                                                                                                                                           |
| 81, 19                                                                       | SDA1, SDA2                          | I/O  | I <sup>2</sup> C port serial data input/output pin, SDA1 is the data line for the Control port and SDA2 is the data line for the VBI readback port.                                                                                                                                                                                                          |
| 82, 16                                                                       | SCLK1,<br>SCLK2                     | I I  | I <sup>2</sup> C port serial clock input (max clock rate of 400 kHz). SCLK1 is the clock line for the Control port and SCLK2 is the clock line for the VBI data readback port.                                                                                                                                                                               |
| 80                                                                           | ALSB                                | I    | This pin selects the I <sup>2</sup> C address for the ADV7401 Control and VBI readback ports. ALSB set to a logic 0 sets the address for a write to control port of 0x40 and the readback address for the VBI port of 0x21. ALSB set to a logic high sets the address for a write to control port of 0x42 and the readback address for the VBI port of 0x23. |
| 78                                                                           | RESET                               | I    | System reset input, active low. A minimum low reset pulse width of 5 ms is required to reset the ADV7401 circuitry.                                                                                                                                                                                                                                          |
| 36                                                                           | LLC1                                | O    | LLC1 is a line locked output clock for the pixel data (range is 12.825MHz to 140MHz for ADV7401KSTZ-140; 12.825MHz to 110MHz for ADV7401BSTZ-110; 12.825MHz to 80MHz for ADV7401BSTZ-80).                                                                                                                                                                    |
| 38                                                                           | XTAL                                | I    | Input pin for 28.63636 MHz crystal, or can be overdriven by an external 3.3 V 28.63636 MHz clock oscillator source to clock the ADV7401.                                                                                                                                                                                                                     |
| 37                                                                           | XTAL1                               | O    | This pin should be connected to the 28.63636 MHz crystal or left as a no connect if an external 3.3 V 28.63636 MHz clock oscillator source is used to clock the ADV7401. In crystal mode the crystal must be a fundamental crystal.                                                                                                                          |
| 46                                                                           | ELPF                                | O    | The recommend external loop filter must be connected to this ELPF pin.                                                                                                                                                                                                                                                                                       |
| 70                                                                           | TEST0                               |      | These pins should be left unconnected or alternatively tie to AGND                                                                                                                                                                                                                                                                                           |
| 59                                                                           | TEST1                               | O    | These pins should be left unconnected                                                                                                                                                                                                                                                                                                                        |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -54

### Q8800: ADV7401 (Multi-Format SDTV/HDTV Video Decoder)

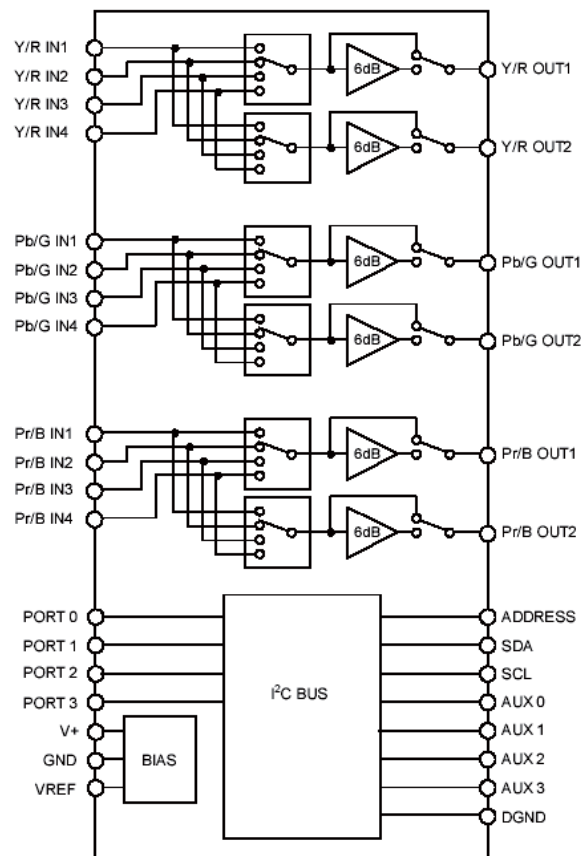
#### TERMINAL DESCRIPTION (3/3)

| Pin No. | Mnemonic     | Type | Function                                                                                                                                                                                                                                                                      |
|---------|--------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15      | SFL/SYNC_OUT | O    | SFL (Subcarrier Frequency Lock); this pin contains a serial output stream which can be used to lock the subcarrier frequency when this decoder is connected to any Analog Devices digital video encoder. SYNC_OUT is the sliced sync output signal only available in CP mode. |
| 64      | REFOUT       | O    | Internal voltage reference output.                                                                                                                                                                                                                                            |
| 65      | CML          | O    | The CML pin is a common-mode level for the internal ADCs.                                                                                                                                                                                                                     |
| 61, 62  | CAPY1–CAPY2  | I    | ADC capacitor network.                                                                                                                                                                                                                                                        |
| 68, 69  | CAPC1–CAPC2  | I    | ADC capacitor network.                                                                                                                                                                                                                                                        |
| 67      | BIAS         | O    | BIAS is an external bias setting pin. Connect the recommended resistor (1.35k $\Omega$ ) between pin and ground.                                                                                                                                                              |
| 86      | HS_IN/CS_IN  | I    | Can be configured in CP mode to be either a digital HS input signal or a digital CS input signal used to extract timing in a 5-wire or 4-wire RGB mode.                                                                                                                       |
| 85      | VS_IN        | I    | VS input signal used in CP mode for 5-wire timing mode.                                                                                                                                                                                                                       |
| 79      | DE_IN        | I    | DE_IN is a data enable input signal used in 24-bit digital input port mode, for example, 24-bit RGB data from a DVI Rx IC.                                                                                                                                                    |
| 35      | DCLK_IN      | I    | DCLK_IN is a clock input signal used in 24-bit digital input mode (e.g. 24-bit RGB data from a DVI Rx IC) and also in digital CVBS input mode.                                                                                                                                |
| 52      | SOG          | I    | SOG is a sync on green input used in embedded sync mode.                                                                                                                                                                                                                      |
| 77      | SOY          | I    | SOY is a sync on luma input used in embedded sync mode.                                                                                                                                                                                                                       |

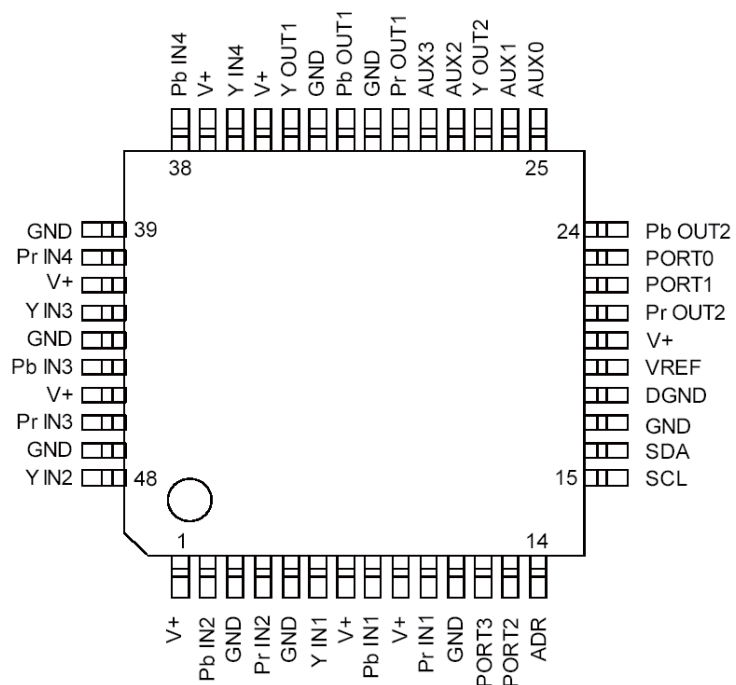
# IC BLOCK DIAGRAM AND TERMINAL DESCRIPTIONS -55

Q2201: NJW1321FP1 (Video Switch, 100MHz)

## BLOCK DIAGRAM



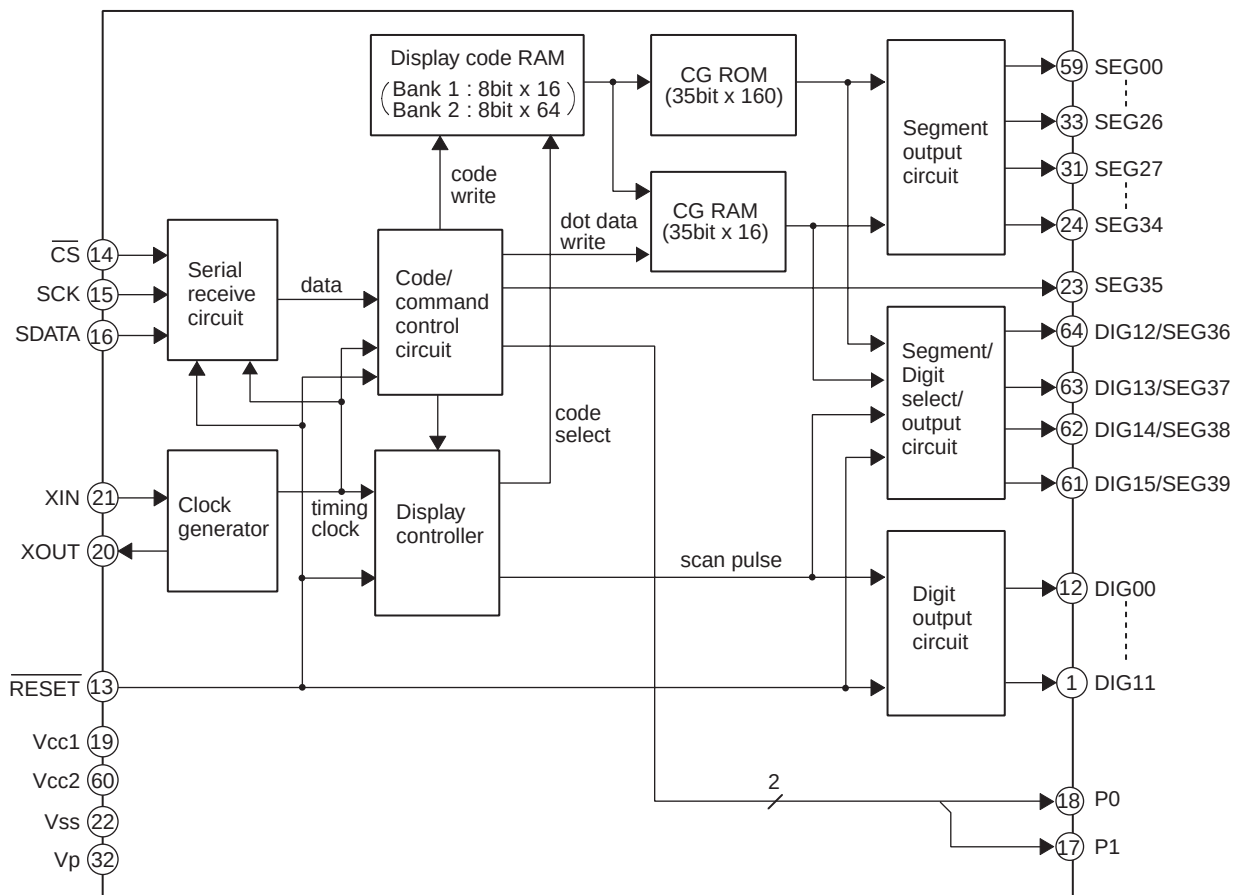
## PIN CONFIGURATION



# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -56

## Q7501, Q7502: M66005-0001AHP (FL Tube Driver)

### BLOCK DIAGRAM



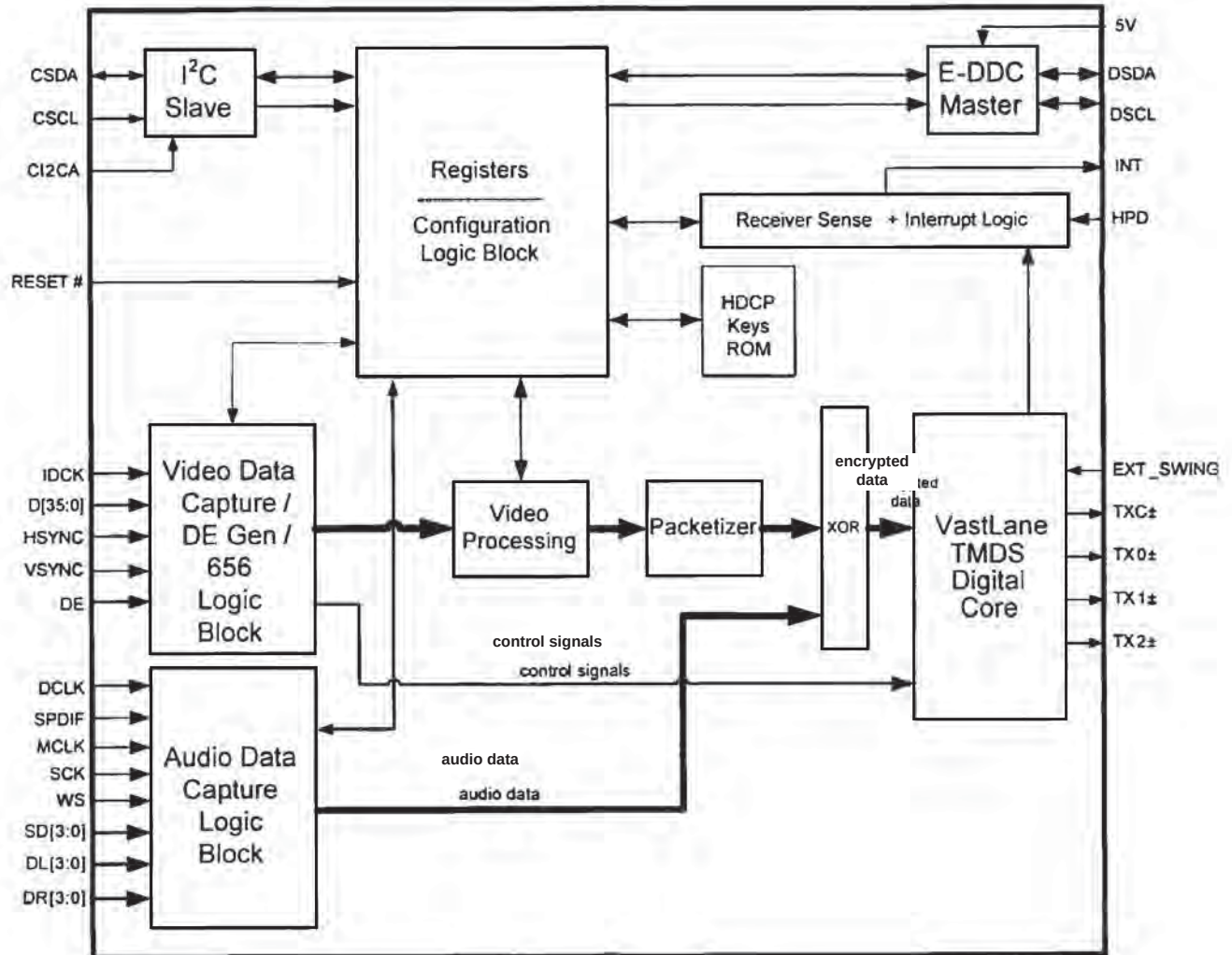
### TERMINAL DESCRIPTION

| PIN NO.        | SYMBOL                    | PIN NAME                    | DESCRIPTION                                                                                       |
|----------------|---------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| 13             | $\overline{\text{RESET}}$ | Reset input                 | This pin is used to initialize the internal state of the M66004.                                  |
| 14             | $\overline{\text{CS}}$    | Chip select input           | "L" : Communication with the MCU is possible.<br>"H" : Any instruction from the MCU is neglected. |
| 15             | SCK                       | Shift clock input           | At the rising edge from "L" to "H", input data is shifted.                                        |
| 16             | SDATA                     | Serial data input           | Character code or command data to display is input from MSB.                                      |
| 21,<br>20      | XIN,<br>XOUT              | Clock input<br>Clock output | This pin is used to connect a resister and a capacitor externally to set oscillation frequency.   |
| 1~12<br>61~64  | DIG00 ~<br>DIG15          | Digit output                | These pins are used to connect to digit pins of VFD.                                              |
| 23~31<br>33~59 | SEG00 ~<br>SEG39          | Segment output              | These pins are used to connect to segment pins of VFD.                                            |
| 17, 18         | P0, P1                    |                             | Output port (static operation)                                                                    |
| 19             | VCC1                      |                             | Positive power supply for internal logic.                                                         |
| 60             | VCC2                      |                             | Positive power supply for high-pressure-resistant output port.                                    |
| 22             | VSS                       |                             | GND                                                                                               |
| 32             | VP                        |                             | Negative power supply for VFD drive.                                                              |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -57

## Q8401: SII9134CTU (HDMI Transmitter)

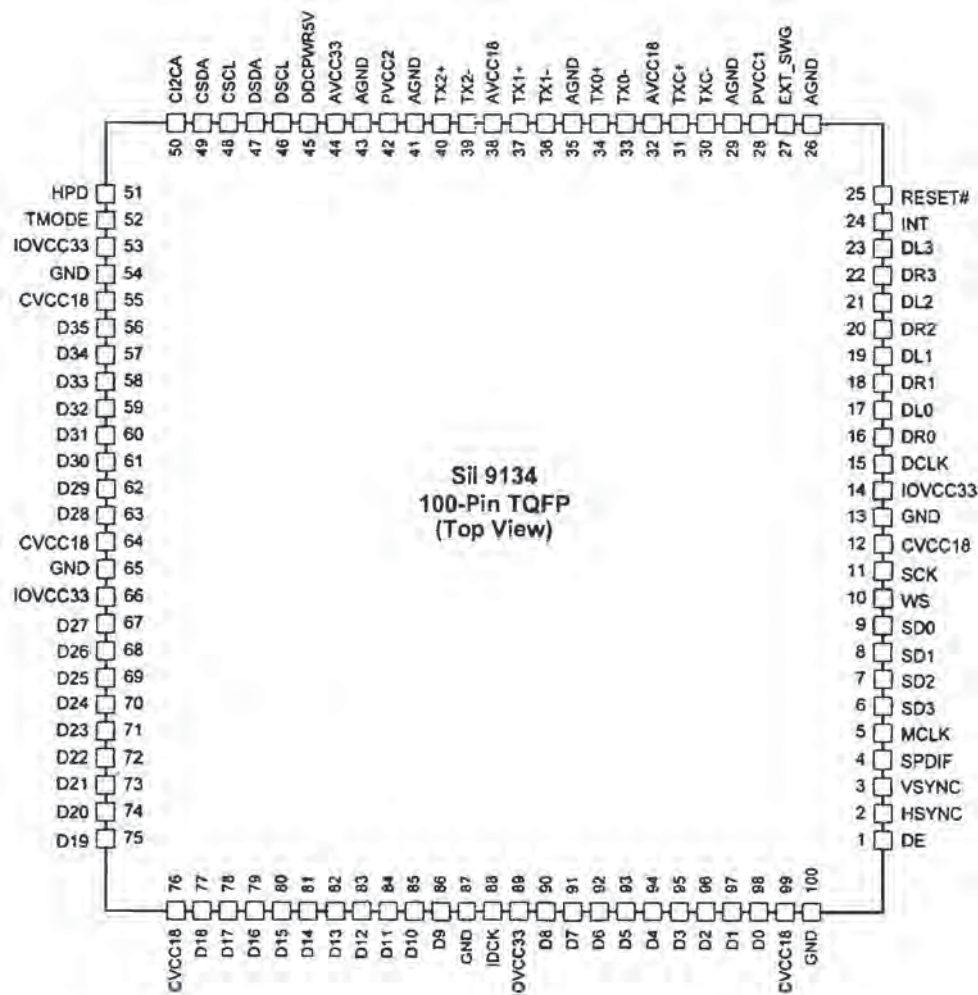
## BLOCK DIAGRAM



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -58

### Q8401: SII9134CTU (HDMI Transmitter)

#### PIN CONFIGURATION



#### TERMINAL DESCRIPTION(1/3)

##### Configuration/Programing Pins

| Pin Name | Pin # | Type  | Dir    | Description                                             |
|----------|-------|-------|--------|---------------------------------------------------------|
| HPD      | 51    | LVTTL | Input  | Hot Plug Detect Input                                   |
| RSVDL    | 52    | LVTTL | Input  | Reserved for use by Silicon Image and must be tied LOW. |
| INT      | 24    | LVTTL | Output | Interrupt Output.                                       |

##### Control Pins

| Pin Name | Pin # | Type                   | Dir   | Description                                          |
|----------|-------|------------------------|-------|------------------------------------------------------|
| CI2CA    | 50    | LVTTL                  | Input | I <sup>2</sup> C device address select (see page 11) |
| RESET#   | 25    | LVTTL<br>Schmitt       | Input | Reset Pin (Active LOW)<br>5V Tolerant                |
| CSCL     | 48    | Schmitt                | Input | I <sup>2</sup> C Clock                               |
| CSDA     | 49    | Schmitt-<br>Open Drain | Bi-Di | I <sup>2</sup> C Data (Open drain output.)           |
| DSCL     | 46    | Schmitt-<br>Open Drain | Bi-Di | DDC Clock (Open Drain Output)                        |
| DSDA     | 47    | Schmitt-<br>Open Drain | Bi-Di | DDC Data (Open drain output.)                        |

# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -59

## Q8401: SII9134CTU (HDMI Transmitter)

### TERMINAL DESCRIPTION(2/3)

#### Video and Audio Pins-1

| Pin Name | Pin # | Type  | Dir   | Description                                                                                                                                                                                     |
|----------|-------|-------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D0       | 98    | LVTTL | Input | These are the lower 12 bits of the 36-bit pixel bus. These pins are highly configurable, and support multiple RGB and YCbCr formats. See Data Bus Mappings on page 30 for complete information. |
| D1       | 97    | LVTTL | Input |                                                                                                                                                                                                 |
| D2       | 96    | LVTTL | Input |                                                                                                                                                                                                 |
| D3       | 95    | LVTTL | Input |                                                                                                                                                                                                 |
| D4       | 94    | LVTTL | Input |                                                                                                                                                                                                 |
| D5       | 93    | LVTTL | Input |                                                                                                                                                                                                 |
| D6       | 92    | LVTTL | Input |                                                                                                                                                                                                 |
| D7       | 91    | LVTTL | Input |                                                                                                                                                                                                 |
| D8       | 90    | LVTTL | Input |                                                                                                                                                                                                 |
| D9       | 86    | LVTTL | Input |                                                                                                                                                                                                 |
| D10      | 85    | LVTTL | Input |                                                                                                                                                                                                 |
| D11      | 84    | LVTTL | Input |                                                                                                                                                                                                 |
| D12      | 83    | LVTTL | Input | These are the middle 12 bits of the 36-bit pixel bus.                                                                                                                                           |
| D13      | 82    | LVTTL | Input |                                                                                                                                                                                                 |
| D14      | 81    | LVTTL | Input |                                                                                                                                                                                                 |
| D15      | 80    | LVTTL | Input |                                                                                                                                                                                                 |
| D16      | 79    | LVTTL | Input |                                                                                                                                                                                                 |
| D17      | 78    | LVTTL | Input |                                                                                                                                                                                                 |
| D18      | 77    | LVTTL | Input |                                                                                                                                                                                                 |
| D19      | 75    | LVTTL | Input |                                                                                                                                                                                                 |
| D20      | 74    | LVTTL | Input |                                                                                                                                                                                                 |
| D21      | 73    | LVTTL | Input |                                                                                                                                                                                                 |
| D22      | 72    | LVTTL | Input |                                                                                                                                                                                                 |
| D23      | 71    | LVTTL | Input | These are the upper 12 bits of the 36-bit pixel bus.                                                                                                                                            |
| D24      | 70    | LVTTL | Input |                                                                                                                                                                                                 |
| D25      | 69    | LVTTL | Input |                                                                                                                                                                                                 |
| D26      | 68    | LVTTL | Input |                                                                                                                                                                                                 |
| D27      | 67    | LVTTL | Input |                                                                                                                                                                                                 |
| D28      | 63    | LVTTL | Input |                                                                                                                                                                                                 |
| D29      | 62    | LVTTL | Input |                                                                                                                                                                                                 |
| D30      | 61    | LVTTL | Input |                                                                                                                                                                                                 |
| D31      | 60    | LVTTL | Input |                                                                                                                                                                                                 |
| D32      | 59    | LVTTL | Input |                                                                                                                                                                                                 |
| D33      | 58    | LVTTL | Input |                                                                                                                                                                                                 |
| D34      | 57    | LVTTL | Input |                                                                                                                                                                                                 |
| D35      | 56    | LVTTL | Input |                                                                                                                                                                                                 |

#### Power and Ground Pins

| Pin Name | Pin #              | Type   | Description                                                                                                      |
|----------|--------------------|--------|------------------------------------------------------------------------------------------------------------------|
| CVCC18   | 12, 55, 64, 76, 99 | Power  | Digital Core VCC. Connect to 1.8V supply.                                                                        |
| IOVCC33  | 14, 53, 66, 89     | Power  | IO Pin VCC. Connect to 3.3V supply.                                                                              |
| AVCC33   | 44                 | Power  | Analog VCC. Connect to 3.3V supply.                                                                              |
| AVCC18   | 32, 38,            | Power  | Analog VCC. Connect to 1.8V supply.                                                                              |
| AGND     | 26, 29, 35, 41,43  | Ground | Analog GND.                                                                                                      |
| PVCC1    | 28                 | Power  | TMDS Core PLL Power. Connect to 1.8V supply.                                                                     |
| PVCC2    | 42                 | Power  | Filter PLL Power. Connect to 1.8V supply.                                                                        |
| DDCPWR5V | 45                 | Power  | Power reference signal. Used to supply power to the DDC I2C pads when chip is powered off. Connect to 5V supply. |
| Gnd      | 13, 54, 65, 87,100 | Ground | Digital Ground                                                                                                   |

# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -60

## Q8401: SII9134CTU (HDMI Transmitter)

### TERMINAL DESCRIPTION(3/3)

#### Video and Audio Pins-2

| Pin Name | Pin # | Type  | Dir   | Description                          |
|----------|-------|-------|-------|--------------------------------------|
| IDCK     | 88    | LVTTL | Input | Input Data Clock                     |
| DE       | 1     | LVTTL | Input | Data enable                          |
| HSYNC    | 2     | LVTTL | Input | Horizontal Sync input control signal |
| VSYNC    | 3     | LVTTL | Input | Vertical Sync input control signal   |
| SCK      | 11    | LVTTL | Input | I <sup>2</sup> S Serial Clock        |
| WS       | 10    | LVTTL | Input | I <sup>2</sup> S Word Select         |
| SD0      | 9     | LVTTL | Input | I <sup>2</sup> S Serial Data         |
| SD1      | 8     | LVTTL | Input | I <sup>2</sup> S Serial Data         |
| SD2      | 7     | LVTTL | Input | I <sup>2</sup> S Serial Data         |
| SD3      | 6     | LVTTL | Input | I <sup>2</sup> S Serial Data         |
| DL0      | 17    | LVTTL | Input | One-bit Audio Data Left 0            |
| DR0      | 16    | LVTTL | Input | One-bit Audio Data Right 0           |
| DL1      | 19    | LVTTL | Input | One-bit Audio Data Left 1            |
| DR1      | 18    | LVTTL | Input | One-bit Audio Data Right 1           |
| DL2      | 21    | LVTTL | Input | One-bit Audio Data Left 2            |
| DR2      | 20    | LVTTL | Input | One-bit Audio Data Right 2           |
| DL3      | 23    | LVTTL | Input | One-bit Audio Data Left 3            |
| DR3      | 22    | LVTTL | Input | One-bit Audio Data Right 3           |
| DCLK     | 15    | LVTTL | Input | One-bit Audio Clock Input            |
| MCLK     | 5     | LVTTL | Input | Audio Input Master Clock             |
| SPDIF    | 4     | LVTTL | Input | S/PDIF Audio Input.                  |

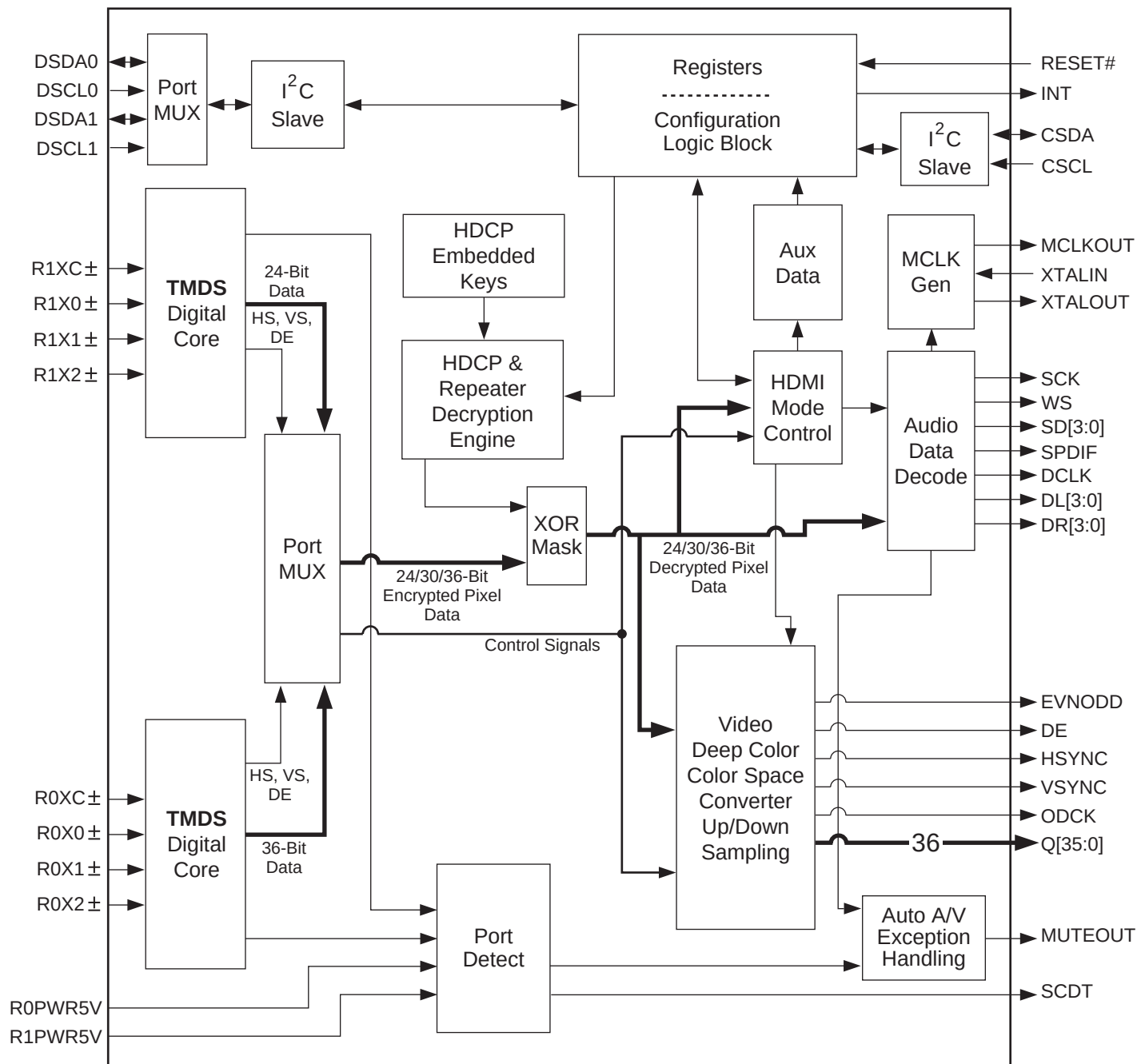
#### Differetial Signal Data Pins

| Pin Name  | Pin # | Type   | Dir    | Description                                                                                                                                                                                                                                                                |
|-----------|-------|--------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TX0+      | 34    | TMDS   | Output | TMDS output data pairs.                                                                                                                                                                                                                                                    |
| TX0-      | 33    | TMDS   | Output |                                                                                                                                                                                                                                                                            |
| TX1+      | 37    | TMDS   | Output |                                                                                                                                                                                                                                                                            |
| TX1-      | 36    | TMDS   | Output |                                                                                                                                                                                                                                                                            |
| TX2+      | 40    | TMDS   | Output |                                                                                                                                                                                                                                                                            |
| TX2-      | 39    | TMDS   | Output |                                                                                                                                                                                                                                                                            |
| TXC+      | 31    | TMDS   | Output | TMDS output clock pair.                                                                                                                                                                                                                                                    |
| TXC-      | 30    | TMDS   | Output |                                                                                                                                                                                                                                                                            |
| EXT_SWING | 27    | Analog | Input  | Voltage Swing Adjust. A resistor is tied from this pin to AVCC. This resistor determines the amplitude of the voltage swing. Recommend 698 $\Omega$ 1% when source termination and leakage bias is on and 845 $\Omega$ 1% when source termination and leakage bias is off. |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS-61

## Q8501 : SII9135ACTU (HDMI Receiver)

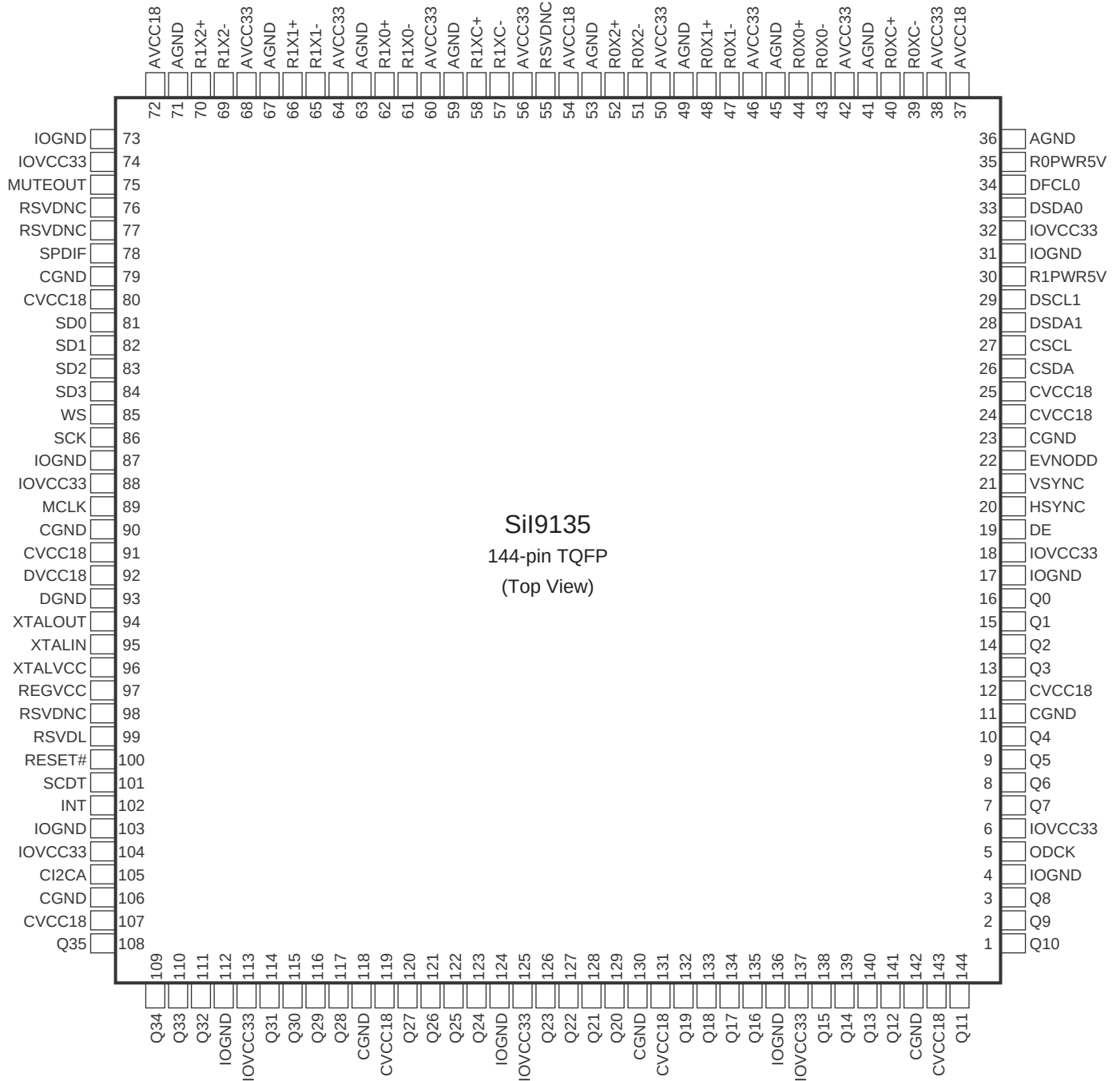
## BLOCK DIAGRAM



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS-62

## Q8501 : SII9135ACTU (HDMI Receiver)

## PIN LAYOUT



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS-63

### Q8501 : SII9135ACTU (HDMI Receiver)

#### TERMINAL DESCRIPTION(1/3)

##### Digital Video Output Pins

| Pin Name | Pin # | Dir    | Description                                                                                                                                                                                                                                                                                                                                                              |
|----------|-------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Q0       | 16    | Output | 36-Bit Output Pixel Data Bus. Q35:0 is highly configurable using the VDD_CONFIG register. It supports a wide array of output formats, including multiple RGB and YCbCr bus formats. Using the appropriate bits in the PD register, the output drivers can be put into a high impedance (tri-state) mode. A weak, internal pull-down device brings each output to ground. |
| Q1       | 15    | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q2       | 14    | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q3       | 13    | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q4       | 10    | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q5       | 9     | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q6       | 8     | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q7       | 7     | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q8       | 3     | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q9       | 2     | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q10      | 1     | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q11      | 144   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q12      | 141   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q13      | 140   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q14      | 139   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q15      | 138   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q16      | 135   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q17      | 134   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q18      | 133   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q19      | 132   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q20      | 129   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q21      | 128   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q22      | 127   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q23      | 126   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q24      | 123   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q25      | 122   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q26      | 121   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q27      | 120   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q28      | 117   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q29      | 116   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q30      | 115   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q31      | 114   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q32      | 111   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q33      | 110   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q34      | 109   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| Q35      | 108   | Output |                                                                                                                                                                                                                                                                                                                                                                          |
| DE       | 19    | Output | Data Enable.                                                                                                                                                                                                                                                                                                                                                             |
| HSYNC    | 20    | Output | Horizontal Sync Output.                                                                                                                                                                                                                                                                                                                                                  |
| VSYNC    | 21    | Output | Vertical Sync Output.                                                                                                                                                                                                                                                                                                                                                    |
| EVNODD   | 22    | Output | Indicates Even or Odd Field for Interlaced Formats.                                                                                                                                                                                                                                                                                                                      |
| ODCK     | 5     | Output | Output Data Clock.                                                                                                                                                                                                                                                                                                                                                       |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS-64

### Q8501 : SiI9135ACTU (HDMI Receiver)

#### TERMINAL DESCRIPTION(2/3)

##### Digital Audio Output Pins

| Pin Name  | Pin # | Dir    | Description                                                                                                                                                                                                                                                              |
|-----------|-------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| XTALIN    | 95    | Input  | Crystal Clock Input. Also allows LVTTTL input.<br>Frequency required: 26-28.5 MHz                                                                                                                                                                                        |
| XTALOUT   | 94    | Output | Crystal Clock Output.                                                                                                                                                                                                                                                    |
| MCLK      | 89    | Output | Audio Master Clock Output.                                                                                                                                                                                                                                               |
| SCK/DCLK  | 86    | Output | I <sup>2</sup> S Serial Clock Output.<br>DSD Clock Out.                                                                                                                                                                                                                  |
| WS/DR0    | 85    | Output | I <sup>2</sup> S Word Select Output.<br>DSD Serial Right Ch0 Data Output.                                                                                                                                                                                                |
| SD0/DL0   | 81    | Output | I <sup>2</sup> S Serial Data Output / DSD Audio Output.<br>Configurable to be shared with DSD.<br>SD0 = DSD Serial Left Ch0 Data Output.<br>SD1 = DSD Serial Right Ch1 Data Output.<br>SD2 = DSD Serial Left Ch1 Data Output.<br>SD3 = DSD Serial Right Ch2 Data Output. |
| SD1/DR1   | 82    | Output |                                                                                                                                                                                                                                                                          |
| SD2/DL1   | 83    | Output |                                                                                                                                                                                                                                                                          |
| SD3/DR2   | 84    | Output |                                                                                                                                                                                                                                                                          |
| SPDIF/DL2 | 78    | Output | S/PDIF Audio Output. Configurable to be shared with DSD.<br>DSD Serial Left Ch2 Data Output.                                                                                                                                                                             |
| MUTEOUT   | 75    | Output | Mute Audio Output. Signal to the external downstream audio device, audio DAC, etc. to mute audio output.                                                                                                                                                                 |

##### Configuration / Programming Pins

| Pin Name | Pin #             | Dir    | Description                                                                                                                                                                                                                                                         |
|----------|-------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INT      | 102               | Output | Interrupt Output. Configurable polarity and pushpull output. Multiple sources of interrupt can be enabled through the INT_EN register.                                                                                                                              |
| RESET#   | 100               | Input  | Reset Pin. Active LOW. 5V Tolerant                                                                                                                                                                                                                                  |
| DSCL0    | 34                | Input  | DDC I <sup>2</sup> C Clock for Port 0. 5V Tolerant. HDCP KSV, An and Ri values are exchanged over an I <sup>2</sup> C port during authentication. True open drain, so does not pull to GND if R0PWR5V is not applied.                                               |
| DSDA0    | 33                | Bi-Di  | DDC I <sup>2</sup> C Data for Port 0. 5V Tolerant. HDCP KSV, An and Ri values are exchanged over an I <sup>2</sup> C during authentication. True open drain, so does not pull to GND if R0PWR5V is not applied.                                                     |
| DSCL1    | 29                | Input  | DDC I <sup>2</sup> C Clock for Port 1. 5V Tolerant. 5V Tolerant. HDCP KSV, An and Ri values are exchanged over an I <sup>2</sup> C port during authentication. True open drain, so does not pull to GND if R1PWR5V is not applied.                                  |
| DSDA1    | 28                | Bi-Di  | DDC I <sup>2</sup> C Data for Port 1. 5V Tolerant. 5V Tolerant. HDCP KSV, An and Ri values are exchanged over an I <sup>2</sup> C port during authentication. True open drain, so does not pull to GND if R1PWR5V is not applied.                                   |
| CSCL     | 27                | Input  | Configuration/Status I <sup>2</sup> C Clock. 5V Tolerant. Chip configuration/status, CEA-861 support and downstream HDCP repeater-specific registers are accessed via this I <sup>2</sup> C port. True open drain, so does not pull to GND if power is not applied. |
| CSDA     | 26                | Bi-Di  | Configuration/Status I <sup>2</sup> C Data. 5V Tolerant. Chip configuration/status, CEA-861 support and downstream HDCP repeater-specific registers are accessed via this I <sup>2</sup> C port. True open drain, so does not pull to GND if power is not applied.  |
| CI2CA    | 105               | Input  | Local I <sup>2</sup> C Address Select. 5V Tolerant. Low = Addresses 0x60/0x68 High = Addresses 0x62/0x6A                                                                                                                                                            |
| SCDT     | 101               | Output | Indicates Active Video at HDMI Input Port. Sync detection indicator.                                                                                                                                                                                                |
| R0PWR5V  | 35                | Input  | Port 0 Transmitter Detect. 5V Tolerant. Used for MUTEIN function.                                                                                                                                                                                                   |
| R1PWR5V  | 30                | Input  | Port 1 Transmitter Detect. 5V Tolerant. Used for MUTEIN function.                                                                                                                                                                                                   |
| RSVDNC   | 98, 77,<br>76, 55 | ---    | Reserved, must be left unconnected                                                                                                                                                                                                                                  |
| RSVDL    | 99                | Input  | Reserved, must be tied to ground                                                                                                                                                                                                                                    |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS-65

### Q8501 : SiI9135ACTU (HDMI Receiver)

#### TERMINAL DESCRIPTION

##### Differential Signal Data Pins

| Pin Name | Pin # | Dir   | Description           |             |
|----------|-------|-------|-----------------------|-------------|
| R0XC+    | 40    | Input | TMDS Input Clock Pair | HDMI Port 0 |
| R0XC-    | 39    | Input |                       |             |
| R0X0+    | 44    | Input | TMDS Input Data Pair  |             |
| R0X0-    | 43    | Input |                       |             |
| R0X1+    | 48    | Input | TMDS Input Data Pair  |             |
| R0X1-    | 47    | Input |                       |             |
| R0X2+    | 52    | Input | TMDS Input Data Pair  |             |
| R0X2-    | 51    | Input |                       |             |
| R1XC+    | 58    | Input | TMDS Input Clock Pair | HDMI Port 1 |
| R1XC-    | 57    | Input |                       |             |
| R1X0+    | 62    | Input | TMDS Input Data Pair  |             |
| R1X0-    | 61    | Input |                       |             |
| R1X1+    | 66    | Input | TMDS Input Data Pair  |             |
| R1X1-    | 65    | Input |                       |             |
| R1X2+    | 70    | Input | TMDS Input Data Pair  |             |
| R1X2-    | 69    | Input |                       |             |

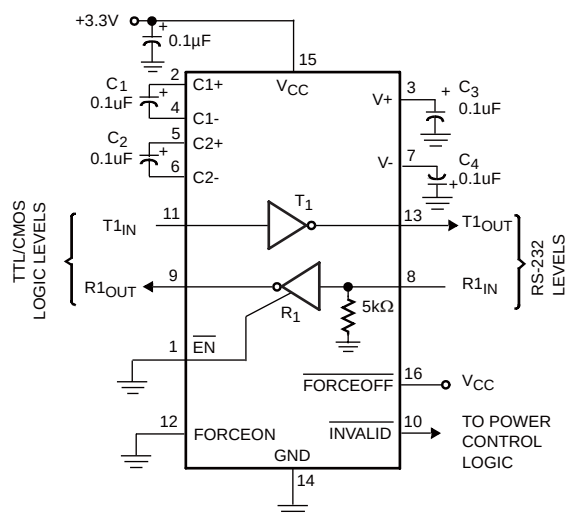
##### Power and Ground Pins

| Pin Name | Pin #                                  | Type   | Description                                                                          |
|----------|----------------------------------------|--------|--------------------------------------------------------------------------------------|
| CVCC18   | 12, 24, 25, 80, 91, 107, 119, 131, 143 | Power  | Digital Logic VCC.                                                                   |
| CGND     | 11, 23, 79, 90, 106, 118, 130, 142     | Ground | Digital Logic GND.                                                                   |
| IOVCC33  | 6, 18, 32, 74, 88, 104, 113, 125, 137  | Power  | Input/Output Pin VCC.                                                                |
| IOGND    | 4, 17, 31, 73, 87, 103, 112, 124, 136  | Ground | Input/Output Pin GND.                                                                |
| AVCC33   | 38, 42, 46, 50, 56, 60, 64, 68         | Power  | TMDS Analog VCC 3.3V.                                                                |
| AGND     | 36, 41, 45, 49, 53, 59, 63, 67, 71     | Ground | TMDS Analog GND.                                                                     |
| AVCC18   | 37, 54, 72                             | Power  | TMDS Analog VCC 1.8V.                                                                |
| DVCC18   | 92                                     | Power  | Audio Clock Regeneration PLL.<br>Analog VCC. Must be connected to 1.8V.              |
| DGND     | 93                                     | Ground | Audio Clock Regeneration PLL.<br>Analog Ground.                                      |
| XTALVCC  | 96                                     | Power  | Audio Clock Regeneration PLL<br>Crystal Oscillator Power. Must be connected to 3.3V. |
| REGVCC   | 97                                     | Power  | Audio Clock Regeneration PLL.<br>Crystal Regulator Power. Must be connected to 3.3V. |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -66

## Q4700 : ICL3221ECVZ (RS-232 Transmitter/Receiver)

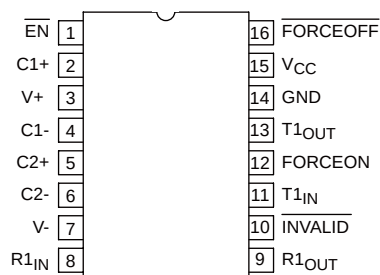
## BLOCK DIAGRAM



## TERMINAL DESCRIPTION

| PIN               | FUNCTION                                                                                                                         |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------|
| V <sub>CC</sub>   | System power supply input (3.0V to 5.5V).                                                                                        |
| V+                | Internally generated positive transmitter supply (+5.5V).                                                                        |
| V-                | Internally generated negative transmitter supply (-5.5V).                                                                        |
| GND               | Ground connection.                                                                                                               |
| C1+               | External capacitor (voltage doubler) is connected to this lead.                                                                  |
| C1-               | External capacitor (voltage doubler) is connected to this lead.                                                                  |
| C2+               | External capacitor (voltage inverter) is connected to this lead.                                                                 |
| C2-               | External capacitor (voltage inverter) is connected to this lead.                                                                 |
| T <sub>IN</sub>   | TTL/CMOS compatible transmitter Inputs.                                                                                          |
| T <sub>OUT</sub>  | RS-232 level (nominally +/- 5.5V) transmitter outputs.                                                                           |
| R <sub>IN</sub>   | RS-232 compatible receiver inputs.                                                                                               |
| R <sub>OUT</sub>  | TTL/CMOS level receiver outputs.                                                                                                 |
| R <sub>OUTB</sub> | TTL/CMOS level, noninverting, always enabled receiver outputs.                                                                   |
| INVALID           | Active low output that indicates if no valid RS-232 levels are present on any receiver input.                                    |
| EN                | Active low receiver enable control; doesn't disable R <sub>OUTB</sub> outputs.                                                   |
| SHDN              | Active low input to shut down transmitters and on-board power supply, to place device in low power mode.                         |
| FORCEOFF          | Active low to shut down transmitters and on-chip power supply. This overrides any automatic circuitry and FORCEON (See Table 2). |
| FORCEON           | Active high input to override automatic powerdown circuitry thereby keeping transmitters active. (FORCEOFF must be high).        |

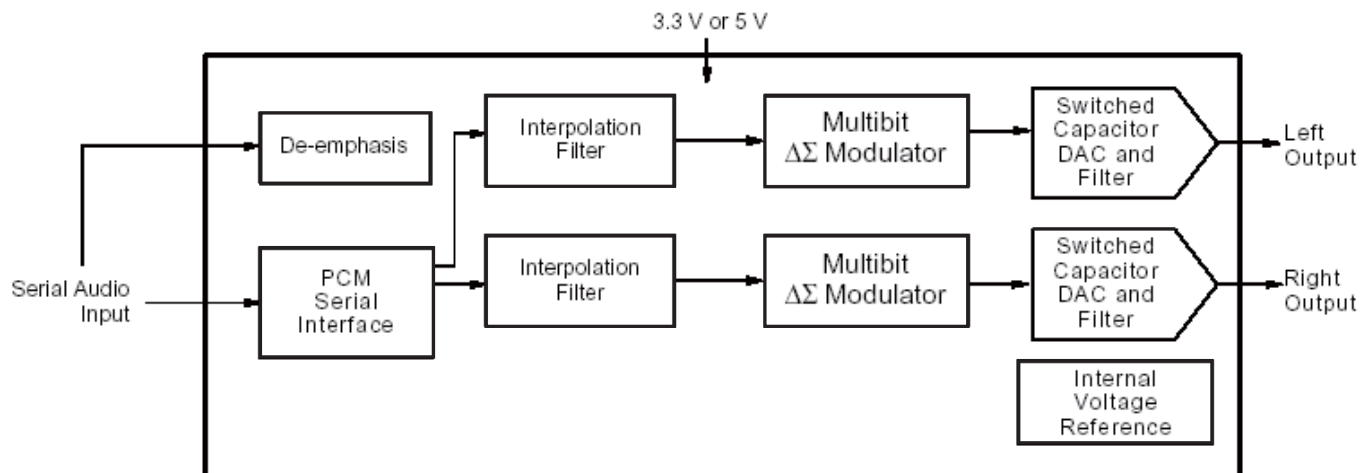
## PIN CONFIGURATION



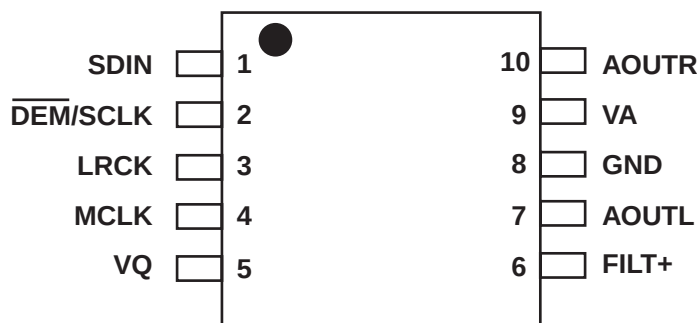
## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -67

### Q101: CS4344-CZZR (24bit, 192kHz, Stereo, DAC)

#### BLOCK DIAGRAM



#### PIN CONFIGURATION



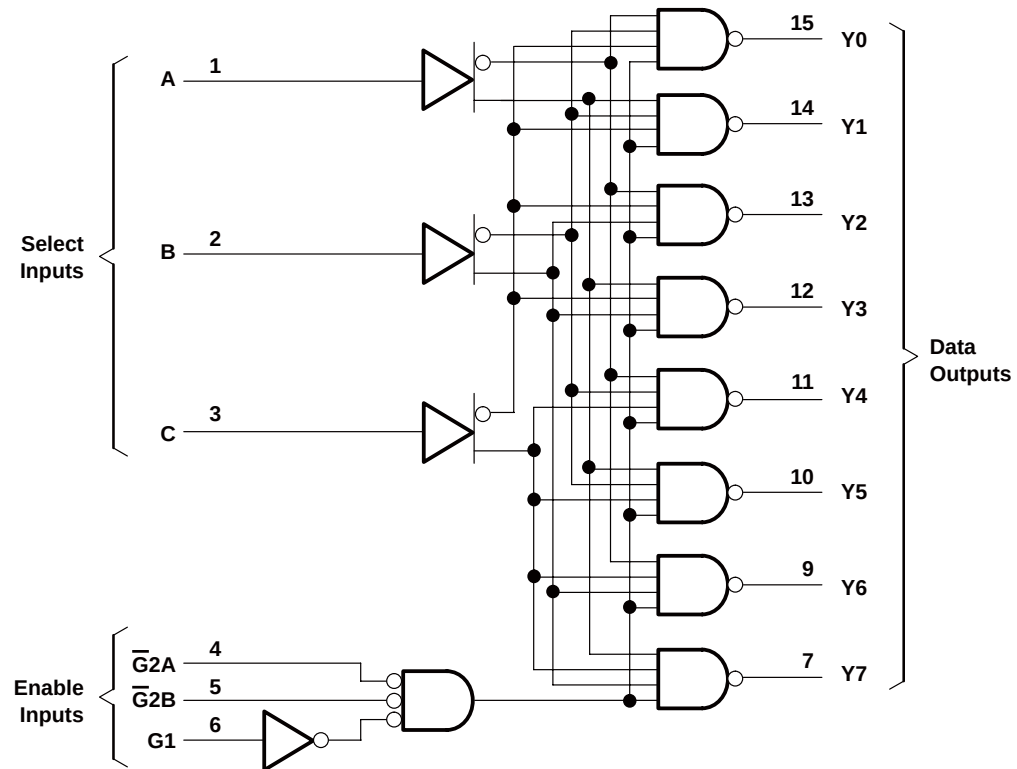
#### TERMINAL DESCRIPTION

| Pin Name                     | #  | Pin Description                                                                                                                                           |
|------------------------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDIN                         | 1  | <b>Serial Audio Data Input</b> ( <i>Input</i> ) - Input for two's complement serial audio data.                                                           |
| $\overline{\text{DEM/SCLK}}$ | 2  | <b>De-Emphasis/External Serial Clock Input</b> ( <i>Input</i> ) - used for de-emphasis filter control or external serial clock input.                     |
| LRCK                         | 3  | <b>Left Right Clock</b> ( <i>Input</i> ) - Determines which channel, Left or Right, is currently active on the serial audio data line.                    |
| MCLK                         | 4  | <b>Master Clock</b> ( <i>Input</i> ) - Clock source for the delta-sigma modulator and digital filters.                                                    |
| VQ                           | 5  | <b>Quiescent Voltage</b> ( <i>Output</i> ) - Filter connection for internal quiescent voltage.                                                            |
| FILT+                        | 6  | <b>Positive Voltage Reference</b> ( <i>Output</i> ) - Positive reference voltage for the internal sampling circuits.                                      |
| AOUTL                        | 7  | <b>Left Channel Analog Output</b> ( <i>Output</i> ) - The full scale analog output level is specified in the Analog Characteristics specification table.  |
| GND                          | 8  | <b>Ground</b> ( <i>Input</i> ) - ground reference.                                                                                                        |
| VA                           | 9  | <b>Analog Power</b> ( <i>Input</i> ) - Positive power for the analog and digital sections.                                                                |
| AOUTR                        | 10 | <b>Right Channel Analog Output</b> ( <i>Output</i> ) - The full scale analog output level is specified in the Analog Characteristics specification table. |

# IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -68

## Q7172: TC74VHC138FT (3-8 Line Decoder)

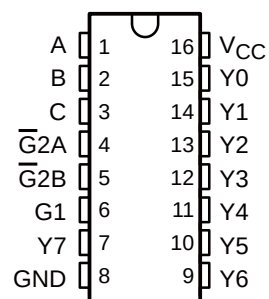
### BLOCK DIAGRAM



Logic Diagram

| ENABLE INPUTS |                  |                  | SELECT INPUTS |   |   | OUTPUTS |    |    |    |    |    |    |    |
|---------------|------------------|------------------|---------------|---|---|---------|----|----|----|----|----|----|----|
| G1            | $\overline{G2A}$ | $\overline{G2B}$ | C             | B | A | Y0      | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 |
| X             | H                | X                | X             | X | X | H       | H  | H  | H  | H  | H  | H  | H  |
| X             | X                | H                | X             | X | X | H       | H  | H  | H  | H  | H  | H  | H  |
| L             | X                | X                | X             | X | X | H       | H  | H  | H  | H  | H  | H  | H  |
| H             | L                | L                | L             | L | L | L       | H  | H  | H  | H  | H  | H  | H  |
| H             | L                | L                | L             | L | H | H       | L  | H  | H  | H  | H  | H  | H  |
| H             | L                | L                | L             | H | L | H       | H  | L  | H  | H  | H  | H  | H  |
| H             | L                | L                | L             | H | H | H       | H  | L  | H  | H  | H  | H  | H  |
| H             | L                | L                | H             | L | L | H       | H  | H  | H  | L  | H  | H  | H  |
| H             | L                | L                | H             | L | H | H       | H  | H  | H  | H  | L  | H  | H  |
| H             | L                | L                | H             | H | L | H       | H  | H  | H  | H  | H  | L  | H  |
| H             | L                | L                | H             | H | H | H       | H  | H  | H  | H  | H  | H  | L  |

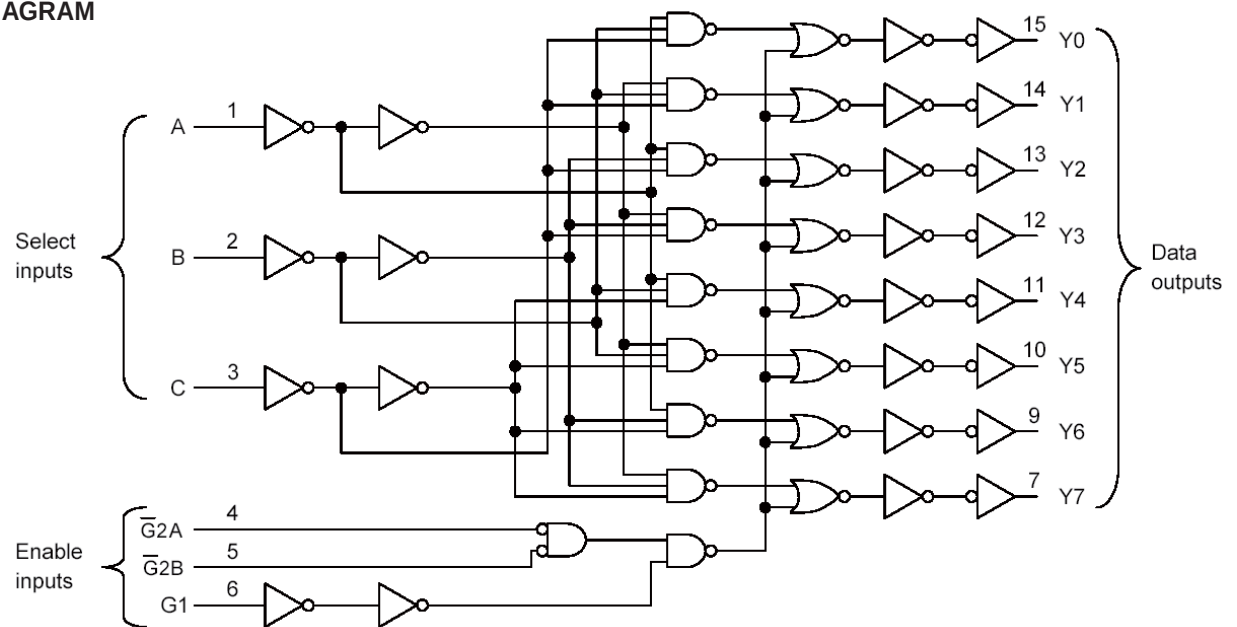
### PIN CONFIGURATION



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -69

## Q7171: TC74VHC238FT (3-8 Line Decoder)

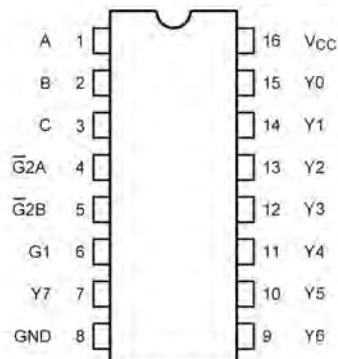
## BLOCK DIAGRAM



## Logic Diagram

| Inputs |                  |                  |        |   |   | Outputs |    |    |    |    |    |    |    | Selected Output |
|--------|------------------|------------------|--------|---|---|---------|----|----|----|----|----|----|----|-----------------|
| Enable |                  |                  | Select |   |   | Y0      | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 |                 |
| G1     | $\overline{G2A}$ | $\overline{G2B}$ | C      | B | A |         |    |    |    |    |    |    |    |                 |
| L      | X                | X                | X      | X | X | L       | L  | L  | L  | L  | L  | L  | L  | None            |
| X      | H                | X                | X      | X | X | L       | L  | L  | L  | L  | L  | L  | L  | None            |
| X      | X                | H                | X      | X | X | L       | L  | L  | L  | L  | L  | L  | L  | None            |
| H      | L                | L                | L      | L | L | H       | L  | L  | L  | L  | L  | L  | L  | Y0              |
| H      | L                | L                | L      | L | H | L       | H  | L  | L  | L  | L  | L  | L  | Y1              |
| H      | L                | L                | L      | H | L | L       | L  | H  | L  | L  | L  | L  | L  | Y2              |
| H      | L                | L                | L      | H | H | L       | L  | L  | H  | L  | L  | L  | L  | Y3              |
| H      | L                | L                | H      | L | L | L       | L  | L  | L  | H  | L  | L  | L  | Y4              |
| H      | L                | L                | H      | L | H | L       | L  | L  | L  | L  | H  | L  | L  | Y5              |
| H      | L                | L                | H      | H | L | L       | L  | L  | L  | L  | L  | H  | L  | Y6              |
| H      | L                | L                | H      | H | H | L       | L  | L  | L  | L  | L  | L  | H  | Y7              |

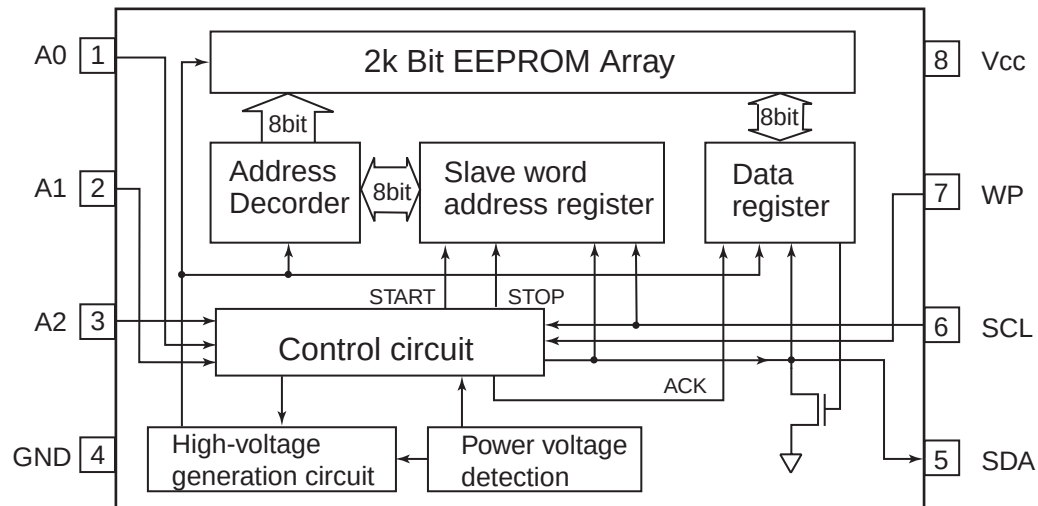
## PIN CONFIGURATION



## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -70

### Q8105, Q8125, Q8155, Q8175: BR24L02FV-W(256x8 bit EEPROM)

#### BLOCK DIAGRAM AND PIN CONFIGURATION

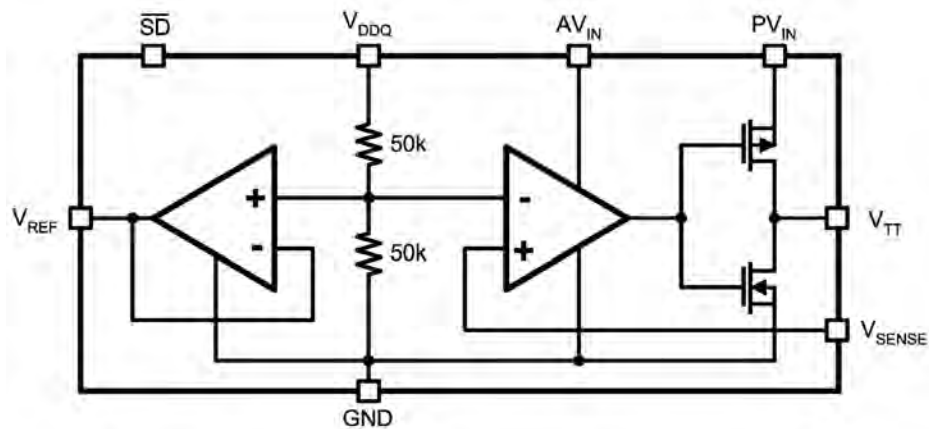


#### TERMINAL DESCRIPTION

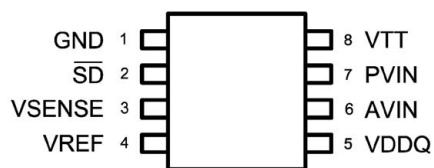
| Terminal | I/O | Function                                                |
|----------|-----|---------------------------------------------------------|
| Vcc      | -   | Apply a power source                                    |
| GND      | -   | Ground terminal                                         |
| A0,A1,A2 | I   | Slave address setting terminal                          |
| SCL      | I   | Serial clock input                                      |
| SDA      | I/O | Slave and word address.<br>Serial data input and output |
| WP       | I   | Write protect terminal                                  |

## IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS -71

### BLOCK DIAGRAM



## PIN CONFIGURATION



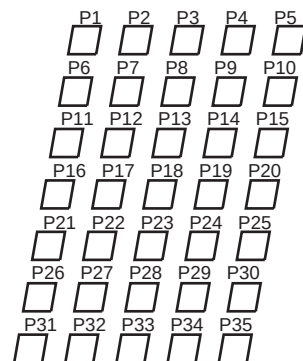
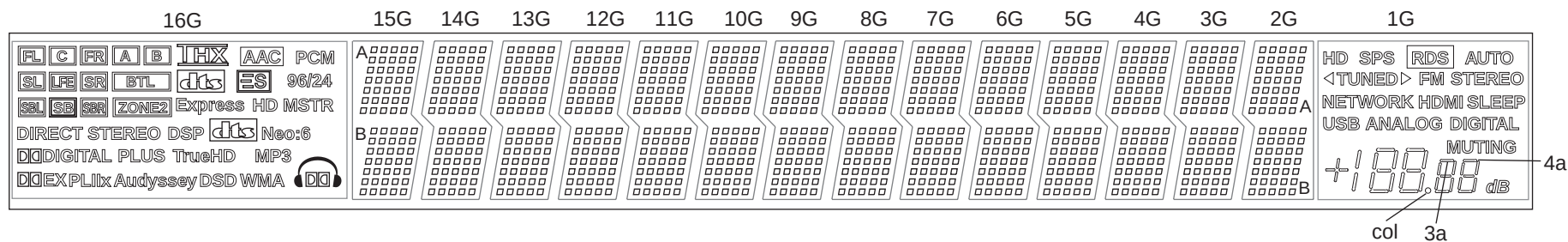
## TERMINAL DESCRIPTION

| PIN                      | DESCRIPTION                                                                                                                                                                            |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AVIN AND PVIN</b>     | AVIN and PVIN are the input supply pins for the LP2996. AVIN is used to supply all the internal control circuitry.                                                                     |
| <b>VDDQ</b>              | VDDQ is the input used to create the internal reference voltage for regulating $V_{TT}$ . The reference voltage is generated from a resistor divider of two internal 50 kohm resistor. |
| <b>V<sub>SENSE</sub></b> | The purpose of the sense pin is to provide improved remote load regulation.                                                                                                            |
| <b>SHUTDOWN</b>          | The LP2996 contains an active low shutdown pin that can be used to tri-state $V_{TT}$ .                                                                                                |
| <b>V<sub>REF</sub></b>   | $V_{REF}$ provides the buffered output of the internal reference voltage VDDQ / 2.                                                                                                     |
| <b>V<sub>TT</sub></b>    | $V_{TT}$ is the regulated output that is used to terminate the bus resistors. It is capable of sinking and sourcing current while regulating the output precisely to VDDQ / 2.         |

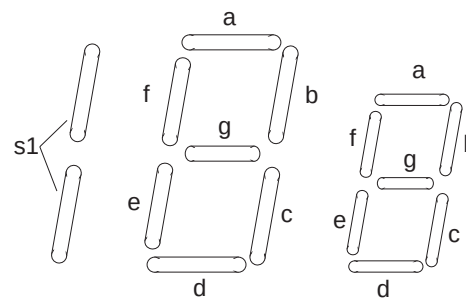
## FL TUBE VIEWS-1

Q7500: HNA-16SL04T

## GRID ASSIGNMENT



15G~2G  
A: Upper line  
B: Lower line



1G

## FL TUBE VIEWS-2

Q7500: HNA-16SL04T

## ANODE CONNECTION

|     | 16G  | 15G-2G | 1G        |
|-----|------|--------|-----------|
| P1  | —    | 1-1A   | —         |
| P2  | —    | 2-1A   | —         |
| P3  | —    | 3-1A   | —         |
| P4  | —    | 4-1A   | —         |
| P5  | —    | 5-1A   | —         |
| P6  | —    | 1-2A   | —         |
| P7  | —    | 2-2A   | —         |
| P8  | —    | 3-2A   | —         |
| P9  | —    | 4-2A   | —         |
| P10 | —    | 5-2A   | —         |
| P11 | —    | 1-3A   | —         |
| P12 | —    | 2-3A   | —         |
| P13 | —    | 3-3A   | —         |
| P14 | —    | 4-3A   | HD        |
| P15 | —    | 5-3A   | SPS       |
| P16 | PCM  | 1-4A   | RDS       |
| P17 | AAC  | 2-4A   | AUTO      |
| P18 | THX  | 3-4A   | FM STEREO |
| P19 | B    | 4-4A   | ◁ ▷       |
| P20 | A    | 5-4A   | TUNED     |
| P21 | (FR) | 1-5A   | SLEEP     |
| P22 | (F)R | 2-5A   | HDMI      |
| P23 | F(R) | 3-5A   | NETWORK   |
| P24 | (C)  | 4-5A   | —         |
| P25 | C    | 5-5A   | —         |
| P26 | (FL) | 1-6A   | —         |
| P27 | (F)L | 2-6A   | —         |

|     | 16G     | 15G-2G | 1G      |
|-----|---------|--------|---------|
| P28 | F(L)    | 3-6A   | —       |
| P29 | SL      | 4-6A   | —       |
| P30 | (SL)    | 5-6A   | —       |
| P31 | LFE     | 1-7A   | —       |
| P32 | (LFE)   | 2-7A   | —       |
| P33 | —       | 3-7A   | DIGITAL |
| P34 | —       | 4-7A   | ANALOG  |
| P35 | (SR)    | 5-7A   | USB     |
| P36 | SR      | 1-1B   | —       |
| P37 | BTL     | 2-1B   | MUTING  |
| P38 | dt      | 3-1B   | 2a      |
| P39 | ES      | 4-1B   | 2b      |
| P40 | 96/24   | 5-1B   | 2g      |
| P41 | MSTR    | 1-2B   | 2f      |
| P42 | HD      | 2-2B   | 2c      |
| P43 | Express | 3-2B   | 2e      |
| P44 | ZONE2   | 4-2B   | 2d      |
| P45 |         | 5-2B   | 1a      |
| P46 | SBR     | 1-3B   | 1b      |
| P47 |         | 2-3B   | 1g      |
| P48 | SB      | 3-3B   | 1f      |
| P49 |         | 4-3B   | 1c      |
| P50 | SBL     | 5-3B   | 1e      |
| P51 | Neo:6   | 1-4B   | 1d      |
| P52 | dt      | 2-4B   | !       |
| P53 | DSP     | 3-4B   | --      |
| P54 | STEREO  | 4-4B   | s1      |

|     | 16G      | 15G-2G | 1G  |
|-----|----------|--------|-----|
| P55 | DIRECT   | 5-4B   | col |
| P56 | DD       | 1-5B   | 3a  |
| P57 | DIGITAL  | 2-5B   | 3f  |
| P58 | PLUS     | 3-5B   | 3b  |
| P59 | TrueHD   | 4-5B   | 3e  |
| P60 | MP3      | 5-5B   | 3g  |
| P61 |          | 1-6B   | 3d  |
| P62 | DD       | 2-6B   | 3c  |
| P63 | WMA      | 3-6B   | 4a  |
| P64 | DSD      | 4-6B   | 4f  |
| P65 | Audyssey | 5-6B   | 4b  |
| P66 | X        | 1-7B   | 4e  |
| P67 | II       | 2-7B   | 4g  |
| P68 | PL       | 3-7B   | 4d  |
| P69 | EX       | 4-7B   | 4c  |
| P70 | DD       | 5-7B   | dB  |

## MICROPROCESSOR TERMINAL DESCRIPTIONS -1

## Q7001: M3087BFLBGP

| Pin No. | Pin Name       | I/O | Act. | Description                                     |
|---------|----------------|-----|------|-------------------------------------------------|
| 1       | SRTXD          | O   | H    | SIRIUS UART data output                         |
| 2       | ~SRRST         | O   | L    | SIRIUS IC reset                                 |
| 3       | FANCTRL        | O   | D/A  | Fan control output                              |
| 4       | CECIN          | I   | H    | CEC input                                       |
| 5       | XMTXD          | O   | H    | XM UART data output                             |
| 6       | XMRXD          | I   | H    | XM UART data input                              |
| 7       | ~XMRST         | O   | L    | XM IC reset                                     |
| 8       | XMANT          | I   | L    | XM IC 3B/4A input                               |
| 9       | ~RDSCLK        | I   | CLK  | RDS serial clock input                          |
| 10      | RDSSDI         | I   | H    | RDS serial data input                           |
| 11      | ~STEREO        | I   | L    | FM STEREO detect                                |
| 12      | ~SD            | I   | L    | FM tuned detect                                 |
| 13      | (~TUNDACRST)   | O   | L    | Not used                                        |
| 14      | ~HDRST         | O   | L    | HD Radio reset control                          |
| 15      | BYTE           | I   | ---  | Connect to Vss                                  |
| 16      | CNVss          | I   | ---  | Connect to Vss                                  |
| 17      | (~NETBOOT)     | O   | L    | Not used                                        |
| 18      | (~NETSTATUS)   | I   | L    | Not used                                        |
| 19      | ~RESET         | I   | L    | Reset input                                     |
| 20      | Xout           | O   | CLK  | Oscillator output(8.00MHz)                      |
| 21      | Vss            | I   | ---  | GND                                             |
| 22      | Xin            | I   | CLK  | Oscillator input(8.00MHz)                       |
| 23      | Vcc            | I   | ---  | Power supply(+3.3V)                             |
| 24      | ~NMI           | I   | L    | Connect to Vcc                                  |
| 25      | ~POFF          | I   | L    | POFF input                                      |
| 26      | ~POFF2         | I   | L    | POFF input                                      |
| 27      | ~KEYINT        | I   | L    | Key interrupt input                             |
| 28      | CECTRG         | I   | H    | CEC trigger input                               |
| 29      | CECOUT         | O   | H    | CEC output                                      |
| 30      | Z2VOLCLK       | O   | H    | Clock output to Zone2/3 Volume IC               |
| 31      | Z2VOLSDO       | O   | H    | Data output to Zone2/3 Volume IC                |
| 32      | XMLNK          | I   | H    | 3B/4A input from XM IC                          |
| 33      | VSPINT         | I   | H    | Lock state input from HQV                       |
| 34      | ~VSPRST/VDLOCK | O   | L    | Lock status output to HQV                       |
| 35      | VSPREQ         | O   | H    | Request output to HQV                           |
| 36      | VSPRxD/VSPSCL  | I/O | H    | HQV UART data input                             |
| 37      | VSPTxD/VSPSDA  | I/O | H    | HQV UART data output                            |
| 38      | RS232TxD/FTxD  | O   | H    | RS232 UART data output/Flash memory rewrite pin |
| 39      | Vcc            | I   | ---  | Power supply(+3.3V)                             |
| 40      | RS232RxD/FRxD  | I   | H    | RS232 UART data input/Flash memory rewrite pin  |
| 41      | Vss            | I   | ---  | GND                                             |
| 42      | FCLK           | O   | H    | Flash memory rewrite pin                        |
| 43      | FBUSY          | O   | H    | Flash memory rewrite pin                        |
| 44      | NETTxD         | O   | H    | (NET UART data output)                          |
| 45      | NETRxD         | I   | H    | (NET UART data input)                           |
| 46      | ~NETRST        | O   | L    | (NET reset output)                              |
| 47      | (NETRSV)       | O   | H    | Not used                                        |
| 48      | ~ROMCS         | O   | L    | E2PROM chip select output                       |
| 49      | ROMSDI         | I   | H    | E2PROM serial data input                        |
| 50      | ROMSDO         | O   | H    | E2PROM serial data output                       |

## MICROPROCESSOR TERMINAL DESCRIPTIONS -2

## Q7001: M3087BFLBGP

| Pin No. | Pin Name    | I/O | Act. | Description                              |
|---------|-------------|-----|------|------------------------------------------|
| 51      | ROMCLK      | O   | CLK  | E2PROM serial clock output               |
| 52      | (NETRESUME) | O   | L    | Not used                                 |
| 53      | SPRLFB      | O   | H    | Front-B Speaker relay control            |
| 54      | FEPM        | I   | H    | Connect to Vss                           |
| 55      | SPRLZ2      | O   | H    | Zone2 Speaker relay control              |
| 56      | Z3MUTE      | O   | H    | Zone3 mute control                       |
| 57      | Vss         | I   | ---  | GND                                      |
| 58      | Z2MUTE      | O   | H    | Zone2 mute control                       |
| 59      | Vcc         | I   | H    | Power supply(+3.3V)                      |
| 60      | SBZ2MUTE    | O   | H    | Surround Back/Powered Zone2 mute control |
| 61      | AMUTE       | O   | H    | Main audio mute control                  |
| 62      | SPRLSB      | O   | H    | Surround Back Speaker relay control      |
| 63      | SPRLCS      | O   | H    | Center/Surround Speaker relay control    |
| 64      | SPRLF       | O   | H    | Front Speaker relay control              |
| 65      | FCS         | I   | H    | Connect to Vcc                           |
| 66      | (DAMPERSV)  | O   | H    | Not used                                 |
| 67      | (DAMPINT)   | O   | H    | Not used                                 |
| 68      | FSWPOWER    | O   | L    | Control output to NJU7312                |
| 69      | SELSTB      | O   | H    | Audio input selector IC Strobe output    |
| 70      | SELDAT      | O   | H    | Audio input selector IC data output      |
| 71      | SELCLK      | O   | CLK  | Audio input selector IC clock output     |
| 72      | ~VOLRST     | O   | L    | Volume IC reset control                  |
| 73      | ~VOLUME     | O   | L    | Volume IC mute control                   |
| 74      | Vcc         | I   | ---  | Power supply(+3.3V)                      |
| 75      | ~VOLCS      | O   | L    | Volume IC chip select                    |
| 76      | Vss         | I   | ---  | GND                                      |
| 77      | VOLSDO      | O   | H    | Volume IC serial data output             |
| 78      | VOLCLK      | O   | CLK  | Volume IC serial clock output            |
| 79      | ~DSP3INT    | I   | L    | 3rd DSP BUSY detect input                |
| 80      | ~DSP3RST    | O   | L    | 3rd DSP reset                            |
| 81      | ~DSP2INT    | I   | L    | 2nd DSP BUSY detect input                |
| 82      | ~DSP2RST    | O   | L    | 2nd DSP reset control                    |
| 83      | ~DSP1INT    | I   | L    | 1st DSP BUSY detect input                |
| 84      | ~DSP1RST    | O   | L    | 1st DSP reset control                    |
| 85      | ~DACRST     | O   | L    | DAC reset control                        |
| 86      | DIRINT      | I   | H    | DIR Error detect input                   |
| 87      | ~DIRRST     | O   | L    | DIR reset control                        |
| 88      | DIGSDI      | I   | H    | DIR/DSP/DAC serial data input            |
| 89      | DIGCLK      | O   | CLK  | DIR/DSP/DAC/FLD serial clock output      |
| 90      | DIGSDO      | O   | H    | DIR/DSP/DAC/FLD serial data output       |
| 91      | Vcc         | I   | ---  | Power supply(+3.3V)                      |
| 92      | PROTECT     | I   | H    | PROTECT detect input                     |
| 93      | Vss         | I   | ---  | GND                                      |
| 94      | APOWER2     | O   | H    | Main power transformer control output2   |
| 95      | APOWER1     | O   | H    | Main power transformer control output1   |
| 96      | MEQMUTE     | I   | H    | 3rd DSP Audyssey mute detect input       |
| 97      | VPOWER      | O   | H    | Video circuit power control output       |
| 98      | MPOWER      | O   | H    | Middle power trans control output        |
| 99      | VOLH        | I   | A/D  | Power Amplifier output voltage detect    |
| 100     | THERMAL2    | I   | A/D  | Thermal sensor voltage input             |

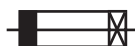
## MICROPROCESSOR TERMINAL DESCRIPTIONS -3

## Q7001: M3087BFLBGP

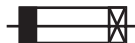
| Pin No. | Pin Name       | I/O | Act. | Description                                                          |
|---------|----------------|-----|------|----------------------------------------------------------------------|
| 101     | THERMAL1       | I   | A/D  | Thermal sensor voltage input                                         |
| 102     | ~REMIN         | I   | L    | Remote control signal input                                          |
| 103     | DSP1NIC        | I   | H    | 1st DSP status change detect                                         |
| 104     | SYSIN          | I   | H    | RI input                                                             |
| 105     | ~SYSOUT        | O   | L    | RI output                                                            |
| 106     | MICMUTE        | O   | H    | Setup Mic mute control                                               |
| 107     | ~MICDET        | I   | L    | Setup Mic detect input                                               |
| 108     | HPRL           | O   | H    | Headphone relay control                                              |
| 109     | HPDET          | I   | H    | Headphone detect input                                               |
| 110     | INIT3          | I   | A/D  | Initial setup input 3                                                |
| 111     | INIT2          | I   | A/D  | Initial setup input 2                                                |
| 112     | INIT1          | I   | A/D  | Initial setup input 1                                                |
| 113     | BAND           | I   | A/D  | Initial setup input                                                  |
| 114     | SIOCSEA        | O   | H    | DIR/DSP/DAC/FLD/etc chip select output                               |
| 115     | SIOCSEB        | O   | H    | DIR/DSP/DAC/FLD/etc chip select output                               |
| 116     | SIOCSEC        | O   | H    | DIR/DSP/DAC/FLD/etc chip select output                               |
| 117     | SIOCSE1        | O   | H    | DIR/DSP/DAC/FLD chip select output                                   |
| 118     | SIOCSE2        | O   | H    | Selector IC etc chip select output                                   |
| 119     | VOLB           | I   | H    | Master volume data input                                             |
| 120     | VOLA           | I   | H    | Master volume data input                                             |
| 121     | LEDSTBY2       | O   | H    | STANDBY LED control output                                           |
| 122     | LEDSTBY        | O   | H    | STANDBY LED control output                                           |
| 123     | ~FLDRST        | O   | L    | FL Driver IC reset control                                           |
| 124     | RXMUTE         | I   | H    | HDMI Receiver mute input                                             |
| 125     | TXMUTE         | O   | H    | HDMI Transmitter mute output                                         |
| 126     | ~HDMIRST       | O   | L    | HDMI reset control                                                   |
| 127     | HDMISTB        | I   | H    | HDMI Strobe input                                                    |
| 128     | HDMISDI        | I   | H    | HDMI serial data input                                               |
| 129     | HDMICLK        | O   | CLK  | HDMI serial clock output                                             |
| 130     | Vss            | I   | ---  | GND                                                                  |
| 131     | HDMISDO        | O   | H    | HDMI serial data output                                              |
| 132     | Vcc            | I   | ---  | Power supply(+3.3V)                                                  |
| 133     | KEY3           | I   | A/D  | Selector Key voltage input                                           |
| 134     | KEY2           | I   | A/D  | Selector Key voltage input                                           |
| 135     | KEY1           | I   | A/D  | Selector Key voltage input                                           |
| 136     | KEY0           | I   | A/D  | Selector Key voltage input                                           |
| 137     | ~DSP1DEC       | I   | L    | 1st DSP decode status input                                          |
| 138     | TUMUTE         | O   | H    | Tuner mute output                                                    |
| 139     | TUNSDA/VSELSDA | I/O | H    | Tuner PLL/Video Selector/Video Encoder,Decoder I2C data input/output |
| 140     | AVss           | I   | ---  | GND                                                                  |
| 141     | TUNSCL/VSELSCL | I/O | H    | Tuner PLL/Video Selector/Video Encoder,Decoder I2C clock output      |
| 142     | Vref           | I   | ---  | Reference voltage(Connect to Vcc)                                    |
| 143     | AVcc           | I   | ---  | Power supply(+3.3V)                                                  |
| 144     | SRRxD          | I   | H    | SIRIUS UART data input                                               |

## SERVICE PROCEDURE-1

### 1. Replacing the fuses



This symbol located near the fuse indicates that the fuse used is slow operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating, refer to the marking adjacent to the symbol.



Ce symbole indique que le fusible utilise est à lent. Pour une protection permanente, n'utiliser que des fusibles de même type. Ce dernier est indiqué là où le présent symbole est apposé.

#### <Notes>

|                                        |                                           |
|----------------------------------------|-------------------------------------------|
| <DC> : TX-SR876 USA and Canadian model | <MB> : TX-SR876 British model             |
| <DD> : TX-SR876 USA model              | <MT> : TX-SR876 Asian model for 220V-240V |
| <DT> : TX-SR876 Taiwanese model        | <MR> : TX-SA876 Chinese model             |
| <MP> : TX-SR876 European model         |                                           |

| REF NO. | PART NAME | DESCRIPTION   | PART NO. | REMARKS             |
|---------|-----------|---------------|----------|---------------------|
| F2501   | FUSE      | 4A-UL/T-233   | 252325GR | !                   |
| F2502   | FUSE      | 4A-UL/T-233   | 252325GR | !                   |
| F6601   | FUSE      | 20A-UL-250V   | 252304GR | !                   |
| F6602   | FUSE      | 20A-UL-250V   | 252304GR | !                   |
| F6603   | FUSE      | 20A-UL-250V   | 252304GR | !                   |
| F6604   | FUSE      | 20A-UL-250V   | 252304GR | !                   |
| F9000   | FUSE      | 5A-UL/T-233   | 252326GR | !, <DC, DD>         |
| F9100   | FUSE      | 12A-UL-ST6    | 252340GR | !, <DC, DD, DT>     |
| F9100   | FUSE      | 6.3A-SE-EAK   | 252079GR | !, <MP, MB, MT, MR> |
| F9101   | FUSE      | 4A-UL/T-233   | 252325GR | !                   |
| F9102   | FUSE      | 4A-UL/T-233   | 252325GR | !                   |
| F9201   | FUSE      | 2.5A-UL/T-233 | 252321GR | !, <DC, DD>         |
| F9202   | FUSE      | 2.5A-UL/T-233 | 252321GR | !, <DC, DD>         |
| F9301   | FUSE      | 4A-UL/T-233   | 252325GR | !                   |

### 2. To initialize the unit

1. Press and hold down VCR/DVR button, then press ON/STANDBY button when the unit is powered on.
2. After "Clear" is displayed, the preset memory and each mode stored in the memory are initialized and will return to the factory settings, and turn to Standby mode.

### 3. Safety check out

(U.S.A. model only)

After correcting the original service problem, perform the following safety check before releasing the unit to the customer.

#### Leakage current Check

Measure the leakage current to a known earth ground (water pipe or conduct etc.) by connecting a leakage current tester between the earth ground and exposed metal parts of the unit (input/output ground terminals, screw heads or metal overlays etc.).

Plug the power supply cord directly into a 120Vac 60Hz wall socket and turn ON/STANDBY button on.

Any current measured must not exceed 0.5mA.

### 4. Memory Backup

This model uses a EE-PROM IC in order to retain radio presets and other settings. So, memory contents will be kept eternally with no care.

### 5. Replacing HDMI Board (NAHDM-9114)

When removing HDMI board (NAHDM-9114) from the unit, wait 10 minutes after having unplugged the power supply cord from a wall socket. This is because the perfect discharging of capacitors connected to U8000(VX-50) is necessary to prevent from the break of VX-50.

Pay attention that this procedure is necessary every time when removing the HDMI board in testing or repairing the board.

To make this procedure short, wait 15 seconds after having unplugged the power supply cord, then short TP1 (located beside J8002B) and unplug J8002B, and then unplug P2801B. If this order is not right, VX-50 would break.

## SERVICE PROCEDURE-2

### 6. Replacing Power Amplifier Parts

When a power amplifier of certain channel is broken and goes into Protect mode, the following parts in the channel must be replaced at the sametime, because these parts also get damage in most cases.

| Front L ch                                                                                                     | Front R ch                                                                                                     | Center ch                                                                                                      | Surround L ch                                                                                                  | Surround R ch                                                                                                  | Surround Back L ch                                                                                             | Surround Back R ch                                                                                             |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Q6010,Q6020<br>Q6030,Q6040<br>Q6050,Q6060<br>Q6080,Q6090<br>Q6100,Q6110                                        | Q6011,Q6021<br>Q6031,Q6041<br>Q6051,Q6061<br>Q6081,Q6091<br>Q6101,Q6111                                        | Q6012,Q6022<br>Q6032,Q6042<br>Q6052,Q6062<br>Q6082,Q6092<br>Q6102,Q6112                                        | Q6013,Q6023<br>Q6033,Q6043<br>Q6053,Q6063<br>Q6083,Q6093<br>Q6103,Q6113                                        | Q6014,Q6024<br>Q6034,Q6044<br>Q6054,Q6064<br>Q6084,Q6094<br>Q6104,Q6114                                        | Q6015,Q6025<br>Q6035,Q6045<br>Q6055,Q6065<br>Q6085,Q6095<br>Q6105,Q6115                                        | Q6016,Q6026<br>Q6036,Q6046<br>Q6056,Q6066<br>Q6086,Q6096<br>Q6106,Q6116                                        |
| C6010,C6020                                                                                                    | C6011,C6021                                                                                                    | C6012,C6022                                                                                                    | C6013,C6023                                                                                                    | C6014,C6024                                                                                                    | C6015,C6025                                                                                                    | C6016,C6026                                                                                                    |
| R6060,R6070<br>R6250,R6260<br>R6270,R6280<br>R6290,R6300<br>R6310,R6330<br>R6340,R6350<br>R6360,R6400<br>R6410 | R6061,R6071<br>R6251,R6261<br>R6271,R6281<br>R6291,R6301<br>R6311,R6331<br>R6341,R6351<br>R6361,R6401<br>R6411 | R6062,R6072<br>R6252,R6262<br>R6272,R6282<br>R6292,R6302<br>R6312,R6332<br>R6342,R6352<br>R6362,R6402<br>R6412 | R6063,R6073<br>R6253,R6263<br>R6273,R6283<br>R6293,R6303<br>R6313,R6333<br>R6343,R6353<br>R6363,R6403<br>R6413 | R6064,R6074<br>R6254,R6264<br>R6274,R6284<br>R6294,R6304<br>R6314,R6334<br>R6344,R6354<br>R6364,R6404<br>R6414 | R6065,R6075<br>R6255,R6265<br>R6275,R6285<br>R6295,R6305<br>R6315,R6335<br>R6345,R6355<br>R6365,R6405<br>R6415 | R6066,R6076<br>R6256,R6266<br>R6276,R6286<br>R6296,R6306<br>R6316,R6336<br>R6346,R6356<br>R6366,R6406<br>R6416 |

NACLA-9063, NACLA-9066 and NACLA-9068 are electrically and mechanically full-compatible with each other, but idling readjustment is necessary.

NACLA-9064, NACLA-9065, NACLA-9067 and NACLA-9069 are also electrically and mechanically full-compatible with each other, but idling readjustment is necessary.

The parts listed above include the following driver-stage components in each pcb.

| NACLA-9063<br>(Front L ch)                                        | NACLA-9066<br>(Surround L ch)                                     | NACLA-9068<br>(Surround Back L ch)                                | NACLA-9064<br>(Front R ch)                                        | NACLA-9065<br>(Center ch)                                         | NACLA9067<br>(Surround R ch)                                      | NACLA-9069<br>(Surround Back R ch)                                |
|-------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|
| Q6010,Q6020<br>Q6030,Q6040                                        | Q6013,Q6023<br>Q6033,Q6043                                        | Q6015,Q6025<br>Q6035,Q6045                                        | Q6011,Q6021<br>Q6031,Q6041                                        | Q6012,Q6022<br>Q6032,Q6042                                        | Q6014,Q6024<br>Q6034,Q6044                                        | Q6016,Q6026<br>Q6036,Q6046                                        |
| C6010,C6020                                                       | C6013,C6023                                                       | C6015,C6025                                                       | C6011,C6021                                                       | C6012,C6022                                                       | C6014,C6024                                                       | C6016,C6026                                                       |
| R6060,R6070<br>R6250,R6260<br>R6270,R6280<br>R6290,R6300<br>R6310 | R6063,R6073<br>R6253,R6263<br>R6273,R6283<br>R6293,R6303<br>R6313 | R6065,R6075<br>R6255,R6265<br>R6275,R6285<br>R6295,R6305<br>R6315 | R6061,R6071<br>R6251,R6261<br>R6271,R6281<br>R6291,R6301<br>R6311 | R6062,R6072<br>R6252,R6262<br>R6272,R6282<br>R6292,R6302<br>R6312 | R6064,R6074<br>R6254,R6264<br>R6274,R6284<br>R6294,R6304<br>R6314 | R6066,R6076<br>R6256,R6266<br>R6276,R6286<br>R6296,R6306<br>R6316 |

## FIRMWARE UPDATE -1

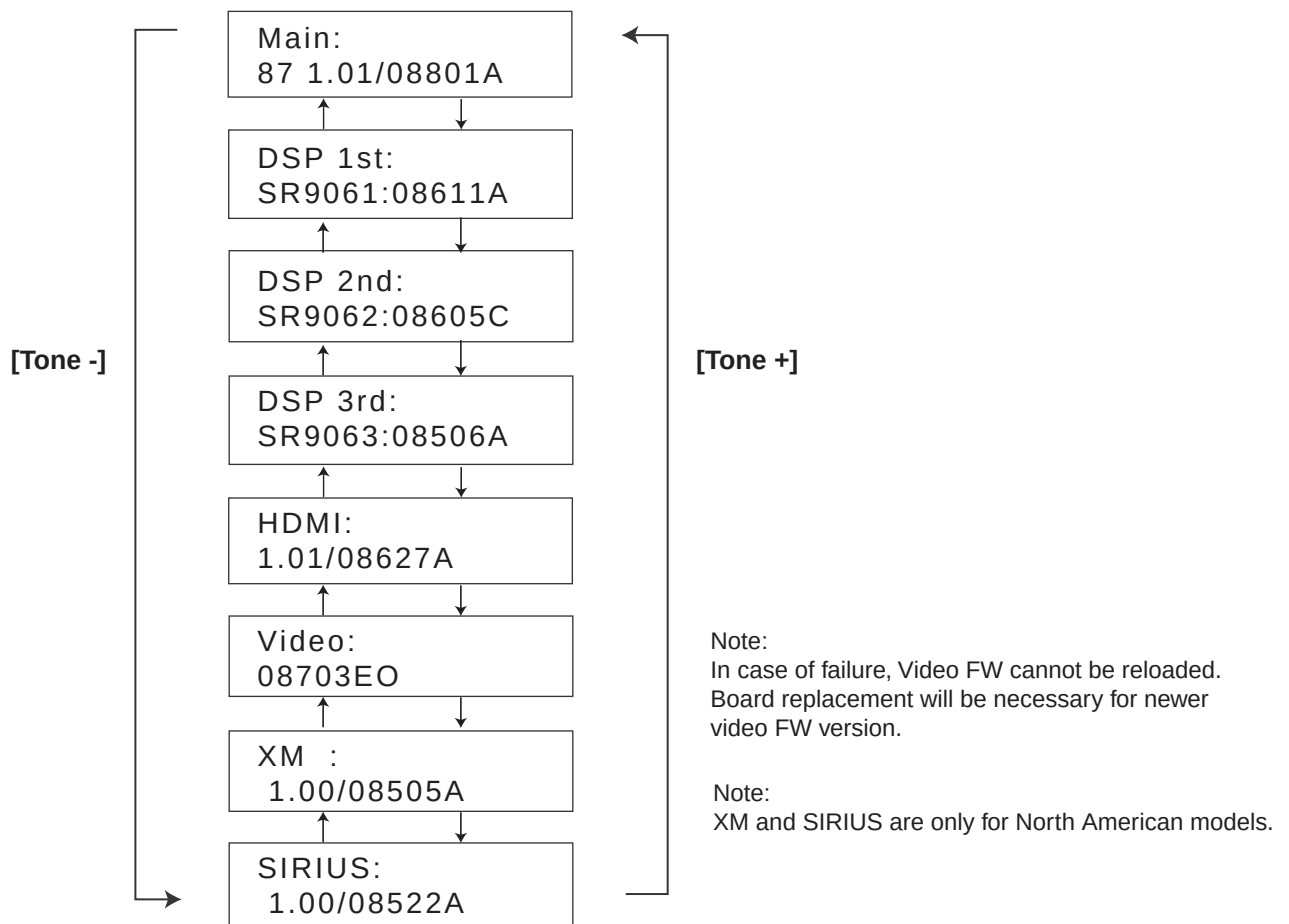
### How to Check Versions of Main, DSP(1st to 3rd), HDMI and Video FW

1. Press and hold down [DISPLAY] button, then press [ON/STANDBY] button when the unit is powered on.  
The main microprocessor version will be displayed on FL display for about 3 seconds.

<e.g.>

Main:  
87 1.01/08801A

2. Press [Tone +] button while the version is displayed. Then, “DSP 1st SR9061:08611A” will be displayed.  
Press [Tone +] button again while “DSP 1st SR9061:08611A” is displayed. Then, “DSP 2nd SR9062:08605C” will be displayed. In this way, as [Tone +] button is pressed while a version is displayed, the next information will be displayed.  
If [Tone -] button is pressed, the order will be reversed.



Note:  
These versions are the latest as of August 20, 2008.

## FIRMWARE UPDATE -2

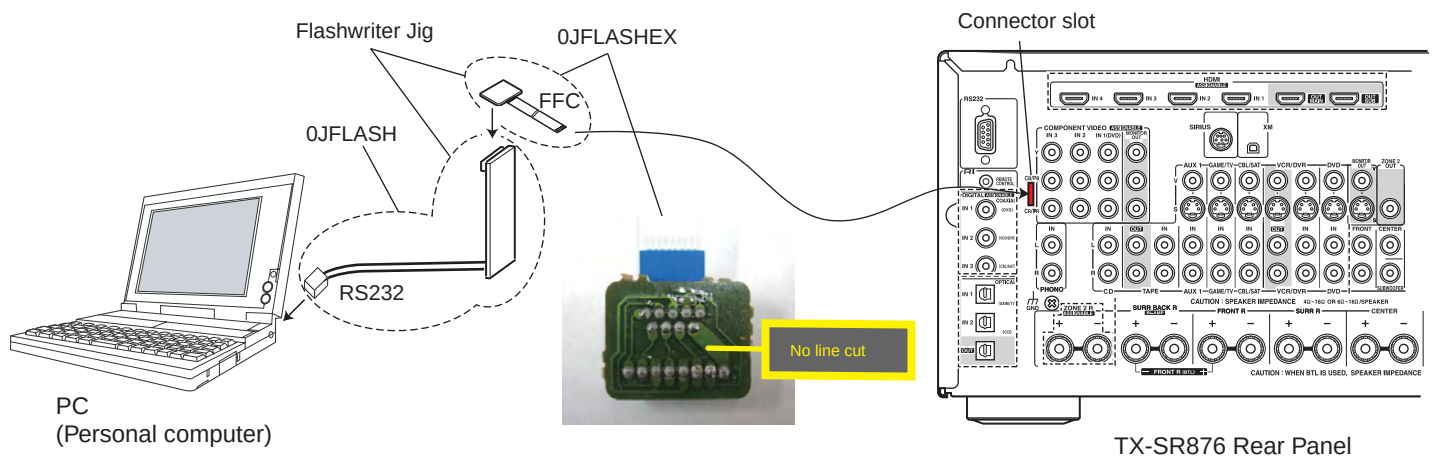
### Preparation for Update (Main microprocessor)

#### Hardware and Software

1. Personal computer(PC) with Windows XP or 2000
2. Flashwriter jig: 0JFLASH and 0JFLASHEX for Main
3. Writing soft: "flasta\_exe.zip" and Manual: "Flash Writer M16 Manual.pdf"  
Download and unzip "flasta\_exe.zip" to extract "FlashSta.exe" etc. in advance.
4. Program & ID: Download the latest ".mot" and ".id" files for TX-SR876/TX-SA876/DTR-8.9/DHC-9.9/PR-SC886 and store in the same folder as "FlashSta.exe."

#### Connection and Setup

1. While the target unit is powered off, connect 0JFLASH and 0JFLASHEX to RS232 port of the PC.
2. Connect the FFC of the jig to the connector slot on the rear panel of TX-SR876/TX-SA876/DTR-8.9/DHC-9.9/PR-SC886 .
3. Power on the unit.



### Main Microprocessor Update Procedure

1. Start "FlashSta.exe" and update the unit referring to "Flash Writer M16 Manual.pdf".  
**MCU Type is M16C/80 M32.** It takes about 15 minutes.
2. After "Program and Read Check" are finished, click "Exit" button to end "FlashSta.exe".
3. Turn off the main power switch or pull the power cord off the wall socket.  
Pay attention that pushing [ON/STANDBY] button to power off is not perfect.
4. Remove the jig from the unit and power on the unit again. Confirm the new version number.

## FIRMWARE UPDATE -3

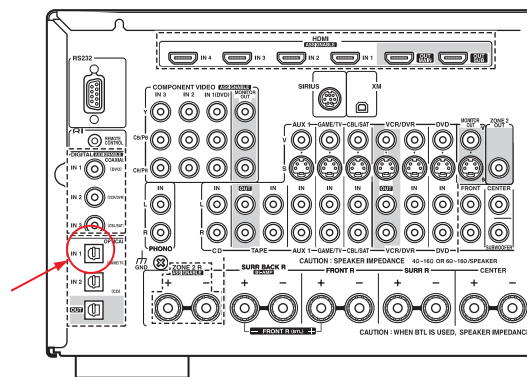
### Preparation for Update (DSP 1st-3rd, all in one)

#### Hardware and Software

1. Blank CD-R, PC, CD-R writing software
2. Writing soft: "CD\_SR906123\_08611A\_08605C\_08506A.wav"  
(File name depends on the version.)  
Store it in a blank CD-R as a music CD in advance.
3. CD player with Optical output terminal  
Note: Some CD players and a lot of DVD players process audio signal before output. Such players cannot be used for this update.
4. Optical cable

#### First Procedure

1. Connect a CD Player with the target unit via Optical Input 1.
2. Power on the unit and wait for more than 10 seconds.



TX-SR876 Rear Panel

### DSP Update Procedure

1. Press and hold down [DISPLAY] button and then press [ON/STANDBY] button to show Main FW version when the unit is powered on.

<e.g.>

Main:  
87 1.01/08801A

2. Press [Tone +] button while the Main version is displayed. Then, 1st DSP FW version will be displayed.

<e.g.>

DSP 1st:  
SR9061:08611A

3. Press [Return] button while the DSP version is displayed. Then, the following message will appear.

S/PDIF Update..

4. Play the DSP FW CD-R in the CD player. After playback starts, the messages will change as below.

Estimated Time in CD Player

0:12

0:32

0:42

0:53

1:08

Writing...  
1st DSP

S/PDIF Update..

Writing...  
2nd DSP

S/PDIF Update..

Writing...  
3rd DSP

If playback is finished without the above message, please try again.

Note: Some DVD players are not suitable for this update. If writing results in failure, use another model of player.  
DURING WRITING, DO NOT TURN OFF THE POWER and DO NOT DISCONNECT OPTICAL CABLE.

If writing is stopped in the middle, Flash IC may need replacing.

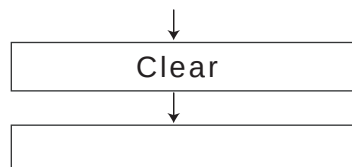
After writing of 3rd DSP ends, the message in Step 3 will appear again.

Make sure that no more "Writing..." will appear.

S/PDIF Update..

Check Points:

1. "Writing... 1st DSP" was shown.
  2. CD player has been playing for more than 1 minutes 8 seconds, and finishes playback.
5. Press [ON/STANDBY] button and see FL Display change as below.



The unit is put into the Standby mode.

6. Turn on the unit and confirm the new version number.

## FIRMWARE UPDATE -4

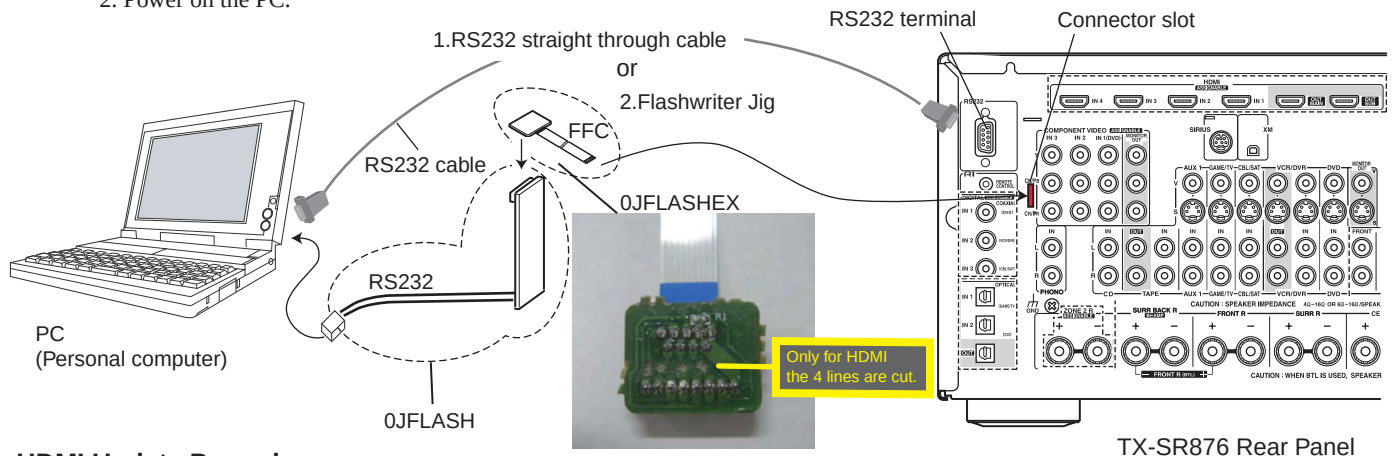
### Preparation for Update (HDMI)

#### Hardware and Software

1. Personal computer(PC) with Windows XP or 2000
2. Cable: RS232 straight cable, or Flashwriter jig: 0JFLASH and 0JFLASHEX for HDMI
3. Writing soft: "906HDMI1.00.zip" for HDMI microprocessor (File name depends on the version.)  
Unzip "906HDMI1.00.zip" in advance.

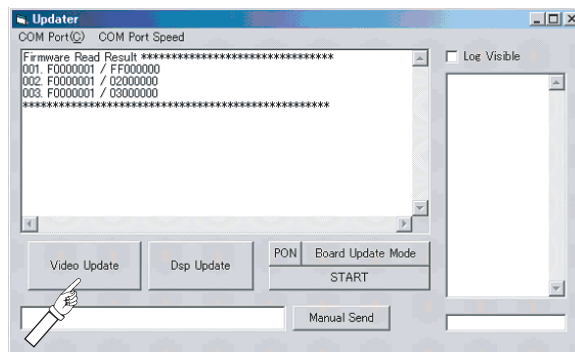
#### Connection and Setup

1. While the target unit is powered off, connect the unit and PC with RS232 straight through cable.  
If RS232 cable is not available, connect 0JFLASH and 0JFLASHEX to RS232 port of the PC, and then connect the FFC of the jig to the connector slot on the rear panel of TX-SR876/TX-SA876/DTR-8.9/DHC-9.9/PR-SC886.
2. Power on the PC.

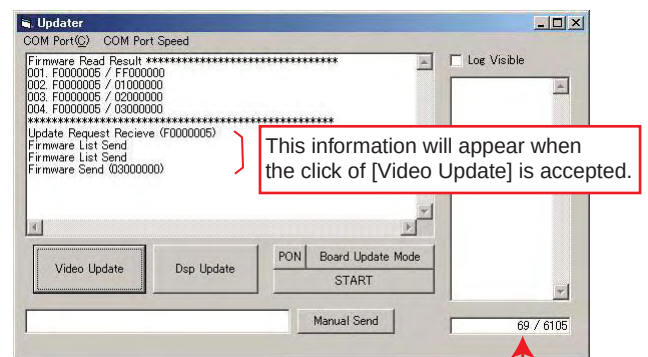
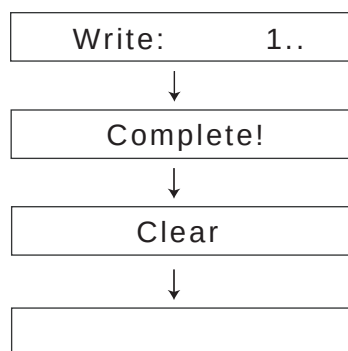


### HDMI Update Procedure

1. Double click "Update.exe" in the unzipped folder "906HDMI1.00" (Folder name depends on the version.)  
The following window will appear.



2. Click "Video Update" button. The update takes about 5 minutes.  
The message on FL display will change as follows.



The number is going up as writing is proceeding.

3. After the update ends, turn off the unit's main power switch or pull the power cord off the wall socket.
4. Remove the jig from the unit and power on the unit again. Confirm the new version number.

## FIRMWARE UPDATE -5

### Preparation for Update (Video)

Video FW cannot be updated in the field. So, a new FW version for video becomes necessary, new HDMI board need to be orderd.

#### Preparation (Hardware and Software)

Make an order for NAHDM-9114.

Different Video FWs are used for PR-SC885, TX-SR876/PR-SC886, DTR-8.9/DHC-9.9.

Carefully select a correct part number and do not mix up the boards.

It is highly recommended to provide the information of the model too, when any of these HDMI boards are ordered.

| Description   | Model             | Part Number                       |
|---------------|-------------------|-----------------------------------|
| NAHDM-9114-1A | PR-SC885          | 1B170514-1A or 1B170514-1A_0223A2 |
|               | TX-SR876/PR-SC886 | 1B170514-1A_0290A2                |
|               | DTR-8.9/DHC-9.9   | 1B170514-1A_0292A2                |
| NAHDM-9114-1B | TX-SR875          | 1B170514-1B                       |
| NAHDM-9114-1C | DTC-9.8           | 1B170514-1C                       |

### Video Update Procedure

1. Install HDMI Board NAHDM-9114-1A with the latest version of FW.

2. Turn on the unit and confirm the new version number.

Note: Video FW cannot be reloaded outside the factory.

## OPERATION CHECK-1

### SPEAKER PROTECT-1 (DC VOLTAGE DETECTION)

#### [When]

1. Exchange the power transistors (Q6050 - 6056, Q6060 - 6066, Q6080 - 6086, Q6090 - 6096).
2. Exchange the amplifier PC board ass'y (NAAMP-9061, 9062, NACLA-9063 - 9069).

#### [Procedure]

<Note>

No load. No input.

1. Press and hold down CD button, then press ON/STANDBY button while the unit is powered on.  
"Test - \_" is displayed only for 5 seconds.

Test -  Blinks

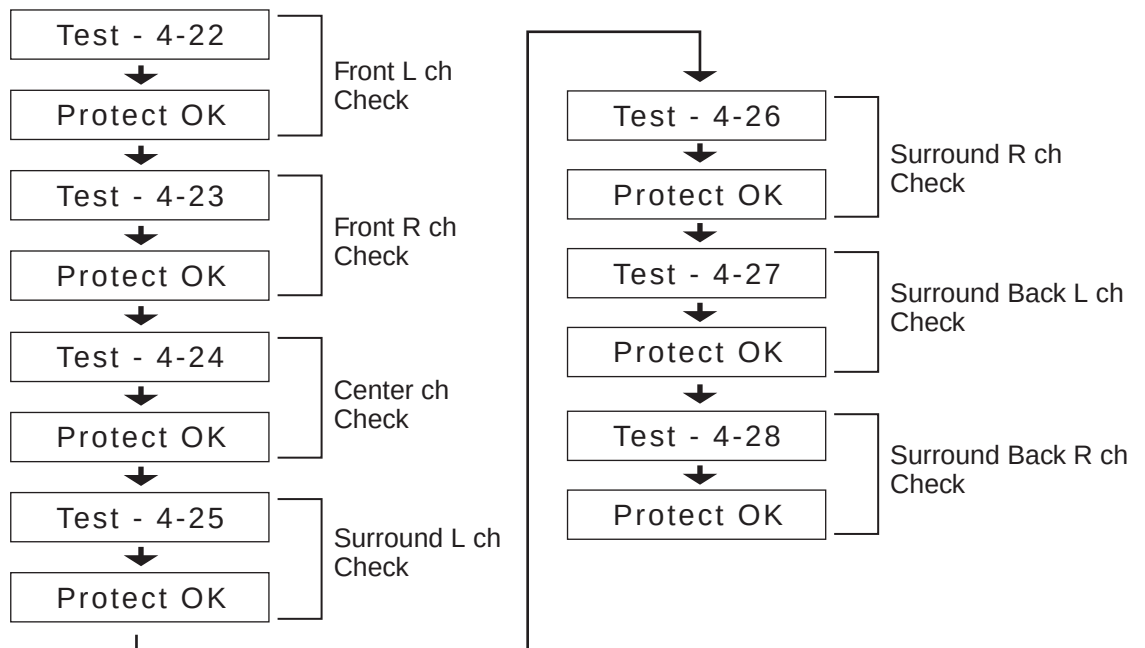
2. Press GAME/TV button, while the characters of "Test - \_" are displayed.  
The unit will be in the state of "Test-4-00".

Test - 4-00

3. Repeatedly press TONE+ button until the characters of "Test-4-22" are displayed.

Test - 4-22

Check whether the operation starts and continues automatically as follows.



If all channels are OK, the characters of "Test - 4 - 36" are displayed.

Test - 4-36

4. Press ON/STANDBY button.



## OPERATION CHECK-2

### SPEAKER PROTECT-2 (CURRENT DETECTION)

#### [When]

1. Exchange the power transistors (Q6050 - 6056, Q6060 - 6066, Q6080 - 6086, Q6090 - 6096).
2. Exchange the amplifier PC board ass'y (NAAMP-9061, 9062, NACLA-9063 - 9069).

#### [Procedure]

<Note>

No input.

Do not check two or more channels at the same time.

Do not connect a dummy load to speaker terminal longer than 2 seconds.

1. Press and hold down CD button, then press ON/STANDBY button while the unit is powered on.  
"Test - \_" is displayed only for 5 seconds.

Test -  Blinks

2. Press GAME/TV button, while "Test - \_" is displayed.  
The unit will be in the state of "Test-4-00".

Test - 4-00

3. Repeatedly press TONE+ button until "Test-4-36" is displayed.

Test - 4-36

4. Connect the dummy load of 3 ohms to the Front L ch speaker terminal.  
At this time, confirm that the speaker relay is not turned off.

Test - 4-36

5. Connect the dummy load of 1 ohm to the Front L ch speaker terminal.  
At this time, confirm that the speaker relay is turned off and "Protect" is displayed.

Protect

Disconnect the dummy load immediately after checking the display of "Protect".

Test - 4-36

6. Check other channels according to the same procedure as 4 and 5.  
Front R, Center, Surround L, Surround R, Surround Back L, Surround R

7. Press ON/STANDBY button.

Clear →  Turn off

## OPERATION CHECK-3

### CONTROL OF POWER SUPPLY (OUTPUT SENSOR AND THERMAL SENSOR)

#### [When]

1. Exchange the power transistors (Q6050 - 6056, Q6060 - 6066, Q6080 - 6086, Q6090 - 6096).
2. Exchange the power amplifier PC board ass'y (NAAMP-9061, 9062, NACLA-9063 - 9069).
3. Exchange the thermal sensor PC board ass'y (NAETC-9042, 9043).

#### [Procedure]

<Note>

No output. No input.

#### Output sensor

1. Press and hold down CD button, then press ON/STANDBY button while the unit is powered on.  
"Test - \_" is displayed only for 5 seconds.

Test -  Blinks

2. Press GAME/TV button while "Test - \_" is displayed.  
The unit will be in the state of "Test-4-00".

Test - 4-00

3. Repeatedly press TONE+ button until "Test-4-37" is displayed.

Test - 4-37

4. At this time, confirm that the red characters of "FM STEREO" is displayed.

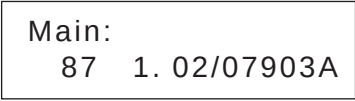
Test - 4-37 

5. Press ON/STANDBY button.

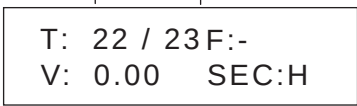
Clear → Turn off

#### Thermal sensor

1. Press and hold down DISPLAY button, then press ON/STANDBY button when the unit is powered on.  
The main microprocessor version will be displayed only for 3 seconds.

<Ex.> 

2. Press TONE button while the version is displayed. The temperatures of two thermal sensors (Q6380, Q6381) will be displayed.

Unit is °C  
<Ex.> 

3. Confirm that the displayed temperature is within +/-20 °C from the ambient temperatures.

4. Press ON/STANDBY button.

Clear → Turn off

## OPERATION CHECK-4

### Condition of Protect Mode

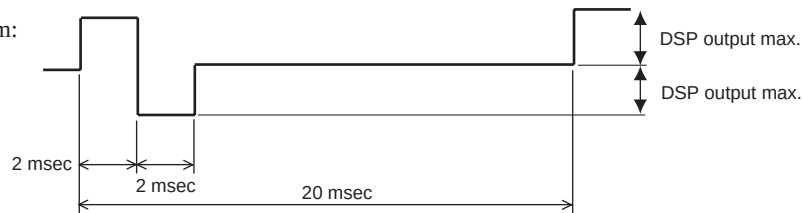
The unit will go into Protect mode under the following conditions.  
(T: Thermal sensor temperature)

1. Thermal condition  
Immediately  $T \leq -30^{\circ}\text{C}$   
or  
Immediately  $T > 110^{\circ}\text{C}$

2. DC voltage condition  
The sum of dc voltage of 7 channel speaker outputs is more than 7 V.

3. Current condition  
Protect will be On if speaker output ac current  $\geq 35\text{ A}$ .  
Protect will not be On if speaker output ac current  $\geq 11.7\text{ A}$  and  $< 35\text{ A}$ .  
This condition is equivalent to OPERATION CHECK-2. Refer to the page 2.

Test wave form:



### Condition of Power Supply Voltage Control

The power supply voltage(VH, VM or VL) for power amplifiers is changed by the relays: RL6601, 6602, 6611, 6612 on NAPS-9040.  
 $VH > VM > VL$   
 T : Thermal sensor temperature  
 VOLH : Pin #99 input voltage of Main microprocessor: Q7001 (Refer to SD-4:D5 and SD-8:D2 of SCHEMATIC DIAGRAMS)

#### Conditions:

##### Speaker impedance = 6 or 8 ohm

VH:  $0\text{V} < \text{VOLH} < 0.4\text{V}$   
and  
 $T < 85^{\circ}\text{C}$   
VM:  $0.4\text{V} < \text{VOLH} < 2.0\text{V}$   
and  
 $T < 85^{\circ}\text{C}$   
VL:  $2.0\text{V} < \text{VOLH} < 3.3\text{V}(\text{Vcc})$   
and  
 $T < 85^{\circ}\text{C}$   
VL:  $T > 85^{\circ}\text{C}$

##### Speaker impedance = 4 ohm or BTL

VM:  $0\text{V} < \text{VOLH} < 0.4\text{V}$   
and  
 $T < 85^{\circ}\text{C}$   
VL:  $0.4\text{V} < \text{VOLH} < 2.0\text{V}$   
and  
 $T < 85^{\circ}\text{C}$   
VL:  $2.0\text{V} < \text{VOLH} < 3.3\text{V}(\text{Vcc})$   
and  
 $T < 85^{\circ}\text{C}$   
VL:  $T > 85^{\circ}\text{C}$

### Condition of Cooling Fan Operation

The cooling fan will stop or rotate under the following conditions.

| VOLH | Thermal Sensor Temperature(T) |           |            |            |
|------|-------------------------------|-----------|------------|------------|
|      | 0V                            | 60°C      | 70°C       | 80°C       |
|      | 0V                            | Stop      | Stop       | Low Speed  |
|      | 0.4V                          | Stop      | Mid Speed  | High Speed |
|      | 2.0V                          | Mid Speed | High Speed | High Speed |

Note:

“VOLH=0.4V” is equivalent to 0.8W(8 ohm, 7 ch)

“VOLH=2.0V” is equivalent to Max power(8 ohm, 3 ch)

## DEBUG MODE-1

The status of DSP and related IC is able to be checked by the information displayed on FL as follows.  
This information is useful to find the cause of trouble.

### To set in DSP DEBUG MODE

1. Press and hold down DISPLAY button, then press ON/STANDBY button while the unit is powered on.  
The version number of main microprocessor will be displayed only for 3 seconds.

<Ex.> *Main:*  
*87 1.02/08X23A*

2. Press TONE+ button within 3 seconds above, the version number of 1st DSP will be displayed.

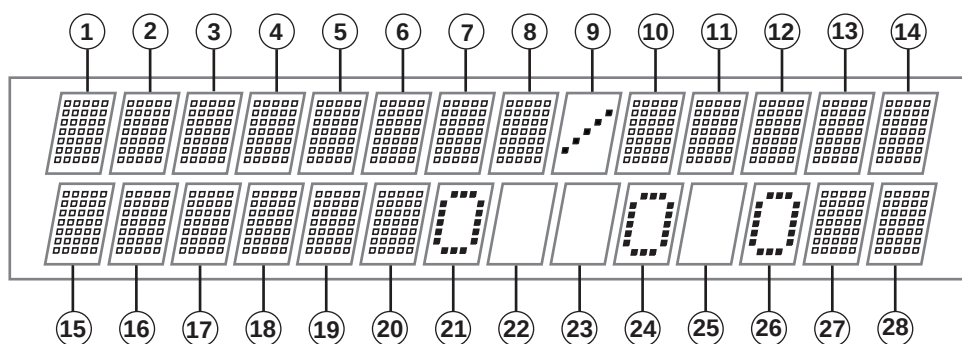
<Ex.> *DSP 1st:*  
*SR9061:08320A*

3. Press DISPLAY button while the 1st DSP version is displayed. The status of DSP and related IC will be displayed.

<Ex.> *E5A48K0N/0FFPo*  
*FFFFFF0 0 000*

4. Press ON/STANDBY button to finish.

### Content of display



① DIR Input Lock  
E = UNLOCK  
= LOCK

② DIR Input RX  
0 = None  
1 = COAX1  
2 = COAX2  
3 = COAX3  
4 = OPT 1  
5 = OPT 2  
6 = OPT 3(Not Used)  
7 = OPT(FRONT)  
8 = HDMI1  
9 = HDMI2  
A = HDMI3  
B = HDMI4  
C = NET(Not Used)

③ DIR/ADC  
D = Digital(SPDIF)  
A = Analog  
M = Analog Multich  
p = PCM Fixed  
d = DTS Fixed  
I = Digital(I2S\_1)  
S = Digital(I2S\_4)  
d = Digital(DSD)

⑦ DIR Detect Type  
0 = Analog  
1 = PCM  
2 = Not PCM  
3 = Data  
4 = DTS CD (Not used)  
5 = Multich  
6 = Not Decided

④ - ⑥ Sampling Frequency and Emphasis

32K = 32 kHz without Emphasis  
44K = 44.1 kHz without Emphasis  
48K = 48kHz without Emphasis  
64K = 64 kHz  
88K = 88.2 kHz  
96K = 96 kHz  
176 = 176.4 kHz  
192 = 192 kHz  
32e = 32 kHz with Emphasis  
44e = 44.1 kHz with Emphasis  
48e = 48 kHz with Emphasis

## DEBUG MODE-2

### Content of display(Continued)

#### ⑧ CODEC CLOCK MODE

N = Normal  
U = Up Sampling  
H = High Sampling (Double Rate)  
D = Down Sampling  
Q = Quad Rate

#### ⑨ Not Used(Slash)

#### ⑩ DSP Port

This figure is displayed in hexadecimal form. If this is transformed to binary form, each bit indicates the following DSP port status.

bit0 = NIC — (Normal state)  
bit1 = DEC  
bit2 = BUSY  
bit3 = Exec Wait (Abnormal state)

#### ⑪-⑫ DSP Sequence

26 = Not Free  
2F = Mute Control  
FF = Free

#### ⑬ DSP Detect Format

P = PCM (Analog)  
D = Dolby Digital  
d = DTS  
A = AAC  
S = DSD  
p = Dolby Digital+  
T = TrueHD  
H = DTS-HD High Resolution  
M = DTS-HD Master Audio  
? = UNKNOWN

#### ⑭ DSP Decode

o = Decode OK  
x = Decode NG

#### ⑮-⑯ 1st DSP Sequence

04-0D = Boot  
10-17 = Update Mode  
20-33 = DSP Setting  
FF = Free

#### ⑰-⑱ 2nd DSP Sequence

04-0D = Boot  
10-17 = Update Mode  
20-33 = DSP Setting  
FF = Free

#### ⑲-⑳ 3rd DSP Sequence

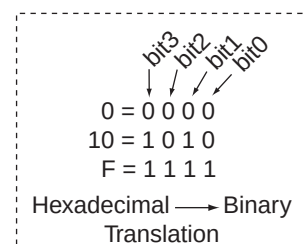
04-0D = Boot  
10-17 = Update Mode  
20-33 = DSP Setting  
E0-E2 = Auto Speaker Setup  
FF = Free

#### ㉑-㉒ Not Used

#### ㉓-㉔ MPU MUTE Output Cause

These two figures are displayed in hexadecimal form. If these are transformed to binary form, each bit indicates the IC which outputs error and mute.

㉓ bit0 = Selector IC  
bit1 = Effector  
bit2 = DSP  
bit3 = DIR  
㉔ bit4 = HDMI  
bit5 = XM  
bit6 = Auto Speaker Setup  
bit7 = Speaker Config



## Trouble Shooting by DSP DEBUG MODE

1. This debug mode will be useful in digital audio no sound or sound drop-out trouble.
2. Check information on FL display, then identify bad parts, and replace or resolder it.
3. Remedies Written below are of typical case. So, more detailed check may need in actual cases.
4. Before replace ICs below, resolder the pins first to save resources.

