

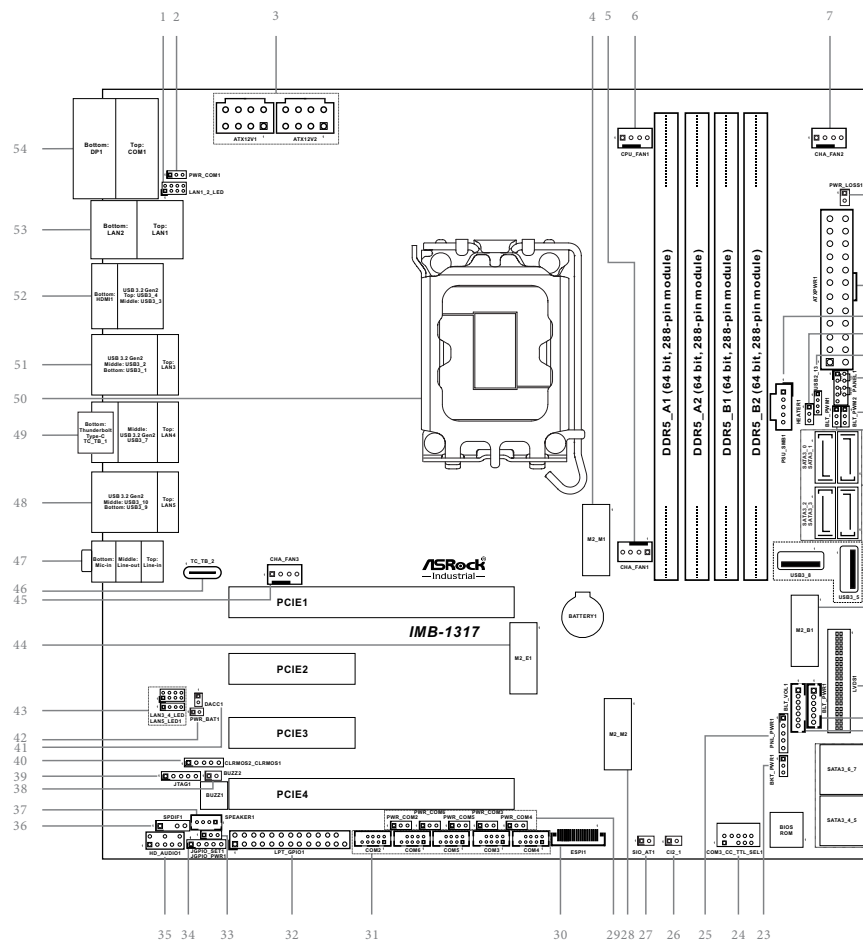
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Revision History

Date	Description
October 25, 2024	First Release
December 24, 2024	Second Release
January 22, 2025	Third Release
June 3, 2025	Fourth Release

Jumpers and Headers Setting Guide



LAN LED Headers

- 1 : LAN1_2_LED (For LAN1, LAN2 Ports)
43 : LAN3_4_LED (For LAN3, LAN4 Ports)
LAN5_LED1 (For LAN5 Port)

LAN1_2_LED:

Pin	Signal Name	Signal Name	Pin
1	LED_ACT+	LED_ACT+	2
3	LED_ACT-	LED_ACT-	4
5	LED_1000-/LED_1000+	LED_1000-/LED_1000+	6
7	LED_100+/LED_1000-	LED_100+/LED_1000-	8

LAN3_4_LED:

Pin	Signal Name	Signal Name	Pin
1	LED_ACT+	LED_ACT+	2
3	LED_ACT-	LED_ACT-	4
5	LED_1000-/LED_2500+	LED_1000-/LED_2500+	6
7	LED_1000+/LED_2500-	LED_1000+/LED_2500-	8

LAN5_LED1:

Pin	Signal Name
1	LED_ACT+
2	LED_ACT-
3	LED_2500-/LED_10000+
4	LED_2500+/LED_10000-

* For IMB-X1317-10G only.

