

144/430 MHz
Mobile Transceiver

FT-90R

Technical Supplement

©2004 VERTEX STANDARD CO., LTD. Printed in Japan.

VERTEX STANDARD CO., LTD.
4-8-8 Nakameguro, Meguro-Ku, Tokyo 153-8644, Japan

VERTEX STANDARD

US Headquarters
10900 Walker Street, Cypress, CA 90630, U.S.A.

YAESU EUROPE B.V.

P.O. Box 75525, 1118 ZN Schiphol, The Netherlands

YAESU UK LTD.

Unit 12, Sun Valley Business Park, Winnall Close
Winchester, Hampshire, SO23 0LB, U.K.

VERTEX STANDARD HK LTD.

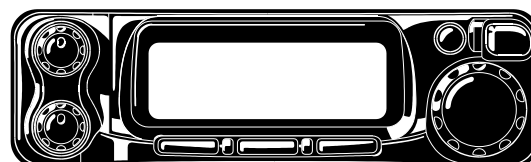
Unit 5, 20/F., Seaview Centre, 139-141 Hoi Bun Road,
Kwun Tong, Kowloon, Hong Kong

Introduction

This manual provides technical information necessary for servicing the Yaesu FT-90R VHF/UHF Dual Band FM Mobile Transceiver. It does not include information on installation and operation, which are described in the FT-90R Operating Manual provided with the transceiver, or on accessories which are described in their manuals.

The FT-90R is carefully designed to allow the knowledgeable operator to make nearly all adjustments required for various station conditions, modes and operator preferences simply from the controls on the panels, without opening the case of the transceiver. The FT-90R Operating Manual describes these adjustments, plus certain internal settings.

Servicing this equipment requires expertise in handling surface mount chip components. Attempts by unqualified persons to service this equipment may result in permanent damage not covered by warranty. For the major circuit boards, each side of the board is identified by the type



of the majority of components installed on that side. In most cases one side has only chip components, and the other has either a mixture of both chip and lead components (trimmers, coils, electrolytic capacitors, packaged ICs, etc.), or lead components only.

While we believe the technical information in this manual is correct, Yaesu assumes no liability for damage that may occur as a result of typographical or other errors that may be present. Your cooperation in pointing out any inconsistencies in the technical information would be appreciated. Yaesu Musen reserves the right to make changes in this transceiver and the alignment procedures, in the interest of technological improvement, without notification of owners.

Contents

Specifications	2
Exploded View & Miscellaneous Parts	3
Block Diagram	5
Circuit Description	7
Alignment	10
Interconnection Diagram	14
Board Unit (Schematics, Layouts & Parts)	
MAIN Unit	15
CNTL Unit	29
Panel Unit	41
VCO Unit	45
Connector Unit	49

Specifications

General

Frequency Ranges:	RX:100-230 MHz, 300-530 MHz, 810-999.975 MHz* TX:144-148 MHz or 144-148 MHz (144 MHz), 430-440 MHz or 430-450 MHz (430 MHz)
Channel Steps:	5/10/12.5/15/20/25/50 kHz
Emission Type:	F3, F2, F1
Antenna Impedance:	50 Ω , Unbalanced (Antenna Duplexer built in)
Frequency Stability:	+5 ppm (-5 °C to +60 °C)
Operating Temp. Range:	-20 °C to +60 °C
Supply Voltage:	DC 13.8 V $\pm$ 15 %, Negative Ground
Current Consumption (approx):	350 mA (Receive, Squelched) 9.5 A (Tx, 144 MHz) 8.5 A (Tx, 430 MHz)
Case Size:	100(W) x 30(H) x 138(D) mm (w/o knobs)
Weight:	640 g (1.41 lb.)

* Cellular and digital telephone frequencies are blocked and cannot be restored.

Transmitter

RF Power Output:	50/20/10/5 W (144 MHz), 35/20/10/5 W (430 MHz)
Modulation Type:	Variable Reactance
Maximum Deviation:	+5 kHz
Spurious Emissions:	At least 60 dB below fundamental
Microphone Impedance:	2 k Ω

Receiver

Circuit Type:	Double Conversion Superhetrodyne
Intermediate Frequencies:	4505 MHz and 455 kHz
Sensitivity:	0.18 μ V $\pm$ 12 dB SINAD
Selectivity:	12 kHz/24 kHz (-6 dB/ -60 dB)
AF Output:	2 W @ 8 Ω for 10 % THD
AF Output Impedance:	4 Ω -16 Ω

Specifications are subject to change without notice or obligation.

Specifications guaranteed only within the 2m and 70cm amateur bands.

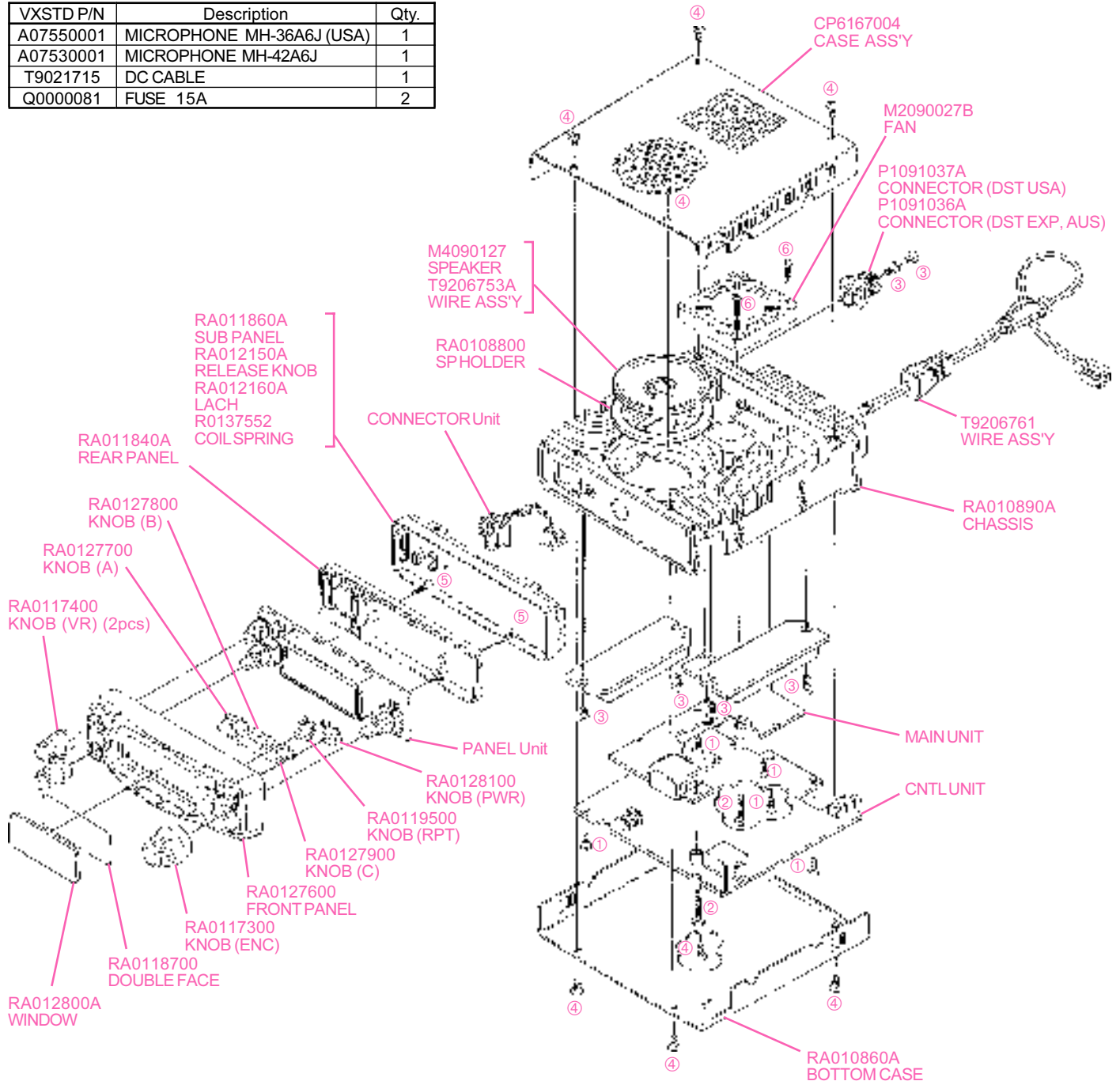
Frequency range may vary according to local requirements and regulations.

Exploded View & Miscellaneous Parts

Ref.	VXSTD P/N	Description	Qty.
①	U24206001	TAPTITE SCREW M2.6X6	5
②	U24214001	TAPTITE SCREW M2.6X14	2
③	U24306001	TAPTITE SCREW M3X6	6
④	U36205007	TAPTITE SCREW M2.6X5B	8
⑤	U43110027	TAPTITE SCREW M2X10B SUS	2
⑥	U9900079	PAN HEAD SCREW M2.6X10B	2

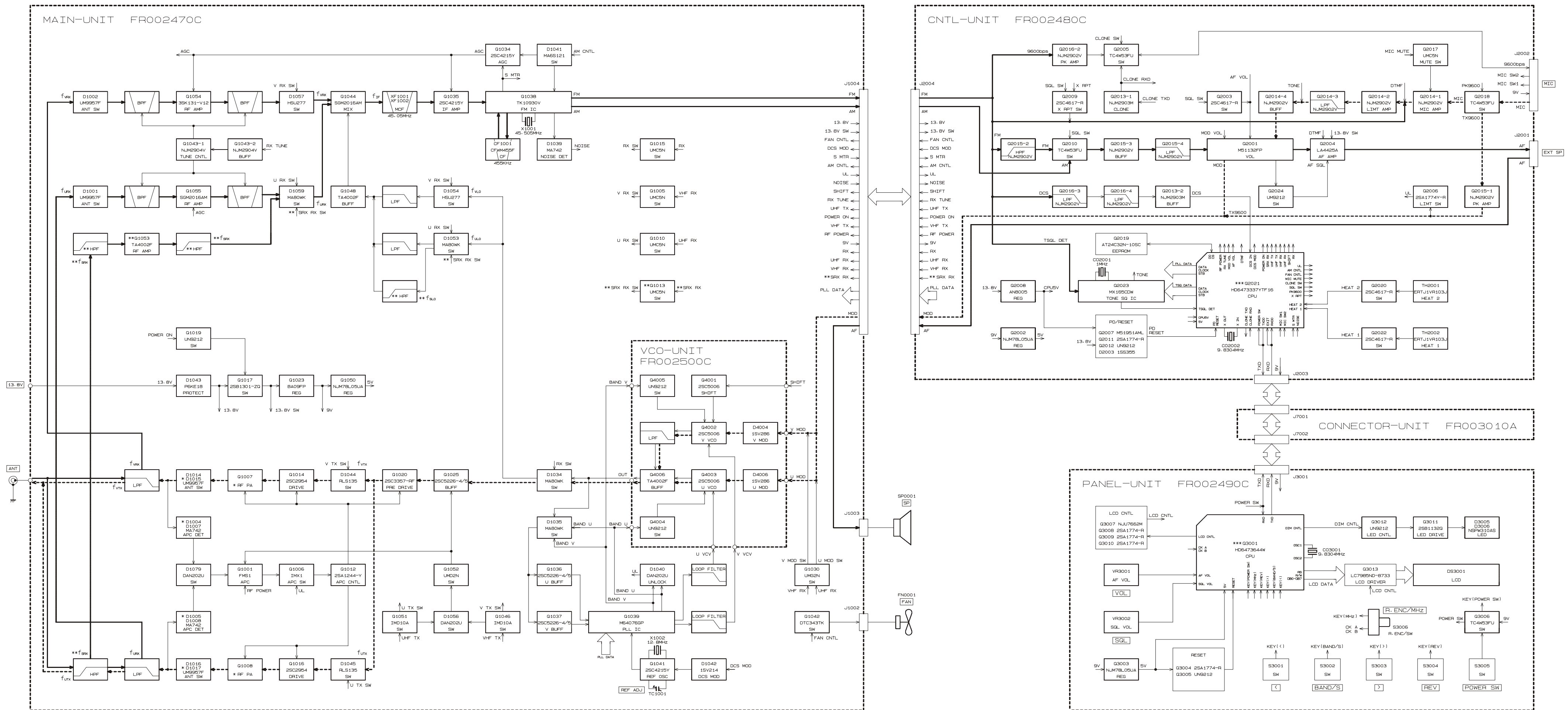
Non-designated parts are available only as part of a designated assembly.

VXSTD P/N	Description	Qty.
A07550001	MICROPHONE MH-36A6J (USA)	1
A07530001	MICROPHONE MH-42A6J	1
T9021715	DC CABLE	1
Q0000081	FUSE 15A	2



Exploded View & Miscellaneous Parts

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	YAESU P/N	VERS.	LOT.	SIDE
*** MAIN ASSY ***									
FB0001	FERRITE BEADS				B-20L-48B	L9190055		1-	
FN0001	FAN				0406-12V	M2090027A		-10	
FN0001	FAN				0406-12V	M2090027B		10-	
P 0001	WIRE ASSY				Speaker Cable	T9206753A		1-	
P 0002	WIRE ASSY				Flat Cable (MAIN ↔ CNTL)	T9206754		1-	
P 0003	WIRE ASSY				Power Cable	T9206761		1-	
SP0001	SPEAKER	8-ohm	1.5W		VS-45U0208	M4090127		1-	
J 0002	CONNECTOR				M-R 128	P1091037	USA	-3	
J 0002	CONNECTOR				M-R 128-1	P1091037A	USA	3-	
J 0003	CONNECTOR				N-R 142	P1091036	EXPORT	-7	
J 0003	CONNECTOR				N-R 142-1	P1091036A	EXPORT	7-	
J 0004	CONNECTOR				N-R 142	P1091036	AUSTRALIA	-3	
J 0004	CONNECTOR				N-R 142-1	P1091036A	AUSTRALIA	3-	



$f_{Vrx} = 144 \sim 148 \text{ MHz}$ $f_{Urx} = 430 \sim 450 \text{ MHz}$ → RX LINE
 $f_{Vrx} = 100 \sim 230 \text{ MHz}$ $f_{Urx} = 300 \sim 530 \text{ MHz}$ - - - TX LINE
 $f_{VL0} = f_{Vrx} + f_{IF} \text{ MHz}$ $f_{UL0} = f_{Urx} - f_{IF} \text{ MHz}$ → COMMON LINE
 $f_{IF} = 45.05 \text{ MHz}$
 $**f_{SRx} = 810 \sim 824 \text{ MHz}$ $**f_{SL0} = 2f_{Urx} \text{ MHz}$
 $= 849 \sim 869 \text{ MHz}$
 $= 894 \sim 999.975 \text{ MHz}$

Block Diagram

Notes:

RECEPTION

VHF Signal Path

Incoming VHF RF from the antenna jack is delivered to the MAIN UNIT, and passes through the low-pass filter, antenna switching diode D1002 (**XB15A709A0HR**), and the varactor-tuned band-pass filter, and is then delivered to the RF amplifier Q1054 (**3SK131-V12**).

The amplified signal passes through a band-pass filter, then it is routed to the “RF” port of the first mixer, Q1044 (**SGM2016AM**). Buffered output from the VHF VCO is amplified by Q1048 (**TA4002F**) to provide a pure first local signal between 189.05 and 191.05 MHz for injection to the “Local” port of the first mixer.

UHF Signal Path

Incoming UHF RF from the antenna jack is delivered to the MAIN UNIT and passes through the high-pass filter, low-pass filter, antenna switching diode D1001 (**XB15A709A0HR**), and the varactor-tuned band-pass filter, and is then delivered to the RF amplifier Q1055 (**SGM2016AM**).

The amplified signal passes through a band-pass filter, then it is routed to the “RF” port of the first mixer, Q1044. Buffered output from the UHF VCO is amplified by Q1048 to provide a pure first local signal between 384.95 and 1394.95 MHz for injection to the “Local” port of the first mixer.

IF Signal Path

The 45.05 MHz first mixer product then passes through monolithic crystal filters XF1001 and XF1002 (both 45M15B5H) to strip away unwanted mixer products, and the IF signal is then amplified by Q1035 (**2SC4215Y**).

The amplified first IF signal is applied to the FM IF subsystem IC Q1038 (**TK10930V**), which contains the second mixer, second local oscillator, limiter amplifier, noise amplifier, and FM detector. The 45.505 MHz second local signal is generated by Q1038 to produce the 455 kHz second IF when mixed with the first IF signal within Q1038.

The second IF signal then passes through ceramic filter CF1001 (**CFWM455F**) to strip away all but the desired signal, and is then applied to the limiter amplifier section in Q1038, which removes any amplitude variations in the 455 kHz IF before detection of speech by the ceramic discriminator, CD1001 (**CDBM455C7**).

AF Signal Path

The detected audio from CD1001 delivered to the CNTL UNIT, where it passes through the de-emphasis network at Q2015-2 (**NJM2902V**), buffer amplifier Q2015-3 (**NJM2902V**), and the low-pass filter Q2015-4 (**NJM2902V**); the signal then is sent to the volume controller Q2001 (**M51132FP**). The processed signal is then amplified by the audio power amplifier Q2004 (**LA4425A**), then delivered to the 8 Ω loudspeaker or the external speaker jack.

Squelch Control

When no carrier is received, noise at the output of the detector stage in Q1038 is amplified, band-pass filtered, and detected by D1039 (**MA742**). The resulting DC squelch control voltage is passed to pin 33 of Q2021 (**HD643336Y**). While no carrier is received, pin 80 of Q2021 remains high. This “high” signal is applied to SQL switch Q2003 (**2SC4617**) and Q2010 (**TC4W53FU**) to hold the AF line low, thus blocking receiver audio.

TRANSMISSION

AF Signal Path

Speech input from the microphone is delivered to the CNTL UNIT, and passes through the MIC MUTE switch Q2018 (**TC4W53FU**), MIC amplifier Q2014-1 (**NJM2902V**), limiter amplifier Q2014-2 (**NJM2902V**), low-pass filter Q2014-3 (**NJM2902V**), and buffer amplifier Q2014-4 (**NJM2902V**) to the volume controller Q2001 (**M51132FP**), and is then applied to the VCO circuit on the MAIN UNIT.

VHF Signal Path

The speech signal is applied to the VHF VCO, consisting of Q4002 (**2SC5006**) and D4004 (**1SV286**). The modulated signal from the VHF VCO passes through a low-pass filter, buffer amplifier Q4006 (**TA4002F**), pre-drive amplifier Q1020 (**2SC3357-RF**), and drive amplifier Q1014 (**2SC2954**) to the VHF final amplifier Q1007 (**M67781L**). The RF signal then passes through the antenna switch, D1014/D1015 (both **XB15A709A0HR**), and is low-pass filtered to suppress harmonic radiation before delivery to the antenna.

Circuit Description

UHF Signal Path

The speech signal is applied to the UHF VCO, consisting of Q4003 (**2SC5006**) and D4006 (**1SV286**). The modulated signal from the UHF VCO passes through a low-pass filter, buffer amplifier Q4006, pre-drive amplifier Q1020, and drive amplifier Q1016 (**2SC2954**) to the UHF final amplifier Q1008 (**M57788MR**). The RF signal then passes through the antenna switch, D1016/D1017 (both **XB15A709A0HR**) and is low-pass filtered to suppress harmonic radiation before delivery to the antenna.

VHF Automatic Transmit Power Control

RF power output from the VHF final amplifier Q1007 is rectified by D1007 (**MA742**). The resulting DC voltage is fed through the Automatic Power Controller, Q1012 (**2SA1244**) to the pre-drive amplifier Q1020, drive amplifier Q1014, and the VHF final amplifier Q1007, thus allowing control of the power output.

UHF Automatic Transmit Power Control

RF power output from the VHF final amplifier Q1008 is rectified by D1008 (**MA742**). The resulting DC voltage is fed through the Automatic Power Controller, Q1012 (**2SA1244**) to the pre-drive amplifier Q1020, drive amplifier Q1016, and the UHF final amplifier Q1008, thus allowing control of the power output.

Push-To-Talk Transmit Activation

When the PTT switch is closed on a VHF frequency, pin 30 of microprocessor Q2021 goes low; as a result, pin 51 of Q2021 goes high. This signal is applied to the TX/RX controllers, Q1046 (**IMD10A**) and Q1052 (**UMD2N**), which activate the pre-drive amplifier Q1020, drive amplifier Q1016, and the VHF final amplifier Q1007. At same time, pins 54 and 55 of Q2021 go low. This “low” signal is applied to TX/RX controllers Q1005 and Q1052 (both **UMC5N**), which disable the receiver circuit.

When the PTT switch is closed on a UHF frequency, pin 30 of microprocessor Q2021 goes low, as a result, pin 50 of Q2021 goes high. This signal is applied to the TX/RX controllers, Q1051 (**IMD10A**) and Q1052, which activate the pre-drive amplifier Q1020, drive amplifier Q1016, and the UHF final amplifier Q1008. At same time, pins 53 and 55 of Q2021 go low. This “low” signal is applied to TX/RX controllers Q1010 and Q1015 (both **UMC5N**), which disable the receiver circuit.