### Note:

MPU is short for Micro Processor: Q7001.  
1st DSP: Q3401, 2nd DSP: Q3501, 3rd DSP: Q3601  
DIR: Q3041  
DAC: Q3701, Q3721, Q3741, Q3761, Q3781  
Flash ROM: Q3451, Q3551, Q3651  
SDRAM: Q3461, Q3471, Q3561, Q3661  
Audio Selector: Q4029

| Digit No. on FL | Symptom on FL display                                  | Cause of trouble        | Remedy                                                                                                                                                                                           |
|-----------------|--------------------------------------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ①               | "E" is displayed.                                      | No input signal to DIR. | 1. Find out which digital input does not work.<br>2. Confirm where the digital waveform stops between the digital input and DIR.<br>3. Resolder pins of the bad part or replace it with new one. |
| ④ - ⑥           | Displayed freq. is different from input signal.        | No input signal to DIR. | The sam as above.                                                                                                                                                                                |
| ⑦               | Displayed audio format is different from input signal. | No input signal to DIR. | The sam as above.                                                                                                                                                                                |

## DEBUG MODE-3

### Trouble Shooting by DSP DEBUG MODE (Continued)

| Digit no on FL | Symptom on FL display                                             | Cause of trouble                                                     | Remedy                                                                                                                                                                                                                                                                                                                         |
|----------------|-------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ⑩              | Continue to display “1”                                           | Interface between DSP and MPU is no good.                            | The same remedy as ⑭-b.                                                                                                                                                                                                                                                                                                        |
|                | Continue to display “2”                                           | Connection from DIR to DSP is no good.                               | The same remedy as ⑬.                                                                                                                                                                                                                                                                                                          |
|                | Continue to display “3” to “7”                                    | Interface between DSP and MPU is no good.                            | The same remedy as ⑭-b.                                                                                                                                                                                                                                                                                                        |
|                | Continue to display “8” to “F”                                    | DSP Sequence is no good.                                             | Check ⑮ - ⑳ items.                                                                                                                                                                                                                                                                                                             |
| ⑬              | Displayed audio encoding format is different from input signal.   | Input signal to DSP is no good.                                      | 1. Confirm where the digital waveform stops between DIR and DSP by oscilloscope.<br>2. Q3311, P3801 may relate.<br>3. Resolder pins of the bad part or replace it with new one.                                                                                                                                                |
| ⑭              | "x" is displayed                                                  | a. No input signal to DSP.                                           | The same as above.                                                                                                                                                                                                                                                                                                             |
|                |                                                                   | b. Interface between DSP and MPU is no good.                         | 1. Confirm where the digital waveform stops between MPU and DSP by oscilloscope.<br>2. P3101, P3802 or P6851 may relate.<br>3. Resolder pins of the bad part or replace it with new one.                                                                                                                                       |
| ⑮ - ⑳          | Continue to display “03”                                          | Communication between DSP and MPU is no good.                        | 1. The same remedy as ⑭-b.<br>2. Check the voltage of the power supply pin of DSP.<br>3. Check the reset port and clock input of DSP by oscilloscope, and find out bad part.<br>4. Flash ROM firmware is no good. Update.<br>5. DSP or MPU is broken. Replace MPU.<br>DSP is impossible to replace, so replace with a new pcb. |
|                | Continue to display “05”                                          | Writing from MPU to DSP is no good.                                  | 1. Flash ROM firmware is no good, update.<br>2. Check DSPSDO pin of MPU by oscilloscope.<br>If no signal, find out bad part connected.<br>3. Flash ROM or SDRAM is no good, replace.<br>4. DSP or MPU is broken, replace the same method as above 5.                                                                           |
|                | Continue to display “08” to “0C”                                  | DSP program does not run properly. Flash ROM or SDRAM is no good.    | 1. Flash ROM firmware is no good, update.<br>2. Flash ROM or SDRAM is broken, replace.                                                                                                                                                                                                                                         |
|                | Continue to display “17”                                          | The unit was powered off during DSP firmware updating.               | Initialize the unit.<br>(Press ON/STANDBY button while pushing VCR/DVR button when the unit is powered on.)                                                                                                                                                                                                                    |
|                | Display “21”, then return and signal format indicator is flashing | DSP program does not run properly. Flash ROM or SDRAM is no good.    | 1. Flash ROM firmware is no good, upgrade.<br>2. Flash ROM or SDRAM is broken, replace.                                                                                                                                                                                                                                        |
|                | Continue to display “22” to “24”                                  | DSP program does not run properly, or audio clock to DSP is no good. | 1. Flash ROM program is no good, upgrade.<br>2. Flash ROM or SDRAM is broken, replace.<br>3. Check DSP drive clock freq. by oscilloscope.<br>If no signal, find out bad part connected.<br>4. Check audio clock to DSP by oscilloscope.<br>If no signal, find out bad part connected.                                          |
|                | Continue to display “30” to “33”                                  | DSP program does not run properly, or audio clock to DSP is no good. | The same as above.                                                                                                                                                                                                                                                                                                             |
|                | Continue to display “26” to “2F”                                  | DSP setting is failed.                                               | 1. Flash ROM firmware is no good, upgrade.<br>2. Flash ROM or SDRAM is broken, replace.                                                                                                                                                                                                                                        |
| ⑳ - ㉑          | This identifies IC which outputs error                            | The IC outputs error to MPU.                                         | Replace the IC chip.<br>DSP is impossible to replace, so replace with a new pcb.                                                                                                                                                                                                                                               |

## DEBUG MODE-4

### Trouble Shooting by displaying SERVICE INFORMATION SYSTEM

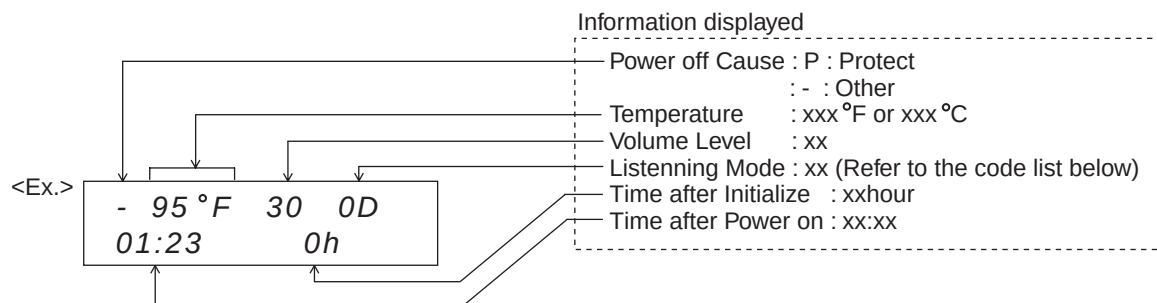
This service information display system is helpful in analysing the status when the unit goes into Protect mode and is powered off. Pay attention that the status will change if a button is pushed.

1. Press and hold down **DISPLAY** button, then press **ON/STANDBY** button while the unit is powered on.

The version number of microprocessor is displayed only for 3 seconds.

<Ex.> Main:  
87 1.03/07903A

2. Press **SETUP** button within 3 seconds above, the following informations are displayed.



3. Press **RETURN** button. The information will be cleared.

<Ex.> ProtectDataCLR

### Listening Mode Code List

| Listening Mode | Code | Listening Mode         | Code | Listening Mode         | Code | Listening Mode    | Code |
|----------------|------|------------------------|------|------------------------|------|-------------------|------|
| Pure Audio     | 01   | PLII Music             | 21   | Dolby Digital          | 30   | +Neo:6            | 37   |
| Direct         | 02   | PLII Game              | 22   | DTS                    | 30   | DTS Matrix        | 31   |
| Stereo         | 03   | PLIIX Movie            | 23   | DTS96/24               | 3B   | DTS Discrete      | 31   |
| Mono           | 04   | PLIIX Music            | 24   | AAC                    | 30   | THX Cinema        | 50   |
| Mono Movie     | 07   | PLIIX Game             | 25   | MultiCh                | 30   | THX Surround EX   | 58   |
| Orchestra      | 09   | Neo:6 Cinema           | 26   | Dolby Digital Plus     | 30   | THX Ultra2 Cinema | 5C   |
| Unplugged      | 0A   | Neo:6 Music            | 27   | Dolby TrueHD           | 30   | THX Music Mode    | 5D   |
| Studio-Mix     | 0B   | Neural Surround        | 28   | DTS-HD High Resolution | 30   | THX Games         | 5E   |
| TV Logic       | 0C   | PLII Movie THX         | 40   | DTS-HD Master Audio    | 30   | +PLIIX Movie THX  | 59   |
| All CH Stereo  | 0D   | PLIIX Movie THX        | 41   | DSD                    | 30   | +Neo:6 THX        | 57   |
| Full Mono      | 0E   | Neo:6 Cinema THX       | 42   | +PLIIX Movie           | 39   | +Neural-THX       | 3D   |
| PLII Movie T-D | 0F   | PLII Movie THX Games   | 43   | +PLIIX Music           | 3A   | DTX Matrix THX    | 51   |
| PLII Movie     | 20   | Neo:6 Cinema THX Games | 44   | Dolby EX               | 38   | DTS Discrete THX  | 52   |
|                |      | Neural-THX             | 29   |                        |      |                   |      |

## DEBUG MODE-5

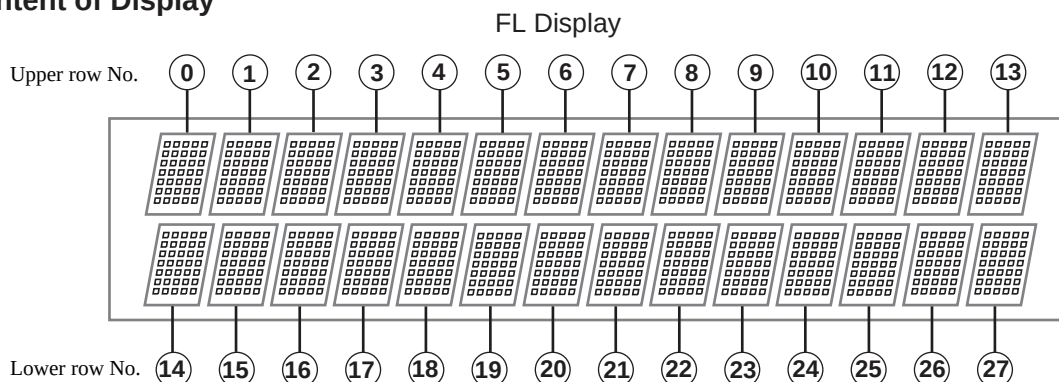
### HDMI DEBUG MODE(1/2)

HDMI-related operations can be checked to some extent by displaying this HDMI DEBUG MODE.

#### To enter this mode

Hold down DISPLAY button for 3 seconds. Information display will last for about 3 seconds.

#### Content of Display



| Video Input Format          | Status Description                                                                                                   | FL segment No.  | Upper row        |   |   |   |         |   |   |   |                   |   |    |    |         |    | Lower row |    |            |    |    |    |     |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------|------------------|---|---|---|---------|---|---|---|-------------------|---|----|----|---------|----|-----------|----|------------|----|----|----|-----|----|----|----|----|----|----|----|--|--|--|--|--|------------|--|--|--|--|--|--|
|                             |                                                                                                                      |                 | 0                | 1 | 2 | 3 | 4       | 5 | 6 | 7 | 8                 | 9 | 10 | 11 | 12      | 13 | 14        | 15 | 16         | 17 | 18 | 19 | 20  | 21 | 22 | 23 | 24 | 25 | 26 | 27 |  |  |  |  |  |            |  |  |  |  |  |  |
| Normal Source Video Formats | Source Device Video Format: OK,<br>Sink Device EDID: OK<br><br>Normal Status                                         | Description     | Input Resolution |   |   |   | i/p/I/P |   |   |   | Frame Rate        |   |    |    | 0/0     |    |           |    |            |    |    |    |     |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             |                                                                                                                      | Display example | 1                | 0 | 8 | 0 | i       | / | 6 | 0 | +                 |   |    |    |         |    | 1         | 0  | 8          | 0  | i  | /  | 6   | 0  |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             |                                                                                                                      | Description     |                  |   |   |   |         |   |   |   | Output Resolution |   |    |    | i/p/I/P |    |           |    | Frame Rate |    |    |    | 0/0 |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             | Source Device Video Format: OK,<br>Sink Device Hot plug: Low<br><br>Error Status<br>→ Remedy ①                       | Description     | Input Resolution |   |   |   | i/p/I/P |   |   |   | Frame Rate        |   |    |    | 0/0     |    |           |    |            |    |    |    |     |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             |                                                                                                                      | Display example | 1                | 0 | 8 | 0 | i       | / | 6 | 0 | +                 |   |    |    |         |    | 0         | F  | F          |    |    |    |     |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             |                                                                                                                      | Description     |                  |   |   |   |         |   |   |   | Output Resolution |   |    |    | i/p/I/P |    |           |    | Frame Rate |    |    |    | 0/0 |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             | Source Device Video Format: OK,<br>Sink Device HDCP<br>Authentication: Fail<br><br>Error Status<br>→ Remedy ②        | Description     | Input Resolution |   |   |   | i/p/I/P |   |   |   | Frame Rate        |   |    |    | 0/0     |    |           |    |            |    |    |    |     |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             |                                                                                                                      | Display example | 1                | 0 | 8 | 0 | i       | / | 6 | 0 | +                 |   |    |    |         |    | 1         | 0  | 8          | 0  | i  | /  | 6   | 0  |    |    |    |    |    |    |  |  |  |  |  | Blinks     |  |  |  |  |  |  |
|                             |                                                                                                                      | Description     |                  |   |   |   |         |   |   |   | Output Resolution |   |    |    | i/p/I/P |    |           |    | Frame Rate |    |    |    | 0/0 |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             | Source Device Video Format: OK,<br>Sink Device Resolution: Error<br><br>Error Status<br>→ Remedy ③                   | Description     | Input Resolution |   |   |   | i/p/I/P |   |   |   | Frame Rate        |   |    |    | 0/0     |    |           |    |            |    |    |    |     |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             |                                                                                                                      | Display example | 1                | 0 | 8 | 0 | i       | / | 6 | 0 | +                 |   |    |    |         |    | 1         | 0  | 8          | 0  | i  | /  | 6   | 0  |    |    |    |    |    |    |  |  |  |  |  | Error mark |  |  |  |  |  |  |
|                             |                                                                                                                      | Description     |                  |   |   |   |         |   |   |   | Output Resolution |   |    |    | i/p/I/P |    |           |    | Frame Rate |    |    |    | 0/0 |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             | Source Device Video Format: OK,<br>Sink Device EDID Reading: Error<br><br>Error Status<br>→ Remedy ④                 | Description     | Input Resolution |   |   |   | i/p/I/P |   |   |   | Frame Rate        |   |    |    | 0/0     |    |           |    |            |    |    |    |     |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             |                                                                                                                      | Display example | 1                | 0 | 8 | 0 | i       | / | 6 | 0 | +                 |   |    |    |         |    | 1         | 0  | 8          | 0  | i  | /  | 6   | 0  |    |    |    |    |    |    |  |  |  |  |  | Error mark |  |  |  |  |  |  |
|                             |                                                                                                                      | Description     |                  |   |   |   |         |   |   |   | Output Resolution |   |    |    | i/p/I/P |    |           |    | Frame Rate |    |    |    | 0/0 |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             | Source Device Video Format: OK,<br>Sink Device: Busy(Cannot accept<br>HDMI signal)<br><br>Error Status<br>→ Remedy ⑤ | Description     | Input Resolution |   |   |   | i/p/I/P |   |   |   | Frame Rate        |   |    |    | 0/0     |    |           |    |            |    |    |    |     |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |
|                             |                                                                                                                      | Display example | 1                | 0 | 8 | 0 | i       | / | 6 | 0 | +                 |   |    |    |         |    | 1         | 0  | 8          | 0  | i  | /  | 6   | 0  |    |    |    |    |    |    |  |  |  |  |  | Error mark |  |  |  |  |  |  |
|                             |                                                                                                                      | Description     |                  |   |   |   |         |   |   |   | Output Resolution |   |    |    | i/p/I/P |    |           |    | Frame Rate |    |    |    | 0/0 |    |    |    |    |    |    |    |  |  |  |  |  |            |  |  |  |  |  |  |

Frame Rate  
/6: 60 frame/sec  
/5: 50 frame/sec

Video signal routing 0/0  
0 : Analog Up-coverting  
0 : HDMI Through mode

Progressive/Interlace i/p/I/P  
p/P: Progressive, p=HDMI, P=DVI  
i/I : Interlace, i=HDMI, I=DVI

Video signal routing 0/0  
0 : Analog Up-coverting  
0 : Video Device Route

## DEBUG MODE-6

### HDMI DEBUG MODE(2/2)

| Video Input Format                                  | Status Description                                                                                                | FL segment No.  | Upper row                   | ① | ② | ③ | ④                         | ⑤                         | ⑥       | ⑦          | ⑧                    | ⑨                    | ⑩          | ⑪          | ⑫ | ⑬ |     |     |  |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------|---|---|---|---------------------------|---------------------------|---------|------------|----------------------|----------------------|------------|------------|---|---|-----|-----|--|
|                                                     |                                                                                                                   |                 | Lower row                   | ⑭ | ⑮ | ⑯ | ⑰                         | ⑱                         | ⑲       | ⑳          | ㉑                    | ㉒                    | ㉓          | ㉔          | ㉕ | ㉖ | ㉗   |     |  |
| Source Device<br>Video Resolution is not Determined | Video signal route: HDMI Through<br><br>Error Status<br>→ Remedy ⑥                                                | Description     | Input Resolution            |   |   |   | i/p/I/P                   | Frame Rate                |         |            |                      |                      |            |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Display example | U N K N O                   |   |   |   | U N                       | _ →                       |         |            |                      |                      |            |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Description     |                             |   |   |   | Output Resolution         |                           | i/p/I/P | Frame Rate |                      |                      |            |            |   |   |     |     |  |
|                                                     | Video signal route:<br>Via Video Processor TORINO<br><br>Error Status<br>→ Remedy ⑦                               | Description     | Input Resolution            |   |   |   | i/p/I/P                   | Frame Rate                |         |            |                      |                      |            |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Display example | U n k n o                   |   |   |   | u n                       | _ →                       |         |            |                      |                      |            |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Description     |                             |   |   |   | Output Resolution         |                           | i/p/I/P | Frame Rate |                      |                      |            |            |   |   |     |     |  |
| Source Video Format: PC Format                      | Source Device Video Format: OK,<br>Sink Device EDID: OK<br><br>Normal Status                                      | Description     | Input Horizontal Resolution |   |   |   |                           | Input Vertical Resolution |         |            |                      | i/p/I/P              | Frame Rate |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Display example | 1 9 2 0 ×                   |   |   |   | 1 2 0 0                   |                           |         |            | P /                  | 6 0                  |            |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Description     | HDMI / DVI                  |   |   |   |                           | RGB / YCbCr444 / YCbCr422 |         |            |                      | 8bit / 10bit / 12bit |            |            |   |   |     |     |  |
|                                                     | Source Device Video Format: OK,<br>Sink Device Hot plug: Low<br><br>Error Status<br>→ Remedy ⑧                    | Description     | Input Horizontal Resolution |   |   |   |                           | Input Vertical Resolution |         |            |                      | i/p/I/P              | Frame Rate |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Display example | 1 9 2 0 -                   |   |   |   | 1 2 0 0                   |                           |         |            | P /                  | 6 0                  |            |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Description     | HDMI / DVI                  |   |   |   | Error                     | RGB / YCbCr444 / YCbCr422 |         |            |                      | 8bit / 10bit / 12bit |            |            |   |   |     |     |  |
|                                                     | Source Device Video Format: OK,<br>Sink Device HDCP Authentication: Fail<br><br>Error Status<br>→ Remedy ⑨        | Description     | Input Resolution Blinks     |   |   |   |                           |                           |         |            |                      |                      | i/p/I/P    | Frame Rate |   |   |     |     |  |
|                                                     |                                                                                                                   | Display example | 1 9 2 0 ×                   |   |   |   |                           |                           |         |            |                      |                      | 1 2 0 0    |            |   |   | P / | 6 0 |  |
|                                                     |                                                                                                                   | Description     | HDMI / DVI                  |   |   |   | RGB / YCbCr444 / YCbCr422 |                           |         |            | 8bit / 10bit / 12bit |                      |            |            |   |   |     |     |  |
|                                                     | Source Device Video Format: OK,<br>Sink Device: Busy(Cannot accept HDMI signal)<br><br>Error Status<br>→ Remedy ⑩ | Description     | Input Horizontal Resolution |   |   |   |                           | Input Vertical Resolution |         |            |                      | i/p/I/P              | Frame Rate |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Display example | 1 9 2 0                     |   |   |   | 1 2 0 0                   |                           |         |            | P /                  | 6 0                  |            | *          |   |   |     |     |  |
|                                                     |                                                                                                                   | Description     | HDMI / DVI                  |   |   |   | RGB / YCbCr444 / YCbCr422 |                           |         |            | 8bit / 10bit / 12bit |                      |            |            |   |   |     |     |  |
|                                                     | VGA input via DVI-HDMI conversion cable<br><br>Normal Status                                                      | Description     | Input Horizontal Resolution |   |   |   |                           | Input Vertical Resolution |         |            |                      | i/p/I/P              | Frame Rate |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Display example | * U G A                     |   |   |   | * U                       |                           |         |            | → G A                |                      |            |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Description     | HDMI / DVI                  |   |   |   | RGB / YCbCr444 / YCbCr422 |                           |         |            | 8bit / 10bit / 12bit |                      |            |            |   |   |     |     |  |
|                                                     | VGA input via HDMI cable<br><br>Normal Status                                                                     | Description     | Input Horizontal Resolution |   |   |   |                           | Input Vertical Resolution |         |            |                      | i/p/I/P              | Frame Rate |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Display example | U G A                       |   |   |   | U                         |                           |         |            | → G A                |                      |            |            |   |   |     |     |  |
|                                                     |                                                                                                                   | Description     | HDMI / DVI                  |   |   |   | RGB / YCbCr444 / YCbCr422 |                           |         |            | 8bit / 10bit / 12bit |                      |            |            |   |   |     |     |  |

Note:

In the case that horizontal resolution is doubled, “#” is marked at the head of the resolution.  
In the case that horizontal resolution is quadrupled, “\*” is marked at the head of the resolution.

Resolution example: 480p, 576p, 480i, 576i, 240p, 288p

Source device example: Panasonic DVD player's Double Resolution of 480p.

Blu-ray player's Quadruple Resolution of 480p when

TrueHD etc. is played back.

#### Remedy for Error Status

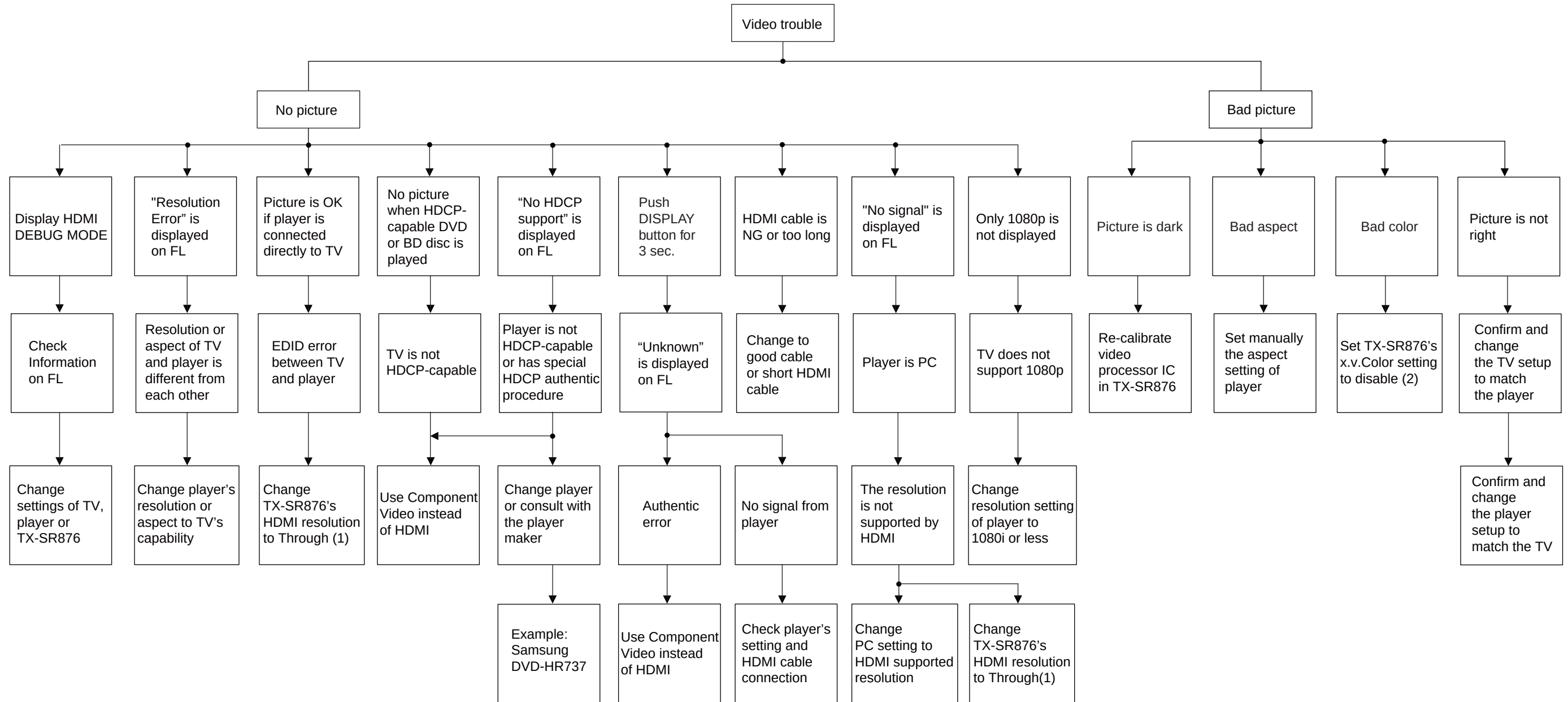
| Remedy No. | Remedy                                                                                                          |
|------------|-----------------------------------------------------------------------------------------------------------------|
| ①          | The most possible cause is the hardware trouble of Sink device(TV).                                             |
| ②          | Refere to HDCP and Authentification error in DEBUG MODE-7. Follow the procedure.                                |
| ③          | Refer to Resolution error in DEBUG MODE-7. Follow the procedure.                                                |
| ④          | Refer to EDID error in DEBUG MODE-7. Follow the procedure.                                                      |
| ⑤          | Check other HDMI Inputs of TX-SR876. If NG, the most possible cause is the hardware trouble of Sink device(TV). |
| ⑥          | Check Source device(Player) output signal. No signal, or the format is not supported by both HDMI and TX-SR876. |
| ⑦          | The same as ⑥.                                                                                                  |
| ⑧          | The most possible cause is the hardware trouble of Sink device(TV).                                             |
| ⑨          | The same as ②.                                                                                                  |
| ⑩          | The same as ⑤.                                                                                                  |

## DEBUG MODE-7

### HDMI TROUBLESHOOT(1/3)

#### HDMI VIDEO SETUP TROUBLE

This trouble shooting map focuses on the video setup errors regarding HDMI.  
For reference, read TX-SR876 Owner's Manual.  
Analysis written below is of typical cases. So, more detailed check may need in actual cases.



Note:

(1) Refer to Setup Menu 1-1. Monitor Out  
Resolution: Through.

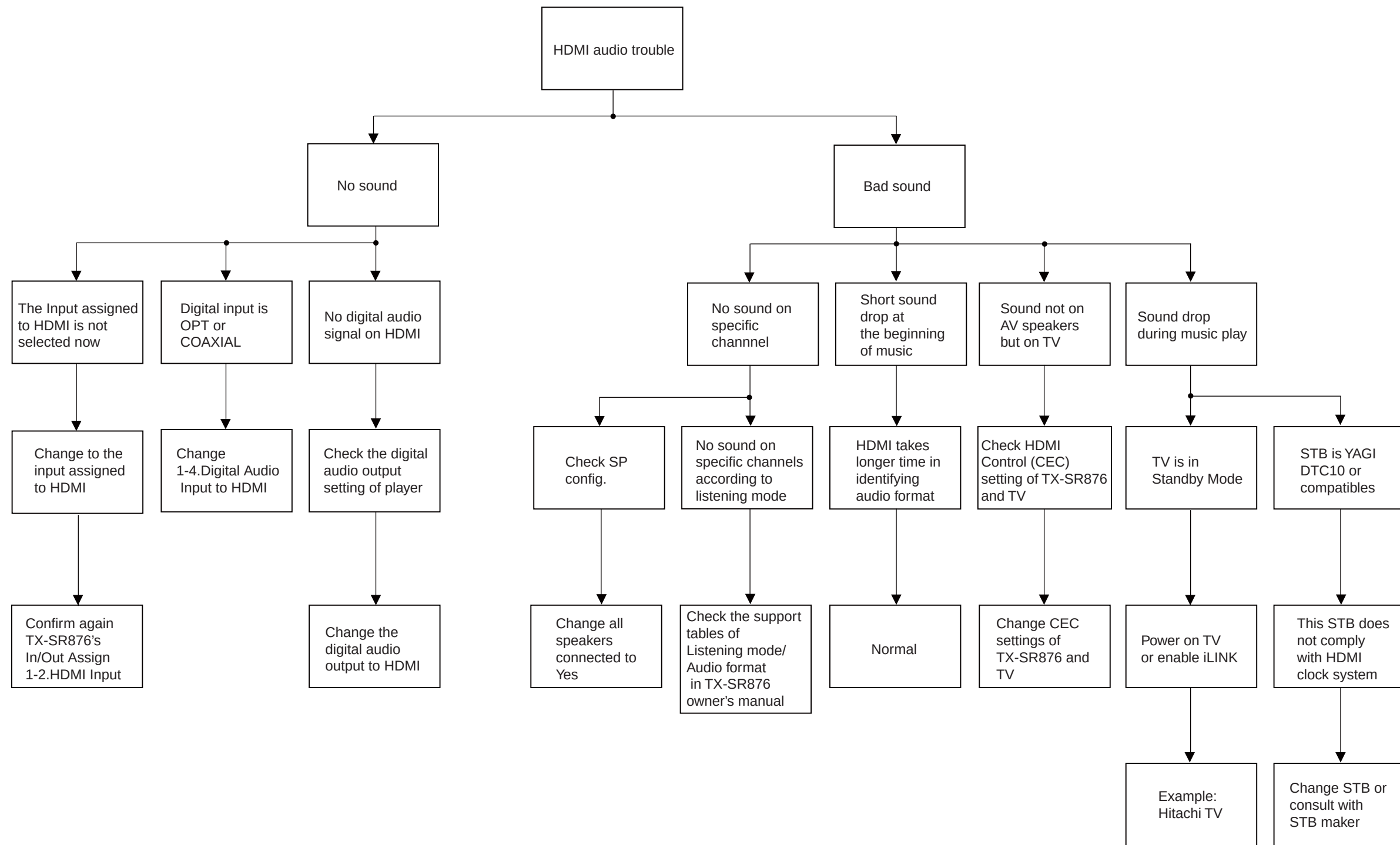
(2) Refer to Setup Menu 7-5. HDMI Setting  
x.v.Color: Disable.

## DEBUG MODE-8

### HDMI TROUBLESHOOT(2/3)

#### HDMI AUDIO SETUP TROUBLE

This trouble shooting map focuses on the audio setups and connections regarding HDMI. For reference, read TX-SR876 Owner's Manual. Analysis written below is of typical cases. So, more detailed check may need in actual cases.



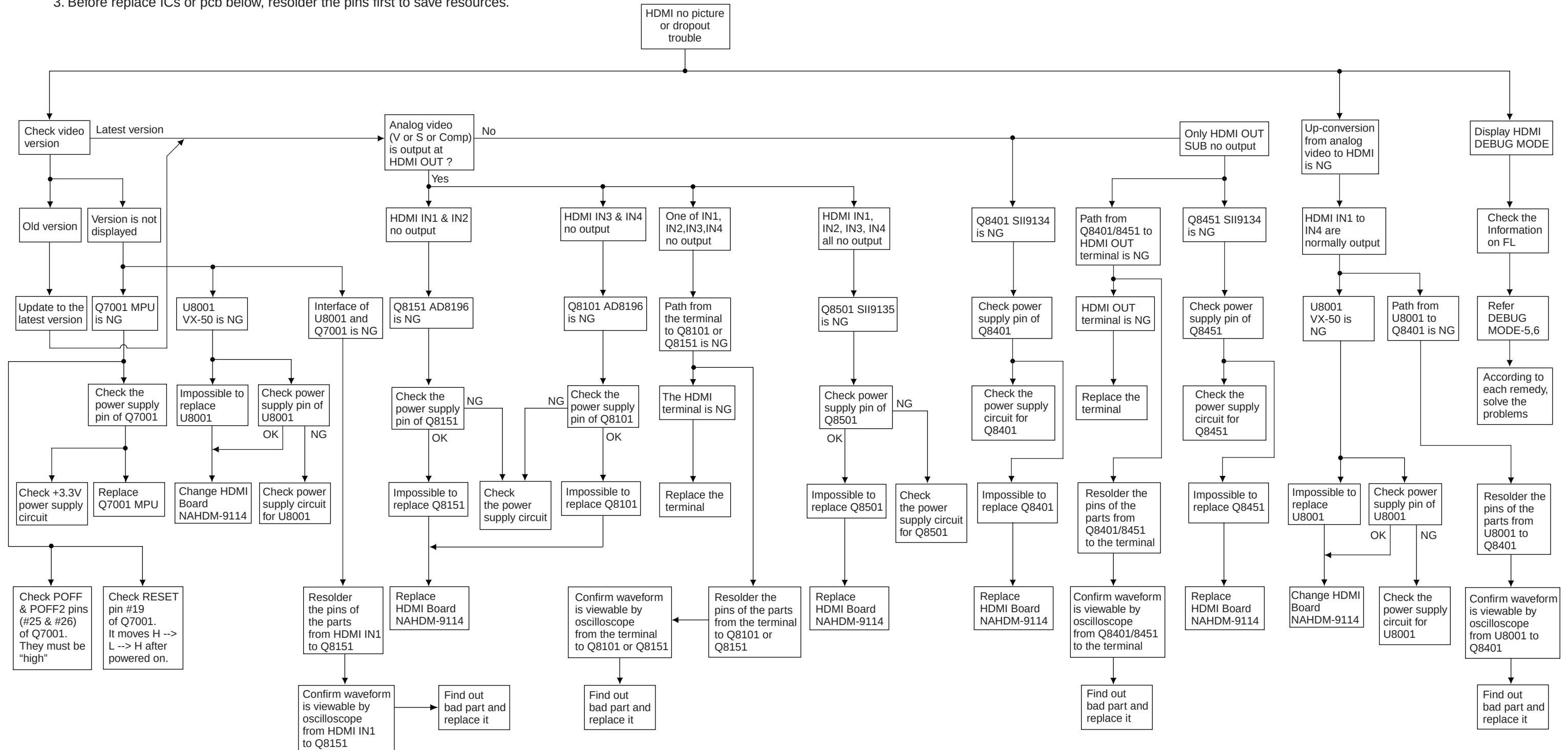
## DEBUG MODE-9

### HDMI TROUBLESHOOT(3/3)

#### HDMI HARDWARE TROUBLE

##### NOTE:

1. This trouble shooting map focuses on the HDMI hardware troubles.  
For details, refer to TX-SR876 Block Diagrams and Schematic Diagrams.
2. Analysis written below is of typical cases. So, more detailed check may need in actual cases.
3. Before replace ICs or pcb below, resolder the pins first to save resources.



## ADJUSTMENT PROCEDURE-1

### IDLING CURRENT ADJUSTMENT

#### [When]

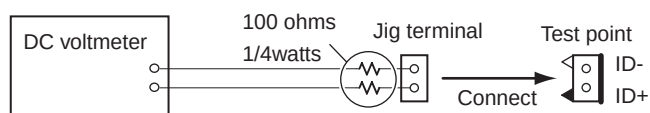
1. Exchange the power transistors (Q6050 - 6056, Q6060 - 6066, Q6080 - 6086, Q6090 - 6096).
2. Exchange the amplifier PC board ass'y (NAAMP-9061, 9062, NACLA-9063 - 9069).

#### [Procedure]

<Note> No load and No signal

Refer to <Fig-1, 2, 3> in " ADJUSTMENT PROCEDURE-2, 3, 4 " for the adjustment points and the test points.

1. Before idling current adjustment, turn the trimming resistors to counter clockwise.
2. Connect the dc voltmeter to test points,  
using two 100 ohm resistors between the poles of the jig terminal and the dc voltmeter terminals.



3. Connect the ac power cord to wall outlet.
4. Press ON/STANDBY button to turn the power on.
5. Adjust the trimming resistors as the following procedure immediately after power on.

| Channel             | Mark | Adjustment point<br>(Trimming resistor) | Measuring point<br>(Test point) | Adjustment value |
|---------------------|------|-----------------------------------------|---------------------------------|------------------|
| Front Left          | L    | R6040                                   | P6070                           | 3.0 mV           |
| Front Right         | R    | R6041                                   | P6071                           | 3.0 mV           |
| Center              | C    | R6042                                   | P6072                           | 3.0 mV           |
| Surround Left       | SL   | R6043                                   | P6073                           | 3.0 mV           |
| Surround Right      | SR   | R6044                                   | P6074                           | 3.0 mV           |
| Surround Back Left  | SBL  | R6045                                   | P6075                           | 3.0 mV           |
| Surround Back Right | SBR  | R6046                                   | P6076                           | 3.0 mV           |

6. Wait for 4 to 6 minutes for heat running.
7. Re-adjust the trimming resistors as the following procedure.

| Channel                         | Adjustment point          | Measured value                                              | Adjustment value                 | Specifications<br>(* In a stable state) |
|---------------------------------|---------------------------|-------------------------------------------------------------|----------------------------------|-----------------------------------------|
| Front Left, Right<br>and Center | R6040, R6041<br>and R6042 | In case below 3 mV<br>In case 3 - 4 mV<br>In case over 4 mV | 3 mV<br>No re-adjustment<br>4 mV | 3 +/- 1 mV                              |
| Surround Left                   | R6043                     |                                                             |                                  |                                         |
| Surround Right                  | R6044                     |                                                             |                                  |                                         |
| Surround Back Left              | R6045                     |                                                             |                                  |                                         |
| Surround Back Right             | R6046                     |                                                             |                                  |                                         |

8. Disconnect the dc voltmeter.
9. Press ON/STANDBY button to turn the power off.
10. Disconnect the ac power cord of the unit from the wall outlet.

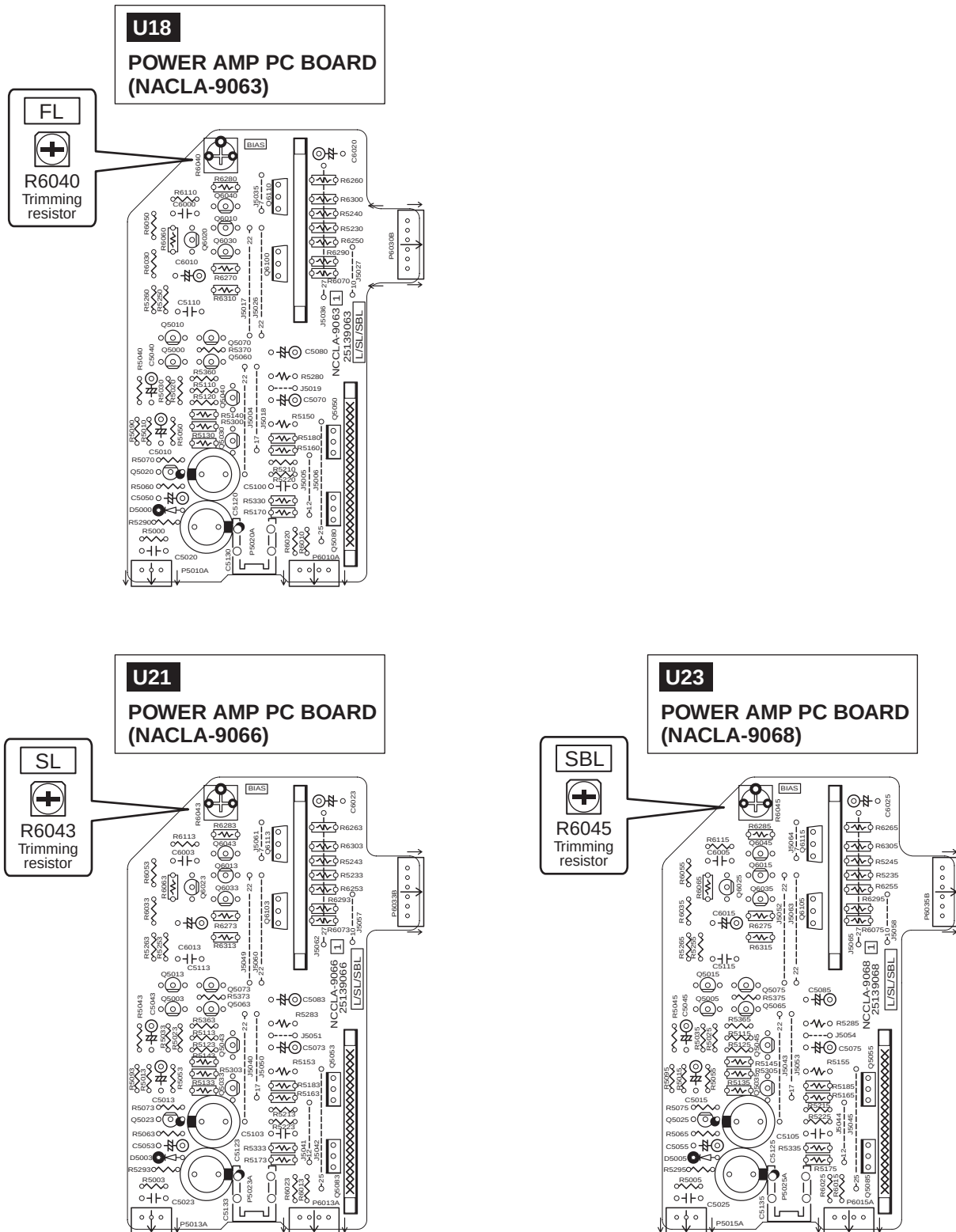
\* Idling currents are stabilized in about 10 minutes after power on.



## ADJUSTMENT PROCEDURE-3

### IDLING CURRENT ADJUSTMENT

<Fig-2>



NACLA-9063, 9066, 9068

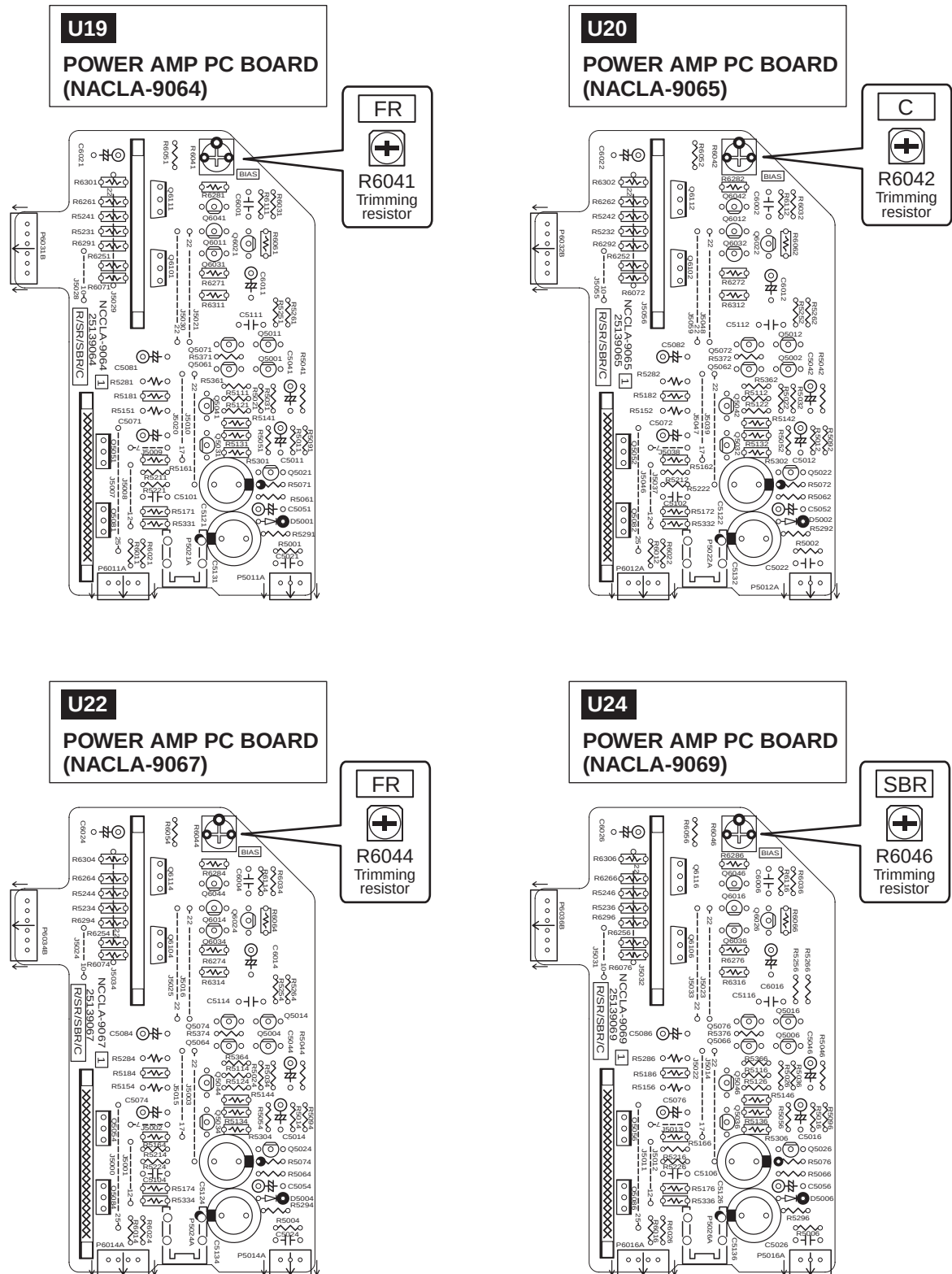
are electrically and mechanically full-compatible with each other. But idling current re-adjustment is necessary.

## ADJUSTMENT PROCEDURE-4

### IDLING CURRENT ADJUSTMENT

NACLA-9064,9065, 9067, 9069 are electrically and mechanically full-compatible with each other. But idling current re-adjustment is necessary.

<Fig-3>



## TX-SR876/SA876

## &lt;Note&gt;

Mechanical parts and pcb ass'y marked by "NSP" are generally unavailable because they are not in the Master Spare Parts List.  
IC chip marked by "NSP" is impossible to remove from pcb, so it is unavailable too.

NOTE : THE COMPONENTS IDENTIFIED BY THE MARK  
! ARE CRITICAL FOR RISK OF FIRE AND  
ELECTRIC SHOCK. REPLACE ONLY WITH PART  
NUMBER SPECIFIED.

## &lt;Notes&gt;

(B) : TX-SR876 Black model  
(G) : TX-SR876 Golden model  
(S) : TX-SR876 Silver model  
<SR876> : TX-SR876 All model  
<SA876> : TX-SA876 Chinese model

<DC> : TX-SR876 USA and Canadian model  
<DD> : TX-SR876 USA model  
<DT> : TX-SR876 Asian model for 120V  
<MP> :TX-SR876 European model  
<MB> : TX-SR876 UK model  
<MT> : TX-SR876 Asian model for 220V

## EXPLODED VIEW PARTS LIST

| REF. NO. | PART NAME    | DESCRIPTION       | Q'TY | PART NO. (SN) | REMARKS  |
|----------|--------------|-------------------|------|---------------|----------|
| A001     | HEAT SINK    | 238               | 2    | 27160605B     |          |
| A004     | ISO PLT      | (HS)              | 1    | 28175334      |          |
| A005     | SPACER       | (PC)              | 8    | 27270485      |          |
| A007     | SCREW        | 3P+6FN(3BC)       | 14   | 82143006GR    |          |
| A008     | SCREW        | 3TTB+8B(3CM)SR    | 83   | 801637        |          |
| A009     | SCREW        | 3SMS8W.SW+14B(CU) | 28   | 801634        |          |
| A011     | RETAINER     | (HS-2)            | 2    | 27141530A     |          |
| A014     | SPACER       | t0.5x8x3.2        | 3    | 27270438      |          |
| A015     | CHASSIS      | (SUB)             | 1    | ---           | NSP      |
| A018     | CUSHION      | (T3*W35*D10)      | 1    | 28141741      |          |
| A020     | CUSHION      | t10*10*100        | 1    | 28141746      |          |
| A021     | CUSHION      | (BUTYL)           | 1    | 28141748      |          |
| A022     | TAPE         | TAPE(CLOTH-8U)    | 6    | 29110082      |          |
| A024     | CUSHION      | (BUTYL)           | 1    | 28141748      |          |
| A025     | HEAT SINK(S) | 240               | 1    | 27160608      |          |
| A030     | ISO PLT      | (AMP2)            | 1    | 28175333      |          |
| A031     | RIVET        | P-RIVET NRP-345   | 2    | 880009        |          |
| A032     | CUSHION      | T5*8*8            | 2    | 28141742      |          |
| A033     | ISO PLT      | (AMP)             | 1    | 28175331A     |          |
| A037     | SCREW        | 3TTB+8B(3BC)      | 71   | 838430088GR   | <DC, DD> |
| A037     | SCREW        | 3TTB+8B(3BC)      | 67   | 838430088GR   | <DT, MT> |
| A037     | SCREW        | 3TTB+8B(3BC)      | 68   | 838430088GR   | <MP, MB> |
| A037     | SCREW        | 3TTB+8B(3BC)      | 64   | 838430088GR   | <SA876>  |
| A038     | ISO PLT      | (FFC)             | 1    | 28175332      |          |
| A039     | PLA RIVET    | P3035B            | 2    | 880016        |          |
| A040     | BRACKET      | (FAN-L)           | 1    | 27131022A     |          |
| A042     | HOLDER       | (FAN)             | 4    | 27191307      |          |
| A044     | BRACKET      | (FAN-R)           | 1    | 27131023A     |          |
| A046     | HOLDER       | (FAN)             | 4    | 27191307      |          |

|      |            |                 |    |             |          |
|------|------------|-----------------|----|-------------|----------|
| A048 | BRACKET    | (MID)           | 1  | 27131021B   |          |
| A049 | TAPE       | TAPE(CLOTH-16U) | 2  | 29110083    | (B)      |
| A055 | SCREW      | 4TTC+8C(3BC)    | 2  | 830440089GR | <DC, DD> |
| A056 | SCREW      | 4TTC+8C(3BC)    | 4  | 830440089GR |          |
| A058 | LABEL      | (PT)            | 1  | 29363379-1  |          |
| A060 | HOLDER     | (EDGE)          | 2  | 27191309    |          |
| A061 | SPACER     | .               | 2  | 27270489    | <DC, DD> |
| A062 | CLAMP      | (NAD-09)        | 1  | 24840176    |          |
| A064 | BUSHING    | BUSHING         | 1  | 28170040    |          |
| A065 | BUSHING    | BUSHING         | 1  | 28170041    |          |
| A066 | CHASSIS    | .               | 1  | ---         | NSP      |
| A067 | CUSHION    | (BUTYL)         | 1  | 28141748    |          |
| A068 | LEG        | .               | 4  | 27175419    |          |
| A069 | CUSHION    | (LEG)           | 4  | 28141735    |          |
| A070 | CUSHION    | .               | 8  | 28141637    |          |
| A075 | HOLDER     | KGLS-14RT       | 3  | 27190524    |          |
| A076 | HOLDER     | (SPD-6)         | 4  | 27191308    |          |
| A078 | HOLDER     | KGPS-10RF       | 3  | 27190813    |          |
| A079 | CUSHION    | (BUTYL)         | 1  | 28141748    |          |
| A086 | BRACKET    | (F)             | 1  | 27131020C   |          |
| A090 | HOLDER     | SPM-4           | 5  | 27191154    |          |
| A092 | HOLDER     | KGLS-10RT       | 1  | 27190428A   |          |
| A094 | HOLDER     | KGLS-10S        | 2  | 27190896    |          |
| A096 | HOLDER     | KGPS-6RF        | 2  | 27191112    |          |
| A098 | HOLDER     | KGLS-12S        | 1  | 27190062    |          |
| A100 | HOLDER     | HOLDER KGLS-18S | 1  | 27190470    |          |
| A104 | HOLDER     | KGLS-22S        | 1  | 27190369    |          |
| A105 | HOLDER     | KGLS-22RT       | 1  | 27190772    |          |
| A106 | HOLDER     | KGLS-12RT       | 1  | 27190266    |          |
| A110 | REAR PANEL | TXSR876MDC      | 1  | 27123915A   | <DC, DD> |
| A110 | REAR PANEL | TXSR876MMP      | 1  | 27123916    | <MP, MB> |
| A110 | REAR PANEL | TXSR876MDT      | 1  | 27123917    | <DT>     |
| A110 | REAR PANEL | TXSR876MMT      | 1  | 27123918    | <MT>     |
| A110 | REAR PANEL | TXSA876MMR      | 1  | 27123919    | <SA876>  |
| A113 | SCREW      | 3P+6FN(3BC)     | 1  | 82143006GR  | <DC, DD> |
| A114 | SCREW      | 4TTB+8C(3BC)    | 2  | 838440089GR |          |
| A116 | WASHER     | W3*10F(3BC)     | 1  | 87643010GR  |          |
| A118 | TRM        | E TERMINAL      | 1  | 25060151    |          |
| A120 | WIRE TIE   | BSK-1           | 15 | 260208      |          |
| A128 | SHLD CASE  | (C)             | 1  | 27225171    | <DC, DD> |
| A132 | RETAINER   | (E)             | 1  | 27142078    | <DC, DD> |
| A133 | SCREW      | 3TTB+8B(3CM)SR  | 1  | 801637      | <DC, DD> |
| A134 | RETAINER   | (SIDE)          | 2  | 27142079    |          |
| A137 | CUSHION    | t5*30*5         | 2  | 28141562    |          |
| A138 | CUSHION    | (T3*W35*D10)    | 1  | 28141741    | <DC, DD> |
| A139 | CUSHION    | (BUTYL)         | 1  | 28141748    |          |
| A142 | IB CUSHION | W15*3t TAPE     | 1  | 28141585    | <MB>     |
| A150 | LABEL      | (SP)            | 1  | 29390588    | <MB>     |

|      |            |               |   |             |                   |
|------|------------|---------------|---|-------------|-------------------|
| A201 | BADGE      | BADGE         | 1 | 28135244    | (B)               |
| A201 | BADGE      | BADGE         | 1 | 28135245    | (G), <SA876>      |
| A201 | BADGE      | .             | 1 | 28135298    | (S)               |
| A205 | HOLDER     | (L)(B)        | 1 | 27191294    | (B)               |
| A205 | HOLDER     | (L)(G)        | 1 | 27191296    | (G), <SA876>      |
| A205 | HOLDER     | (L)(S)        | 1 | 27191295    | (S)               |
| A207 | HOLDER     | (R)(B)        | 1 | 27191297A   | (B)               |
| A207 | HOLDER     | (R)(G)        | 1 | 27191299A   | (G), <SA876>      |
| A207 | HOLDER     | (R)(S)        | 1 | 27191298A   | (S)               |
| A209 | HINGE      | (L)(B)        | 1 | 28180184B   | (B)               |
| A209 | HINGE      | (L)(G)        | 1 | 28180186B   | (G), <SA876>      |
| A209 | HINGE      | (L)(S)        | 1 | 28180185B   | (S)               |
| A211 | HINGE      | (R)(B)        | 1 | 28180187B   | (B)               |
| A211 | HINGE      | (R)(G)        | 1 | 28180189B   | (G), <SA876>      |
| A211 | HINGE      | (R)(S)        | 1 | 28180188B   | (S)               |
| A213 | RETAINER   | (DOOR)        | 1 | 27142060A   |                   |
| A215 | RETAINER   | (HOLDER)      | 1 | 27142061    |                   |
| A217 | PUSH LATCH | 091Y          | 1 | 27230047    |                   |
| A219 | DAMPER     | 29T0-F        | 1 | 27301960    |                   |
| A221 | GEAR       | .             | 1 | 27301946A   |                   |
| A223 | SCREW      | 2TTB+8B(3CM)  | 1 | 838120088GR |                   |
| A239 | CUSHION    | t1.0*5*5      | 1 | 28141511    |                   |
| A251 | F BRACKET  | (B)           | 1 | 27111477C   | (B)               |
| A251 | F BRACKET  | NeGo          | 1 | 27111510A   | (G), <SA876>      |
| A251 | F BRACKET  | .(S)          | 1 | 27111484C   | (S)               |
| A253 | KNOB       | (PA)AS        | 1 | 28326530A   | (B)               |
| A253 | KNOB       | (PA)AS(Ne-G)  | 1 | 28326632    | (G), <SA876>      |
| A253 | KNOB       | (PA)AS        | 1 | 28326533A   | (S)               |
| A255 | FACET      | (VOL)         | 1 | 28200023A   |                   |
| A259 | B PLATE    | .(B)          | 1 | 28133428    | (B)               |
| A259 | B PLATE    | .(S)          | 1 | 28133429    | (S), (G), <SA876> |
| A261 | RETAINER   | (PWB)         | 1 | 27142064    |                   |
| A262 | CUSHION    | (T10*A40*B10) | 2 | 28141747    |                   |
| A270 | CUSHION    | t5*30*5       | 2 | 28141562    |                   |
| A281 | KNOB       | (VOL)AS(B)    | 1 | 28326557    | (B)               |
| A281 | KNOB       | (VOL)AS(G)    | 1 | 28326559    | (G), <SA876>      |
| A281 | KNOB       | (VOL)AS(S)    | 1 | 28326558    | (S)               |
| A301 | F PANEL    | TXSR876B      | 1 | 27213158    | (B)               |
| A301 | F PANEL    | TXSR876G      | 1 | 27213160    | (G), <SA876>      |
| A301 | F PANEL    | TXSR876S      | 1 | 27213159    | (S)               |
| A303 | CLEAR PLT  | TXSR876       | 1 | 28192212A   |                   |
| A311 | DOOR       | 876BD         | 1 | 28148709    | <DC>              |
| A311 | DOOR       | 876SD         | 1 | 28148710    | <DD>              |
| A311 | DOOR       | 876BP         | 1 | 28148711    | (B)<MP, MB>       |
| A311 | DOOR       | 876SP         | 1 | 28148712    | (S)<MP, MB>       |
| A311 | DOOR       | 876GT         | 1 | 28148713    | <DT, MT>          |
| A311 | DOOR       | 876GR         | 1 | 28148714    | <SA876>           |
| A313 | PLATE      | (DOOR)805BD   | 1 | 27262783    | <DC>              |

|          |          |                  |      |             |                         |
|----------|----------|------------------|------|-------------|-------------------------|
| A313     | PLATE    | (DOOR)805SD      | 1    | 27262784A   | <DD>                    |
| A313     | PLATE    | (DOOR)805BP      | 1    | 27262787    | (B)<MP, MB>             |
| A313     | PLATE    | (DOOR)805SP      | 1    | 27262788A   | (S)<MP, MB>             |
| A313     | PLATE    | (DOOR)876GR      | 1    | 27262816    | <SA876>                 |
| A313     | PLATE    | (DOOR)876GT      | 1    | 27262818    | <DT, MT>                |
| A315     | KNOB     | (POW) (B)        | 1    | 28326454    | (B)<MP, MB>             |
| A315     | KNOB     | (POW)(S)         | 1    | 28326585    | (S)<MP, MB>             |
| A315     | KNOB     | (POW)(Ne-G)      | 1    | 28326630    | <DT, MT, SA876>         |
| A321     | SCREW    | 3P+10FN(3BC)     | 2    | 82143010GR  | <MP, MB, MT, DT, SA876> |
| A330     | LABEL    | (UK-CR)          | 1    | 29364600    | <MB>                    |
| A400     | COVER    | (B) (Bent)       | 1    | 28184989A   | (B)                     |
| A400     | COVER    | (G) (Bent)       | 1    | 28184991A   | (G), <SA876>            |
| A400     | COVER    | (S) (Bent)       | 1    | 28184990A   | (S)                     |
| A400     | COVER    | (B) (Not bent)   | 1    | 28184989AZ  | <DC>                    |
| A400     | COVER    | (S) (Not bent)   | 1    | 28184990AZ  | <DD>                    |
| A402     | ST SCREW | 4TTB+8C(NI)      | 6    | 838240089   | (S), (G), <SA876>       |
| A402     | SCREW    | 4TTB+8C(3BC)     | 6    | 838440089GR | (B)                     |
| A406     | SCREW    | 3TTB+8B(3CM)SR   | 3    | 801637      | (S), (G), <SA876>       |
| A406     | SCREW    | 3TTB+8B(3BC)     | 3    | 838430088GR | (B)                     |
| A410     | LABEL    | (CAUTION)        | 1    | 29363796    |                         |
| A411     | LABEL    | HOOKUP-ONKYO     | 1    | 29363194    | <DC, DD>                |
| F2501    | FUSE     | 4A-UL/T-233      | 1    | 252325GR    | !                       |
| F2501 or | FUSE     | 4A-T/UL-ST2      | ( 1) | 252257GR    | !                       |
| F2502    | FUSE     | 4A-UL/T-233      | 1    | 252325GR    | !                       |
| F2502 or | FUSE     | 4A-T/UL-ST2      | ( 1) | 252257GR    | !                       |
| F6601    | FUSE     | 20A-UL-250V      | 1    | 252304GR    | !                       |
| F6602    | FUSE     | 20A-UL-250V      | 1    | 252304GR    | !                       |
| F6603    | FUSE     | 20A-UL-250V      | 1    | 252304GR    | !                       |
| F6604    | FUSE     | 20A-UL-250V      | 1    | 252304GR    | !                       |
| F9000    | FUSE     | 5A-UL/T-233      | 1    | 252326GR    | !, <DC, DD>             |
| F9000 or | FUSE     | 5A-T/UL-ST2      | ( 1) | 252258GR    | !, <DC, DD>             |
| F9100    | FUSE     | 12A-UL-ST6       | 1    | 252340GR    | !, <DC, DD, DT>         |
| F9100    | FUSE     | 6.3A-SE-EAK FUSE | 1    | 252079GR    | !, <MP, MB, MT, SA876>  |
| F9100 or | FUSE     | 6.3A-SE-TL250V   | ( 1) | 252279GR    | !, <MP, MB, MT, SA876>  |
| F9101    | FUSE     | 4A-UL/T-233      | 1    |             | !                       |
| F9101 or | FUSE     | 4A-T/UL-ST2      | ( 1) |             | !                       |
| F9102    | FUSE     | 4A-UL/T-233      | 1    | 252325GR    | !                       |
| F9102 or | FUSE     | 4A-T/UL-ST2      | ( 1) | 252257GR    | !                       |
| F9201    | FUSE     | 2.5A-UL/T-233    | 1    | 252321GR    | !, <DC, DD>             |
| F9201 or | FUSE     | 2.5A-T/UL-ST2    | ( 1) | 252254GR    | !, <DC, DD>             |
| F9202    | FUSE     | 2.5A-UL/T-233    | 1    | 252321GR    | !, <DC, DD>             |
| F9202 or | FUSE     | 2.5A-T/UL-ST2    | ( 1) | 252254GR    | !, <DC, DD>             |
| F9301    | FUSE     | 4A-UL/T-233      | 1    | 252325GR    | !                       |
| F9301 or | FUSE     | 4A-T/UL-ST2      | ( 1) | 252257GR    | !                       |
| P061     | FAN      | D09A-12PG13      | 1    | 24502328    |                         |
| P062     | FAN      | D09A-12PG13      | 1    | 24502328    |                         |
| P101     | FFC      | NCFC7-134512     | 1    | 2047134512  | <SR876>                 |
| P102     | FFC      | NCFC7-181012     | 1    | 2047181012  | <DC, DD>                |

|          |           |                      |     |              |                         |
|----------|-----------|----------------------|-----|--------------|-------------------------|
| P2801    | FFC       | NCFC7-311012         | 1   | 2047311012   |                         |
| P6800    | P RIVET   | JB-407A-C            | 18  | 880052       | <MP, MB, MT, DT, SA876> |
| P7501    | FFC       | NCFC7-405522         | 1   | 2047405522   |                         |
| P9008    | SOCKET AS | NSAS-6P1675          | 1   | 2009991073UL | <MP, MB, MT, DT, SA876> |
| Q6050    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6050 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6050A   | ISO SHEET | ISO SHEET(SR805_3CH) | 2   | 223047       |                         |
| Q6051    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6051 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6052    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6052 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6053    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6053 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6054    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6054 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6055    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6055 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6056    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6056 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6060    | TR        | 2SA1962-O            | 1   | 2202833      |                         |
| Q6060 or | TR        | 2SA1962-R            | (1) | 2202832      |                         |
| Q6061    | TR        | 2SA1962-O            | 1   | 2202833      |                         |
| Q6061 or | TR        | 2SA1962-R            | (1) | 2202832      |                         |
| Q6062    | TR        | 2SA1962-O            | 1   | 2202833      |                         |
| Q6062 or | TR        | 2SA1962-R            | (1) | 2202832      |                         |
| Q6063    | TR        | 2SA1962-O            | 1   | 2202833      |                         |
| Q6063 or | TR        | 2SA1962-R            | (1) | 2202832      |                         |
| Q6064    | TR        | 2SA1962-O            | 1   | 2202833      |                         |
| Q6064 or | TR        | 2SA1962-R            | (1) | 2202832      |                         |
| Q6065    | TR        | 2SA1962-O            | 1   | 2202833      |                         |
| Q6065 or | TR        | 2SA1962-R            | (1) | 2202832      |                         |
| Q6066    | TR        | 2SA1962-O            | 1   | 2202833      |                         |
| Q6066 or | TR        | 2SA1962-R            | (1) | 2202832      |                         |
| Q6080    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6080 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6080A   | ISO SHEET | ISO SHEET(SR805_4CH) | 2   | 223048       |                         |
| Q6081    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6081 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6082    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6082 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6083    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6083 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6084    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6084 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6085    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6085 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |
| Q6086    | TR        | 2SC5242-O            | 1   | 2202843      |                         |
| Q6086 or | TR        | 2SC5242-R            | (1) | 2202842      |                         |

|          |    |           |      |         |  |
|----------|----|-----------|------|---------|--|
| Q6090    | TR | 2SA1962-O | 1    | 2202833 |  |
| Q6090 or | TR | 2SA1962-R | ( 1) | 2202832 |  |
| Q6091    | TR | 2SA1962-O | 1    | 2202833 |  |
| Q6091 or | TR | 2SA1962-R | ( 1) | 2202832 |  |
| Q6092    | TR | 2SA1962-O | 1    | 2202833 |  |
| Q6092 or | TR | 2SA1962-R | ( 1) | 2202832 |  |
| Q6093    | TR | 2SA1962-O | 1    | 2202833 |  |
| Q6093 or | TR | 2SA1962-R | ( 1) | 2202832 |  |
| Q6094    | TR | 2SA1962-O | 1    | 2202833 |  |
| Q6094 or | TR | 2SA1962-R | ( 1) | 2202832 |  |
| Q6095    | TR | 2SA1962-O | 1    | 2202833 |  |
| Q6095 or | TR | 2SA1962-R | ( 1) | 2202832 |  |
| Q6096    | TR | 2SA1962-O | 1    | 2202833 |  |
| Q6096 or | TR | 2SA1962-R | ( 1) | 2202832 |  |

## &lt;Notes&gt;

When replacing the following the transistors, use ones of the same Hfe rank as the original type.