COM Port PWR Setting Jumpers

- 2 : PWR_COM1 (For COM Port1)
29 : PWR_COM2 (For COM Port2)
PWR_COM3 (For COM Port3)
PWR_COM4 (For COM Port4)
PWR_COM5 (For COM Port5)
PWR_COM6 (For COM Port6)
Open : +0V
1-2 : +5V (Default)
2-3 : +12V

- 3 : 8-pin ATX 12V Power Connectors
(ATX12V1, ATX12V2)

Pin	Signal Name	Signal Name	Pin
1	GND	ATX12V	5
2	GND	ATX12V	6
3	GND	ATX12V	7
4	GND	ATX12V	8

M.2 Key-M Sockets

- 4 : M2_M1

- 28 : M2_M2

- 18 : M.2 Key-B Socket
(M2_B1)

Pin	Signal Name	Signal Name	Pin
1	GND	+3.3V	2
3	GND	+3.3V	4
5	PERp3	NA	6
7	PERp3	NA	8
9	GND	SATA_LED	10
11	PETn3	+3.3V	12
13	PETp3	+3.3V	14
15	GND	+3.3V	16
17	PERn2	+3.3V	18
19	PERp2	NA	20
21	GND	NA	22
23	PETn2	NA	24
25	PETp2	NA	26
27	GND	NA	28
29	PERp1	NA	30
31	PERp1	NA	32
33	GND	NA	34
35	PETn1	NA	36
37	PETp1	NA	38
39	GND	SMB_CLK	40
41	PERn0	SMB_DATA	42
43	PERp0	NA	44
45	GND	NA	46
47	PETp0	NA	48
49	PETp0	PERST#	50
51	GND	CLKREQ#	52
53	PEFCLKn	WAKE#	54
55	PEFCLKp	NA	56
57	GND	NA	58
67	NA	SUS_CLK	68
69	PEDET	+3.3V	70
71	GND	+3.3V	72
73	GND	+3.3V	74
75	GND		

Pin	Signal Name	Signal Name	Pin
1	NA	+3.3V	2
3	GND	+3.3V	4
5	GND	Full Card Power off	6
7	USB D+	W_DISABLE	8
9	USB D-	NA	10
11	GND		
		NA	20
21	NA	NA	22
23	NA	NA	24
25	NA	W_DISABLE	26
27	GND	NA	28
29	USB3Rn	UIM_RESET	30
31	USB3Rp	UIM_CLK	32
33	GND	UIM_DATA	34
35	USB3Tn	UIM_PWR	36
37	USB3Tp	NA	38
39	GND	SMB_CLK	40
41	PERn0	SMB_DATA	42
43	PERp0	NA	44
45	GND	NA	46
47	PETn0	NA	48
49	PETp0	PERST#	50
51	GND	CLKREQ#	52
53	PEFCLKn	WAKE#	54
55	PEFCLKp	NA	56
57	GND	NA	58
59	NA	NA	60
61	NA	NA	62
63	NA	NA	64
65	NA	NA	66
67	NA	SUS_CLK	68
69	NA	+3.3V	70
71	GND	+3.3V	72
73	GND	+3.3V	74
75	NA		

* For IMB-1317 only.

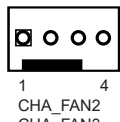
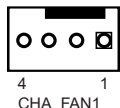
Chassis FAN Connectors (+12V)

- 5 : CHA_FAN1

- 7 : CHA_FAN2

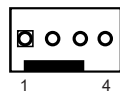
- 45 : CHA_FAN3

Pin	Signal Name
1	GND
2	+12V
3	CHA_FAN_SPEED
4	FAN_SPEED_CONTROL



6 : CPU FAN Connectors (+12V) (CPU_FAN1)

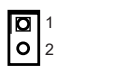
Pin	Signal Name
1	GND
2	+12V
3	CPU_FAN_SPEED
4	FAN_SPEED_CONTROL