PLL FREQUENCY SYNTHESIZER

PLL circuitry on the MAIN UNIT consists of VHF VCO Q4002, UHF VCO Q4003, VCO buffers Q4006, Q1036 (**2SC5226**), and Q1037 (**2SC5226**), and PLL subsystem IC Q1039 (**M64076AGP**), which contains a reference divider, serial-to-parallel data latch, programmable divider, phase comparator and charge pump.

VHF PLL Circuit

The VHF VCO output is buffered by Q1037, and applied to the prescaler section of Q1039. There the VCO signal is divided by 64 or 65, according to a control signal from the data latch section of Q1039, before being applied to the programmable divider section of Q1039.

The data latch section of Q1039 also receives serial dividend data from the microprocessor Q2021 on the CNTL UNIT, which causes the pre-divided VHF VCO signal to be further divided in the programmable divider section, depending upon the desired receive frequency, so as to produce a 5 kHz or 6.25 kHz derivative of the current VHF VCO frequency. Meanwhile, the reference divider section of Q1039 divides the 12.8 MHz crystal reference by 2560 (or 2048) to produce the 5 kHz (or 6.25 kHz) loop reference.

The 5 kHz or 6.25 kHz signal from the programmable divider (derived from the VHF VCO) and that derived from the crystal are applied to the phase detector section of Q1039, which produces a pulsed output depending on the phase difference between the input signals. This pulse train is then converted to DC, low-pass filtered, then fed back to varactor diodes D4002 and D4003 (both **1SV281**) in the VHF VCO.

Changes in the DC voltage applied to the varactor diodes affect the reactance in the tank circuit of the VHF VCO, changing the oscillating frequency according to the phase difference between the signals derived from the VHF VCO and crystal reference oscillator. The VHF VCO is thus phase-locked to the reference frequency standard.

UHF PLL Circuit

The UHF VCO output is buffered by Q1036, and applied to the prescaler section of Q1039. There the VCO signal is divided by 64 or 65, according to a control signal from the data latch section of Q1039, before being applied to the programmable divider section of Q1039.

The data latch section of Q1039 also receives serial dividing data from the microprocessor Q2021 on the CNTL UNIT, which causes the pre-divided UHF VCO signal to be further divided in the programmable divider section, depending upon the desired receive frequency, so as to produce a 5 kHz or 6.25 kHz derivative of the current UHF VCO frequency. Meanwhile, the reference divider section of Q1039 divides the 12.8 MHz crystal reference by 2560 (or 2048) to produce the 5 kHz (or 6.25 kHz) loop reference.

The 5 kHz or 6.25 kHz signal from the programmable divider (derived from the UHF VCO) and that derived from the crystal are applied to the phase detector section of Q1039, which produces a pulsed output depending on the phase difference between the input signals. This pulse train is then converted to DC, low-pass filtered, then fed back to varactor diodes D4001 and D4005 (both 1SV281) in the UHF VCO.

Changes in the DC voltage applied to the varactor diodes affect the reactance in the tank circuit of the UHF VCO, changing the oscillating frequency according to the phase difference between the signals derived from the UHF VCO and crystal reference oscillator. The UHF VCO is thus phase-locked to the reference frequency standard.

POWER SUPPLY CONTROL

When the PWR switch is pressed, pin 19 of microprocessor Q2021 goes low; as a result, pin 48 of Q2021 goes high. This “high” signal is applied to Q1017 (**2SB1301-ZQ**) and regulator IC Q1023 (**BA09FP**), providing the required 9 volts for the TX and RX circuits.

Alignment

The FT-90R has been carefully aligned at the factory for the specified performance across the 144 MHz and 430 MHz amateur bands. Realignment should therefore not be necessary except in the event of a component failure. All component replacement and service should be performed only by an authorized Yaesu representative, or the warranty policy may be voided.

The following procedures cover the sometimes critical and tedious adjustments that are not normally required once the transceiver has left the factory. However, if damage occurs and some parts are replaced, realignment may be required. If a sudden problem occurs during normal operation, it is likely due to component failure; realignment should not be done until after the faulty component has been replaced.

We recommend that servicing be performed only by authorized Yaesu service technicians, who are experienced with the circuitry and fully equipped for repair and alignment. Therefore, if a fault is suspected, contact the dealer from whom the transceiver was purchased for instructions regarding repair. Authorized Yaesu service technicians realign all circuits and make complete performance checks to ensure compliance with factory specifications after replacing any faulty components. Those who do undertake any of the following alignments are cautioned to proceed at their own risk. Problems caused by unauthorized attempts at realignment are not covered by the warranty policy. Also, Yaesu must reserve the right to change circuits and alignment procedures in the interest of improved performance, without notifying owners. Under no circumstances should any alignment be attempted unless the normal function and operation of the transceiver are clearly understood, the cause of the malfunction has been clearly pinpointed and any faulty components replaced, and the need for realignment determined to be absolutely necessary.

Required Test Equipment

The following test equipment (and thorough familiarity with its correct use) is necessary for complete realignment. Correction of problems caused by misalignment resulting from use of improper test equipment is not covered under the warranty policy. While most steps do not require all of the equipment listed, the interactions of some adjustments may require that more complex adjustments be performed afterwards. Do not attempt to perform only a single step unless it is clearly isolated electrically from all other steps. Have all test equipment ready before beginning, and follow all of the steps in a section in the order presented.

1. RF Signal Generator with calibrated output level at 500 MHz
2. Deviation Meter (linear detector)
3. AF Millivoltmeter
4. SINAD Meter
5. Inline Wattmeter with 5% accuracy at 500 MHz
6. Regulated DC Power Supply: adjustable from 10 to 17 VDC, 15A
7. 50-ohm non-reactive Dummy Load: 100 W at 500 MHz
8. Frequency Counter: >0.1 ppm accuracy at 500 MHz
9. AF Signal Generator
10. DC Voltmeter: high impedance
11. VHF/UHF Sampling Coupler
12. AF Dummy Load: 4 Ω , 5 W
13. Oscilloscope
14. Spectrum Analyzer

Alignment Preparation & Precautions

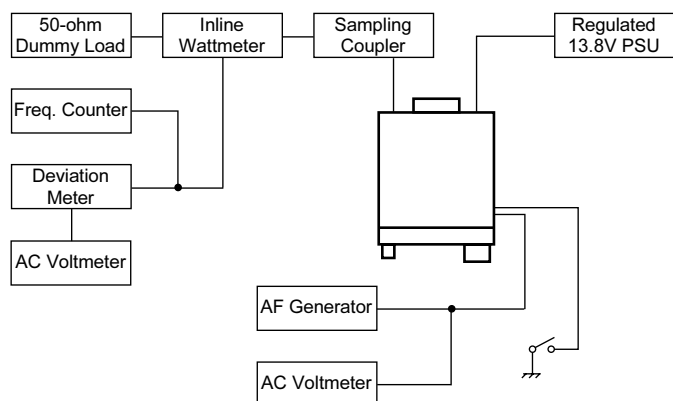
A dummy load and inline wattmeter must be connected to the main antenna jack in all procedures that call for transmission, except where specified otherwise. Correct alignment is not possible with an antenna. After completing one step, read the following step to determine whether the same test equipment will be required. If not, remove the test equipment (except dummy load and wattmeter, if connected) before proceeding.

Correct alignment requires that the ambient temperature be the same as that of the transceiver and test equipment, and that this temperature be held constant between 20° and 30° C (68° ~ 86° F). When the transceiver is brought into the shop from hot or cold air it should be allowed some time for thermal equalization with the environment before alignment. If possible, alignments should be made with oscillator shields and circuit boards firmly affixed in place. Also, the test equipment must be thoroughly warmed up before beginning.

Note: Signal levels in dB referred to in this procedure are based on 0 dB μ = 0.5 μ V(closed circuit).

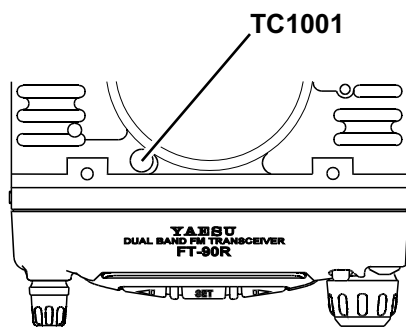
PLL & Transmitter

Set up the test equipment as shown for transmitter alignment. Maintain the supply voltage at 13.8V DC for all steps.



PLL Reference Frequency

With the wattmeter, dummy load and frequency counter connected to the antenna jack, and while tuned to 435.000 MHz, key the transmitter and adjust **TC1001** on the Main Unit, if necessary, so the counter frequency is within 100 Hz of 435.000 MHz.



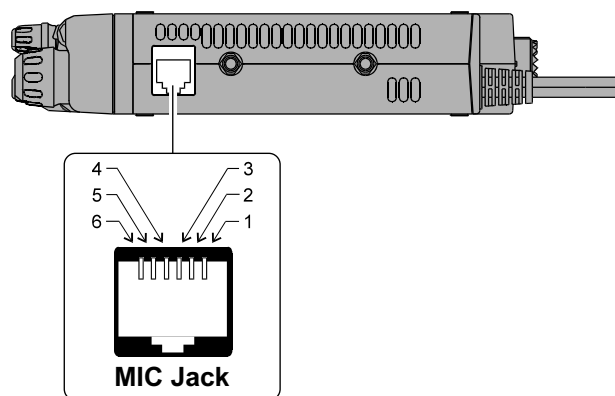
Internal System Alignment Routine

This uses a programmed routine in the transceiver which simplifies many complex discrete component settings and adjustments using digitally-controlled settings via the front panel's buttons and LCD indications.

- To enter the Alignment Mode, turn the transceiver off. Now short pins 1 and 6 of the Mic jack to Ground (pin 4). While these two pins are shorted to Ground, turn the radio on. Now disconnect the shorting of pins 1 and 6 of the Mic jack to Ground; the transceiver is now in the Alignment mode.
- In the Alignment Mode, each Alignment Menu adjustment is selected by rotating the Dial.
- Once you have completed adjustment of each required Alignment Menu item, pressing the **Dial** or the microphone's **[VFO/MR]** button will lock in that setting.

- If the alignment step requires that you "key the transmitter," this may be accomplished by shorting pin 6 of the Mic jack to Ground (pin 4).
- Many adjustments, such as power output and deviation, can be customized for each amateur band. That is, you can set the VHF Deviation and UHF Deviation independently. Be certain that the operating frequency is set to the correct band before making adjustments.
- To save all settings and exit to normal operation, press the **DISP SS** button.

In order to expedite entry to the Alignment Mode, keying of the transmitter, and injection of transmitter audio it may prove useful for you to build a test cable for connection to the Mic jack. The pin connections are shown below.



VHF Transmitter Output

1. From the Alignment Mode, press the **◀** and **▶** buttons on the panel to select "HIPO" (TX High Power), and rotate the Dial so as to achieve 49.5-50.5 Watts on the wattmeter. Then press the **Dial** or the microphone's **[VFO/MR]** button.
2. Press the **◀** and **▶** buttons on the panel to select "MID1" (TX Mid-High Power) and rotate the Dial so as to achieve 19.5-20.5 Watts on the wattmeter. Then press the **Dial** or the microphone's **[VFO/MR]** button.
3. Press the **◀** and **▶** button on the panel to select "MID2" (TX Mid-Low Power) and rotate the Dial so as to achieve 9.5-10.5 Watts on the wattmeter. Then press the **Dial** or the microphone's **[VFO/MR]** button.
4. Press the **◀** and **▶** button on the panel to select "LOW" (TX Low Power) and rotate the Dial so as to achieve 4.5-5.5 Watts on the wattmeter. Then press the **Dial** or the microphone's **[VFO/MR]** button.
5. If this is the last item to be aligned, press the **DISP SS** button. If not, move on to the next section without pressing the **DISP SS** button.

Alignment

VHF Transmitter Deviation

1. While in the Alignment Mode, inject a 1 kHz audio signal at a level of 50 mV to pin 5 of the Mic jack (pin 4 is Ground).
2. Press the  and  buttons on the panel to select "MOD" (TX Modulation). Key the transmitter, and rotate the Dial so as to achieve ± 4.5 kHz deviation on the deviation meter. Then press the **Dial** or the microphone's [VFO/MR] button.
3. If this is the last item to be aligned, press the  button. If not, move on to the next section without pressing the  button.

See the "Note" following the "UHF Transmitter Deviation" section below.

UHF Transmitter Output

1. Set the transceiver frequency to 440.000 MHz, and enter the Alignment Mode.
2. Press the  and  buttons on the panel to select "HIPO" (TX High Power), and rotate the Dial so as to achieve 34.5-35.5 Watts on the wattmeter. Then press the **Dial** or the microphone's [VFO/MR] button.
3. Press the  and  buttons on the panel to select "MID1" (TX Mid-High Power), and rotate the Dial so as to achieve 19.5-20.5 Watts on the wattmeter. Then press the **Dial** or the microphone's [VFO/MR] button.
4. Press the  and  buttons on the panel to select "MID2" (TX Mid-Low Power), and rotate the Dial so as to achieve 9.5-10.5 Watts on the wattmeter. Then press the **Dial** or the microphone's [VFO/MR] button.
5. Press the  and  button on the panel to select "LOW" (TX Low Power), and rotate the Dial so as to achieve 4.5-5.5 Watts on the wattmeter. Then press the **Dial** or the microphone's [VFO/MR] button.
6. If this is the last item to be aligned, press the  button. If not, move on to the next section without pressing the  button.

UHF Transmitter Deviation

1. While in the Alignment Mode, inject a 1 kHz audio signal at a level of 50 mV to pin 5 of the Mic jack (pin 4 is Ground).
2. Key the transmitter and press the  and  buttons on the panel to select "MOD" (TX Modulation), and rotate the Selector Knob so as to achieve ± 4.5 kHz deviation (USA Version: ± 4.0 kHz) on the deviation meter. Then press the **Dial** or the microphone's [VFO/

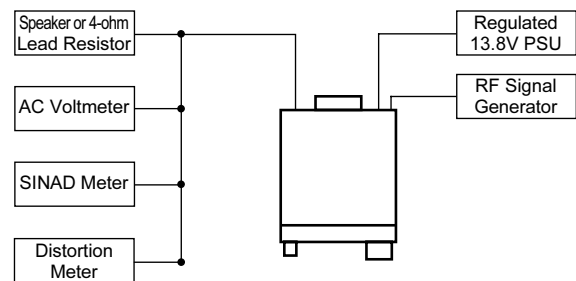
MR] button.

3. If this is the last item to be aligned, press the  button. If not, move on to the next section without pressing the  button.

Note: The lower deviation in the "USA" version on UHF allows for the likely injection of a CTCSS Encode tone on the transmitted signal; so as to keep the total (voice + tone) deviation below ± 5 kHz, set the voice deviation to ± 4.0 kHz. Depending on the owner's operating patterns, this lower deviation setting may also be required on VHF, as well.

Receiver

Set up the test equipment as shown below for receiver alignment.



VHF S-Meter (S-1 Level) Calibration

1. Set the transceiver frequency to 146.000 MHz, and enter the Alignment mode.
2. Set the RF signal generator to the same frequency. Set the generator for ± 3.5 kHz deviation of a 1 kHz modulation tone, and set the RF output level from the signal generator to $-2\text{dB}\mu$.
3. Press the  and  buttons on the panel to select "S-1" (S-1 signal). Then press the **Dial** or the microphone's [VFO/MR] button.
4. If this is the last item to be aligned, press the  button. If not, move on to the next section without pressing the  button.

VHF S-Meter (Full Scale) Calibration

1. While in the Alignment Mode, set the signal generator's RF output level to $+25\text{dB}\mu$, and leave the generator set for 1 kHz audio at ± 3.5 kHz deviation.
2. Press the  and  buttons on the panel to select "SF" (S-Meter Full Scale). Then press the **Dial** or the microphone's [VFO/MR] button.
3. If this is the last item to be aligned, press the  button. If not, move on to the next section without pressing the  button.

VHF Squelch Threshold Calibration

1. With the frequency and modulation set as in the previous steps, set the signal generator's RF output level to $-11\text{dB}\mu$.
2. Press the  and  buttons on the panel to select "SQ-S" (Squelch Threshold). Then press the **Dial** or the microphone's **[VFO/MR]** button. The RF level for the Squelch Threshold will be stored into memory.
3. If this is the last item to be aligned, press the  button. If not, move on to the next section without pressing the  button.

VHF Tight Squelch Calibration

1. With the frequency and modulation set as in the previous steps, set the signal generator's RF output level to $-2\text{dB}\mu$.
2. Press the  and  buttons on the panel to select "SQ-T" (Tight Squelch). Then press the **Dial** or the microphone's **[VFO/MR]** button. The RF level for the Tight Squelch setting will be stored into memory.
3. If this is the last item to be aligned, press the  button. If not, move on to the next section without pressing the  button.

UHF S-Meter (S-1 Level) Calibration

1. Set the transceiver frequency to 440.000 MHz, and enter the Alignment Mode.
2. Set the RF signal generator to the same frequency, set the generator for ± 3.5 kHz deviation of a 1 kHz modulation tone, and set the RF output level for $-2\text{dB}\mu$.
3. Press the  and  buttons on the panel to select "S-1" (S-1 signal). Then press the **Dial** or the microphone's **[VFO/MR]** button.
4. If this is the last item to be aligned, press the  button. If not, move on to the next section without pressing the  button.

UHF S-Meter (Full Scale) Calibration

1. While in the Alignment Mode, set the signal generator's RF output level to $+25\text{ dB}\mu$, and leave the generator set for 1 kHz audio at ± 3.5 kHz deviation.
2. Press the  and  buttons on the panel to select "S-F" (S-Meter Full Scale). Then press the **Dial** or the microphone's **[VFO/MR]** button.
3. If this is the last item to be aligned, press the  button. If not, move on to the next section without pressing the  button.

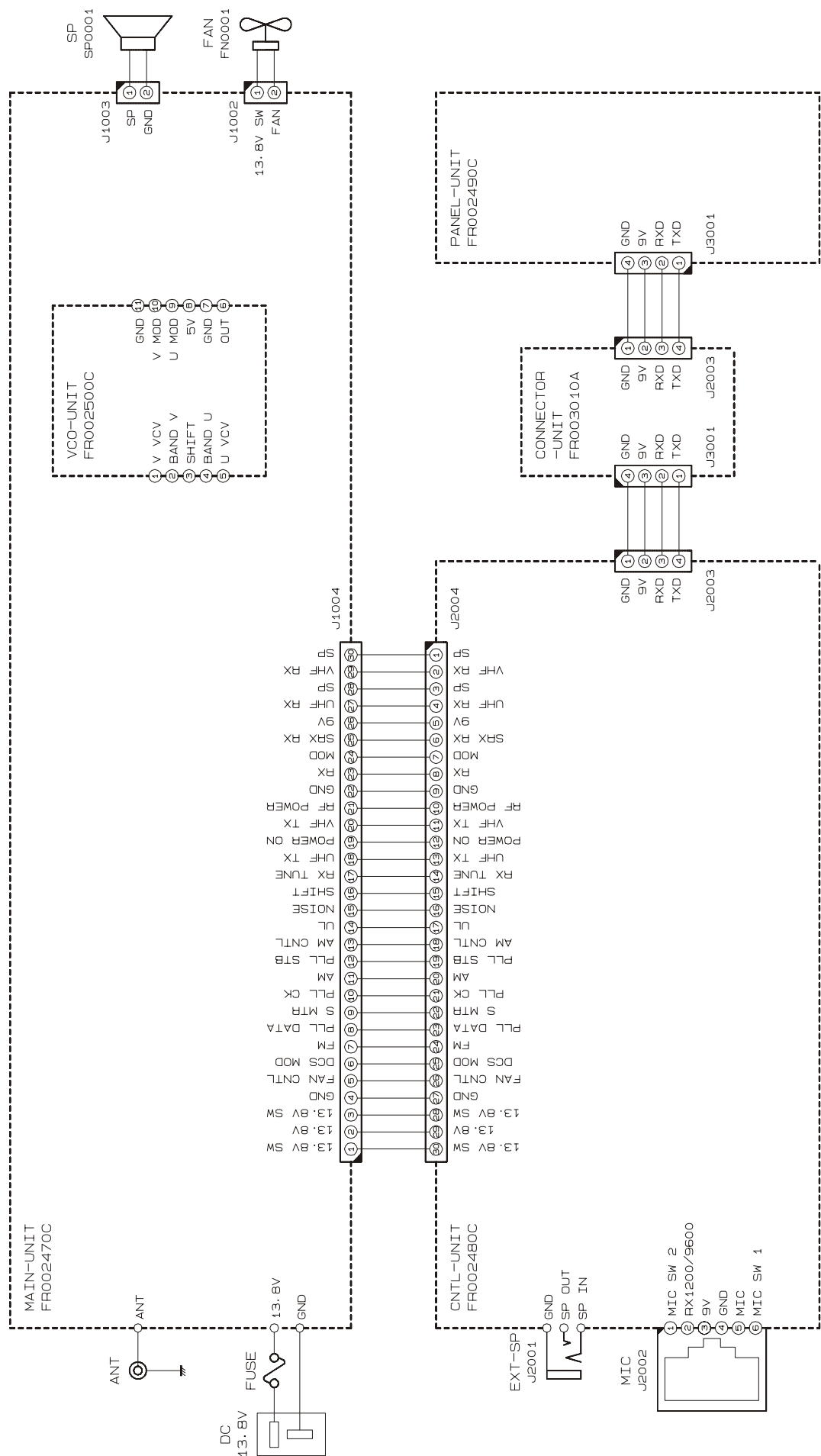
UHF Squelch Threshold Calibration

1. With the frequency and modulation set as in the previous steps, set the signal generator's RF output level to $-11\text{dB}\mu$.
2. Press the  and  buttons on the panel to select "SQ-S" (Squelch Threshold). Then press the **Dial** or the microphone's **[VFO/MR]** button.
3. If this is the last item to be aligned, press the  button. If not, move on to the next section without pressing the  button.