Ref. No. : Q6050 - 6060, Q6051 - 6061, Q6052 - 6062, Q6053 - 6063, Q6054 - 6064, Q6055 - 6065, Q6056 - 6066

Ref. No. : Q6080 - 6090, Q6081 - 6091, Q6082 - 6092, Q6083 - 6093, Q6084 - 6094, Q6085 - 6095, Q6086 - 6096

|      |                               |                 |   |              |                          |
|------|-------------------------------|-----------------|---|--------------|--------------------------|
| T901 | P TRANS                       | NPT-1553D       | 1 | 2301893      | !, <DC, DD, DT>          |
| T901 | P TRANS                       | NPT-1553M       | 1 | 2301894      | !, <MP, MB, MT, SA876>   |
| T903 | P TRANS                       | NPT-1555D       | 1 | 2301902A     | !, <DC, DD>              |
| U01  | AMPLIFIER PC board ass'y      | NAAF-9039-1E*   | 1 | 1B170539-1E  |                          |
| U02  | POWER SUPPLY PC board ass'y   | NAPS-9040-1E    | 1 | 1B170540-1E  |                          |
| U03  | POWER SUPPLY PC board ass'y   | NAPS-9041-1E    | 1 | 1B170541-1E  |                          |
| U04  | THERMAL SENSOR PC board ass'y | NAETC-9042-1E   | 1 | ---          | NSP                      |
| U05  | THERMAL SENSOR PC board ass'y | NAETC-9043-1E   | 1 | ---          | NSP                      |
| U06  | AMPLIFIER PC board ass'y      | NAASP-9050-1M*  | 1 | 1B170550-1M  | <DC, DD, DT, MP, MB, MT> |
|      |                               | NAASP-9050-1P*  | 1 | 1B170550-1P  | <SA876>                  |
| U07  | PHONO PC board ass'y          | NAASP-9051-1M   | 1 | 1B170551-1M  | <DC, DD, DT, MP, MB, MT> |
|      |                               | NAASP-9051-1P   | 1 | 1B170551-1P  | <SA876>                  |
| U08  | VIDEO PC board ass'y          | NAVD-9052-1M    | 1 | 1B170552-1M  | <DC, DD, DT, MP, MB, MT> |
|      |                               | NAVD-9052-1P    | 1 | 1B170552-1P  | <SA876>                  |
| U09  | CONNECTOR PC board ass'y      | NAETC-9053-1M   | 1 | ---          | NSP                      |
|      |                               | NAETC-9053-1P   | 1 | ---          | NSP                      |
| U10  | CONNECTOR PC board ass'y      | NAETC-9054-1M   | 1 | ---          | NSP                      |
|      |                               | NAETC-9054-1P   | 1 | ---          | NSP                      |
| U11  | SP TERMINAL PC board ass'y    | NATRM-9055-1AA* | 1 | 1B170555-1AA | <DC, DD>                 |
|      |                               | NATRM-9055-1AG* | 1 | 1B170555-1AG | <MB>                     |
|      |                               | NATRM-9055-1C*  | 1 | 1B170555-1C  | <MP, MT>                 |
|      |                               | NATRM-9055-1D*  | 1 | 1B170555-1D  | <DT>                     |
|      |                               | NATRM-9055-1X*  | 1 | 1B170555-1X  | <SA876>                  |
| U12  | SP TERMINAL PC board ass'y    | NAETC-9056-1AA  | 1 | 1B170556-1AA | <DC, DD>                 |
|      |                               | NAETC-9056-1AG  | 1 | 1B170556-1AG | <MB>                     |
|      |                               | NAETC-9056-1C   | 1 | 1B170556-1C  | <MP, MT>                 |
|      |                               | NAETC-9056-1D   | 1 | 1B170556-1D  | <DT>                     |
|      |                               | NAETC-9056-1X   | 1 | 1B170556-1X  | <SA876>                  |
| U13  | POWER SUPPLY PC board ass'y   | NAPS-9057-1AA   | 1 | 1B170557-1AA | <DC, DD>                 |
|      |                               | NAPS-9057-1AG   | 1 | 1B170557-1AG | <MB>                     |

|     |                               |                |   |              |                         |
|-----|-------------------------------|----------------|---|--------------|-------------------------|
|     |                               | NAPS-9057-1C   | 1 | 1B170557-1C  | <MP, MT>                |
|     |                               | NAPS-9057-1D   | 1 | 1B170557-1D  | <DT>                    |
|     |                               | NAPS-9057-1X   | 1 | 1B170557-1X  | <SA876>                 |
| U14 | INLET PC board ass'y          | NAPS-9058-1AA  | 1 | 1B170558-1AA | <DC, DD>                |
|     |                               | NAPS-9058-1AG  | 1 | 1B170558-1AG | <MB>                    |
|     |                               | NAPS-9058-1C   | 1 | 1B170558-1C  | <MP, MT>                |
|     |                               | NAPS-9058-1D   | 1 | 1B170558-1D  | <DT>                    |
|     |                               | NAPS-9058-1X   | 1 | 1B170558-1X  | <SA876>                 |
| U16 | POWER AMP PC board ass'y      | NAAMP-9061-1E* | 1 | 1B170561-1E  |                         |
| U17 | POWER AMP PC board ass'y      | NAAMP-9062-1E  | 1 | 1B170562-1E  |                         |
| U18 | POWER AMP PC board ass'y      | NACLA-9063-1E  | 1 | 1B170563-1E  |                         |
| U19 | POWER AMP PC board ass'y      | NACLA-9064-1E  | 1 | 1B170564-1E  |                         |
| U20 | POWER AMP PC board ass'y      | NACLA-9065-1E  | 1 | 1B170564-1E  |                         |
| U21 | POWER AMP PC board ass'y      | NACLA-9066-1E  | 1 | 1B170563-1E  |                         |
| U22 | POWER AMP PC board ass'y      | NACLA-9067-1E  | 1 | 1B170564-1E  |                         |
| U23 | POWER AMP PC board ass'y      | NACLA-9068-1E  | 1 | 1B170563-1E  |                         |
| U24 | POWER AMP PC board ass'y      | NACLA-9069-1E  | 1 | 1B170564-1E  |                         |
| U25 | DSP PC board ass'y            | NADSP-9072-1B* | 1 | 1B170572-1B  |                         |
| U27 | DAC PC board ass'y            | NADG-9074-1AG* | 1 | 1B170574-1AG | <DC, DD>                |
|     |                               | NADG-9074-1AH* | 1 | 1B170574-1AH | <MP, MB, MT, DT>        |
|     |                               | NADG-9074-1AJ* | 1 | 1B170574-1AJ | <SA876>                 |
| U28 | MICROPROCESSOR PC board ass'y | NAAR-9075-1AG  | 1 | 1B170575-1AG | <DC, DD>                |
|     |                               | NAAR-9075-1AH  | 1 | 1B170575-1AH | <MP, MB, MT, DT>        |
|     |                               | NAAR-9075-1AJ  | 1 | 1B170575-1AJ | <SA876>                 |
| U30 | XM PC board ass'y             | NARF-9077-1AG  | 1 | 1B170577-1AG | <DC, DD>                |
|     |                               | NARF-9077-1AH  | 0 | ---          | <MP, MB, MT, DT>        |
|     |                               | NARF-9077-1AJ  | 0 | ---          | <SA876>                 |
| U31 | HOLDER PC board ass'y         | NAETC-9078-1AG | 1 | ---          | NSP                     |
|     |                               | NAETC-9078-1AH | 1 | ---          | NSP                     |
|     |                               | NAETC-9078-1AJ | 1 | ---          | NSP                     |
| U32 | AMPLIFIER PC board ass'y      | NAASP-9080-1AG | 1 | 1B170580-1AG | <DC, DD>                |
|     |                               | NAASP-9080-1AH | 1 | 1B170580-1AH | <MP, MB, MT, DT>        |
|     |                               | NAASP-9080-1AJ | 1 | 1B170580-1AJ | <SA876>                 |
| U26 | AMPLIFIER PC board ass'y      | NAETC-9073-1AG | 1 | 1B170573-1AG | <DC, DD>                |
|     |                               | NAETC-9073-1AH | 1 | 1B170573-1AH | <MP, MB, MT, DT>        |
|     |                               | NAETC-9073-1AJ | 1 | 1B170573-1AJ | <SA876>                 |
| U33 | DISPLAY PC board ass'y        | NADIS-9085-1A* | 1 | 1B170585-1A  | <DC, DD>                |
|     |                               | NADIS-9085-1P* | 1 | 1B170585-1P  | <MP, MB, MT, DT, SA876> |
| U34 | DISPLAY PC board ass'y        | NADIS-9086-1A  | 1 | 1B170586-1A  | <DC, DD>                |
|     |                               | NADIS-9086-1P  | 1 | 1B170586-1P  | <MP, MB, MT, DT, SA876> |
| U35 | SWITCH PC board ass'y         | NASW-9087-1A   | 0 | ---          | <DC, DD>                |
|     |                               | NASW-9087-1P   | 1 | ---          | NSP                     |
| U36 | HEADPHONE PC board ass'y      | NAETC-9088-1A  | 1 | 1B170588-1A  | <DC, DD>                |
|     |                               | NAETC-9088-1P  | 1 | 1B170588-1P  | <MP, MB, MT, DT, SA876> |
| U37 | POWER SUPPLY PC board ass'y   | NAPS-9089-1A   | 1 | 1B170589-1A  | <DC, DD>                |
|     |                               | NAPS-9089-1P   | 1 | 1B170589-1P  | <MP, MB, MT, DT, SA876> |
| U38 | FRONT OPT PC board ass'y      | NAETC-9090-1A  | 1 | ---          | NSP                     |
|     |                               | NAETC-9090-1P  | 1 | ---          | NSP                     |

|      |                         |                |   |                    |                         |
|------|-------------------------|----------------|---|--------------------|-------------------------|
| U39  | VOLUME PC board ass'y   | NAETC-9091-1A  | 1 | ---                | NSP                     |
|      |                         | NAETC-9091-1P  | 1 | ---                | NSP                     |
| U40  | HOLDER PC board ass'y   | NCETC-9092-1A  | 1 | ---                | NSP                     |
|      |                         | NCETC-9092-1P  | 1 | ---                | NSP                     |
| U41  | HOLDER PC board ass'y   | NCETC-9093-1A  | 1 | ---                | NSP                     |
|      |                         | NCETC-9093-1P  | 1 | ---                | NSP                     |
| U42  | HDMI PC board ass'y     | NAHDM-9114-1A* | 1 | 1B170514-1A_0290A2 |                         |
| U43  | HD RADIO PC board ass'y | NARF-9118-1A*  | 1 | 1B170518-1A        | <DC, DD>                |
|      |                         | NARF-9118-1A*  | 0 | ---                | <MP, MB, MT, DT, SA876> |
| U017 | TUNER UNIT              | FAE485-E11EU   | 1 | 240154             | <MP, MB, MT, DT>        |

TX-SR876/SA876

## PC BOARD PARTS LIST

|     |                                     |
|-----|-------------------------------------|
| U01 | AMPLIFIER PC BOARD(NAAF-9039-1E)    |
| U02 | POWER SUPPLY PC BOARD(NAPS-9040-1E) |
| U03 | POWER SUPPLY PC BOARD(NAPS-9041-1E) |

| REF. NO. | PART NAME | DESCRIPTION        | Q'TY | PART NO. (SN) | REMARKS |
|----------|-----------|--------------------|------|---------------|---------|
| Q6000    | TR        | 2SC1740S-S         | 1    | 2213285T      |         |
| Q6001    | TR        | 2SC1740S-S         | 1    | 2213285T      |         |
| Q6002    | TR        | 2SC1740S-S         | 1    | 2213285T      |         |
| Q6003    | TR        | 2SC1740S-S         | 1    | 2213285T      |         |
| Q6004    | TR        | 2SC1740S-S         | 1    | 2213285T      |         |
| Q6005    | TR        | 2SC1740S-S         | 1    | 2213285T      |         |
| Q6006    | TR        | 2SC1740S-S         | 1    | 2213285T      |         |
| Q6226    | TR        | 2SB1240-R          | 1    | 2213794T      |         |
| Q6380    | IC        | LM61CIZ            | 1    | 22242212      |         |
| Q6380A   | RETAINER  | (PTH)              | 1    | 27141884-1    |         |
| Q6381    | IC        | LM61CIZ            | 1    | 22242212      |         |
| Q6381A   | RETAINER  | (PTH)              | 1    | 27141884-1    |         |
| Q6550    | TR        | 2SC1815-GR         | 1    | 2211255T      |         |
| Q6551    | TR        | 2SA950-O           | 1    | 2211503T      |         |
| Q6551 or | TR        | 2SA950-Y           | (1)  | 2211504T      |         |
| Q6560    | TR        | 2SC1815-GR         | 1    | 2211255T      |         |
| Q6561    | TR        | 2SA950-O           | 1    | 2211503T      |         |
| Q6561 or | TR        | 2SA950-Y           | (1)  | 2211504T      |         |
| Q6601    | TR        | KTC3199-GR         | 1    | 2215864T      |         |
| Q6601 or | TR        | 2SC1740S-R         | (1)  | 2213284T      |         |
| Q6601 or | TR        | 2SC1740S-S         | (1)  | 2213285T      |         |
| Q6611    | TR        | KTC3199-GR         | 1    | 2215864T      |         |
| Q6611 or | TR        | 2SC1740S-R         | (1)  | 2213284T      |         |
| Q6611 or | TR        | 2SC1740S-S         | (1)  | 2213285T      |         |
| Q6701    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q6701 or | TR        | 2SC2240-GR         | (1)  | 2211405T      |         |
| Q6701 or | TR        | KTC3200-BL         | (1)  | 2215896T      |         |
| Q6702    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |

|          |          |                     |      |            |
|----------|----------|---------------------|------|------------|
| Q6702 or | TR       | 2SC2240-GR          | ( 1) | 2211405T   |
| Q6702 or | TR       | KTC3200-BL          | ( 1) | 2215896T   |
| Q6703    | TR       | 2SA970-BL(TPE2_F)   | 1    | 2211396T   |
| Q6703 or | TR       | 2SA970-GR           | ( 1) | 2211395T   |
| Q6703 or | TR       | KTA1268-BL          | ( 1) | 2215886T   |
| D6221    | DIODE    | 1SS133              | 1    | 223163T    |
| D6222    | DIODE    | 1SS133              | 1    | 223163T    |
| D6601    | DIODE    | LN25XB60            | 1    | 22380345   |
| D6602    | DIODE    | 1SS133              | 1    | 223163T    |
| D6611    | DIODE    | LN25XB60            | 1    | 22380345   |
| D6612    | DIODE    | 1SS133              | 1    | 223163T    |
| D6621    | DIODE    | LN25XB60            | 1    | 22380345   |
| D6701    | DIODE    | 1SS133              | 1    | 223163T    |
| D6702    | DIODE    | 1SS133              | 1    | 223163T    |
| D6703    | ZENER D  | MTZJ3.3B            | 1    | 224470332T |
| D6704    | ZENER D  | MTZJ3.3B            | 1    | 224470332T |
| C6030    | TF C     | ECQ-V100-473J       | 1    | 374734734T |
| C6031    | TF C     | ECQ-V100-473J       | 1    | 374734734T |
| C6032    | TF C     | ECQ-V100-473J       | 1    | 374734734T |
| C6033    | TF C     | ECQ-V100-473J       | 1    | 374734734T |
| C6034    | TF C     | ECQ-V100-473J       | 1    | 374734734T |
| C6035    | TF C     | ECQ-V100-473J       | 1    | 374734734T |
| C6036    | TF C     | ECQ-V100-473J       | 1    | 374734734T |
| C6222    | UTSP C   | CE04W25V-220M(UTSP) | 1    | 397552217T |
| C6601    | TF C     | ECQ-B50V-102J       | 1    | 374721024T |
| C6602    | PLA C    | ECQE250V-334J       | 1    | 3700083S   |
| C6611    | TF C     | ECQ-B50V-102J       | 1    | 374721024T |
| C6612    | TF C     | ECQ-V100-334J       | 1    | 374733344T |
| C6622    | TF C     | ECQ-V100-334J       | 1    | 374733344T |
| C6701    | UTSP C   | CE04W10V-220M(UTSP) | 1    | 397532217T |
| C6703    | TF C     | ECQ-B50V-223J       | 1    | 374722234T |
| C6704    | UTSP C   | CE04W50V-1M(UTSP)   | 1    | 397580107T |
| C6706    | UTSP C   | CE04W50V-10M(UTSP)  | 1    | 397581007T |
| C6901    | ELECT C  | CE69W75V-18000M     | 1    | 3504437A   |
| C6902    | ELECT C  | CE69W75V-18000M     | 1    | 3504437A   |
| R6130    | METAL R  | RNU1WCJ-8.2         | 1    | 453630824T |
| R6131    | METAL R  | RNU1WCJ-8.2         | 1    | 453630824T |
| R6132    | METAL R  | RNU1WCJ-8.2         | 1    | 453630824T |
| R6133    | METAL R  | RNU1WCJ-8.2         | 1    | 453630824T |
| R6134    | METAL R  | RNU1WCJ-8.2         | 1    | 453630824T |
| R6135    | METAL R  | RNU1WCJ-8.2         | 1    | 453630824T |
| R6136    | METAL R  | RNU1WCJ-8.2         | 1    | 453630824T |
| R6222    | METAL R  | RNU1WCJ-1           | 1    | 453630104T |
| R6223    | CARBON R | R16J-5.6K           | 1    | 417345624T |
| R6550    | CARBON R | R16J-4.7K           | 1    | 417344724T |
| R6551    | CARBON R | R16J-330            | 1    | 417343314T |
| R6552    | CARBON R | R16J-1.8K           | 1    | 417341824T |
| R6553    | CARBON R | R16J-1.2K           | 1    | 417341224T |

|         |             |                    |   |              |   |
|---------|-------------|--------------------|---|--------------|---|
| R6554   | CARBON R    | R16J-22K           | 1 | 417342234T   |   |
| R6560   | CARBON R    | R16J-4.7K          | 1 | 417344724T   |   |
| R6561   | CARBON R    | R16J-330           | 1 | 417343314T   |   |
| R6562   | CARBON R    | R16J-1.8K          | 1 | 417341824T   |   |
| R6563   | CARBON R    | R16J-1.2K          | 1 | 417341224T   |   |
| R6564   | CARBON R    | R16J-22K           | 1 | 417342234T   |   |
| R6601   | CARBON R    | R16J-1K            | 1 | 417341024T   |   |
| R6602   | CARBON R    | R16J-4.7K          | 1 | 417344724T   |   |
| R6603   | METAL R     | RNU1/2WCJ-2.2      | 1 | 453530224T   |   |
| R6611   | CARBON R    | R16J-1K            | 1 | 417341024T   |   |
| R6612   | CARBON R    | R16J-4.7K          | 1 | 417344724T   |   |
| R6613   | METAL R     | RNU1/2WCJ-2.2      | 1 | 453530224T   |   |
| R6701   | CARBON R    | R16J-22K           | 1 | 417342234T   |   |
| R6702   | CARBON R    | R16J-10K           | 1 | 417341034T   |   |
| R6704   | CARBON R    | R16J-33K           | 1 | 417343334T   |   |
| R6706   | CARBON R    | R16J-22K           | 1 | 417342234T   |   |
| R6708   | CARBON R    | R16J-33K           | 1 | 417343334T   |   |
| R6709   | CARBON R    | R16J-5.6K          | 1 | 417345624T   |   |
| R6710   | CARBON R    | R16J-15K           | 1 | 417341534T   |   |
| F6601A  | FUSE HOLDER | SN5051             | 1 | 250113       | ! |
| F6601B  | FUSE HOLDER | SN5051             | 1 | 250113       | ! |
| F6602A  | FUSE HOLDER | SN5051             | 1 | 250113       | ! |
| F6602B  | FUSE HOLDER | SN5051             | 1 | 250113       | ! |
| F6603A  | FUSE HOLDER | SN5051             | 1 | 250113       | ! |
| F6603B  | FUSE HOLDER | SN5051             | 1 | 250113       | ! |
| F6604A  | FUSE HOLDER | SN5051             | 1 | 250113       | ! |
| F6604B  | FUSE HOLDER | SN5051             | 1 | 250113       | ! |
| JL6041A | WIRE HOL    | NSCT-3P874         | 1 | 25051087     |   |
| JL6402A | WIRE TRAP   | NPLG-3P586         | 1 | 25055624     |   |
| JL6402B | WIRE HOL    | NSCT-3P874         | 1 | 25051087     |   |
| JL6403A | WIRE TRAP   | NPLG-3P586         | 1 | 25055624     |   |
| JL6403B | WIRE HOL    | NSCT-3P874         | 1 | 25051087     |   |
| JL6602A | WIRE HOL    | NSCT-4P875         | 1 | 25051088     |   |
| JL6602B | WIRE TRAP   | NPLG-4P587         | 1 | 25055625     |   |
| JL6900A | WIRE HOL    | NSCT-3P894         | 1 | 25051107     |   |
| P4100   | SOCKET      | 9210B-1-08Z140-PT1 | 1 | 25053243     |   |
| P4101   | SOCKET      | 9210B-1-08Z140-PT1 | 1 | 25053243     |   |
| P5000A  | SOCKET AS   | NSAS-26P1612       | 1 | 2009991020UL |   |
| P5001A  | CRIMP AS    | CRIMP SR805_1      | 1 | 20799169UL   |   |
| P5010B  | PLUG        | NPLG-3P0958        | 1 | 25056008     |   |
| P5011B  | PLUG        | NPLG-3P0958        | 1 | 25056008     |   |
| P5012B  | PLUG        | NPLG-3P0958        | 1 | 25056008     |   |
| P5013B  | PLUG        | NPLG-3P0958        | 1 | 25056008     |   |
| P5014B  | PLUG        | NPLG-3P0958        | 1 | 25056008     |   |
| P5015B  | PLUG        | NPLG-3P0958        | 1 | 25056008     |   |
| P5016B  | PLUG        | NPLG-3P0958        | 1 | 25056008     |   |
| P5020B  | TRM         | NTM-1P232(M1700)   | 1 | 25060301     |   |
| P5021B  | TRM         | NTM-1P232(M1700)   | 1 | 25060301     |   |

|        |           |                     |   |               |  |
|--------|-----------|---------------------|---|---------------|--|
| P5022B | TRM       | NTM-1P232(M1700)    | 1 | 25060301      |  |
| P5023B | TRM       | NTM-1P232(M1700)    | 1 | 25060301      |  |
| P5024B | TRM       | NTM-1P232(M1700)    | 1 | 25060301      |  |
| P5025B | TRM       | NTM-1P232(M1700)    | 1 | 25060301      |  |
| P5026B | TRM       | NTM-1P232(M1700)    | 1 | 25060301      |  |
| P6010B | PLUG      | NPLG-4P0959         | 1 | 25056009      |  |
| P6011B | PLUG      | NPLG-4P0959         | 1 | 25056009      |  |
| P6012B | PLUG      | NPLG-4P0959         | 1 | 25056009      |  |
| P6013B | PLUG      | NPLG-4P0959         | 1 | 25056009      |  |
| P6014B | PLUG      | NPLG-4P0959         | 1 | 25056009      |  |
| P6015B | PLUG      | NPLG-4P0959         | 1 | 25056009      |  |
| P6016B | PLUG      | NPLG-4P0959         | 1 | 25056009      |  |
| P6140  | SOCKET AS | NSAS-7P1659         | 1 | 2009991063AUL |  |
| P6202  | HOLDER    | HOLDER(CLAMP)       | 1 | 27190540-1    |  |
| P6203  | HOLDER    | HOLDER(CLAMP)       | 1 | 27190540-1    |  |
| P6340  | SOCKET AS | NSAS-8P1660         | 1 | 2009991064AUL |  |
| P6400  | RETAINER  | (BUS-3)             | 1 | 27142058A     |  |
| P6401  | RETAINER  | (BUS-4)             | 1 | 27142059A     |  |
| P6500  | PLUG      | NPLG-7P163          | 1 | 25055179      |  |
| P6550  | PLUG      | NPLG-2P83           | 1 | 25055099      |  |
| P6560  | PLUG      | NPLG-2P83           | 1 | 25055099      |  |
| P6601  | SOCKET AS | NSAS-7P1673         | 1 | 2009991071AUL |  |
| P6601A | PLUG      | NPLG-7P163          | 1 | 25055179      |  |
| P6602  | TRM       | NTM-1P243(M1699)    | 1 | 25060312      |  |
| P6602B | RETAINER  | MET37-0002          | 1 | 27142009T     |  |
| P6603  | TRM       | NTM-1P243(M1699)    | 1 | 25060312      |  |
| P6603B | RETAINER  | MET37-0002          | 1 | 27142009T     |  |
| P7210A | SOCKET AS | NSAS-18P1674        | 1 | 2009991072UL  |  |
| RL6601 | RELAY     | NRL-1P16A-DC12V-189 | 1 | 25065694      |  |
| RL6602 | RELAY     | NRL-1P16A-DC12V-189 | 1 | 25065694      |  |
| RL6611 | RELAY     | NRL-1P16A-DC12V-189 | 1 | 25065694      |  |
| RL6612 | RELAY     | NRL-1P16A-DC12V-189 | 1 | 25065694      |  |

**U06** AMPLIFIER PC BOARD(NAASP-9050-1M/1P)

**U07** PHONO PC BOARD(NAASP-9051-1M/1P)

**U08** VIDEO PC BOARD(NAVD-9052-1M/1P)

| REF. NO. | PART NAME | DESCRIPTION | Q'TY | PART NO. (SN) | REMARKS |
|----------|-----------|-------------|------|---------------|---------|
| Q2001    | TR        | RN1444-A    | 1    | 2216031R2     |         |
| Q2001 or | TR        | RN1444-B    | ( 1) | 2216032R2     |         |
| Q2002    | TR        | RN1444-A    | 1    | 2216031R2     |         |
| Q2002 or | TR        | RN1444-B    | ( 1) | 2216032R2     |         |
| Q2003    | TR        | RN1444-A    | 1    | 2216031R2     |         |
| Q2003 or | TR        | RN1444-B    | ( 1) | 2216032R2     |         |
| Q2004    | TR        | RN1444-A    | 1    | 2216031R2     |         |
| Q2004 or | TR        | RN1444-B    | ( 1) | 2216032R2     |         |
| Q2005    | TR        | RN1444-A    | 1    | 2216031R2     |         |
| Q2005 or | TR        | RN1444-B    | ( 1) | 2216032R2     |         |

|          |           |                    |      |              |
|----------|-----------|--------------------|------|--------------|
| Q2006    | IC        | TC74HC4051AF(EL_F) | 1    | 222740515R2  |
| Q2007    | IC        | TC74HC4051AF(EL_F) | 1    | 222740515R2  |
| Q2008    | IC        | TC74HC4051AF(EL_F) | 1    | 222740515R2  |
| Q2009    | IC        | TC74HC4051AF(EL_F) | 1    | 222740515R2  |
| Q2010    | IC        | TC74HC4051AF(EL_F) | 1    | 222740515R2  |
| Q2011    | IC        | TC74HC4051AF(EL_F) | 1    | 222740515R2  |
| Q2012    | IC        | NJM2587V           | 1    | 22242380R2   |
| Q2013    | IC        | NJM2587V           | 1    | 22242380R2   |
| Q2014    | IC        | MM1512             | 1    | 22241849R2   |
| Q2015    | TR        | RN1441             | 1    | 2215410R2    |
| Q2016    | TR        | RN1441             | 1    | 2215410R2    |
| Q2017    | TR        | RN1444-A           | 1    | 2216031R2    |
| Q2017 or | TR        | RN1444-B           | ( 1) | 2216032R2    |
| Q2018    | TR        | RN1444-A           | 1    | 2216031R2    |
| Q2018 or | TR        | RN1444-B           | ( 1) | 2216032R2    |
| Q2019    | TR        | RN1444-A           | 1    | 2216031R2    |
| Q2019 or | TR        | RN1444-B           | ( 1) | 2216032R2    |
| Q2020    | TR        | RN1444-A           | 1    | 2216031R2    |
| Q2020 or | TR        | RN1444-B           | ( 1) | 2216032R2    |
| Q2023    | TR        | KRA102S            | 1    | 2216220R2    |
| Q2023 or | TR        | RN2402             | ( 1) | 2214530R2    |
| Q2024    | TR        | KTA1504-GR         | 1    | 2216185R2    |
| Q2024 or | TR        | 2SA1162-GR         | ( 1) | 2214375R2    |
| Q2025    | TR        | KRA102S            | 1    | 2216220R2    |
| Q2025 or | TR        | RN2402             | ( 1) | 2214530R2    |
| Q2026    | TR        | KTA1504-GR         | 1    | 2216185R2    |
| Q2026 or | TR        | 2SA1162-GR         | ( 1) | 2214375R2    |
| Q2027    | IC        | NJU7312AM          | 1    | 22242210R2   |
| Q2201    | IC        | NJW1321FP1         | 1    | 22242381R3   |
| Q2204    | TR        | 2SK3019            | 1    | 2216520R2    |
| Q2205    | TR        | 2SK3019            | 1    | 2216520R2    |
| Q2206    | IC        | NJM2586AM          | 1    | 22242420R2   |
| Q2501    | IC        | SI8008TM           | 1    | 22242323R2   |
| Q2502    | TR        | 2SC2712-GR         | 1    | 2213145R2    |
| Q2503    | TR        | RN1402             | 1    | 2214470R2    |
| Q2504    | IC        | NJM2388F09         | 1    | 22242383     |
| Q2504A   | SCREW     | 3P+10FN(3BC)       | 1    | 82143010GR   |
| Q2504B   | HEAT SINK | RAD-196            | 1    | 27160545     |
| Q2505    | IC        | NJM2386ADL3-05     | 1    | 22242382R2   |
| Q2506    | TR        | RN2402             | 1    | 2214530R2    |
| Q2507    | TR        | 2SD1468S-R         | 1    | 2215024T     |
| Q2509    | IC        | 7905FA(NJM7905FA)  | 1    | 222790054JRC |
| Q2509A   | SCREW     | 3P+10FN(3BC)       | 1    | 82143010GR   |
| Q2511    | TR        | 2SC2712-GR         | 1    | 2213145R2    |
| Q2512    | TR        | 2SA1162-GR         | 1    | 2214375R2    |
| Q2605    | TR        | 2SB1240-R          | 1    | 2213794T     |
| Q2605 or | TR        | 2SB1240-Q          | ( 1) | 2213793T     |
| Q2605 or | TR        | 2SB1240-P          | ( 1) | 2213792T     |

|          |    |                    |      |            |         |
|----------|----|--------------------|------|------------|---------|
| Q2606    | TR | KRC102S            | 1    | 2216190R2  |         |
| Q2606 or | TR | RN1402             | ( 1) | 2214470R2  |         |
| Q4001    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4002    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4011    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4012    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4013    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4014    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4015    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4016    | IC | NE5532APSR         | 1    | 22242283R2 | <SA876> |
| Q4017    | TR | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |         |
| Q4018    | TR | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |         |
| Q4019    | TR | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |         |
| Q4020    | TR | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |         |
| Q4021    | TR | 2SC2712-GR         | 1    | 2213145R2  |         |
| Q4022    | TR | 2SC2712-GR         | 1    | 2213145R2  |         |
| Q4023    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4025    | TR | RN1441             | 1    | 2215410R2  | <SR876> |
| Q4026    | TR | RN1441             | 1    | 2215410R2  | <SR876> |
| Q4029    | IC | TC94A46CFG         | 1    | 22242414R3 |         |
| Q4029 or | IC | TC94A46FG          | ( 1) | 22242103R3 |         |
| Q4030    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4031    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4032    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4040    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4041    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4042    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4043    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4205    | TR | RN1441             | 1    | 2215410R2  |         |
| Q4206    | TR | RN1441             | 1    | 2215410R2  |         |
| Q4207    | TR | RN1441             | 1    | 2215410R2  |         |
| Q4208    | TR | RN1441             | 1    | 2215410R2  |         |
| Q4209    | TR | RN1441             | 1    | 2215410R2  |         |
| Q4210    | TR | RN1441             | 1    | 2215410R2  |         |
| Q4211    | TR | RN1441             | 1    | 2215410R2  |         |
| Q4212    | TR | RN1441             | 1    | 2215410R2  |         |
| Q4301    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4302    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4303    | IC | NE5532APSR         | 1    | 22242283R2 |         |
| Q4304    | IC | NJU7312AM          | 1    | 22242210R2 |         |
| Q4305    | IC | NJU7313AM          | 1    | 22242211R2 |         |
| Q4306    | IC | NJU7311AM          | 1    | 22242209R2 |         |
| Q4401    | TR | 2SA950-Y           | 1    | 2211504T   |         |
| Q4402    | TR | 2SC2120-Y          | 1    | 2211164T   |         |
| Q4403    | TR | 2SC2712-GR         | 1    | 2213145R2  |         |
| Q4404    | TR | 2SA1162-GR         | 1    | 2214375R2  |         |
| Q4405    | IC | CS3318-CQZR        | 1    | 22242404R2 |         |
| Q4406    | IC | NE5532APSR         | 1    | 22242283R2 |         |

|          |         |                   |     |             |
|----------|---------|-------------------|-----|-------------|
| Q4407    | TR      | 2SC2712-GR        | 1   | 2213145R2   |
| Q4408    | TR      | 2SC2712-GR        | 1   | 2213145R2   |
| Q4501    | TR      | 2SC2235-Y(TPE6_F) | 1   | 2211654T    |
| Q4502    | TR      | 2SC2235-Y(TPE6_F) | 1   | 2211654T    |
| Q4503    | TR      | 2SA965-Y(TPE6_F)  | 1   | 2211644T    |
| Q4504    | TR      | 2SA965-Y(TPE6_F)  | 1   | 2211644T    |
| Q4505    | IC      | NE5532APSR        | 1   | 22242283R2  |
| Q4506    | TR      | 2SC2712-GR        | 1   | 2213145R2   |
| Q4610    | TR      | RN1441            | 1   | 2215410R2   |
| Q4611    | TR      | RN1441            | 1   | 2215410R2   |
| Q4612    | TR      | RN1441            | 1   | 2215410R2   |
| Q4613    | TR      | RN1441            | 1   | 2215410R2   |
| Q4614    | TR      | RN1441            | 1   | 2215410R2   |
| Q4615    | TR      | RN1441            | 1   | 2215410R2   |
| Q4616    | TR      | RN1441            | 1   | 2215410R2   |
| Q4617    | TR      | RN1441            | 1   | 2215410R2   |
| Q4620    | TR      | RN1441            | 1   | 2215410R2   |
| Q4621    | TR      | RN1441            | 1   | 2215410R2   |
| Q4622    | TR      | RN1441            | 1   | 2215410R2   |
| Q4623    | TR      | RN1441            | 1   | 2215410R2   |
| Q4624    | TR      | RN1441            | 1   | 2215410R2   |
| Q4625    | TR      | RN1441            | 1   | 2215410R2   |
| Q4626    | TR      | RN1441            | 1   | 2215410R2   |
| Q4627    | TR      | RN1441            | 1   | 2215410R2   |
| D2003    | C-DIODE | 1SS352            | 1   | 223234R2    |
| D2003 or | C-DIODE | 1SS355            | (1) | 223269R2    |
| D2003 or | C-DIODE | MA2J1110GL        | (1) | 223302R2    |
| D2004    | C-DIODE | 1SS352            | 1   | 223234R2    |
| D2004 or | C-DIODE | 1SS355            | (1) | 223269R2    |
| D2004 or | C-DIODE | MA2J1110GL        | (1) | 223302R2    |
| D2005    | C-DIODE | 1SS352            | 1   | 223234R2    |
| D2005 or | C-DIODE | 1SS355            | (1) | 223269R2    |
| D2005 or | C-DIODE | MA2J1110GL        | (1) | 223302R2    |
| D2006    | C-DIODE | 1SS352            | 1   | 223234R2    |
| D2006 or | C-DIODE | 1SS355            | (1) | 223269R2    |
| D2006 or | C-DIODE | MA2J1110GL        | (1) | 223302R2    |
| D2203    | ZENER D | UDZ3.3B           | 1   | 224490330R2 |
| D2203 or | ZENER D | UDZS3.3B          | (1) | 224550330R2 |
| D2501    | C-DIODE | CRS09(TE85L_Q)    | 1   | 223274R2    |
| D2502    | C-DIODE | 1SS352            | 1   | 223234R2    |
| D2502 or | C-DIODE | 1SS355            | (1) | 223269R2    |
| D2502 or | C-DIODE | MA2J1110GL        | (1) | 223302R2    |
| D2503    | C-DIODE | 1SS352            | 1   | 223234R2    |
| D2503 or | C-DIODE | 1SS355            | (1) | 223269R2    |
| D2503 or | C-DIODE | MA2J1110GL        | (1) | 223302R2    |
| D2504    | C-DIODE | 1SS352            | 1   | 223234R2    |
| D2504 or | C-DIODE | 1SS355            | (1) | 223269R2    |
| D2504 or | C-DIODE | MA2J1110GL        | (1) | 223302R2    |

|          |         |            |     |             |
|----------|---------|------------|-----|-------------|
| D2505    | C-DIODE | 1SS352     | 1   | 223234R2    |
| D2505 or | C-DIODE | 1SS355     | (1) | 223269R2    |
| D2505 or | C-DIODE | MA2J1110GL | (1) | 223302R2    |
| D2506    | ZENER D | UDZS10B    | 1   | 224551000R2 |
| D2507    | ZENER D | UDZS10B    | 1   | 224551000R2 |
| D2508    | C-DIODE | 1SS352     | 1   | 223234R2    |
| D2508 or | C-DIODE | 1SS355     | (1) | 223269R2    |
| D2508 or | C-DIODE | MA2J1110GL | (1) | 223302R2    |
| D2509    | C-DIODE | 1SS352     | 1   | 223234R2    |
| D2509 or | C-DIODE | 1SS355     | (1) | 223269R2    |
| D2509 or | C-DIODE | MA2J1110GL | (1) | 223302R2    |
| D2510    | DIODE   | D10XB60H   | 1   | 22380337F   |
| D2511    | DIODE   | RL1N4003   | 1   | 22380260T   |
| D2512    | C-DIODE | 1SS352     | 1   | 223234R2    |
| D2512 or | C-DIODE | 1SS355     | (1) | 223269R2    |
| D2512 or | C-DIODE | MA2J1110GL | (1) | 223302R2    |
| D2513    | C-DIODE | 1SS352     | 1   | 223234R2    |
| D2513 or | C-DIODE | 1SS355     | (1) | 223269R2    |
| D2513 or | C-DIODE | MA2J1110GL | (1) | 223302R2    |
| D2605    | C-DIODE | 1SS352     | 1   | 223234R2    |
| D2605 or | C-DIODE | 1SS355     | (1) | 223269R2    |
| D2605 or | C-DIODE | MA2J1110GL | (1) | 223302R2    |
| D2606    | C-DIODE | 1SS352     | 1   | 223234R2    |
| D2606 or | C-DIODE | 1SS355     | (1) | 223269R2    |
| D2606 or | C-DIODE | MA2J1110GL | (1) | 223302R2    |
| D2607    | DIODE   | RL1N4003   | 1   | 22380260T   |
| D4001    | ZENER D | UDZS5.6B   | 1   | 224550560R2 |
| D4002    | ZENER D | UDZS5.6B   | 1   | 224550560R2 |
| D4401    | ZENER D | UDZS9.1B   | 1   | 224550910R2 |
| D4402    | ZENER D | UDZS9.1B   | 1   | 224550910R2 |
| D4403    | ZENER D | UDZ3.3B    | 1   | 224490330R2 |
| D4403 or | ZENER D | UDZS3.3B   | (1) | 224550330R2 |
| D4404    | C-DIODE | 1SS352     | 1   | 223234R2    |
| D4404 or | C-DIODE | 1SS355     | (1) | 223269R2    |
| D4404 or | C-DIODE | MA2J1110GL | (1) | 223302R2    |
| D4405    | C-DIODE | 1SS352     | 1   | 223234R2    |
| D4405 or | C-DIODE | 1SS355     | (1) | 223269R2    |
| D4405 or | C-DIODE | MA2J1110GL | (1) | 223302R2    |
| D4501    | C-DIODE | 1SS352     | 1   | 223234R2    |
| D4501 or | C-DIODE | 1SS355     | (1) | 223269R2    |
| D4501 or | C-DIODE | MA2J1110GL | (1) | 223302R2    |
| D4502    | C-DIODE | 1SS352     | 1   | 223234R2    |
| D4502 or | C-DIODE | 1SS355     | (1) | 223269R2    |
| D4502 or | C-DIODE | MA2J1110GL | (1) | 223302R2    |
| D4503    | C-DIODE | 1SS352     | 1   | 223234R2    |
| D4503 or | C-DIODE | 1SS355     | (1) | 223269R2    |
| D4503 or | C-DIODE | MA2J1110GL | (1) | 223302R2    |
| D4504    | C-DIODE | 1SS352     | 1   | 223234R2    |

|          |            |                    |     |             |
|----------|------------|--------------------|-----|-------------|
| D4504 or | C-DIODE    | 1SS355             | (1) | 223269R2    |
| D4504 or | C-DIODE    | MA2J1110GL         | (1) | 223302R2    |
| D4505    | C-DIODE    | 1SS352             | 1   | 223234R2    |
| D4505 or | C-DIODE    | 1SS355             | (1) | 223269R2    |
| D4505 or | C-DIODE    | MA2J1110GL         | (1) | 223302R2    |
| D4506    | C-DIODE    | 1SS352             | 1   | 223234R2    |
| D4506 or | C-DIODE    | 1SS355             | (1) | 223269R2    |
| D4506 or | C-DIODE    | MA2J1110GL         | (1) | 223302R2    |
| D4507    | C-DIODE    | 1SS352             | 1   | 223234R2    |
| D4507 or | C-DIODE    | 1SS355             | (1) | 223269R2    |
| D4507 or | C-DIODE    | MA2J1110GL         | (1) | 223302R2    |
| D4508    | C-DIODE    | 1SS352             | 1   | 223234R2    |
| D4508 or | C-DIODE    | 1SS355             | (1) | 223269R2    |
| D4508 or | C-DIODE    | MA2J1110GL         | (1) | 223302R2    |
| D4509    | C-DIODE    | 1SS352             | 1   | 223234R2    |
| D4509 or | C-DIODE    | 1SS355             | (1) | 223269R2    |
| D4509 or | C-DIODE    | MA2J1110GL         | (1) | 223302R2    |
| L2501    | CHOKE COIL | BLM21PG221SN1      | 1   | 230949R2    |
| L2502    | CHOKE COIL | NCH-2541           | 1   | 231363K470A |
| L2502 or | COIL       | 0182-7310-470K-RB  | (1) | 231389      |
| L2603    | EMIFIL     | BK1608LM182-T      | 1   | 230958R1    |
| L2604    | EMIFIL     | BK1608LM182-T      | 1   | 230958R1    |
| C2001    | C-CERA C   | CK725F1E-104Z1     | 1   | 332161040R1 |
| C2002    | UTSP C     | CE04W50V-10M(UTSP) | 1   | 397581007T  |
| C2003    | UTSP C     | CE04W50V-10M(UTSP) | 1   | 397581007T  |
| C2004    | C-CERA C   | CK725F1E-104Z1     | 1   | 332161040R1 |
| C2005    | UTSP C     | CE04W50V-10M(UTSP) | 1   | 397581007T  |
| C2006    | UTSP C     | CE04W50V-10M(UTSP) | 1   | 397581007T  |
| C2007    | C-CERA C   | CK725B1H-102K1     | 1   | 332101025R1 |
| C2008    | C-CERA C   | CK725F1E-104Z1     | 1   | 332161040R1 |
| C2009    | UTSP C     | CE04W50V-10M(UTSP) | 1   | 397581007T  |
| C2010    | UTSP C     | CE04W50V-10M(UTSP) | 1   | 397581007T  |
| C2011    | C-CERA C   | CK725B1H-102K1     | 1   | 332101025R1 |
| C2012    | C-CERA C   | CK725F1E-104Z1     | 1   | 332161040R1 |
| C2013    | UTSP C     | CE04W50V-10M(UTSP) | 1   | 397581007T  |
| C2014    | UTSP C     | CE04W50V-10M(UTSP) | 1   | 397581007T  |
| C2015    | C-CERA C   | CK725B1H-102K1     | 1   | 332101025R1 |
| C2016    | C-CERA C   | CK725F1E-104Z1     | 1   | 332161040R1 |
| C2017    | UTSP C     | CE04W50V-10M(UTSP) | 1   | 397581007T  |
| C2018    | UTSP C     | CE04W50V-10M(UTSP) | 1   | 397581007T  |
| C2019    | C-CERA C   | CK725B1H-102K1     | 1   | 332101025R1 |
| C2020    | C-CERA C   | CK725B1H-102K1     | 1   | 332101025R1 |
| C2024    | C-CERA C   | CK725F1E-104Z1     | 1   | 332161040R1 |
| C2025    | VR C       | CE04W6.3V-470M(VR) | 1   | 394624717T  |
| C2026    | VR C       | CE04W6.3V-470M(VR) | 1   | 394624717T  |
| C2027    | C-CERA C   | CK725F1E-104Z1     | 1   | 332161040R1 |
| C2028    | C-CERA C   | CK725F1E-104Z1     | 1   | 332161040R1 |
| C2029    | C-CERA C   | CK725F1E-104Z1     | 1   | 332161040R1 |

|       |          |                    |   |             |
|-------|----------|--------------------|---|-------------|
| C2030 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2031 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2032 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2033 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2034 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2035 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2036 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2037 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2038 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2043 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2044 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2045 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2046 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2047 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2048 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2049 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2050 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2051 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2052 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2053 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2054 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2055 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2056 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2057 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2058 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2061 | VR C     | CE04W6.3V-470M(VR) | 1 | 394624717T  |
| C2062 | VR C     | CE04W6.3V-470M(VR) | 1 | 394624717T  |
| C2063 | UTSP C   | CE04W50V-22M(UTSP) | 1 | 397582207T  |
| C2064 | VR C     | CE04W16V-100M(VR)  | 1 | 394641017T  |
| C2065 | UTSP C   | CE04W50V-1M(UTSP)  | 1 | 397580107T  |
| C2066 | C-CERA C | CK725B1H-103K1     | 1 | 332101035R1 |
| C2067 | VR C     | CE04W6.3V-220M(VR) | 1 | 394622217T  |
| C2068 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2069 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2070 | VR C     | CE04W6.3V-470M(VR) | 1 | 394624717T  |
| C2071 | VR C     | CE04W6.3V-470M(VR) | 1 | 394624717T  |
| C2072 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2073 | VR C     | CE04W6.3V-470M(VR) | 1 | 394624717T  |
| C2074 | VR C     | CE04W6.3V-470M(VR) | 1 | 394624717T  |
| C2075 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2076 | VR C     | CE04W6.3V-470M(VR) | 1 | 394624717T  |
| C2077 | VR C     | CE04W6.3V-470M(VR) | 1 | 394624717T  |
| C2078 | VR C     | CE04W6.3V-470M(VR) | 1 | 394624717T  |
| C2082 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2083 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2084 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2085 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2086 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |

|       |          |                    |   |             |
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| C2087 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2088 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2089 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2090 | UTSP C   | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| C2091 | UTSP C   | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| C2092 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2201 | UTSP C   | CE04W50V-1M(UTSP)  | 1 | 397580107T  |
| C2202 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2203 | UTSP C   | CE04W50V-1M(UTSP)  | 1 | 397580107T  |
| C2204 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2205 | UTSP C   | CE04W50V-1M(UTSP)  | 1 | 397580107T  |
| C2206 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2207 | UTSP C   | CE04W50V-1M(UTSP)  | 1 | 397580107T  |
| C2208 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2209 | UTSP C   | CE04W50V-1M(UTSP)  | 1 | 397580107T  |
| C2210 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2211 | UTSP C   | CE04W50V-1M(UTSP)  | 1 | 397580107T  |
| C2212 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2214 | UTSP C   | CE04W50V-1M(UTSP)  | 1 | 397580107T  |
| C2215 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2216 | UTSP C   | CE04W50V-1M(UTSP)  | 1 | 397580107T  |
| C2217 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2218 | UTSP C   | CE04W50V-1M(UTSP)  | 1 | 397580107T  |
| C2219 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2221 | C-CERA C | CK725B1H-102K1     | 1 | 332101025R1 |
| C2222 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2223 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2224 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2225 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2226 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2227 | UTSP C   | CE04W50V-1M(UTSP)  | 1 | 397580107T  |
| C2228 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2229 | UTSP C   | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| C2230 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2231 | UTSP C   | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| C2232 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2233 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2234 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2235 | VR C     | CE04W16V-220M(VR)  | 1 | 394642217T  |
| C2236 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2237 | UTSP C   | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| C2239 | UTSP C   | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| C2240 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2241 | UTSP C   | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| C2242 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2243 | UTSP C   | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| C2244 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |
| C2245 | C-CERA C | CK725F1E-104Z1     | 1 | 332161040R1 |

|       |          |                     |   |             |
|-------|----------|---------------------|---|-------------|
| C2246 | VR C     | CE04W6.3V-220M(VR)  | 1 | 394622217T  |
| C2248 | VR C     | CE04W6.3V-220M(VR)  | 1 | 394622217T  |
| C2249 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C2250 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |
| C2262 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |
| C2263 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |
| C2264 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |
| C2265 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |
| C2266 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C2267 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |
| C2501 | VR C     | CE04W16V-470M(VR)   | 1 | 394644717T  |
| C2502 | C-CERA C | CK725B1H-223K1      | 1 | 332102235R1 |
| C2503 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C2504 | VR C     | CE04W16V-470M(VR)   | 1 | 394644717T  |
| C2505 | TF C     | ECQ-V50V-104J       | 1 | 374721044T  |
| C2507 | VR C     | CE04W16V-10000M(VR) | 1 | 394641037S  |
| C2508 | VR C     | CE04W25V-2200M(VR)  | 1 | 394652227S  |
| C2509 | UTSP C   | CE04W50V-1M(UTSP)   | 1 | 397580107T  |
| C2510 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |
| C2511 | UTSP C   | CE04W50V-1M(UTSP)   | 1 | 397580107T  |
| C2512 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |
| C2513 | UTSP C   | CE04W50V-22M(UTSP)  | 1 | 397582207T  |
| C2514 | UTSP C   | CE04W50V-22M(UTSP)  | 1 | 397582207T  |
| C2515 | UTSP C   | CE04W50V-1M(UTSP)   | 1 | 397580107T  |
| C2516 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |
| C2601 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |
| C2602 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |
| C2605 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |
| C2607 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |
| C4001 | TF C     | ECQ-B50V-221K       | 1 | 374722215T  |
| C4002 | TF C     | ECQ-B50V-221K       | 1 | 374722215T  |
| C4003 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4004 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4005 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4006 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4007 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4008 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4009 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4010 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4011 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4012 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4013 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4014 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4015 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4016 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4017 | TF C     | ECQ-B50V-221K       | 1 | 374722215T  |
| C4018 | TF C     | ECQ-B50V-221K       | 1 | 374722215T  |
| C4019 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |

|       |               |                     |   |             |         |
|-------|---------------|---------------------|---|-------------|---------|
| C4020 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4023 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4024 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4027 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4028 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4031 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4032 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4035 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4036 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4039 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4040 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4043 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4044 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4055 | TF C          | ECQ-B50V-221K       | 1 | 374722215T  |         |
| C4056 | TF C          | ECQ-B50V-221K       | 1 | 374722215T  |         |
| C4057 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4058 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4059 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4060 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4061 | UTSP C        | CE04W25V-220M(UTSP) | 1 | 397552217T  |         |
| C4062 | UTSP C        | CE04W25V-220M(UTSP) | 1 | 397552217T  |         |
| C4063 | TF C          | ECQ-B50V-682J       | 1 | 374726824T  |         |
| C4064 | TF C          | ECQ-B50V-682J       | 1 | 374726824T  |         |
| C4065 | TF C          | ECQ-B50V-182J       | 1 | 374721824T  |         |
| C4066 | TF C          | ECQ-B50V-182J       | 1 | 374721824T  |         |
| C4067 | UTSP C        | CE04W50V-22M(UTSP)  | 1 | 397582207T  |         |
| C4068 | UTSP C        | CE04W50V-22M(UTSP)  | 1 | 397582207T  |         |
| C4069 | TF C          | ECQ-B50V-222J       | 1 | 374722224T  |         |
| C4070 | TF C          | ECQ-B50V-222J       | 1 | 374722224T  |         |
| C4073 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 | <SA876> |
| C4074 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 | <SA876> |
| C4075 | UTSP C        | CE04W50V-10M(UTSP)  | 1 | 397581007T  | <SA876> |
| C4076 | UTSP C        | CE04W50V-10M(UTSP)  | 1 | 397581007T  | <SA876> |
| C4079 | UTSP C        | CE04W25V-220M(UTSP) | 1 | 397552217T  |         |
| C4080 | UTSP C        | CE04W25V-220M(UTSP) | 1 | 397552217T  |         |
| C4081 | UTSP C        | CE04W50V-100M(UTSP) | 1 | 397581017T  |         |
| C4083 | UTSP C        | CE04W50V-100M(UTSP) | 1 | 397581017T  |         |
| C4085 | UTSP C        | CE04W50V-100M(UTSP) | 1 | 397581017T  |         |
| C4087 | TRM(TEST PIN) | TP00509-3C          | 1 | 25060406T   |         |
| C4088 | TRM(TEST PIN) | TP00509-3C          | 1 | 25060406T   |         |
| C4089 | TRM(TEST PIN) | TP00509-3C          | 1 | 25060406T   |         |
| C4090 | TRM(TEST PIN) | TP00509-3C          | 1 | 25060406T   |         |
| C4091 | TF C          | ECQ-B50V-221K       | 1 | 374722215T  |         |
| C4094 | UTSP C        | CE04W50V-100M(UTSP) | 1 | 397581017T  |         |
| C4101 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4102 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4103 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4104 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |

|       |          |                     |   |             |         |
|-------|----------|---------------------|---|-------------|---------|
| C4105 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4106 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4107 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4108 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4111 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4112 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4119 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  | <SR876> |
| C4120 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  | <SR876> |
| C4175 | C-CERA C | CC725SL1E-152J1     | 1 | 342131524R1 |         |
| C4176 | C-CERA C | CC725SL1E-152J1     | 1 | 342131524R1 |         |
| C4177 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |         |
| C4178 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |         |
| C4215 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4216 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4217 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |         |
| C4218 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |         |
| C4219 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4220 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4221 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |         |
| C4222 | C-CERA C | CC725CH1H-221J1     | 1 | 342102214R1 |         |
| C4243 | C-CERA C | CC725CH1H-102J1     | 1 | 342101024R1 |         |
| C4302 | UTSP C   | CE04W50V-100M(UTSP) | 1 | 397581017T  |         |
| C4311 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |         |
| C4312 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |         |
| C4313 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |         |
| C4314 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |         |
| C4315 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4316 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4319 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |         |
| C4320 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |         |
| C4321 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4322 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4401 | UTSP C   | CE04W25V-100M(UTSP) | 1 | 397551017T  |         |
| C4402 | UTSP C   | CE04W25V-100M(UTSP) | 1 | 397551017T  |         |
| C4403 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4404 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4405 | UTSP C   | CE04W25V-220M(UTSP) | 1 | 397552217T  |         |
| C4406 | UTSP C   | CE04W25V-220M(UTSP) | 1 | 397552217T  |         |
| C4407 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |         |
| C4408 | C-CERA C | CK725F1H-104Z1      | 1 | 332151040R1 |         |
| C4409 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |         |
| C4410 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |         |
| C4411 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |         |
| C4412 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |         |
| C4413 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |         |
| C4414 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |         |
| C4415 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |         |
| C4416 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |         |

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|-------|---------------|---------------------|---|-------------|
| C4417 | UTSP C        | CE04W50V-100M(UTSP) | 1 | 397581017T  |
| C4419 | C-CERA C      | CC725CH1H-102J1     | 1 | 342101024R1 |
| C4420 | UTSP C        | CE04W50V-10M(UTSP)  | 1 | 397581007T  |
| C4421 | TRM(TEST PIN) | TP00509-3C          | 1 | 25060406T   |
| C4422 | TRM(TEST PIN) | TP00509-3C          | 1 | 25060406T   |
| C4423 | TF C          | ECQ-V50V-104J       | 1 | 374721044T  |
| C4424 | TF C          | ECQ-V50V-104J       | 1 | 374721044T  |
| C4501 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4502 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4503 | C-CERA C      | CC725CH1H-101J1     | 1 | 342101014R1 |
| C4504 | C-CERA C      | CC725CH1H-101J1     | 1 | 342101014R1 |
| C4505 | TF C          | ECQ-V50V-104J       | 1 | 374721044T  |
| C4600 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4601 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4602 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4603 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4604 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4605 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4606 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4607 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4610 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4611 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4612 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4613 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4614 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4615 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4616 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4617 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4622 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4623 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4624 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4625 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4626 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4627 | UTSP C        | CE04W50V 47M(UTSP)  | 1 | 397584707T  |
| C4630 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4631 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4632 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4633 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4634 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4635 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4636 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4637 | C-CERA C      | CC725CH1H-221J1     | 1 | 342102214R1 |
| C4650 | UTSJ C        | CE04W50V-47M(UTSJ)  | 1 | 398084707T  |
| C4651 | UTSJ C        | CE04W50V-47M(UTSJ)  | 1 | 398084707T  |
| C4652 | UTSJ C        | CE04W50V-47M(UTSJ)  | 1 | 398084707T  |
| C4653 | UTSJ C        | CE04W50V-47M(UTSJ)  | 1 | 398084707T  |
| C4654 | UTSJ C        | CE04W50V-47M(UTSJ)  | 1 | 398084707T  |
| C4655 | UTSJ C        | CE04W50V-47M(UTSJ)  | 1 | 398084707T  |

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|-------|------------|--------------------|---|-------------|
| C4656 | UTSJ C     | CE04W50V-47M(UTSJ) | 1 | 398084707T  |
| C4657 | UTSJ C     | CE04W50V-47M(UTSJ) | 1 | 398084707T  |
| R2001 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2002 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2003 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2004 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2005 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2006 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2007 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2008 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2009 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2010 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2011 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2012 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2013 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2014 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2015 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2016 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2017 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2018 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2019 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2020 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2021 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2022 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2023 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2024 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2025 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2026 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2027 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2028 | C-CARBON R | RN72K1J-750JE      | 1 | 435037504R1 |
| R2029 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2030 | C-CARBON R | RN72K1J-103JE      | 1 | 435031034R1 |
| R2031 | C-CARBON R | RN72K1J-103JE      | 1 | 435031034R1 |
| R2032 | C-CARBON R | RN72K1J-103JE      | 1 | 435031034R1 |
| R2033 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2034 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2035 | C-CARBON R | RN72K1J-103JE      | 1 | 435031034R1 |
| R2036 | C-CARBON R | RN72K1J-103JE      | 1 | 435031034R1 |
| R2038 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2039 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2040 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2041 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2042 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2043 | C-CARBON R | RN72K1J-104JE      | 1 | 435031044R1 |
| R2046 | C-CARBON R | RN72K1J-022JE      | 1 | 435030224R1 |
| R2047 | C-CARBON R | RN72K1J-022JE      | 1 | 435030224R1 |
| R2052 | C-CARBON R | RN72K1J-151JE      | 1 | 435031514R1 |
| R2053 | C-CARBON R | RN72K1J-151JE      | 1 | 435031514R1 |

|       |            |               |   |             |
|-------|------------|---------------|---|-------------|
| R2054 | C-CARBON R | RN72K1J-151JE | 1 | 435031514R1 |
| R2055 | C-CARBON R | RN72K1J-151JE | 1 | 435031514R1 |
| R2056 | C-CARBON R | RN72K1J-047JE | 1 | 435030474R1 |
| R2057 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R2058 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R2059 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R2060 | C-CARBON R | RN72K1J-104JE | 1 | 435031044R1 |
| R2061 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R2062 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R2063 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R2064 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R2065 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R2066 | C-CARBON R | RN72K1J-104JE | 1 | 435031044R1 |
| R2067 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R2068 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R2069 | C-CARBON R | RN72K1J-104JE | 1 | 435031044R1 |
| R2070 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R2074 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R2075 | C-CARBON R | RN72K1J-680JE | 1 | 435036804R1 |
| R2076 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R2077 | C-CARBON R | RN72K1J-333JE | 1 | 435033334R1 |
| R2078 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R2079 | C-CARBON R | RN72K1J-680JE | 1 | 435036804R1 |
| R2080 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R2081 | C-CARBON R | RN72K1J-333JE | 1 | 435033334R1 |
| R2082 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R2083 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R2084 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R2085 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R2086 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R2201 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R2202 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R2203 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R2204 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R2205 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R2206 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R2207 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R2208 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R2209 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R2216 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R2217 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R2218 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R2219 | C-CARBON R | RN72K1J-022JE | 1 | 435030224R1 |
| R2220 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R2221 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R2222 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R2223 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R2227 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |

|       |            |                |   |             |
|-------|------------|----------------|---|-------------|
| R2228 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |
| R2229 | C-CARBON R | RN72K1J-222JE  | 1 | 435032224R1 |
| R2230 | C-CARBON R | RN72K1J-102JE  | 1 | 435031024R1 |
| R2231 | C-CARBON R | RN72K1J-022JE  | 1 | 435030224R1 |
| R2233 | C-CARBON R | RN72K1J-330JE  | 1 | 435033304R1 |
| R2234 | C-CARBON R | RN72K1J-330JE  | 1 | 435033304R1 |
| R2235 | C-CARBON R | RN72K1J-330JE  | 1 | 435033304R1 |
| R2237 | C-CARBON R | RN72K1J-750JE  | 1 | 435037504R1 |
| R2238 | C-CARBON R | RN72K1J-033JE  | 1 | 435030334R1 |
| R2239 | C-CARBON R | RN72K1J-033JE  | 1 | 435030334R1 |
| R2240 | C-CARBON R | RN72K1J-033JE  | 1 | 435030334R1 |
| R2241 | C-CARBON R | RN72K1J-750JE  | 1 | 435037504R1 |
| R2242 | C-CARBON R | RN72K1J-750JE  | 1 | 435037504R1 |
| R2246 | C-CARBON R | RN72K1J-022JE  | 1 | 435030224R1 |
| R2247 | C-CARBON R | RN72K1J-102JE  | 1 | 435031024R1 |
| R2248 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |
| R2250 | C-CARBON R | RN72K1J-271JE  | 1 | 435032714R1 |
| R2263 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |
| R2271 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |
| R2501 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |
| R2502 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |
| R2503 | C-CARBON R | RN72K1J-821JE  | 1 | 435038214R1 |
| R2504 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |
| R2505 | METAL R    | RNU1/2WCJ-0.47 | 1 | 453534794T  |
| R2506 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |
| R2507 | METAL R    | RNU1/2WCJ-0.22 | 1 | 453532294T  |
| R2508 | C-CARBON R | RN72K1J-102JE  | 1 | 435031024R1 |
| R2509 | C-CARBON R | RN72K1J-473JE  | 1 | 435034734R1 |
| R2510 | METAL R    | RNU1WCJ-0.22   | 1 | 453632294T  |
| R2511 | C-CARBON R | RN72K2E-015JE  | 1 | 435220154R1 |
| R2512 | METAL R    | RNU2WCJ-4.7    | 1 | 452730474F  |
| R2513 | METAL R    | RNU2WCJ-4.7    | 1 | 452730474F  |
| R2514 | METAL R    | RNU2WCJ-4.7    | 1 | 452730474F  |
| R2515 | C-CARBON R | RN72K1J-471JE  | 1 | 435034714R1 |
| R2516 | C-CARBON R | RN72K1J-471JE  | 1 | 435034714R1 |
| R2601 | C-CARBON R | RN72K1J-101JE  | 1 | 435031014R1 |
| R2602 | C-CARBON R | RN72K1J-101JE  | 1 | 435031014R1 |
| R2609 | C-CARBON R | RN72K1J-039JE  | 1 | 435030394R1 |
| R2610 | C-CARBON R | RN72K1J-224JE  | 1 | 435032244R1 |
| R2611 | C-CARBON R | RN72K1J-102JE  | 1 | 435031024R1 |
| R2616 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R2617 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R2618 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R2620 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R4001 | C-CARBON R | RN72K1J-331JE  | 1 | 435033314R1 |
| R4002 | C-CARBON R | RN72K1J-331JE  | 1 | 435033314R1 |
| R4003 | C-CARBON R | RN72K1J-563JE  | 1 | 435035634R1 |
| R4004 | C-CARBON R | RN72K1J-563JE  | 1 | 435035634R1 |

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| R4005 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4006 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4007 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4008 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4009 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4010 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4011 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4012 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4013 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R4014 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R4015 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4016 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4017 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4018 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4019 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4020 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4021 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4022 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4023 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4024 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4025 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4026 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4027 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4028 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4029 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4030 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4031 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4032 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4033 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4034 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4035 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4036 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4037 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4038 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4041 | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |
| R4042 | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |
| R4043 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R4044 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R4045 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R4046 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R4047 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4048 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4051 | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |
| R4052 | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |
| R4053 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R4054 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R4055 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R4056 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |

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| R4057 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4058 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4061 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4062 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4065 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4066 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4069 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4070 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4073 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4074 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4077 | C-CARBON R  | RN72K1J-102JE | 1 | 435031024R1 |         |
| R4078 | C-CARBON R  | RN72K1J-102JE | 1 | 435031024R1 |         |
| R4079 | C-CARBON R  | RN72K1J-563JE | 1 | 435035634R1 |         |
| R4080 | C-CARBON R  | RN72K1J-563JE | 1 | 435035634R1 |         |
| R4081 | METAL O R   | RS1/2WBJ-2.7K | 1 | 443522724T  |         |
| R4082 | METAL O R   | RS1/2WBJ-2.7K | 1 | 443522724T  |         |
| R4083 | C-CARBON R  | RN72K1J-223JE | 1 | 435032234R1 |         |
| R4084 | C-CARBON R  | RN72K1J-223JE | 1 | 435032234R1 |         |
| R4085 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4086 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4087 | C-CARBON R  | RN72K1J-272JE | 1 | 435032724R1 |         |
| R4088 | C-CARBON R  | RN72K1J-272JE | 1 | 435032724R1 |         |
| R4089 | C-CARBON R  | RN72K1J-332JE | 1 | 435033324R1 |         |
| R4090 | C-CARBON R  | RN72K1J-332JE | 1 | 435033324R1 |         |
| R4091 | C-CARBON R  | RN72K1J-332JE | 1 | 435033324R1 |         |
| R4092 | C-CARBON R  | RN72K1J-332JE | 1 | 435033324R1 |         |
| R4093 | C-CARBON R  | RN72K1J-393JE | 1 | 435033934R1 |         |
| R4094 | C-CARBON R  | RN72K1J-393JE | 1 | 435033934R1 |         |
| R4095 | C-CARBON R  | RN72K1J-474JE | 1 | 435034744R1 |         |
| R4096 | C-CARBON R  | RN72K1J-474JE | 1 | 435034744R1 |         |
| R4097 | C-CARBON R  | RN72K1J-821JE | 1 | 435038214R1 |         |
| R4098 | C-CARBON R  | RN72K1J-821JE | 1 | 435038214R1 |         |
| R4099 | C-CARBON R  | RN72K1J-821JE | 1 | 435038214R1 |         |
| R4100 | C-CARBON R  | RN72K1J-821JE | 1 | 435038214R1 |         |
| R4101 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4102 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4103 | C-CARBON R  | RN72K1J-331JE | 1 | 435033314R1 | <SA876> |
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| R4105 | C-CARBON R  | RN72K1J-563JE | 1 | 435035634R1 | <SA876> |
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| R4108 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 | <SA876> |
| R4113 | NF CARBON R | R25J-100      | 1 | 415471014T  |         |
| R4114 | NF CARBON R | R25J-100      | 1 | 415471014T  |         |
| R4115 | METAL O R   | RS1/2WBJ-22   | 1 | 443522204T  |         |
| R4116 | METAL O R   | RS1/2WBJ-22   | 1 | 443522204T  |         |
| R4117 | METAL O R   | RS1/2WBJ-22   | 1 | 443522204T  |         |
| R4118 | METAL O R   | RS1/2WBJ-22   | 1 | 443522204T  |         |