8 : PWR LOSS Header (PWR_LOSS1)

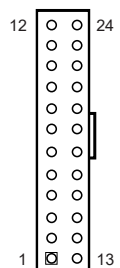
Open : No Power Loss

Short : Power Loss (Default)



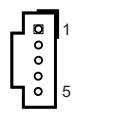
9 : 24-pin ATX Power Input Connector (ATXPWR1)

Pin	Signal Name	Signal Name	Pin
1	+3V	+3V	13
2	+3V	-12V	14
3	GND	GND	15
4	+5V	PSON#	16
5	GND	GND	17
6	+5V	GND	18
7	GND	GND	19
8	PWROK PS	NA	20
9	ATX+5VSB	+5V	21
10	+12V	+5V	22
11	+12V	+5V	23
12	+3V	GND	24



10 : PSU_SMB1

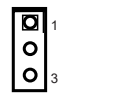
Pin	Signal Name
1	SMB_CLK
2	SMB_DATA
3	SMBALERT#
4	GND
5	+3V



• The SMBus connector is for power supply unit.

11 : HEATER1 Header (HEATER1)
(Preheat function)

Pin	Signal Name
1	Heater PWR (5V/1A)
2	GND
3	NTC (Negative Temperature Coefficient) thermistors

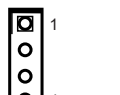


• The 10k Ohm NTC thermistor is suggested.

• Deep mode is not supported when the preheat function is enabled.

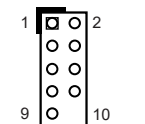
12 : USB 2.0 Header (USB2_13)

Pin	Signal Name
1	USB_PWR
2	USB_D-
3	USB_D+
4	GND



13 : System Panel Header (PANEL1)

Pin	Signal Name	Signal Name	Pin
1	HDLED+	PLED+	2
3	HDLED-	PLED-	4
5	GND	PWRBTN#	6
7	RESET#	GND	8
9	+5VSB		10



14 : Brightness Control Voltage Mode

(BLT_PWM2)

1-2: +3V (Default)

2-3: +5V



15 : Brightness Control Mode (BLT_PWM1)

1-2 : From eDP PWM to CON_LBKLT_CTL

2-3 : From LVDS PWM to CON_LBKLT_CTL

(Default)

• Please set to 1-2 when adjusting brightness by Brightness Control bar under OS.

• Please set to 2-3 when adjusting brightness by BLT_VOL1.

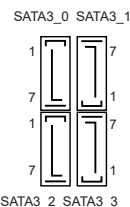


SATA3 Connectors

- 16 : SATA3_0~SATA3_3

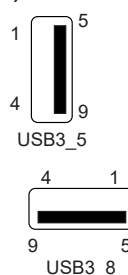
- 22 : SATA3_4~SATA3_7

Pin	Signal Name
1	GND
2	SATA-A+
3	SATA-A-
4	GND
5	SATA-B-
6	SATA-B+
7	GND



- 17 : USB 3.0 Type-A Ports (Vertical)
(USB3_5, USB3_8)

Pin	Signal Name
1	USB_PWR
2	USB_D-
3	USB_D+
4	GND
5	SSRX-
6	SSRX+
7	GND
8	SSTX-
9	SSTX+



19 : LVDS Panel Connector (LVDS1)