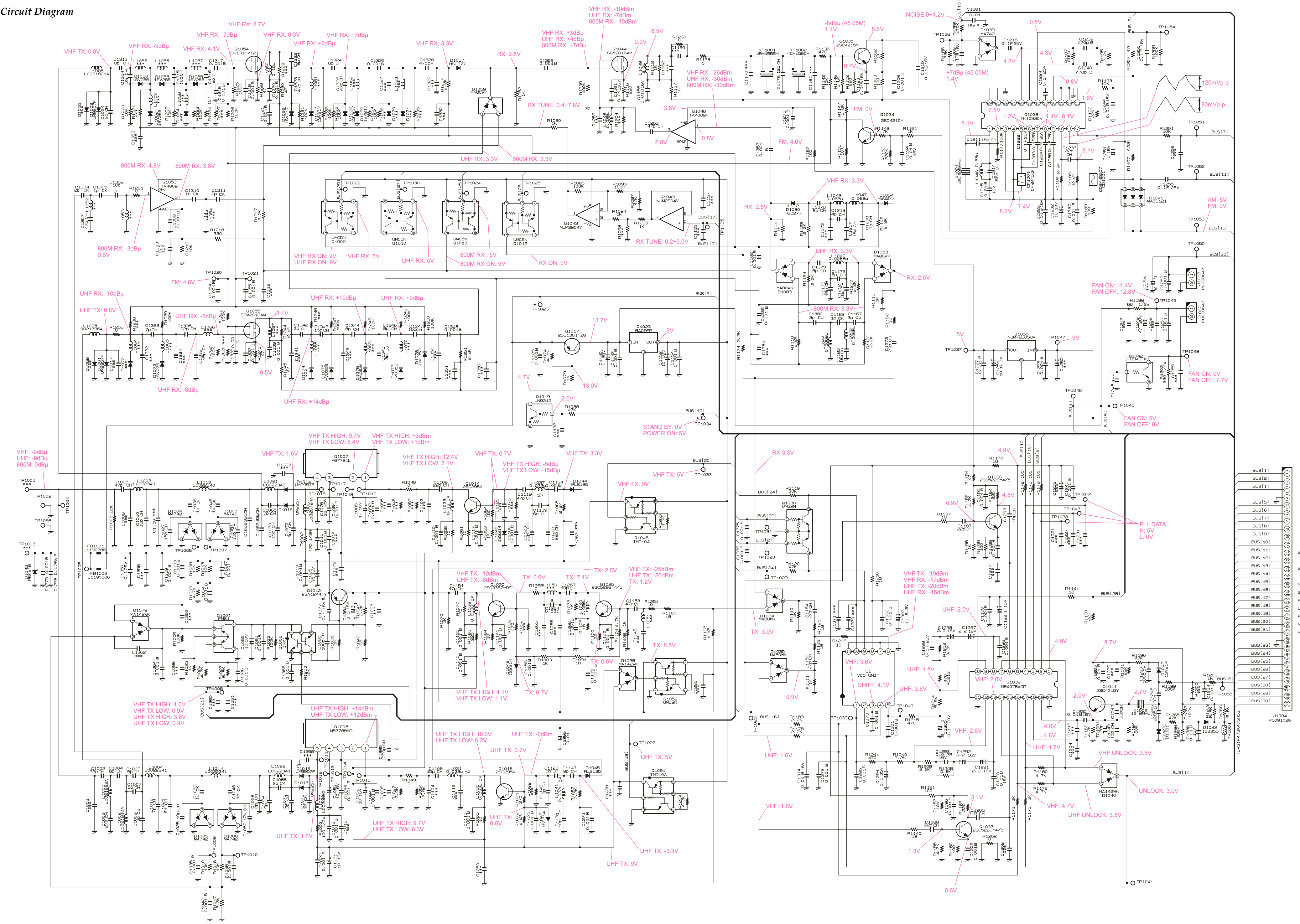
UHF Tight Squelch Calibration

1. With the frequency and modulation set as in the previous steps, set the signal generator's RF output level to $-2\text{dB}\mu$.
2. Press the  and  buttons on the panel to select "SQ-T" (Tight Squelch). Then press the **Dial** or the microphone's **[VFO/MR]** button.
3. To complete the Alignment Mode calibration process, press the  button.

Interconnection Diagram



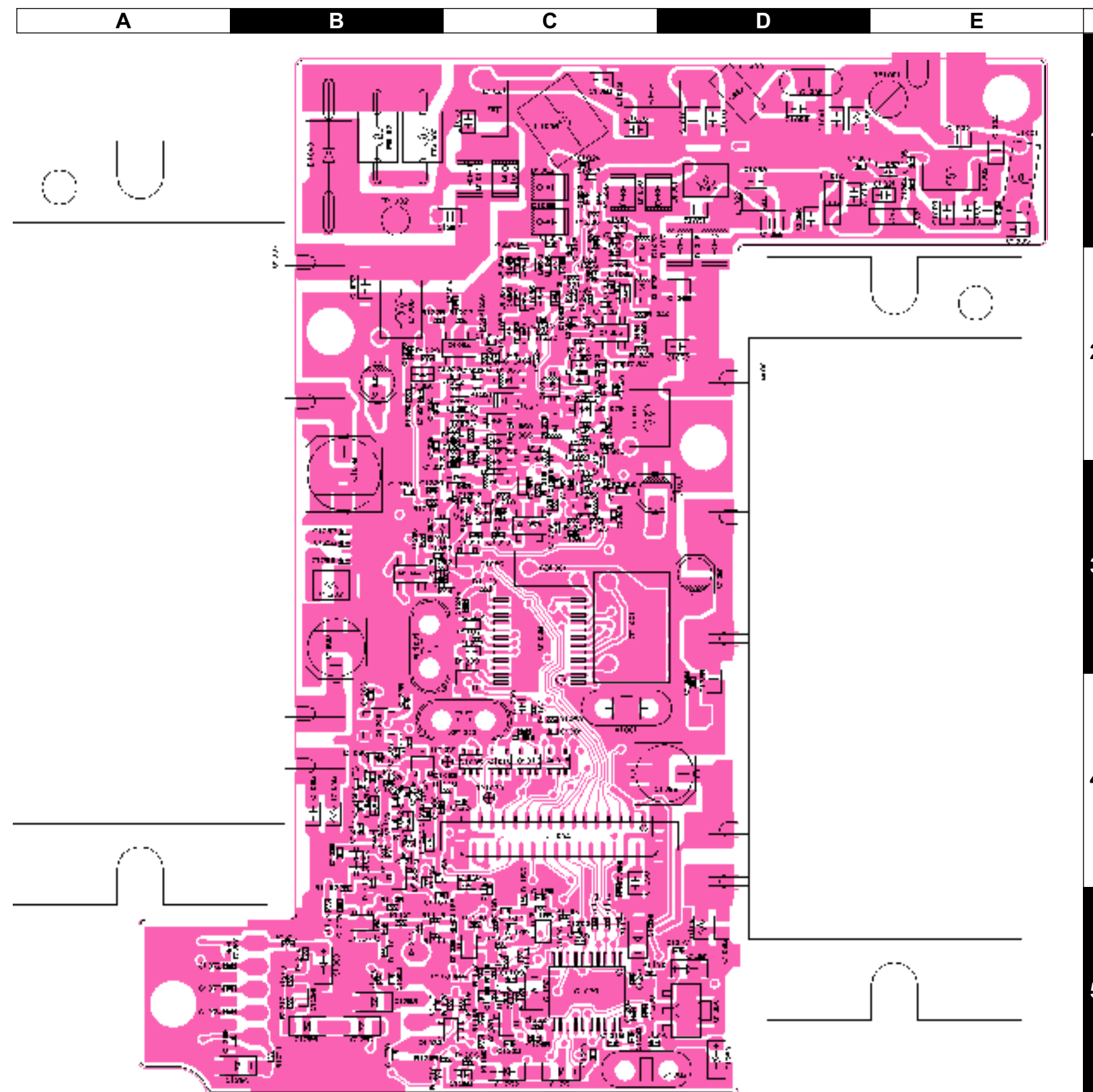
Circuit Diagram



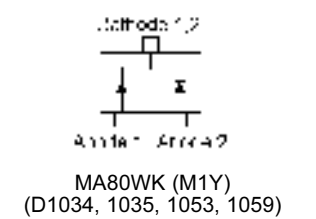
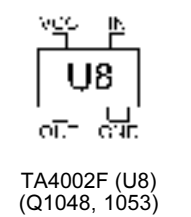
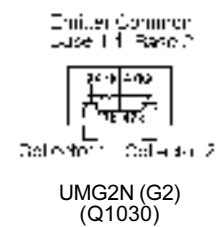
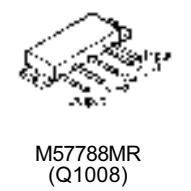
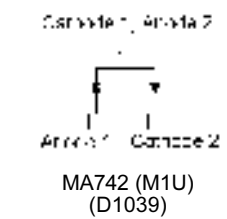
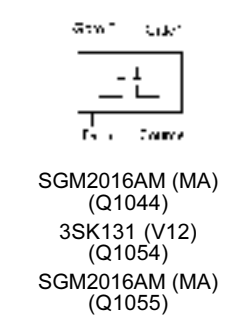
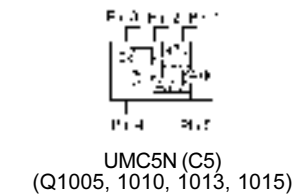
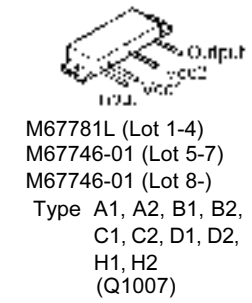
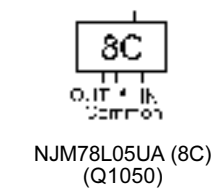
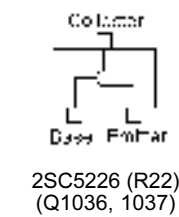
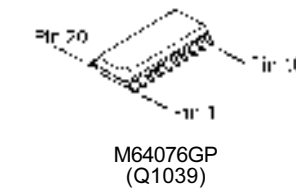
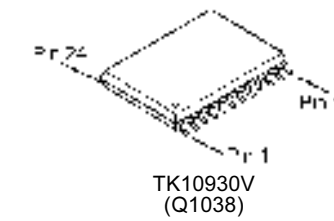
MAIN Unit

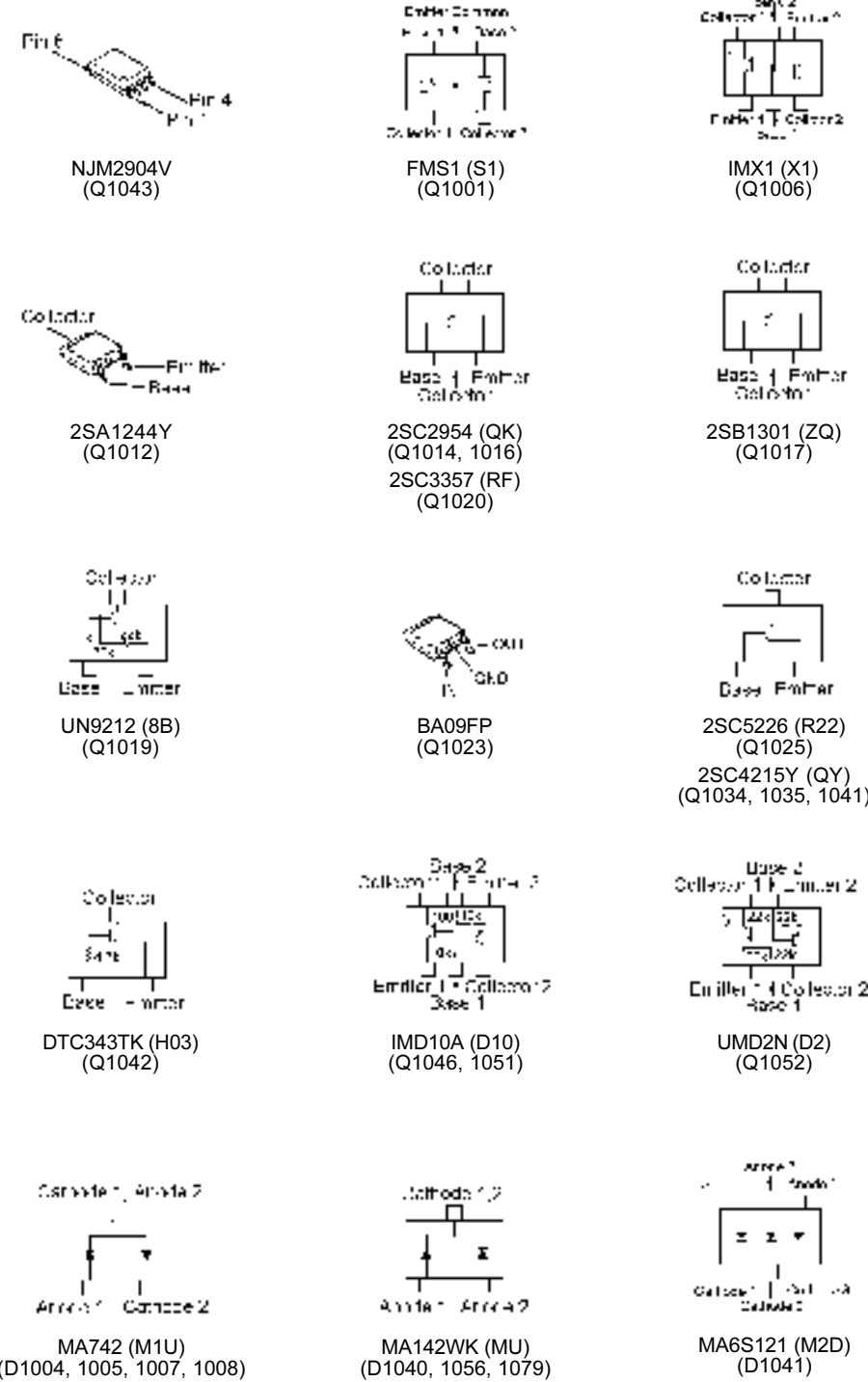
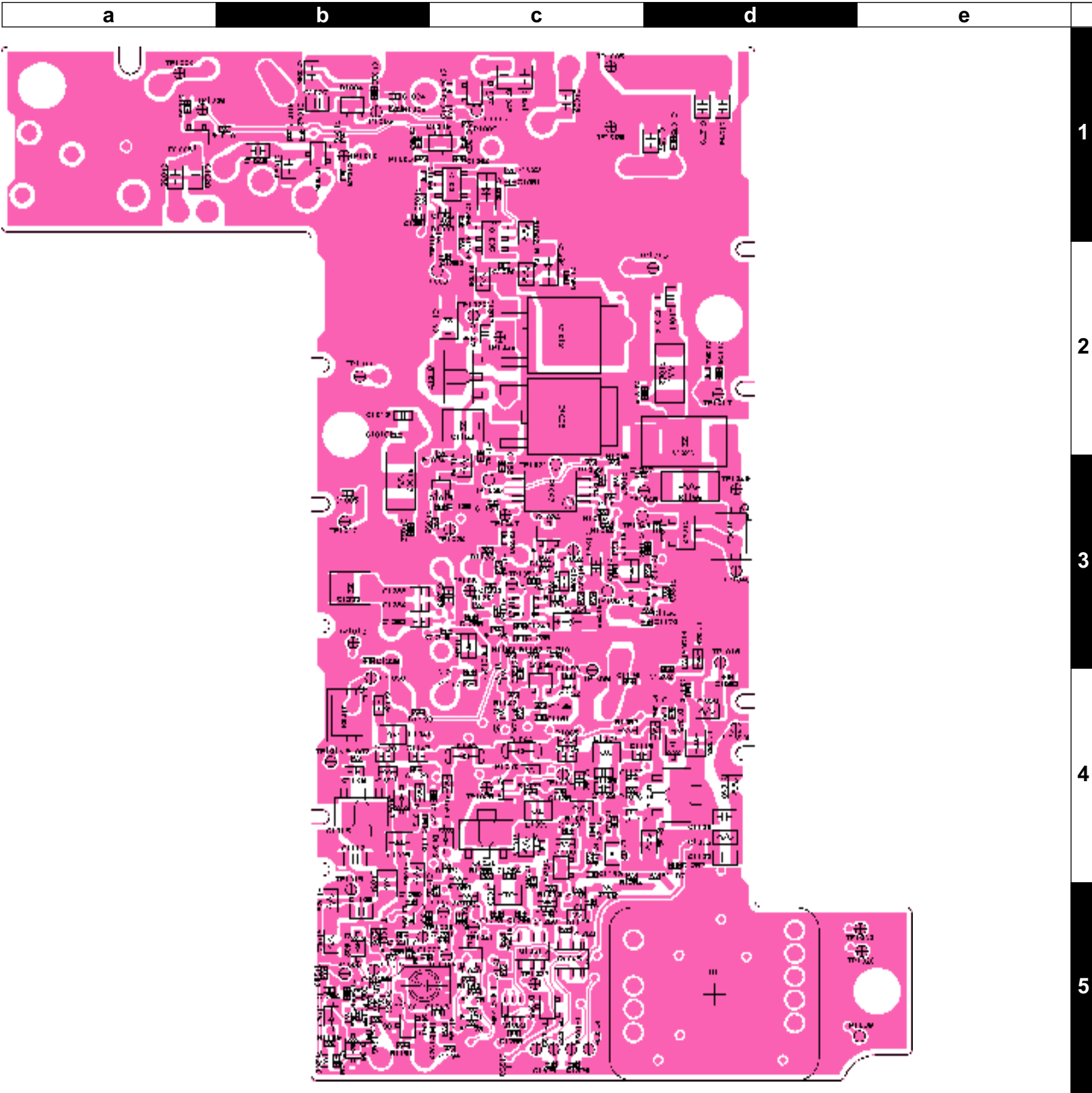
Notes:

Parts Layout



Side A





Side B

Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
*** MAIN UNIT ***										
	PCB with Components (w/ VCO Unit)		(USA)			CP6370009	VERSION A2			
	PCB with Components (w/ VCO Unit)		(EXP)			CP6370010	VERSION A1			
	PCB with Components (w/ VCO Unit)		(EXP)			CP6370011	VERSION A2			
	PCB with Components (w/ VCO Unit)		(EXP)			CP6370012	VERSION A3			
	PCB with Components (w/ VCO Unit)		(EXP)			CP6370013	VERSION B1			
	PCB with Components (w/ VCO Unit)		(EXP)			CP6370014	VERSION B2			
	PCB with Components (w/ VCO Unit)		(EXP)			CP6370015	VERSION B3			
	PCB with Components (w/ VCO Unit)		(EXP)			CP6370016	VERSION C1			
	PCB with Components (w/ VCO Unit)		(EXP)			CP6370017	VERSION C2			
	PCB with Components (w/ VCO Unit)		(EXP)			CP6370018	VERSION C3			
	PCB with Components (w/ VCO Unit)		(EXP)			CP6370019	VERSION D1			
	PCB with Components (w/ VCO Unit)		(EXP)			CP6370020	VERSION D2			
	PCB with Components (w/ VCO Unit)		(AUS)			CP6370021	VERSION H1			
	PCB with Components (w/ VCO Unit)		(AUS)			CP6370022	VERSION H2			
Printed Circuit Board						FR004110B				
C 1002	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	AUSTRALIA	1-	A	
C 1002	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	EXPORT	1-	A	
C 1002	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219	USA	1-	A	
C 1003	CHIP CAP.	33pF	50V	CH	GRM40CH330J50PT	K22170223		1-	A	
C 1004	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208		1-72	A	
C 1004	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	VERSION A1	73-	A	
C 1004	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	VERSION A2	73-	A	
C 1004	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	VERSION A3	73-	A	
C 1004	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	VERSION B1	73-	A	
C 1004	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	VERSION B2	73-	A	
C 1004	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208	VERSION B3	73-	A	
C 1004	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	VERSION C1	73-	A	
C 1004	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	VERSION C2	73-	A	
C 1004	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	VERSION C3	73-	A	
C 1004	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	VERSION D1	73-	A	
C 1004	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	VERSION D2	73-	A	
C 1004	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	VERSION H1	73-	A	
C 1004	CHIP CAP.	12pF	50V	CH	GRM40CH120J50PT	K22170213	VERSION H2	73-	A	
C 1005	CERAMIC CAP.	47pF	50V	CH	DD106CH470J50	K02175470		1-	A	
C 1005	CERAMIC CAP.	47pF	50V	CH	CHU5 470J6	K02179110		67-	A	
C 1006	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206		1-	A	
C 1007	CHIP CAP.	5pF	50V	CH	GRM40CH050C50PT	K22170206		1-	A	
C 1009	CHIP CAP.	4pF	50V	CH	GRM40CH040C50PT	K22170205		1-	A	
C 1010	CHIP CAP.	33pF	50V	CH	GRM40CH330J50PT	K22170223		1-	A	
C 1011	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809		1-	B	
C 1012	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208		1-	A	
C 1013	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809		1-	B	
C 1019	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1021	CHIP CAP.	10pF	50V	CH	GRM40CH100D50PT	K22170211		1-	A	
C 1022	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1024	CHIP CAP.	6pF	50V	CH	GRM36CH060D50PT	K22178208		1-	A	
C 1025	AL.ELECTRO.CAP.	10uF	16V		ECEV1CS100SR	K48120001		1-	A	
C 1027	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219		1-	B	
C 1028	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219		1-	B	
C 1031	AL.ELECTRO.CAP.	10uF	16V		ECEV1CS100SR	K48120001		1-	A	
C 1033	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1034	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1035	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1038	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202		1-	B	
C 1039	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202		1-	B	
C 1042	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1045	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202		1-	B	
C 1046	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202		1-	B	
C 1047	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1048	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1051	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219		1-	B	
C 1052	CHIP CAP.	18pF	50V	CH	GRM40CH180J50PT	K22170217	AUSTRALIA	1-	B	
C 1052	CHIP CAP.	18pF	50V	CH	GRM40CH180J50PT	K22170217	EXPORT	1-	B	
C 1052	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219	USA	1-	B	
C 1055	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	
C 1056	CHIP CAP.	47pF	50V	CH	GRM40CH470J50PT	K22170227		1-	A	