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|-------|------------|---------------|---|-------------|---------|
| R4119 | METAL O R  | RS1/2WBJ-22   | 1 | 443522204T  |         |
| R4120 | METAL O R  | RS1/2WBJ-22   | 1 | 443522204T  |         |
| R4121 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 | <SR876> |
| R4122 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 | <SR876> |
| R4123 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 | <SR876> |
| R4124 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 | <SR876> |
| R4125 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 | <SR876> |
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| R4127 | METAL O R  | RS1/2WBJ-22   | 1 | 443522204T  |         |
| R4128 | METAL O R  | RS1/2WBJ-22   | 1 | 443522204T  |         |
| R4129 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |         |
| R4130 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |         |
| R4131 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |         |
| R4133 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |         |
| R4134 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |         |
| R4135 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |         |
| R4136 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |         |
| R4151 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4152 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4153 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4154 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4155 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4156 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4157 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4158 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4159 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |         |
| R4160 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |         |
| R4161 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |         |
| R4162 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |         |
| R4163 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4164 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4165 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 | <SR876> |
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| R4169 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1 | <SR876> |
| R4170 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 | <SR876> |
| R4171 | C-CARBON R | RN72K1J-104JE | 1 | 435031044R1 | <SR876> |
| R4175 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |         |
| R4176 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |         |
| R4177 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |         |
| R4178 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |         |
| R4179 | C-CARBON R | RN72K1J-122JE | 1 | 435031224R1 |         |
| R4180 | C-CARBON R | RN72K1J-122JE | 1 | 435031224R1 |         |
| R4217 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4218 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |         |
| R4219 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |         |
| R4220 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |         |

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| R4221 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R4222 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R4223 | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |
| R4224 | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |
| R4225 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4226 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4227 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R4228 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R4229 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4230 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4231 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R4232 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R4233 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R4234 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R4235 | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |
| R4236 | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |
| R4237 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4238 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4239 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R4240 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R4257 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4258 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4301 | METAL O R  | RS1/2WBJ-22   | 1 | 443522204T  |
| R4302 | METAL O R  | RS1/2WBJ-22   | 1 | 443522204T  |
| R4303 | C-CARBON R | RN72K1J-560JE | 1 | 435035604R1 |
| R4304 | C-CARBON R | RN72K1J-560JE | 1 | 435035604R1 |
| R4305 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R4306 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R4307 | C-CARBON R | RN72K1J-123JE | 1 | 435031234R1 |
| R4308 | C-CARBON R | RN72K1J-123JE | 1 | 435031234R1 |
| R4309 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R4310 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R4311 | C-CARBON R | RN72K1J-123JE | 1 | 435031234R1 |
| R4312 | C-CARBON R | RN72K1J-123JE | 1 | 435031234R1 |
| R4313 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R4314 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R4315 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4316 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4319 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4320 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4321 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4322 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4323 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
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| R4327 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4328 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4329 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4330 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |

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| R4331 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4332 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4335 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4336 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4337 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
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| R4339 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4340 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4341 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4342 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
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| R4344 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4345 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4347 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4348 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4401 | METAL O R  | RS1/2WBJ-22   | 1 | 442522204F  |
| R4402 | METAL O R  | RS1/2WBJ-22   | 1 | 442522204F  |
| R4403 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R4404 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R4405 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4406 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4407 | METAL O R  | RS1/2WBJ-1.2K | 1 | 443521224T  |
| R4408 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4409 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R4410 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4411 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4412 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R4413 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4414 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4415 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4416 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R4417 | C-CARBON R | RN72K1J-182JE | 1 | 435031824R1 |
| R4418 | C-CARBON R | RN72K1J-183JE | 1 | 435031834R1 |
| R4419 | METAL O R  | RS1/2WBJ-22   | 1 | 443522204T  |
| R4420 | METAL O R  | RS1/2WBJ-22   | 1 | 443522204T  |
| R4421 | C-CARBON R | RN72K1J-182JE | 1 | 435031824R1 |
| R4422 | C-CARBON R | RN72K1J-182JE | 1 | 435031824R1 |
| R4501 | C-CARBON R | RN72K1J-182JE | 1 | 435031824R1 |
| R4502 | C-CARBON R | RN72K1J-182JE | 1 | 435031824R1 |
| R4503 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1 |
| R4504 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1 |
| R4505 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R4506 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R4507 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4508 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4509 | C-CARBON R | RN72K1J-272JE | 1 | 435032724R1 |
| R4510 | C-CARBON R | RN72K1J-272JE | 1 | 435032724R1 |
| R4511 | C-CARBON R | RN72K1J-272JE | 1 | 435032724R1 |

|       |            |               |   |             |
|-------|------------|---------------|---|-------------|
| R4512 | C-CARBON R | RN72K1J-272JE | 1 | 435032724R1 |
| R4513 | METAL O R  | RS1/2WBJ-47   | 1 | 443524704T  |
| R4514 | METAL O R  | RS1/2WBJ-47   | 1 | 443524704T  |
| R4515 | METAL O R  | RS1/2WBJ-47   | 1 | 443524704T  |
| R4516 | METAL O R  | RS1/2WBJ-47   | 1 | 443524704T  |
| R4517 | C-CARBON R | RN72K1J-182JE | 1 | 435031824R1 |
| R4518 | C-CARBON R | RN72K1J-104JE | 1 | 435031044R1 |
| R4519 | C-CARBON R | RN72K1J-390JE | 1 | 435033904R1 |
| R4600 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4601 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4602 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4603 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4604 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4605 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4606 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4607 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R4610 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4611 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4612 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4613 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4614 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4615 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4616 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4617 | C-CARBON R | RN72K1J-563JE | 1 | 435035634R1 |
| R4620 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4621 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4622 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4623 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4624 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4625 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4626 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4627 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4632 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4633 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4634 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4635 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4636 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4637 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4640 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4641 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4642 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4643 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R4644 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4645 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4646 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4647 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4650 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R4651 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |

|         |            |               |   |             |   |
|---------|------------|---------------|---|-------------|---|
| R4652   | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |   |
| R4653   | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |   |
| R4654   | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |   |
| R4655   | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |   |
| R4656   | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |   |
| R4657   | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |   |
| R4660   | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |   |
| R4661   | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |   |
| R4662   | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |   |
| R4663   | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |   |
| R4664   | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |   |
| R4665   | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |   |
| R4666   | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |   |
| R4667   | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |   |
| R4670   | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |   |
| R4671   | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |   |
| R4672   | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |   |
| R4673   | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |   |
| R4674   | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |   |
| R4675   | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |   |
| R4676   | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |   |
| R4677   | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |   |
| R4680   | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |   |
| R4681   | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |   |
| R4682   | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |   |
| R4683   | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |   |
| R4684   | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |   |
| R4685   | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |   |
| R4686   | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |   |
| R4687   | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |   |
| R4690   | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |   |
| R4691   | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |   |
| R4692   | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |   |
| R4693   | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |   |
| R4694   | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |   |
| R4695   | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |   |
| R4696   | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |   |
| R4697   | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |   |
| F2501A  | FUSE HOL   | NSCT-1P2031   | 1 | 25052133T   | ! |
| F2501B  | FUSE HOL   | NSCT-1P2031   | 1 | 25052133T   | ! |
| F2502A  | FUSE HOL   | NSCT-1P2031   | 1 | 25052133T   | ! |
| F2502B  | FUSE HOL   | NSCT-1P2031   | 1 | 25052133T   | ! |
| JL2601B | WIRE TRAP  | NPLG-3P586    | 1 | 25055624    |   |
| JL4013B | SOCKET     | NSCT-5P97     | 1 | 25050269    |   |
| JL4014B | SOCKET     | NSCT-6P98     | 1 | 25050270    |   |
| JL8002A | WIRE HOL   | NSCT-5P876    | 1 | 25051089    |   |
| JL901B  | WIRE TRAP  | NPLG-7P590    | 1 | 25055628    |   |
| P2001   | PIN JACK   | NPJ-10PDBY621 | 1 | 25045842    |   |

|          |            |                  |      |          |         |
|----------|------------|------------------|------|----------|---------|
| P2001 or | PIN JACK   | NPJ-10PDBY478    | ( 1) | 25045681 |         |
| P2002    | PIN JACK   | NPJ-10PDBY621    | 1    | 25045842 |         |
| P2002 or | PIN JACK   | NPJ-10PDBY478    | ( 1) | 25045681 |         |
| P2003    | PIN JACK   | NPJ-10PDBY621    | 1    | 25045842 |         |
| P2003 or | PIN JACK   | NPJ-10PDBY478    | ( 1) | 25045681 |         |
| P2004    | PIN JACK   | NPJ-5PDBY622     | 1    | 25045843 |         |
| P2004 or | PIN JACK   | NPJ-5PDBY479     | ( 1) | 25045682 |         |
| P2005    | PIN JACK   | NPJ-1PDY658      | 1    | 25045886 |         |
| P2005 or | PIN JACK   | NPJ-1PDYE368     | ( 1) | 25045547 |         |
| P2010A   | PLUG       | IMSA-9142B-24A   | 1    | 25056602 |         |
| P2201    | PIN JACK   | NPJ-6PDGLRGLR646 | 1    | 25045871 |         |
| P2202    | PIN JACK   | NPJ-6PDGLRGLR646 | 1    | 25045871 |         |
| P2502    | PLUG       | NPLG-3P117       | 1    | 25055133 |         |
| P2601    | ST JACK    | MSJ-035-22       | 1    | 25045887 |         |
| P2601 or | JACK       | YKB21-5130       | ( 1) | 25045387 |         |
| P2604    | ST JACK    | HSJ1002-01-6020  | 1    | 25045647 |         |
| P2605    | TRM(SCREW) | NEJITANSI M3     | 1    | 25065425 |         |
| P2801A   | SOCKET     | NSCT-31P2124     | 1    | 25052227 |         |
| P2991    | RETAINER   | (JOINT)          | 1    | 27142069 |         |
| P4001    | PIN JACK   | NPJ-2PDWR558     | 1    | 25045776 | <SR876> |
| P4001 or | PIN JACK   | NPJ-2PDBL185     | ( 1) | 25045333 | <SR876> |
| P4001    | PIN JACK   | NPJ-4PDWWRR624   | 1    | 25045845 | <SA876> |
| P4001 or | PIN JACK   | NPJ-4PDBL162     | ( 1) | 25045303 | <SA876> |
| P4003    | PIN JACK   | NPJ-6PDWWRRR561  | 1    | 25045779 |         |
| P4003 or | PIN JACK   | NPJ-6PDBL159     | ( 1) | 25045300 |         |
| P4004    | PIN JACK   | NPJ-6PDWWRRR561  | 1    | 25045779 |         |
| P4004 or | PIN JACK   | NPJ-6PDBL159     | ( 1) | 25045300 |         |
| P4005    | PIN JACK   | NPJ-6PDWWRRR561  | 1    | 25045779 |         |
| P4005 or | PIN JACK   | NPJ-6PDBL159     | ( 1) | 25045300 |         |
| P4006    | PIN JACK   | NPJ-4PDGPRW661   | 1    | 25045890 |         |
| P4006 or | PIN JACK   | NPJ-4PDGPRW502   | ( 1) | 25045707 |         |
| P4007    | PIN JACK   | NPJ-4PDELNT662   | 1    | 25045891 |         |
| P4007 or | PIN JACK   | NPJ-4PDELNT504   | ( 1) | 25045709 |         |
| P4008    | PIN JACK   | NPJ-4PDWWRR624   | 1    | 25045845 |         |
| P4008 or | PIN JACK   | NPJ-4PDBL162     | ( 1) | 25045303 |         |
| P4009    | PIN JACK   | NPJ-4PDGPRW661   | 1    | 25045890 |         |
| P4009 or | PIN JACK   | NPJ-4PDGPRW502   | ( 1) | 25045707 |         |
| P4010    | PIN JACK   | NPJ-4PDELNT662   | 1    | 25045891 |         |
| P4010 or | PIN JACK   | NPJ-4PDBL162     | ( 1) | 25045303 |         |
| P4020A   | PLUG       | IMSA-9142B-26A   | 1    | 25056603 |         |
| P4021A   | PLUG       | IMSA-9142B-26A   | 1    | 25056603 |         |
| P4030A   | PLUG       | NPLG-9P661       | 1    | 25055705 |         |
| P4030B   | SOCKET     | NSCT-9P1024      | 1    | 25051234 |         |
| P4032A   | PLUG       | NPLG-8P660       | 1    | 25055704 |         |
| P4033A   | PLUG       | NPLG-13P665      | 1    | 25055709 |         |
| P4201    | TRM(SCREW) | NEJITANSI M3     | 1    | 25065425 |         |
| P4202    | TRM        | NTM-1P233(M1969) | 1    | 25060302 |         |
| P5000    | PLUG       | NPLG-13P360      | 1    | 25055377 |         |

|           |          |                   |      |            |  |
|-----------|----------|-------------------|------|------------|--|
| P5001B    | CRIMP AS | CRIMP SR805_2     | 1    | 20799170UL |  |
| RL4401    | RELAY    | NRL-2P2A-DC12-178 | 1    | 25065664   |  |
| RL4402    | RELAY    | NRL-2P2A-DC12-178 | 1    | 25065664   |  |
| RL4403    | RELAY    | NRL-2P2A-DC12-178 | 1    | 25065664   |  |
| RL4404    | RELAY    | NRL-2P2A-DC12-178 | 1    | 25065664   |  |
| RL4501    | RELAY    | NRL-2P5A-DC12-187 | 1    | 25065685   |  |
| RL4501 or | RELAY    | NRL-2P5A-DC12-192 | ( 1) | 25065702   |  |

|            |                                                           |
|------------|-----------------------------------------------------------|
| <b>U11</b> | <b>SP TERMINAL PC BOARD(NATRM-9055-1AA/1AG/1C/1D/1X)</b>  |
| <b>U12</b> | <b>SP TERMINAL PC BOARD(NAASP-9056-1AA/1AG/1C/1D/1X)</b>  |
| <b>U13</b> | <b>POWER SUPPLY PC BOARD(NAASP-9057-1AA/1AG/1C/1D/1X)</b> |
| <b>U14</b> | <b>INLET PC BOARD(NAASP-9058-1AA/1AG/1C/1D/1X)</b>        |

| REF. NO. | PART NAME | DESCRIPTION    | Q'TY | PART NO. (SN) | REMARKS  |
|----------|-----------|----------------|------|---------------|----------|
| Q4901    | TR        | 2SB1565-E      | 1    | 2202715       |          |
| Q4901 or | TR        | 2SA1488-Y      | ( 1) | 2203394       |          |
| Q4901A   | HEAT SINK | RAD-165        | 1    | 27160500      |          |
| Q4901B   | SCREW     | 3TTB+8B(3CM)SR | 2    | 801637        |          |
| Q4902    | TR        | 2SD2394-E      | 1    | 2202705       |          |
| Q4902 or | TR        | 2SC3851-Y      | ( 1) | 2203384       |          |
| Q4903    | TR        | 2SC1815-GR     | 1    | 2211255T      |          |
| Q4904    | TR        | 2SA1015-GR     | 1    | 2211455T      |          |
| Q4905    | TR        | 2SK365-GR      | 1    | 2212445T      |          |
| Q4906    | TR        | 2SK365-GR      | 1    | 2212445T      |          |
| Q6800    | TR        | RN1226         | 1    | 2214680T      |          |
| Q6802    | TR        | RN1226         | 1    | 2214680T      |          |
| Q6805    | TR        | RN1226         | 1    | 2214680T      |          |
| Q6807    | TR        | RN1226         | 1    | 2214680T      |          |
| Q9100    | TR        | 2SC1815-GR     | 1    | 2211255T      | <DC, DD> |
| Q9101    | TR        | 2SC1815-GR     | 1    | 2211255T      |          |
| Q9103    | IC        | NJM2388F09     | 1    | 22242383      | <SR876>  |
| Q9200    | TR        | 2SC1815-GR     | 1    | 2211255T      | <DC, DD> |
| D4901    | ZENER D   | MTZJ15B        | 1    | 224471502T    |          |
| D4902    | ZENER D   | MTZJ15B        | 1    | 224471502T    |          |
| D6800    | DIODE     | 1SS133         | 1    | 223163T       |          |
| D6802    | DIODE     | 1SS133         | 1    | 223163T       |          |
| D6803    | DIODE     | 1SS133         | 1    | 223163T       |          |
| D6805    | DIODE     | 1SS133         | 1    | 223163T       |          |
| D6817    | DIODE     | 1SS133         | 1    | 223163T       |          |
| D9000    | DIODE     | 1SS133         | 1    | 223163T       |          |
| D9001    | DIODE     | 1SS133         | 1    | 223163T       |          |
| D9002    | DIODE     | 1SS133         | 1    | 223163T       |          |
| D9003    | DIODE     | 1SS133         | 1    | 223163T       |          |
| D9004    | DIODE     | RL1N4003       | 1    | 22380260T     |          |
| D9004 or | DIODE     | GP104003E      | ( 1) | 22380035T     |          |
| D9005    | DIODE     | 1SS133         | 1    | 223163T       |          |
| D9006    | DIODE     | 1SS133         | 1    | 223163T       |          |
| D9007    | ZENER D   | MTZJ5.1B       | 1    | 224470512T    |          |

|       |         |                     |   |            |                         |
|-------|---------|---------------------|---|------------|-------------------------|
| D9008 | DIODE   | 1SS133              | 1 | 223163T    |                         |
| D9009 | DIODE   | 1SS133              | 1 | 223163T    |                         |
| D9100 | DIODE   | 1SS133              | 1 | 223163T    | <DC, DD>                |
| D9101 | DIODE   | 1SS133              | 1 | 223163T    |                         |
| D9103 | DIODE   | D10XB60H            | 1 | 22380337F  |                         |
| D9105 | DIODE   | D3SBA20             | 1 | 22380271F  |                         |
| D9200 | DIODE   | 1SS133              | 1 | 223163T    | <DC, DD>                |
| D9201 | DIODE   | D3SBA20             | 1 | 22380271F  | <DC, DD>                |
| L6800 | S COIL  | S-1.3C              | 1 | 231176S    |                         |
| L6801 | S COIL  | S-1.3C              | 1 | 231176S    |                         |
| L6802 | S COIL  | S-1.3C              | 1 | 231176S    |                         |
| L6803 | S COIL  | S-1.3C              | 1 | 231176S    |                         |
| L6804 | S COIL  | S-1.3C              | 1 | 231176S    |                         |
| L6805 | S COIL  | S-1.3C              | 1 | 231176S    |                         |
| L6806 | S COIL  | S-1.3C              | 1 | 231176S    |                         |
| T9000 | P TRANS | NPT-1520JQ          | 1 | 2301812A   | !, <DC, DD, DT>         |
| T9000 | P TRANS | NPT-1520GQ          | 1 | 2301813A   | !, <MP, MB, MT, SA876>  |
| C4901 | UTSP C  | CE04W25V-100M(UTSP) | 1 | 397551017T |                         |
| C4902 | UTSP C  | CE04W25V-100M(UTSP) | 1 | 397551017T |                         |
| C4903 | UTSP C  | CE04W25V-100M(UTSP) | 1 | 397551017T |                         |
| C4904 | UTSP C  | CE04W25V-100M(UTSP) | 1 | 397551017T |                         |
| C6800 | TF C    | ECQ-B50V-103J       | 1 | 374721034T |                         |
| C6801 | TF C    | ECQ-B50V-103J       | 1 | 374721034T |                         |
| C6802 | TF C    | ECQ-B50V-103J       | 1 | 374721034T |                         |
| C6803 | TF C    | ECQ-B50V-103J       | 1 | 374721034T |                         |
| C6805 | TF C    | ECQ-B50V-103J       | 1 | 374721034T |                         |
| C6806 | TF C    | ECQ-B50V-103J       | 1 | 374721034T |                         |
| C6820 | TF C    | ECQ-B50V-103J       | 1 | 374721034T | <MP, MB, MT, DT, SA876> |
| C6821 | TF C    | ECQ-B50V-103J       | 1 | 374721034T | <MP, MB, MT, DT, SA876> |
| C6822 | TF C    | ECQ-B50V-103J       | 1 | 374721034T | <MP, MB, MT, DT, SA876> |
| C6823 | TF C    | ECQ-B50V-103J       | 1 | 374721034T | <MP, MB, MT, DT, SA876> |
| C6824 | TF C    | ECQ-B50V-103J       | 1 | 374721034T | <MP, MB, MT, DT, SA876> |
| C6825 | TF C    | ECQ-B50V-103J       | 1 | 374721034T | <MP, MB, MT, DT, SA876> |
| C6826 | TF C    | ECQ-B50V-103J       | 1 | 374721034T | <MP, MB, MT, DT, SA876> |
| C6827 | TF C    | ECQ-B50V-103J       | 1 | 374721034T | <MP, MB, MT, DT, SA876> |
| C6828 | TF C    | ECQ-B50V-103J       | 1 | 374721034T | <MP, MB, MT, DT, SA876> |
| C6837 | TF C    | ECQ-B50V-103J       | 1 | 374721034T |                         |
| C9000 | TF C    | ECQ-B50V-223J       | 1 | 374722234T |                         |
| C9001 | VR C    | CE04W25V-2200M(VR)  | 1 | 394652227S | <DC, DD, DT>            |
| C9001 | VR C    | CE04W16V-2200M(VR)  | 1 | 394642227S | <MP, MB, MT, SA876>     |
| C9002 | UTSP C  | CE04W50V-4.7M(UTSP) | 1 | 397580477T |                         |
| C9008 | UTSP C  | CE04W25V-100M(UTSP) | 1 | 397551017T |                         |
| C9102 | VR C    | CE04W25V-4700M(VR)  | 1 | 394654727S |                         |
| C9103 | VR C    | CE04W25V-4700M(VR)  | 1 | 394654727S |                         |
| C9104 | VR C    | CE04W16V-4700M(VR)  | 1 | 394644727S |                         |
| C9106 | UTSP C  | CE04W50V-1M(UTSP)   | 1 | 397580107T | <MP, MB, MT, DT>        |
| C9107 | UTSP C  | CE04W25V-220M(UTSP) | 1 | 397552217T | <SR876>                 |
| C9108 | PLA C   | MKP R46 104M        | 1 | 3800041S   |                         |

|       |            |                    |   |            |                         |
|-------|------------|--------------------|---|------------|-------------------------|
| C9115 | TF C       | ECQ-B50V-103J      | 1 | 374721034T | <DC, DD>                |
| C9116 | TF C       | ECQ-B50V-103J      | 1 | 374721034T |                         |
| C9117 | TF C       | ECQ-V50V-104J      | 1 | 374721044T |                         |
| C9118 | TF C       | ECQ-V50V-104J      | 1 | 374721044T |                         |
| C9119 | TF C       | ECQ-B50V-223J      | 1 | 374722234T |                         |
| C9201 | TF C       | ECQ-B50V-103J      | 1 | 374721034T | <DC, DD>                |
| C9202 | TF C       | ECQ-V50V-104J      | 1 | 374721044T | <DC, DD>                |
| C9205 | VR C       | CE04W25V-3300M(VR) | 1 | 394653327S | <DC, DD>                |
| C9206 | VR C       | CE04W16V-6800M(VR) | 1 | 394646827S | <DC, DD>                |
| R4901 | METAL R    | RNU1/2WCJ-0.22     | 1 | 453532294T |                         |
| R4902 | METAL R    | RNU1/2WCJ-0.22     | 1 | 453532294T |                         |
| R4907 | CARBON R   | R16J-330           | 1 | 417343314T |                         |
| R4908 | CARBON R   | R16J-330           | 1 | 417343314T |                         |
| R6800 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6801 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6802 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6803 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6804 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6805 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6806 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6810 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6811 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6812 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6813 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6814 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6815 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6816 | CARBON R   | R16J-22            | 1 | 417342204T |                         |
| R6900 | METAL O R  | RS1WBJ-15          | 1 | 443621504T |                         |
| R6901 | METAL O R  | RS1WBJ-15          | 1 | 443621504T |                         |
| R9005 | CARBON R   | R16J-27            | 1 | 417342704T | <DC, DD>                |
| R9005 | CARBON R   | R16J-22            | 1 | 417342204T | <MP, MB, MT, DT, SA876> |
| R9104 | CARBON R   | R16J-1K            | 1 | 417341024T | <DC, DD>                |
| R9105 | CARBON R   | R16J-100K          | 1 | 417341044T | <DC, DD>                |
| R9106 | CARBON R   | R16J-100           | 1 | 417341014T | <DC, DD>                |
| R9107 | CARBON R   | R16J-1K            | 1 | 417341024T |                         |
| R9108 | CARBON R   | R16J-100K          | 1 | 417341044T |                         |
| R9111 | CARBON R   | R16J-56            | 1 | 417345604T |                         |
| R9112 | METAL R    | RNU1/2WCJ-0.22     | 1 | 453532294T |                         |
| R9200 | CARBON R   | R16J-1K            | 1 | 417341024T | <DC, DD>                |
| R9201 | CARBON R   | R16J-100K          | 1 | 417341044T | <DC, DD>                |
| R9202 | CARBON R   | R16J-100           | 1 | 417341014T | <DC, DD>                |
| R9203 | METAL R    | RNU1/2WCJ-1        | 1 | 453530104T | <DC, DD>                |
| R9211 | METAL R    | RNU1/2WCJ-0.39     | 1 | 453533994T | <DC, DD>                |
| R9212 | METAL R    | RNU1/2WCJ-0.39     | 1 | 453533994T | <DC, DD>                |
| R9213 | METAL R    | RNU1/2WCJ-0.39     | 1 | 453533994T | <DC, DD>                |
| R9214 | METAL R    | RNU1/2WCJ-0.39     | 1 | 453533994T | <DC, DD>                |
| E9000 | TRM(SCREW) | NEJITANSI M3       | 1 | 25065425   | <MP, MB, MT, DT, SA876> |
| E9100 | TRM(SCREW) | NEJITANSI M3       | 1 | 25065425   |                         |

|         |             |                |   |               |                             |
|---------|-------------|----------------|---|---------------|-----------------------------|
| F9000A  | FUSE HOL    | NSCT-1P2031    | 1 | 25052133T     | !, <DC, DD>                 |
| F9000B  | FUSE HOL    | NSCT-1P2031    | 1 | 25052133T     | !, <DC, DD>                 |
| F9100A  | FUSE HOLDER | SN5051         | 1 | 250113        | !, <DC, DD, DT>             |
| F9100A  | FUSE HOL    | NSCT-1P2031    | 1 | 25052133T     | !, <MP, MB, MT, SA876>      |
| F9100B  | FUSE HOLDER | SN5051         | 1 | 250113        | !, <DC, DD, DT>             |
| F9100B  | FUSE HOL    | NSCT-1P2031    | 1 | 25052133T     | !, <MP, MB, MT, SA876>      |
| F9100C  | LABEL       | T6.3AL/250V    | 1 | 29361681      | !, <MP, MB, MT, SA876>      |
| F9101A  | FUSE HOL    | NSCT-1P2031    | 1 | 25052133T     | !                           |
| F9101B  | FUSE HOL    | NSCT-1P2031    | 1 | 25052133T     | !                           |
| F9102A  | FUSE HOL    | NSCT-1P2031    | 1 | 25052133T     | !                           |
| F9102B  | FUSE HOL    | NSCT-1P2031    | 1 | 25052133T     | !                           |
| F9201A  | FUSE HOL    | NSCT-1P2031    | 1 | 25052133T     | !, <DC, DD>                 |
| F9201B  | FUSE HOL    | NSCT-1P2031    | 1 | 25052133T     | !, <DC, DD>                 |
| F9202A  | FUSE HOL    | NSCT-1P2031    | 1 | 25052133T     | !, <DC, DD>                 |
| F9202B  | FUSE HOL    | NSCT-1P2031    | 1 | 25052133T     | !, <DC, DD>                 |
| JL2601A | WIRE HOL    | NSCT-3P874     | 1 | 25051087      |                             |
| JL4014A | WIRE HOL    | NSCT-6P897     | 1 | 25051110      |                             |
| JL6808A | WIRE HOL    | NSCT-4P895     | 1 | 25051108      |                             |
| JL6808B | SOCKET      | NSCT-4P96      | 1 | 25050268      |                             |
| JL6900B | SOCKET      | NSCT-3P108     | 1 | 25050280      |                             |
| JL6901A | WIRE HOL    | NSCT-8P879     | 1 | 25051092      |                             |
| JL6901B | WIRE TRAP   | NPLG-8P591     | 1 | 25055629      |                             |
| JL901A  | WIRE HOL    | NSCT-7P878     | 1 | 25051091      |                             |
| P3101B  | SOCKET      | IMSA-9142S-24A | 1 | 25053234      |                             |
| P3102B  | SOCKET      | IMSA-9142S-14A | 1 | 25053229      |                             |
| P3103B  | SOCKET      | IMSA-9142S-16A | 1 | 25053230      |                             |
| P4900   | RETAINER    | (JOINT)        | 1 | 27142069      |                             |
| P5A     | SOCKET AS   | NSAS-8P1692    | 1 | 200B3120820UL | <DC, DD>                    |
| P6140H  | PLUG        | NPLG-7P163     | 1 | 25055179      |                             |
| P6240D  | PLUG        | NPLG-3P838     | 1 | 25055882      |                             |
| P6250E  | PLUG        | NPLG-4P839     | 1 | 25055883      |                             |
| P6800   | TRM         | NTM-2PDMCW403  | 1 | 25060475      | <DC, DD, DT, MP, MT, SA876> |
| P6800   | TRM         | NTM-2PDMCR399  | 1 | 25060471      | <MB>                        |
| P6801   | TRM         | NTM-2PDMCR400  | 1 | 25060472      | <DC, DD, DT, MP, MT, SA876> |
| P6801   | TRM         | NTM-2PDMCR399  | 1 | 25060471      | <MB>                        |
| P6802   | TRM         | NTM-2PDMCG404  | 1 | 25060476      | <DC, DD, DT, MP, MT, SA876> |
| P6802   | TRM         | NTM-2PDMCR399  | 1 | 25060471      | <MB>                        |
| P6803   | TRM         | NTM-2PDMCL405  | 1 | 25060477      | <DC, DD, DT, MP, MT, SA876> |
| P6803   | TRM         | NTM-2PDMCR399  | 1 | 25060471      | <MB>                        |
| P6804   | TRM         | NTM-2PDMCE406  | 1 | 25060478      | <DC, DD, DT, MP, MT, SA876> |
| P6804   | TRM         | NTM-2PDMCR399  | 1 | 25060471      | <MB>                        |
| P6805   | TRM         | NTM-2PDMCN407  | 1 | 25060479      | <DC, DD, DT, MP, MT, SA876> |
| P6805   | TRM         | NTM-2PDMCR399  | 1 | 25060471      | <MB>                        |
| P6806   | TRM         | NTM-2PDMCT408  | 1 | 25060480      | <DC, DD, DT, MP, MT, SA876> |
| P6806   | TRM         | NTM-2PDMCR399  | 1 | 25060471      | <MB>                        |
| P6807   | TRM         | NTM-2PDMCW403  | 1 | 25060475      | <DC, DD, DT, MP, MT, SA876> |
| P6807   | TRM         | NTM-2PDMCR399  | 1 | 25060471      | <MB>                        |
| P6808   | TRM         | NTM-2PDMCR400  | 1 | 25060472      | <DC, DD, DT, MP, MT, SA876> |

|           |           |                   |      |              |                         |
|-----------|-----------|-------------------|------|--------------|-------------------------|
| P6808     | TRM       | NTM-2PDMCR399     | 1    | 25060471     | <MB>                    |
| P6851B    | SOCKET    | IMSA-9142S-20A    | 1    | 25053232     |                         |
| P6852B    | SOCKET    | IMSA-9142S-20A    | 1    | 25053232     |                         |
| P6853B    | SOCKET    | IMSA-9142S-20A    | 1    | 25053232     |                         |
| P9000     | AC INLET  | NPLG-2P913        | 1    | 25055960     | !                       |
| P9001     | AC OUTLET | AC-181-UL-11V     | 1    | 25053030     | !, <DC, DD>             |
| P9006     | CRIMP AS  | CRIMP AS          | 1    | 206CC45159UL |                         |
| P9007     | CRIMP AS  | CRIMP AS          | 1    | 206CC45150UL |                         |
| P9008A    | PLUG      | NPLG-2P631        | 1    | 25055675     | <MP, MB, MT, DT, SA876> |
| P9100     | PLUG      | NPLG-2P632        | 1    | 25055676     |                         |
| P9104     | PLUG      | NPLG-6P120        | 1    | 25055136     |                         |
| P9200     | PLUG      | NPLG-2P632        | 1    | 25055676     | <DC, DD>                |
| P9201     | PLUG      | NPLG-5P119        | 1    | 25055135     | <DC, DD>                |
| RL6800    | RELAY     | NRL-2P5A-DC12-187 | 1    | 25065685     |                         |
| RL6800 or | RELAY     | NRL-2P5A-DC12-155 | ( 1) | 25065607     |                         |
| RL6800 or | RELAY     | NRL-2P5A-DC12-192 | ( 1) | 25065702     |                         |
| RL6801    | RELAY     | NRL-2P5A-DC12-187 | 1    | 25065685     |                         |
| RL6801 or | RELAY     | NRL-2P5A-DC12-155 | ( 1) | 25065607     |                         |
| RL6801 or | RELAY     | NRL-2P5A-DC12-192 | ( 1) | 25065702     |                         |
| RL6802    | RELAY     | NRL-2P5A-DC12-187 | 1    | 25065685     |                         |
| RL6802 or | RELAY     | NRL-2P5A-DC12-155 | ( 1) | 25065607     |                         |
| RL6802 or | RELAY     | NRL-2P5A-DC12-192 | ( 1) | 25065702     |                         |
| RL6803    | RELAY     | NRL-2P5A-DC12-187 | 1    | 25065685     |                         |
| RL6803 or | RELAY     | NRL-2P5A-DC12-155 | ( 1) | 25065607     |                         |
| RL6803 or | RELAY     | NRL-2P5A-DC12-192 | ( 1) | 25065702     |                         |
| RL6805    | RELAY     | NRL-2P5A-DC12-187 | 1    | 25065685     |                         |
| RL6805 or | RELAY     | NRL-2P5A-DC12-155 | ( 1) | 25065607     |                         |
| RL6805 or | RELAY     | NRL-2P5A-DC12-192 | ( 1) | 25065702     |                         |
| RL6806    | RELAY     | NRL-2P5A-DC12-187 | 1    | 25065685     |                         |
| RL6806 or | RELAY     | NRL-2P5A-DC12-155 | ( 1) | 25065607     |                         |
| RL6806 or | RELAY     | NRL-2P5A-DC12-192 | ( 1) | 25065702     |                         |
| RL6817    | RELAY     | NRL-2P5A-DC12-187 | 1    | 25065685     |                         |
| RL6817 or | RELAY     | NRL-2P5A-DC12-155 | ( 1) | 25065607     |                         |
| RL6817 or | RELAY     | NRL-2P5A-DC12-192 | ( 1) | 25065702     |                         |
| RL9100    | RELAY     | NRL-1P10A-DC9-186 | 1    | 25065683     | !, <DC, DD>             |
| RL9101    | RELAY     | NRL-1P10A-DC9-186 | 1    | 25065683     | !                       |
| RL9200    | RELAY     | NRL-1P5A-DC9-179  | 1    | 25065669     | !, <DC, DD>             |

|            |                                               |
|------------|-----------------------------------------------|
| <b>U16</b> | <b>POWER AMP PC BOARD (NAAMP-9061-1E/1F)</b>  |
| <b>U17</b> | <b>POWER AMP PC BOARD (NAAMP-9062-1E/1F)</b>  |
| <b>U18</b> | <b>DRIVER AMP PC BOARD (NACLA-9063-1E/1F)</b> |
| <b>U19</b> | <b>DRIVER AMP PC BOARD (NACLA-9064-1E/1F)</b> |
| <b>U20</b> | <b>DRIVER AMP PC BOARD (NACLA-9065-1E/1F)</b> |
| <b>U21</b> | <b>DRIVER AMP PC BOARD (NACLA-9066-1E/1F)</b> |
| <b>U22</b> | <b>DRIVER AMP PC BOARD (NACLA-9067-1E/1F)</b> |
| <b>U23</b> | <b>DRIVER AMP PC BOARD (NACLA-9068-1E/1F)</b> |
| <b>U24</b> | <b>DRIVER AMP PC BOARD (NACLA-9069-1E/1F)</b> |

| REF. NO. | PART NAME | DESCRIPTION        | Q'TY | PART NO. (SN) | REMARKS |
|----------|-----------|--------------------|------|---------------|---------|
| Q5000    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5001    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5002    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5003    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5004    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5005    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5006    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5010    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5011    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5012    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5013    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5014    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5015    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5016    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5020    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5021    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5022    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5023    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5024    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5025    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5026    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T      |         |
| Q5030    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5030 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |
| Q5031    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5031 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |
| Q5032    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5032 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |
| Q5033    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5033 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |
| Q5034    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5034 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |
| Q5035    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5035 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |
| Q5036    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5036 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |
| Q5040    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5040 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |
| Q5041    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5041 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |
| Q5042    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5042 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |
| Q5043    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5043 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |
| Q5044    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5044 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |
| Q5045    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T      |         |
| Q5045 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T      |         |

|          |           |                    |      |            |
|----------|-----------|--------------------|------|------------|
| Q5046    | TR        | 2SA949-O(TPE6_F)   | 1    | 2211353T   |
| Q5046 or | TR        | 2SA949-Y(TPE6_F)   | ( 1) | 2211354T   |
| Q5050    | TR        | 2SA1360-Y          | 1    | 2202094    |
| Q5050 or | TR        | 2SA1360-O          | ( 1) | 2202093    |
| Q5050A   | HEAT SINK | RAD-177            | 1    | 27160517   |
| Q5050B   | SCREW     | 3P+6FN(3BC)        | 1    | 82143006GR |
| Q5051    | TR        | 2SA1360-Y          | 1    | 2202094    |
| Q5051 or | TR        | 2SA1360-O          | ( 1) | 2202093    |
| Q5051A   | HEAT SINK | RAD-177            | 1    | 27160517   |
| Q5051B   | SCREW     | 3P+6FN(3BC)        | 1    | 82143006GR |
| Q5052    | TR        | 2SA1360-Y          | 1    | 2202094    |
| Q5052 or | TR        | 2SA1360-O          | ( 1) | 2202093    |
| Q5052A   | HEAT SINK | RAD-177            | 1    | 27160517   |
| Q5052B   | SCREW     | 3P+6FN(3BC)        | 1    | 82143006GR |
| Q5053    | TR        | 2SA1360-Y          | 1    | 2202094    |
| Q5053 or | TR        | 2SA1360-O          | ( 1) | 2202093    |
| Q5053A   | HEAT SINK | RAD-177            | 1    | 27160517   |
| Q5053B   | SCREW     | 3P+6FN(3BC)        | 1    | 82143006GR |
| Q5054    | TR        | 2SA1360-Y          | 1    | 2202094    |
| Q5054 or | TR        | 2SA1360-O          | ( 1) | 2202093    |
| Q5054A   | HEAT SINK | RAD-177            | 1    | 27160517   |
| Q5054B   | SCREW     | 3P+6FN(3BC)        | 1    | 82143006GR |
| Q5055    | TR        | 2SA1360-Y          | 1    | 2202094    |
| Q5055 or | TR        | 2SA1360-O          | ( 1) | 2202093    |
| Q5055A   | HEAT SINK | RAD-177            | 1    | 27160517   |
| Q5055B   | SCREW     | 3P+6FN(3BC)        | 1    | 82143006GR |
| Q5056    | TR        | 2SA1360-Y          | 1    | 2202094    |
| Q5056 or | TR        | 2SA1360-O          | ( 1) | 2202093    |
| Q5056A   | HEAT SINK | RAD-177            | 1    | 27160517   |
| Q5056B   | SCREW     | 3P+6FN(3BC)        | 1    | 82143006GR |
| Q5060    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5061    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5062    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5063    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5064    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5065    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5066    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5070    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5071    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5072    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5073    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5074    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5075    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5076    | TR        | 2SC2240-BL(TPE2_F) | 1    | 2211406T   |
| Q5080    | TR        | 2SC3423-Y          | 1    | 2202104    |
| Q5080 or | TR        | 2SC3423-O          | ( 1) | 2202103    |
| Q5080B   | SCREW     | 3P+6FN(3BC)        | 1    | 82143006GR |
| Q5081    | TR        | 2SC3423-Y          | 1    | 2202104    |

|          |       |             |      |            |
|----------|-------|-------------|------|------------|
| Q5081 or | TR    | 2SC3423-O   | ( 1) | 2202103    |
| Q5081B   | SCREW | 3P+6FN(3BC) | 1    | 82143006GR |
| Q5082    | TR    | 2SC3423-Y   | 1    | 2202104    |
| Q5082 or | TR    | 2SC3423-O   | ( 1) | 2202103    |
| Q5082B   | SCREW | 3P+6FN(3BC) | 1    | 82143006GR |
| Q5083    | TR    | 2SC3423-Y   | 1    | 2202104    |
| Q5083 or | TR    | 2SC3423-O   | ( 1) | 2202103    |
| Q5083B   | SCREW | 3P+6FN(3BC) | 1    | 82143006GR |
| Q5084    | TR    | 2SC3423-Y   | 1    | 2202104    |
| Q5084 or | TR    | 2SC3423-O   | ( 1) | 2202103    |
| Q5084B   | SCREW | 3P+6FN(3BC) | 1    | 82143006GR |
| Q5085    | TR    | 2SC3423-Y   | 1    | 2202104    |
| Q5085 or | TR    | 2SC3423-O   | ( 1) | 2202103    |
| Q5085B   | SCREW | 3P+6FN(3BC) | 1    | 82143006GR |
| Q5086    | TR    | 2SC3423-Y   | 1    | 2202104    |
| Q5086 or | TR    | 2SC3423-O   | ( 1) | 2202103    |
| Q5086B   | SCREW | 3P+6FN(3BC) | 1    | 82143006GR |
| Q6010    | TR    | 2SC1740S-S  | 1    | 2213285T   |
| Q6011    | TR    | 2SC1740S-S  | 1    | 2213285T   |
| Q6012    | TR    | 2SC1740S-S  | 1    | 2213285T   |
| Q6013    | TR    | 2SC1740S-S  | 1    | 2213285T   |
| Q6014    | TR    | 2SC1740S-S  | 1    | 2213285T   |
| Q6015    | TR    | 2SC1740S-S  | 1    | 2213285T   |
| Q6016    | TR    | 2SC1740S-S  | 1    | 2213285T   |
| Q6020    | TR    | 2SA933S-R   | 1    | 2213354T   |
| Q6020 or | TR    | 2SA933S-S   | ( 1) | 2213355T   |
| Q6020 or | TR    | 2SA1048-GR  | ( 1) | 2212125T   |
| Q6020 or | TR    | KTA1267-GR  | ( 1) | 2215995T   |
| Q6021    | TR    | 2SA933S-R   | 1    | 2213354T   |
| Q6021 or | TR    | 2SA933S-S   | ( 1) | 2213355T   |
| Q6021 or | TR    | 2SA1048-GR  | ( 1) | 2212125T   |
| Q6021 or | TR    | KTA1267-GR  | ( 1) | 2215995T   |
| Q6022    | TR    | 2SA933S-R   | 1    | 2213354T   |
| Q6022 or | TR    | 2SA933S-S   | ( 1) | 2213355T   |
| Q6022 or | TR    | 2SA1048-GR  | ( 1) | 2212125T   |
| Q6022 or | TR    | KTA1267-GR  | ( 1) | 2215995T   |
| Q6023    | TR    | 2SA933S-R   | 1    | 2213354T   |
| Q6023 or | TR    | 2SA933S-S   | ( 1) | 2213355T   |
| Q6023 or | TR    | 2SA1048-GR  | ( 1) | 2212125T   |
| Q6023 or | TR    | KTA1267-GR  | ( 1) | 2215995T   |
| Q6024    | TR    | 2SA933S-R   | 1    | 2213354T   |
| Q6024 or | TR    | 2SA933S-S   | ( 1) | 2213355T   |
| Q6024 or | TR    | 2SA1048-GR  | ( 1) | 2212125T   |
| Q6024 or | TR    | KTA1267-GR  | ( 1) | 2215995T   |
| Q6025    | TR    | 2SA933S-R   | 1    | 2213354T   |
| Q6025 or | TR    | 2SA933S-S   | ( 1) | 2213355T   |
| Q6025 or | TR    | 2SA1048-GR  | ( 1) | 2212125T   |
| Q6025 or | TR    | KTA1267-GR  | ( 1) | 2215995T   |

|          |           |                   |     |          |
|----------|-----------|-------------------|-----|----------|
| Q6026    | TR        | 2SA933S-R         | 1   | 2213354T |
| Q6026 or | TR        | 2SA933S-S         | (1) | 2213355T |
| Q6026 or | TR        | 2SA1048-GR        | (1) | 2212125T |
| Q6026 or | TR        | KTA1267-GR        | (1) | 2215995T |
| Q6030    | TR        | 2SC2229-O(TPE6_F) | 1   | 2211633T |
| Q6030 or | TR        | 2SC2229-Y(TPE6_F) | (1) | 2211634T |
| Q6031    | TR        | 2SC2229-O(TPE6_F) | 1   | 2211633T |
| Q6031 or | TR        | 2SC2229-Y(TPE6_F) | (1) | 2211634T |
| Q6032    | TR        | 2SC2229-O(TPE6_F) | 1   | 2211633T |
| Q6032 or | TR        | 2SC2229-Y(TPE6_F) | (1) | 2211634T |
| Q6033    | TR        | 2SC2229-O(TPE6_F) | 1   | 2211633T |
| Q6033 or | TR        | 2SC2229-Y(TPE6_F) | (1) | 2211634T |
| Q6034    | TR        | 2SC2229-O(TPE6_F) | 1   | 2211633T |
| Q6034 or | TR        | 2SC2229-Y(TPE6_F) | (1) | 2211634T |
| Q6035    | TR        | 2SC2229-O(TPE6_F) | 1   | 2211633T |
| Q6035 or | TR        | 2SC2229-Y(TPE6_F) | (1) | 2211634T |
| Q6036    | TR        | 2SC2229-O(TPE6_F) | 1   | 2211633T |
| Q6036 or | TR        | 2SC2229-Y(TPE6_F) | (1) | 2211634T |
| Q6040    | TR        | 2SA949-O(TPE6_F)  | 1   | 2211353T |
| Q6040 or | TR        | 2SA949-Y(TPE6_F)  | (1) | 2211354T |
| Q6041    | TR        | 2SA949-O(TPE6_F)  | 1   | 2211353T |
| Q6041 or | TR        | 2SA949-Y(TPE6_F)  | (1) | 2211354T |
| Q6042    | TR        | 2SA949-O(TPE6_F)  | 1   | 2211353T |
| Q6042 or | TR        | 2SA949-Y(TPE6_F)  | (1) | 2211354T |
| Q6043    | TR        | 2SA949-O(TPE6_F)  | 1   | 2211353T |
| Q6043 or | TR        | 2SA949-Y(TPE6_F)  | (1) | 2211354T |
| Q6044    | TR        | 2SA949-O(TPE6_F)  | 1   | 2211353T |
| Q6044 or | TR        | 2SA949-Y(TPE6_F)  | (1) | 2211354T |
| Q6045    | TR        | 2SA949-O(TPE6_F)  | 1   | 2211353T |
| Q6045 or | TR        | 2SA949-Y(TPE6_F)  | (1) | 2211354T |
| Q6046    | TR        | 2SA949-O(TPE6_F)  | 1   | 2211353T |
| Q6046 or | TR        | 2SA949-Y(TPE6_F)  | (1) | 2211354T |
| Q6070    | TR        | 2SC2631-R         | 1   | 2214984T |
| Q6070 or | TR        | 2SC2631-S         | (1) | 2214985T |
| Q6071    | TR        | 2SC2631-R         | 1   | 2214984T |
| Q6071 or | TR        | 2SC2631-S         | (1) | 2214985T |
| Q6072    | TR        | 2SC2631-R         | 1   | 2214984T |
| Q6072 or | TR        | 2SC2631-S         | (1) | 2214985T |
| Q6073    | TR        | 2SC2631-R         | 1   | 2214984T |
| Q6073 or | TR        | 2SC2631-S         | (1) | 2214985T |
| Q6074    | TR        | 2SC2631-R         | 1   | 2214984T |
| Q6074 or | TR        | 2SC2631-S         | (1) | 2214985T |
| Q6075    | TR        | 2SC2631-R         | 1   | 2214984T |
| Q6075 or | TR        | 2SC2631-S         | (1) | 2214985T |
| Q6076    | TR        | 2SC2631-R         | 1   | 2214984T |
| Q6076 or | TR        | 2SC2631-S         | (1) | 2214985T |
| Q6100    | TR        | 2SA1930(ONK_Q)    | 1   | 2203000  |
| Q6100A   | HEAT SINK | RAD-177           | 1   | 27160517 |

|        |           |                |   |            |
|--------|-----------|----------------|---|------------|
| Q6100B | SCREW     | 3P+6FN(3BC)    | 2 | 82143006GR |
| Q6101  | TR        | 2SA1930(ONK_Q) | 1 | 2203000    |
| Q6101A | HEAT SINK | RAD-177        | 1 | 27160517   |
| Q6101B | SCREW     | 3P+6FN(3BC)    | 2 | 82143006GR |
| Q6102  | TR        | 2SA1930(ONK_Q) | 1 | 2203000    |
| Q6102A | HEAT SINK | RAD-177        | 1 | 27160517   |
| Q6102B | SCREW     | 3P+6FN(3BC)    | 2 | 82143006GR |
| Q6103  | TR        | 2SA1930(ONK_Q) | 1 | 2203000    |
| Q6103A | HEAT SINK | RAD-177        | 1 | 27160517   |
| Q6103B | SCREW     | 3P+6FN(3BC)    | 2 | 82143006GR |
| Q6104  | TR        | 2SA1930(ONK_Q) | 1 | 2203000    |
| Q6104A | HEAT SINK | RAD-177        | 1 | 27160517   |
| Q6104B | SCREW     | 3P+6FN(3BC)    | 2 | 82143006GR |
| Q6105  | TR        | 2SA1930(ONK_Q) | 1 | 2203000    |
| Q6105A | HEAT SINK | RAD-177        | 1 | 27160517   |
| Q6105B | SCREW     | 3P+6FN(3BC)    | 2 | 82143006GR |
| Q6106  | TR        | 2SA1930(ONK_Q) | 1 | 2203000    |
| Q6106A | HEAT SINK | RAD-177        | 1 | 27160517   |
| Q6106B | SCREW     | 3P+6FN(3BC)    | 2 | 82143006GR |
| Q6110  | TR        | 2SC5171(ONK_Q) | 1 | 2203010    |
| Q6111  | TR        | 2SC5171(ONK_Q) | 1 | 2203010    |
| Q6112  | TR        | 2SC5171(ONK_Q) | 1 | 2203010    |
| Q6113  | TR        | 2SC5171(ONK_Q) | 1 | 2203010    |
| Q6114  | TR        | 2SC5171(ONK_Q) | 1 | 2203010    |
| Q6115  | TR        | 2SC5171(ONK_Q) | 1 | 2203010    |
| Q6116  | TR        | 2SC5171(ONK_Q) | 1 | 2203010    |
| D5000  | ZENER D   | MTZJ5.6B       | 1 | 224470562T |
| D5001  | ZENER D   | MTZJ5.6B       | 1 | 224470562T |
| D5002  | ZENER D   | MTZJ5.6B       | 1 | 224470562T |
| D5003  | ZENER D   | MTZJ5.6B       | 1 | 224470562T |
| D5004  | ZENER D   | MTZJ5.6B       | 1 | 224470562T |
| D5005  | ZENER D   | MTZJ5.6B       | 1 | 224470562T |
| D5006  | ZENER D   | MTZJ5.6B       | 1 | 224470562T |
| D6000  | DIODE     | 1SS133         | 1 | 223163T    |
| D6001  | DIODE     | 1SS133         | 1 | 223163T    |
| D6002  | DIODE     | 1SS133         | 1 | 223163T    |
| D6003  | DIODE     | 1SS133         | 1 | 223163T    |
| D6004  | DIODE     | 1SS133         | 1 | 223163T    |
| D6005  | DIODE     | 1SS133         | 1 | 223163T    |
| D6006  | DIODE     | 1SS133         | 1 | 223163T    |
| L6000  | FR CORE   | *              | 1 | 5597-45502 |
| L6001  | FR CORE   | *              | 1 | 5597-45502 |
| L6002  | FR CORE   | *              | 1 | 5597-45502 |
| L6003  | FR CORE   | *              | 1 | 5597-45502 |
| L6004  | FR CORE   | *              | 1 | 5597-45502 |
| L6005  | FR CORE   | *              | 1 | 5597-45502 |
| L6006  | FR CORE   | *              | 1 | 5597-45502 |
| L6010  | FR CORE   | *              | 1 | 5597-45502 |

|       |         |                       |   |            |
|-------|---------|-----------------------|---|------------|
| L6011 | FR CORE | *                     | 1 | 5597-45502 |
| L6012 | FR CORE | *                     | 1 | 5597-45502 |
| L6013 | FR CORE | *                     | 1 | 5597-45502 |
| L6014 | FR CORE | *                     | 1 | 5597-45502 |
| L6015 | FR CORE | *                     | 1 | 5597-45502 |
| L6016 | FR CORE | *                     | 1 | 5597-45502 |
| C5010 | UTSJ C  | CE04W25V-47M(UTSJ)    | 1 | 398054707T |
| C5011 | UTSJ C  | CE04W25V-47M(UTSJ)    | 1 | 398054707T |
| C5012 | UTSJ C  | CE04W25V-47M(UTSJ)    | 1 | 398054707T |
| C5013 | UTSJ C  | CE04W25V-47M(UTSJ)    | 1 | 398054707T |
| C5014 | UTSJ C  | CE04W25V-47M(UTSJ)    | 1 | 398054707T |
| C5015 | UTSJ C  | CE04W25V-47M(UTSJ)    | 1 | 398054707T |
| C5016 | UTSJ C  | CE04W25V-47M(UTSJ)    | 1 | 398054707T |
| C5020 | TF C    | ECQ-B50V-471J         | 1 | 374724714T |
| C5021 | TF C    | ECQ-B50V-471J         | 1 | 374724714T |
| C5022 | TF C    | ECQ-B50V-471J         | 1 | 374724714T |
| C5023 | TF C    | ECQ-B50V-471J         | 1 | 374724714T |
| C5024 | TF C    | ECQ-B50V-471J         | 1 | 374724714T |
| C5025 | TF C    | ECQ-B50V-471J         | 1 | 374724714T |
| C5026 | TF C    | ECQ-B50V-471J         | 1 | 374724714T |
| C5040 | UTSP C  | CE04W25V-220M(UTSP)   | 1 | 397552217T |
| C5041 | UTSP C  | CE04W25V-220M(UTSP)   | 1 | 397552217T |
| C5042 | UTSP C  | CE04W25V-220M(UTSP)   | 1 | 397552217T |
| C5043 | UTSP C  | CE04W25V-220M(UTSP)   | 1 | 397552217T |
| C5044 | UTSP C  | CE04W25V-220M(UTSP)   | 1 | 397552217T |
| C5045 | UTSP C  | CE04W25V-220M(UTSP)   | 1 | 397552217T |
| C5046 | UTSP C  | CE04W25V-220M(UTSP)   | 1 | 397552217T |
| C5050 | UTSP C  | CE04W50V-10M(UTSP)    | 1 | 397581007T |
| C5051 | UTSP C  | CE04W50V-10M(UTSP)    | 1 | 397581007T |
| C5052 | UTSP C  | CE04W50V-10M(UTSP)    | 1 | 397581007T |
| C5053 | UTSP C  | CE04W50V-10M(UTSP)    | 1 | 397581007T |
| C5054 | UTSP C  | CE04W50V-10M(UTSP)    | 1 | 397581007T |
| C5055 | UTSP C  | CE04W50V-10M(UTSP)    | 1 | 397581007T |
| C5056 | UTSP C  | CE04W50V-10M(UTSP)    | 1 | 397581007T |
| C5070 | VX C    | CE04W100V-10M(VX_BLK) | 1 | 397391007T |
| C5071 | VX C    | CE04W100V-10M(VX_BLK) | 1 | 397391007T |
| C5072 | VX C    | CE04W100V-10M(VX_BLK) | 1 | 397391007T |
| C5073 | VX C    | CE04W100V-10M(VX_BLK) | 1 | 397391007T |
| C5074 | VX C    | CE04W100V-10M(VX_BLK) | 1 | 397391007T |
| C5075 | VX C    | CE04W100V-10M(VX_BLK) | 1 | 397391007T |
| C5076 | VX C    | CE04W100V-10M(VX_BLK) | 1 | 397391007T |
| C5080 | VX C    | CE04W63V-22M(VX_BLK)  | 1 | 397372207T |
| C5081 | VX C    | CE04W63V-22M(VX_BLK)  | 1 | 397372207T |
| C5082 | VX C    | CE04W63V-22M(VX_BLK)  | 1 | 397372207T |
| C5083 | VX C    | CE04W63V-22M(VX_BLK)  | 1 | 397372207T |
| C5084 | VX C    | CE04W63V-22M(VX_BLK)  | 1 | 397372207T |
| C5085 | VX C    | CE04W63V-22M(VX_BLK)  | 1 | 397372207T |
| C5086 | VX C    | CE04W63V-22M(VX_BLK)  | 1 | 397372207T |

|       |        |                    |   |            |
|-------|--------|--------------------|---|------------|
| C5100 | TF C   | ECQ-B50V-101K      | 1 | 374721015T |
| C5101 | TF C   | ECQ-B50V-101K      | 1 | 374721015T |
| C5102 | TF C   | ECQ-B50V-101K      | 1 | 374721015T |
| C5103 | TF C   | ECQ-B50V-101K      | 1 | 374721015T |
| C5104 | TF C   | ECQ-B50V-101K      | 1 | 374721015T |
| C5105 | TF C   | ECQ-B50V-101K      | 1 | 374721015T |
| C5106 | TF C   | ECQ-B50V-101K      | 1 | 374721015T |
| C5110 | CERA C | CC45CH50V-010C     | 1 | 345340101T |
| C5111 | CERA C | CC45CH50V-010C     | 1 | 345340101T |
| C5112 | CERA C | CC45CH50V-010C     | 1 | 345340101T |
| C5113 | CERA C | CC45CH50V-010C     | 1 | 345340101T |
| C5114 | CERA C | CC45CH50V-010C     | 1 | 345340101T |
| C5115 | CERA C | CC45CH50V-010C     | 1 | 345340101T |
| C5116 | CERA C | CC45CH50V-010C     | 1 | 345340101T |
| C5120 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5121 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5122 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5123 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5124 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5125 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5126 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5130 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5131 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5132 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5133 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5134 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5135 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C5136 | VR C   | CE04W100V-100M(VR) | 1 | 394691017S |
| C6000 | TF C   | ECQ-B50V-102J      | 1 | 374721024T |
| C6001 | TF C   | ECQ-B50V-102J      | 1 | 374721024T |
| C6002 | TF C   | ECQ-B50V-102J      | 1 | 374721024T |
| C6003 | TF C   | ECQ-B50V-102J      | 1 | 374721024T |
| C6004 | TF C   | ECQ-B50V-102J      | 1 | 374721024T |
| C6005 | TF C   | ECQ-B50V-102J      | 1 | 374721024T |
| C6006 | TF C   | ECQ-B50V-102J      | 1 | 374721024T |
| C6010 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6011 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6012 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6013 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6014 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6015 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6016 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6020 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6021 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6022 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6023 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6024 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6025 | UTSP C | CE04W50V 47M(UTSP) | 1 | 397584707T |

|       |          |                    |   |            |
|-------|----------|--------------------|---|------------|
| C6026 | UTSP C   | CE04W50V 47M(UTSP) | 1 | 397584707T |
| C6040 | TF C     | ECQ-B50V-223J      | 1 | 374722234T |
| C6041 | TF C     | ECQ-B50V-223J      | 1 | 374722234T |
| C6042 | TF C     | ECQ-B50V-223J      | 1 | 374722234T |
| C6043 | TF C     | ECQ-B50V-223J      | 1 | 374722234T |
| C6044 | TF C     | ECQ-B50V-223J      | 1 | 374722234T |
| C6045 | TF C     | ECQ-B50V-223J      | 1 | 374722234T |
| C6046 | TF C     | ECQ-B50V-223J      | 1 | 374722234T |
| R5000 | CARBON R | R16J-1K            | 1 | 417341024T |
| R5001 | CARBON R | R16J-1K            | 1 | 417341024T |
| R5002 | CARBON R | R16J-1K            | 1 | 417341024T |
| R5003 | CARBON R | R16J-1K            | 1 | 417341024T |
| R5004 | CARBON R | R16J-1K            | 1 | 417341024T |
| R5005 | CARBON R | R16J-1K            | 1 | 417341024T |
| R5006 | CARBON R | R16J-1K            | 1 | 417341024T |
| R5010 | CARBON R | R16J-56K           | 1 | 417345634T |
| R5011 | CARBON R | R16J-56K           | 1 | 417345634T |
| R5012 | CARBON R | R16J-56K           | 1 | 417345634T |
| R5013 | CARBON R | R16J-56K           | 1 | 417345634T |
| R5014 | CARBON R | R16J-56K           | 1 | 417345634T |
| R5015 | CARBON R | R16J-56K           | 1 | 417345634T |
| R5016 | CARBON R | R16J-56K           | 1 | 417345634T |
| R5020 | CARBON R | R16J-330           | 1 | 417343314T |
| R5021 | CARBON R | R16J-330           | 1 | 417343314T |
| R5022 | CARBON R | R16J-330           | 1 | 417343314T |
| R5023 | CARBON R | R16J-330           | 1 | 417343314T |
| R5024 | CARBON R | R16J-330           | 1 | 417343314T |
| R5025 | CARBON R | R16J-330           | 1 | 417343314T |
| R5026 | CARBON R | R16J-330           | 1 | 417343314T |
| R5030 | CARBON R | R16J-330           | 1 | 417343314T |
| R5031 | CARBON R | R16J-330           | 1 | 417343314T |
| R5032 | CARBON R | R16J-330           | 1 | 417343314T |
| R5033 | CARBON R | R16J-330           | 1 | 417343314T |
| R5034 | CARBON R | R16J-330           | 1 | 417343314T |
| R5035 | CARBON R | R16J-330           | 1 | 417343314T |
| R5036 | CARBON R | R16J-330           | 1 | 417343314T |
| R5040 | CARBON R | R16J-330           | 1 | 417343314T |
| R5041 | CARBON R | R16J-330           | 1 | 417343314T |
| R5042 | CARBON R | R16J-330           | 1 | 417343314T |
| R5043 | CARBON R | R16J-330           | 1 | 417343314T |
| R5044 | CARBON R | R16J-330           | 1 | 417343314T |
| R5045 | CARBON R | R16J-330           | 1 | 417343314T |
| R5046 | CARBON R | R16J-330           | 1 | 417343314T |
| R5050 | CARBON R | R16J-5.6K          | 1 | 417345624T |
| R5051 | CARBON R | R16J-5.6K          | 1 | 417345624T |
| R5052 | CARBON R | R16J-5.6K          | 1 | 417345624T |
| R5053 | CARBON R | R16J-5.6K          | 1 | 417345624T |
| R5054 | CARBON R | R16J-5.6K          | 1 | 417345624T |

|       |             |           |   |            |
|-------|-------------|-----------|---|------------|
| R5055 | CARBON R    | R16J-5.6K | 1 | 417345624T |
| R5056 | CARBON R    | R16J-5.6K | 1 | 417345624T |
| R5060 | CARBON R    | R16J-2.7K | 1 | 417342724T |
| R5061 | CARBON R    | R16J-2.7K | 1 | 417342724T |
| R5062 | CARBON R    | R16J-2.7K | 1 | 417342724T |
| R5063 | CARBON R    | R16J-2.7K | 1 | 417342724T |
| R5064 | CARBON R    | R16J-2.7K | 1 | 417342724T |
| R5065 | CARBON R    | R16J-2.7K | 1 | 417342724T |
| R5066 | CARBON R    | R16J-2.7K | 1 | 417342724T |
| R5070 | CARBON R    | R16J-100K | 1 | 417341044T |
| R5071 | CARBON R    | R16J-100K | 1 | 417341044T |
| R5072 | CARBON R    | R16J-100K | 1 | 417341044T |
| R5073 | CARBON R    | R16J-100K | 1 | 417341044T |
| R5074 | CARBON R    | R16J-100K | 1 | 417341044T |
| R5075 | CARBON R    | R16J-100K | 1 | 417341044T |
| R5076 | CARBON R    | R16J-100K | 1 | 417341044T |
| R5090 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R5091 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R5092 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R5093 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R5094 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R5095 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R5096 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R5110 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5111 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5112 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5113 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5114 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5115 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5116 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5120 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5121 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5122 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5123 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5124 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5125 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5126 | CARBON R    | R16J-2.2K | 1 | 417342224T |
| R5130 | NF CARBON R | R25J-820  | 1 | 415478214T |
| R5131 | NF CARBON R | R25J-820  | 1 | 415478214T |
| R5132 | NF CARBON R | R25J-820  | 1 | 415478214T |
| R5133 | NF CARBON R | R25J-820  | 1 | 415478214T |
| R5134 | NF CARBON R | R25J-820  | 1 | 415478214T |
| R5135 | NF CARBON R | R25J-820  | 1 | 415478214T |
| R5136 | NF CARBON R | R25J-820  | 1 | 415478214T |
| R5140 | NF CARBON R | R25J-820  | 1 | 415478214T |
| R5141 | NF CARBON R | R25J-820  | 1 | 415478214T |
| R5142 | NF CARBON R | R25J-820  | 1 | 415478214T |
| R5143 | NF CARBON R | R25J-820  | 1 | 415478214T |

