

ASRock®

— Industrial —

IMB-1015J

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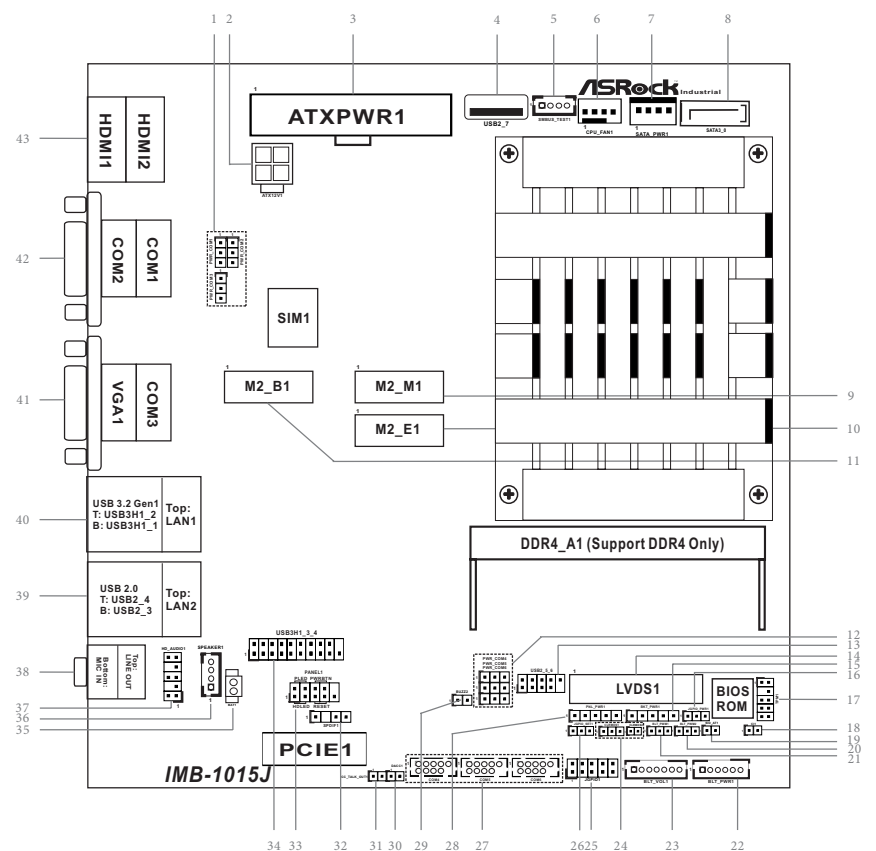


Revision History

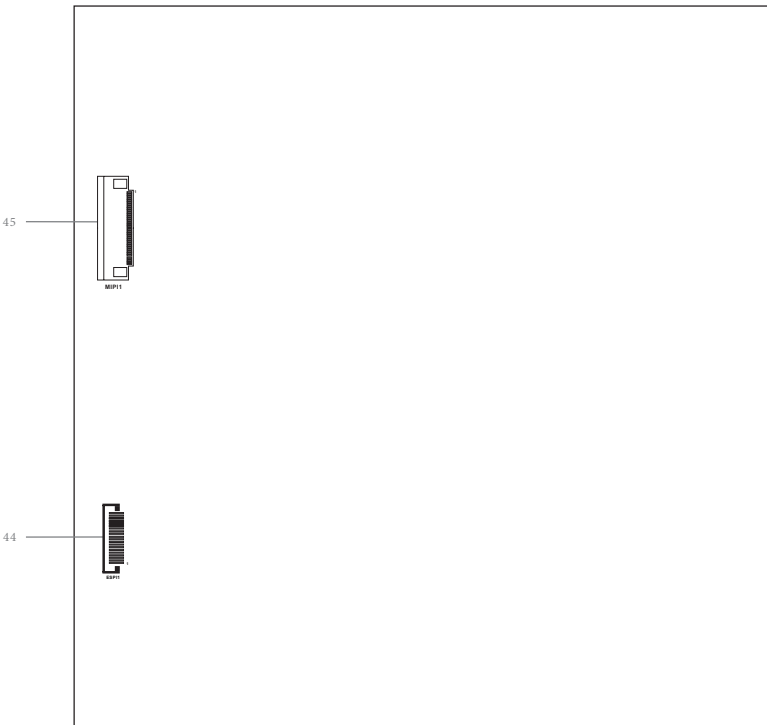
Date	Description
June 12, 2026	First Release
September 22, 2026	Second Release