Pin	Signal Name	Signal Name	Pin
1	LCD_VCC	LCD_VCC	2
3	+3.3V	NA	4
5	LVDS_A_DATA0#	PD (Panel Detection)	6
7	LVDS_A_DATA1#	LVDS_A_DATA1	8
9	GND	LVDS_A_DATA2#	10
11	LVDS_A_DATA2	GND	12
13	LVDS_A_DATA3#	LVDS_A_DATA3	14
15	GND	LVDS_A_CLK#	16
17	LVDS_A_CLK	GND	18
19	LVDS_B_DATA0#	LVDS_B_DATA1#	20
21	GND	LVDS_B_DATA2#	22
23	LVDS_B_DATA1	GND	24
25	LVDS_B_DATA2#	LVDS_B_DATA2	26
27	LVDS_B_DATA3#	LVDS_B_DATA3	28
29	DPLVDD_EN	LVDS_B_DATA3#	30
31	LVDS_B_DATA3	GND	32
33	LVDS_B_CLK#	LVDS_B_CLK	34
35	GND	CON_LBKLT_CTL	36
37	CON_LBKLT_CTL	LCD_BLT_VCC	38
39	LCD_BLT_VCC	LCD_BLT_VCC	40



• PD (Panel Detection):
Connect this pin to LVDS
Panel's Ground pin to detect
Panel detection.

20 : Inverter Power Control Wafer (BLT_PWR1)

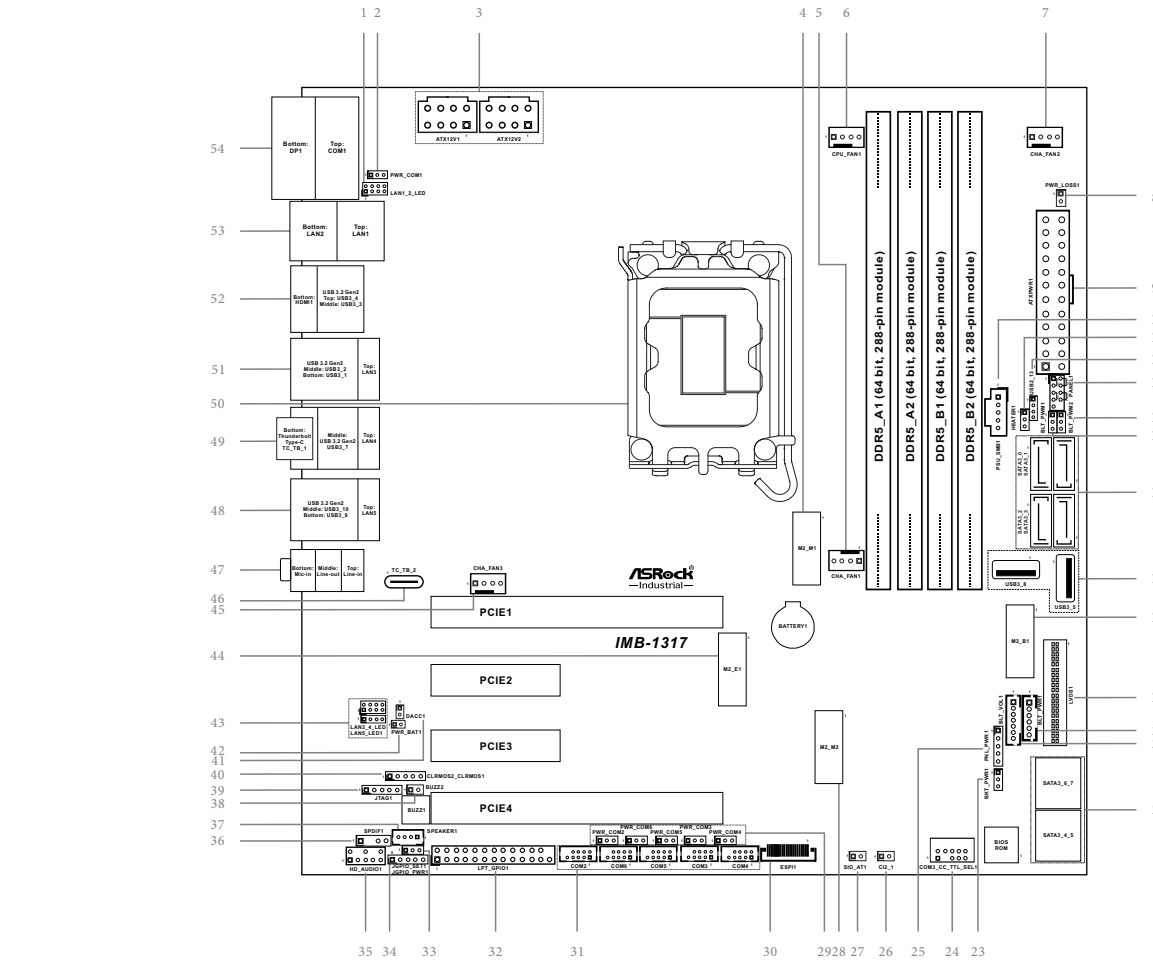
Pin	Signal Name
1	GND
2	GND
3	CON_LBKLT_CTL
4	CON_LBKLT_EN
5	LCD_BLT_VCC
6	LCD_BLT_VCC