|       |             |              |   |            |
|-------|-------------|--------------|---|------------|
| R5144 | NF CARBON R | R25J-820     | 1 | 415478214T |
| R5145 | NF CARBON R | R25J-820     | 1 | 415478214T |
| R5146 | NF CARBON R | R25J-820     | 1 | 415478214T |
| R5150 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5151 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5152 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5153 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5154 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5155 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5156 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5160 | NF CARBON R | R25J-1.0K    | 1 | 415471024T |
| R5161 | NF CARBON R | R25J-1.0K    | 1 | 415471024T |
| R5162 | NF CARBON R | R25J-1.0K    | 1 | 415471024T |
| R5163 | NF CARBON R | R25J-1.0K    | 1 | 415471024T |
| R5164 | NF CARBON R | R25J-1.0K    | 1 | 415471024T |
| R5165 | NF CARBON R | R25J-1.0K    | 1 | 415471024T |
| R5166 | NF CARBON R | R25J-1.0K    | 1 | 415471024T |
| R5170 | NF CARBON R | R25J-820     | 1 | 415478214T |
| R5171 | NF CARBON R | R25J-820     | 1 | 415478214T |
| R5172 | NF CARBON R | R25J-820     | 1 | 415478214T |
| R5173 | NF CARBON R | R25J-820     | 1 | 415478214T |
| R5174 | NF CARBON R | R25J-820     | 1 | 415478214T |
| R5175 | NF CARBON R | R25J-820     | 1 | 415478214T |
| R5176 | NF CARBON R | R25J-820     | 1 | 415478214T |
| R5180 | NF CARBON R | R25J-33      | 1 | 415473304T |
| R5181 | NF CARBON R | R25J-33      | 1 | 415473304T |
| R5182 | NF CARBON R | R25J-33      | 1 | 415473304T |
| R5183 | NF CARBON R | R25J-33      | 1 | 415473304T |
| R5184 | NF CARBON R | R25J-33      | 1 | 415473304T |
| R5185 | NF CARBON R | R25J-33      | 1 | 415473304T |
| R5186 | NF CARBON R | R25J-33      | 1 | 415473304T |
| R5210 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5211 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5212 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5213 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5214 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5215 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5216 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5220 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5221 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5222 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5223 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5224 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5225 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5226 | CARBON R    | R16J-18K     | 1 | 417341834T |
| R5230 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5231 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5232 | NF CARBON R | R25J-15      | 1 | 415471504T |

|       |             |              |   |            |
|-------|-------------|--------------|---|------------|
| R5233 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5234 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5235 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5236 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5240 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5241 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5242 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5243 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5244 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5245 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5246 | NF CARBON R | R25J-15      | 1 | 415471504T |
| R5250 | CARBON R    | R16J-68K     | 1 | 417346834T |
| R5251 | CARBON R    | R16J-68K     | 1 | 417346834T |
| R5252 | CARBON R    | R16J-68K     | 1 | 417346834T |
| R5253 | CARBON R    | R16J-68K     | 1 | 417346834T |
| R5254 | CARBON R    | R16J-68K     | 1 | 417346834T |
| R5255 | CARBON R    | R16J-68K     | 1 | 417346834T |
| R5256 | CARBON R    | R16J-68K     | 1 | 417346834T |
| R5260 | CARBON R    | R16J-270K    | 1 | 417342744T |
| R5261 | CARBON R    | R16J-270K    | 1 | 417342744T |
| R5262 | CARBON R    | R16J-270K    | 1 | 417342744T |
| R5263 | CARBON R    | R16J-270K    | 1 | 417342744T |
| R5264 | CARBON R    | R16J-270K    | 1 | 417342744T |
| R5265 | CARBON R    | R16J-270K    | 1 | 417342744T |
| R5266 | CARBON R    | R16J-270K    | 1 | 417342744T |
| R5280 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5281 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5282 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5283 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5284 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5285 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5286 | METAL O R   | RS1/2WBJ-10K | 1 | 443521034T |
| R5290 | CARBON R    | R16J-100K    | 1 | 417341044T |
| R5291 | CARBON R    | R16J-100K    | 1 | 417341044T |
| R5292 | CARBON R    | R16J-100K    | 1 | 417341044T |
| R5293 | CARBON R    | R16J-100K    | 1 | 417341044T |
| R5294 | CARBON R    | R16J-100K    | 1 | 417341044T |
| R5295 | CARBON R    | R16J-100K    | 1 | 417341044T |
| R5296 | CARBON R    | R16J-100K    | 1 | 417341044T |
| R5300 | NF CARBON R | R25J-82      | 1 | 415478204T |
| R5301 | NF CARBON R | R25J-82      | 1 | 415478204T |
| R5302 | NF CARBON R | R25J-82      | 1 | 415478204T |
| R5303 | NF CARBON R | R25J-82      | 1 | 415478204T |
| R5304 | NF CARBON R | R25J-82      | 1 | 415478204T |
| R5305 | NF CARBON R | R25J-82      | 1 | 415478204T |
| R5306 | NF CARBON R | R25J-82      | 1 | 415478204T |
| R5330 | NF CARBON R | R25J-82      | 1 | 415478204T |
| R5331 | NF CARBON R | R25J-82      | 1 | 415478204T |

|       |             |           |   |            |
|-------|-------------|-----------|---|------------|
| R5332 | NF CARBON R | R25J-82   | 1 | 415478204T |
| R5333 | NF CARBON R | R25J-82   | 1 | 415478204T |
| R5334 | NF CARBON R | R25J-82   | 1 | 415478204T |
| R5335 | NF CARBON R | R25J-82   | 1 | 415478204T |
| R5336 | NF CARBON R | R25J-82   | 1 | 415478204T |
| R5360 | CARBON R    | R16J-120K | 1 | 417341244T |
| R5361 | CARBON R    | R16J-120K | 1 | 417341244T |
| R5362 | CARBON R    | R16J-120K | 1 | 417341244T |
| R5363 | CARBON R    | R16J-120K | 1 | 417341244T |
| R5364 | CARBON R    | R16J-120K | 1 | 417341244T |
| R5365 | CARBON R    | R16J-120K | 1 | 417341244T |
| R5366 | CARBON R    | R16J-120K | 1 | 417341244T |
| R5370 | CARBON R    | R16J-560K | 1 | 417345644T |
| R5371 | CARBON R    | R16J-560K | 1 | 417345644T |
| R5372 | CARBON R    | R16J-560K | 1 | 417345644T |
| R5373 | CARBON R    | R16J-560K | 1 | 417345644T |
| R5374 | CARBON R    | R16J-560K | 1 | 417345644T |
| R5375 | CARBON R    | R16J-560K | 1 | 417345644T |
| R5376 | CARBON R    | R16J-560K | 1 | 417345644T |
| R6010 | CARBON R    | R16J-4.7K | 1 | 417344724T |
| R6011 | CARBON R    | R16J-4.7K | 1 | 417344724T |
| R6012 | CARBON R    | R16J-4.7K | 1 | 417344724T |
| R6013 | CARBON R    | R16J-4.7K | 1 | 417344724T |
| R6014 | CARBON R    | R16J-4.7K | 1 | 417344724T |
| R6015 | CARBON R    | R16J-4.7K | 1 | 417344724T |
| R6016 | CARBON R    | R16J-4.7K | 1 | 417344724T |
| R6020 | CARBON R    | R16J-3.3K | 1 | 417343324T |
| R6021 | CARBON R    | R16J-3.3K | 1 | 417343324T |
| R6022 | CARBON R    | R16J-3.3K | 1 | 417343324T |
| R6023 | CARBON R    | R16J-3.3K | 1 | 417343324T |
| R6024 | CARBON R    | R16J-3.3K | 1 | 417343324T |
| R6025 | CARBON R    | R16J-3.3K | 1 | 417343324T |
| R6026 | CARBON R    | R16J-3.3K | 1 | 417343324T |
| R6030 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R6031 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R6032 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R6033 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R6034 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R6035 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R6036 | CARBON R    | R16J-1.8K | 1 | 417341824T |
| R6040 | TRIM R      | N06HR1KBB | 1 | 5211401T   |
| R6041 | TRIM R      | N06HR1KBB | 1 | 5211401T   |
| R6042 | TRIM R      | N06HR1KBB | 1 | 5211401T   |
| R6043 | TRIM R      | N06HR1KBB | 1 | 5211401T   |
| R6044 | TRIM R      | N06HR1KBB | 1 | 5211401T   |
| R6045 | TRIM R      | N06HR1KBB | 1 | 5211401T   |
| R6046 | TRIM R      | N06HR1KBB | 1 | 5211401T   |
| R6050 | CARBON R    | R16J-2.7K | 1 | 417342724T |

|       |             |             |   |            |
|-------|-------------|-------------|---|------------|
| R6051 | CARBON R    | R16J-2.7K   | 1 | 417342724T |
| R6052 | CARBON R    | R16J-2.7K   | 1 | 417342724T |
| R6053 | CARBON R    | R16J-2.7K   | 1 | 417342724T |
| R6054 | CARBON R    | R16J-2.7K   | 1 | 417342724T |
| R6055 | CARBON R    | R16J-2.7K   | 1 | 417342724T |
| R6056 | CARBON R    | R16J-2.7K   | 1 | 417342724T |
| R6060 | NF CARBON R | R25J-120    | 1 | 415471214T |
| R6061 | NF CARBON R | R25J-120    | 1 | 415471214T |
| R6062 | NF CARBON R | R25J-120    | 1 | 415471214T |
| R6063 | NF CARBON R | R25J-120    | 1 | 415471214T |
| R6064 | NF CARBON R | R25J-120    | 1 | 415471214T |
| R6065 | NF CARBON R | R25J-120    | 1 | 415471214T |
| R6066 | NF CARBON R | R25J-120    | 1 | 415471214T |
| R6070 | NF CARBON R | R25J-82     | 1 | 415478204T |
| R6071 | NF CARBON R | R25J-82     | 1 | 415478204T |
| R6072 | NF CARBON R | R25J-82     | 1 | 415478204T |
| R6073 | NF CARBON R | R25J-82     | 1 | 415478204T |
| R6074 | NF CARBON R | R25J-82     | 1 | 415478204T |
| R6075 | NF CARBON R | R25J-82     | 1 | 415478204T |
| R6076 | NF CARBON R | R25J-82     | 1 | 415478204T |
| R6080 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6081 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6082 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6083 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6084 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6085 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6086 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6090 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6091 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6092 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6093 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6094 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6095 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6096 | METAL O R   | RS1/2WBJ-10 | 1 | 443521004T |
| R6110 | CARBON R    | R16J-10K    | 1 | 417341034T |
| R6111 | CARBON R    | R16J-10K    | 1 | 417341034T |
| R6112 | CARBON R    | R16J-10K    | 1 | 417341034T |
| R6113 | CARBON R    | R16J-10K    | 1 | 417341034T |
| R6114 | CARBON R    | R16J-10K    | 1 | 417341034T |
| R6115 | CARBON R    | R16J-10K    | 1 | 417341034T |
| R6116 | CARBON R    | R16J-10K    | 1 | 417341034T |
| R6150 | NF CARBON R | R25J-100    | 1 | 415471014T |
| R6151 | NF CARBON R | R25J-100    | 1 | 415471014T |
| R6152 | NF CARBON R | R25J-100    | 1 | 415471014T |
| R6153 | NF CARBON R | R25J-100    | 1 | 415471014T |
| R6154 | NF CARBON R | R25J-100    | 1 | 415471014T |
| R6155 | NF CARBON R | R25J-100    | 1 | 415471014T |
| R6156 | NF CARBON R | R25J-100    | 1 | 415471014T |

|       |             |           |   |            |
|-------|-------------|-----------|---|------------|
| R6160 | NF CARBON R | R25J-100  | 1 | 415471014T |
| R6161 | NF CARBON R | R25J-100  | 1 | 415471014T |
| R6162 | NF CARBON R | R25J-100  | 1 | 415471014T |
| R6163 | NF CARBON R | R25J-100  | 1 | 415471014T |
| R6164 | NF CARBON R | R25J-100  | 1 | 415471014T |
| R6165 | NF CARBON R | R25J-100  | 1 | 415471014T |
| R6166 | NF CARBON R | R25J-100  | 1 | 415471014T |
| R6170 | CARBON R    | R16J-33K  | 1 | 417343334T |
| R6171 | CARBON R    | R16J-33K  | 1 | 417343334T |
| R6172 | CARBON R    | R16J-33K  | 1 | 417343334T |
| R6173 | CARBON R    | R16J-33K  | 1 | 417343334T |
| R6174 | CARBON R    | R16J-33K  | 1 | 417343334T |
| R6175 | CARBON R    | R16J-33K  | 1 | 417343334T |
| R6176 | CARBON R    | R16J-33K  | 1 | 417343334T |
| R6180 | CARBON R    | R16J-15K  | 1 | 417341534T |
| R6181 | CARBON R    | R16J-15K  | 1 | 417341534T |
| R6182 | CARBON R    | R16J-15K  | 1 | 417341534T |
| R6183 | CARBON R    | R16J-15K  | 1 | 417341534T |
| R6184 | CARBON R    | R16J-15K  | 1 | 417341534T |
| R6185 | CARBON R    | R16J-15K  | 1 | 417341534T |
| R6186 | CARBON R    | R16J-15K  | 1 | 417341534T |
| R6190 | CARBON R    | R16J-5.6K | 1 | 417345624T |
| R6191 | CARBON R    | R16J-5.6K | 1 | 417345624T |
| R6192 | CARBON R    | R16J-5.6K | 1 | 417345624T |
| R6193 | CARBON R    | R16J-5.6K | 1 | 417345624T |
| R6194 | CARBON R    | R16J-5.6K | 1 | 417345624T |
| R6195 | CARBON R    | R16J-5.6K | 1 | 417345624T |
| R6196 | CARBON R    | R16J-5.6K | 1 | 417345624T |
| R6210 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6211 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6212 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6213 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6214 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6215 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6216 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6230 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6231 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6232 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6233 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6234 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6235 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6236 | CARBON R    | R16J-47K  | 1 | 417344734T |
| R6250 | NF CARBON R | R25J-120  | 1 | 415471214T |
| R6251 | NF CARBON R | R25J-120  | 1 | 415471214T |
| R6252 | NF CARBON R | R25J-120  | 1 | 415471214T |
| R6253 | NF CARBON R | R25J-120  | 1 | 415471214T |
| R6254 | NF CARBON R | R25J-120  | 1 | 415471214T |
| R6255 | NF CARBON R | R25J-120  | 1 | 415471214T |

|       |             |                |   |            |
|-------|-------------|----------------|---|------------|
| R6256 | NF CARBON R | R25J-120       | 1 | 415471214T |
| R6260 | NF CARBON R | R25J-120       | 1 | 415471214T |
| R6261 | NF CARBON R | R25J-120       | 1 | 415471214T |
| R6262 | NF CARBON R | R25J-120       | 1 | 415471214T |
| R6263 | NF CARBON R | R25J-120       | 1 | 415471214T |
| R6264 | NF CARBON R | R25J-120       | 1 | 415471214T |
| R6265 | NF CARBON R | R25J-120       | 1 | 415471214T |
| R6266 | NF CARBON R | R25J-120       | 1 | 415471214T |
| R6270 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6271 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6272 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6273 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6274 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6275 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6276 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6280 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6281 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6282 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6283 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6284 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6285 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6286 | NF CARBON R | R25J-18        | 1 | 415471804T |
| R6290 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6291 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6292 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6293 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6294 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6295 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6296 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6300 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6301 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6302 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6303 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6304 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6305 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6306 | NF CARBON R | R25J-2.2       | 1 | 415470224T |
| R6310 | NF CARBON R | R25J-10        | 1 | 415471004T |
| R6311 | NF CARBON R | R25J-10        | 1 | 415471004T |
| R6312 | NF CARBON R | R25J-10        | 1 | 415471004T |
| R6313 | NF CARBON R | R25J-10        | 1 | 415471004T |
| R6314 | NF CARBON R | R25J-10        | 1 | 415471004T |
| R6315 | NF CARBON R | R25J-10        | 1 | 415471004T |
| R6316 | NF CARBON R | R25J-10        | 1 | 415471004T |
| R6330 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6331 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6332 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6333 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6334 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |

|       |             |                |   |            |
|-------|-------------|----------------|---|------------|
| R6335 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6336 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6340 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6341 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6342 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6343 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6344 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6345 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6346 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6350 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6351 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6352 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6353 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6354 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6355 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6356 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6360 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6361 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6362 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6363 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6364 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6365 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6366 | METAL R     | RNU1/2WCJ-0.22 | 1 | 453532294T |
| R6400 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6401 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6402 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6403 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6404 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6405 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6406 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6410 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6411 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6412 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6413 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6414 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6415 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6416 | METAL PR    | MPR5W+5W 0R22  | 1 | 4000233S   |
| R6650 | NF CARBON R | R25J-100       | 1 | 415471014T |
| R6651 | NF CARBON R | R25J-100       | 1 | 415471014T |
| R6652 | NF CARBON R | R25J-100       | 1 | 415471014T |
| R6653 | NF CARBON R | R25J-100       | 1 | 415471014T |
| R6654 | NF CARBON R | R25J-100       | 1 | 415471014T |
| R6655 | NF CARBON R | R25J-100       | 1 | 415471014T |
| R6656 | NF CARBON R | R25J-100       | 1 | 415471014T |
| R6660 | NF CARBON R | R25J-100       | 1 | 415471014T |
| R6661 | NF CARBON R | R25J-100       | 1 | 415471014T |
| R6662 | NF CARBON R | R25J-100       | 1 | 415471014T |
| R6663 | NF CARBON R | R25J-100       | 1 | 415471014T |

|         |             |                         |   |            |
|---------|-------------|-------------------------|---|------------|
| R6664   | NF CARBON R | R25J-100                | 1 | 415471014T |
| R6665   | NF CARBON R | R25J-100                | 1 | 415471014T |
| R6666   | NF CARBON R | R25J-100                | 1 | 415471014T |
| JL6041B | WIRE TRAP   | NPLG-3P586              | 1 | 25055624   |
| JL6042A | WIRE HOL    | NSCT-3P874              | 1 | 25051087   |
| JL6042B | WIRE TRAP   | NPLG-3P586              | 1 | 25055624   |
| P5010A  | SOCKET      | NSCT-3P2183             | 1 | 25052286   |
| P5011A  | SOCKET      | NSCT-3P2183             | 1 | 25052286   |
| P5012A  | SOCKET      | NSCT-3P2183             | 1 | 25052286   |
| P5013A  | SOCKET      | NSCT-3P2183             | 1 | 25052286   |
| P5014A  | SOCKET      | NSCT-3P2183             | 1 | 25052286   |
| P5015A  | SOCKET      | NSCT-3P2183             | 1 | 25052286   |
| P5016A  | SOCKET      | NSCT-3P2183             | 1 | 25052286   |
| P5020A  | TRM         | NTM-1P233(M1969)        | 1 | 25060302   |
| P5021A  | TRM         | NTM-1P233(M1969)        | 1 | 25060302   |
| P5022A  | TRM         | NTM-1P233(M1969)        | 1 | 25060302   |
| P5023A  | TRM         | NTM-1P233(M1969)        | 1 | 25060302   |
| P5024A  | TRM         | NTM-1P233(M1969)        | 1 | 25060302   |
| P5025A  | TRM         | NTM-1P233(M1969)        | 1 | 25060302   |
| P5026A  | TRM         | NTM-1P233(M1969)        | 1 | 25060302   |
| P6010A  | SOCKET      | NSCT-4P2184             | 1 | 25052287   |
| P6011A  | SOCKET      | NSCT-4P2184             | 1 | 25052287   |
| P6012A  | SOCKET      | NSCT-4P2184             | 1 | 25052287   |
| P6013A  | SOCKET      | NSCT-4P2184             | 1 | 25052287   |
| P6014A  | SOCKET      | NSCT-4P2184             | 1 | 25052287   |
| P6015A  | SOCKET      | NSCT-4P2184             | 1 | 25052287   |
| P6016A  | SOCKET      | NSCT-4P2184             | 1 | 25052287   |
| P6030A  | PLUG        | IMSA-9115B-06           | 1 | 25056336   |
| P6030B  | SOCKET      | IMSA-9115S-06L          | 1 | 25052986   |
| P6031A  | PLUG        | IMSA-9115B-06           | 1 | 25056336   |
| P6031B  | SOCKET      | IMSA-9115S-06L          | 1 | 25052986   |
| P6032A  | PLUG        | IMSA-9115B-06           | 1 | 25056336   |
| P6032B  | SOCKET      | IMSA-9115S-06L          | 1 | 25052986   |
| P6033A  | PLUG        | IMSA-9115B-06           | 1 | 25056336   |
| P6033B  | SOCKET      | IMSA-9115S-06L          | 1 | 25052986   |
| P6034A  | PLUG        | IMSA-9115B-06           | 1 | 25056336   |
| P6034B  | SOCKET      | IMSA-9115S-06L          | 1 | 25052986   |
| P6035A  | PLUG        | IMSA-9115B-06           | 1 | 25056336   |
| P6035B  | SOCKET      | IMSA-9115S-06L          | 1 | 25052986   |
| P6036A  | PLUG        | IMSA-9115B-06           | 1 | 25056336   |
| P6036B  | SOCKET      | IMSA-9115S-06L          | 1 | 25052986   |
| P6050   | PLUG        | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614   |
| P6051   | PLUG        | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614   |
| P6052   | PLUG        | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614   |
| P6053   | PLUG        | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614   |
| P6054   | PLUG        | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614   |
| P6055   | PLUG        | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614   |
| P6056   | PLUG        | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614   |

|        |           |                         |   |               |  |
|--------|-----------|-------------------------|---|---------------|--|
| P6060  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6061  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6062  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6063  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6064  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6065  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6066  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6070  | PLUG      | NPLG-2P645              | 1 | 25055689      |  |
| P6071  | PLUG      | NPLG-2P645              | 1 | 25055689      |  |
| P6072  | PLUG      | NPLG-2P645              | 1 | 25055689      |  |
| P6073  | PLUG      | NPLG-2P645              | 1 | 25055689      |  |
| P6074  | PLUG      | NPLG-2P645              | 1 | 25055689      |  |
| P6075  | PLUG      | NPLG-2P645              | 1 | 25055689      |  |
| P6076  | PLUG      | NPLG-2P645              | 1 | 25055689      |  |
| P6080  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6081  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6082  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6083  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6084  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6085  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6086  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6090  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6091  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6092  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6093  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6094  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6095  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6096  | PLUG      | IMSA-9201B-1-06Z388-PT1 | 1 | 25056614      |  |
| P6240  | SOCKET AS | NSAS-3P1658             | 1 | 2009991062AUL |  |
| P6250  | SOCKET AS | NSAS-4P1657             | 1 | 2009991061UL  |  |
| P6340A | PLUG      | NPLG-2P149              | 1 | 25055165      |  |
| P6340B | RETAINER  | (BUS-1)                 | 1 | 27142056      |  |
| P6340C | RETAINER  | (BUS-1)                 | 1 | 27142056      |  |
| P6350A | PLUG      | NPLG-2P149              | 1 | 25055165      |  |
| P6350B | RETAINER  | (BUS-2)                 | 1 | 27142057      |  |
| P6350C | RETAINER  | (BUS-2)                 | 1 | 27142057      |  |

**U25 DSP PC BOARD (NADSP-9072-1B)**

| REF. NO. | PART NAME | DESCRIPTION         | Q'TY | PART NO. (SN)  | REMARKS |
|----------|-----------|---------------------|------|----------------|---------|
| Q3301    | IC        | TC74VHC157FT        | 1    | 22274157ER2TO  |         |
| Q3311    | IC        | TC74VHC157FT        | 1    | 22274157ER2TO  |         |
| Q3325    | IC        | TC74VHC157FT        | 1    | 22274157ER2TO  |         |
| Q3331    | IC        | TC74VHC157FT        | 1    | 22274157ER2TO  |         |
| Q3351    | IC        | TC74VHC157FT        | 1    | 22274157ER2TO  |         |
| Q3371    | IC        | TC74VHC157FT        | 1    | 22274157ER2TO  |         |
| Q3391    | IC        | TC74VHCT08AFT (EKJ) | 1    | 22274008G1R2TO |         |
| Q3391 or | IC        | TC74VHCT08AFT       | ( 1) | 22274008GR2TO  |         |

|          |                 |                         |     |                 |     |
|----------|-----------------|-------------------------|-----|-----------------|-----|
| Q3401    | IC              | D790E001BZDH300         | 1   | ---             | NSP |
| Q3451    | IC(DSP1 MEMORY) | ES29LV160ET-70TG(0274)  | 1   | 222W0069R302746 |     |
| Q3451 or | IC(DSP1 MEMORY) | S29AL016D70TFI010(0274) | (1) | 222W0063R302746 |     |
| Q3461    | IC              | RMS116T(LF)             | 1   | 22242340R3      |     |
| Q3461 or | IC              | M12L16161A-7TG          | (1) | 22242278R3      |     |
| Q3461 or | IC              | IS42S16100C1-7TL        | (1) | 22242123R2      |     |
| Q3461 or | IC              | IC42S16100              | (1) | 22242123R3      |     |
| Q3471    | IC              | RMS116T(LF)             | 1   | 22242340R3      |     |
| Q3471 or | IC              | M12L16161A-7TG          | (1) | 22242278R3      |     |
| Q3471 or | IC              | IS42S16100C1-7TL        | (1) | 22242123R2      |     |
| Q3471 or | IC              | IC42S16100              | (1) | 22242123R3      |     |
| Q3481    | IC              | TC7WU04FU(TE12L_F)      | 1   | 22240935R2      |     |
| Q3491    | IC              | TC74VHC541FT            | 1   | 22274541ER2TO   |     |
| Q3491 or | IC              | TC74VHC541FT(EKJ)       | (1) | 22274541E1R2TO  |     |
| Q3501    | IC              | D788E001BRFP266         | 1   | ---             | NSP |
| Q3551    | IC(DSP2 MEMORY) | ES29LV400ET-70TG(0275)  | 1   | 222W0065R302757 |     |
| Q3551 or | IC(DSP2 MEMORY) | S29AL004D70TFI010(0275) | (1) | 222W0061R302757 |     |
| Q3561    | IC              | RMS116T(LF)             | 1   | 22242340R3      |     |
| Q3561 or | IC              | M12L16161A-7TG          | (1) | 22242278R3      |     |
| Q3561 or | IC              | IS42S16100C1-7TL        | (1) | 22242123R2      |     |
| Q3561 or | IC              | IC42S16100              | (1) | 22242123R3      |     |
| Q3571    | IC              | TC7WU04FU(TE12L_F)      | 1   | 22240935R2      |     |
| Q3601    | IC              | D707E001BRFP250         | 1   | ---             | NSP |
| Q3651    | IC(DSP3 MEMORY) | ES29LV800ET-70TG(0276)  | 1   | 222W0068R302768 |     |
| Q3651 or | IC(DSP3 MEMORY) | S29AL008D70TFI010(0276) | (1) | 222W0062R302768 |     |
| Q3661    | IC              | IS42S16400D-7TL         | 1   | 22241910R3      |     |
| Q3661 or | IC              | M12L64164A-7TG          | (1) | 22242441R3      |     |
| Q3661 or | IC              | K4S641632K-UC60         | (1) | 22242462R2      |     |
| Q7202    | IC              | BD7820                  | 1   | 22242300R2      |     |
| Q7222    | IC              | BD7820                  | 1   | 22242300R2      |     |
| Q7223    | IC              | BD7820                  | 1   | 22242300R2      |     |
| D7205    | C-DIODE         | 1SS352                  | 1   | 223234R2        |     |
| D7205 or | C-DIODE         | 1SS355                  | (1) | 223269R2        |     |
| D7205 or | C-DIODE         | MA2J1110GL              | (1) | 223302R2        |     |
| D7225    | C-DIODE         | 1SS352                  | 1   | 223234R2        |     |
| D7225 or | C-DIODE         | 1SS355                  | (1) | 223269R2        |     |
| D7225 or | C-DIODE         | MA2J1110GL              | (1) | 223302R2        |     |
| D7226    | C-DIODE         | 1SS352                  | 1   | 223234R2        |     |
| D7226 or | C-DIODE         | 1SS355                  | (1) | 223269R2        |     |
| D7226 or | C-DIODE         | MA2J1110GL              | (1) | 223302R2        |     |
| L3301    | CHOKE COIL      | LBC2518T470M            | 1   | 231364M470R2    |     |
| L3311    | EMIFIL          | BK1608HS102-T           | 1   | 230955R2        |     |
| L3312    | EMIFIL          | BK1608LM182-T           | 1   | 230958R1        |     |
| L3371    | EMIFIL          | BK1608LM182-T           | 1   | 230958R1        |     |
| L3372    | EMIFIL          | BK1608HS102-T           | 1   | 230955R2        |     |
| L3401    | EMIFIL          | ACF451832-333-T         | 1   | 230978R2        |     |
| L3402    | CHOKE COIL      | BLM21PG221SN1           | 1   | 230949R2        |     |
| L3403    | CHOKE COIL      | LBC2518T47M             | 1   | 231364M047R2    |     |

|       |              |                     |   |              |
|-------|--------------|---------------------|---|--------------|
| L3451 | CHOKE COIL   | BLM21PG221SN1       | 1 | 230949R2     |
| L3481 | EMIFIL       | BK1608LM182-T       | 1 | 230958R1     |
| L3482 | EMIFIL       | BK1608LM182-T       | 1 | 230958R1     |
| L3483 | CHOKE COIL   | LBC2518T470M        | 1 | 231364M470R2 |
| L3491 | CHOKE COIL   | LBC2518T470M        | 1 | 231364M470R2 |
| L3501 | EMIFIL       | ACF451832-333-T     | 1 | 230978R2     |
| L3541 | CHOKE COIL   | LBC2518T4R7M        | 1 | 231364M047R2 |
| L3542 | CHOKE COIL   | BLM21PG221SN1       | 1 | 230949R2     |
| L3551 | CHOKE COIL   | BLM21PG221SN1       | 1 | 230949R2     |
| L3571 | CHOKE COIL   | LBC2518T470M        | 1 | 231364M470R2 |
| L3572 | EMIFIL       | BK1608LM182-T       | 1 | 230958R1     |
| L3601 | EMIFIL       | ACF451832-333-T     | 1 | 230978R2     |
| L3602 | EMIFIL       | BK1608LL241-T       | 1 | 230959R1     |
| L3603 | EMIFIL       | BK1608HS102-T       | 1 | 230955R2     |
| L3641 | CHOKE COIL   | LBC2518T4R7M        | 1 | 231364M047R2 |
| L3642 | CHOKE COIL   | BLM21PG221SN1       | 1 | 230949R2     |
| L3651 | CHOKE COIL   | BLM21PG221SN1       | 1 | 230949R2     |
| X3481 | CRYSTAL      | HC-49USSMD25.00MHz  | 1 | 3010444R2    |
| X3571 | CRYSTAL      | HC-49USSMD17.734MHz | 1 | 3010442R2    |
| C3301 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3302 | CHIP ELECT C | CEWX4V-100M         | 1 | 3981G1017R2  |
| C3311 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3315 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3325 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3331 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3351 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3371 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3391 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3401 | C-CERA C     | CC725CH1H-101J1     | 1 | 342101014R1  |
| C3402 | CHIP ELECT C | CEWX4V-100M         | 1 | 3981G1017R2  |
| C3403 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3405 | CHIP ELECT C | CEWX4V-220M         | 1 | 3981G2217R2  |
| C3411 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3412 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3413 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3414 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3415 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3416 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3417 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3418 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3419 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3420 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3421 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3425 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3426 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3427 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3428 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |
| C3429 | C-CERA C     | CK725F1E-104Z1      | 1 | 332161040R1  |

|       |              |                 |   |             |
|-------|--------------|-----------------|---|-------------|
| C3430 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3431 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3432 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3433 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3434 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3435 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3451 | C-CERA C     | CC725CH1H-101J1 | 1 | 342101014R1 |
| C3452 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3453 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C3461 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3462 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3463 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3464 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3465 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3466 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3467 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C3471 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3472 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3473 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3474 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3475 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3476 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3477 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C3481 | C-CERA C     | CC725CH1H-090D1 | 1 | 342100902R1 |
| C3482 | C-CERA C     | CC725CH1H-090D1 | 1 | 342100902R1 |
| C3483 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3484 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C3491 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3501 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3502 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3503 | C-CERA C     | CC725CH1H-101J1 | 1 | 342101014R1 |
| C3504 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3505 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3506 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3507 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C3508 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3509 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3510 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3511 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3512 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3513 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3514 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3515 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3516 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3517 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3518 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3519 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3520 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |

|       |              |                 |   |             |
|-------|--------------|-----------------|---|-------------|
| C3521 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3522 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3523 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3524 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3525 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3526 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3527 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3528 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3529 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3541 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C3542 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C3551 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3552 | C-CERA C     | CC725CH1H-101J1 | 1 | 342101014R1 |
| C3553 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C3561 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3562 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3563 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3564 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3565 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3566 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3567 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C3571 | C-CERA C     | CC725CH1H-120J1 | 1 | 342101204R1 |
| C3572 | C-CERA C     | CC725CH1H-120J1 | 1 | 342101204R1 |
| C3573 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3574 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C3601 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3602 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3603 | C-CERA C     | CC725CH1H-101J1 | 1 | 342101014R1 |
| C3604 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3605 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3606 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3607 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C3608 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3609 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3610 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3611 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3612 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3613 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3614 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3615 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3616 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3617 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3618 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3619 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3620 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3621 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3622 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3623 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |

|       |              |                 |   |             |
|-------|--------------|-----------------|---|-------------|
| C3624 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3625 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3626 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3627 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3628 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3629 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3641 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C3642 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C3651 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3652 | C-CERA C     | CC725CH1H-101J1 | 1 | 342101014R1 |
| C3653 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C3661 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3662 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3663 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3664 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3665 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3666 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3667 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C3668 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C7204 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C7205 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C7206 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C7224 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C7225 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C7226 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C7227 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C7228 | C-CERA C     | CK725F1E-104Z1  | 1 | 332161040R1 |
| C7229 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| R3301 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |
| R3302 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |
| R3303 | C-CARBON R   | RN72K1J-470JE   | 1 | 435034704R1 |
| R3304 | C-CARBON R   | RN72K1J-470JE   | 1 | 435034704R1 |
| R3305 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |
| R3306 | C-CARBON R   | RN72K1J-470JE   | 1 | 435034704R1 |
| R3307 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |
| R3311 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |
| R3312 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |
| R3313 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |
| R3314 | C-CARBON R   | RN72K1J-470JE   | 1 | 435034704R1 |
| R3315 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |
| R3316 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |
| R3317 | C-CARBON R   | RN72K1J-470JE   | 1 | 435034704R1 |
| R3318 | C-CARBON R   | RN72K1J-470JE   | 1 | 435034704R1 |
| R3319 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |
| R3320 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |
| R3321 | C-CARBON R   | RN72K1J-470JE   | 1 | 435034704R1 |
| R3322 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |
| R3323 | C-CARBON R   | RN72K1J-331JE   | 1 | 435033314R1 |

|       |            |               |   |             |
|-------|------------|---------------|---|-------------|
| R3325 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3326 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3327 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3328 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3330 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3331 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3332 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3333 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3334 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3335 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3336 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3337 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3338 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3339 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3340 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3341 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3342 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3345 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R3351 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3352 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3353 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3354 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3355 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3356 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3357 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3358 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3359 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3360 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3361 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3362 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3371 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3373 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3374 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3376 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3377 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3379 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3380 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3381 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3382 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3391 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3401 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3402 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3403 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3404 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R3405 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3406 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3407 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3408 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |

|       |            |               |   |             |
|-------|------------|---------------|---|-------------|
| R3409 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3410 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3411 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3412 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3413 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3414 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3415 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3416 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3417 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3418 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3419 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3420 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3421 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3422 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3423 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3424 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3425 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3426 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3427 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3428 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3429 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3430 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3431 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3451 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3452 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3453 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3454 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3455 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3456 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3457 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3482 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R3483 | C-CARBON R | RN72K1J-105JE | 1 | 435031054R1 |
| R3491 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1 |
| R3492 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1 |
| R3493 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1 |
| R3494 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1 |
| R3495 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1 |
| R3496 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3501 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3502 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3503 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3504 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3505 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3506 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R3507 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3508 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3509 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3510 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |

|       |            |               |   |             |
|-------|------------|---------------|---|-------------|
| R3511 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3512 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3513 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3514 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3515 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3516 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3517 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3518 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3519 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3520 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3521 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3522 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3523 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3524 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3525 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3526 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3527 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3528 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3529 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3530 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3551 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3552 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3553 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3554 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3557 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3558 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3571 | C-CARBON R | RN72K1J-105JE | 1 | 435031054R1 |
| R3572 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R3601 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3602 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3603 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3604 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3605 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3606 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R3607 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3608 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3609 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3610 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3611 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3612 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3613 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3614 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3615 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3616 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3617 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3618 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3619 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3620 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |

|        |            |                  |   |             |  |
|--------|------------|------------------|---|-------------|--|
| R3621  | C-CARBON R | RN72K1J-331JE    | 1 | 435033314R1 |  |
| R3622  | C-CARBON R | RN72K1J-331JE    | 1 | 435033314R1 |  |
| R3623  | C-CARBON R | RN72K1J-331JE    | 1 | 435033314R1 |  |
| R3624  | C-CARBON R | RN72K1J-331JE    | 1 | 435033314R1 |  |
| R3625  | C-CARBON R | RN72K1J-103JE    | 1 | 435031034R1 |  |
| R3626  | C-CARBON R | RN72K1J-331JE    | 1 | 435033314R1 |  |
| R3627  | C-CARBON R | RN72K1J-331JE    | 1 | 435033314R1 |  |
| R3628  | C-CARBON R | RN72K1J-470JE    | 1 | 435034704R1 |  |
| R3629  | C-CARBON R | RN72K1J-103JE    | 1 | 435031034R1 |  |
| R3630  | C-CARBON R | RN72K1J-470JE    | 1 | 435034704R1 |  |
| R3651  | C-CARBON R | RN72K1J-103JE    | 1 | 435031034R1 |  |
| R3652  | C-CARBON R | RN72K1J-103JE    | 1 | 435031034R1 |  |
| R3653  | C-CARBON R | RN72K1J-103JE    | 1 | 435031034R1 |  |
| R3656  | C-CARBON R | RN72K1J-102JE    | 1 | 435031024R1 |  |
| R3657  | C-CARBON R | RN72K1J-103JE    | 1 | 435031034R1 |  |
| R3658  | C-CARBON R | RN72K1J-103JE    | 1 | 435031034R1 |  |
| R3659  | C-CARBON R | RN72K1J-103JE    | 1 | 435031034R1 |  |
| R7206  | C-CARBON R | RN72K1J-223JE    | 1 | 435032234R1 |  |
| R7207  | C-CARBON R | RN72K1J-153JE    | 1 | 435031534R1 |  |
| R7226  | C-CARBON R | RN72K1J-273JE    | 1 | 435032734R1 |  |
| R7227  | C-CARBON R | RN72K1J-273JE    | 1 | 435032734R1 |  |
| R7228  | C-CARBON R | RN72K1J-393JE    | 1 | 435033934R1 |  |
| R7229  | C-CARBON R | RN72K1J-273JE    | 1 | 435032734R1 |  |
| R7230  | C-CARBON R | RN72K1J-273JE    | 1 | 435032734R1 |  |
| R7239  | C-CARBON R | RN72K1J-393JE    | 1 | 435033934R1 |  |
| P3801B | SOCKET     | IMSA-9856S-30B-T | 1 | 25053236R2  |  |
| P3802B | SOCKET     | IMSA-9856S-30B-T | 1 | 25053236R2  |  |
| P3805A | PLUG       | NPLG-10P662      | 1 | 25055706    |  |

|            |                                                       |
|------------|-------------------------------------------------------|
| <b>U27</b> | <b>DAC PC BOARD(NADG-9074-1AG/1AH/1AJ)</b>            |
| <b>U28</b> | <b>MICROPROCESSOR PC BOARD(NAAR-9075-1AG/1AH/1AJ)</b> |
| <b>U30</b> | <b>XM PC BOARD(NARF-9077-1AG)</b>                     |
| <b>U32</b> | <b>AMPLIFIER PC BOARD(NAASP-9080-1AG/1AH/1AJ)</b>     |
| <b>U26</b> | <b>AMPLIFIER PC BOARD(NAETC-9073-1AG/1AH/1AJ)</b>     |

| REF. NO. | PART NAME | DESCRIPTION         | Q'TY | PART NO. (SN)  | REMARKS  |
|----------|-----------|---------------------|------|----------------|----------|
| U3001    | PHT CP    | GP1FAV51RK0F        | 1    | 24120129       |          |
| U3002    | PHT CP    | GP1FAV51RK0F        | 1    | 24120129       |          |
| U3004    | PHT CP    | GP1FAV51TKBF        | 1    | 24120132       |          |
| Q101     | IC        | CS4344-CZZR         | 1    | 22242406R2     | <DC, DD> |
| Q102     | IC        | TA48033AF(TE16L_NQ) | 1    | 22278033DR2TO  | <DC, DD> |
| Q102 or  | IC        | BA33BC0FP           | ( 1) | 22278033DR2RH  | <DC, DD> |
| Q102 or  | IC        | TA48033BF(TE16L_NQ) | ( 1) | 22278033DBR2TO | <DC, DD> |
| Q103     | IC        | BU9450KV-E2         | 1    | 22242505R2     | <DC, DD> |
| Q103 or  | IC        | S2658G-01           | ( 1) | 22242535R2     | <DC, DD> |
| Q104     | IC        | TA48033AF(TE16L_NQ) | 1    | 22278033DR2TO  | <DC, DD> |
| Q104 or  | IC        | BA33BC0FP           | ( 1) | 22278033DR2RH  | <DC, DD> |
| Q104 or  | IC        | TA48033BF(TE16L_NQ) | ( 1) | 22278033DBR2TO | <DC, DD> |

|         |    |                     |      |                |          |
|---------|----|---------------------|------|----------------|----------|
| Q105    | IC | NE5532APSR          | 1    | 22242283R2     | <DC, DD> |
| Q106    | IC | NE5532APSR          | 1    | 22242283R2     | <DC, DD> |
| Q107    | IC | TC74VHCT08AFT (EKJ) | 1    | 22274008G1R2TO | <DC, DD> |
| Q107 or | IC | TC74VHCT08AFT       | ( 1) | 22274008GR2TO  | <DC, DD> |
| Q3001   | IC | TC74VHC157FT        | 1    | 22274157ER2TO  |          |
| Q3021   | IC | 74HCU04F            | 1    | 222740046R2    |          |
| Q3031   | IC | ICL3221ECVZ         | 1    | 22242268R2     |          |
| Q3041   | IC | CS42516-CQZ(R)-D    | 1    | 22242294R2     |          |
| Q3071   | IC | TC7WU04FU(TE12L_F)  | 1    | 22240935R2     |          |
| Q3081   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3082   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3701   | IC | PCM1796DBR          | 1    | 22242403R2     |          |
| Q3721   | IC | PCM1796DBR          | 1    | 22242403R2     |          |
| Q3741   | IC | PCM1796DBR          | 1    | 22242403R2     |          |
| Q3761   | IC | PCM1796DBR          | 1    | 22242403R2     |          |
| Q3781   | IC | PCM1796DBR          | 1    | 22242403R2     |          |
| Q3800   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3801   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3802   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3803   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3804   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3805   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3806   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3807   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3808   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3809   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3810   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3811   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3812   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3813   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3814   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3820   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3821   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3822   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3823   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3824   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3830   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3831   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3832   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3833   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3834   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3840   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3841   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3842   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3843   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q3844   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q4201   | IC | NE5532APSR          | 1    | 22242283R2     |          |
| Q4202   | IC | NE5532APSR          | 1    | 22242283R2     |          |

|          |                         |                     |     |                 |          |
|----------|-------------------------|---------------------|-----|-----------------|----------|
| Q4204    | IC                      | R2S15211FP          | 1   | 22242297R3      |          |
| Q4291    | TR                      | 2SC2235-Y(TPE6_F)   | 1   | 2211654T        |          |
| Q4292    | TR                      | 2SA965-Y(TPE6_F)    | 1   | 2211644T        |          |
| Q4720    | IC                      | NE5532APSR          | 1   | 22242283R2      |          |
| Q4721    | IC                      | NE5532APSR          | 1   | 22242283R2      |          |
| Q4722    | IC                      | NE5532APSR          | 1   | 22242283R2      |          |
| Q4723    | IC                      | NE5532APSR          | 1   | 22242283R2      |          |
| Q7001    | IC(MAIN MICROPROCESSOR) | M3087BFLBGP(0285)   | 1   | 222W0077R302850 |          |
| Q7002    | TR                      | RN1404              | 1   | 2214490R2       |          |
| Q7002 or | TR                      | KRC104S             | (1) | 2216210R2       |          |
| Q7003    | TR                      | DTA114YKA           | 1   | 2216480R2       |          |
| Q7003 or | TR                      | RN2407(TE85L_F)     | (1) | 2216360R2       |          |
| Q7003 or | TR                      | KRA107S             | (1) | 2216350R2       |          |
| Q7005    | TR                      | DTC114EKA           | 1   | 2216250R2       |          |
| Q7005 or | TR                      | RN1402              | (1) | 2214470R2       |          |
| Q7005 or | TR                      | KRC102S             | (1) | 2216190R2       |          |
| Q7006    | TR                      | DTA114YKA           | 1   | 2216480R2       |          |
| Q7006 or | TR                      | RN2407(TE85L_F)     | (1) | 2216360R2       |          |
| Q7006 or | TR                      | KRA107S             | (1) | 2216350R2       |          |
| Q7007    | TR                      | DTC114EKA           | 1   | 2216250R2       |          |
| Q7007 or | TR                      | RN1402              | (1) | 2214470R2       |          |
| Q7007 or | TR                      | KRC102S             | (1) | 2216190R2       |          |
| Q7151    | IC                      | TC74VHCT08AFT (EKJ) | 1   | 22274008G1R2TO  |          |
| Q7151 or | IC                      | TC74VHCT08AFT       | (1) | 22274008GR2TO   |          |
| Q7155    | IC                      | TC74VHCT08AFT (EKJ) | 1   | 22274008G1R2TO  |          |
| Q7155 or | IC                      | TC74VHCT08AFT       | (1) | 22274008GR2TO   |          |
| Q7161    | IC                      | TC74VHCT08AFT (EKJ) | 1   | 22274008G1R2TO  |          |
| Q7161 or | IC                      | TC74VHCT08AFT       | (1) | 22274008GR2TO   |          |
| Q7165    | IC                      | TC74VHCT08AFT (EKJ) | 1   | 22274008G1R2TO  | <DC, DD> |
| Q7165 or | IC                      | TC74VHCT08AFT       | (1) | 22274008GR2TO   | <DC, DD> |
| Q7171    | IC                      | TC74VHC238FT        | 1   | 22274238ER2TO   |          |
| Q7172    | IC                      | 74AHC138PW          | 1   | 22274138IR2PH   |          |
| Q7172 or | IC                      | TC74VHC138FT(EK2M   | (1) | 22274138ER2TO   |          |
| Q7181    | IC                      | NJU7312AM           | 1   | 22242210R2      |          |
| Q7182    | TR                      | 2SC2712-GR          | 1   | 2213145R2       |          |
| Q7183    | TR                      | RN1404              | 1   | 2214490R2       |          |
| Q7183 or | TR                      | KRC104S             | (1) | 2216210R2       |          |
| Q7184    | TR                      | RN2402              | 1   | 2214530R2       |          |
| Q7184 or | TR                      | KRA102S             | (1) | 2216220R2       |          |
| Q7201    | IC                      | SI8008TM            | 1   | 22242323R2      |          |
| Q7221    | IC                      | SI8008TM            | 1   | 22242323R2      |          |
| Q7231    | IC                      | SI8008TM            | 1   | 22242323R2      |          |
| Q7232    | IC                      | BD7820              | 1   | 22242300R2      | <DC, DD> |
| Q7241    | IC                      | TA4805AF(TE16L_NQ)  | 1   | 22278005DR2TO   |          |
| Q7241 or | IC                      | BA50BC0FP           | (1) | 22278005DR2RH   |          |
| Q7242    | IC                      | TA48033AF(TE16L_NQ) | 1   | 22278033DR2TO   |          |
| Q7242 or | IC                      | BA33BC0FP           | (1) | 22278033DR2RH   |          |
| Q7242 or | IC                      | TA48033BF(TE16L_NQ) | (1) | 22278033DBR2TO  |          |

|          |         |                     |     |                |          |
|----------|---------|---------------------|-----|----------------|----------|
| Q7246    | IC      | TA48033AF(TE16L_NQ) | 1   | 22278033DR2TO  |          |
| Q7246 or | IC      | BA33BC0FP           | (1) | 22278033DR2RH  |          |
| Q7246 or | IC      | TA48033BF(TE16L_NQ) | (1) | 22278033DBR2TO |          |
| Q7251    | IC      | TA4805AF(TE16L_NQ)  | 1   | 22278005DR2TO  |          |
| Q7261    | IC      | XC6202P502FR        | 1   | 22242331R2     |          |
| Q7262    | IC      | XC6213B332MR        | 1   | 22242277R2     |          |
| Q7341    | TR      | RN1404              | 1   | 2214490R2      | <DC, DD> |
| Q7341 or | TR      | KRC104S             | (1) | 2216210R2      | <DC, DD> |
| Q7342    | TR      | RN2402              | 1   | 2214530R2      | <DC, DD> |
| Q7342 or | TR      | KRA102S             | (1) | 2216220R2      | <DC, DD> |
| Q7351    | TR      | RN1404              | 1   | 2214490R2      |          |
| Q7351 or | TR      | KRC104S             | (1) | 2216210R2      |          |
| Q7352    | TR      | RN2402              | 1   | 2214530R2      |          |
| Q7352 or | TR      | KRA102S             | (1) | 2216220R2      |          |
| Q7355    | TR      | RN1404              | 1   | 2214490R2      |          |
| Q7355 or | TR      | KRC104S             | (1) | 2216210R2      |          |
| Q7356    | TR      | RN2402              | 1   | 2214530R2      |          |
| Q7356 or | TR      | KRA102S             | (1) | 2216220R2      |          |
| Q7361    | TR      | RN1404              | 1   | 2214490R2      |          |
| Q7361 or | TR      | KRC104S             | (1) | 2216210R2      |          |
| Q7362    | TR      | RN2402              | 1   | 2214530R2      |          |
| Q7362 or | TR      | KRA102S             | (1) | 2216220R2      |          |
| Q7365    | TR      | RN1404              | 1   | 2214490R2      |          |
| Q7365 or | TR      | KRC104S             | (1) | 2216210R2      |          |
| Q7366    | TR      | RN2402              | 1   | 2214530R2      |          |
| Q7366 or | TR      | KRA102S             | (1) | 2216220R2      |          |
| Q7381    | IC      | S-812C56AUA-C3K     | 1   | 22242207R2     |          |
| Q7385    | IC      | S-812C33AUA-C2N     | 1   | 22242222R2     |          |
| Q7391    | IC      | R1EX25064ASA00A     | 1   | 22242581R2     |          |
| Q7401    | TR      | DTC114EKA           | 1   | 2216250R2      |          |
| Q7401 or | TR      | RN1402              | (1) | 2214470R2      |          |
| Q7401 or | TR      | KRC102S             | (1) | 2216190R2      |          |
| D4291    | ZENER D | UDZS7.5B            | 1   | 224550750R2    |          |
| D4292    | ZENER D | UDZS7.5B            | 1   | 224550750R2    |          |
| D7001    | C-DIODE | 1SS352              | 1   | 223234R2       |          |
| D7001 or | C-DIODE | 1SS355              | (1) | 223269R2       |          |
| D7001 or | C-DIODE | MA2J1110GL          | (1) | 223302R2       |          |
| D7002    | C-DIODE | 1SS352              | 1   | 223234R2       |          |
| D7002 or | C-DIODE | 1SS355              | (1) | 223269R2       |          |
| D7002 or | C-DIODE | MA2J1110GL          | (1) | 223302R2       |          |
| D7003    | C-DIODE | 1SS352              | 1   | 223234R2       |          |
| D7003 or | C-DIODE | 1SS355              | (1) | 223269R2       |          |
| D7003 or | C-DIODE | MA2J1110GL          | (1) | 223302R2       |          |
| D7064    | C-DIODE | 1SS352              | 1   | 223234R2       |          |
| D7064 or | C-DIODE | 1SS355              | (1) | 223269R2       |          |
| D7064 or | C-DIODE | MA2J1110GL          | (1) | 223302R2       |          |
| D7181    | ZENER D | UDZS9.1B            | 1   | 224550910R2    |          |
| D7201    | C-DIODE | 1SS352              | 1   | 223234R2       |          |

|          |            |                |     |              |          |
|----------|------------|----------------|-----|--------------|----------|
| D7201 or | C-DIODE    | 1SS355         | (1) | 223269R2     |          |
| D7201 or | C-DIODE    | MA2J1110GL     | (1) | 223302R2     |          |
| D7202    | C-DIODE    | CRS09(TE85L_Q) | 1   | 223274R2     |          |
| D7221    | C-DIODE    | 1SS352         | 1   | 223234R2     |          |
| D7221 or | C-DIODE    | 1SS355         | (1) | 223269R2     |          |
| D7221 or | C-DIODE    | MA2J1110GL     | (1) | 223302R2     |          |
| D7222    | C-DIODE    | CRS09(TE85L_Q) | 1   | 223274R2     |          |
| D7231    | C-DIODE    | 1SS352         | 1   | 223234R2     |          |
| D7231 or | C-DIODE    | 1SS355         | (1) | 223269R2     |          |
| D7231 or | C-DIODE    | MA2J1110GL     | (1) | 223302R2     |          |
| D7232    | C-DIODE    | CRS09(TE85L_Q) | 1   | 223274R2     |          |
| D7233    | C-DIODE    | 1SS352         | 1   | 223234R2     | <DC, DD> |
| D7233 or | C-DIODE    | 1SS355         | (1) | 223269R2     | <DC, DD> |
| D7233 or | C-DIODE    | MA2J1110GL     | (1) | 223302R2     | <DC, DD> |
| D7245    | DIODE      | RL1N4003       | 1   | 22380260T    |          |
| D7245 or | DIODE      | GP104003E      | (1) | 22380035T    |          |
| D7246    | DIODE      | RL1N4003       | 1   | 22380260T    |          |
| D7246 or | DIODE      | GP104003E      | (1) | 22380035T    |          |
| D7371    | C-DIODE    | 1SS352         | 1   | 223234R2     |          |
| D7371 or | C-DIODE    | 1SS355         | (1) | 223269R2     |          |
| D7371 or | C-DIODE    | MA2J1110GL     | (1) | 223302R2     |          |
| D7372    | C-DIODE    | 1SS352         | 1   | 223234R2     |          |
| D7372 or | C-DIODE    | 1SS355         | (1) | 223269R2     |          |
| D7372 or | C-DIODE    | MA2J1110GL     | (1) | 223302R2     |          |
| D7381    | C-DIODE    | 1SS352         | 1   | 223234R2     |          |
| D7381 or | C-DIODE    | 1SS355         | (1) | 223269R2     |          |
| D7381 or | C-DIODE    | MA2J1110GL     | (1) | 223302R2     |          |
| D7382    | C-DIODE    | 1SS352         | 1   | 223234R2     |          |
| D7382 or | C-DIODE    | 1SS355         | (1) | 223269R2     |          |
| D7382 or | C-DIODE    | MA2J1110GL     | (1) | 223302R2     |          |
| D7383    | C-DIODE    | 1SS352         | 1   | 223234R2     |          |
| D7383 or | C-DIODE    | 1SS355         | (1) | 223269R2     |          |
| D7383 or | C-DIODE    | MA2J1110GL     | (1) | 223302R2     |          |
| D7384    | C-DIODE    | 1SS352         | 1   | 223234R2     |          |
| D7384 or | C-DIODE    | 1SS355         | (1) | 223269R2     |          |
| D7384 or | C-DIODE    | MA2J1110GL     | (1) | 223302R2     |          |
| L101     | EMIFIL     | BK1608LM182-T  | 1   | 230958R1     | <DC, DD> |
| L102     | CHOKE COIL | NCH-1471       | 1   | 231237K022R2 | <DC, DD> |
| L103     | CHOKE COIL | BLM21PG221SN1  | 1   | 230949R2     | <DC, DD> |
| L104     | CHOKE COIL | NCH-1471       | 1   | 231237K022R2 | <DC, DD> |
| L105     | CHOKE COIL | BLM21PG221SN1  | 1   | 230949R2     | <DC, DD> |
| L106     | CHOKE COIL | BLM21PG221SN1  | 1   | 230949R2     | <DC, DD> |
| L3001    | CHOKE COIL | LBC2518T470M   | 1   | 231364M470R2 |          |
| L3002    | CHOKE COIL | LBC2518T470M   | 1   | 231364M470R2 |          |
| L3011    | CHOKE COIL | LBC2518T2R2M   | 1   | 231364M022R2 |          |
| L3012    | CHOKE COIL | LBC2518T2R2M   | 1   | 231364M022R2 |          |
| L3013    | CHOKE COIL | LBC2518T2R2M   | 1   | 231364M022R2 |          |
| L3021    | CHOKE COIL | LBC2518T470M   | 1   | 231364M470R2 |          |

|          |            |                     |       |              |          |
|----------|------------|---------------------|-------|--------------|----------|
| L3031    | CHOKE COIL | LBC2518T470M        | 1     | 231364M470R2 |          |
| L3041    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3042    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3043    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3044    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3045    | EMIFIL     | BK1608LM182-T       | 1     | 230958R1     |          |
| L3046    | EMIFIL     | BK1608HS102-T       | 1     | 230955R2     |          |
| L3071    | CHOKE COIL | LBC2518T470M        | 1     | 231364M470R2 |          |
| L3072    | EMIFIL     | BK1608LM182-T       | 1     | 230958R1     |          |
| L3701    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3702    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3703    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3704    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3721    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3722    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3723    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3724    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3741    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3742    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3743    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3744    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3761    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3762    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3763    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3764    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3781    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3782    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3783    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L3784    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L7165    | CHOKE COIL | LBC2518T4R7M        | 1     | 231364M047R2 |          |
| L7201    | CHOKE COIL | NCH-2541            | 1     | 231363K470A  |          |
| L7201 or | COIL       | 0182-7310-470K-RB   | ( 1 ) | 231389       |          |
| L7211    | CHOKE COIL | NCH-2541            | 1     | 231363K470A  |          |
| L7211 or | COIL       | 0182-7310-470K-RB   | ( 1 ) | 231389       |          |
| L7221    | CHOKE COIL | NCH-2541            | 1     | 231363K470A  |          |
| L7221 or | COIL       | 0182-7310-470K-RB   | ( 1 ) | 231389       |          |
| X101     | CRYSTAL    | DSX840GA 45.1584MHz | 1     | 3010420R2    | <DC, DD> |
| X101 or  | CRYSTAL    | FCX-02N 45.1584MHz  | ( 1 ) | 3010421R2    | <DC, DD> |
| X3071    | CRYSTAL    | HC-49US24.576MHz    | 1     | 3010423T     |          |
| X3071A   | IB CUSHION | W15*3t TAPE         | 1     | 28141585     |          |
| X7001    | CERA LOCK  | CSTCE8M00G55-R0     | 1     | 3010416R2    |          |
| C101     | VR C       | CE04W6.3V-470M(VR)  | 1     | 394624717T   | <DC, DD> |
| C102     | C-CERA C   | CK725F1E-104Z1      | 1     | 332161040R1  | <DC, DD> |
| C104     | UTSP C     | CE04W50V-10M(UTSP)  | 1     | 397581007T   | <DC, DD> |
| C105     | UTSP C     | CE04W50V-10M(UTSP)  | 1     | 397581007T   | <DC, DD> |
| C106     | C-CERA C   | CK725F1E-104Z1      | 1     | 332161040R1  | <DC, DD> |
| C107     | C-CERA C   | CK725F1E-104Z1      | 1     | 332161040R1  | <DC, DD> |
| C108     | C-CERA C   | CK725F1E-104Z1      | 1     | 332161040R1  | <DC, DD> |

|       |          |                     |   |             |          |
|-------|----------|---------------------|---|-------------|----------|
| C109  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C110  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C111  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C112  | C-CERA C | CC725CH1H-080D1     | 1 | 342100802R1 | <DC, DD> |
| C113  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C114  | C-CERA C | CC725CH1H-040C1     | 1 | 342100401R1 | <DC, DD> |
| C115  | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 | <DC, DD> |
| C116  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C117  | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  | <DC, DD> |
| C118  | VR C     | CE04W6.3V-470M(VR)  | 1 | 394624717T  | <DC, DD> |
| C119  | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  | <DC, DD> |
| C120  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C121  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C122  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C123  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C124  | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  | <DC, DD> |
| C125  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C126  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C127  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C128  | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  | <DC, DD> |
| C129  | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  | <DC, DD> |
| C130  | C-CERA C | CC725CH1H-821J1     | 1 | 342108214R1 | <DC, DD> |
| C131  | C-CERA C | CC725CH1H-821J1     | 1 | 342108214R1 | <DC, DD> |
| C132  | C-CERA C | CC725CH1H-821J1     | 1 | 342108214R1 | <DC, DD> |
| C133  | C-CERA C | CC725CH1H-821J1     | 1 | 342108214R1 | <DC, DD> |
| C135  | UTSP C   | CE04W25V-100M(UTSP) | 1 | 397551017T  | <DC, DD> |
| C136  | UTSP C   | CE04W25V-100M(UTSP) | 1 | 397551017T  | <DC, DD> |
| C137  | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  | <DC, DD> |
| C138  | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  | <DC, DD> |
| C139  | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C140  | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 | <DC, DD> |
| C3001 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C3002 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C3004 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C3006 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C3007 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C3008 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C3011 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |          |
| C3012 | C-CERA C | CK725B1C-104K1      | 1 | 332121045R1 |          |
| C3013 | C-CERA C | CC725CH1H-080D1     | 1 | 342100802R1 |          |
| C3014 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |          |
| C3015 | C-CERA C | CK725B1C-104K1      | 1 | 332121045R1 |          |
| C3016 | C-CERA C | CC725CH1H-080D1     | 1 | 342100802R1 |          |
| C3017 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |          |
| C3018 | C-CERA C | CK725B1C-104K1      | 1 | 332121045R1 |          |
| C3019 | C-CERA C | CC725CH1H-080D1     | 1 | 342100802R1 |          |
| C3021 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C3022 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |

|       |          |                     |   |             |
|-------|----------|---------------------|---|-------------|
| C3025 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3031 | UTSP C   | CE04W50V-1M(UTSP)   | 1 | 397580107T  |
| C3032 | UTSP C   | CE04W50V-1M(UTSP)   | 1 | 397580107T  |
| C3033 | UTSP C   | CE04W50V-1M(UTSP)   | 1 | 397580107T  |
| C3034 | UTSP C   | CE04W50V-1M(UTSP)   | 1 | 397580107T  |
| C3035 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |
| C3036 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3037 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3041 | UTSP C   | CE04W10V-470M(UTSP) | 1 | 397534717T  |
| C3042 | UTSP C   | CE04W10V-470M(UTSP) | 1 | 397534717T  |
| C3043 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3044 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3045 | TF C     | ECQ-B50V-222J       | 1 | 374722224T  |
| C3046 | TF C     | ECQ-B50V-222J       | 1 | 374722224T  |
| C3047 | UTSJ C   | CE04W25V-47M(UTSJ)  | 1 | 398054707T  |
| C3048 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3049 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |
| C3050 | UTSP C   | CE04W10V-470M(UTSP) | 1 | 397534717T  |
| C3051 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3052 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |
| C3053 | C-CERA C | CK725B1H-223K1      | 1 | 332102235R1 |
| C3054 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3055 | C-CERA C | CC725CH1H-330J1     | 1 | 342103304R1 |
| C3057 | C-CERA C | CC725CH1H-330J1     | 1 | 342103304R1 |
| C3058 | C-CERA C | CC725CH1H-330J1     | 1 | 342103304R1 |
| C3059 | UTSP C   | CE04W10V-470M(UTSP) | 1 | 397534717T  |
| C3061 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3062 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3064 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |
| C3065 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3069 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3071 | C-CERA C | CC725CH1H-120J1     | 1 | 342101204R1 |
| C3072 | C-CERA C | CC725CH1H-120J1     | 1 | 342101204R1 |
| C3073 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |
| C3081 | UTSP C   | CE04W25V-47M(UTSP)  | 1 | 397554707T  |
| C3082 | UTSP C   | CE04W25V-47M(UTSP)  | 1 | 397554707T  |
| C3091 | UTSP C   | CE04W25V-47M(UTSP)  | 1 | 397554707T  |
| C3092 | UTSP C   | CE04W25V-47M(UTSP)  | 1 | 397554707T  |
| C3095 | UTSP C   | CE04W25V-220M(UTSP) | 1 | 397552217T  |
| C3096 | UTSP C   | CE04W25V-220M(UTSP) | 1 | 397552217T  |
| C3701 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3702 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3703 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3704 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3705 | UTSJ C   | CE04W25V-47M(UTSJ)  | 1 | 398054707T  |
| C3707 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3708 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3709 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |

|       |          |                     |   |             |
|-------|----------|---------------------|---|-------------|
| C3710 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |
| C3711 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |
| C3721 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3722 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3723 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3724 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3725 | UTSJ C   | CE04W25V-47M(UTSJ)  | 1 | 398054707T  |
| C3727 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3728 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3729 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3730 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |
| C3741 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3742 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3743 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3744 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3745 | UTSJ C   | CE04W25V-47M(UTSJ)  | 1 | 398054707T  |
| C3747 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3748 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3749 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3750 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |
| C3761 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3762 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3763 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3764 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3765 | UTSJ C   | CE04W25V-47M(UTSJ)  | 1 | 398054707T  |
| C3767 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3768 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3769 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3770 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |
| C3781 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3782 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3783 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3784 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3785 | UTSJ C   | CE04W25V-47M(UTSJ)  | 1 | 398054707T  |
| C3787 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3788 | UTSP C   | CE04W10V-220M(UTSP) | 1 | 397532217T  |
| C3789 | C-FILM C | ECHU16V-104J        | 1 | 373041044R2 |
| C3790 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |
| C3800 | TF C     | ECQ-B50V-272J       | 1 | 374722724T  |
| C3801 | TF C     | ECQ-B50V-272J       | 1 | 374722724T  |
| C3802 | TF C     | ECQ-B50V-272J       | 1 | 374722724T  |
| C3803 | TF C     | ECQ-B50V-272J       | 1 | 374722724T  |
| C3804 | TF C     | ECQ-B50V-272J       | 1 | 374722724T  |
| C3805 | TF C     | ECQ-B50V-272J       | 1 | 374722724T  |
| C3806 | TF C     | ECQ-B50V-272J       | 1 | 374722724T  |
| C3807 | TF C     | ECQ-B50V-272J       | 1 | 374722724T  |
| C3808 | TF C     | ECQ-B50V-272J       | 1 | 374722724T  |
| C3809 | TF C     | ECQ-B50V-272J       | 1 | 374722724T  |