Jumpers and Headers Setting Guide

Top:

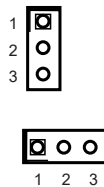


Bottom:



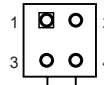
COM Port PWR Setting Jumpers

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



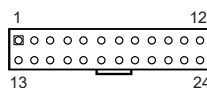
2 : 4-pin Power Connector (ATX12V1)

- 1-2: GND
3-4: DC Input



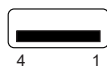
3 : 24-pin ATX Power Input Connector (ATXPWR1)

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



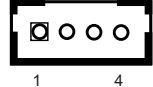
4 : USB 2.0 Port (USB2_7)

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



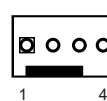
5 : SMBUS_TEST1

Pin	Signal Name
1	GPIO
2	SMB_CLK-
3	SMB_DATA
4	GND



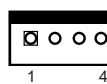
6 : CPU FAN Connector (+12V) (CPU_FAN1)

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



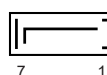
7 : SATA Power Output Connector

Pin	Signal Name
1	+5V
2	GND
3	GND
4	+12V



8 : SATA3 Connector (SATA3_0)

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



9 : M.2 Key-M

Socket (M2_M1)

Pin	Signal Name	Signal Name	Pin
1	GND	+3.3V	2
3	GND	+3.3V	4
5	NA	NA	6
7	NA	NA	8
9	GND	SATA_LED	10
11	NA	+3.3V	12
13	NA	+3.3V	14
15	GND	+3.3V	16
17	NA	+3.3V	18
19	NA	NA	20
21	GND	NA	22
23	NA	NA	24
25	NA	NA	26
27	GND	NA	28
29	NA	NA	30
31	NA	NA	32
33	GND	NA	34
35	NA	NA	36
37	NA	NA	38
39	GND	NA	40
41	PERn0/SATA-B+	NA	42
43	PERn0/SATA-B-	NA	44
45	GND	NA	46
47	PETn0/SATA-A-	NA	48
49	PETn0/SATA-A+	PERST#	50
51	GND	CLKREQ#	52
53	PEFCLKn	NA	54
55	PEFCLKp	NA	56
57	GND	NA	58
67	NA	NA	68
69	PEDET	+3.3V	70
71	GND	+3.3V	72
73	GND	+3.3V	74
75	GND		

10 : M.2 Key-E

Socket (M2_E1)

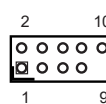
Pin	Signal Name	Signal Name	Pin
1	GND	+3.3V	2
3	USB_D+	+3.3V	4
5	USB_D-	NA	6
7	GND	NA	8
9	CNV_WGR_D1+	CNV_RF_RESET	10
11	CNV_WGR_D1+	NA	12
13	GND	MODEM_CLKREQ	14
15	CNV_WGR_D0-	NA	16
17	CNV_WGR_D0+	GND	18
19	GND	NA	20
21	CNV_WGR_CLK-	CNV_BRI_RSP	22
23	CNV_WGR_CLK+		
33	GND	CNV_BGI_DT	32
35	PETp	CNV_RGI_RSP	34
37	PETn	CNV_BRI_DT	36
39	GND	NA	38
41	PERp	NA	40
43	PERn	NA	42
45	GND	NA	44
47	PEFCLKp	NA	46
49	PEFCLKn	NA	48
51	GND	SUSCLK	50
53	CLKREQ#	PERST0#	52
55	NA	W_DISABLE1#	54
57	GND	W_DISABLE2#	56
59	CNV_WT_D1-	SMB_DATA	58
61	CNV_WT_D1+	SMB_CLK	60
63	GND	NA	62
65	CNV_WT_D0-	NA	64
67	CNV_WT_D0+	NA	66
69	GND	NA	68
71	CNV_WT_CLK-	NA	70
73	CNV_WT_CLK+	+3.3V	72
75	GND	+3.3V	74

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

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_DISABLE1#	8
9	USB_D-	WWAN_LED#	10
11	GND		
21	GND	NA	20
23	NA	NA	22
25	NA	NA	24
27	GND	W_DISABLE2#	26
29	USB3_RX-	NA	28
31	USB3_RX+	UIM_RESET	30
33	GND	UIM_CLK	32
35	USB3_TX-	UIM_DATA	34
37	USB3_TX+	UIM_PWR	36
39	GND	NA	38
41	PERn0	NA	40
43	PERP0	NA	42
45	GND	NA	44
47	PETn0	NA	46
49	PETP0	NA	48
51	GND	PERST#	50
53	PEFCLKn	CLKREQ#	52
55	PEFCLKp	NA	54
57	GND	NA	56
59	NA	NA	58
61	NA	NA	60
63	NA	NA	62
65	NA	NA	64
67	NA	NA	66
69	PEDET	NA	68
71	GND	+3.3V	70
73	GND	+3.3V	72
75	NA	+3.3V	74