21 : Backlight Volume Control (BLT_VOL1)

Pin	Signal Name
1	GPIO_VOL_UP
2	GPIO_VOL_DW
3	PWRDN
4	BLT_UP
5	BLT_DW
6	GND
7	GND





23 : Backlight Power Select
(LCD_BLT_VCC) (BKT_PWR1)
1-2 : LCD_BLT_VCC : +5V (Default)
2-3 : LCD_BLT_VCC : +12V



24 : COM3_CC_TTL_SEL1

Pin	Signal Name	Signal Name	Pin
1	+5V	GND	2
3		NA	4
5	TTXD 3 TTL	RRXD 3 TTL	6
7	TTXD 3	RRXD 3	8
9	TTXD 3 RS232	RRXD 3 RS232	10



COM_CC_TTL_SEL1:79 COM_CC_TTL_SEL1:80



MINI_JUMPER

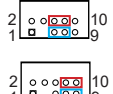


MINI_JUMPER

Open: CCTALK function

• Supported by CCTALK Card (optional).

5-7 + 6-8 : TTL function
7-9 + 8-10 : COM (RS232)
(Default)



25 : Panel Power Select
(PNL_PWR1)
1-2 : +3V (Default)
2-3 : +5V
4-5 : +12V



26 : Chassis Intrusion Header (CI2_1)
Open: Normal (Default)
Short: Active Case Open



27 : ATX/AT Mode Jumper (SIO_AT1)
Open : ATX Mode (Default)
Short : AT Mode



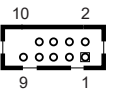
30 : ESPI Header
(ESPI1)

Pin	Signal Name
1	GND
2	ESPI_CLK
3	NA
4	ESPI_CS#
5	ESPI_RESET#
6	GND
7	+3V
8	ESPI_CS#1
9	PLTRST#
10	COM_RST#
11	ESPI_IO0
12	ESPI_IO1
13	ESPI_IO2
14	ESPI_IO3
15	ALERT#1
16	+3VSB
17	Internal Use
18	+5VSB
19	ESPI_ALERT#
20	GND



44 : M.2 Key-E Socket
(M2_E1)

Pin	Signal Name	Signal Name	Pin
1	GND	+3.3V	2
3	USB D+	+3.3V	4
5	USB D-	NA	6
7	GND	PCMCCLK	8
9	CNV_WGR D1-	CNV_RP RESET	10
11	CNV_WGR D1+	PCMIN	12
13	GND	MODEM_CLKREQ	14
15	CNV_WGR D0-	NA	16
17	CNV_WGR D0+	GND	18
19	GND	NA	20
21	CNV_WGR CLK-	CNV_BRI RSP	22
23	CNV_WGR CLK+		
25	GND	CNV_BGI_DT	32
33	GND	CNV_RGI_RSP	34
35	PETp	CNV_BRI_DT	36
37	PETn	CL_RST#	38
39	GND	CL_DATA	40
41	PERp	CL_CLK	42
43	PERn	CNV_PA_BLANKING	44
45	GND	CNV_MFUART2_TXD	46
47	PEFCLKp	CNV_MFUART2_RXD	48
49	PEFCLKn	SUSCLK	50
51	GND	PERSTO#	52
53	CLKREQ#	BT_OFF#	54
55	NA	WIFI_OFF#	56
57	GND	SMB_DATA	58
59	CNV_WT D1-	SMB_CLK	60
61	CNV_WT D1+	NA	62
63	GND	NA	64
65	CNV_WT D0-	NA	66
67	CNV_WT D0+	NA	68
69	GND	NA	70
71	CNV_WT CLK-	+3.3V	72
73	CNV_WT CLK+	+3.3V	74
75	GND		