|       |      |               |   |            |
|-------|------|---------------|---|------------|
| C3810 | TF C | ECQ-B50V-272J | 1 | 374722724T |
| C3811 | TF C | ECQ-B50V-272J | 1 | 374722724T |
| C3812 | TF C | ECQ-B50V-272J | 1 | 374722724T |
| C3813 | TF C | ECQ-B50V-272J | 1 | 374722724T |
| C3814 | TF C | ECQ-B50V-272J | 1 | 374722724T |
| C3815 | TF C | ECQ-B50V-272J | 1 | 374722724T |
| C3816 | TF C | ECQ-B50V-272J | 1 | 374722724T |
| C3817 | TF C | ECQ-B50V-272J | 1 | 374722724T |
| C3818 | TF C | ECQ-B50V-272J | 1 | 374722724T |
| C3819 | TF C | ECQ-B50V-272J | 1 | 374722724T |
| C3820 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3821 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3822 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3823 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3824 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3825 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3826 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3827 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3828 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3829 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3830 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3831 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3832 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3833 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3834 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3835 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3836 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3837 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3838 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3839 | TF C | ECQ-B50V-101K | 1 | 374721015T |
| C3850 | TF C | ECQ-B50V-122J | 1 | 374721224T |
| C3851 | TF C | ECQ-B50V-122J | 1 | 374721224T |
| C3852 | TF C | ECQ-B50V-122J | 1 | 374721224T |
| C3853 | TF C | ECQ-B50V-122J | 1 | 374721224T |
| C3854 | TF C | ECQ-B50V-122J | 1 | 374721224T |
| C3855 | TF C | ECQ-B50V-122J | 1 | 374721224T |
| C3856 | TF C | ECQ-B50V-122J | 1 | 374721224T |
| C3857 | TF C | ECQ-B50V-122J | 1 | 374721224T |
| C3858 | TF C | ECQ-B50V-122J | 1 | 374721224T |
| C3859 | TF C | ECQ-B50V-122J | 1 | 374721224T |
| C3860 | TF C | ECQ-B50V-471J | 1 | 374724714T |
| C3861 | TF C | ECQ-B50V-471J | 1 | 374724714T |
| C3862 | TF C | ECQ-B50V-471J | 1 | 374724714T |
| C3863 | TF C | ECQ-B50V-471J | 1 | 374724714T |
| C3864 | TF C | ECQ-B50V-471J | 1 | 374724714T |
| C3865 | TF C | ECQ-B50V-471J | 1 | 374724714T |
| C3866 | TF C | ECQ-B50V-471J | 1 | 374724714T |
| C3867 | TF C | ECQ-B50V-471J | 1 | 374724714T |

|       |        |                     |   |            |
|-------|--------|---------------------|---|------------|
| C3868 | TF C   | ECQ-B50V-471J       | 1 | 374724714T |
| C3869 | TF C   | ECQ-B50V-471J       | 1 | 374724714T |
| C3870 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C3871 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C3872 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C3873 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C3874 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C3875 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C3876 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C3877 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C3878 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C3879 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C3880 | UTSP C | CE04W25V-220M(UTSP) | 1 | 397552217T |
| C3881 | UTSP C | CE04W25V-220M(UTSP) | 1 | 397552217T |
| C3882 | UTSP C | CE04W25V-220M(UTSP) | 1 | 397552217T |
| C3883 | UTSP C | CE04W25V-220M(UTSP) | 1 | 397552217T |
| C3884 | UTSP C | CE04W25V-220M(UTSP) | 1 | 397552217T |
| C3885 | UTSP C | CE04W25V-220M(UTSP) | 1 | 397552217T |
| C3886 | UTSP C | CE04W25V-220M(UTSP) | 1 | 397552217T |
| C3887 | UTSP C | CE04W25V-220M(UTSP) | 1 | 397552217T |
| C3888 | UTSP C | CE04W25V-220M(UTSP) | 1 | 397552217T |
| C3889 | UTSP C | CE04W25V-220M(UTSP) | 1 | 397552217T |
| C4201 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4202 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4203 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4204 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4205 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4206 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4207 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4208 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4213 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4214 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4227 | TF C   | ECQ-B50V-223J       | 1 | 374722234T |
| C4228 | TF C   | ECQ-B50V-223J       | 1 | 374722234T |
| C4229 | TF C   | ECQ-V50V-823J       | 1 | 374728234T |
| C4230 | TF C   | ECQ-V50V-823J       | 1 | 374728234T |
| C4231 | TF C   | ECQ-V50V-474J       | 1 | 374724744T |
| C4232 | TF C   | ECQ-V50V-474J       | 1 | 374724744T |
| C4233 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4234 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4235 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4236 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4237 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4238 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4239 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4240 | UTSP C | CE04W50V 47M(UTSP)  | 1 | 397584707T |
| C4291 | UTSP C | CE04W25V-220M(UTSP) | 1 | 397552217T |
| C4292 | UTSP C | CE04W25V-220M(UTSP) | 1 | 397552217T |

|       |          |                     |   |             |                  |
|-------|----------|---------------------|---|-------------|------------------|
| C4293 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4294 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4295 | UTSP C   | CE04W25V-220M(UTSP) | 1 | 397552217T  |                  |
| C4296 | UTSP C   | CE04W25V-220M(UTSP) | 1 | 397552217T  |                  |
| C4720 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4721 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4722 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4723 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4724 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4725 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4726 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4727 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4730 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4731 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4732 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4733 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4734 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4735 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4736 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4737 | UTSP C   | CE04W50V 47M(UTSP)  | 1 | 397584707T  |                  |
| C4740 | UTSP C   | CE04W25V-100M(UTSP) | 1 | 397551017T  |                  |
| C4741 | UTSP C   | CE04W25V-100M(UTSP) | 1 | 397551017T  |                  |
| C7002 | VR C     | CE04W50V-4.7M(VR)   | 1 | 394680477T  |                  |
| C7003 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7004 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <MP, MB, MT, DT> |
| C7005 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7006 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7007 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7008 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |                  |
| C7009 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7010 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7011 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7012 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7013 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7014 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7015 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |                  |
| C7016 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |                  |
| C7017 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7018 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |                  |
| C7019 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |                  |
| C7020 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |                  |
| C7021 | C-CERA C | CK725B1H-102K1      | 1 | 332101025R1 |                  |
| C7022 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |                  |
| C7023 | C-CERA C | CC725CH1H-101J1     | 1 | 342101014R1 |                  |
| C7024 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7025 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7027 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |
| C7151 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |                  |

|       |          |                     |   |             |          |
|-------|----------|---------------------|---|-------------|----------|
| C7152 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C7155 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C7161 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C7165 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 | <DC, DD> |
| C7166 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C7171 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C7172 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C7181 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C7183 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C7201 | VR C     | CE04W16V-470M(VR)   | 1 | 394644717T  |          |
| C7203 | VR C     | CE04W6.3V-1000M(VR) | 1 | 394621027T  |          |
| C7221 | VR C     | CE04W16V-470M(VR)   | 1 | 394644717T  |          |
| C7223 | VR C     | CE04W6.3V-1000M(VR) | 1 | 394621027T  |          |
| C7231 | VR C     | CE04W16V-470M(VR)   | 1 | 394644717T  |          |
| C7233 | VR C     | CE04W6.3V-1000M(VR) | 1 | 394621027T  |          |
| C7234 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  | <DC, DD> |
| C7235 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  | <DC, DD> |
| C7241 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |          |
| C7242 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C7243 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C7247 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |          |
| C7248 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C7251 | UTSP C   | CE04W50V-10M(UTSP)  | 1 | 397581007T  |          |
| C7252 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C7255 | VR C     | CE04W16V-470M(VR)   | 1 | 394644717T  |          |
| C7262 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C7263 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C7265 | C-CERA C | CK732B1A-105K       | 1 | 337361055R2 |          |
| C7266 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C7341 | C-CERA C | CK732B1A-105K       | 1 | 337361055R2 | <DC, DD> |
| C7342 | C-CERA C | CK732B1A-105K       | 1 | 337361055R2 | <DC, DD> |
| C7351 | C-CERA C | CK732B1A-105K       | 1 | 337361055R2 |          |
| C7352 | C-CERA C | CK732B1A-105K       | 1 | 337361055R2 |          |
| C7355 | C-CERA C | CK732B1A-105K       | 1 | 337361055R2 |          |
| C7356 | C-CERA C | CK732B1A-105K       | 1 | 337361055R2 |          |
| C7361 | C-CERA C | CK732B1A-105K       | 1 | 337361055R2 |          |
| C7362 | C-CERA C | CK732B1A-105K       | 1 | 337361055R2 |          |
| C7365 | C-CERA C | CK732B1A-105K       | 1 | 337361055R2 |          |
| C7366 | C-CERA C | CK732B1A-105K       | 1 | 337361055R2 |          |
| C7371 | VR C     | CE04W16V-470M(VR)   | 1 | 394644717T  |          |
| C7381 | VR C     | CE04W16V-470M(VR)   | 1 | 394644717T  |          |
| C7382 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C7383 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C7385 | VR C     | CE04W16V-470M(VR)   | 1 | 394644717T  |          |
| C7386 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C7387 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |
| C7391 | C-CERA C | CK725F1E-104Z1      | 1 | 332161040R1 |          |
| C7392 | VR C     | CE04W16V-100M(VR)   | 1 | 394641017T  |          |

|       |            |                   |   |             |                  |
|-------|------------|-------------------|---|-------------|------------------|
| C7401 | VR C       | CE04W16V-100M(VR) | 1 | 394641017T  | <MP, MB, MT, DT> |
| R101  | C-CARBON R | RN72K1J-220JE     | 1 | 435032204R1 | <DC, DD>         |
| R102  | C-CARBON R | RN72K1J-331JE     | 1 | 435033314R1 | <DC, DD>         |
| R103  | C-CARBON R | RN72K1J-331JE     | 1 | 435033314R1 | <DC, DD>         |
| R104  | C-CARBON R | RN72K1J-331JE     | 1 | 435033314R1 | <DC, DD>         |
| R105  | C-CARBON R | RN72K1J-101JE     | 1 | 435031014R1 | <DC, DD>         |
| R106  | C-CARBON R | RN72K1J-220JE     | 1 | 435032204R1 | <DC, DD>         |
| R107  | C-CARBON R | RN72K1J-220JE     | 1 | 435032204R1 | <DC, DD>         |
| R108  | C-CARBON R | RN72K1J-220JE     | 1 | 435032204R1 | <DC, DD>         |
| R109  | C-CARBON R | RN72K1J-220JE     | 1 | 435032204R1 | <DC, DD>         |
| R110  | C-CARBON R | RN72K1J-104JE     | 1 | 435031044R1 | <DC, DD>         |
| R111  | C-CARBON R | RN72K1J-105JE     | 1 | 435031054R1 | <DC, DD>         |
| R112  | C-CARBON R | RN72K1J-681JE     | 1 | 435036814R1 | <DC, DD>         |
| R113  | C-CARBON R | RN72K1J-104JE     | 1 | 435031044R1 | <DC, DD>         |
| R114  | C-CARBON R | RN72K1J-104JE     | 1 | 435031044R1 | <DC, DD>         |
| R115  | C-CARBON R | RN72K1J-104JE     | 1 | 435031044R1 | <DC, DD>         |
| R116  | C-CARBON R | RN72K1J-220JE     | 1 | 435032204R1 | <DC, DD>         |
| R117  | C-CARBON R | RN72K1J-104JE     | 1 | 435031044R1 | <DC, DD>         |
| R118  | C-CARBON R | RN72K1J-102JE     | 1 | 435031024R1 | <DC, DD>         |
| R119  | C-CARBON R | RN72K1J-102JE     | 1 | 435031024R1 | <DC, DD>         |
| R120  | C-CARBON R | RN72K1J-101JE     | 1 | 435031014R1 | <DC, DD>         |
| R121  | C-CARBON R | RN72K1J-220JE     | 1 | 435032204R1 | <DC, DD>         |
| R122  | C-CARBON R | RN72K1J-101JE     | 1 | 435031014R1 | <DC, DD>         |
| R123  | C-CARBON R | RN72K1J-220JE     | 1 | 435032204R1 | <DC, DD>         |
| R124  | C-CARBON R | RN72K1J-104JE     | 1 | 435031044R1 | <DC, DD>         |
| R125  | C-CARBON R | RN72K1J-104JE     | 1 | 435031044R1 | <DC, DD>         |
| R126  | C-CARBON R | RN72K1J-222JE     | 1 | 435032224R1 | <DC, DD>         |
| R127  | C-CARBON R | RN72K1J-222JE     | 1 | 435032224R1 | <DC, DD>         |
| R128  | C-CARBON R | RN72K1J-222JE     | 1 | 435032224R1 | <DC, DD>         |
| R129  | C-CARBON R | RN72K1J-222JE     | 1 | 435032224R1 | <DC, DD>         |
| R130  | C-CARBON R | RN72K1J-332JE     | 1 | 435033324R1 | <DC, DD>         |
| R131  | C-CARBON R | RN72K1J-332JE     | 1 | 435033324R1 | <DC, DD>         |
| R132  | C-CARBON R | RN72K1J-472JE     | 1 | 435034724R1 | <DC, DD>         |
| R133  | C-CARBON R | RN72K1J-472JE     | 1 | 435034724R1 | <DC, DD>         |
| R135  | C-CARBON R | RN72K1J-104JE     | 1 | 435031044R1 | <DC, DD>         |
| R136  | C-CARBON R | RN72K1J-104JE     | 1 | 435031044R1 | <DC, DD>         |
| R137  | C-CARBON R | RN72K1J-470JE     | 1 | 435034704R1 | <DC, DD>         |
| R141  | C-CARBON R | RN72K1J-104JE     | 1 | 435031044R1 | <DC, DD>         |
| R142  | C-CARBON R | RN72K1J-103JE     | 1 | 435031034R1 | <DC, DD>         |
| R145  | C-CARBON R | RN72K1J-104JE     | 1 | 435031044R1 | <DC, DD>         |
| R150  | C-CARBON R | RN72K1J-000JE     | 1 | 435030004R1 | <DC, DD>         |
| R151  | C-CARBON R | RN72K1J-563JE     | 1 | 435035634R1 | <DC, DD>         |
| R152  | C-CARBON R | RN72K1J-563JE     | 1 | 435035634R1 | <DC, DD>         |
| R3001 | C-CARBON R | RN72K1J-470JE     | 1 | 435034704R1 |                  |
| R3002 | C-CARBON R | RN72K1J-470JE     | 1 | 435034704R1 |                  |
| R3004 | C-CARBON R | RN72K1J-221JE     | 1 | 435032214R1 |                  |
| R3007 | C-CARBON R | RN72K1J-103JE     | 1 | 435031034R1 |                  |
| R3011 | C-CARBON R | RN72K1J-750JE     | 1 | 435037504R1 |                  |

|       |            |               |   |             |
|-------|------------|---------------|---|-------------|
| R3012 | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |
| R3013 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R3014 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3015 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R3016 | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |
| R3017 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R3018 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3019 | C-CARBON R | RN72K1J-750JE | 1 | 435037504R1 |
| R3020 | C-CARBON R | RN72K1J-100JE | 1 | 435031004R1 |
| R3021 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R3022 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3023 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3025 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R3031 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3032 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3033 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3034 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3035 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3036 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3037 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3041 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3042 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3043 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3045 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R3046 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3047 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R3048 | C-CARBON R | RN72K1J-392JE | 1 | 435033924R1 |
| R3049 | C-CARBON R | RN72K1J-392JE | 1 | 435033924R1 |
| R3050 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3051 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3052 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3053 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3054 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3056 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3057 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3058 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3059 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R3060 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3061 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3065 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R3069 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R3071 | C-CARBON R | RN72K1J-105JE | 1 | 435031054R1 |
| R3076 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R3081 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3082 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3083 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3084 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3085 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |

|       |            |               |   |             |
|-------|------------|---------------|---|-------------|
| R3086 | C-CARBON R | RN72K1J-560JE | 1 | 435035604R1 |
| R3087 | C-CARBON R | RN72K1J-560JE | 1 | 435035604R1 |
| R3091 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3092 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3093 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3094 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3095 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3096 | C-CARBON R | RN72K1J-560JE | 1 | 435035604R1 |
| R3097 | C-CARBON R | RN72K1J-560JE | 1 | 435035604R1 |
| R3098 | C-CARBON R | RN72K1J-391JE | 1 | 435033914R1 |
| R3099 | C-CARBON R | RN72K1J-391JE | 1 | 435033914R1 |
| R3680 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3681 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3682 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3683 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3684 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3685 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3686 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3687 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3688 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3689 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3690 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3691 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3692 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3693 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3694 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3695 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3696 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3697 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3698 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3699 | C-CARBON R | RN72K1J-181JE | 1 | 435031814R1 |
| R3701 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3702 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3703 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3704 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3705 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3706 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3707 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3708 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3709 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3710 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3711 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3721 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3722 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3723 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3724 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3725 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3726 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |

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|-------|------------|---------------|---|-------------|
| R3727 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3728 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3729 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3730 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3731 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3741 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3742 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3743 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3744 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3745 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3746 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3747 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3748 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3749 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3750 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3751 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3761 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3762 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3763 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3764 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3765 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3766 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3767 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3768 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3769 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3770 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3771 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3781 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3782 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3783 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3784 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3785 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3786 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3787 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3788 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3789 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R3790 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R3791 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3800 | C-CARBON R | RN72K1J-561JE | 1 | 435035614R1 |
| R3801 | C-CARBON R | RN72K1J-561JE | 1 | 435035614R1 |
| R3802 | C-CARBON R | RN72K1J-561JE | 1 | 435035614R1 |
| R3803 | C-CARBON R | RN72K1J-561JE | 1 | 435035614R1 |
| R3804 | C-CARBON R | RN72K1J-561JE | 1 | 435035614R1 |
| R3805 | C-CARBON R | RN72K1J-561JE | 1 | 435035614R1 |
| R3806 | C-CARBON R | RN72K1J-561JE | 1 | 435035614R1 |
| R3807 | C-CARBON R | RN72K1J-561JE | 1 | 435035614R1 |
| R3808 | C-CARBON R | RN72K1J-561JE | 1 | 435035614R1 |
| R3809 | C-CARBON R | RN72K1J-561JE | 1 | 435035614R1 |



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| R3858 | C-CARBON R | RN72K1J-332JE | 1 | 435033324R1 |
| R3859 | C-CARBON R | RN72K1J-332JE | 1 | 435033324R1 |
| R3860 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3861 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3862 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3863 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3864 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3865 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3866 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3867 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3868 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3869 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3870 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3871 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3872 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3873 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3874 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3875 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3876 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3877 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3878 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3879 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3880 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3881 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3882 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3883 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3884 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3885 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3886 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3887 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3888 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3889 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3890 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3891 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3892 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3893 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3894 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3895 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3896 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3897 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3898 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3899 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R3900 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3901 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3902 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3903 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3904 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3905 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |

|       |            |               |   |             |
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| R3906 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3907 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3908 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3909 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3910 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3911 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3912 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3913 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3914 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3915 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3916 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3917 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3918 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3919 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3920 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3921 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3922 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3923 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3924 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3925 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3926 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3927 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3928 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3929 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3930 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3931 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3932 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3933 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3934 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3935 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3936 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3937 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3938 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3939 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3940 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3941 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3942 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3943 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3944 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3945 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3946 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3947 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3948 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3949 | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1 |
| R3950 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3951 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3952 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3953 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |

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|-------|------------|---------------|---|-------------|
| R3954 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3955 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3956 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3957 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3958 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3959 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3960 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3961 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3962 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3963 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3964 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3965 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3966 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3967 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3968 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3969 | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1 |
| R3970 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R3971 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R3972 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R3973 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R3974 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R3975 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R3976 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R3977 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R3978 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R3979 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R3980 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R3981 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R3982 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R3983 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R3984 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R3985 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R3986 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R3987 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R3988 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R3989 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4201 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4202 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4203 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4204 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4205 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4206 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4207 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4208 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |
| R4253 | C-CARBON R | RN72K1J-182JE | 1 | 435031824R1 |
| R4254 | C-CARBON R | RN72K1J-182JE | 1 | 435031824R1 |
| R4255 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R4256 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |

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|-------|-------------|---------------|---|-------------|----------|
| R4291 | NF CARBON R | R25J-22       | 1 | 415472204T  |          |
| R4292 | NF CARBON R | R25J-22       | 1 | 415472204T  |          |
| R4293 | C-CARBON R  | RN72K1J-152JE | 1 | 435031524R1 |          |
| R4294 | C-CARBON R  | RN72K1J-152JE | 1 | 435031524R1 |          |
| R4720 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4721 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4722 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4723 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4724 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4725 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4726 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4727 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4730 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4731 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4732 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4733 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4734 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4735 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4736 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4737 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R4740 | METAL O R   | RS1/2WBJ-22   | 1 | 443522204T  |          |
| R4741 | METAL O R   | RS1/2WBJ-22   | 1 | 443522204T  |          |
| R7001 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 | <DC, DD> |
| R7002 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 | <DC, DD> |
| R7003 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 |          |
| R7005 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 | <DC, DD> |
| R7006 | C-CARBON R  | RN72K1J-221JE | 1 | 435032214R1 |          |
| R7007 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 | <DC, DD> |
| R7008 | C-CARBON R  | RN72K1J-221JE | 1 | 435032214R1 |          |
| R7011 | C-CARBON R  | RN72K1J-102JE | 1 | 435031024R1 |          |
| R7012 | C-CARBON R  | RN72K1J-102JE | 1 | 435031024R1 |          |
| R7013 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 | <DC, DD> |
| R7014 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 | <DC, DD> |
| R7016 | C-CARBON R  | RN72K1J-103JE | 1 | 435031034R1 |          |
| R7018 | C-CARBON R  | RN72K1J-221JE | 1 | 435032214R1 |          |
| R7024 | C-CARBON R  | RN72K1J-103JE | 1 | 435031034R1 |          |
| R7025 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R7026 | C-CARBON R  | RN72K1J-224JE | 1 | 435032244R1 |          |
| R7027 | C-CARBON R  | RN72K1J-472JE | 1 | 435034724R1 |          |
| R7030 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 |          |
| R7031 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 |          |
| R7032 | C-CARBON R  | RN72K1J-221JE | 1 | 435032214R1 |          |
| R7033 | C-CARBON R  | RN72K1J-221JE | 1 | 435032214R1 |          |
| R7034 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 |          |
| R7035 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 |          |
| R7036 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 |          |
| R7037 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 |          |
| R7038 | C-CARBON R  | RN72K1J-470JE | 1 | 435034704R1 |          |

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|-------|------------|---------------|---|-------------|
| R7040 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7042 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7043 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7045 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7048 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7049 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7050 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7051 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7053 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7054 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R7055 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7062 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7063 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7064 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7065 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R7069 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7070 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7071 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7072 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7073 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7075 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7077 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7078 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7079 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7080 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7081 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7082 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7083 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7084 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7085 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7086 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7087 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7088 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7089 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7090 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7092 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7094 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7095 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7096 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7097 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7098 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R7099 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7100 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7101 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7102 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7103 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7104 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |
| R7105 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |

|       |            |               |   |             |                         |
|-------|------------|---------------|---|-------------|-------------------------|
| R7106 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7107 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |                         |
| R7108 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7109 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |                         |
| R7110 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7111 | C-CARBON R | RN72K1J-333JE | 1 | 435033334R1 |                         |
| R7112 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7113 | C-CARBON R | RN72K1J-333JE | 1 | 435033334R1 | <DC, DD>                |
| R7113 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 | <MP, MB, MT, DT, SA876> |
| R7119 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |                         |
| R7120 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |                         |
| R7121 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7122 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7123 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7124 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |                         |
| R7125 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7126 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7127 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |                         |
| R7128 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |                         |
| R7129 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7131 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7133 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1 |                         |
| R7134 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1 |                         |
| R7135 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1 |                         |
| R7136 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1 |                         |
| R7137 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |                         |
| R7138 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7139 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7141 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7144 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 |                         |
| R7151 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7152 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7153 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7154 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7155 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7156 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7157 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7158 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7161 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7162 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7163 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7164 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7167 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7171 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7172 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7173 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7174 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |
| R7175 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |                         |

|       |            |                |   |             |                 |
|-------|------------|----------------|---|-------------|-----------------|
| R7176 | C-CARBON R | RN72K1J-470JE  | 1 | 435034704R1 |                 |
| R7177 | C-CARBON R | RN72K1J-470JE  | 1 | 435034704R1 |                 |
| R7178 | C-CARBON R | RN72K1J-470JE  | 1 | 435034704R1 |                 |
| R7181 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7182 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7183 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7184 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7185 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7186 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7187 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7188 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7189 | C-CARBON R | RN72K1J-221JE  | 1 | 435032214R1 |                 |
| R7190 | C-CARBON R | RN72K1J-221JE  | 1 | 435032214R1 |                 |
| R7191 | C-CARBON R | RN72K1J-221JE  | 1 | 435032214R1 |                 |
| R7192 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7193 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7194 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7195 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7196 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7197 | C-CARBON R | RN72K1J-104JE  | 1 | 435031044R1 |                 |
| R7198 | C-CARBON R | RN72K1J-561JE  | 1 | 435035614R1 |                 |
| R7201 | METAL R    | RNU1/2WCJ-2.2  | 1 | 453530224T  |                 |
| R7202 | C-CARBON R | RN72K1J-102JE  | 1 | 435031024R1 |                 |
| R7203 | C-CARBON R | RN72K1J-392JE  | 1 | 435033924R1 |                 |
| R7204 | C-CARBON R | RN72K1J-272JE  | 1 | 435032724R1 |                 |
| R7205 | C-CARBON R | RN72K1J-472JE  | 1 | 435034724R1 |                 |
| R7210 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |                 |
| R7211 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |                 |
| R7212 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |                 |
| R7213 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 | <DC, DD, SA876> |
| R7221 | METAL R    | RNU1/2WCJ-2.2  | 1 | 453530224T  |                 |
| R7222 | C-CARBON R | RN72K1J-102JE  | 1 | 435031024R1 |                 |
| R7223 | C-CARBON R | RN72K1J-392JE  | 1 | 435033924R1 |                 |
| R7224 | C-CARBON R | RN72K1J-272JE  | 1 | 435032724R1 |                 |
| R7225 | C-CARBON R | RN72K1J-472JE  | 1 | 435034724R1 |                 |
| R7230 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 | <DC, DD, SA876> |
| R7231 | METAL R    | RNU1/2WCJ-0.22 | 1 | 453532294T  |                 |
| R7232 | C-CARBON R | RN72K1J-102JE  | 1 | 435031024R1 |                 |
| R7233 | C-CARBON R | RN72K1J-392JE  | 1 | 435033924R1 |                 |
| R7234 | C-CARBON R | RN72K1J-563JE  | 1 | 435035634R1 |                 |
| R7235 | C-CARBON R | RN72K1J-562JE  | 1 | 435035624R1 |                 |
| R7236 | C-CARBON R | RN72K1J-273JE  | 1 | 435032734R1 | <DC, DD>        |
| R7237 | C-CARBON R | RN72K1J-334JE  | 1 | 435033344R1 | <DC, DD>        |
| R7238 | C-CARBON R | RN72K1J-334JE  | 1 | 435033344R1 | <DC, DD>        |
| R7241 | METAL O R  | RS1/2WBJ-56    | 1 | 443525604T  |                 |
| R7245 | METAL R    | RNU1/2WCJ-2.7  | 1 | 453530274T  |                 |
| R7246 | METAL R    | RNU1/2WCJ-2.7  | 1 | 453530274T  |                 |
| R7247 | METAL R    | RNU1/2WCJ-2.7  | 1 | 453530274T  |                 |

|       |            |               |   |             |                         |
|-------|------------|---------------|---|-------------|-------------------------|
| R7248 | METAL R    | RNU1/2WCJ-2.7 | 1 | 453530274T  |                         |
| R7251 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7252 | METAL O R  | RS1/2WBJ-22   | 1 | 443522204T  |                         |
| R7255 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7256 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7261 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7262 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 | <DC, DD, SA876>         |
| R7263 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 | <DC, DD, SA876>         |
| R7264 | C-CARBON R | RN72K1J-273JE | 1 | 435032734R1 |                         |
| R7265 | C-CARBON R | RN72K1J-273JE | 1 | 435032734R1 |                         |
| R7266 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7267 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1 |                         |
| R7268 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7269 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7272 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7273 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7275 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7278 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7279 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7280 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7281 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7282 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7283 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7284 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |                         |
| R7285 | C-CARBON R | RN72K1J-224JE | 1 | 435032244R1 |                         |
| R7286 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |                         |
| R7287 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7288 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7289 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7290 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7291 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7292 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7293 | C-CARBON R | RN72K1J-272JE | 1 | 435032724R1 |                         |
| R7294 | C-CARBON R | RN72K1J-272JE | 1 | 435032724R1 |                         |
| R7295 | C-CARBON R | RN72K1J-272JE | 1 | 435032724R1 |                         |
| R7296 | C-CARBON R | RN72K1J-272JE | 1 | 435032724R1 |                         |
| R7297 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 | <DC, DD>                |
| R7298 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1 | <MP, MB, MT, DT, SA876> |
| R7299 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |                         |
| R7300 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7301 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7302 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7303 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7342 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 | <DC, DD>                |
| R7343 | C-CARBON R | RN72K1J-221JE | 1 | 435032214R1 | <DC, DD>                |
| R7351 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |                         |
| R7352 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |                         |
| R7353 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |                         |

|          |            |                  |      |             |                  |
|----------|------------|------------------|------|-------------|------------------|
| R7355    | C-CARBON R | RN72K1J-103JE    | 1    | 435031034R1 |                  |
| R7356    | C-CARBON R | RN72K1J-222JE    | 1    | 435032224R1 |                  |
| R7357    | C-CARBON R | RN72K1J-102JE    | 1    | 435031024R1 |                  |
| R7361    | C-CARBON R | RN72K1J-103JE    | 1    | 435031034R1 |                  |
| R7362    | C-CARBON R | RN72K1J-222JE    | 1    | 435032224R1 |                  |
| R7363    | C-CARBON R | RN72K1J-102JE    | 1    | 435031024R1 |                  |
| R7365    | C-CARBON R | RN72K1J-103JE    | 1    | 435031034R1 |                  |
| R7366    | C-CARBON R | RN72K1J-222JE    | 1    | 435032224R1 |                  |
| R7367    | C-CARBON R | RN72K1J-102JE    | 1    | 435031024R1 |                  |
| R7371    | C-CARBON R | RN72K1J-470JE    | 1    | 435034704R1 |                  |
| R7391    | C-CARBON R | RN72K1J-103JE    | 1    | 435031034R1 |                  |
| R7392    | C-CARBON R | RN72K1J-103JE    | 1    | 435031034R1 |                  |
| R7401    | C-CARBON R | RN72K1J-220JE    | 1    | 435032204R1 |                  |
| R7402    | C-CARBON R | RN72K1J-220JE    | 1    | 435032204R1 |                  |
| R7403    | C-CARBON R | RN72K1J-000JE    | 1    | 435030004R1 |                  |
| R7404    | C-CARBON R | RN72K1J-273JE    | 1    | 435032734R1 |                  |
| R7407    | C-CARBON R | RN72K1J-000JE    | 1    | 435030004R1 | <DC, DD>         |
| R7408    | C-CARBON R | RN72K1J-000JE    | 1    | 435030004R1 | <DC, DD>         |
| R7411    | C-CARBON R | RN72K1J-000JE    | 1    | 435030004R1 | <MP, MB, MT, DT> |
| R7412    | C-CARBON R | RN72K1J-000JE    | 1    | 435030004R1 | <DC, DD>         |
| R7413    | C-CARBON R | RN72K1J-000JE    | 1    | 435030004R1 | <SR876>          |
| R7414    | C-CARBON R | RN72K1J-000JE    | 1    | 435030004R1 | <SR876>          |
| R7415    | C-CARBON R | RN72K1J-222JE    | 1    | 435032224R1 | <MP, MB, MT, DT> |
| R7416    | C-CARBON R | RN72K1J-222JE    | 1    | 435032224R1 | <MP, MB, MT, DT> |
| R7417    | C-CARBON R | RN72K1J-392JE    | 1    | 435033924R1 | <MP, MB, MT, DT> |
| R7418    | C-CARBON R | RN72K1J-392JE    | 1    | 435033924R1 | <MP, MB, MT, DT> |
| R7421    | C-CARBON R | RN72K1J-000JE    | 1    | 435030004R1 |                  |
| R7425    | C-CARBON R | RN72K1J-000JE    | 1    | 435030004R1 | <MP, MB, MT, DT> |
| E101     | TRM(SCREW) | NEJITANSI M3     | 1    | 25065425    | <DC, DD>         |
| E102     | TRM(SCREW) | NEJITANSI M3     | 1    | 25065425    | <DC, DD>         |
| JL9501A  | SOCKET     | NSCT-6P111       | 1    | 25050283    |                  |
| P101B    | SOCKET     | NSCT-13P2106     | 1    | 25052209    | <SR876>          |
| P101B or | SOCKET     | NSCT-13P1607     | ( 1) | 25051820    | <SR876>          |
| P102A    | SOCKET     | NSCT-18P2148     | 1    | 25052251    | <DC, DD>         |
| P102A or | SOCKET     | NSCT-18P1649     | ( 1) | 25051862    | <DC, DD>         |
| P102B    | SOCKET     | NSCT-18P2111     | 1    | 25052214    | <DC, DD>         |
| P102B or | SOCKET     | NSCT-18P1612     | ( 1) | 25051825    | <DC, DD>         |
| P121     | SOCKET     | YKF51-5397N      | 1    | 25053201    | <DC, DD>         |
| P122     | SOCKET     | CAM-C16          | 1    | 25053104R2  | <DC, DD>         |
| P122A    | RETAINER   | (XM)             | 1    | 27142048    | <DC, DD>         |
| P2010B   | SOCKET     | IMSA-9142S-24A   | 1    | 25053234    |                  |
| P2998    | TRM        | NTM-1P232(M1700) | 1    | 25060301    |                  |
| P2999    | TRM        | NTM-1P232(M1700) | 1    | 25060301    |                  |
| P3001    | PIN JACK   | NPJ-3PDO656      | 1    | 25045884    |                  |
| P3001 or | PIN JACK   | NPJ-3PDO465      | ( 1) | 25045666    |                  |
| P3002    | ST JACK    | MSJ-035-22       | 1    | 25045887    |                  |
| P3002 or | JACK       | YKB21-5130       | ( 1) | 25045387    |                  |
| P3003    | SOCKET     | 7906-09FHA       | 1    | 25053103    |                  |

|        |            |                    |   |          |  |
|--------|------------|--------------------|---|----------|--|
| P3101A | PLUG       | IMSA-9142B-24A     | 1 | 25056602 |  |
| P3102A | PLUG       | IMSA-9142B-14A     | 1 | 25056597 |  |
| P3103A | PLUG       | IMSA-9142B-16A     | 1 | 25056598 |  |
| P3801A | PLUG       | IMSA-9855B-30D-T   | 1 | 25056604 |  |
| P3802A | PLUG       | IMSA-9855B-30D-T   | 1 | 25056604 |  |
| P4020B | SOCKET     | IMSA-9142S-26A     | 1 | 25053235 |  |
| P4021B | SOCKET     | IMSA-9142S-26A     | 1 | 25053235 |  |
| P4032B | SOCKET     | NSCT-8P1023        | 1 | 25051233 |  |
| P4033B | SOCKET     | NSCT-13P1028       | 1 | 25051238 |  |
| P4110  | SOCKET     | 9210B-1-10Z140-PT1 | 1 | 25053247 |  |
| P4111  | SOCKET     | 9210B-1-09Z140-PT1 | 1 | 25053249 |  |
| P6851A | PLUG       | IMSA-9142B-20A     | 1 | 25056600 |  |
| P6852A | PLUG       | IMSA-9142B-20A     | 1 | 25056600 |  |
| P6853A | PLUG       | IMSA-9142B-20A     | 1 | 25056600 |  |
| P7001  | SOCKET     | NSCT-9P2427        | 1 | 25052530 |  |
| P7002  | TRM(SCREW) | NEJITANSI M3       | 1 | 25065425 |  |
| P7210B | PLUG       | NPLG-9P356         | 1 | 25055373 |  |
| P7501A | SOCKET     | NSCT-40P2170       | 1 | 25052273 |  |
| P8002A | PLUG       | NPLG-15P667        | 1 | 25055711 |  |

|            |                                               |
|------------|-----------------------------------------------|
| <b>U33</b> | <b>DISPLAY PC BOARD(NADIS-9085-1A/1P)</b>     |
| <b>U34</b> | <b>DISPLAY PC BOARD(NADIS-9086-1A/1P)</b>     |
| <b>U36</b> | <b>HEADPHONE PC BOARD(NAETC-9088-1A/1P)</b>   |
| <b>U37</b> | <b>POWER SUPPLY PC BOARD(NAPS-9089-1A/1P)</b> |

| REF. NO. | PART NAME | DESCRIPTION        | Q'TY | PART NO. (SN) | REMARKS |
|----------|-----------|--------------------|------|---------------|---------|
| U7520    | PHT CP    | TORX177L           | 1    | 24120127      |         |
| U7560    | REMO SENS | NJL34H380A         | 1    | 241365        |         |
| Q7500    | FL TUBE   | HNA-16SL04T        | 1    | 212266        |         |
| Q7500A   | HOLDER    | (FL)               | 1    | 27191303      |         |
| Q7501    | IC        | M66005-0001AHP     | 1    | 22242208R3    |         |
| Q7502    | IC        | M66005-0001AHP     | 1    | 22242208R3    |         |
| Q7503    | TR        | 2SC2712-GR         | 1    | 2213145R2     |         |
| Q7503 or | TR        | 2SC2712-Y(TE85L_F) | ( 1) | 2213144R2     |         |
| Q7504    | TR        | 2SC2712-GR         | 1    | 2213145R2     |         |
| Q7504 or | TR        | 2SC2712-Y(TE85L_F) | ( 1) | 2213144R2     |         |
| Q7520    | IC        | NE5532APSR         | 1    | 22242283R2    |         |
| Q7530    | IC        | NJM4580M-D         | 1    | 22241448R2    |         |
| Q7532    | TR        | RN1441             | 1    | 2215410R2     |         |
| Q7533    | TR        | RN2403             | 1    | 2214540R2     |         |
| Q7533 or | TR        | DTA124EKA          | ( 1) | 2216240R2     |         |
| Q7533 or | TR        | KRA103S            | ( 1) | 2216230R2     |         |
| Q7591    | TR        | DTC123JKA          | 1    | 2216690R2     |         |
| Q7592    | TR        | DTC123JKA          | 1    | 2216690R2     |         |
| Q7593    | TR        | DTC123JKA          | 1    | 2216690R2     |         |
| Q7597    | TR        | DTC123JKA          | 1    | 2216690R2     |         |
| Q7598    | TR        | DTC123JKA          | 1    | 2216690R2     |         |
| Q7611    | IC        | TC74VHC08F(EL_K_F) | 1    | 22242492R2    |         |

|          |         |                      |      |             |
|----------|---------|----------------------|------|-------------|
| Q9301    | TR      | 2SC2235-Y(TPE6_F)    | 1    | 2211654T    |
| Q9301 or | TR      | 2SC2235-Q(TPE6_F)    | ( 1) | 2211653T    |
| D7500    | ZENER D | UDZS10B              | 1    | 224551000R2 |
| D7520    | C-DIODE | 1SS355               | 1    | 223269R2    |
| D7520 or | C-DIODE | MA2J1110GL           | ( 1) | 223302R2    |
| D7521    | C-DIODE | 1SS355               | 1    | 223269R2    |
| D7521 or | C-DIODE | MA2J1110GL           | ( 1) | 223302R2    |
| D7522    | C-DIODE | 1SS355               | 1    | 223269R2    |
| D7522 or | C-DIODE | MA2J1110GL           | ( 1) | 223302R2    |
| D7523    | C-DIODE | 1SS355               | 1    | 223269R2    |
| D7523 or | C-DIODE | MA2J1110GL           | ( 1) | 223302R2    |
| D7530    | ZENER D | UDZS5.1B             | 1    | 224550510R2 |
| D7531    | C-DIODE | 1SS355               | 1    | 223269R2    |
| D7531 or | C-DIODE | MA2J1110GL           | ( 1) | 223302R2    |
| D7532    | C-DIODE | 1SS355               | 1    | 223269R2    |
| D7532 or | C-DIODE | MA2J1110GL           | ( 1) | 223302R2    |
| D7560    | C-DIODE | 1SS355               | 1    | 223269R2    |
| D7560 or | C-DIODE | MA2J1110GL           | ( 1) | 223302R2    |
| D7561    | C-DIODE | 1SS355               | 1    | 223269R2    |
| D7561 or | C-DIODE | MA2J1110GL           | ( 1) | 223302R2    |
| D7570    | SPCF D  | SIR-34ST3F           | 1    | 225456      |
| D7580    | C-DIODE | 1SS355               | 1    | 223269R2    |
| D7580 or | C-DIODE | MA2J1110GL           | ( 1) | 223302R2    |
| D7581    | C-DIODE | 1SS355               | 1    | 223269R2    |
| D7581 or | C-DIODE | MA2J1110GL           | ( 1) | 223302R2    |
| D7582    | C-DIODE | 1SS355               | 1    | 223269R2    |
| D7582 or | C-DIODE | MA2J1110GL           | ( 1) | 223302R2    |
| D7583    | C-DIODE | 1SS355               | 1    | 223269R2    |
| D7583 or | C-DIODE | MA2J1110GL           | ( 1) | 223302R2    |
| D7590    | LED     | SDPB3DD0C0000-ABCDEF | 1    | 225473      |
| D7590a   | HOLDER  | (LED)LH-5-5          | 1    | 27191312    |
| D7591    | LED     | SDPB3DD0C0000-ABCDEF | 1    | 225473      |
| D7592    | LED     | SLR-342MGTE7P        | 1    | 225455T     |
| D7593    | LED     | SLR-342MGTE7P        | 1    | 225455T     |
| D7593 or | LED     | SEL4410G             | ( 1) | 225454T     |
| D7593 or | LED     | SEL4310G-D           | ( 1) | 225292DT    |
| D7594    | LED     | SLI-343URC-TE7       | 1    | 225449T     |
| D9303    | DIODE   | D10XB60H             | 1    | 22380337F   |
| D9306    | ZENER D | MTZJ22B              | 1    | 224472202T  |
| D9307    | DIODE   | 1SS133               | 1    | 223163T     |
| D9308    | DIODE   | 1SS133               | 1    | 223163T     |
| D9310    | ZENER D | MTZJ24B              | 1    | 224472402T  |
| D9311    | ZENER D | MTZJ5.1B             | 1    | 224470512T  |
| D9312    | DIODE   | RL1N4003             | 1    | 22380260T   |
| D9312 or | DIODE   | GP104003E            | ( 1) | 22380035T   |
| D9313    | DIODE   | RL1N4003             | 1    | 22380260T   |
| D9313 or | DIODE   | GP104003E            | ( 1) | 22380035T   |
| D9314    | DIODE   | RL1N4003             | 1    | 22380260T   |

|          |            |                     |      |             |
|----------|------------|---------------------|------|-------------|
| D9314 or | DIODE      | GP104003E           | ( 1) | 22380035T   |
| D9315    | DIODE      | RL1N4003            | 1    | 22380260T   |
| D9315 or | DIODE      | GP104003E           | ( 1) | 22380035T   |
| D9316    | DIODE      | RL1N4003            | 1    | 22380260T   |
| D9316 or | DIODE      | GP104003E           | ( 1) | 22380035T   |
| L7520    | CHOKE COIL | NCH-1561 022K       | 1    | 233526K022T |
| L7530    | CHOKE COIL | NCH-1561 022K       | 1    | 233526K022T |
| L7580    | CHOKE COIL | NCH-1561 022K       | 1    | 233526K022T |
| L7581    | CHOKE COIL | NCH-1561 022K       | 1    | 233526K022T |
| L7582    | CHOKE COIL | NCH-1561 022K       | 1    | 233526K022T |
| C7501    | C-CERA C   | CK725B1H-223K1      | 1    | 332102235R1 |
| C7502    | C-CERA C   | CK725F1E-104Z1      | 1    | 332161040R1 |
| C7503    | C-CERA C   | CK725F1E-104Z1      | 1    | 332161040R1 |
| C7504    | C-CERA C   | CK725B1H-473K1      | 1    | 332104735R1 |
| C7505    | C-CERA C   | CK725B1H-473K1      | 1    | 332104735R1 |
| C7506    | ELECT C    | CE04W50V-33M        | 1    | 355783309T  |
| C7511    | C-CERA C   | CK725F1E-104Z1      | 1    | 332161040R1 |
| C7512    | C-CERA C   | CC725CH1H-180J1     | 1    | 342101804R1 |
| C7513    | C-CERA C   | CK725F1E-104Z1      | 1    | 332161040R1 |
| C7514    | C-CERA C   | CK725F1E-104Z1      | 1    | 332161040R1 |
| C7518    | C-CERA C   | CK725F1E-104Z1      | 1    | 332161040R1 |
| C7519    | C-CERA C   | CK725F1E-104Z1      | 1    | 332161040R1 |
| C7520    | C-CERA C   | CK725B1H-223K1      | 1    | 332102235R1 |
| C7521    | UTSP C     | CE04W10V-100M(UTSP) | 1    | 397531017T  |
| C7522    | C-CERA C   | CC725CH1H-221J1     | 1    | 342102214R1 |
| C7523    | C-CERA C   | CC725CH1H-221J1     | 1    | 342102214R1 |
| C7524    | C-CERA C   | CK725B1H-102K1      | 1    | 332101025R1 |
| C7530    | C-CERA C   | CK725B1H-102K1      | 1    | 332101025R1 |
| C7531    | C-CERA C   | CK725B1H-102K1      | 1    | 332101025R1 |
| C7533    | ELECT C    | CE04W35V-47M        | 1    | 355764709T  |
| C7534    | ELECT C    | CE04W35V-47M        | 1    | 355764709T  |
| C7535    | ELECT C    | CE04W35V-10M(S)     | 1    | 353761009T  |
| C7536    | C-CERA C   | CC725CH1H-101J1     | 1    | 342101014R1 |
| C7537    | C-CERA C   | CC725CH1H-330J1     | 1    | 342103304R1 |
| C7538    | ELECT C    | CE04W35V-10M(S)     | 1    | 353761009T  |
| C7539    | ELECT C    | CE04W35V-10M(S)     | 1    | 353761009T  |
| C7540    | ELECT C    | CE04W35V-10M(S)     | 1    | 353761009T  |
| C7543    | C-CERA C   | CK725B1H-102K1      | 1    | 332101025R1 |
| C7560    | ELECT C    | CE04W6.3V-220M      | 1    | 355722219T  |
| C7561    | C-CERA C   | CK725B1H-102K1      | 1    | 332101025R1 |
| C7562    | C-CERA C   | CK725B1H-102K1      | 1    | 332101025R1 |
| C7580    | C-CERA C   | CK725B1H-102K1      | 1    | 332101025R1 |
| C7581    | C-CERA C   | CK725B1H-102K1      | 1    | 332101025R1 |
| C7582    | C-CERA C   | CK725B1H-102K1      | 1    | 332101025R1 |
| C7583    | C-CERA C   | CK725B1H-102K1      | 1    | 332101025R1 |
| C7590    | C-CERA C   | CK725B1H-103K1      | 1    | 332101035R1 |
| C7591    | C-CERA C   | CK725B1H-103K1      | 1    | 332101035R1 |
| C7900    | C-CERA C   | CK725F1E-104Z1      | 1    | 332161040R1 |

|       |            |                     |   |             |
|-------|------------|---------------------|---|-------------|
| C9302 | VR C       | CE04W16V-10000M(VR) | 1 | 394641037S  |
| C9304 | VR C       | CE04W63V-470M(VR)   | 1 | 394674717S  |
| C9305 | VR C       | CE04W63V-47M(VR)    | 1 | 394674707T  |
| C9306 | TF C       | ECQ-B50V-223J       | 1 | 374722234T  |
| C9307 | TF C       | ECQ-V50V-334J       | 1 | 374723344T  |
| C9308 | UTSP C     | CE04W50V-4.7M(UTSP) | 1 | 397580477T  |
| R7500 | C-CARBON R | RN72K1J-221JE       | 1 | 435032214R1 |
| R7501 | C-CARBON R | RN72K1J-221JE       | 1 | 435032214R1 |
| R7502 | C-CARBON R | RN72K1J-273JE       | 1 | 435032734R1 |
| R7503 | C-CARBON R | RN72K1J-222JE       | 1 | 435032224R1 |
| R7504 | C-CARBON R | RN72K1J-222JE       | 1 | 435032224R1 |
| R7505 | C-CARBON R | RN72K1J-222JE       | 1 | 435032224R1 |
| R7506 | C-CARBON R | RN72K1J-222JE       | 1 | 435032224R1 |
| R7507 | C-CARBON R | RN72K1J-222JE       | 1 | 435032224R1 |
| R7508 | C-CARBON R | RN72K1J-222JE       | 1 | 435032224R1 |
| R7509 | C-CARBON R | RN72K1J-222JE       | 1 | 435032224R1 |
| R7510 | C-CARBON R | RN72K1J-222JE       | 1 | 435032224R1 |
| R7520 | C-CARBON R | RN72K1J-221JE       | 1 | 435032214R1 |
| R7521 | C-CARBON R | RN72K1J-331JE       | 1 | 435033314R1 |
| R7522 | C-CARBON R | RN72K1J-331JE       | 1 | 435033314R1 |
| R7523 | C-CARBON R | RN72K1J-750JE       | 1 | 435037504R1 |
| R7524 | C-CARBON R | RN72K1J-750JE       | 1 | 435037504R1 |
| R7525 | C-CARBON R | RN72K1J-750JE       | 1 | 435037504R1 |
| R7526 | C-CARBON R | RN72K1J-223JE       | 1 | 435032234R1 |
| R7527 | C-CARBON R | RN72K1J-223JE       | 1 | 435032234R1 |
| R7528 | C-CARBON R | RN72K1J-224JE       | 1 | 435032244R1 |
| R7529 | C-CARBON R | RN72K1J-224JE       | 1 | 435032244R1 |
| R7530 | C-CARBON R | RN72K1J-472JE       | 1 | 435034724R1 |
| R7531 | C-CARBON R | RN72K1J-101JE       | 1 | 435031014R1 |
| R7532 | C-CARBON R | RN72K1J-331JE       | 1 | 435033314R1 |
| R7533 | C-CARBON R | RN72K1J-182JE       | 1 | 435031824R1 |
| R7534 | C-CARBON R | RN72K1J-104JE       | 1 | 435031044R1 |
| R7535 | C-CARBON R | RN72K1J-102JE       | 1 | 435031024R1 |
| R7536 | C-CARBON R | RN72K1J-333JE       | 1 | 435033334R1 |
| R7537 | C-CARBON R | RN72K1J-333JE       | 1 | 435033334R1 |
| R7538 | C-CARBON R | RN72K1J-221JE       | 1 | 435032214R1 |
| R7539 | C-CARBON R | RN72K1J-221JE       | 1 | 435032214R1 |
| R7540 | C-CARBON R | RN72K1J-473JE       | 1 | 435034734R1 |
| R7560 | C-CARBON R | RN72K1J-102JE       | 1 | 435031024R1 |
| R7561 | C-CARBON R | RN72K1J-101JE       | 1 | 435031014R1 |
| R7580 | METAL O R  | RS1WBJ-33           | 1 | 443623304T  |
| R7581 | METAL O R  | RS1WBJ-33           | 1 | 443623304T  |
| R7590 | C-CARBON R | RN72K1J-103JE       | 1 | 435031034R1 |
| R7591 | C-CARBON R | RN72K1J-103JE       | 1 | 435031034R1 |
| R7592 | C-CARBON R | RN72K1J-103JE       | 1 | 435031034R1 |
| R7593 | C-CARBON R | RN72K1J-103JE       | 1 | 435031034R1 |
| R7594 | C-CARBON R | RN72K1J-121JE       | 1 | 435031214R1 |
| R7595 | C-CARBON R | RN72K1J-121JE       | 1 | 435031214R1 |

|       |             |                  |   |             |
|-------|-------------|------------------|---|-------------|
| R7596 | C-CARBON R  | RN72K1J-181JE    | 1 | 435031814R1 |
| R7597 | C-CARBON R  | RN72K1J-181JE    | 1 | 435031814R1 |
| R7598 | C-CARBON R  | RN72K1J-151JE    | 1 | 435031514R1 |
| R7611 | C-CARBON R  | RN72K1J-271JE    | 1 | 435032714R1 |
| R7612 | C-CARBON R  | RN72K1J-331JE    | 1 | 435033314R1 |
| R7613 | C-CARBON R  | RN72K1J-471JE    | 1 | 435034714R1 |
| R7614 | C-CARBON R  | RN72K1J-561JE    | 1 | 435035614R1 |
| R7615 | C-CARBON R  | RN72K1J-821JE    | 1 | 435038214R1 |
| R7616 | C-CARBON R  | RN72K1J-122JE    | 1 | 435031224R1 |
| R7617 | C-CARBON R  | RN72K1J-222JE    | 1 | 435032224R1 |
| R7618 | C-CARBON R  | RN72K1J-392JE    | 1 | 435033924R1 |
| R7621 | C-CARBON R  | RN72K1J-271JE    | 1 | 435032714R1 |
| R7622 | C-CARBON R  | RN72K1J-331JE    | 1 | 435033314R1 |
| R7623 | C-CARBON R  | RN72K1J-471JE    | 1 | 435034714R1 |
| R7624 | C-CARBON R  | RN72K1J-561JE    | 1 | 435035614R1 |
| R7625 | C-CARBON R  | RN72K1J-821JE    | 1 | 435038214R1 |
| R7626 | C-CARBON R  | RN72K1J-122JE    | 1 | 435031224R1 |
| R7627 | C-CARBON R  | RN72K1J-222JE    | 1 | 435032224R1 |
| R7628 | C-CARBON R  | RN72K1J-392JE    | 1 | 435033924R1 |
| R7629 | C-CARBON R  | RN72K1J-123JE    | 1 | 435031234R1 |
| R7631 | C-CARBON R  | RN72K1J-271JE    | 1 | 435032714R1 |
| R7632 | C-CARBON R  | RN72K1J-331JE    | 1 | 435033314R1 |
| R7633 | C-CARBON R  | RN72K1J-471JE    | 1 | 435034714R1 |
| R7634 | C-CARBON R  | RN72K1J-561JE    | 1 | 435035614R1 |
| R7635 | C-CARBON R  | RN72K1J-821JE    | 1 | 435038214R1 |
| R7636 | C-CARBON R  | RN72K1J-122JE    | 1 | 435031224R1 |
| R7637 | C-CARBON R  | RN72K1J-222JE    | 1 | 435032224R1 |
| R7638 | C-CARBON R  | RN72K1J-392JE    | 1 | 435033924R1 |
| R7639 | C-CARBON R  | RN72K1J-123JE    | 1 | 435031234R1 |
| R7641 | C-CARBON R  | RN72K1J-271JE    | 1 | 435032714R1 |
| R7642 | C-CARBON R  | RN72K1J-331JE    | 1 | 435033314R1 |
| R7643 | C-CARBON R  | RN72K1J-471JE    | 1 | 435034714R1 |
| R7644 | C-CARBON R  | RN72K1J-561JE    | 1 | 435035614R1 |
| R7645 | C-CARBON R  | RN72K1J-821JE    | 1 | 435038214R1 |
| R7646 | C-CARBON R  | RN72K1J-122JE    | 1 | 435031224R1 |
| R7647 | C-CARBON R  | RN72K1J-222JE    | 1 | 435032224R1 |
| R7648 | C-CARBON R  | RN72K1J-392JE    | 1 | 435033924R1 |
| R7649 | C-CARBON R  | RN72K1J-123JE    | 1 | 435031234R1 |
| R7802 | C-CARBON R  | RN72K1J-103JE    | 1 | 435031034R1 |
| R7939 | C-CARBON R  | RN72K1J-104JE    | 1 | 435031044R1 |
| R7954 | C-CARBON R  | RN72K1J-104JE    | 1 | 435031044R1 |
| R9304 | NF CARBON R | R25J-10          | 1 | 415471004T  |
| R9305 | CARBON R    | R16J-5.6K        | 1 | 417345624T  |
| R9307 | CARBON R    | R16J-33K         | 1 | 417343334T  |
| R9308 | METAL R     | RNU1/2WCJ-1      | 1 | 453530104T  |
| R9309 | CARBON R    | R16J-10K         | 1 | 417341034T  |
| R9310 | METAL O R   | RS1WBJ-22        | 1 | 443622204T  |
| E7580 | TRM         | NTM-1P233(M1969) | 1 | 25060302    |

|          |           |                          |      |           |                         |
|----------|-----------|--------------------------|------|-----------|-------------------------|
| F9301A   | FUSE HOL  | NSCT-1P2031              | 1    | 25052133T | !                       |
| F9301B   | FUSE HOL  | NSCT-1P2031              | 1    | 25052133T | !                       |
| JL4103B  | SOCKET    | NSCT-5P97                | 1    | 25050269  |                         |
| JL7560A  | WIRE HOL  | NSCT-3P874               | 1    | 25051087  |                         |
| JL7560B  | WIRE HOL  | NSCT-3P874               | 1    | 25051087  |                         |
| JL7590A  | WIRE HOL  | NSCT-9P880               | 1    | 25051093  |                         |
| JL7590B  | WIRE HOL  | NSCT-9P880               | 1    | 25051093  |                         |
| JL7591A  | WIRE HOL  | NSCT-6P877               | 1    | 25051090  |                         |
| JL7591B  | WIRE HOL  | NSCT-6P877               | 1    | 25051090  |                         |
| JL9303A  | WIRE HOL  | NSCT-4P875               | 1    | 25051088  |                         |
| JL9303B  | WIRE TRAP | NPLG-4P587               | 1    | 25055625  |                         |
| JL9501B  | SOCKET    | NSCT-6P98                | 1    | 25050270  |                         |
| P7501B   | SOCKET    | NSCT-40P2170             | 1    | 25052273  |                         |
| P7522    | PIN JACK  | NPJ-7PDB477              | 1    | 25045680  |                         |
| P7530    | ST JACK   | MSJ-035-05C B AG SR type | 1    | 25045879  |                         |
| P7530 or | JACK      | LGT1516-0101             | ( 1) | 25045396  |                         |
| P7580    | ST JACK   | MSJ-064-05A SR           | 1    | 25045783  |                         |
| P7999    | WS CLAMP  | CB-71683(L=50)           | 1    | 260261    |                         |
| P9008B   | PLUG      | NPLG-2P631               | 1    | 25055675  | <MP, MB, MT, DT, SA876> |
| P9301A   | PLUG      | NPLG-6P120               | 1    | 25055136  |                         |
| S7590    | R ENCODE  | EC12E2425WITH WASHER     | 1    | 25065655W |                         |
| S7611    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |
| S7611 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T |                         |
| S7612    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |
| S7612 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T |                         |
| S7613    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |
| S7613 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T |                         |
| S7614    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |
| S7614 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T |                         |
| S7615    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |
| S7615 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T |                         |
| S7616    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |
| S7616 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T |                         |
| S7617    | PUSH SW   | NPS-111-S681             | 1    | 25035718T | <MP, MB, MT, DT, SA876> |
| S7617 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T | <MP, MB, MT, DT, SA876> |
| S7618    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |
| S7618 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T |                         |
| S7619    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |
| S7619 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T |                         |
| S7621    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |
| S7621 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T |                         |
| S7622    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |
| S7622 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T |                         |
| S7623    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |
| S7623 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T |                         |
| S7624    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |
| S7624 or | PUSH SW   | NPS-111-S677             | ( 1) | 25035714T |                         |
| S7625    | PUSH SW   | NPS-111-S681             | 1    | 25035718T |                         |

|          |         |              |      |           |
|----------|---------|--------------|------|-----------|
| S7625 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7626    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7626 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7627    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7627 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7628    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7628 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7630    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7630 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7631    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7631 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7632    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7632 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7633    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7633 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7634    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7634 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7635    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7635 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7636    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7636 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7637    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7637 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7638    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7638 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7639    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7639 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7640    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7640 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7641    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7641 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7642    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7642 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7643    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7643 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7644    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7644 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7645    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7645 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7646    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7646 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7647    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7647 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7648    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7648 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7649    | PUSH SW | NPS-111-S681 | 1    | 25035718T |
| S7649 or | PUSH SW | NPS-111-S677 | ( 1) | 25035714T |
| S7650    | PUSH SW | NPS-111-S681 | 1    | 25035718T |

|          |         |               |      |           |                            |
|----------|---------|---------------|------|-----------|----------------------------|
| S7650 or | PUSH SW | NPS-111-S677  | ( 1) | 25035714T |                            |
| S9000    | P SW    | NPS-111-L590P | 1    | 25035636  | !, <MP, MB, MT, DT, SA876> |