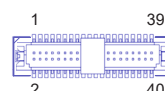
13 : USB 2.0 Connector (USB2_5_6)

Pin	Signal Name	Signal Name	Pin
1	USB_PWR	USB_PWR	2
3	P-	P-	4
5	P+	P+	6
7	GND	GND	8
9		DUMMY	10



14 : LVDS Panel Connector (LVDS1)

Pin	Signal Name	Signal Name	Pin
1	LCD_VCC	LCD_VCC	2
3	+3.3V	NA	4
5	NA	LVDS_A_DATA0#	6
7	LVDS_A_DATA0	GND	8
9	LVDS_A_DATA1#	LVDS_A_DATA1	10
11	GND	LVDS_A_DATA2#	12
13	LVDS_A_DATA2	GND	14
15	LVDS_A_DATA3#	LVDS_A_DATA3	16
17	GND	LVDS_A_CLK#	18
19	LVDS_A_CLK	GND	20
21	LVDS_B_DATA0#	LVDS_B_DATA0	22
23	GND	LVDS_B_DATA1#	24
25	LVDS_B_DATA1	GND	26
27	LVDS_B_DATA2#	LVDS_B_DATA2	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_EN	36
37	CON_LBKLT_CTL	LCD_BLT_VCC	38
39	LCD_BLT_VCC	LCD_BLT_VCC	40



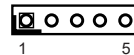
* eDP pin definition (switch by BIOS):

Pin	Signal Name	Signal Name	Pin
1	LCD_VCC	LCD_VCC	2
3	NA	NA	4
5	NA	NA	6
7	NA	GND	8
9	EDP_TX1#	EDP_TX1	10
11	GND	EDP_TX0#	12
13	EDP_TX0	GND	14
15	NA	NA	16
17	GND	EDP_AUXN	18
19	EDP_AUXP	GND	20
21	NA	NA	22
23	GND	NA	24
25	NA	GND	26
27	NA	NA	28
29	DPLVDD_EN	NA	30
31	NA	GND	32
33	NA	NA	34
35	GND	CON_LBKLT_EN	36
37	CON_LBKLT_CTL	LCD_BLT_VCC	38
39	LCD_BLT_VCC	LCD_BLT_VCC	40

15 : eDP and LVDS Backlight Power Select

(LCD_BLT_VCC) (BKT_PWR1)

- 1-2: LCD_BLT_VCC: +5V
2-3: LCD_BLT_VCC: +12V
4-5: LCD_BLT_VCC: DC Input



16 : Digital Input / Output Power Select

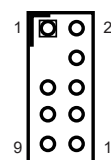
(JGPIO_PWR) (JGPIO_PWR1)

- 1-2: +12V
2-3: +5V



17 : TPM Header (TPM1)

Pin	Signal Name	Signal Name	Pin
1	TPM_PWR	RST#	2
3		CS#	4
5	IRA	MOSI	6
7	MISO	GND	8
9	CLK	GND	10



18 : Chassis Intrusion Header (CI1)

- Open: Normal
Short: Active Case Open



19 : SIO_AT1

- Open: ATX Mode
Short: AT Mode



20 : CON_LBKLT_CTL Voltage Level

(BLT_PWM2)

- 1-2: +3V
2-3: +5V



21 : Brightness Control Mode (BLT_PWM1)

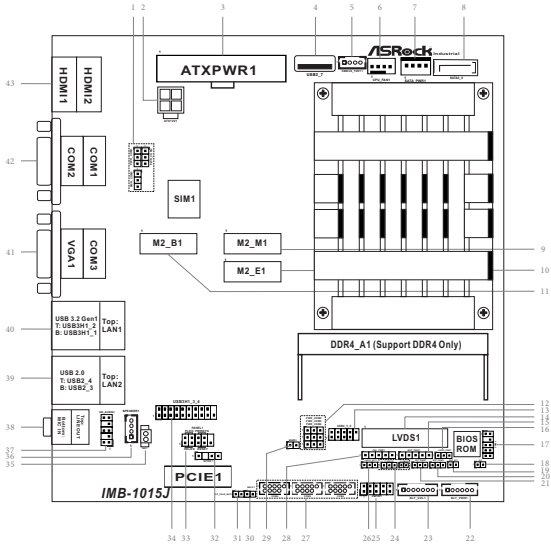
- 1-2: From eDP PWM to CON_LBKLT_CTL
2-3: From LVDS PWM to CON_LBKLT_CTL