MAIN Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 1058	CHIP CAP.	8pF	50V	CH	GRM40CH080D50PT	K22170209	AUSTRALIA EXPORT USA	1-	A	
C 1061	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1063	CHIP CAP.	47pF	50V	CH	GRM40CH470J50PT	K22170227		1-	A	
C 1064	CHIP CAP.	4pF	50V	CH	GRM40CH040C50PT	K22170205		1-	A	
C 1065	CHIP CAP.	7pF	50V	CH	GRM40CH070D50PT	K22170208		1-	B	
C 1066	CHIP CAP.	2pF	50V	CK	GRM40CK020C50PT	K22170203		1-	A	
C 1070	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215		1-	A	
C 1071	CHIP CAP.	6pF	50V	CH	GRM40CH060D50PT	K22170207		1-	A	
C 1072	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215		1-	A	
C 1073	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204		1-	A	
C 1073	CHIP CAP.	3pF	50V	CJ	GRM40CJ030C50PT	K22170204		1-82	A	
C 1073	CHIP CAP.	1pF	50V	CK	GRM40CK010C50PT	K22170202		1-82	A	
C 1076	AL.ELECTRO.CAP.	33uF	25V		EEVHA1E330P	K48140011		1-	A	
C 1080	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	
C 1081	AL.ELECTRO.CAP.	10uF	16V		ECEV1CS100SR	K48120001		1-	A	
C 1084	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1085	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1086	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1088	AL.ELECTRO.CAP.	10uF	16V		ECEV1CS100SR	K48120001		1-	A	
C 1089	AL.ELECTRO.CAP.	10uF	16V		ECEV1CS100SR	K48120001		1-	A	
C 1092	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1094	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1098	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1100	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1106	CHIP CAP.	15pF	50V	CH	GRM40CH150J50PT	K22170215		1-	B	
C 1108	CHIP CAP.	22pF	50V	CH	GRM40CH220J50PT	K22170219		1-	B	
C 1109	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1110	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1115	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1117	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1119	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	B	
C 1123	CHIP CAP.	22pF	50V	CH	GRM39CH220J50PT	K22174219		1-	B	
C 1128	CHIP CAP.	5pF	50V	CH	GRM39CH050C50PT	K22174206		1-	B	
C 1129	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1131	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		1-39	B	
C 1131	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		40-57	B	
C 1131	CHIP CAP.	10pF	50V	CH	GRM39CH100D50PT	K22174211		58-	B	
C 1134	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809		1-	B	
C 1135	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1139	CHIP CAP.	6pF	50V	CH	GRM39CH060D50PT	K22174207		1-	B	
C 1140	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	B	
C 1140	CHIP TA.CAP.	1uF	35V		TEMSVA1V105M-8R	K78160032		47-	B	
C 1141	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1142	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1145	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1146	CHIP CAP.	3pF	50V	CJ	GRM39CJ030C50PT	K22174204		1-	B	
C 1147	CHIP CAP.	9pF	50V	CH	GRM39CH090D50PT	K22174210		1-	B	
C 1149	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1151	CHIP CAP.	47pF	50V	CH	GRM39CH470J50PT	K22174227		1-	B	
C 1152	CHIP TA.CAP.	10uF	10V		TEMSVB21A106M-8R	K78100017		1-	B	
C 1153	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	B	
C 1153	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		77-	B	
C 1154	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1156	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1158	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	A	
C 1161	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	
C 1163	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	A	
C 1164	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	A	
C 1166	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 1167	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-	A	
C 1172	CHIP CAP.	6pF	50V	CH	GRM36CH060D50PT	K22178208		1-	A	
C 1175	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	A	
C 1176	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	B	
C 1182	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1183	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	A	
C 1187	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	A	
C 1188	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	A	

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 1189	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1192	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	A	
C 1193	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 1194	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 1195	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1196	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1199	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1202	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1203	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	A	
C 1205	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	A	
C 1206	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1209	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	
C 1210	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 1211	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-	B	
C 1212	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	A	
C 1213	CHIP CAP.	4pF	50V	CH	GRM36CH040C50PT	K22178206		1-	A	
C 1214	CHIP CAP.	56pF	50V	CH	GRM36CH560J50PT	K22178230		1-	B	
C 1215	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 1217	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	A	
C 1218	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	A	
C 1221	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1223	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 1224	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	A	
C 1226	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 1227	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1230	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	
C 1231	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1232	CHIP TA.CAP.	10uF	10V		TEMSVB21A106M-8R	K78100017		1-	B	
C 1233	CHIP CAP.	82pF	50V	CH	GRM36CH820J50PT	K22178234		1-	B	
C 1235	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1237	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1238	CHIP CAP.	7pF	50V	CH	GRM36CH070D50PT	K22178209		1-	A	
C 1239	CHIP CAP.	470pF	50V	B	GRM36B471K50PT	K22178805		1-	B	
C 1240	CHIP CAP.	470pF	50V	B	GRM36B471K50PT	K22178805		1-	B	
C 1241	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1242	CHIP CAP.	47pF	50V	UJ	GRM39UJ470J50PT	K22174324		1-	B	
C 1243	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	B	
C 1244	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	
C 1246	CHIP CAP.	220pF	50V	B	GRM36B221K50PT	K22178801		1-	B	
C 1248	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	B	
C 1249	CHIP TA.CAP.	47uF	20V		TEMSVD1D476M12R	K78130032		1-	B	
C 1250	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	
C 1251	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	B	
C 1253	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	
C 1254	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1255	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 1257	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1261	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22174219		1-	B	
C 1263	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	A	
C 1264	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1267	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	B	
C 1268	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1271	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1273	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	A	
C 1275	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1276	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1277	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1278	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005		1-	B	
C 1279	CHIP CAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805		1-	B	
C 1281	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	A	
C 1282	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 1283	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 1284	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 1285	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 1287	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1289	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1290	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	

MAIN Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 1291	CHIP TA.CAP.	2.2uF	16V		TEMSVA1C225M-8R	K78120015		1-	A	
C 1292	CHIP TA.CAP.	2.2uF	16V		TEMSVA1C225M-8R	K78120015		1-	A	
C 1293	CHIP CAP.	0.047uF	16V	B	GRM39B473K16PT	K22124804		1-	A	
C 1294	CHIP TA.CAP.	0.1uF	35V		TESVA1V104M1-8R	K78160025		1-	A	
C 1295	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1296	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1297	CHIP TA.CAP.	2.2uF	16V		TEMSVA1C225M-8R	K78120015		1-	A	
C 1298	CHIP TA.CAP.	2.2uF	16V		TEMSVA1C225M-8R	K78120015		1-	A	
C 1299	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	A	
C 1300	CHIP TA.CAP.	0.1uF	20V		TEMSVA21D104M-8R	K78130020		1-	A	
C 1301	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1302	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1303	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	A	
C 1304	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202	W/ CE LABEL	1-	A	
C 1304	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204	W/O CE LABEL	1-	A	
C 1305	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070	W/ CE LABEL	1-	A	
C 1305	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202	W/O CE LABEL	1-	A	
C 1307	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	
C 1309	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1310	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	A	
C 1311	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204		1-	A	
C 1313	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		1-	A	
C 1314	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	A	
C 1315	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-	A	
C 1316	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		1-	A	
C 1317	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1318	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1319	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1320	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1321	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1322	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		1-	A	
C 1323	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	
C 1324	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		1-	A	
C 1325	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1326	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	
C 1328	CHIP CAP.	47pF	50V	CH	GRM36CH470J50PT	K22178228		1-	A	
C 1333	CHIP CAP.	7pF	50V	CH	GRM36CH070D50PT	K22178209		1-	A	
C 1335	CHIP CAP.	39pF	50V	CH	GRM36CH390J50PT	K22178226		1-	A	
C 1336	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1337	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1338	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	A	
C 1339	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1342	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-	A	
C 1343	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		1-	A	
C 1344	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		1-	A	
C 1345	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-	A	
C 1346	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		1-	A	
C 1347	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		1-	A	
C 1348	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1352	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1354	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1355	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1357	CHIP CAP.	0.1uF	25V	F	GRM40F104Z25PT	K22141005		1-	B	
C 1359	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1364	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1365	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1366	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 1369	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202	W/ CE LABEL	1-	A	
C 1369	CHIP CAP.	2pF	50V	CK	GRM36CK020C50PT	K22178204	W/O CE LABEL	1-	A	
C 1372	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1373	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1374	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	
C 1375	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1376	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 1377	CHIP CAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	
C 1378	CHIP CAP.	7pF	50V	CH	GRM36CH070D50PT	K22178209		1-	A	
C 1379	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		1-	A	

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 1380	CHIPCAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-	A	
C 1381	CHIPCAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	A	
C 1383	CHIPCAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	A	
C 1385	CHIPCAP.	0.001uF	50V	B	GRM40B102M50PT	K22170805		1-	A	
C 1386	CHIPCAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 1387	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 1388	CHIPCAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207	W/ CE LABEL	1-		
C 1388	CHIPCAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205	W/O CE LABEL	1-		
C 1389	CHIPCAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-		
CD1001	CERAMICDISC				CDBM455C7	H7900480		1-	A	
CF1001	CERAMICFILTER				CFWM455F	H3900395		1-	A	
D 1001	DIODE				UM9957F/TR	G2070562		1-	A	
D 1001	DIODE				XB15A709A0HR	G2070826		80-	A	
D 1002	DIODE				UM9957F/TR	G2070562		1-	A	
D 1002	DIODE				XB15A709A0HR	G2070826		80-	A	
D 1004	DIODE				MA742-(TX)	G2070598		1-	B	b1
D 1005	DIODE				MA742-(TX)	G2070598		1-	B	a1
D 1007	DIODE				MA742-(TX)	G2070598		1-	B	c1
D 1008	DIODE				MA742-(TX)	G2070598		1-	B	b1
D 1014	DIODE				UM9957F/TR	G2070562		1-	A	
D 1014	DIODE				XB15A709A0HR	G2070826		80-	A	
D 1015	DIODE				UM9957F/TR	G2070562		1-	A	
D 1015	DIODE				XB15A709A0HR	G2070826		80-	A	
D 1016	DIODE				UM9957F/TR	G2070562		1-	A	
D 1016	DIODE				XB15A709A0HR	G2070826		80-	A	
D 1017	DIODE				UM9957F/TR	G2070562		1-	A	
D 1017	DIODE				XB15A709A0HR	G2070826		80-	A	
D 1034	DIODE				DAN235U TL	G2070176		1-	A	B5
D 1035	DIODE				DAN235U TL	G2070176		1-	A	C5
D 1039	DIODE				MA742-(TX)	G2070598		1-	A	C3
D 1040	DIODE				MA142WK-(TX)	G2070534		1-	B	c5
D 1041	DIODE				MA6S121-(TX)	G2070600		1-	B	c3
D 1042	DIODE				1SV214 TPH	G2070356		1-	B	
D 1043	SURGE ABSORBER				P6KA18	Q9000721		1-	A	
D 1044	DIODE				RLS135 TE-11	G2070128		1-	B	
D 1045	DIODE				RLS135 TE-11	G2070128		1-	B	
D 1046	DIODE				1SS314 TPH3	G2070122		1-	B	
D 1047	DIODE				1SS314 TPH3	G2070122		1-	B	
D 1049	DIODE				1SS314 TPH3	G2070122		1-	B	
D 1053	DIODE				DAN235U TL	G2070176		1-	A	B4
D 1054	DIODE				HSU277TRF	G2070118		1-	A	
D 1056	DIODE				MA142WK-(TX)	G2070534		1-	B	c5
D 1057	DIODE				HSU277TRF	G2070118		1-	A	
D 1059	DIODE				DAN235U TL	G2070176		1-	A	C3
D 1060	DIODE				1SV286(TPL3)	G2070610		1-	A	
D 1062	DIODE				1SV286(TPL3)	G2070610		1-	A	
D 1063	DIODE				1SV286(TPL3)	G2070610		1-	A	
D 1065	DIODE				1SV286(TPL3)	G2070610		1-	A	
D 1066	DIODE				1SV217(TPH3)	G2070568		1-	A	
D 1067	DIODE				1SV217(TPH3)	G2070568		1-	A	
D 1068	DIODE				1SV217(TPH3)	G2070568		1-	A	
D 1069	DIODE				1SV217(TPH3)	G2070568		1-	A	
D 1073	DIODE				1SV276(TPH3)	G2070420		1-	A	
D 1075	DIODE				HVU359TRF	G2070452		1-	A	
D 1076	DIODE				1SV270(TPH3)	G2070408		1-	A	
D 1077	DIODE				1SV270(TPH3)	G2070408		1-	A	
D 1078	DIODE				HVU359TRF	G2070452		1-	A	
D 1080	DIODE				HSC277TRF	G2070584		1-	A	
D 1081	DIODE				1SV276(TPH3)	G2070420		1-	B	
D 1082	DIODE				1SS355 TE-17	G2070470		1-	B	
D 1083	DIODE				DAN235U TL	G2070176		1-	A	B4
FB1001	BEADS COIL				B-01-A	L1190386		1-	A	
FB1002	BEADS COIL				B-01-A	L1190386		1-	A	
J 1002	CONNECTOR				B2B-ZR	P0090647		1-	B	
J 1003	CONNECTOR				B2B-ZR	P0090647		1-	B	
J 1004	CONNECTOR				IL-FPR-30S-VF-E1500	P1091026		1-	A	
JP1001	WIRE ASSY				BLK 60 (3)/(3)	T51006012		31-		

MAIN Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
L 1001	COIL A1				1.5T4.0D0.6UEW R	L0021822A		1-	A	
L 1002	COIL A1				1.5T4.0D0.6UEW R	L0021822A		1-	A	
L 1003	COIL A1				2.5T4.0D0.8UEW R	L0022340		1-	A	
L 1004	COIL A1				1.5T3.5D0.8UEW R	L0022342		1-	A	
L 1005	COIL A1				5.5T1.5D0.4UEW R	L0021796A		1-	A	
L 1006	COIL A1				8.5T3.0D0.5UEW R	L0020724A		1-	A	
L 1007	COIL A1				7.5T2.0D0.5UEW R	L0020889A		1-	A	
L 1008	COIL A1				6.5T3.5D0.6UEW R	L0021821A		1-	A	
L 1013	COIL A1				2.5T4.0D0.8UEW R	L0022340		1-	A	
L 1014	COIL A1				1.5T3.5D0.8UEW R	L0022342		1-	A	
L 1021	COIL A1				2.5T4.0D0.8UEW R	L0022340		1-	A	
L 1022	COIL A1				1.5T3.5D0.8UEW R	L0022342		1-	A	
L 1031	M.RFC	0.033uH		5%	C2012C-33NJ	L1690786		1-	B	
L 1033	M.RFC	0.047uH		5%	C2012C-47NJ	L1690788		1-	B	
L 1035	M.RFC	0.033uH		5%	C2012C-33NJ	L1690786		1-	B	
L 1037	M.RFC	0.033uH		5%	C2012C-33NJ	L1690786		1-	B	
L 1039	M.RFC	0.033uH		5%	C2012C-33NJ	L1690786		1-	B	
L 1040	M.RFC	0.056uH			ELJ-RE56NJF3	L1690723		1-	B	
L 1041	M.RFC	0.022uH		5%	C2012C-22NJ	L1690784		1-	B	
L 1041	M.RFC	0.022uH		2%	C2012C-22NG	L1690768		83-	B	
L 1042	M.RFC	0.0068uH			HK1608 6N8J-T	L1690514		1-	A	
L 1043	M.RFC	0.068uH			HK1608 68NJ-T	L1690526		1-	A	
L 1044	M.RFC	0.0068uH			HK1608 6N8J-T	L1690514		1-	A	
L 1045	M.RFC	0.0068uH			HK1608 6N8J-T	L1690514		1-	A	
L 1046	M.RFC	0.33uH			LK2125 R33K-T	L1690313		1-	B	
L 1047	M.RFC	0.068uH			HK1608 68NJ-T	L1690526		1-	A	
L 1048	CHIPCOIL	0.047uH			LQW1608A47NG00	L1690888		1-	B	
L 1049	M.RFC	3.3uH			LK2125 3R3K-T	L1690325		1-	B	
L 1052	CHIPCOIL	0.01uH			LQW1608A10NG00	L1690880		1-	A	
L 1054	CHIPCOIL	0.01uH			LQW1608A10NG00	L1690880		1-	A	
L 1055	CHIPCOIL	0.047uH			LQW1608A47NG00	L1690888		1-	A	
L 1056	CHIPCOIL	0.047uH			LQW1608A47NG00	L1690888		1-	A	
L 1057	CHIPCOIL	0.1uH			LQW1608AR10G00	L1690892		1-	A	
L 1059	CHIPCOIL	0.056uH			LQW1608A56NG00	L1690889		1-	A	
L 1060	CHIPCOIL	0.15uH			LQN21AR15J04	L1690622		1-	A	
L 1061	CHIPCOIL	0.1uH			LQW1608AR10G00	L1690892		1-	A	
L 1062	CHIPCOIL	0.1uH			LQW1608AR10G00	L1690892		1-	A	
L 1065	CHIPCOIL	0.022uH			LQW1608A22NG00	L1690884		1-	A	
L 1066	CHIPCOIL	0.056uH			LQW1608A56NG00	L1690889		1-	A	
L 1067	CHIPCOIL	0.033uH			LQW1608A33NG00	L1690886	W/ CE LABEL	1-	A	
L 1067	CHIPCOIL	0.027uH			LQW1608A27NG00	L1690885	W/O CE LABEL	1-	A	
L 1069	CHIPCOIL	0.022uH			LQW1608A22NG00	L1690884		1-	A	
L 1070	CHIPCOIL	0.022uH			LQW1608A22NG00	L1690884		1-	A	
L 1071	M.RFC	0.047uH			HK1608 47NJ-T	L1690524		83-		
Q 1001	TRANSISTOR				FMS1 T148	G3070008		1-	B	c1
Q 1005	TRANSISTOR				UMC5NTR	G3070137		1-	A	C4
Q 1006	TRANSISTOR				IMX1 T110	G3070024		1-	B	c1
Q 1007	IC				M67746-01	G1092992	VERSION A1	1-34	A	B2
Q 1007	IC				M67746-01	G1092992	VERSION A2	1-34	A	B2
Q 1007	IC				M67781L	G1091642	VERSION A3	1-34	A	B2
Q 1007	IC				M67746-01	G1092992	VERSION B1	1-34	A	B2
Q 1007	IC				M67746-01	G1092992	VERSION B2	1-34	A	B2
Q 1007	IC				M67781L	G1091642	VERSION B3	1-34	A	B2
Q 1007	IC				M67746-01	G1092992	VERSION C1	1-34	A	B2
Q 1007	IC				M67746-01	G1092992	VERSION C2	1-34	A	B2
Q 1007	IC				M67781L	G1091642	VERSION C3	1-34	A	B2
Q 1007	IC				M67746-01	G1092992	VERSION D1	1-34	A	B2
Q 1007	IC				M67746-01	G1092992	VERSION D2	1-34	A	B2
Q 1007	IC				M67746-01	G1092992	VERSION H1	1-34	A	B2
Q 1007	IC				M67746-01	G1092992	VERSION H2	1-34	A	B2
Q 1007	IC				M67781L	G1091642	AUSTRALIA	35-46	A	B2
Q 1007	IC				M67781L	G1091642	EXPORT	35-46	A	B2
Q 1007	IC				M67781L	G1091642	USA	35-46	A	B2
Q 1007	IC				M67781L	G1091642		47-	A	B2
Q 1008	IC				M57788MR	G1091122		1-	A	D2
Q 1010	TRANSISTOR				UMC5NTR	G3070137		1-	A	C4
Q 1012	TRANSISTOR				2SA1244-Y(TE16L)	G3112448Y		1-	B	c2