**U42 HDMI PC BOARD (NAHDM-9114-1A)**

| REF. NO. | PART NAME        | DESCRIPTION             | Q'TY | PART NO. (SN)   | REMARKS |
|----------|------------------|-------------------------|------|-----------------|---------|
| U8001    | IC               | VX-50                   | 1    | 22242392R3      |         |
| U8027    | IC               | HY5DU561622ETP-4-C      | 1    | 22242450R3      |         |
| U8027 or | IC               | HY5DU561622FTP-4-C      | ( 1) | 22242577R3      |         |
| U8028    | IC               | HY5DU561622ETP-4-C      | 1    | 22242450R3      |         |
| U8028 or | IC               | HY5DU561622FTP-4-C      | ( 1) | 22242577R3      |         |
| U8029    | IC               | HY5DU561622ETP-4-C      | 1    | 22242450R3      |         |
| U8029 or | IC               | HY5DU561622FTP-4-C      | ( 1) | 22242577R3      |         |
| U8030    | IC               | HY5DU561622ETP-4-C      | 1    | 22242450R3      |         |
| U8030 or | IC               | HY5DU561622FTP-4-C      | ( 1) | 22242577R3      |         |
| U8031    | IC(VIDEO MEMORY) | S29GL128N10TFI020(0290) | 1    | 222W0071R30290A |         |
| U8031 or | IC(VIDEO MEMORY) | S29GL128P90TFIR20(0290) | ( 1) | 222W0090R30290A |         |
| U8067    | IC               | LP2996MX                | 1    | 22242438R2      |         |
| Q8101    | IC               | AD8196                  | 1    | ---             | NSP     |
| Q8102    | TR               | 2SK3019                 | 1    | 2216520R2       |         |
| Q8103    | TR               | 2SK3019                 | 1    | 2216520R2       |         |
| Q8104    | IC               | SN74CB3T3306DCT         | 1    | 22242454R2      |         |
| Q8105    | IC               | S-24CS02AFT-V-G         | 1    | 22242360R2      |         |
| Q8105 or | IC               | BR24L02FV-W             | ( 1) | 22242069R2      |         |
| Q8108    | TR               | DTA144EE                | 1    | 2216380R2       |         |
| Q8109    | TR               | DTC144EE                | 1    | 2216390R2       |         |
| Q8124    | IC               | SN74CB3T3306DCT         | 1    | 22242454R2      |         |
| Q8125    | IC               | S-24CS02AFT-V-G         | 1    | 22242360R2      |         |
| Q8125 or | IC               | BR24L02FV-W             | ( 1) | 22242069R2      |         |
| Q8128    | TR               | DTA144EE                | 1    | 2216380R2       |         |
| Q8129    | TR               | DTC144EE                | 1    | 2216390R2       |         |
| Q8151    | IC               | AD8196                  | 1    | ---             | NSP     |
| Q8152    | TR               | 2SK3019                 | 1    | 2216520R2       |         |
| Q8153    | TR               | 2SK3019                 | 1    | 2216520R2       |         |
| Q8154    | IC               | SN74CB3T3306DCT         | 1    | 22242454R2      |         |
| Q8155    | IC               | S-24CS02AFT-V-G         | 1    | 22242360R2      |         |
| Q8155 or | IC               | BR24L02FV-W             | ( 1) | 22242069R2      |         |
| Q8158    | TR               | DTA144EE                | 1    | 2216380R2       |         |
| Q8159    | TR               | DTC144EE                | 1    | 2216390R2       |         |
| Q8174    | IC               | SN74CB3T3306DCT         | 1    | 22242454R2      |         |
| Q8175    | IC               | S-24CS02AFT-V-G         | 1    | 22242360R2      |         |
| Q8175 or | IC               | BR24L02FV-W             | ( 1) | 22242069R2      |         |
| Q8178    | TR               | DTA144EE                | 1    | 2216380R2       |         |
| Q8179    | TR               | DTC144EE                | 1    | 2216390R2       |         |
| Q8305    | IC               | S-812C50BUC-C5ET2G      | 1    | 22242407R2      |         |
| Q8306    | IC               | TC7SZ08FU(TE85L_F)      | 1    | 22242071R2TO    |         |
| Q8306 or | IC               | NC7SZ08P5X_F042         | ( 1) | 22242482R2      |         |
| Q8309    | TR ARRAY         | UM6K1N                  | 1    | 226066R2        |         |

|          |                 |                        |      |                 |     |
|----------|-----------------|------------------------|------|-----------------|-----|
| Q8355    | IC              | S-812C50BUC-C5ET2G     | 1    | 22242407R2      |     |
| Q8356    | IC              | TC7SZ08FU(TE85L_F)     | 1    | 22242071R2TO    |     |
| Q8356 or | IC              | NC7SZ08P5X_F042        | ( 1) | 22242482R2      |     |
| Q8359    | TR ARRAY        | UM6K1N                 | 1    | 226066R2        |     |
| Q8401    | IC              | SIH9134CTU             | 1    | ---             | NSP |
| Q8404    | IC              | XC6213B182MR           | 1    | 22242443R2      |     |
| Q8405    | IC              | SN74CB3Q3305PWR        | 1    | 22242258R2      |     |
| Q8451    | IC              | SIH9134CTU             | 1    | ---             | NSP |
| Q8454    | IC              | XC6213B182MR           | 1    | 22242443R2      |     |
| Q8501    | IC              | SIH9135CTU             | 1    | ---             | NSP |
| Q8501 or | IC              | SIH9135ACTU            | ( 1) | ---             | NSP |
| Q8502    | IC              | XC6213B332MR           | 1    | 22242277R2      |     |
| Q8595    | IC              | BA18BC0FP              | 1    | 22278018DR2RH   |     |
| Q8596    | IC              | BA18BC0FP              | 1    | 22278018DR2RH   |     |
| Q8597    | IC              | BA18BC0FP              | 1    | 22278018DR2RH   |     |
| Q8645    | IC              | BA18BC0FP              | 1    | 22278018DR2RH   |     |
| Q8701    | IC(HDMI MEMORY) | MPD70F3716GC-8EA(0295) | 1    | 222W0054R302955 |     |
| Q8800    | IC              | ADV7401                | 1    | 22242254R3      |     |
| Q8803    | TR ARRAY        | UM6K1N                 | 1    | 226066R2        |     |
| Q8806    | IC              | BA18BC0FP              | 1    | 22278018DR2RH   |     |
| Q8807    | IC              | TC7WZU04FU(TE12L_F)    | 1    | 22242078R2TO    |     |
| Q8808    | IC              | TC74VCX162244FT(EL_F)  | 1    | 2227C244DR2TO   |     |
| Q8809    | IC              | TC74VCX162244FT(EL_F)  | 1    | 2227C244DR2TO   |     |
| Q8810    | IC              | TC74VCX162244FT(EL_F)  | 1    | 2227C244DR2TO   |     |
| Q8811    | IC              | TC74VCX162827          | 1    | 22242395R2      |     |
| Q8812    | IC              | TC74VCX162827          | 1    | 22242395R2      |     |
| Q8813    | IC              | TC74VCX162827          | 1    | 22242395R2      |     |
| Q8814    | IC              | TC74VCX162827          | 1    | 22242395R2      |     |
| Q8815    | IC              | TC74VCX162827          | 1    | 22242395R2      |     |
| Q8816    | IC              | TC74VCX162827          | 1    | 22242395R2      |     |
| Q8817    | IC              | TC74VCX162827          | 1    | 22242395R2      |     |
| Q8818    | IC              | TC74VCX162827          | 1    | 22242395R2      |     |
| Q8860    | IC              | MAX4018ESD             | 1    | 22241440R2      |     |
| Q8861    | IC              | MAX4018ESD             | 1    | 22241440R2      |     |
| Q8901    | IC              | ADV7320                | 1    | 22242398R3      |     |
| Q8902    | IC              | NJM2391DL1-25          | 1    | 22278025DR2JR   |     |
| Q8931    | IC              | NJU7313AM              | 1    | 22242211R2      |     |
| Q8937    | IC              | LA7106M-TLM-E          | 1    | 22241465R2      |     |
| Q8951    | IC              | SPI-8010A              | 1    | 22242437R2      |     |
| Q8952    | IC              | SPI-8010A              | 1    | 22242437R2      |     |
| Q8953    | IC              | SPI-8010A              | 1    | 22242437R2      |     |
| Q8954    | IC              | SPI-8010A              | 1    | 22242437R2      |     |
| Q8956    | TR              | DTC144EE               | 1    | 2216390R2       |     |
| Q8957    | TR              | DTC144EE               | 1    | 2216390R2       |     |
| Q8958    | TR              | DTC144EE               | 1    | 2216390R2       |     |
| Q8959    | TR              | DTC144EE               | 1    | 2216390R2       |     |
| Q8963    | TR              | DTC144EE               | 1    | 2216390R2       |     |
| D8301    | C-DIODE         | 1SS226(TE85L_F)        | 1    | 223266R2        |     |

|          |            |                 |      |               |
|----------|------------|-----------------|------|---------------|
| D8302    | C-DIODE    | 1SS352          | 1    | 223234R2      |
| D8302 or | C-DIODE    | 1SS355          | ( 1) | 223269R2      |
| D8302 or | C-DIODE    | MA2J1110GL      | ( 1) | 223302R2      |
| D8303    | C-DIODE    | 1SS352          | 1    | 223234R2      |
| D8303 or | C-DIODE    | 1SS355          | ( 1) | 223269R2      |
| D8303 or | C-DIODE    | MA2J1110GL      | ( 1) | 223302R2      |
| D8351    | C-DIODE    | 1SS226(TE85L_F) | 1    | 223266R2      |
| D8352    | C-DIODE    | 1SS352          | 1    | 223234R2      |
| D8352 or | C-DIODE    | 1SS355          | ( 1) | 223269R2      |
| D8352 or | C-DIODE    | MA2J1110GL      | ( 1) | 223302R2      |
| D8353    | C-DIODE    | 1SS352          | 1    | 223234R2      |
| D8353 or | C-DIODE    | 1SS355          | ( 1) | 223269R2      |
| D8353 or | C-DIODE    | MA2J1110GL      | ( 1) | 223302R2      |
| D8701    | C-DIODE    | 1SS352          | 1    | 223234R2      |
| D8701 or | C-DIODE    | 1SS355          | ( 1) | 223269R2      |
| D8701 or | C-DIODE    | MA2J1110GL      | ( 1) | 223302R2      |
| D8951    | DIODE      | RSX501L-20      | 1    | 22380359R2    |
| D8952    | DIODE      | RSX501L-20      | 1    | 22380359R2    |
| D8953    | DIODE      | RSX501L-20      | 1    | 22380359R2    |
| D8954    | DIODE      | RSX501L-20      | 1    | 22380359R2    |
| L8007    | EMIFIL     | BK1608LM182-T   | 1    | 230958R1      |
| L8023    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8042    | C-CARBON R | RN72K1J-000JE   | 1    | 435030004R1   |
| L8101    | CHOKE COIL | LBC2518T4R7M    | 1    | 231364M047R2  |
| L8102    | CHOKE COIL | LBC2518T4R7M    | 1    | 231364M047R2  |
| L8151    | CHOKE COIL | LBC2518T4R7M    | 1    | 231364M047R2  |
| L8152    | CHOKE COIL | LBC2518T4R7M    | 1    | 231364M047R2  |
| L8400    | C-R NET    | MNR12E0APJ000   | 1    | 43464900002R2 |
| L8401    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8402    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8403    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8404    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8405    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8406    | C-R NET    | MNR12E0APJ000   | 1    | 43464900002R2 |
| L8407    | C-R NET    | MNR12E0APJ000   | 1    | 43464900002R2 |
| L8408    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8409    | C-R NET    | MNR12E0APJ000   | 1    | 43464900002R2 |
| L8450    | C-R NET    | MNR12E0APJ000   | 1    | 43464900002R2 |
| L8451    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8452    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8453    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8454    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8455    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8456    | C-R NET    | MNR12E0APJ000   | 1    | 43464900002R2 |
| L8457    | C-R NET    | MNR12E0APJ000   | 1    | 43464900002R2 |
| L8458    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |
| L8459    | C-R NET    | MNR12E0APJ000   | 1    | 43464900002R2 |
| L8501    | CHOKE COIL | BLM21PG221SN1   | 1    | 230949R2      |

|       |              |                    |   |              |
|-------|--------------|--------------------|---|--------------|
| L8502 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8503 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8504 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8510 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8604 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8607 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8608 | EMIFIL       | BK1608LL241-T      | 1 | 230959R1     |
| L8701 | CHOKE COIL   | LBC2518T220M       | 1 | 231364M220R2 |
| L8801 | CHOKE COIL   | LBC2518T2R2M       | 1 | 231364M022R2 |
| L8802 | CHOKE COIL   | LBC2518T470M       | 1 | 231364M470R2 |
| L8803 | CHOKE COIL   | LBC2518T2R2M       | 1 | 231364M022R2 |
| L8804 | CHOKE COIL   | LBC2518T2R2M       | 1 | 231364M022R2 |
| L8806 | CHOKE COIL   | LBC2518T2R2M       | 1 | 231364M022R2 |
| L8807 | EMIFIL       | BK1608HS601-T      | 1 | 230984R1     |
| L8810 | C-CARBON R   | RN72K1J-000JE      | 1 | 435030004R1  |
| L8811 | C-CARBON R   | RN72K1J-000JE      | 1 | 435030004R1  |
| L8812 | C-CARBON R   | RN72K1J-000JE      | 1 | 435030004R1  |
| L8813 | C-CARBON R   | RN72K1J-000JE      | 1 | 435030004R1  |
| L8814 | C-CARBON R   | RN72K1J-220JE      | 1 | 435032204R1  |
| L8815 | C-CARBON R   | RN72K1J-000JE      | 1 | 435030004R1  |
| L8851 | CHOKE COIL   | MLF2012DR47J       | 1 | 231380J479R1 |
| L8852 | CHOKE COIL   | MLF2012DR47J       | 1 | 231380J479R1 |
| L8853 | CHOKE COIL   | MLF2012DR47J       | 1 | 231380J479R1 |
| L8854 | CHOKE COIL   | MLF2012DR22J       | 1 | 231380J229R1 |
| L8855 | CHOKE COIL   | MLF2012DR22J       | 1 | 231380J229R1 |
| L8856 | CHOKE COIL   | MLF2012DR22J       | 1 | 231380J229R1 |
| L8901 | CHOKE COIL   | LBC2518T2R2M       | 1 | 231364M022R2 |
| L8902 | CHOKE COIL   | LBC2518T2R2M       | 1 | 231364M022R2 |
| L8903 | CHOKE COIL   | LBC2518T2R2M       | 1 | 231364M022R2 |
| L8951 | CHOKE COIL   | RCP1317NP470M      | 1 | 231375M470   |
| L8952 | CHOKE COIL   | RCP1317NP470M      | 1 | 231375M470   |
| L8953 | CHOKE COIL   | RCP1317NP470M      | 1 | 231375M470   |
| L8954 | CHOKE COIL   | RCP1317NP470M      | 1 | 231375M470   |
| L8955 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8956 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8957 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8958 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8959 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8960 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8961 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8962 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| L8963 | CHOKE COIL   | BLM21PG221SN1      | 1 | 230949R2     |
| X8002 | CRYSTAL      | FCX-03-27MHz       | 1 | 3010353R2    |
| X8501 | CRYSTAL      | FCX-03 LF28.332MHz | 1 | 3010451R2    |
| X8701 | CERA LOCK    | CSTCR5M00G53-B0    | 1 | 3010356R2    |
| X8801 | CRYSTAL      | FCX-03-28.6363MHz  | 1 | 3010408R2    |
| C8001 | C-CERA C     | CK725B1H-102K1     | 1 | 332101025R1  |
| C8003 | CHIP ELECT C | CEWX4V-22M         | 1 | 3981G2207R2  |

|       |              |                 |   |             |
|-------|--------------|-----------------|---|-------------|
| C8004 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8005 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8006 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8007 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8008 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8009 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8010 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8011 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8012 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8013 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8014 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8015 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8016 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8017 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8018 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8019 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8020 | CHIP ELECT C | CEWX4V-22M      | 1 | 3981G2207R2 |
| C8021 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8023 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8024 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8025 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8026 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8027 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8028 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8029 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8030 | C-CERA C     | CC725CH1H-102J1 | 1 | 342101024R1 |
| C8031 | C-CERA C     | CC725CH1H-102J1 | 1 | 342101024R1 |
| C8032 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8033 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8034 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8035 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8036 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C8037 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8040 | C-CERA C     | CC725CH1H-102J1 | 1 | 342101024R1 |
| C8041 | C-CERA C     | CC725CH1H-102J1 | 1 | 342101024R1 |
| C8043 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8044 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8045 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8046 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C8047 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8051 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8053 | CHIP ELECT C | CEWX4V-22M      | 1 | 3981G2207R2 |
| C8054 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8055 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8056 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8057 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8058 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8059 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |

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| C8060    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8061    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8062    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8063    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8064    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8065    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8066    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8067    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8068    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8069    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8070    | CHIP ELECT C | CEWX4V-22M      | 1    | 3981G2207R2 |
| C8071    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8073    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8074    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8075    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8076    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8077    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8078    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8079    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8080    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8081    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8083    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8084    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8085    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8086    | CHIP ELECT C | CEWX4V-100M     | 1    | 3981G1017R2 |
| C8087    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8090    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8091    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8093    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8094    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8095    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8096    | CHIP ELECT C | CEWX4V-100M     | 1    | 3981G1017R2 |
| C8097    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8149    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8150    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8163    | CHIP TANTAL  | F93-6.3V-100M   | 1    | 395521017R2 |
| C8163 or | CHIP TANTAL  | TCSCS0J107MBAR  | ( 1) | 396521017R2 |
| C8164    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8165    | CHIP TANTAL  | F93-6.3V-100M   | 1    | 395521017R2 |
| C8165 or | CHIP TANTAL  | TCSCS0J107MBAR  | ( 1) | 396521017R2 |
| C8166    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8167    | C-CERA C     | CC725CH1H-180J1 | 1    | 342101804R1 |
| C8168    | C-CERA C     | CC725CH1H-180J1 | 1    | 342101804R1 |
| C8169    | CHIP TANTAL  | F93-6.3V-100M   | 1    | 395521017R2 |
| C8169 or | CHIP TANTAL  | TCSCS0J107MBAR  | ( 1) | 396521017R2 |
| C8170    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8171    | CHIP TANTAL  | F93-6.3V-100M   | 1    | 395521017R2 |
| C8171 or | CHIP TANTAL  | TCSCS0J107MBAR  | ( 1) | 396521017R2 |

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| C8172    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8173    | CHIP TANTAL | TCFGA-1C106M8R | 1    | 396041007R2 |
| C8173 or | CHIP TANTAL | TCSCS1C106MAAR | ( 1) | 396541007R2 |
| C8174    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8175    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8176    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8177    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8178    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8179    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8180    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8181    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8182    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8183    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8184    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8185    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8186    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8187    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8188    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8189    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8190    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8191    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8192    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8193    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8194    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8195    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8196    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8197    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8198    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8199    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8200    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8201    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8202    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8203    | CHIP TANTAL | TCFGA-1C106M8R | 1    | 396041007R2 |
| C8203 or | CHIP TANTAL | TCSCS1C106MAAR | ( 1) | 396541007R2 |
| C8204    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8205    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8206    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8207    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8208    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8209    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8210    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8211    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8212    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8213    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8214    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8215    | CHIP TANTAL | TCFGA-1C106M8R | 1    | 396041007R2 |
| C8215 or | CHIP TANTAL | TCSCS1C106MAAR | ( 1) | 396541007R2 |
| C8216    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |

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| C8217    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8218    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8219    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8220    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8221    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8222    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8223    | CHIP TANTAL | TCFGA-1C106M8R | 1    | 396041007R2 |
| C8223 or | CHIP TANTAL | TCSCS1C106MAAR | ( 1) | 396541007R2 |
| C8224    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8225    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8226    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8227    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8228    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8229    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8230    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8231    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8232    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8233    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8234    | CHIP TANTAL | TCFGA-1C106M8R | 1    | 396041007R2 |
| C8234 or | CHIP TANTAL | TCSCS1C106MAAR | ( 1) | 396541007R2 |
| C8235    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8236    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8237    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8238    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8239    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8240    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8241    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8242    | CHIP TANTAL | TCFGA-1C106M8R | 1    | 396041007R2 |
| C8242 or | CHIP TANTAL | TCSCS1C106MAAR | ( 1) | 396541007R2 |
| C8243    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8244    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8245    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8246    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8247    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8248    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8249    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8250    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8251    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8252    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8253    | CHIP TANTAL | TCFGA-1C106M8R | 1    | 396041007R2 |
| C8253 or | CHIP TANTAL | TCSCS1C106MAAR | ( 1) | 396541007R2 |
| C8254    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8255    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8256    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8257    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8258    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8259    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |
| C8260    | C-CERA C    | CK725F1H-104Z1 | 1    | 332151040R1 |

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| C8261    | CHIP TANTAL  | F93-10V-220M    | 1    | 395532217R2 |
| C8261 or | CHIP TANTAL  | TCSCS1A227MDAR  | ( 1) | 396532217R2 |
| C8262    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8263    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8264    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8265    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8266    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8267    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8268    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8269    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8270    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8271    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8272    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8273    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8274    | CHIP TANTAL  | TCFGA-1C106M8R  | 1    | 396041007R2 |
| C8274 or | CHIP TANTAL  | TCSCS1C106MAAR  | ( 1) | 396541007R2 |
| C8275    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8276    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8277    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8278    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8279    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8280    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8281    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8282    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8283    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8284    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8285    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8286    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8287    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8288    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8289    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8290    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8291    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8292    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8293    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8294    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8295    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8326    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8327    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8328    | CHIP ELECT C | CEWX16V-22M     | 1    | 398142207R2 |
| C8329    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8330    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8348    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8376    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8377    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8378    | CHIP ELECT C | CEWX16V-22M     | 1    | 398142207R2 |
| C8379    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8380    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |

|          |              |                 |       |             |
|----------|--------------|-----------------|-------|-------------|
| C8398    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8399    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8401    | CHIP ELECT C | CEWX4V-22M      | 1     | 3981G2207R2 |
| C8402    | CHIP ELECT C | CEWX4V-22M      | 1     | 3981G2207R2 |
| C8403    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8404    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8405    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8406    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8407    | C-CERA C     | CC725CH1H-100D1 | 1     | 342101002R1 |
| C8408    | CHIP ELECT C | CEWX4V-22M      | 1     | 3981G2207R2 |
| C8409    | CHIP ELECT C | CEWX4V-22M      | 1     | 3981G2207R2 |
| C8410    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8411    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8412    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8413    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8414    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8415    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8416    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8417    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8418    | CHIP ELECT C | CEWX4V-22M      | 1     | 3981G2207R2 |
| C8419    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8420    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8421    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8422    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8423    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8424    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8425    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8426    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8427    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8428    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8429    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8430    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8431    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8432    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8433    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8434    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8435    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8441    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8442    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8443    | CHIP ELECT C | CEWX4V-220M     | 1     | 3981G2217R2 |
| C8444    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8449    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |
| C8451    | CHIP TANTAL  | TCFGA-1C106M8R  | 1     | 396041007R2 |
| C8451 or | CHIP TANTAL  | TCSCS1C106MAAR  | ( 1 ) | 396541007R2 |
| C8452    | CHIP TANTAL  | TCFGA-1C106M8R  | 1     | 396041007R2 |
| C8452 or | CHIP TANTAL  | TCSCS1C106MAAR  | ( 1 ) | 396541007R2 |
| C8453    | C-CERA C     | CK725F1A-105Z1  | 1     | 332181050R1 |
| C8454    | C-CERA C     | CC725CH1H-102J1 | 1     | 342101024R1 |

|          |              |                 |      |             |
|----------|--------------|-----------------|------|-------------|
| C8455    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8456    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8457    | C-CERA C     | CC725CH1H-100D1 | 1    | 342101002R1 |
| C8458    | CHIP ELECT C | CEWX4V-22M      | 1    | 3981G2207R2 |
| C8459    | CHIP TANTAL  | TCFGA-1C106M8R  | 1    | 396041007R2 |
| C8459 or | CHIP TANTAL  | TCSCS1C106MAAR  | ( 1) | 396541007R2 |
| C8460    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8461    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8462    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8463    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8464    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8465    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8466    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8467    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8468    | CHIP TANTAL  | TCFGA-1C106M8R  | 1    | 396041007R2 |
| C8468 or | CHIP TANTAL  | TCSCS1C106MAAR  | ( 1) | 396541007R2 |
| C8469    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8470    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8471    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8472    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8473    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8474    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8475    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8476    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8477    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8478    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8479    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8480    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8481    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8482    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8483    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8484    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8485    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8491    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8492    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8493    | CHIP ELECT C | CEWX4V-220M     | 1    | 3981G2217R2 |
| C8501    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8502    | CHIP ELECT C | CEWX4V-22M      | 1    | 3981G2207R2 |
| C8503    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8504    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8505    | CHIP ELECT C | CEWX4V-22M      | 1    | 3981G2207R2 |
| C8506    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8507    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8508    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8509    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8510    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8511    | C-CERA C     | CK725B1H-102K1  | 1    | 332101025R1 |
| C8512    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |

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|-------|--------------|----------------|---|-------------|--|
| C8513 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8514 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8515 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8516 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8517 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8518 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8519 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8520 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8521 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8522 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8523 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8524 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8529 | CHIP ELECT C | CEWX4V-22M     | 1 | 3981G2207R2 |  |
| C8530 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8531 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8532 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8533 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8534 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8535 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8536 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8537 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8538 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8539 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8540 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8541 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8542 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8543 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8544 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8545 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8546 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8547 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8548 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8549 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8550 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8551 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8552 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8553 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8554 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8555 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8556 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8557 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8558 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8559 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8560 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8561 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8562 | C-CERA C     | CK725F1A-105Z1 | 1 | 332181050R1 |  |
| C8563 | C-CERA C     | CK725B1H-102K1 | 1 | 332101025R1 |  |
| C8564 | CHIP ELECT C | CEWX4V-22M     | 1 | 3981G2207R2 |  |

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|-------|--------------|-----------------|---|-------------|
| C8565 | CHIP ELECT C | CEWX4V-22M      | 1 | 3981G2207R2 |
| C8566 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8567 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8568 | CHIP ELECT C | CEWX4V-22M      | 1 | 3981G2207R2 |
| C8569 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8570 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8571 | CHIP ELECT C | CEWX4V-22M      | 1 | 3981G2207R2 |
| C8572 | C-CERA C     | CK725B1H-102K1  | 1 | 332101025R1 |
| C8573 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8574 | C-CERA C     | CC725CH1H-120J1 | 1 | 342101204R1 |
| C8575 | C-CERA C     | CC725CH1H-120J1 | 1 | 342101204R1 |
| C8601 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8602 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C8604 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8605 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C8608 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8609 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C8675 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C8676 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8687 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8701 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8702 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8703 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8704 | CHIP ELECT C | CEWX50V-4.7M    | 1 | 398180477R2 |
| C8705 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8706 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8707 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8708 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8709 | CHIP ELECT C | CEWX4V-220M     | 1 | 3981G2217R2 |
| C8710 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8725 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C8726 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8801 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C8802 | C-CERA C     | CK725B1C-104K1  | 1 | 332121045R1 |
| C8803 | C-CERA C     | CK725B1C-104K1  | 1 | 332121045R1 |
| C8804 | C-CERA C     | CK725B1C-104K1  | 1 | 332121045R1 |
| C8805 | C-CERA C     | CK725B1C-104K1  | 1 | 332121045R1 |
| C8806 | C-CERA C     | CK725B1C-104K1  | 1 | 332121045R1 |
| C8807 | C-CERA C     | CK725B1C-104K1  | 1 | 332121045R1 |
| C8808 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8809 | C-CERA C     | CK725F1A-105Z1  | 1 | 332181050R1 |
| C8810 | CHIP ELECT C | CEWX16V-10M     | 1 | 398141007R2 |
| C8811 | CHIP ELECT C | CEWX16V-10M     | 1 | 398141007R2 |
| C8812 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8813 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8814 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8815 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8816 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |

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| C8817 | CHIP ELECT C | CEWX16V-10M     | 1 | 398141007R2 |
| C8818 | CHIP ELECT C | CEWX16V-10M     | 1 | 398141007R2 |
| C8819 | C-CERA C     | CC725CH1H-102J1 | 1 | 342101024R1 |
| C8820 | C-CERA C     | CC725CH1H-101J1 | 1 | 342101014R1 |
| C8821 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8822 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8823 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8824 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8825 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8826 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8827 | C-CERA C     | CK725B1H-223K1  | 1 | 332102235R1 |
| C8828 | C-CERA C     | CK725B1C-823K1  | 1 | 332128235R1 |
| C8829 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8830 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8831 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8833 | C-CERA C     | CC725CH1H-070D1 | 1 | 342100702R1 |
| C8834 | C-CERA C     | CC725CH1H-070D1 | 1 | 342100702R1 |
| C8835 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C8836 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C8837 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C8838 | C-CERA C     | CC725CH1H-470J1 | 1 | 342104704R1 |
| C8839 | C-CERA C     | CC725CH1H-470J1 | 1 | 342104704R1 |
| C8840 | C-CERA C     | CC725CH1H-470J1 | 1 | 342104704R1 |
| C8841 | CHIP ELECT C | CEWX16V-10M     | 1 | 398141007R2 |
| C8843 | CHIP ELECT C | CEWX4V-100M     | 1 | 3981G1017R2 |
| C8848 | C-CERA C     | CC725CH1H-330J1 | 1 | 342103304R1 |
| C8849 | C-CERA C     | CC725CH1H-330J1 | 1 | 342103304R1 |
| C8850 | C-CERA C     | CC725CH1H-330J1 | 1 | 342103304R1 |
| C8851 | C-CERA C     | CC725CH1H-820J1 | 1 | 342108204R1 |
| C8852 | C-CERA C     | CC725CH1H-820J1 | 1 | 342108204R1 |
| C8853 | C-CERA C     | CC725CH1H-820J1 | 1 | 342108204R1 |
| C8854 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8855 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8856 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8857 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8858 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8859 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8860 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8861 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8862 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8863 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8864 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8865 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8866 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8867 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8868 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8869 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |
| C8870 | C-CERA C     | CK725F1H-104Z1  | 1 | 332151040R1 |

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| C8871    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8872    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8873    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8874    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8875    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8876    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8877    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8878    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8879    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8880    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8881    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8882    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8883    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8884    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8885    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8886    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8887    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8888    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8889    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8890    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8891    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8892    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8893    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8894    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8895    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8896    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8897    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8898    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8899    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8901    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8902    | CHIP ELECT C | CEWX4V-220M     | 1    | 3981G2217R2 |
| C8903    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8904    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8905    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8906    | C-FILM C     | ECHU50V-392J    | 1    | 373023924R2 |
| C8907    | C-CERA C     | CC725CH1H-821J1 | 1    | 342108214R1 |
| C8908    | C-CERA C     | CK725B1C-104K1  | 1    | 332121045R1 |
| C8909    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8910    | C-CERA C     | CK725B1C-104K1  | 1    | 332121045R1 |
| C8911    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8912    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8914    | CHIP ELECT C | CEWX4V-220M     | 1    | 3981G2217R2 |
| C8916    | CHIP ELECT C | CEWX4V-220M     | 1    | 3981G2217R2 |
| C8917    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8918    | CHIP ELECT C | CEWX16V-47M     | 1    | 398144707R2 |
| C8919    | CHIP TANTAL  | F93-10V-47M     | 1    | 395534707R2 |
| C8919 or | CHIP TANTAL  | TCSCS1A476MBAR  | ( 1) | 396534707R2 |
| C8920    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |

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| C8921    | CHIP TANTAL  | F93-10V-220M    | 1    | 395532217R2 |
| C8921 or | CHIP TANTAL  | TCSCS1A227MDAR  | ( 1) | 396532217R2 |
| C8922    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8923    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8924    | C-CERA C     | CC725CH1H-120J1 | 1    | 342101204R1 |
| C8925    | C-CERA C     | CC725CH1H-120J1 | 1    | 342101204R1 |
| C8931    | CHIP ELECT C | CEWX6.3V-330M   | 1    | 398123317R2 |
| C8932    | CHIP ELECT C | CEWX6.3V-330M   | 1    | 398123317R2 |
| C8933    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8934    | C-CERA C     | CK725F1H-103Z1  | 1    | 332151030R1 |
| C8935    | C-CERA C     | CK725F1H-103Z1  | 1    | 332151030R1 |
| C8950    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8951    | C-CERA C     | CK725F1H-104Z1  | 1    | 332151040R1 |
| C8952    | CHIP TANTAL  | TCFGA-1C106M8R  | 1    | 396041007R2 |
| C8952 or | CHIP TANTAL  | TCSCS1C106MAAR  | ( 1) | 396541007R2 |
| C8955    | CD C         | UCD1A471MNL1GS  | 1    | 396634717R2 |
| C8956    | CD C         | UCD1A471MNL1GS  | 1    | 396634717R2 |
| C8957    | CD C         | UCD1A471MNL1GS  | 1    | 396634717R2 |
| C8958    | CD C         | UCD1A471MNL1GS  | 1    | 396634717R2 |
| C8959    | C-CERA C     | CK725B1H-682K1  | 1    | 332106825R1 |
| C8960    | C-CERA C     | CK725B1H-682K1  | 1    | 332106825R1 |
| C8961    | C-CERA C     | CK725B1H-682K1  | 1    | 332106825R1 |
| C8962    | C-CERA C     | CK725B1H-682K1  | 1    | 332106825R1 |
| C8963    | C-CERA C     | CK725B1H-223K1  | 1    | 332102235R1 |
| C8964    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8965    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8966    | C-CERA C     | CC725CH1H-102J1 | 1    | 342101024R1 |
| C8967    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8968    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8969    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8970    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8971    | C-CERA C     | CK725F1H-473Z1  | 1    | 332154730R1 |
| C8972    | C-CERA C     | CK725F1H-473Z1  | 1    | 332154730R1 |
| C8973    | C-CERA C     | CK725F1H-473Z1  | 1    | 332154730R1 |
| C8974    | C-CERA C     | CK725F1H-473Z1  | 1    | 332154730R1 |
| C8975    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8976    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8977    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8978    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8979    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8980    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8981    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8982    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8983    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8984    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8985    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8986    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |
| C8989    | C-CERA C     | CK725F1A-105Z1  | 1    | 332181050R1 |

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| C8990 | C-CERA C   | CK725F1A-105Z1 | 1 | 332181050R1 |
| C8991 | C-CERA C   | CK725F1A-105Z1 | 1 | 332181050R1 |
| C8992 | C-CERA C   | CK725F1A-105Z1 | 1 | 332181050R1 |
| C8993 | CD C       | UCD1E221MNL1GS | 1 | 396652217R2 |
| C8994 | CD C       | UCD1E221MNL1GS | 1 | 396652217R2 |
| C8995 | CD C       | UCD1E221MNL1GS | 1 | 396652217R2 |
| C8996 | CD C       | UCD1E221MNL1GS | 1 | 396652217R2 |
| C8997 | C-CERA C   | CK725F1A-105Z1 | 1 | 332181050R1 |
| C8998 | C-CERA C   | CK725F1A-105Z1 | 1 | 332181050R1 |
| C8999 | C-CERA C   | CK725F1A-105Z1 | 1 | 332181050R1 |
| R8001 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |
| R8004 | C-CARBON R | RN72K1J-472JE  | 1 | 435034724R1 |
| R8005 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |
| R8006 | C-CARBON R | RN72K1J-330JE  | 1 | 435033304R1 |
| R8012 | C-CARBON R | RN72K1J-473JE  | 1 | 435034734R1 |
| R8013 | C-CARBON R | RN72K1J-102JE  | 1 | 435031024R1 |
| R8014 | C-CARBON R | RN72K1J-562JE  | 1 | 435035624R1 |
| R8015 | C-CARBON R | RN72K1J-562JE  | 1 | 435035624R1 |
| R8016 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R8018 | C-CARBON R | RN72K1J-473JE  | 1 | 435034734R1 |
| R8019 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R8020 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R8021 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R8023 | C-CARBON R | RN72K1J-473JE  | 1 | 435034734R1 |
| R8032 | C-CARBON R | RN72K1J-473JE  | 1 | 435034734R1 |
| R8033 | C-CARBON R | RN72K1J-102JE  | 1 | 435031024R1 |
| R8034 | C-CARBON R | RN72K1J-562JE  | 1 | 435035624R1 |
| R8035 | C-CARBON R | RN72K1J-562JE  | 1 | 435035624R1 |
| R8036 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R8038 | C-CARBON R | RN72K1J-473JE  | 1 | 435034734R1 |
| R8039 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R8040 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R8041 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R8043 | C-CARBON R | RN72K1J-473JE  | 1 | 435034734R1 |
| R8051 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |
| R8054 | C-CARBON R | RN72K1J-472JE  | 1 | 435034724R1 |
| R8055 | C-CARBON R | RN72K1J-103JE  | 1 | 435031034R1 |
| R8062 | C-CARBON R | RN72K1J-473JE  | 1 | 435034734R1 |
| R8063 | C-CARBON R | RN72K1J-102JE  | 1 | 435031024R1 |
| R8064 | C-CARBON R | RN72K1J-562JE  | 1 | 435035624R1 |
| R8065 | C-CARBON R | RN72K1J-562JE  | 1 | 435035624R1 |
| R8066 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R8068 | C-CARBON R | RN72K1J-473JE  | 1 | 435034734R1 |
| R8069 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R8070 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R8071 | C-CARBON R | RN72K1J-000JE  | 1 | 435030004R1 |
| R8073 | C-CARBON R | RN72K1J-473JE  | 1 | 435034734R1 |
| R8082 | C-CARBON R | RN72K1J-473JE  | 1 | 435034734R1 |

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| R8083 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1 |
| R8084 | C-CARBON R | RN72K1J-562JE | 1 | 435035624R1 |
| R8085 | C-CARBON R | RN72K1J-562JE | 1 | 435035624R1 |
| R8086 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R8088 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1 |
| R8089 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R8090 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R8091 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R8093 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1 |
| R8099 | C-CARBON R | RN72K1J-330JE | 1 | 435033304R1 |
| R8106 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8107 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8110 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R8111 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R8112 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R8113 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8114 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R8115 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1 |
| R8116 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8118 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8119 | C-CARBON R | RN72K1J-332JE | 1 | 435033324R1 |
| R8120 | C-CARBON R | RN72K2B-000JE | 1 | 433220004R1 |
| R8121 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R8122 | C-CARBON R | RN72K2B-000JE | 1 | 433220004R1 |
| R8123 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R8124 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8125 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8126 | C-CARBON R | RN72K1J-271JE | 1 | 435032714R1 |
| R8127 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8128 | C-CARBON R | RN72K1J-750FE | 1 | 435037502R1 |
| R8129 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8130 | C-CARBON R | RN72K1J-750FE | 1 | 435037502R1 |
| R8136 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R8140 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R8141 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R8147 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8149 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8150 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8151 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8154 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R8157 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8158 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8168 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R8197 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1 |
| R8198 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R8251 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8323 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8324 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1 |

|       |            |               |   |               |
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| R8325 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1   |
| R8326 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1   |
| R8334 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1   |
| R8335 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1   |
| R8341 | C-CARBON R | RN72K2E-470JE | 1 | 435224704R1   |
| R8373 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8374 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8375 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1   |
| R8376 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1   |
| R8384 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1   |
| R8385 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1   |
| R8391 | C-CARBON R | RN72K2E-470JE | 1 | 435224704R1   |
| R8401 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8402 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8403 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8404 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8405 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8406 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8407 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8409 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8410 | C-CARBON R | RN72K1J-681FE | 1 | 435036812R1   |
| R8411 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8416 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8417 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8418 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8419 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8420 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8421 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8422 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8423 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8424 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8425 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8429 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8431 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8432 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8442 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1   |
| R8443 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8444 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1   |
| R8446 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1   |
| R8447 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1   |
| R8451 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8452 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8453 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8454 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8455 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8456 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8457 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8459 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |

|       |            |               |   |               |
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| R8460 | C-CARBON R | RN72K1J-681FE | 1 | 435036812R1   |
| R8462 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8466 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8467 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8468 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8469 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8470 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8471 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8472 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8473 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8474 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8475 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8479 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8481 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8482 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8492 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1   |
| R8493 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8503 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| R8504 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| R8505 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| R8506 | C-CARBON R | RN72K1J-120JE | 1 | 435031204R1   |
| R8507 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| R8508 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| R8509 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| R8510 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| R8511 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| R8512 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| R8513 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| R8514 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8515 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8516 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1   |
| R8517 | C-CARBON R | RN72K1J-101JE | 1 | 435031014R1   |
| R8518 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8519 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1   |
| R8520 | C-CARBON R | RN72K1J-330JE | 1 | 435033304R1   |
| R8521 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| R8522 | C-CARBON R | RN72K1J-330JE | 1 | 435033304R1   |
| R8523 | C-CARBON R | RN72K1J-330JE | 1 | 435033304R1   |
| R8524 | C-CARBON R | RN72K1J-330JE | 1 | 435033304R1   |
| R8615 | C-CARBON R | RN72K1J-332JE | 1 | 435033324R1   |
| R8616 | C-CARBON R | RN72K1J-332JE | 1 | 435033324R1   |
| R8617 | C-CARBON R | RN72K1J-332JE | 1 | 435033324R1   |
| R8618 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8629 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1   |
| R8630 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1   |
| R8631 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1   |
| R8632 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1   |
| R8633 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1   |

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| R8662 | C-CARBON R | RN72K1J-105JE | 1 | 435031054R1   |
| R8663 | C-CARBON R | RN72K1J-561JE | 1 | 435035614R1   |
| R8701 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8703 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8706 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8707 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8708 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1   |
| R8710 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8711 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1   |
| R8712 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1   |
| R8713 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8714 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8715 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8716 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8717 | C-CARBON R | RN72K1J-330JE | 1 | 435033304R1   |
| R8718 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8719 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8720 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8721 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8722 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8723 | C-R NET    | RM7LJ222X04   | 1 | 43484722204R2 |
| R8726 | C-R NET    | RM7LJ222X04   | 1 | 43484722204R2 |
| R8727 | C-R NET    | RM7LJ103X04   | 1 | 43484710304R2 |
| R8728 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8729 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8730 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8732 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8733 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1   |
| R8734 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1   |
| R8735 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8736 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8737 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8738 | C-CARBON R | RN72K1J-473JE | 1 | 435034734R1   |
| R8741 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8744 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8745 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8746 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8747 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8748 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8749 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8750 | C-R NET    | RM7LJ103X04   | 1 | 43484710304R2 |
| R8751 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8752 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8753 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8758 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8759 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8760 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8761 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |

|       |            |               |   |               |
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| R8762 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8763 | C-R NET    | RM7LJ103X04   | 1 | 43484710304R2 |
| R8765 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1   |
| R8766 | C-R NET    | RM7LJ103X04   | 1 | 43484710304R2 |
| R8769 | C-R NET    | RM7LJ103X04   | 1 | 43484710304R2 |
| R8770 | C-R NET    | RM7LJ103X04   | 1 | 43484710304R2 |
| R8800 | C-CARBON R | RN72K1J-561JE | 1 | 435035614R1   |
| R8801 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1   |
| R8802 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1   |
| R8803 | EMIFIL     | BK1608HS601-T | 1 | 230984R1      |
| R8804 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1   |
| R8805 | EMIFIL     | BK1608HS601-T | 1 | 230984R1      |
| R8806 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1   |
| R8807 | C-CARBON R | RN72K1J-560JE | 1 | 435035604R1   |
| R8808 | C-CARBON R | RN72K1J-104JE | 1 | 435031044R1   |
| R8809 | C-CARBON R | RN72K1J-560JE | 1 | 435035604R1   |
| R8810 | C-CARBON R | RN72K1J-104JE | 1 | 435031044R1   |
| R8811 | C-CARBON R | RN72K1J-560JE | 1 | 435035604R1   |
| R8812 | C-CARBON R | RN72K1J-104JE | 1 | 435031044R1   |
| R8813 | C-CARBON R | RN72K1J-272FE | 1 | 435032722R1   |
| R8814 | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1   |
| R8815 | C-CARBON R | RN72K1J-272FE | 1 | 435032722R1   |
| R8816 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8817 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8819 | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8820 | C-CARBON R | RN72K1J-333JE | 1 | 435033334R1   |
| R8821 | C-CARBON R | RN72K1J-182JE | 1 | 435031824R1   |
| R8823 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8824 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8825 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8826 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8827 | C-CARBON R | RN72K1J-105JE | 1 | 435031054R1   |
| R8828 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8830 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8831 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8833 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8834 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8835 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8836 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8837 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8838 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8839 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8840 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8841 | C-R NET    | RM7LJ220X04   | 1 | 43484722004R2 |
| R8842 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8843 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1   |
| R8844 | C-CARBON R | RN72K1J-180JE | 1 | 435031804R1   |
| R8845 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1   |

|       |            |               |   |             |
|-------|------------|---------------|---|-------------|
| R8846 | C-CARBON R | RN72K1J-180JE | 1 | 435031804R1 |
| R8847 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R8848 | C-CARBON R | RN72K1J-680JE | 1 | 435036804R1 |
| R8849 | C-CARBON R | RN72K1J-180JE | 1 | 435031804R1 |
| R8850 | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1 |
| R8851 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R8852 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R8853 | C-CARBON R | RN72K1J-331JE | 1 | 435033314R1 |
| R8854 | C-CARBON R | RN72K1J-332JE | 1 | 435033324R1 |
| R8855 | C-CARBON R | RN72K1J-332JE | 1 | 435033324R1 |
| R8856 | C-CARBON R | RN72K1J-332JE | 1 | 435033324R1 |
| R8857 | C-CARBON R | RN72K1J-105JE | 1 | 435031054R1 |
| R8858 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R8860 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R8861 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R8862 | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1 |
| R8863 | C-CARBON R | RN72K1J-750FE | 1 | 435037502R1 |
| R8864 | C-CARBON R | RN72K1J-750FE | 1 | 435037502R1 |
| R8865 | C-CARBON R | RN72K1J-750FE | 1 | 435037502R1 |
| R8869 | C-CARBON R | RN72K1J-750FE | 1 | 435037502R1 |
| R8870 | C-CARBON R | RN72K1J-750FE | 1 | 435037502R1 |
| R8871 | C-CARBON R | RN72K1J-750FE | 1 | 435037502R1 |
| R8872 | C-CARBON R | RN72K1J-471FE | 1 | 435034712R1 |
| R8873 | C-CARBON R | RN72K1J-471FE | 1 | 435034712R1 |
| R8874 | C-CARBON R | RN72K1J-471FE | 1 | 435034712R1 |
| R8879 | C-CARBON R | RN72K1J-471FE | 1 | 435034712R1 |
| R8880 | C-CARBON R | RN72K1J-471FE | 1 | 435034712R1 |
| R8881 | C-CARBON R | RN72K1J-471FE | 1 | 435034712R1 |
| R8882 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R8883 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R8890 | C-CARBON R | RN72K1J-000JE | 1 | 435030004R1 |
| R8891 | C-CARBON R | RN72K1J-104JE | 1 | 435031044R1 |
| R8892 | C-CARBON R | RN72K1J-104JE | 1 | 435031044R1 |
| R8893 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8901 | C-CARBON R | RN72K1J-103JE | 1 | 435031034R1 |
| R8905 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R8906 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R8907 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R8908 | C-CARBON R | RN72K1J-681FE | 1 | 435036812R1 |
| R8909 | C-CARBON R | RN72K1J-681FE | 1 | 435036812R1 |
| R8910 | C-CARBON R | RN72K1J-681FE | 1 | 435036812R1 |
| R8911 | C-CARBON R | RN72K1J-272FE | 1 | 435032722R1 |
| R8912 | C-CARBON R | RN72K1J-272FE | 1 | 435032722R1 |
| R8913 | C-CARBON R | RN72K1J-681FE | 1 | 435036812R1 |
| R8914 | C-CARBON R | RN72K1J-681FE | 1 | 435036812R1 |
| R8915 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R8917 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |
| R8919 | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1 |

|        |            |               |   |               |
|--------|------------|---------------|---|---------------|
| R8920  | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1   |
| R8921  | C-R NET    | RM7LJ470X04   | 1 | 43484747004R2 |
| R8922  | C-R NET    | RM7LJ470X04   | 1 | 43484747004R2 |
| R8923  | C-R NET    | RM7LJ470X04   | 1 | 43484747004R2 |
| R8924  | C-R NET    | RM7LJ470X04   | 1 | 43484747004R2 |
| R8925  | C-R NET    | RM7LJ470X04   | 1 | 43484747004R2 |
| R8926  | C-R NET    | RM7LJ470X04   | 1 | 43484747004R2 |
| R8927  | C-R NET    | RM7LJ470X04   | 1 | 43484747004R2 |
| R8928  | C-R NET    | RM7LJ470X04   | 1 | 43484747004R2 |
| R8929  | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8930  | C-CARBON R | RN72K1J-220JE | 1 | 435032204R1   |
| R8931  | C-CARBON R | RN72K1J-151FE | 1 | 435031512R1   |
| R8932  | C-CARBON R | RN72K1J-151FE | 1 | 435031512R1   |
| R8933  | C-CARBON R | RN72K1J-151FE | 1 | 435031512R1   |
| R8934  | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1   |
| R8935  | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1   |
| R8936  | C-CARBON R | RN72K1J-182JE | 1 | 435031824R1   |
| R8937  | C-R NET    | RM7LJ473X04   | 1 | 43484747304R2 |
| R8938  | C-R NET    | RM7LJ473X04   | 1 | 43484747304R2 |
| R8939  | C-R NET    | RM7LJ473X04   | 1 | 43484747304R2 |
| R8940  | C-R NET    | RM7LJ473X04   | 1 | 43484747304R2 |
| R8941  | C-R NET    | RM7LJ222X04   | 1 | 43484722204R2 |
| R8942  | C-CARBON R | RN72K1J-472JE | 1 | 435034724R1   |
| R8951  | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1   |
| R8952  | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1   |
| R8953  | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1   |
| R8954  | C-CARBON R | RN72K1J-470JE | 1 | 435034704R1   |
| R8955  | C-CARBON R | RN72K1J-121JE | 1 | 435031214R1   |
| R8956  | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1   |
| R8957  | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1   |
| R8958  | C-CARBON R | RN72K1J-222JE | 1 | 435032224R1   |
| R8959  | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1   |
| R8960  | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1   |
| R8961  | C-CARBON R | RN72K1J-471FE | 1 | 435034712R1   |
| R8962  | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1   |
| R8964  | C-CARBON R | RN72K1J-152JE | 1 | 435031524R1   |
| R8965  | C-CARBON R | RN72K1J-392JE | 1 | 435033924R1   |
| R8966  | C-CARBON R | RN72K1J-223JE | 1 | 435032234R1   |
| R8967  | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1   |
| R8968  | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1   |
| R8970  | C-CARBON R | RN72K1J-102JE | 1 | 435031024R1   |
| RN8013 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| RN8014 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| RN8015 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| RN8016 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| RN8017 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| RN8018 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |
| RN8019 | C-R NET    | RM7LJ330X04   | 1 | 43484733004R2 |

|        |         |             |   |               |
|--------|---------|-------------|---|---------------|
| RN8020 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8021 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8022 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8023 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8024 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8025 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8026 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8027 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8028 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8029 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8030 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8037 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8038 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8039 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8041 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8043 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8045 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8048 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8049 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8050 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8051 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8052 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8053 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8054 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8055 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8056 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8057 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8058 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8059 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8060 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8061 | C-R NET | RM7LJ330X04 | 1 | 43484733004R2 |
| RN8062 | C-R NET | RM7LJ680X04 | 1 | 43484768004R2 |
| RN8063 | C-R NET | RM7LJ470X04 | 1 | 43484747004R2 |
| RN8064 | C-R NET | RM7LJ680X04 | 1 | 43484768004R2 |
| RN8065 | C-R NET | RM7LJ470X04 | 1 | 43484747004R2 |
| RN8066 | C-R NET | RM7LJ680X04 | 1 | 43484768004R2 |
| RN8067 | C-R NET | RM7LJ470X04 | 1 | 43484747004R2 |
| RN8068 | C-R NET | RM7LJ680X04 | 1 | 43484768004R2 |
| RN8069 | C-R NET | RM7LJ470X04 | 1 | 43484747004R2 |
| RN8070 | C-R NET | RM7LJ680X04 | 1 | 43484768004R2 |
| RN8071 | C-R NET | RM7LJ680X04 | 1 | 43484768004R2 |
| RN8072 | C-R NET | RM7LJ470X04 | 1 | 43484747004R2 |
| RN8073 | C-R NET | RM7LJ680X04 | 1 | 43484768004R2 |
| RN8074 | C-R NET | RM7LJ470X04 | 1 | 43484747004R2 |
| RN8075 | C-R NET | RM7LJ680X04 | 1 | 43484768004R2 |
| RN8076 | C-R NET | RM7LJ680X04 | 1 | 43484768004R2 |
| RN8077 | C-R NET | RM7LJ680X04 | 1 | 43484768004R2 |
| RN8078 | C-R NET | RM7LJ680X04 | 1 | 43484768004R2 |

|         |           |                |   |               |  |
|---------|-----------|----------------|---|---------------|--|
| RN8079  | C-R NET   | RM7LJ680X04    | 1 | 43484768004R2 |  |
| RN8080  | C-R NET   | RM7LJ680X04    | 1 | 43484768004R2 |  |
| RN8081  | C-R NET   | RM7LJ680X04    | 1 | 43484768004R2 |  |
| RN8082  | C-R NET   | RM7LJ680X04    | 1 | 43484768004R2 |  |
| RN8083  | C-R NET   | RM7LJ680X04    | 1 | 43484768004R2 |  |
| RN8087  | C-R NET   | RM7LJ103X04    | 1 | 43484710304R2 |  |
| RN8088  | C-R NET   | RM7LJ103X04    | 1 | 43484710304R2 |  |
| RN8089  | C-R NET   | RM7LJ000X04    | 1 | 43484700004R2 |  |
| RN8091  | C-R NET   | RM7LJ000X04    | 1 | 43484700004R2 |  |
| RN8093  | C-R NET   | RM7LJ000X04    | 1 | 43484700004R2 |  |
| RN8095  | C-R NET   | RM7LJ000X04    | 1 | 43484700004R2 |  |
| RN8097  | C-R NET   | RM7LJ000X04    | 1 | 43484700004R2 |  |
| RN8099  | C-R NET   | RM7LJ000X04    | 1 | 43484700004R2 |  |
| RN8703  | C-R NET   | RM7LJ680X04    | 1 | 43484768004R2 |  |
| RN8704  | C-R NET   | RM7LJ680X04    | 1 | 43484768004R2 |  |
| RN8705  | C-R NET   | RM7LJ680X04    | 1 | 43484768004R2 |  |
| RN8706  | C-R NET   | RM7LJ680X04    | 1 | 43484768004R2 |  |
| JL8002B | WIRE TRAP | NPLG-5P588     | 1 | 25055626      |  |
| P2801B  | SOCKET    | NSCT-31P2124   | 1 | 25052227      |  |
| P3805B  | SOCKET    | NSCT-10P1025   | 1 | 25051235      |  |
| P8001   | SOCKET    | YKF45-7037V    | 1 | 25053253R3    |  |
| P8002   | SOCKET    | YKF45-7037V    | 1 | 25053253R3    |  |
| P8002A  | SOCKET    | NSCT-15P1030   | 1 | 25051240      |  |
| P8051   | SOCKET    | YKF45-7037V    | 1 | 25053253R3    |  |
| P8052   | SOCKET    | YKF45-7037V    | 1 | 25053253R3    |  |
| P8099   | WS CLAMP  | CB-71683(L=50) | 1 | 260261        |  |
| P8302   | SOCKET    | YKF45-7037V    | 1 | 25053253R3    |  |
| P8352   | SOCKET    | YKF45-7037V    | 1 | 25053253R3    |  |
| P8702   | SOCKET    | NSCT-8P2471    | 1 | 25052574R2    |  |
| P8704   | SOCKET    | NSCT-8P2471    | 1 | 25052574R2    |  |

**U43 HD RADIO PC BOARD (NARF-9118-1A)**

| REF. NO. | PART NAME  | DESCRIPTION         | Q'TY | PART NO. (SN) | REMARKS |
|----------|------------|---------------------|------|---------------|---------|
| U1       | FRONTEND   | HD RADIO MODULE     | 1    | 240160        |         |
| Q1       | IC         | TA48018AF(TE16L_NQ) | 1    | 22278018DR2TO |         |
| Q1 or    | IC         | BA18BC0FP           | ( 1) | 22278018DR2RH |         |
| Q3       | IC         | NJM2903V            | 1    | 22241675R2    |         |
| Q4       | IC         | CS4344-CZZR         | 1    | 22242406R2    |         |
| Q6       | IC         | BA50BC0FP           | 1    | 22278005DR2RH |         |
| Q7       | IC         | BA33BC0FP           | 1    | 22278033DR2RH |         |
| Q8       | IC         | BD7820              | 1    | 22242300R2    |         |
| Q9       | IC         | NE5532APSR          | 1    | 22242283R2    |         |
| Q10      | IC         | NE5532APSR          | 1    | 22242283R2    |         |
| Q11      | IC         | XC6213B332MR        | 1    | 22242277R2    |         |
| L2       | EMIFIL     | BK1608LM182-T       | 1    | 230958R1      |         |
| L3       | EMIFIL     | BK1608LM182-T       | 1    | 230958R1      |         |
| L4       | CHOKE COIL | NCH-1471            | 1    | 231237K022R2  |         |

|     |            |                    |   |             |
|-----|------------|--------------------|---|-------------|
| C1  | VR C       | CE04W10V-470M(VR)  | 1 | 394634717T  |
| C2  | VR C       | CE04W10V-470M(VR)  | 1 | 394634717T  |
| C3  | C-CERA C   | CK725F1H-104Z1     | 1 | 332151040R1 |
| C4  | UTSP C     | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| C7  | VR C       | CE04W10V-470M(VR)  | 1 | 394634717T  |
| C8  | C-CERA C   | CK725F1H-104Z1     | 1 | 332151040R1 |
| C9  | UTSP C     | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| C10 | C-CERA C   | CK725F1H-224Z1     | 1 | 332152240R1 |
| C11 | C-CERA C   | CK725F1H-104Z1     | 1 | 332151040R1 |
| C12 | VR C       | CE04W10V-470M(VR)  | 1 | 394634717T  |
| C13 | C-CERA C   | CK725F1H-104Z1     | 1 | 332151040R1 |
| C14 | VR C       | CE04W10V-470M(VR)  | 1 | 394634717T  |
| C15 | C-CERA C   | CK725F1H-104Z1     | 1 | 332151040R1 |
| C16 | C-CERA C   | CK725F1H-104Z1     | 1 | 332151040R1 |
| C17 | C-CERA C   | CK725F1H-104Z1     | 1 | 332151040R1 |
| C18 | VR C       | CE04W16V-100M(VR)  | 1 | 394641017T  |
| C19 | UTSP C     | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| C20 | C-CERA C   | CK732B1A-105K      | 1 | 337361055R2 |
| C22 | C-CERA C   | CC725CH1H-102J1    | 1 | 342101024R1 |
| C23 | C-CERA C   | CC725CH1H-102J1    | 1 | 342101024R1 |
| C24 | C-CERA C   | CC725CH1H-102J1    | 1 | 342101024R1 |
| C25 | C-CERA C   | CC725CH1H-102J1    | 1 | 342101024R1 |
| C26 | UTSP C     | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| C27 | UTSP C     | CE04W50V-10M(UTSP) | 1 | 397581007T  |
| R1  | C-CARBON R | RN72K1J-822JE      | 1 | 435038224R1 |
| R2  | C-CARBON R | RN72K1J-101JE      | 1 | 435031014R1 |
| R3  | C-CARBON R | RN72K1J-105JE      | 1 | 435031054R1 |
| R4  | C-CARBON R | RN72K1J-101JE      | 1 | 435031014R1 |
| R5  | TRIM R     | N06HR2KBB          | 1 | 5211402T    |
| R6  | C-CARBON R | RN72K1J-103JE      | 1 | 435031034R1 |
| R7  | C-CARBON R | RN72K1J-101JE      | 1 | 435031014R1 |
| R8  | C-CARBON R | RN72K1J-101JE      | 1 | 435031014R1 |
| R10 | C-CARBON R | RN72K1J-000JE      | 1 | 435030004R1 |
| R11 | C-CARBON R | RN72K1J-222JE      | 1 | 435032224R1 |
| R12 | C-CARBON R | RN72K1J-222JE      | 1 | 435032224R1 |
| R13 | TRIM R     | N06HR2KBB          | 1 | 5211402T    |
| R14 | C-CARBON R | RN72K1J-103JE      | 1 | 435031034R1 |
| R15 | C-CARBON R | RN72K1J-470JE      | 1 | 435034704R1 |
| R16 | C-CARBON R | RN72K1J-472JE      | 1 | 435034724R1 |
| R17 | C-CARBON R | RN72K1J-472JE      | 1 | 435034724R1 |
| R18 | C-CARBON R | RN72K1J-000JE      | 1 | 435030004R1 |
| R19 | C-CARBON R | RN72K1J-470JE      | 1 | 435034704R1 |
| R20 | C-CARBON R | RN72K1J-105JE      | 1 | 435031054R1 |
| R21 | C-CARBON R | RN72K1J-682JE      | 1 | 435036824R1 |
| R22 | C-CARBON R | RN72K1J-471JE      | 1 | 435034714R1 |
| R23 | C-CARBON R | RN72K1J-470JE      | 1 | 435034704R1 |
| R24 | C-CARBON R | RN72K1J-470JE      | 1 | 435034704R1 |
| R25 | C-CARBON R | RN72K1J-000JE      | 1 | 435030004R1 |

|       |            |                 |   |             |
|-------|------------|-----------------|---|-------------|
| R26   | C-CARBON R | RN72K1J-000JE   | 1 | 435030004R1 |
| R27   | C-CARBON R | RN72K1J-273JE   | 1 | 435032734R1 |
| R28   | C-CARBON R | RN72K1J-393JE   | 1 | 435033934R1 |
| R29   | C-CARBON R | RN72K1J-273JE   | 1 | 435032734R1 |
| R30   | C-CARBON R | RN72K1J-220JE   | 1 | 435032204R1 |
| R31   | C-CARBON R | RN72K1J-220JE   | 1 | 435032204R1 |
| R33   | C-CARBON R | RN72K1J-220JE   | 1 | 435032204R1 |
| R34   | C-CARBON R | RN72K1J-000JE   | 1 | 435030004R1 |
| R35   | C-CARBON R | RN72K1J-000JE   | 1 | 435030004R1 |
| R38   | C-CARBON R | RN72K1J-222JE   | 1 | 435032224R1 |
| R39   | C-CARBON R | RN72K1J-222JE   | 1 | 435032224R1 |
| R40   | C-CARBON R | RN72K1J-222JE   | 1 | 435032224R1 |
| R41   | C-CARBON R | RN72K1J-222JE   | 1 | 435032224R1 |
| R42   | C-CARBON R | RN72K1J-104JE   | 1 | 435031044R1 |
| R43   | C-CARBON R | RN72K1J-104JE   | 1 | 435031044R1 |
| R44   | C-CARBON R | RN72K1J-122JE   | 1 | 435031224R1 |
| R45   | C-CARBON R | RN72K1J-122JE   | 1 | 435031224R1 |
| R46   | C-CARBON R | RN72K1J-332JE   | 1 | 435033324R1 |
| R47   | C-CARBON R | RN72K1J-332JE   | 1 | 435033324R1 |
| R48   | C-CARBON R | RN72K1J-822JE   | 1 | 435038224R1 |
| R49   | C-CARBON R | RN72K1J-822JE   | 1 | 435038224R1 |
| R50   | C-CARBON R | RN72K1J-682JE   | 1 | 435036824R1 |
| R51   | C-CARBON R | RN72K1J-682JE   | 1 | 435036824R1 |
| R52   | METAL O R  | RS1/2WBJ-10     | 1 | 443521004T  |
| R53   | METAL R    | RNU1WCJ-1       | 1 | 453630104T  |
| R54   | METAL R    | RNU1WCJ-1       | 1 | 453630104T  |
| A3    | TAPE       | TAPE(CLOTH-16U) | 1 | 29110083    |
| P1    | TRM        | NTM-4PDML401    | 1 | 25060473    |
| P101A | SOCKET     | NSCT-13P2106    | 1 | 25052209    |
| P5    | PLUG       | NPLG-4P118      | 1 | 25055134    |

## TX-SR876/SA876

## PACKING PROCEDURE PARTS LIST

| REF. NO. | PART NAME  | DESCRIPTION                 | Q'TY | PART NO. (SN) | REMARKS          |
|----------|------------|-----------------------------|------|---------------|------------------|
| A600     | SHEET      | .                           | 1    | 29095906      |                  |
| A602     | TAPE       | (SEROHAN)NITTO NO.29        | (1)  | 29110149      |                  |
| A603     | SHEET      | T0.515*1300*900             | 1    | 29096066      |                  |
| A604     | POLY BAG   | (W1020xD770)                | 1    | 29100253      |                  |
| A608     | PAD        | AS                          | 1    | 29092384A     |                  |
| A610     | CARTON     | TXSR876MDC                  | 1    | 29054918A     | <DC, DD>         |
| A610     | CARTON     | TXSR876MMP                  | 1    | 29054919A     | <MP, MB, MT, DT> |
| A610     | CARTON     | TXSA886MMR                  | 1    | 29054924A     | <SA876>          |
| A614a    | UPC LABEL  | TXSR876BDC                  | 1    | 29390432      | <DC>             |
| A614a    | UPC LABEL  | TXSR876SDD                  | 1    | 29390433      | <DD>             |
| A614a    | EAN LABEL  | TXSR876BMP                  | 1    | 29390437      | (B)<MP>          |
| A614a    | EAN LABEL  | TXSR876SMP                  | 1    | 29390438      | (S)<MP>          |
| A614a    | EAN LABEL  | TXSR876BMB                  | 1    | 29390442      | (B)<MB>          |
| A614a    | EAN LABEL  | TXSR876SMB                  | 1    | 29390443      | (S)<MB>          |
| A614a    | EAN LABEL  | TXSR876GDT                  | 1    | 29390444      | <DT>             |
| A614a    | EAN LABEL  | TXSR876GMT                  | 1    | 29390446      | <MT>             |
| A614a    | EAN LABEL  | TXSA876GMR                  | 1    | 29390449      | <SA876>          |
| A616     | LABEL      | (APV)                       | 1    | 29390190      | <SA876>          |
| A618     | LABEL      | (CHINA)                     | 1    | 29390395      | <SA876>          |
| A620     | CARTON     | (ACC)                       | 1    | 29054470      |                  |
| A622     | PP TAPE    | W50 SBT-70                  | 1    | 29110200      |                  |
| A624     | STAPLE     | FUKAN-BARI(1000KO)          | 4    | 282321        |                  |
| A803     | POLY BAG   | w250xd350                   | 1    | 29100250A     |                  |
| A810     | POLY BAG   | w250xd350                   | 1    | 29100250A     | <DC, MP>         |
| A811     | INS MANUAL | En(TX-SR876/NR906)          | 1    | 29344753A     | <SR876>          |
| A813     | INS MANUAL | U2FrEs(TX-SR876/NR906)      | 1    | 29344754A     | <DC, MP>         |
| A815     | INS MANUAL | U2ItDe(TX-SR876/NR906)      | 1    | 29344755      | <MP>             |
| A817     | INS MANUAL | U2NIsv(TX-SR876/NR906)      | 1    | 29344756      | <MP>             |
| A818     | INS MANUAL | En(TX-SA876/NA906)          | 1    | 29344771      | <SR876>          |
| A819     | INS MANUAL | U9(RC-687M-692M)            | 1    | 29344467      |                  |
| A820     | INS MANUAL | Ct(TX-SR876/NR906)          | 1    | 29344757      | <DT, MT>         |
| A821     | INS MANUAL | Cs(TX-SA876/NA906)          | 1    | 29344758      | <SA876>          |
| A825     | INS MANUAL | En(QSS_TX-SR876/NR906)      | 1    | 29344760      |                  |
| A827     | INS MANUAL | Cs(QSS_TX-SA876/NA906)      | 1    | 29344761      | <SR876>          |
| A832     | INS MANUAL | U3EnFrEs(XM/SIRIUS_876/906) | 1    | 29344772      | <DC, DD>         |
| A833     | INST SHEET | En(XM RADIO)                | 1    | 29355602      | <DC, DD>         |
| A840     | ANT COIL   | NMA-3057                    | 1    | 232140        | <MP, MB, MT, DT> |
| A840     | ANT COIL   | NMA-3064                    | 1    | 232201        | <DC, DD>         |
| A842     | FM ANT AS  | Type W                      | 1    | 292191        | <SR876>          |
| A844     | BATTERY    | R6/AA(UM-3)                 | 3    | 3010194       |                  |
| A844 or  | BATTERY    | R6/AA(UM-3)                 | ( 3) | 3010054       |                  |
| A847     | INST SHEET | U3(876RIHD)EnFrEs           | 1    | 29355725      | <DC, DD>         |
| A848     | POLY BAG   | t0.1*70*100                 | 1    | 29100217A     |                  |

|         |            |                             |      |           |                         |
|---------|------------|-----------------------------|------|-----------|-------------------------|
| A848    | INST SHEET | En(876RIHD)notUS            | 1    | 29355726  | <MP, MB, MT, DT, SA876> |
| A849    | INST SHEET | U8(876RIHD)FrEsItDeNISvCtCs | 1    | 29355727  | <MP, MT, DT, SA876>     |
| A852    | LABEL      | (SPCABLE)                   | 1    | 29390189  |                         |
| A854    | HANDBILL   | (DS-A2X)US                  | 1    | 29380150  | <DC, DD>                |
| A854    | HANDBILL   | (DS-A2X)EU                  | 1    | 29380151  | <MP, MB>                |
| A856    | WRNTY CARD | (ONKYO)                     | 1    | 29365135  | <DC, DD>                |
| A856    | WRNTY CARD | (ONKYO-CH)                  | 1    | 29365098B | <SA876>                 |
| A866    | INST SHEET | WEEE                        | 1    | 29355537  | <MP, MB>                |
| A876    | INST SHEET | CHINA ROHS                  | 1    | 29355616A | <SA876>                 |
| A877    | INS MANUAL | Ru(TX-SR876/906)            | 1    | 29344865  | <MP>                    |
| A880    | HANDBILL   | (SIRIUS)                    | 1    | 29380149  | <DC, DD>                |
| A890    | REMO CON   | RC-690M                     | 1    | 24140690  |                         |
| A891    | MIC        | MIC-7000                    | 1    | 245044    |                         |
| P901    | AC CORD    | AS-UC-2                     | 1    | 253301VOL | !, <DC, DD>             |
| P901    | AC CORD    | AS-CNS                      | 1    | 253432VOL | !, <DT>                 |
| P901    | AC CORD    | AS-BS                       | 1    | 253425KAW | !, <MB>                 |
| P901 or | AC CORD    | AS-BS                       | ( 1) | 253425YUN | !, <MB>                 |
| P901    | AC CORD    | AS-CEE-3                    | 1    | 253298VOL | !, <MP, MT>             |
| P901    | AC CORD    | AS-CCC                      | 1    | 253358VOL | !, <SR876>              |

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