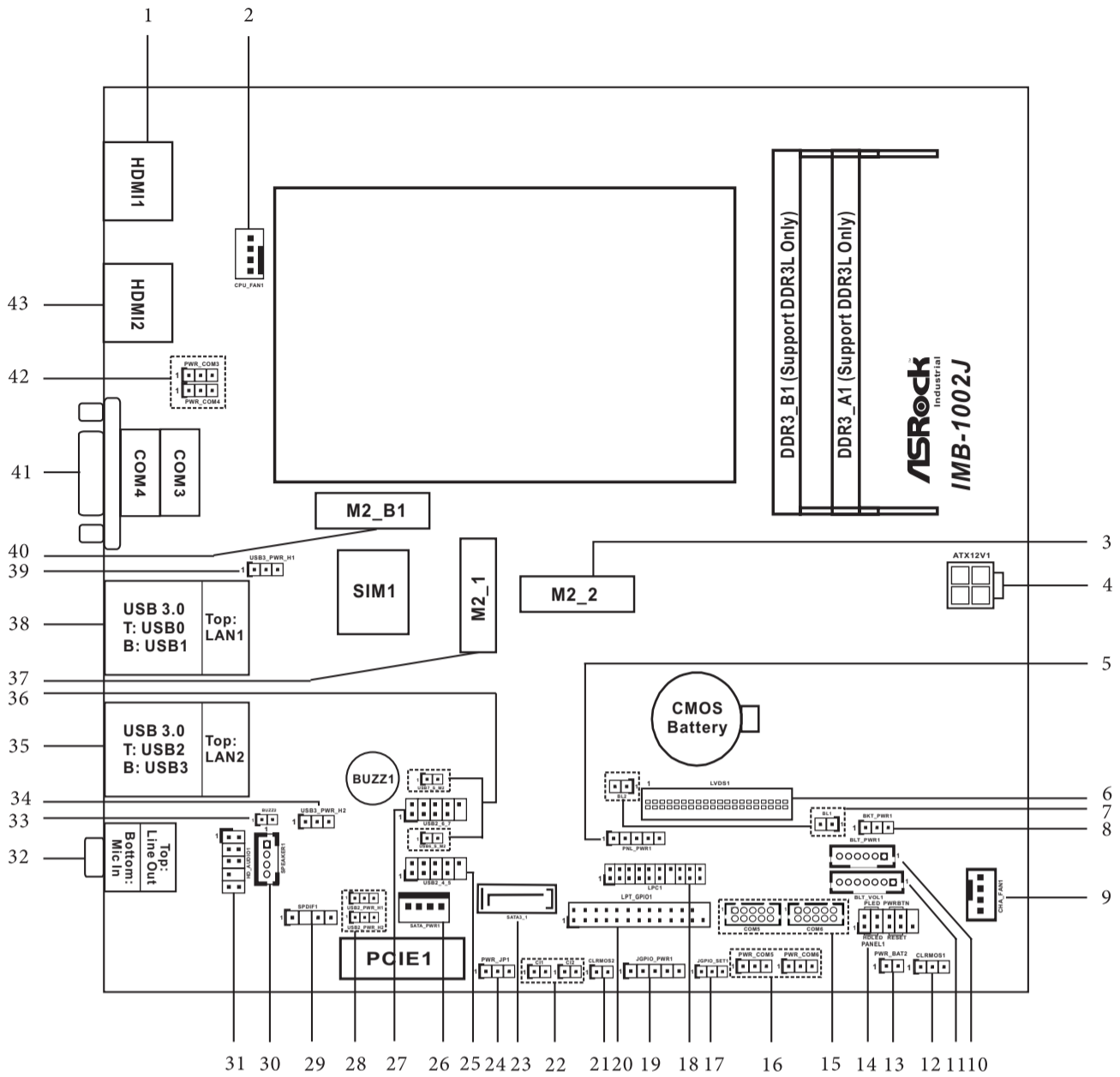


# ASRock® Jumpers and Headers Setting Guide

## IMB-1002J

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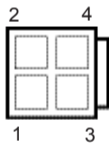


1 : HDMI Port (HDMI1)

2 : 4-Pin CPU FAN Connector (+12V)



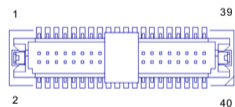
4 : 4-pin ATX PWR Con (Input +12V)  
1-2: GND  
3-4: DC Input



5 : Panel Power Select (LCD\_VCC) (PNL\_PWR1)  
1-2: LVDD: +3V  
2-3: LVDD: +5V  
4-5: LVDD: +12V