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
Q 1013	TRANSISTOR				UMC5NTR	G3070137		1-	A	C4
Q 1014	TRANSISTOR				2SC2954-T2	G3329547		1-	B	d4
Q 1015	TRANSISTOR				UMC5NTR	G3070137		1-	A	C4
Q 1016	TRANSISTOR				2SC2954-T2	G3329547		1-	B	b4
Q 1017	TRANSISTOR				2SB1301-T2 ZQ	G3213017Q		1-	B	c2
Q 1019	TRANSISTOR				UN9212-(TX)	G3070152		1-	B	c3
Q 1020	TRANSISTOR				2SC3357-T2 RF	G3333577F		1-	B	c4
Q 1023	IC				BA09FP-E2	G1092767		1-	B	c2
Q 1025	TRANSISTOR				2SC5226-4/5-TL	G3352268Z		1-	B	c4
Q 1030	TRANSISTOR				UMG2NTR	G3070088		1-	A	C5
Q 1034	TRANSISTOR				2SC4215Y TE85R	G3342157Y		1-	B	c3
Q 1035	TRANSISTOR				2SC4215Y TE85R	G3342157Y		1-	B	c4
Q 1036	TRANSISTOR				2SC5226-4/5-TL	G3352268Z		1-	A	C5
Q 1037	TRANSISTOR				2SC5226-4/5-TL	G3352268Z		1-	A	C5
Q 1038	IC				TK10930VT1	G1091606		1-	A	C3
Q 1039	IC				M64076AGP 600C	G1092942		1-	A	C5
Q 1041	TRANSISTOR				2SC4215Y TE85R	G3342157Y		1-	B	b5
Q 1042	TRANSISTOR				DTC343TK T146	G3070081		1-	B	d3
Q 1043	IC				NJM2904V-TE1	G1091677		1-	B	c3
Q 1044	FET				SGM2016AM-T7	G4070012		1-	A	B3
Q 1046	TRANSISTOR				IMD10A T108	G3070159		1-	B	c5
Q 1048	IC				TA4002F(TE85L)	G1092813		1-	A	B4
Q 1050	IC				NJM78L05UA TE1	G1091325		1-	A	D5
Q 1051	TRANSISTOR				IMD10A T108	G3070159		1-	B	c5
Q 1052	TRANSISTOR				UMD2NTR	G3070076		1-	B	c5
Q 1053	IC				TA4002F(TE85L)	G1092813		1-	A	C3
Q 1054	FET				3SK131-T2B V12	G4801317B		1-	A	C2
Q 1055	FET				SGM2016AM-T7	G4070012		1-	A	C2
R 1001	CHIPRES.	22k	1/10W	5%	RMC1/10T 223J	J24205223		1-	A	
R 1002	CHIPRES.	120	1/2W	5%	RMC1/2 121JATE	J24275121		1-	B	
R 1003	CHIPRES.	120	1/2W	5%	RMC1/2 121JATE	J24275121		1-	B	
R 1004	CHIPRES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	
R 1005	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 1007	CHIPRES.	15k	1/16W	5%	RMC1/16S 153JTH	J24189039		1-	B	
R 1008	CHIPRES.	5.6k	1/16W	5%	RMC1/16S 562JTH	J24189034		1-	B	
R 1009	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 1010	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 1013	CHIPRES.	5.6k	1/16W	5%	RMC1/16S 562JTH	J24189034		1-	B	
R 1016	CHIPRES.	5.6k	1/16W	5%	RMC1/16S 562JTH	J24189034		1-	B	
R 1023	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 1025	CHIPRES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	
R 1031	CHIPRES.	1k	1/10W	5%	RMC1/10T 102J	J24205102		1-	B	
R 1041	CHIPRES.	5.6k	1/10W	5%	RMC1/10T 562J	J24205562		1-	B	
R 1042	CHIPRES.	68	1/10W	5%	RMC1/10T 680J	J24205680		1-	B	
R 1046	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION A1	1-72	A	
R 1046	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION A2	1-72	A	
R 1046	CHIPRES.	3.9k	1/10W	5%	RMC1/10T 392J	J24205392	VERSION A3	1-72	A	
R 1046	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION B1	1-72	A	
R 1046	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION B2	1-72	A	
R 1046	CHIPRES.	3.9k	1/10W	5%	RMC1/10T 392J	J24205392	VERSION B3	1-72	A	
R 1046	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION C1	1-72	A	
R 1046	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION C2	1-72	A	
R 1046	CHIPRES.	3.9k	1/10W	5%	RMC1/10T 392J	J24205392	VERSION C3	1-72	A	
R 1046	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION D1	1-72	A	
R 1046	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION D2	1-72	A	
R 1046	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION H1	1-72	A	
R 1046	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION H2	1-72	A	
R 1048	CHIPRES.	1	1/10W	5%	RMC1/10T 1R0J	J24205010		1-	B	
R 1048	CHIPRES.	0	1/10W	5%	RMC1/10T 000J	J24205000		73-	B	
R 1049	CHIPRES.	0	1/10W	5%	RMC1/10T 000J	J24205000		1-	B	
R 1052	CHIPRES.	3.9k	1/10W	5%	RMC1/10T 392J	J24205392		1-72	B	
R 1053	CHIPRES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	B	
R 1057	CHIPRES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-82	B	
R 1058	CHIPRES.	10	1/10W	5%	RMC1/10T 100J	J24205100		1-	B	
R 1061	CHIPRES.	27	1/10W	5%	RMC1/10T 270J	J24205270		1-	B	
R 1063	CHIPRES.	10	1/10W	5%	RMC1/10T 100J	J24205100		1-	B	
R 1064	CHIPRES.	150	1/16W	5%	RMC1/16 151JATP	J24185151		1-	B	

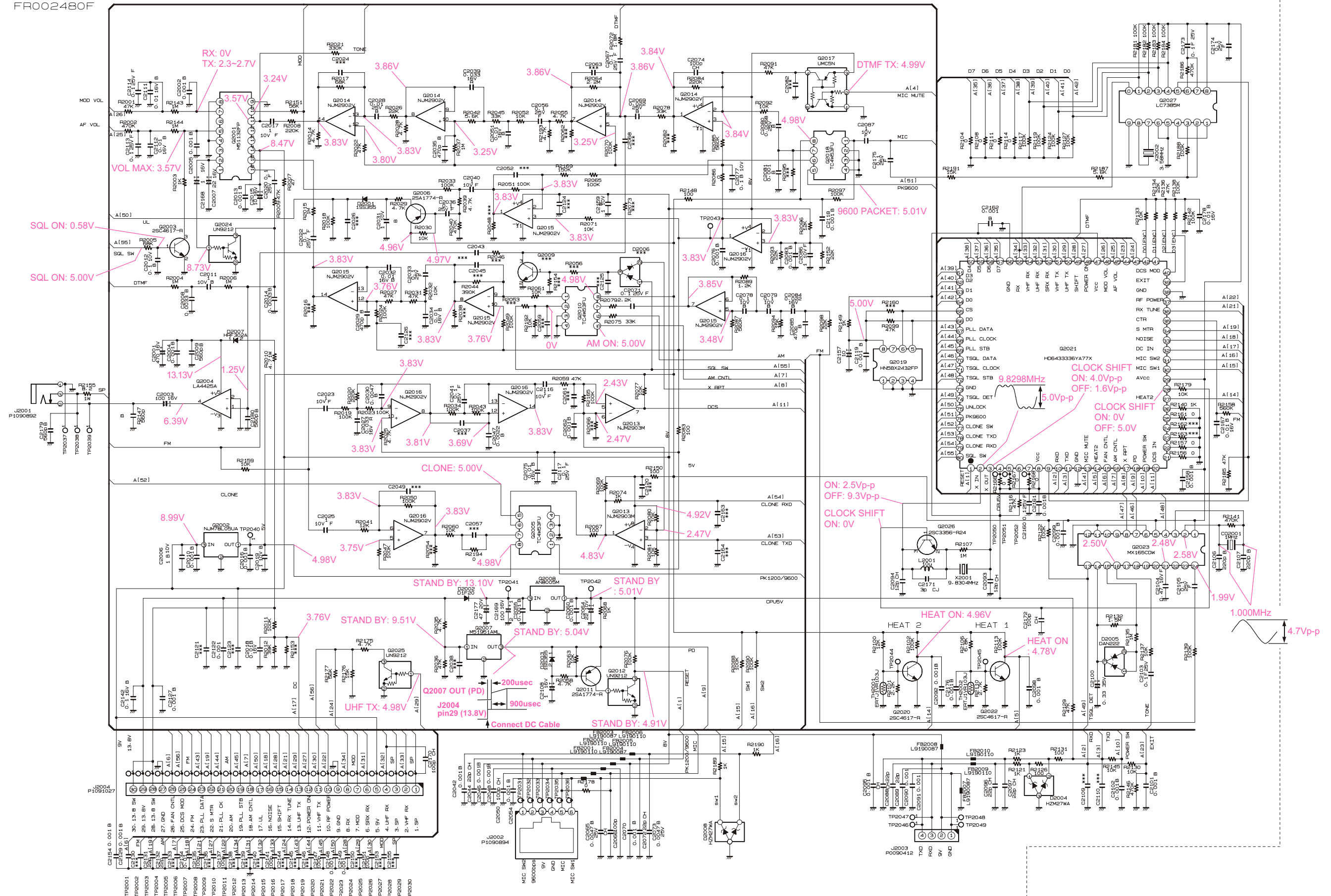
MAIN Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 1065	CHIPRES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	
R 1070	CHIPRES.	1k	1/16W	5%	RMC1/16 102JATP	J24185102		1-	B	
R 1071	CHIPRES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	
R 1072	CHIPRES.	5.6k	1/16W	5%	RMC1/16 562JATP	J24185562		1-	B	
R 1073	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 1074	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 1079	CHIPRES.	1k	1/10W	5%	RMC1/10T 102J	J24205102		1-	B	
R 1080	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 1081	CHIPRES.	150	1/10W	5%	RMC1/10T 151J	J24205151		1-	B	
R 1083	CHIPRES.	2.2k	1/16W	5%	RMC1/16 222JATP	J24185222		1-	B	
R 1084	CHIPRES.	10	1/10W	5%	RMC1/10T 100J	J24205100		1-	B	
R 1085	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 1088	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 1089	CHIPRES.	220	1/16W	5%	RMC1/16 221JATP	J24185221		1-	B	
R 1091	CHIPRES.	18	1/16W	5%	RMC1/16 180JATP	J24185180		1-	B	
R 1093	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 1094	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 1097	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 1099	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 1100	CHIPRES.	22	1/16W	5%	RMC1/16 220JATP	J24185220		1-	B	
R 1100	CHIPRES.	10	1/16W	5%	RMC1/16 100JATP	J24185100		64-	B	
R 1101	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 1101	CHIPRES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		58-	B	
R 1105	CHIPRES.	18	1/16W	5%	RMC1/16 180JATP	J24185180		1-	B	
R 1106	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 1107	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	
R 1108	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1110	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	
R 1111	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	
R 1112	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 1113	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	
R 1114	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	
R 1115	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	A	
R 1116	CHIPRES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		1-	A	
R 1117	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	
R 1118	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1119	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	AUSTRALIA	1-	A	
R 1119	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	EXPORT	1-	A	
R 1119	CHIPRES.	270k	1/16W	5%	RMC1/16S 274JTH	J24189054	USA	1-	A	
R 1120	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045	AUSTRALIA	1-	A	
R 1120	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045	EXPORT	1-	A	
R 1120	CHIPRES.	150k	1/16W	5%	RMC1/16S 154JTH	J24189051	USA	1-	A	
R 1121	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	A	
R 1122	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1123	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1124	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1128	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	
R 1135	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 1136	CHIPRES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	B	
R 1137	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	A	
R 1140	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	A	
R 1141	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	B	
R 1142	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 1146	CHIPRES.	5.6k	1/16W	5%	RMC1/16S 562JTH	J24189034		1-	B	
R 1147	CHIPRES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	B	
R 1148	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 1149	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1151	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	
R 1152	CHIPRES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		1-	B	
R 1153	CHIPRES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	
R 1154	CHIPRES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	A	
R 1155	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	A	
R 1156	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	
R 1157	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	
R 1158	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	A	
R 1159	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	
R 1160	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 1161	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 1162	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 1163	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	
R 1164	CHIPRES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		1-	A	
R 1165	CHIPRES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		1-	A	
R 1166	CHIPRES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	A	
R 1167	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	
R 1170	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	A	
R 1171	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 1172	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	
R 1173	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 1174	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1175	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	
R 1176	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 1177	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 1178	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1179	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	A	
R 1180	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 1182	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	A	
R 1183	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1184	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 1186	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 1187	CHIPRES.	680k	1/16W	5%	RMC1/16S 684JTH	J24189059		1-	A	
R 1188	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 1189	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	
R 1190	CHIPRES.	220	1/16W	5%	RMC1/16S 221JTH	J24189017		1-	B	
R 1191	CHIPRES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	
R 1192	CHIPRES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	
R 1193	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	
R 1194	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 1195	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 1196	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 1197	CHIPRES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	
R 1198	CHIPRES.	39	1/2W	5%	RMC1/2 390JTE	J24275390		1-	B	
R 1199	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 1201	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 1202	CHIPRES.	270	1/4W	5%	RMC1/4 271JATP	J24245271		1-	A	
R 1203	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 1205	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1206	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	A	
R 1207	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 1208	CHIPRES.	5.6k	1/16W	5%	RMC1/16S 562JTH	J24189034		1-	A	
R 1209	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1210	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1211	CHIPRES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	A	
R 1212	CHIPRES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	A	
R 1213	CHIPRES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	A	
R 1214	CHIPRES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	A	
R 1215	CHIPRES.	470	1/16W	5%	RMC1/16S 471JTH	J24189021		1-	A	
R 1216	CHIPRES.	18	1/16W	5%	RMC1/16S 180JTH	J24189004		1-	A	
R 1217	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1218	CHIPRES.	330	1/16W	5%	RMC1/16S 331JTH	J24189019		1-	A	
R 1219	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	
R 1220	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	
R 1222	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	
R 1223	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1224	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	A	
R 1225	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1226	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1228	CHIPRES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	A	
R 1230	CHIPRES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	A	
R 1231	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1232	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1233	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1234	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1237	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1239	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	

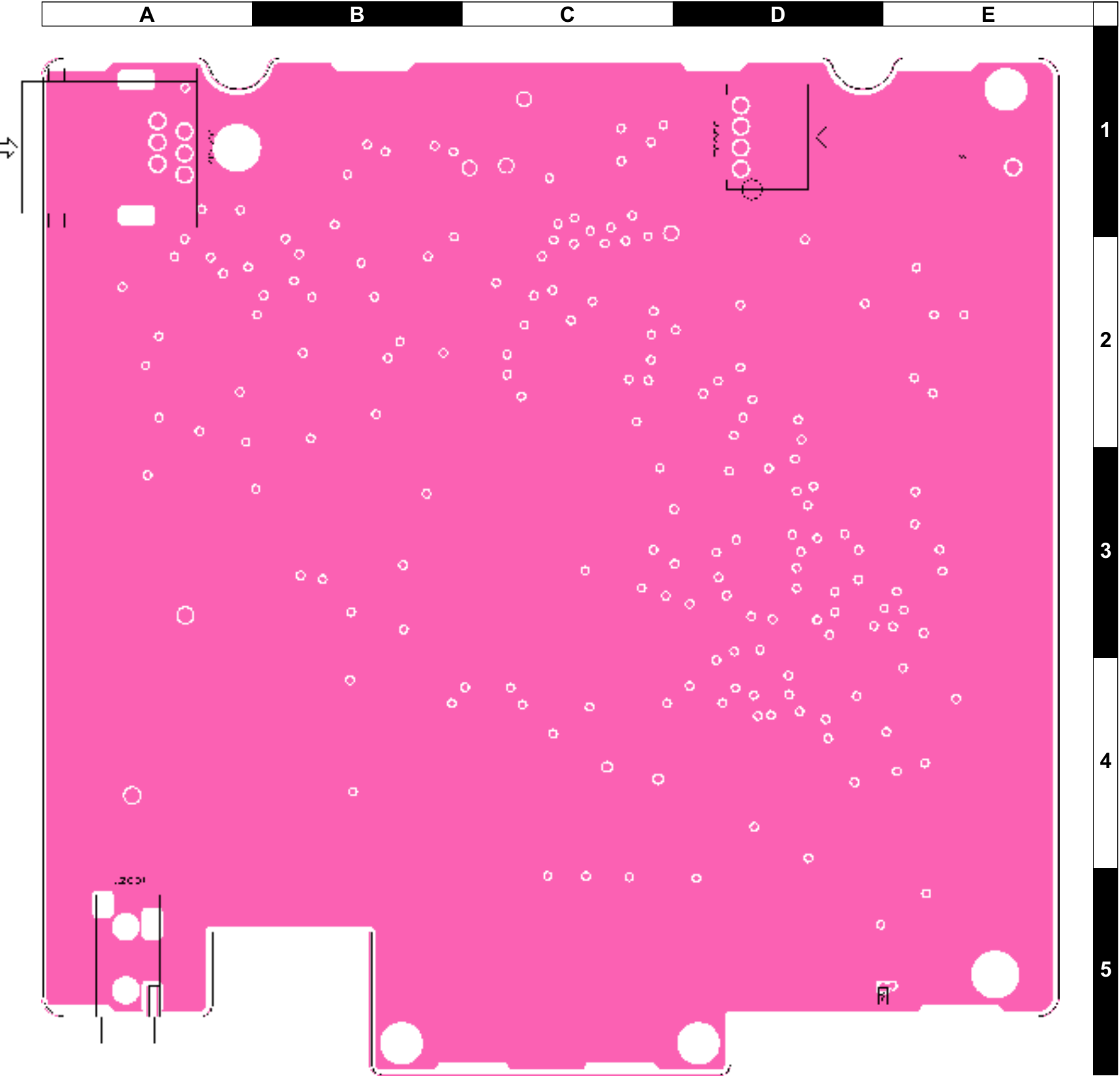
MAIN Unit

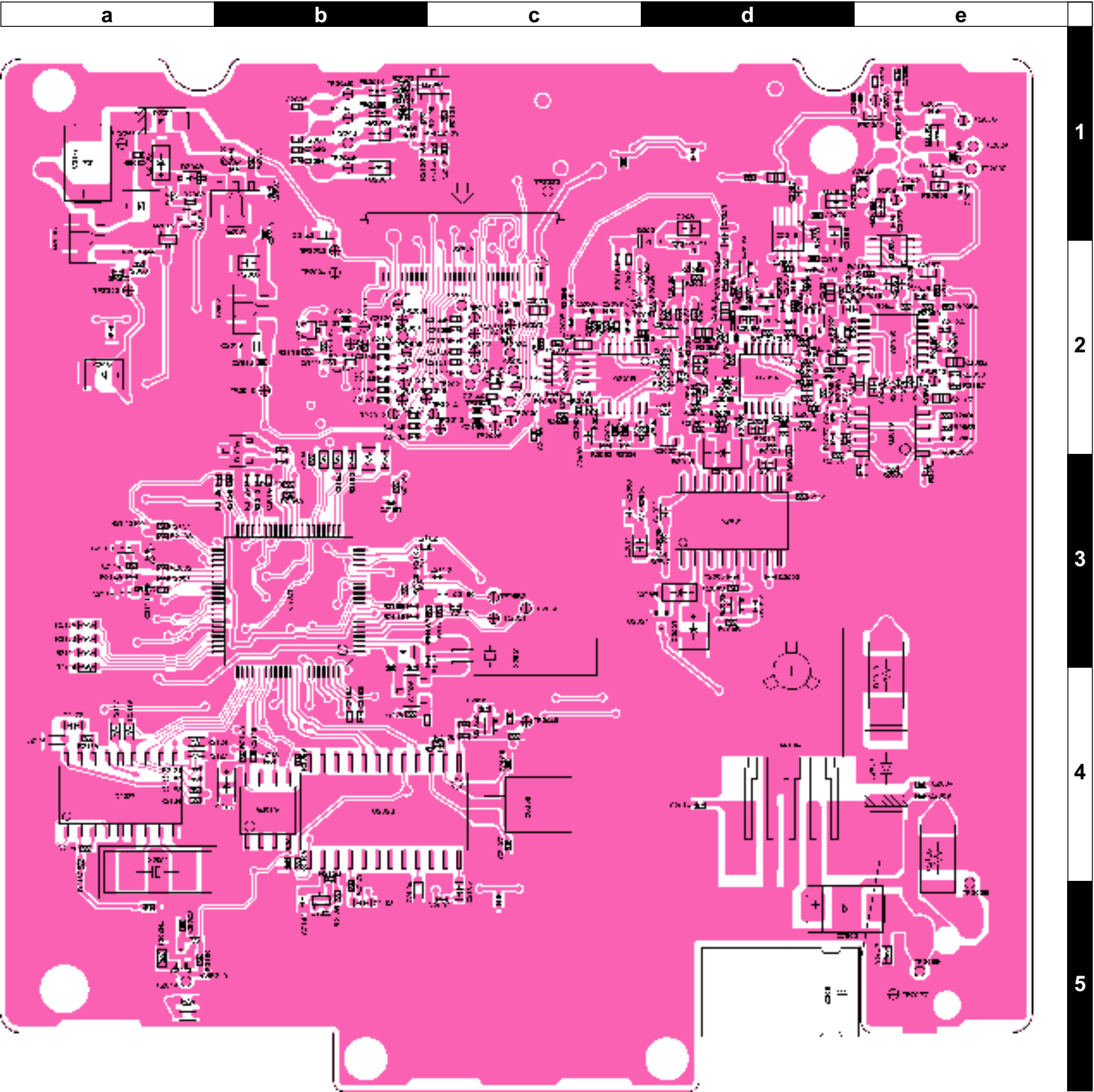
REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 1240	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	W/ CE LABEL W/O CE LABEL	1-	A	
R 1241	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1243	CHIPRES.	150	1/16W	5%	RMC1/16S 151JTH	J24189015		1-	A	
R 1243	CHIPRES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	A	
R 1244	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1245	CHIPRES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	A	
R 1247	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1248	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1249	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1250	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	A	
R 1251	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1252	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	A	
R 1253	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-76	B	
R 1254	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	
R 1255	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	
R 1256	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	A	
R 1258	CHIPRES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	A	
R 1259	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 1260	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	
R 1261	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	A	
R 1262	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	A	
R 1263	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 1264	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 1265	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 1266	CHIPRES.	82k	1/16W	5%	RMC1/16S 823JTH	J24189048		1-	B	
R 1267	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 1269	CHIPRES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	
R 1270	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	A	
R 1271	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-		
R 1272	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-		
R 1273	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION A1	1-72		
R 1273	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION A2	1-72		
R 1273	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION B1	1-72		
R 1273	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION B2	1-72		
R 1273	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION C1	1-72		
R 1273	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION C2	1-72		
R 1273	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION D1	1-72		
R 1273	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION D2	1-72		
R 1273	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION H1	1-72		
R 1273	CHIPRES.	470	1/10W	5%	RMC1/10T 471J	J24205471	VERSION H2	1-72		
R 1274	CHIPRES.	150	1/10W	5%	RMC1/10T 151J	J24205151		73-		
TC1001	TRIMMERCAP.	20pF			CTZ3S-20C-W1-PF	K91000266		1-	B	
TH1001	THERMISTOR				TBPS1R473K475H5Q	G9090068		1-	B	
TH1002	THERMISTOR				ERTJ1VR103J	G9090118		1-		
X 1001	XTAL UM-5	45.505MHz			45.505MHZ	H0103201		1-	A	
X 1002	XTAL UM-5	12.8MHz			12.8MHZ	H0103164		1-	A	
XF1001	XTAL FILTER				45M15B5H	H1102326		1-	A	
XF1002	XTAL FILTER				45M15B5H	H1102326		1-	A	
	LEAF SPRING					R0132100		1-		
	GROUND PLATE					RA0150300		1-		