31 : COM Port Headers
COM2 (RS232/422/485)
COM3~COM6 (RS232)

Pin	Signal Name	Signal Name	Pin
1	DDCD#	RRXD	2
3	TTXD	DDTR#	4
5	GND	DDSR#	6
7	RRTS#	CCTS#	8
9	PWR		10

* This motherboard supports RS232/422/485 on COM1, 2 ports. Please refer to the table below for the pin definition. In addition, COM1, 2 ports (RS232/422/485) can be adjusted in BIOS setup utility > Advanced Screen > Super IO Configuration. You may refer to our user manual for details.

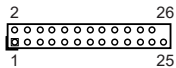
COM1, 2 Ports Pin Definition

Pin	RS232	TX422	RS485
1	DCD	TX-	RTX-
2	RXD	TX+	RTX+
3	TXD	RX+	NA
4	DTR	RX-	NA
5	GND	GND	GND
6	DSR	NA	NA
7	RTS	NA	NA
8	CTS	NA	NA
9	PWR	PWR	PWR

32 : Printer Port/GPIO Header (LPT_GPIO1)

Printer Port:

Pin	Signal Name	Signal Name	Pin
1	STB#	AFD#	2
3	SPD0	ERROR#	4
5	SPD1	PNIT#	6
7	SPD2	SLIN#	8
9	SPD3	GND	10
11	SPD4	GND	12
13	SPD5	GND	14
15	SPD6	GND	16
17	SPD7	GND	18
19	ACK#	GND	20
21	BUSY	GND	22
23	PE	GND	24
25	SLCT		26



GPIO:

Pin	Signal Name	Signal Name	Pin
1	SIO_GP77	SIO_GP76	2
3	SIO_GP80	SIO_GP75	4
5	SIO_GP81	SIO_GP74	6
7	SIO_GP82	SIO_GP73	8
9	SIO_GP83	JGPIO_PWR	10
11	SIO_GP84	JGPIO_PWR	12
13	SIO_GP85	GND	14
15	SIO_GP86	GND	16
17	SIO_GP87	GND	18
19	GPP_SD01		20
21	SIO_G72	GND	22
23	GPP_SD00	GND	24
25	NA	NC	26

• To use the printer port function, please short pin4 and pin5 on Digital Input/Output Power Select (JGPIO_PWR1).

Parameter	Range
GPIO input Low voltage	Max: 0.8 V
GPIO input High voltage	Min: 2.4 V
GPIO output Low voltage	Max: 0.4 V
GPIO output High voltage	Min: 2.5 V

Note:
LPT_GPIO1 Pin 10, Pin12 - JGPIO_PWR,
Current Max. 1A

33 : Digital Input/Output Default Value
Setting (JGPIO_SET1)
1-2 : Pull-High (Default)
2-3 : Pull-Low

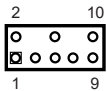


34 : Digital Input/Output Power Select
(JGPIO_PWR1) (JGPIO_PWR1)
1-2 : +12V
2-3 : +5V (Default)
3-4 : +5V
4-5 : GND



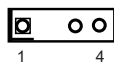
35 : Front Panel Audio Header (HD_AUDIO1)

Pin	Signal Name	Signal Name	Pin
1	MIC2_L	GND	2
3	MIC2_R		4
5	OUT2_R	MIC_RET	6
7	J_SENSE		8
9	OUT2_L	OUT_RET	10