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

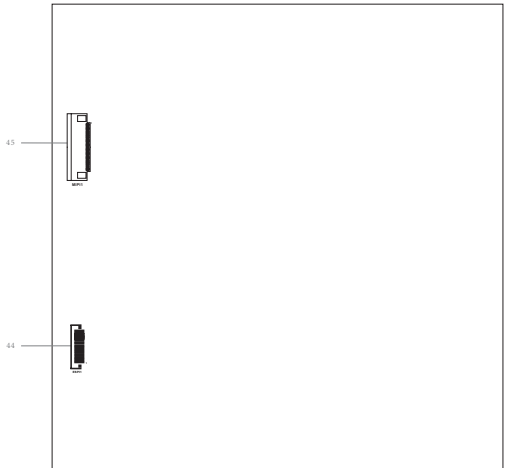
* Please set to 2-3 when adjusting brightness by BLT_VOL1.



Top:



Bottom:



22 : Backlight Power Connector (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



23 : 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



24 : Clear CMOS Jumpers

CLRMOS1:
1-2: Normal
2-3: Clear CMOS



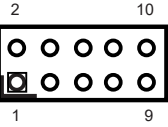
CLRMOS2:

Open: Normal
Short: Auto Clear CMOS When AC Power On



25 : Digital Input/Output Pin Header (JGPIO1)

Pin	Signal Name	Signal Name	Pin
1	SIO_GP34	GPP_B15	2
3	SIO_GP35	GPP_E1	4
5	SIO_GP36	GPP_E2	6
7	SIO_GP37	GPP_E13	8
9	JGPIO_PWR	GND	10



Parameter	Range
GPIO input Low voltage	Max: 0.8V
GPIO input High voltage	Min: 2.5V
GPIO output Low voltage	Max: 0.4V
GPIO output High voltage	Min: 2.85V
Note: Max. load per GPIO pin: 3mA Current Max. 1A per power pin	

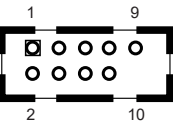
26 : Digital Input / Output Default Value Setting (JGPIO_SET1)

1-2: Pull-High
2-3: Pull-Low



27 : Internal COM Port Headers (COM4, 5, 6) (RS232)

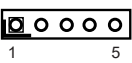
Pin	Signal Name	Signal Name	Pin
1	DDCD#	RRXD	2
3	TTXD	DDTR#	4
5	GND	DDSR#	6
7	RRTS#	CCTS#	8
9	PWR	NA	10



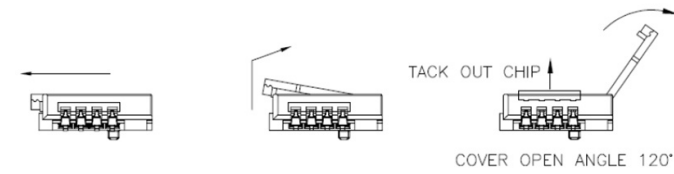
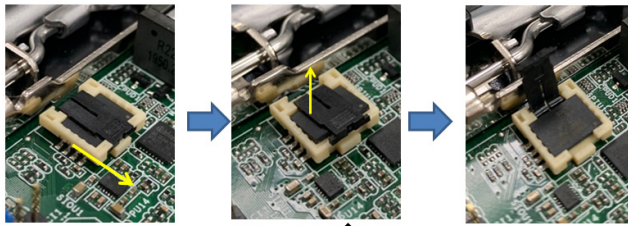
* COM5 (RS-232 or TTL (optional))
* COM6 (RS-232 or ccTalk (optional))

28 : eDP and LVDS Panel Power Select (LCD_VCC) (PNL_PWR1)

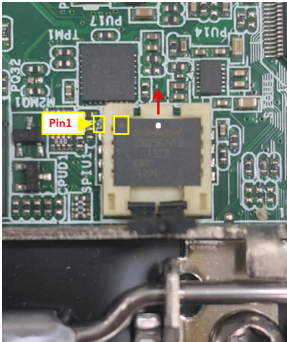
1-2: LCD_VCC: +3V
2-3: LCD_VCC: +5V
4-5: LCD_VCC: +12V