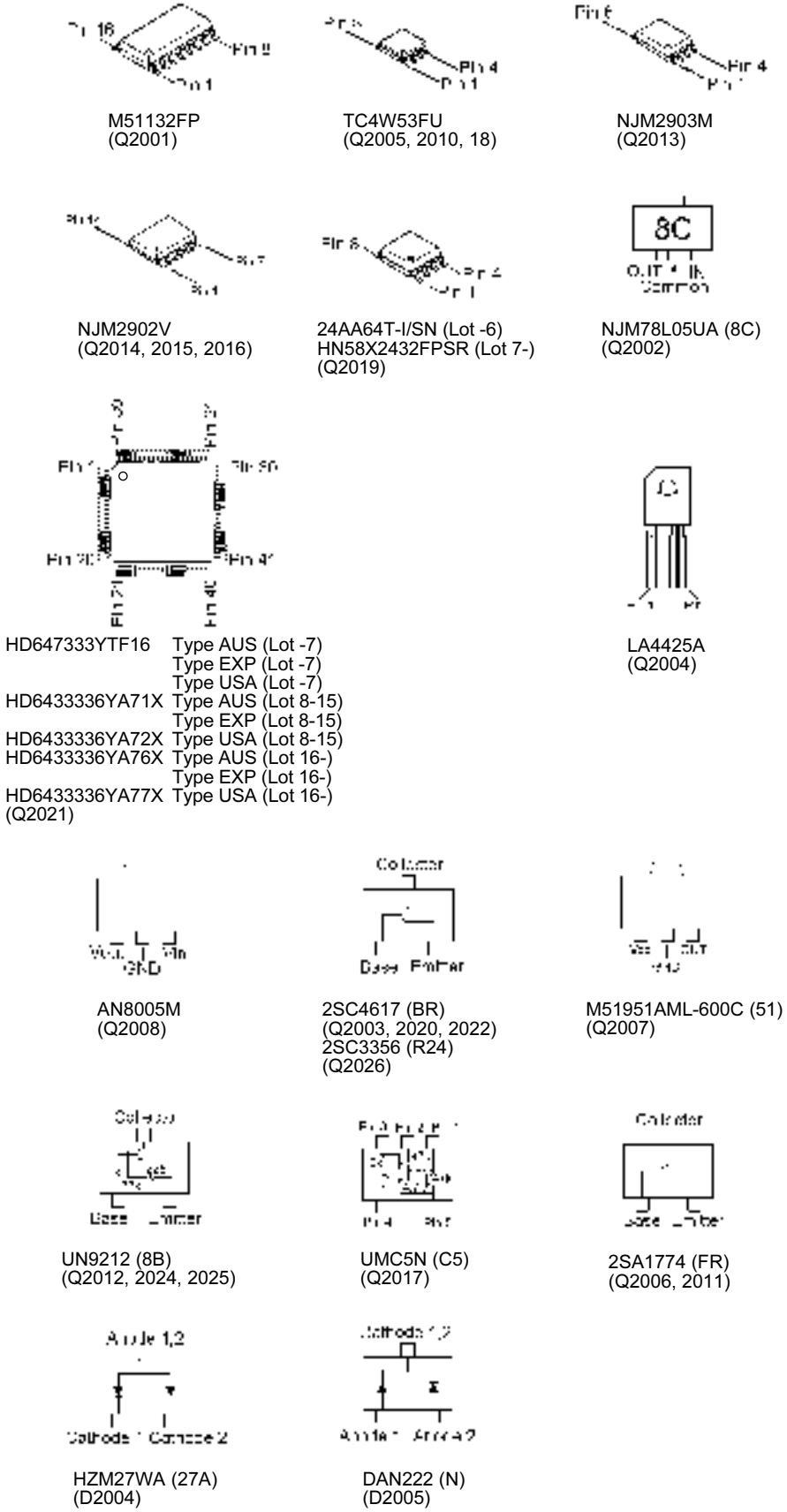
CNTL Unit

Parts Layout





Side B



CNTL Unit

Notes:

Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
*** CNTL UNIT ***										
	PCB with Components	(USA)				CB0941003	VERSION A2			
	PCB with Components	(EXP)				CB0941004	VERSION A1			
	PCB with Components	(EXP)				CB0941005	VERSION A2			
	PCB with Components	(EXP)				CB0941006	VERSION A3			
	PCB with Components	(EXP)				CB0941007	VERSION B1			
	PCB with Components	(EXP)				CB0941008	VERSION B2			
	PCB with Components	(EXP)				CB0941009	VERSION B3			
	PCB with Components	(EXP)				CB0941010	VERSION C1			
	PCB with Components	(EXP)				CB0941011	VERSION C2			
	PCB with Components	(EXP)				CB0941012	VERSION C3			
	PCB with Components	(EXP)				CB0941013	VERSION D1			
	PCB with Components	(EXP)				CB0941014	VERSION D2			
	PCB with Components	(AUS)				CB0941015	VERSION H1			
	PCB with Components	(AUS)				CB0941016	VERSION H2			
Printed Circuit Board						FR002480F				
C 2001	AL.ELECTRO.CAP.	470uF	16V		RE3-16V471M 470UF	K40129066		1-	B	
C 2002	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2003	CHIP TA.CAP.	100uF	16V		TEMSVD1C107M-12R	K78120059		1-	B	
C 2004	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2005	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2006	CHIPCAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	
C 2007	CHIP TA.CAP.	22uF	16V		TEMSVB21C226M-8R	K78120028		1-	B	
C 2008	CHIPCAP.	0.0033uF	50V	B	GRM39B332M50PT	K22174815		1-	B	
C 2009	CHIPCAP.	560pF	50V	B	GRM36B561K50PT	K22178806	W/ CE LABEL	1-	B	
C 2010	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2011	CHIPCAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	
C 2012	CHIPCAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	B	
C 2013	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2014	CHIPCAP.	0.0033uF	50V	B	GRM36B332K50PT	K22178815		1-	B	
C 2015	CHIP TA.CAP.	10uF	16V		TEMSVB21C106M-8R	K78120025		1-	B	
C 2016	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2017	CHIPCAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	
C 2018	CHIPCAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 2019	CHIPCAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	
C 2020	CHIPCAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2022	CHIPCAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2023	CHIPCAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	
C 2025	CHIPCAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	
C 2027	CHIPCAP.	0.033uF	16V	R	GRM39R333K16PT	K22124801		1-	B	
C 2028	CHIPCAP.	0.01uF	25V	B	GRM39B103K25PT	K22144803		1-	B	
C 2029	CHIPCAP.	470pF	50V	B	GRM36B471K50PT	K22178805		1-	B	
C 2030	CHIPCAP.	0.0047uF	50V	B	GRM39B472M50PT	K22174817		1-	B	
C 2031	CHIPCAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	
C 2032	CHIPCAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 2033	CHIPCAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2034	CHIPCAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 2035	CHIPCAP.	470pF	50V	B	GRM36B471K50PT	K22178805		1-	B	
C 2036	CHIPCAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2039	CHIPCAP.	0.033uF	16V	R	GRM39R333K16PT	K22124801		1-	B	
C 2040	CHIPCAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	
C 2041	CHIPCAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2042	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	AUSTRALIA	1-	B	
C 2042	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	EXPORT	1-	B	
C 2042	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	USA	1-	B	
C 2044	CHIPCAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	AUSTRALIA	1-	B	
C 2044	CHIPCAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	EXPORT	1-	B	
C 2044	CHIPCAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	USA	1-	B	
C 2046	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	AUSTRALIA	1-	B	
C 2046	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	EXPORT	1-	B	
C 2046	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	USA	1-	B	
C 2047	CHIPCAP.	0.0022uF	50V	B	GRM39B222M50PT	K22174813		1-	B	
C 2048	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	AUSTRALIA	1-	B	
C 2048	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	EXPORT	1-	B	
C 2048	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	USA	1-	B	
C 2050	CHIPCAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236	AUSTRALIA	1-	B	
C 2050	CHIPCAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236	EXPORT	1-	B	

CNTL Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 2050	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236	USA	1-	B	
C 2051	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 2054	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	AUSTRALIA	1-	B	
C 2054	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	EXPORT	1-	B	
C 2054	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	USA	1-	B	
C 2055	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2056	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2060	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2062	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2064	CHIP TA.CAP.	22uF	10V		TEMSVB21A226M-8R	K78100029		1-	B	
C 2065	CHIP CAP.	0.0047uF	25V	B	GRM36B472K25PT	K22148830		1-	B	
C 2066	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236	AUSTRALIA	1-	B	
C 2066	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236	EXPORT	1-	B	
C 2066	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236	USA	1-	B	
C 2067	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2069	CHIP CAP.	0.022uF	25V	B	GRM39B223K25PT	K22144807		1-	B	
C 2070	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	AUSTRALIA	1-	B	
C 2070	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	EXPORT	1-	B	
C 2070	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	USA	1-	B	
C 2071	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2072	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	AUSTRALIA	1-	B	
C 2072	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	EXPORT	1-	B	
C 2072	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	USA	1-	B	
C 2073	CHIP CAP.	0.0047uF	25V	B	GRM36B472K25PT	K22148830		1-	B	
C 2074	CHIP CAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	
C 2075	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 2076	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2077	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	B	
C 2078	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	B	
C 2079	CHIP CAP.	0.1uF	10V	B	GRM36B104K10PT	K22108802		1-	B	
C 2080	CHIP CAP.	0.0068uF	25V	B	GRM36B682J25PT	K22148803		1-	B	
C 2081	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2083	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2084	CHIP CAP.	0.022uF	16V	B	GRM36B223K16PT	K22128806		1-	B	
C 2085	CHIP CAP.	470pF	50V	B	GRM36B471K50PT	K22178805		1-	B	
C 2086	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	
C 2087	CHIP CAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	
C 2088	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	AUSTRALIA	1-	B	
C 2088	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	EXPORT	1-	B	
C 2088	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	USA	1-	B	
C 2089	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	AUSTRALIA	1-	B	
C 2089	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	EXPORT	1-	B	
C 2089	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220	USA	1-	B	
C 2090	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	AUSTRALIA	1-	B	
C 2090	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	EXPORT	1-	B	
C 2090	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	USA	1-	B	
C 2091	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	AUSTRALIA	1-	B	
C 2091	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	EXPORT	1-	B	
C 2091	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	USA	1-	B	
C 2092	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2093	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	B	
C 2094	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	B	
C 2095	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2096	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	
C 2097	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	
C 2098	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2099	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2100	TANTALUM CAP.	0.33uF	35V		DN1VR33M1S	K70167334		1-	B	
C 2101	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2102	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2103	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2104	CHIP CAP.	0.47uF	16V	F	ECJ1VF1C474Z	K22125001		1-	B	
C 2105	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2106	CHIP CAP.	220pF	50V	B	GRM36B221K50PT	K22178801		1-	B	
C 2107	CHIP CAP.	220pF	50V	B	GRM36B221K50PT	K22178801		1-	B	
C 2108	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	B	
C 2111	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
C 2112	CHIPCAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 2113	CHIPCAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2114	CHIPCAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2116	CHIPCAP.	1uF	10V	F	GRM39F105Z10PT	K22105001		1-	B	
C 2117	CHIPCAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2118	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2119	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2122	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2127	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2129	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2131	CHIPCAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	
C 2132	CHIPCAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	
C 2134	CHIPCAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 2135	CHIPCAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	
C 2137	CHIPCAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	
C 2141	CHIPCAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	
C 2142	CHIPCAP.	0.1uF	16V	B	GRM39B104K16PT	K22124805		1-	B	
C 2147	CHIPCAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	
C 2148	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2149	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2151	CHIPCAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	
C 2154	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2157	CHIP TA.CAP.	10uF	10V		TEMSVA1A106M-8R	K78100028		1-	B	
C 2158	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2159	CHIPCAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	
C 2160	CHIPCAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2161	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2162	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2167	CHIPCAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 2168	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	B	
C 2169	AL.ELECTRO.CAP.	100uF	16V		SMG1CVB101M 100UF	K40129060		1-	A	
C 2170	CHIPCAP.	100pF	50V	CH	GRM39CH101J50PT	K22174235		1-	B	
C 2171	CHIPCAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-	B	
C 2172	CHIPCAP.	100pF	50V	CH	GRM36CH101J50PT	K22178236		1-	B	
C 2173	CHIPCAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2174	CHIPCAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2175	CHIPCAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 2176	CHIPCAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 2177	CHIP TA.CAP.	100uF	16V		TEMSVD1C107M-12R	K78120059		1-	B	
C 2177	CHIP TA.CAP.	47uF	20V		TEMSVD1D476M12R	K78130032		38-	B	
C 2178	CHIPCAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-		
C 2179	CHIPCAP.	560pF	50V	B	GRM39B561M50PT	K22174806	W/ CE LABEL	1-		
C 2180	CHIPCAP.	560pF	50V	B	GRM39B561M50PT	K22174806	W/ CE LABEL	1-		
CO2001	CERAMIC OSC	1MHz			CSB1000J221T	H7900550		1-	B	
D 2001	DIODE				1SS355 TE-17	G2070470		1-	B	
D 2002	DIODE				D1F20-4063	G2070474		1-	B	
D 2003	DIODE				1SS355 TE-17	G2070470		1-	B	
D 2004	DIODE				HZM27WA-TR	G2070530		1-	B	c1
D 2005	DIODE				DAN222 TL	G2070174		1-	B	b5
D 2007	DIODE				HRF302ATR	G2070407		1-	B	
D 2008	DIODE				HZM27WA-TR	G2070530	AUSTRALIA	1-	B	b2
D 2008	DIODE				HZM27WA-TR	G2070530	EXPORT	1-	B	b2
D 2008	DIODE				HZM27WA-TR	G2070530	USA	1-	B	b2
FB2001	FERRITE BEADS				BLM11A121SPT	L9190110		1-	B	
FB2002	FERRITE BEADS				BLM11A121SPT	L9190110	AUSTRALIA	1-	B	
FB2002	FERRITE BEADS				BLM11A121SPT	L9190110	EXPORT	1-	B	
FB2002	FERRITE BEADS				BLM11A121SPT	L9190110	USA	1-	B	
FB2003	FERRITE BEADS				BK2125HS101-T	L9190087	AUSTRALIA	1-	B	
FB2003	FERRITE BEADS				BK2125HS101-T	L9190087	EXPORT	1-	B	
FB2003	FERRITE BEADS				BK2125HS101-T	L9190087	USA	1-	B	
FB2004	FERRITE BEADS				BK2125HS101-T	L9190087	AUSTRALIA	1-	B	
FB2004	FERRITE BEADS				BK2125HS101-T	L9190087	EXPORT	1-	B	
FB2004	FERRITE BEADS				BK2125HS101-T	L9190087	USA	1-	B	
FB2005	FERRITE BEADS				BLM11A121SPT	L9190110	AUSTRALIA	1-	B	
FB2005	FERRITE BEADS				BLM11A121SPT	L9190110	EXPORT	1-	B	
FB2005	FERRITE BEADS				BLM11A121SPT	L9190110	USA	1-	B	
FB2006	FERRITE BEADS				BLM11A121SPT	L9190110		1-	B	