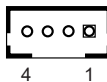
36 : SPDIF Header (SPDIF1)

Pin	Signal Name
1	+5V
2	
3	SPDIF_OUT
4	GND



37 : 3W Audio Output Wafer (SPEAKER1)

Pin	Signal Name
1	OUTLN
2	OUTLP
3	OUTRP
4	OUTRN



38 : Buzzer Header (BUZZ2)

Pin	Signal Name
1	+5V
2	BUZZ_LOW



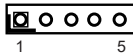
39 : JTAG1

Pin	Signal Name
1	GND
2	TDO
3	TDI
4	TCLK
5	TMS



40 : Clear CMOS Header
(CLRMOS1_CLRMOS2)

Pin	Signal Name
1-2	Open : Normal (Default) Short : Auto Clear CMOS (Power Off)
3-4	Normal (Default)
4-5	Clear CMOS



41 : DACC1

Open: no ACC
Short: ACC (Default)

• Auto clear CMOS when system boot improperly.



42 : PWR_BAT1

Open : Normal (Default)
Short : Charge Battery

• Only supported by chargeable battery.



46 : Thunderbolt Type-C Port (TC_TB_2)

47 : Audio Jacks

Top : Blue: Line-in
Middle : Green: Line-out
Bottom : Pink: Mic-in

48 : Top : RJ45 LAN Port (LAN5)

* For IMB-X1317-10G only.

Middle : USB 3.2 Gen2 Port (USB3_10)

Bottom : USB 3.2 Gen2 Port (USB3_9)

49 : Top : RJ45 LAN Port (LAN4)

Middle : USB 3.2 Gen2 Port (USB3_7)

Bottom : Thunderbolt Type-C Port
(TC_TB_1)

50 : Socket LGA1851 RL-ILM

*35LB thermal solution load required.

51 : Top : RJ45 LAN Port (LAN3)

Middle : USB 3.2 Gen2 Port (USB3_2)

Bottom : USB 3.2 Gen2 Port (USB3_1)

52 : Top : USB 3.2 Gen2 Port (USB3_4)

Middle : USB 3.2 Gen2 Port (USB3_3)

Bottom : HDMI Port (HDMI1)

53 : RJ45 LAN Ports

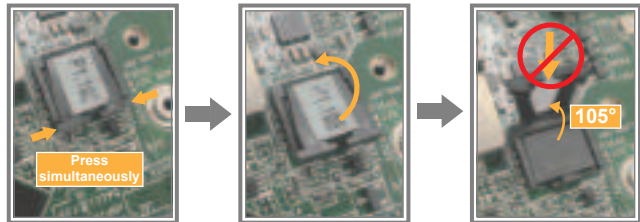
* For IMB-X1317 & IMB-X1317-10G only.

Top : LAN1

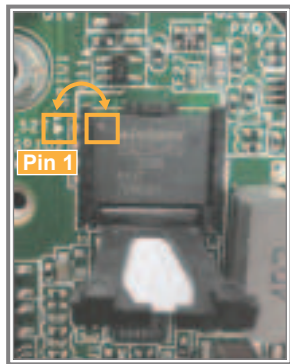
Bottom : LAN2

54 : Top : COM Port (COM1) (RS232/422/485)*
Bottom : DisplayPort (DP1)

Installation of LOTES ROM Socket



• Do not press one side of the actuator cover at a time. Always apply even and simultaneous force to both sides to avoid damage.
• Do not apply force to the actuator cover after the IC is inserted, especially when it is fully opened at 105 degrees. Pressing vertically at this angle may cause the cover to break.



• The white dot (Pin 1) on the ROM must align with the Pin 1 position of the socket (white arrow area).
• Ensure the white dot on the ROM is facing outward from the socket.
Warning: Incorrect installation may damage the chipset and motherboard. Refer to the picture for proper orientation.