Installation of ACES ROM Socket

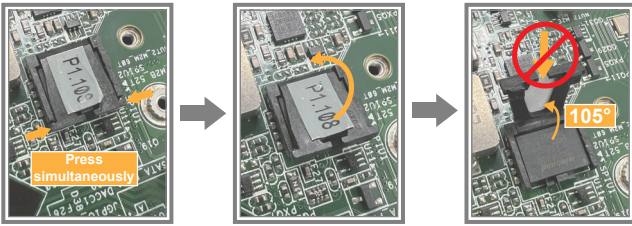


- Do not apply force to the actuator cover after the IC is inserted.
- Do not apply force to actuator cover when it is opening over 120 degrees. Otherwise, the actuator cover may break.



- 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.**

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.**

29 : Buzzer Header (BUZZ2)

Pin	Signal Name
1	BUZZ+
2	BUZZ-



30 : DACC1

Open: Normal
Short: Auto Clear CMOS



* Note: Auto clear CMOS when system boot improperly.

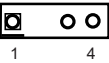
31 : CC_TALK_OUT1 (shared with COM6 (optional))

Pin	Signal Name
1	TX/RX
2	GND



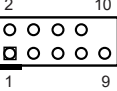
32 : SPDIF Header (SPDIF1)

Pin	Signal Name
1	+5V
2	
3	SPDIF OUT
4	GND



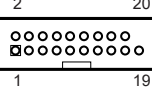
33 : System Panel Header (PANEL1)

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



34 : USB3.2 Gen1 Connector (USB3H1_3_4)

Pin	Signal Name	Signal Name	Pin
1	DUMMY	IntA_P_D+	2
3	IntA_P_D+	IntA_P_D-	4
5	IntA_P_D-	GND	6
7	GND	IntA_P_SSTX+	8
9	IntA_P_SSTX+	IntA_P_SSTX-	10
11	IntA_P_SSTX-	GND	12
13	GND	IntA_P_SSRX+	14
15	IntA_P_SSRX+	IntA_P_SSRX-	16
17	IntA_P_SSRX-	Vbus	18
19	Vbus		



35 : Battery Connector (BAT1)

Pin	Signal Name
1	+BAT
2	GND



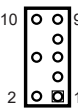
36 : 3W Audio AMP Output Wafer (SPEAKER1)

Pin	Signal Name
1	OUTLN
2	OUTLP
3	OUTRP
4	OUTRN



37 : 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



38 : Audio Jacks

Green - Line Out
Pink - Mic In

39 : Top : RJ45 LAN Port (LAN2)

Bottom : USB 2.0 Ports (USB2_3_4)

40 : Top : RJ45 LAN Port (LAN1)

Bottom : USB 3.2 Gen1 Ports (USB3H1_1_2)

41 : Top : COM Port (COM3) (RS232/422/485)*

Bottom : D-Sub Port (VGA1)

42 : Top : COM Port (COM1) (RS232/422/485)*

Bottom : COM Port (COM2) (RS232/422/485)*

* This motherboard supports RS232/422/485 on COM1, 2, 3 ports. Please refer to the table below for the pin definition. In addition, COM1, 2, 3 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, 3 Ports Pin Definition

Pin	RS232	RS422	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
10	NA	NA	NA

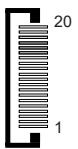
43 : Top : HDMI Port (HDMI2)

Bottom : HDMI Port (HDMI1)

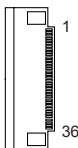
Back Side:

44 : ESPI Header (ESPI1)

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



45 : MIPI1



Pin	Signal Name
1	GND
2	CSI_B_DN2
3	CSI_B_DP2
4	GND
5	CSI_B_DN1
6	CSI_B_DP1
7	GND
8	CSI_B_CLK_N
9	CSI_B_CLK_P
10	GND
11	CSI_B_DN0
12	CSI_B_DP0
13	CSI_B_DN3
14	CSI_B_DP3
15	GND
16	GND
17	+2.8V
18	GND
19	+2.8V
20	+1.8V
21	+1.2V
22	GND
23	IMBCLKOUT0
24	GND
25	I2C1_SCL
26	I2C1_SDA
27	NA
28	BUF_PLT_RST_1.8_R_N
29	NA
30	GND
31	NA
32	+1.2V
33	GND
34	GPP_S1
35	GPP_S2
36	GPP_S3