CNTL Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
FB2007	FERRITEBEADS				BK2125HS101-T	L9190087	AUSTRALIA	1-	B	
FB2007	FERRITEBEADS				BK2125HS101-T	L9190087	EXPORT	1-	B	
FB2007	FERRITEBEADS				BK2125HS101-T	L9190087	USA	1-	B	
FB2008	FERRITEBEADS				BK2125HS101-T	L9190087	AUSTRALIA	1-	B	
FB2008	FERRITEBEADS				BK2125HS101-T	L9190087	EXPORT	1-	B	
FB2008	FERRITEBEADS				BK2125HS101-T	L9190087	USA	1-	B	
FB2009	FERRITEBEADS				BLM11A121SPT	L9190110		1-	B	
FB2010	FERRITEBEADS				BLM11A121SPT	L9190110		1-	B	
J 2001	CONNECTOR				HSJ1456-01-210	P1090892		1-	A	
J 2002	CONNECTOR				R41-4863J	P1090894		1-	A	
J 2003	CONNECTOR				S4B-PH-K-S	P0090412		1-	A	
J 2004	CONNECTOR				IL-FHR-F30S-HF-E3000	P1091027		1-	B	
J 2004	CONNECTOR				IMSA-9637S-30Y900	P1091169		82-	B	
L 2001	M.RFC	10uH			LK2125 100K-T	L1690331		1-	B	
Q 2001	IC				M51132FP 600C	G1091930		1-	B	d3
Q 2002	IC				NJM78L05UA TE1	G1091325		1-	B	b2
Q 2003	TRANSISTOR				2SC4617 TL R	G3346178R		1-	B	d3
Q 2004	IC				LA4425A	G1092241		1-	B	d4
Q 2005	IC				TC4W53FU TE12L	G1091675		1-	B	e2
Q 2006	TRANSISTOR				2SA1774 TL R	G3117748R		1-	B	d2
Q 2007	IC				M51951AML-600C	G1091131		1-	B	b1
Q 2008	IC				AN8005M-(E1)	G1091454		1-	B	a1
Q 2010	IC				TC4W53FU TE12L	G1091675		1-	B	c2
Q 2011	TRANSISTOR				2SA1774 TL R	G3117748R		1-	B	a1
Q 2012	TRANSISTOR				UN9212-(TX)	G3070152		1-	B	a1
Q 2013	IC				NJM2903M(TE1)	G1093090		1-	B	e2
Q 2014	IC				NJM2902V-TE1	G1091679		1-	B	e2
Q 2015	IC				NJM2902V-TE1	G1091679		1-	B	c2
Q 2016	IC				NJM2902V-TE1	G1091679		1-	B	e2
Q 2017	TRANSISTOR				UMC5NTR	G3070137		1-	B	d2
Q 2018	IC				TC4W53FU TE12L	G1091675		1-	B	d1
Q 2019	IC				HN58X2432FPSR	G1093084		1-	B	b4
Q 2020	TRANSISTOR				2SC4617 TL R	G3346178R		1-	B	a5
Q 2021	IC				HD6433336YA76X	G1093177	AUSTRALIA	1-	B	b3
Q 2021	IC				HD6433336YA89X	G1093283	AUSTRALIA	83-	B	b3
Q 2021	IC				HD6433336YA76X	G1093177	EXPORT	1-	B	b3
Q 2021	IC				HD6433336YA89X	G1093283	EXPORT	83-	B	b3
Q 2021	IC				HD6433336YA90X	G1093284	USA	1-	B	b3
Q 2022	TRANSISTOR				2SC4617 TL R	G3346178R		1-	B	c4
Q 2023	IC				MX165CDW-TR	G1092775		1-	B	b4
Q 2024	TRANSISTOR				UN9212-(TX)	G3070152		1-	B	d3
Q 2025	TRANSISTOR				UN9212-(TX)	G3070152		1-	B	b2
Q 2026	TRANSISTOR				2SC3356-T2B R24	G3333567D		1-	B	b4
Q 2027	IC				LC7385M-TE-R	G1092480	AUSTRALIA	1-	B	a4
Q 2027	IC				LC7385M-TE-R	G1092480	EXPORT	1-	B	a4
Q 2027	IC				LC7385M-TE-R	G1092480	USA	1-	B	a4
R 2001	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 2002	CHIPRES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	
R 2003	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 2004	CHIPRES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	
R 2005	CHIPRES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		1-	B	
R 2006	CHIPRES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	
R 2007	CHIPRES.	47	1/16W	5%	RMC1/16S 470JTH	J24189009		1-	B	
R 2008	CHIPRES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	
R 2009	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 2010	CHIPRES.	4.7	1W	5%	RMC1 4R7JTE	J24305479		1-	B	
R 2011	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2012	CHIPRES.	39k	1/16W	5%	RMC1/16S 393JTH	J24189044		1-	B	
R 2014	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 2015	CHIPRES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	
R 2017	CHIPRES.	68k	1/16W	5%	RMC1/16S 683JTH	J24189047		1-	B	
R 2018	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2019	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2020	CHIPRES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	
R 2021	CHIPRES.	330k	1/16W	5%	RMC1/16 334JATP	J24185334		1-	B	
R 2022	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 2023	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 2024	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2025	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 2026	CHIPRES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	
R 2027	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 2028	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 2029	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 2030	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2031	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 2032	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2033	CHIPRES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061	AUSTRALIA	1-	B	
R 2033	CHIPRES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061	EXPORT	1-	B	
R 2033	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	USA	1-	B	
R 2034	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2035	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 2036	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 2037	CHIPRES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	
R 2039	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	AUSTRALIA	1-	B	
R 2039	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	EXPORT	1-	B	
R 2039	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033	USA	1-	B	
R 2040	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	AUSTRALIA	1-	B	
R 2040	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037	EXPORT	1-	B	
R 2040	CHIPRES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057	USA	1-	B	
R 2041	CHIPRES.	12k	1/16W	5%	RMC1/16S 123JTH	J24189038		1-	B	
R 2042	CHIPRES.	5.6k	1/16W	5%	RMC1/16S 562JTH	J24189034		1-	B	
R 2043	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2044	CHIPRES.	390k	1/16W	5%	RMC1/16S 394JTH	J24189056		1-	B	
R 2045	CHIPRES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	
R 2047	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2049	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2050	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2051	CHIPRES.	150k	1/16W	5%	RMC1/16S 154JTH	J24189051	AUSTRALIA	1-	B	
R 2051	CHIPRES.	150k	1/16W	5%	RMC1/16S 154JTH	J24189051	EXPORT	1-	B	
R 2051	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	USA	1-	B	
R 2052	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2055	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 2058	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 2059	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 2060	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2061	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2063	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2064	CHIPRES.	2.2M	1/16W	5%	RMC1/16S 225JTH	J24189065		1-	B	
R 2065	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2067	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	
R 2068	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 2069	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2070	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2071	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2072	CHIPRES.	1.8M	1/16W	5%	RMC1/16S 185JTH	J24189064		1-	B	
R 2074	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 2075	CHIPRES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	
R 2076	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2077	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2078	CHIPRES.	33k	1/16W	5%	RMC1/16S 333JTH	J24189043		1-	B	
R 2079	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 2080	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2081	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2083	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	
R 2084	CHIPRES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053		1-	B	
R 2085	CHIPRES.	560k	1/16W	5%	RMC1/16S 564JTH	J24189058		1-	B	
R 2086	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	
R 2087	CHIPRES.	560k	1/16W	5%	RMC1/16S 564JTH	J24189058		1-	B	
R 2088	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2089	CHIPRES.	1.2k	1/16W	5%	RMC1/16S 122JTH	J24189026		1-	B	
R 2090	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2091	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 2092	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2093	CHIPRES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	

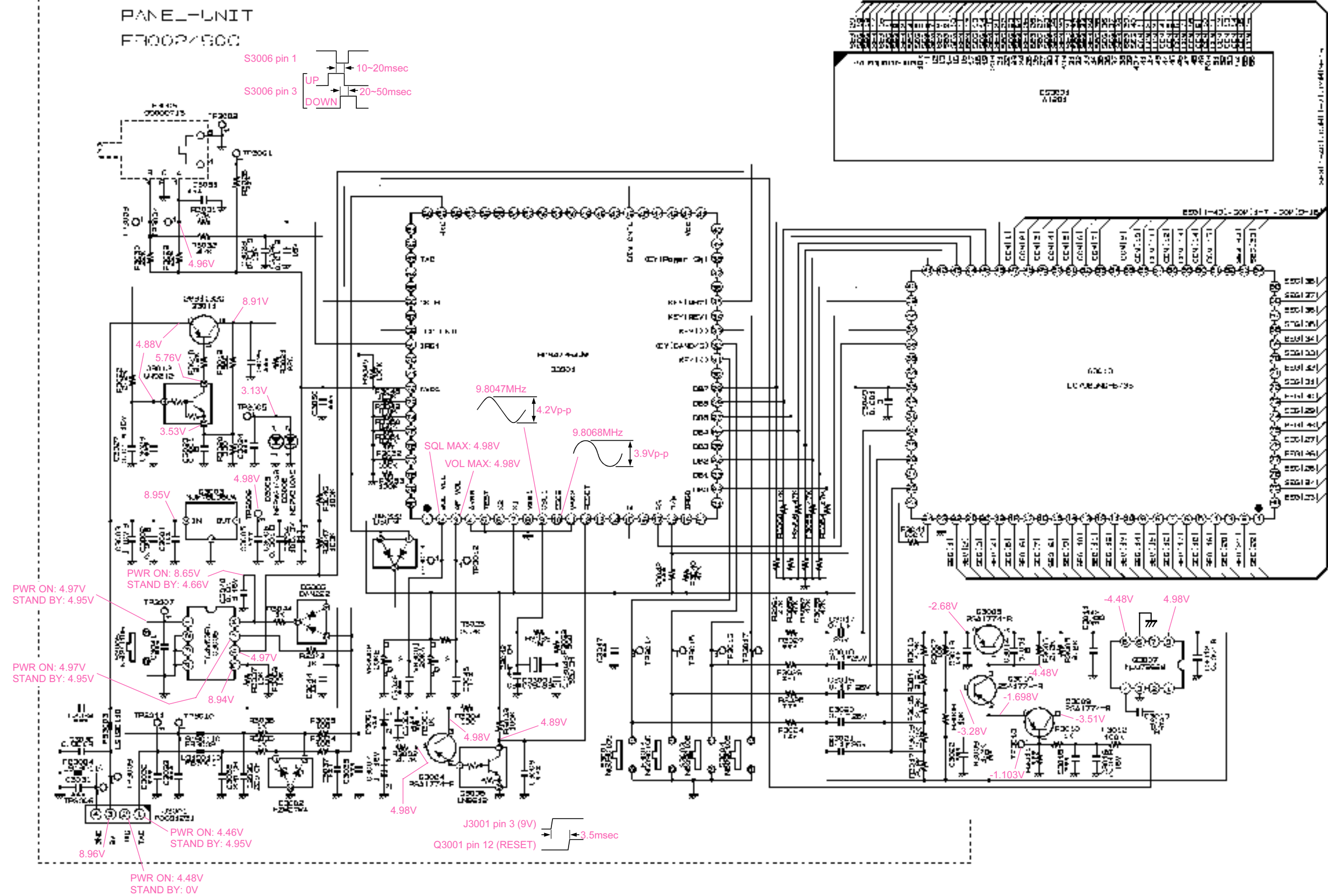
CNTL Unit

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 2094	CHIPRES.	15k	1/16W	5%	RMC1/16S 153JTH	J24189039		1-	B	
R 2096	CHIPRES.	12k	1/16W	5%	RMC1/16S 123JTH	J24189038		1-	B	
R 2097	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2098	CHIPRES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	
R 2099	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 2100	CHIPRES.	12k	1/16W	5%	RMC1/16S 123JTH	J24189038		1-	B	
R 2101	CHIPRES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 2102	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2104	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E3	1-	B	
R 2106	CHIPRES.	6.8k	1/16W	5%	RMC1/16S 682JTH	J24189035		1-	B	
R 2107	CHIPRES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	
R 2108	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION E3	1-	B	
R 2110	CHIPRES.	2.7k	1/16W	5%	RMC1/16S 272JTH	J24189030		1-	B	
R 2111	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION D1	1-	B	
R 2111	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION D2	1-	B	
R 2111	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H1	1-	B	
R 2111	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H2	1-	B	
R 2113	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2114	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B1	1-	B	
R 2114	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B2	1-	B	
R 2114	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B3	1-	B	
R 2114	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C1	1-	B	
R 2114	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C2	1-	B	
R 2114	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C3	1-	B	
R 2116	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 2117	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION A1	1-	B	
R 2117	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION A2	1-	B	
R 2117	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION A3	1-	B	
R 2117	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION B1	1-	B	
R 2117	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION B2	1-	B	
R 2117	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION B3	1-	B	
R 2117	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION D1	1-	B	
R 2117	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION D2	1-	B	
R 2119	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION D1	1-	B	
R 2119	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION D2	1-	B	
R 2119	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION H1	1-	B	
R 2119	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION H2	1-	B	
R 2121	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 2122	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2123	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 2124	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION B1	1-	B	
R 2124	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION B2	1-	B	
R 2124	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION B3	1-	B	
R 2124	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION C1	1-	B	
R 2124	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION C2	1-	B	
R 2124	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION C3	1-	B	
R 2126	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	
R 2127	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION A1	1-	B	
R 2127	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION A2	1-	B	
R 2127	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION A3	1-	B	
R 2127	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION B1	1-	B	
R 2127	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION B2	1-	B	
R 2127	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION B3	1-	B	
R 2127	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION D1	1-	B	
R 2127	CHIPRES.	100k	1/16W	5%	RMC1/16 104JATP	J24185104	VERSION D2	1-	B	
R 2129	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 2130	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2131	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	
R 2132	CHIPRES.	1.5M	1/16W	5%	RMC1/16S 155JTH	J24189063		1-	B	
R 2133	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2134	CHIPRES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	
R 2135	CHIPRES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	
R 2136	CHIPRES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 2137	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2138	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2139	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2140	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 2141	CHIPRES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	
R 2142	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2143	CHIPRES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	
R 2144	CHIPRES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	
R 2145	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2146	CHIPRES.	470k	1/16W	5%	RMC1/16S 474JTH	J24189057		1-	B	
R 2147	CHIPCAP.	560pF	50V	B	GRM36B561K50PT	K22178806	W/ CE LABEL	1-	B	
R 2148	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	
R 2149	CHIPRES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 2150	CHIPRES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	
R 2151	CHIPRES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053	AUSTRALIA	1-	B	
R 2151	CHIPRES.	220k	1/16W	5%	RMC1/16S 224JTH	J24189053	EXPORT	1-	B	
R 2151	CHIPRES.	56k	1/16W	5%	RMC1/16S 563JTH	J24189046	USA	1-	B	
R 2152	CHIPRES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	
R 2155	CHIPRES.	8.2	1W	5%	RMC18R2JTE	J24305829		1-	B	
R 2156	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION A1	1-	B	
R 2156	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION A2	1-	B	
R 2156	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B1	1-	B	
R 2156	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION B2	1-	B	
R 2156	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C1	1-	B	
R 2156	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION C2	1-	B	
R 2156	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION D1	1-	B	
R 2156	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION D2	1-	B	
R 2156	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H1	1-	B	
R 2156	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	VERSION H2	1-	B	
R 2157	CHIPRES.	0	1/10W	5%	RMC1/10T 000J	J24205000	VERSION A1	1-	B	
R 2157	CHIPRES.	0	1/10W	5%	RMC1/10T 000J	J24205000	VERSION B1	1-	B	
R 2157	CHIPRES.	0	1/10W	5%	RMC1/10T 000J	J24205000	VERSION C1	1-	B	
R 2157	CHIPRES.	0	1/10W	5%	RMC1/10T 000J	J24205000	VERSION D1	1-	B	
R 2157	CHIPRES.	0	1/10W	5%	RMC1/10T 000J	J24205000	VERSION H1	1-	B	
R 2158	CHIPRES.	560k	1/16W	5%	RMC1/16S 564JTH	J24189058		1-	B	
R 2159	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2161	CHIPRES.	0	1/16W	5%	RMC1/16 000JATP	J24185000		1-	B	
R 2165	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 2166	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	
R 2167	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	
R 2168	CHIPRES.	0	1/16W	5%	RMC1/16S JPTH	J24189070		1-	B	
R 2169	CHIPRES.	150k	1/16W	5%	RMC1/16S 154JTH	J24189051		1-	B	
R 2175	CHIPRES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 2176	CHIPRES.	15k	1/16W	5%	RMC1/16S 153JTH	J24189039		1-	B	
R 2177	CHIPRES.	56k	1/16W	5%	RMC1/16S 563JTH	J24189046		1-	B	
R 2179	CHIPRES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 2181	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION C1	1-	B	
R 2181	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION C2	1-	B	
R 2181	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION C3	1-	B	
R 2181	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION H1	1-	B	
R 2181	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION H2	1-	B	
R 2182	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION A1	1-	B	
R 2182	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION A2	1-	B	
R 2182	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION A3	1-	B	
R 2182	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION D1	1-	B	
R 2182	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION D2	1-	B	
R 2182	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION H1	1-	B	
R 2182	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION H2	1-	B	
R 2183	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION A1	1-	B	
R 2183	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION A2	1-	B	
R 2183	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION A3	1-	B	
R 2183	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION B1	1-	B	
R 2183	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION B2	1-	B	
R 2183	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION B3	1-	B	
R 2183	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION C1	1-	B	
R 2183	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION C2	1-	B	
R 2183	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION C3	1-	B	
R 2184	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION C1	1-	B	
R 2184	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION C2	1-	B	
R 2184	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION C3	1-	B	
R 2184	CHIPRES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049	VERSION H1	1-	B	

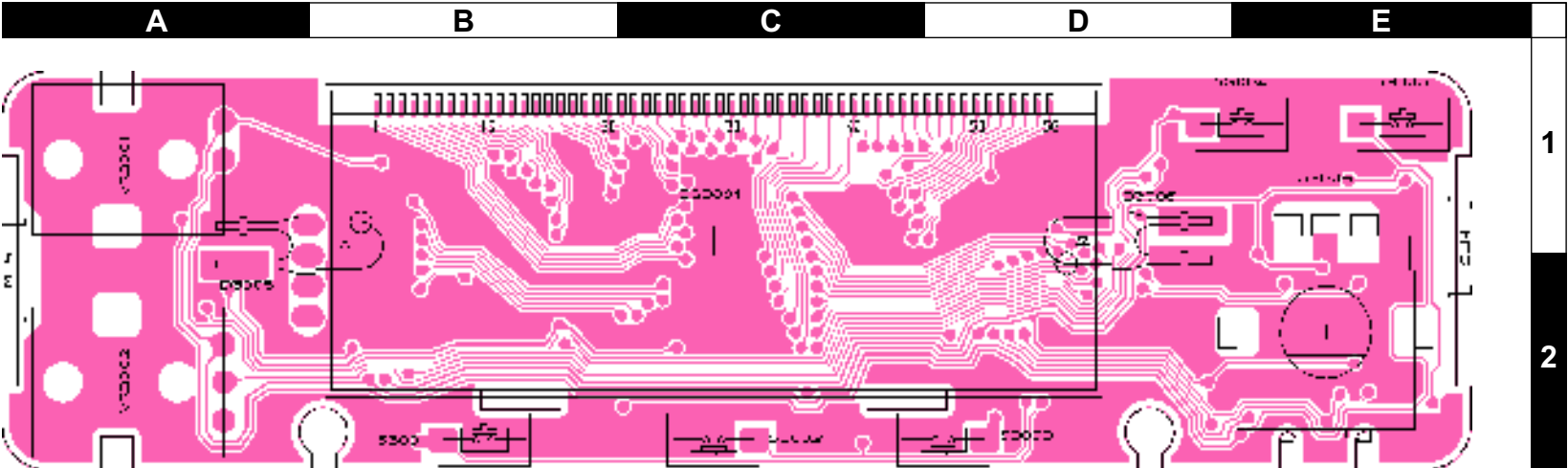
CNTL Unit

[illegible]

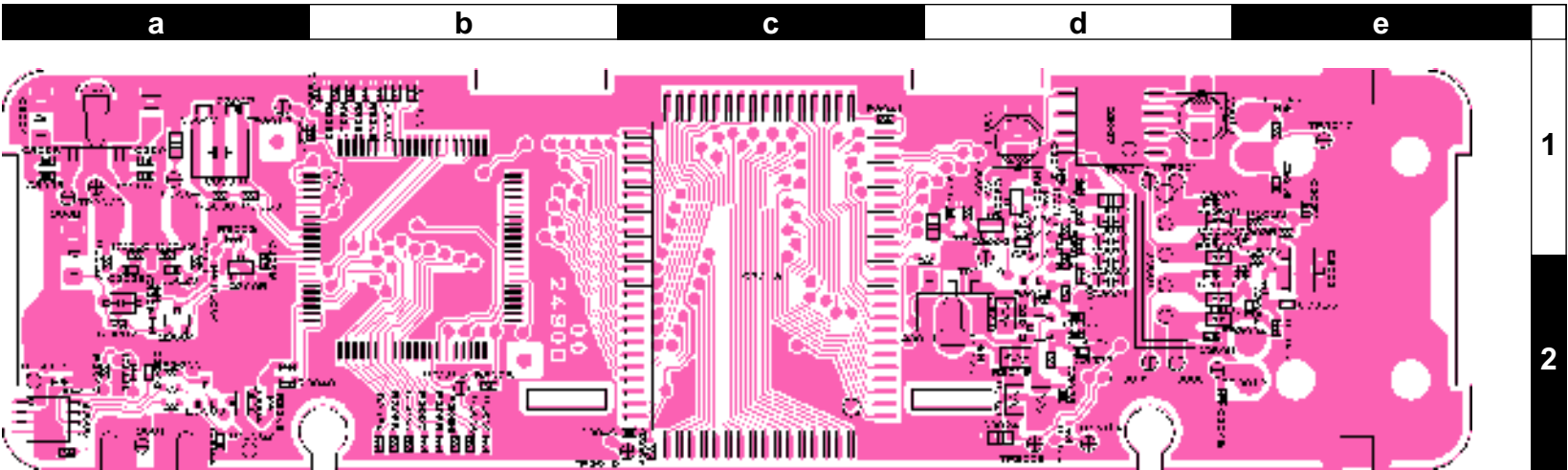


Panel Unit

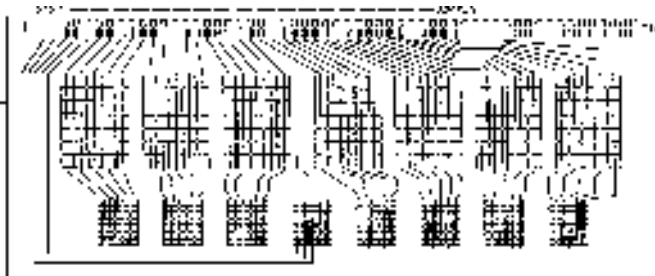
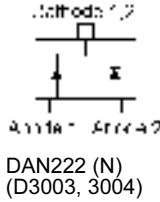
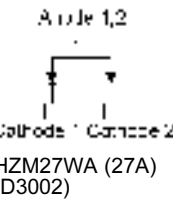
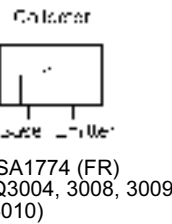
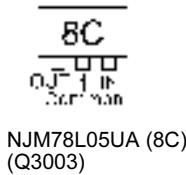
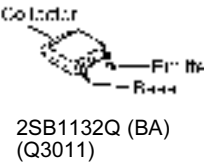
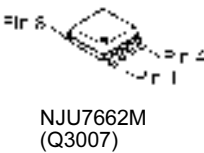
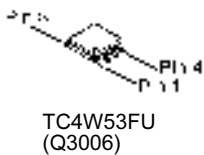
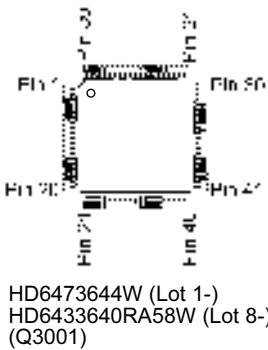
Parts Layout



Side A



Side B



LCD Segmentation Circuit Diagram



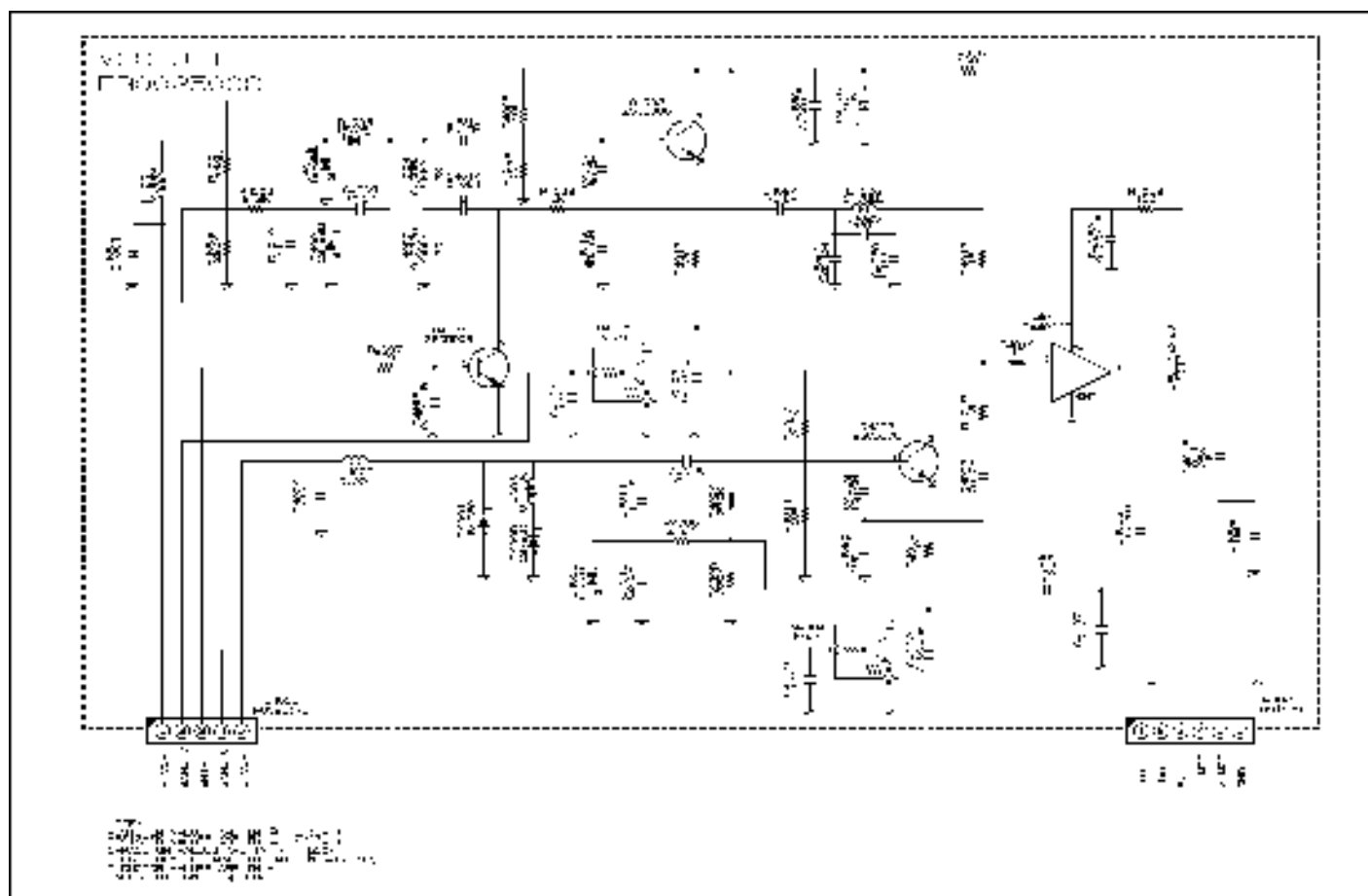
LCD Backplane Circuit Diagram

Parts List

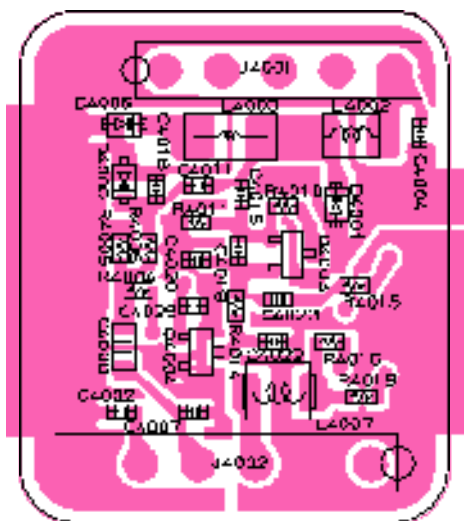
REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
*** PANEL UNIT ***										
	PCB with Components	(USA)				CB0549002				
	PCB with Components	(EXP)				CB0549003				
	PCB with Components	(AUS)				CB0549004				
	Printed Circuit Board					FR002490C				
C 3002	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 3003	CHIP CAP.	1uF	10V	B	GRM40B105K10PT	K22100802		1-	B	
C 3004	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	
C 3006	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 3007	CHIP TA.CAP.	1uF	16V		TESVA1C105M1-8R	K78120009		1-	B	
C 3010	CHIP CAP.	4.7uF	10V	BJ	LMK316BJ475ML-T	K22101802		1-	B	
C 3010	CHIP CAP.	2.2uF	10V	B	GRM42-6B225K10PT	K22101801		3-	B	
C 3011	CHIP CAP.	4.7uF	10V	BJ	LMK316BJ475ML-T	K22101802		1-	B	
C 3011	CHIP CAP.	2.2uF	10V	B	GRM42-6B225K10PT	K22101801		3-	B	
C 3012	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 3014	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 3016	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 3017	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 3018	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 3019	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 3020	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 3021	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 3023	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 3027	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 3028	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 3029	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 3030	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 3035	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	
C 3036	CHIP CAP.	22pF	50V	CH	GRM36CH220J50PT	K22178220		1-	B	
C 3040	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 3042	CHIP CAP.	39pF	50V	CH	GRM36CH390J50PT	K22178226		1-	B	
C 3043	CHIP CAP.	39pF	50V	CH	GRM36CH390J50PT	K22178226		1-	B	
C 3049	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
CO3001	CERAMIC OSC				CSACV9.83MTJ-TC20	H7901350		1-	B	
D 3002	DIODE				HZM27WA-TR	G2070530		1-	B	e2
D 3003	DIODE				DAN222 TL	G2070174		1-	B	a2
D 3004	DIODE				DAN222 TL	G2070174		1-	B	a2
D 3005	LED				NSPW310AS	G2090705		1-	A	
D 3005	LED				NSPW310BS	G2090747		10-	A	
D 3006	LED				NSPW310AS	G2090705		1-	A	
D 3006	LED				NSPW310BS	G2090747		10-	A	
DS3001	LCD				TJDMS-528	G6090132		1-	A	
FB3001	FERRITE BEADS				BK1608HS121-T	L9190081		1-	B	
FB3001	FERRITE BEADS				BLM11A121SPT	L9190110		7-	B	
FB3002	FERRITE BEADS				BK1608HS121-T	L9190081		1-	B	
FB3002	FERRITE BEADS				BLM11A121SPT	L9190110		7-	B	
FB3003	FERRITE BEADS				BK1608HS121-T	L9190081	EXPORT	1-	B	
FB3003	FERRITE BEADS				BLM11A121SPT	L9190110	EXPORT	7-	B	
FB3004	FERRITE BEADS				BK1608HS121-T	L9190081	EXPORT	1-	B	
FB3004	FERRITE BEADS				BLM11A121SPT	L9190110	EXPORT	7-	B	
J 3001	CONNECTOR				AM0274-00	P0091231		1-	B	
Q 3001	IC				HD6473644W R0247	G1092907		1-	B	b1
Q 3001	IC				HD6433640RA58W	G1092979		8-	B	b1
Q 3003	IC				NJM78L05UA TE1	G1091325		1-	B	a1
Q 3004	TRANSISTOR				2SA1774 TL R	G3117748R		1-	B	a2
Q 3005	TRANSISTOR				UN9212-(TX)	G3070152		1-	B	a2
Q 3006	IC				TC4W53FU TE12L	G1091675		1-	B	a2
Q 3007	IC				NJU7662M(TE1)	G1092898		1-	B	d1
Q 3008	TRANSISTOR				2SA1774 TL R	G3117748R		1-	B	d1
Q 3009	TRANSISTOR				2SA1774 TL R	G3117748R		1-	B	d1
Q 3010	TRANSISTOR				2SA1774 TL R	G3117748R		1-	B	d2
Q 3011	TRANSISTOR				2SB1132 T100 Q	G3211327Q		1-	B	d2
Q 3012	TRANSISTOR				UN9212-(TX)	G3070152		1-	B	d2
Q 3013	IC				LC7985ND-8733	G1092821		1-	B	c2
R 3001	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 3002	CHIP RES.	4.7k	1/16W	5%	RMC1/16S 472JTH	J24189033		1-	B	
R 3003	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 3004	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	

PANEL Unit

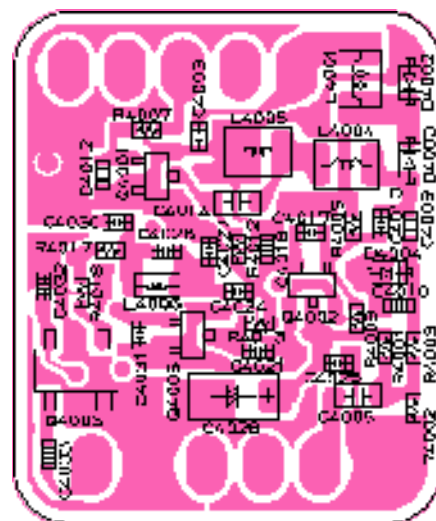
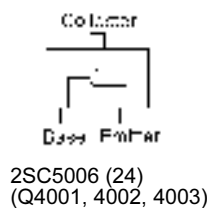
REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
R 3005	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 3006	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 3007	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 3008	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 3009	CHIP RES.	3.3k	1/16W	5%	RMC1/16S 332JTH	J24189031		1-	B	
R 3010	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 3012	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 3013	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 3014	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 3015	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 3016	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 3017	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 3018	CHIP RES.	2.2k	1/10W	5%	RMC1/10T 222J	J24205222		1-	B	
R 3019	CHIP RES.	560	1/10W	5%	RMC1/10T 561J	J24205561		1-	B	
R 3020	CHIP RES.	330	1/10W	5%	RMC1/10T 331J	J24205331		1-	B	
R 3021	CHIP RES.	220	1/10W	5%	RMC1/10T 221J	J24205221		1-	B	
R 3022	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 3023	CHIP RES.	2.2k	1/16W	5%	RMC1/16S 222JTH	J24189029		1-	B	
R 3029	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	
R 3030	CHIP RES.	22k	1/16W	5%	RMC1/16S 223JTH	J24189041		1-	B	
R 3031	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 3032	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 3033	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 3034	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	
R 3035	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 3036	CHIP RES.	100	1/16W	5%	RMC1/16S 101JTH	J24189013		1-	B	
R 3037	CHIP RES.	10k	1/16W	5%	RMC1/16S 103JTH	J24189037		1-	B	
R 3038	CHIP RES.	560	1/16W	5%	RMC1/16S 561JTH	J24189022		1-	B	
R 3039	CHIP RES.	1M	1/16W	5%	RMC1/16S 105JTH	J24189061		1-	B	
R 3040	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 3041	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 3043	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 3044	CHIP RES.	1k	1/16W	5%	RMC1/16S 102JTH	J24189025		1-	B	
R 3045	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 3046	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 3047	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 3048	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 3049	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 3050	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 3051	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 3052	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 3053	CHIP RES.	100k	1/16W	5%	RMC1/16S 104JTH	J24189049		1-	B	
R 3054	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 3055	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 3056	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 3057	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 3058	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 3059	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 3060	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 3061	CHIP RES.	47k	1/16W	5%	RMC1/16S 473JTH	J24189045		1-	B	
R 3062	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	AUSTRALIA	1-	B	
R 3062	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	USA	1-	B	
R 3063	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	AUSTRALIA	1-	B	
R 3063	CHIP RES.	0	1/16W	5%	RMC1/16 000JATP	J24185000	USA	1-	B	
S 3001	TACT SWITCH				SKQMAL	N5090105		1-	A	
S 3002	TACT SWITCH				SKQMAL	N5090105		1-	A	
S 3003	TACT SWITCH				SKQMAL	N5090105		1-	A	
S 3004	TACT SWITCH				SKQMAL	N5090105		1-	A	
S 3005	TACT SWITCH				SKQMAL	N5090105		1-	A	
S 3006	ROTARY ENCODER				EVQBBCFB120B	Q9000713		1-	A	
VR3001	POT.				EVU-F2KFP1A24 20KA	J60800206		1-	A	
VR3002	POT.				EVU-F2KFP1B24 20KB	J60800207		1-	A	
	RUBBER CONNECTOR					RA0108000		1-	B	
	LCD HOLDER				(LCD)	RA0108100		1-	B	
	LIGHT GUIDE					RA0120900		1-	B	
	COLOR FILTER					RA0129700		1-	B	
	LCD FILTER					RA0133400		1-	B	
	REFLECTOR SHEET					RA0133000		1-	B	



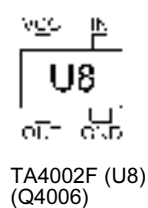
Parts Layout



Side A



Side B



VCO Unit

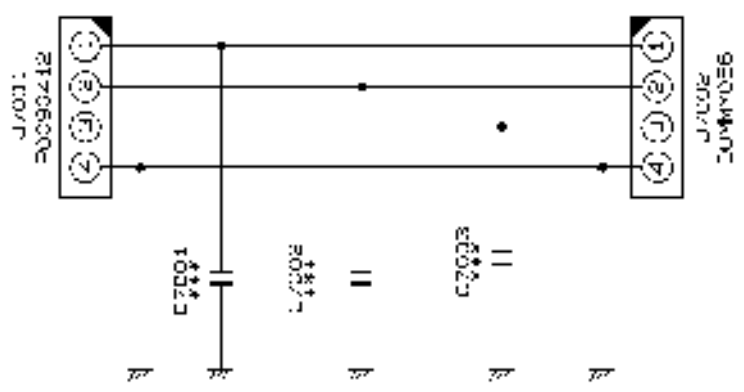
Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY ADR
*** VCO UNIT ***										
	PCB with Components	(USA)				CP6373004				
	PCB with Components	(EXP)				CP6373005				
	PCB with Components	(AUS)				CP6373006				
	Printed Circuit Board					FR002500C				
C 4003	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	AUSTRALIA EXPORT USA	1-	B	
C 4005	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	B	
C 4008	CHIP CAP.	0.1uF	25V	F	GRM39F104Z25PT	K22145001		1-	A	
C 4009	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	B	
C 4011	CHIP CAP.	1pF	50V	CK	GRM36CK010C50PT	K22178202		1-	A	
C 4012	CHIP CAP.	0.01uF	16V	B	GRM36B103K16PT	K22128804		1-	B	
C 4013	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		1-	B	
C 4013	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		5-	B	
C 4014	CHIP CAP.	0.001uF	50V	B	GRM39B102M50PT	K22174809		1-	B	
C 4015	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		1-4	A	
C 4015	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		5-	A	
C 4015	CHIP CAP.	3pF	50V	CJ	GRM36CJ030C50PT	K22178205		5-	A	
C 4015	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		5-	A	
C 4016	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		1-4	A	
C 4016	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		5-	A	
C 4016	CHIP CAP.	5pF	50V	CH	GRM36CH050C50PT	K22178207		5-	A	
C 4017	CHIP CAP.	8pF	50V	CH	GRM36CH080D50PT	K22178210		1-	B	
C 4017	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		5-	B	
C 4018	CHIP CAP.	39pF	50V	CH	GRM36CH390J50PT	K22178226		1-	B	
C 4019	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		1-4	A	
C 4019	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		5-	A	
C 4019	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		5-	A	
C 4019	CHIP CAP.	7pF	50V	CH	GRM36CH070D50PT	K22178209		5-	A	
C 4020	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		1-4	A	
C 4020	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		5-	A	
C 4020	CHIP CAP.	18pF	50V	CH	GRM36CH180J50PT	K22178218		5-	A	
C 4020	CHIP CAP.	15pF	50V	CH	GRM36CH150J50PT	K22178216		5-	A	
C 4021	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809	USA	1-	B	
C 4022	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	A	
C 4023	CHIP CAP.	7pF	50V	CH	GRM36CH070D50PT	K22178209		1-	A	
C 4024	CHIP CAP.	7pF	50V	CH	GRM36CH070D50PT	K22178209		1-	B	
C 4025	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 4026	CHIP TA.CAP.	10uF	6.3V		TEMSVA0J106M-8R	K78080027		1-	B	
C 4027	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	B	
C 4030	CHIP CAP.	12pF	50V	CH	GRM36CH120J50PT	K22178214		1-	B	
C 4032	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 4033	CHIP CAP.	0.001uF	50V	B	GRM36B102K50PT	K22178809		1-	B	
C 4034	CHIP CAP.	10pF	50V	CH	GRM39CH100C50PT	K22174248	USA USA	5-		
C 4034	CHIP CAP.	10pF	50V	CH	GRM36CH100D50PT	K22178212		8-		
D 4001	DIODE				1SV280(TPH3)	G2070550		1-	A	
D 4002	DIODE				1SV286(TPL3)	G2070610		1-	B	
D 4003	DIODE				1SV281(TPH3)	G2070620		1-	B	
D 4004	DIODE				1SV286(TPL3)	G2070610		1-	B	
D 4005	DIODE				1SV281(TPH3)	G2070620		1-	A	
D 4006	DIODE				1SV286(TPL3)	G2070610		1-	A	
J 4001	CONNECTOR				9210B-1-05Z087-T	P0091178		1-	A	
J 4002	CONNECTOR				9210B-1-06Z087-T	P0091179		1-	A	
L 4001	CHIP COIL	0.22uH			LQN21AR22J04	L1690600	AUSTRALIA EXPORT USA	1-	B	
L 4002	CHIP COIL	0.22uH			LQN21AR22J04	L1690600		1-	A	
L 4002	CHIP COIL	0.22uH			LQN21AR22J04	L1690600		5-	A	
L 4003	CHIP COIL	0.033uH			LQN1A33NJ04	L1690254		1-4	A	
L 4003	CHIP COIL	0.033uH			LQN1A33NJ04	L1690254		5-	A	
L 4003	CHIP COIL	0.033uH			LQN1A33NJ04	L1690254		5-	A	
L 4003	M.RFC	0.018uH		5%	C2012C-18NJ	L1690783		5-	A	
L 4004	M.RFC	0.056uH		2%	C2012C-56NG	L1690773		1-	B	
L 4004	M.RFC	0.047uH		5%	C2012C-47NJ	L1690788		5-	B	
L 4005	M.RFC	0.039uH		2%	C2012C-39NG	L1690771		1-	B	
L 4005	M.RFC	0.033uH		5%	C2012C-33NJ	L1690786		5-	B	
L 4006	M.RFC	0.068uH			HK1608 68NJ-T	L1690526		1-	B	
L 4007	M.RFC	2.2uH			ELJ-FC2R2MF	L1690394		1-	A	
Q 4001	TRANSISTOR				2SC5006-T1	G3350068		1-	B	
Q 4002	TRANSISTOR				2SC5006-T1	G3350068		1-	B	
Q 4003	TRANSISTOR				2SC5006-T1	G3350068		1-	A	

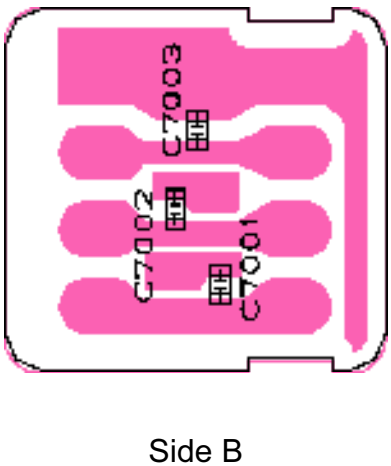
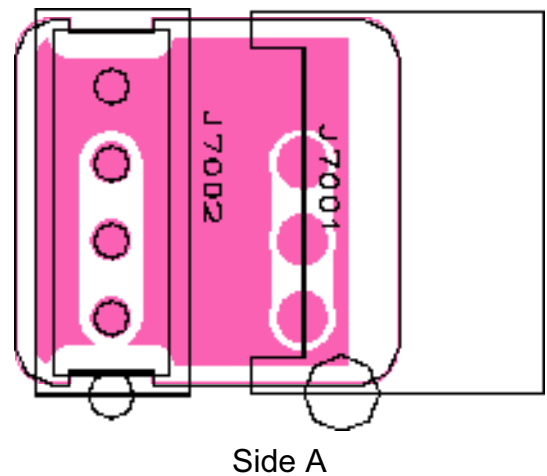
[illegible]

VCO Unit

Notes:



Parts Layout



Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.	SIDE	LAY	ADR
*** CONNECTOR UNIT ***											
PCB with Components						CP6374003		1-			
Printed Circuit Board						FR003010A					
J7001	WIRE ASSY					T9206756		1-			
J7002	CONECTOR					P1091050		1-			



Copyright © 2004
VERTEX STANDARD CO., LTD.
All rights reserved

No portion of this manual may be
reproduced without the permission
of VERTEX STANDARD CO., LTD.

Printed in Japan.