6 : LVDS Panel Connector

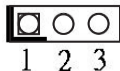


PIN	Signal Name	PIN	Signal Name
1	LCD_VCC	1	LCD_VCC
2	LCD_VCC	2	LCD_VCC
3	LDDC_DATA	3	LDDC_DATA
4	LDDC_CLK	4	LDDC_CLK
5	LDDC_DATA	5	LDDC_DATA
6	LDDC_CLK	6	LDDC_CLK
7	LVDS_A_DATA0	7	LVDS_A_DATA0
8	LVDS_A_DATA1	8	LVDS_A_DATA1
9	LVDS_A_DATA2	9	LVDS_A_DATA2
10	LVDS_A_DATA3	10	LVDS_A_DATA3
11	LVDS_A_DATA4	11	LVDS_A_DATA4
12	LVDS_A_DATA5	12	LVDS_A_DATA5
13	LVDS_A_DATA6	13	LVDS_A_DATA6
14	LVDS_A_DATA7	14	LVDS_A_DATA7
15	LVDS_A_DATA8	15	LVDS_A_DATA8
16	LVDS_A_DATA9	16	LVDS_A_DATA9
17	LVDS_A_DATA10	17	LVDS_A_DATA10
18	LVDS_A_DATA11	18	LVDS_A_DATA11
19	LVDS_A_DATA12	19	LVDS_A_DATA12
20	LVDS_A_DATA13	20	LVDS_A_DATA13
21	LVDS_B_DATA0	21	LVDS_B_DATA0
22	LVDS_B_DATA1	22	LVDS_B_DATA1
23	LVDS_B_DATA2	23	LVDS_B_DATA2
24	LVDS_B_DATA3	24	LVDS_B_DATA3
25	LVDS_B_DATA4	25	LVDS_B_DATA4
26	LVDS_B_DATA5	26	LVDS_B_DATA5
27	LVDS_B_DATA6	27	LVDS_B_DATA6
28	LVDS_B_DATA7	28	LVDS_B_DATA7
29	LVDS_B_DATA8	29	LVDS_B_DATA8
30	LVDS_B_DATA9	30	LVDS_B_DATA9
31	LVDS_B_DATA10	31	LVDS_B_DATA10
32	LVDS_B_DATA11	32	LVDS_B_DATA11
33	LVDS_B_DATA12	33	LVDS_B_DATA12
34	LVDS_B_DATA13	34	LVDS_B_DATA13
35	CON_LBKT_EN	35	CON_LBKT_EN
36	CON_LBKT_EN	36	CON_LBKT_EN
37	CON_LBKT_CTL	37	CON_LBKT_CTL
38	CON_LBKT_CTL	38	CON_LBKT_CTL
39	CON_LBKT_VCC	39	CON_LBKT_VCC
40	CON_LBKT_VCC	40	CON_LBKT_VCC

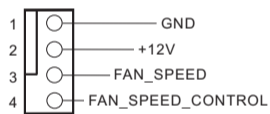
7 : BL1 :  
Open: Protect LCD\_BLT\_VCC  
Short: No Protect LCD\_BLT\_VCC  
BL2 :  
Open: Protect LCD\_VCC  
Short: No Protect LCD\_VCC



8 : Backlight Power Select (LCD\_BLT\_VCC) (BKT\_PWR1)  
1-2: LCD\_BLT\_VCC: +5V  
2-3: LCD\_BLT\_VCC: +12V



9 : 4-Pin Chassis FAN Connector (+12V)



10 : Backlight Power Connector (BLT\_PWR1)

PIN	Signal Name
1	GND
2	GND
3	BL_CTL
4	BL_EN
5	LCD_BLT_VCC
6	LCD_BLT_VCC



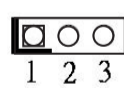
11 : Backlight Volume Control (BLT\_VOL1)

PIN	Signal Name
1	GPIO_VOL_UP
2	GPIO_VOL_DW
3	PWRDN
4	LVDS1_BLUP
5	LVDS1_BLDW
6	GND
7	GND



Clear CMOS Headers

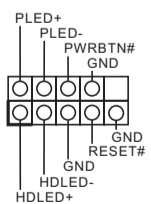
12 : CLRMOS1 :  
1-2: Normal  
2-3: Clear CMOS



21 : CLRMOS2 :  
Open: Normal  
Short: Auto Clear CMOS (Power Off)

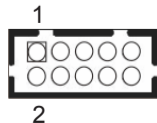


13 : PWR\_BAT2  
Open: Normal  
Short: Charge Battery



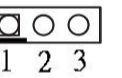
14 : System Panel Header

15 : COM5, 6 Headers (RS232)

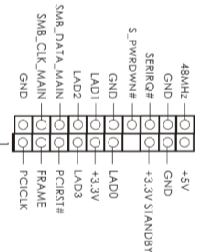
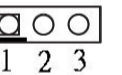


PIN	Signal Name	PIN	Signal Name	PIN	Signal Name	PIN	Signal Name	PIN	Signal Name
1	DDCD#	3	TTXD	5	GND	7	RRTS#	9	PWR
2	RRXD	4	DDTR#	6	DDSR#	8	CCTS#	10	N/A

16 : COM Port PWR Setting Jumpers  
PWR\_COM5 (For COM Port5)  
PWR\_COM6 (For COM Port6)  
1-2: +5V  
2-3: +12V



17 : Digital Input / Output Default Value Setting (JGPIO\_SET1)  
1-2: Pull-High  
2-3: Pull-Low



18 : LPC Header

19 : Digital Input / Output Power Select (JGPIO\_PWR1)  
1-2: +12V  
2-3: +5V  
3-4: +5V  
4-5: GND



20 : Printer Port / GPIO Header (LPT\_GPIO1)

Printer Port:

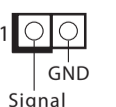
PIN	Signal Name
1	STB#
2	ERROR#
3	SPD1
4	SPD2
5	SPD3
6	SPD4
7	SPD5
8	SPD6
9	SPD7
10	SPD8
11	ACK#
12	BUSY
13	PE
14	SLECT

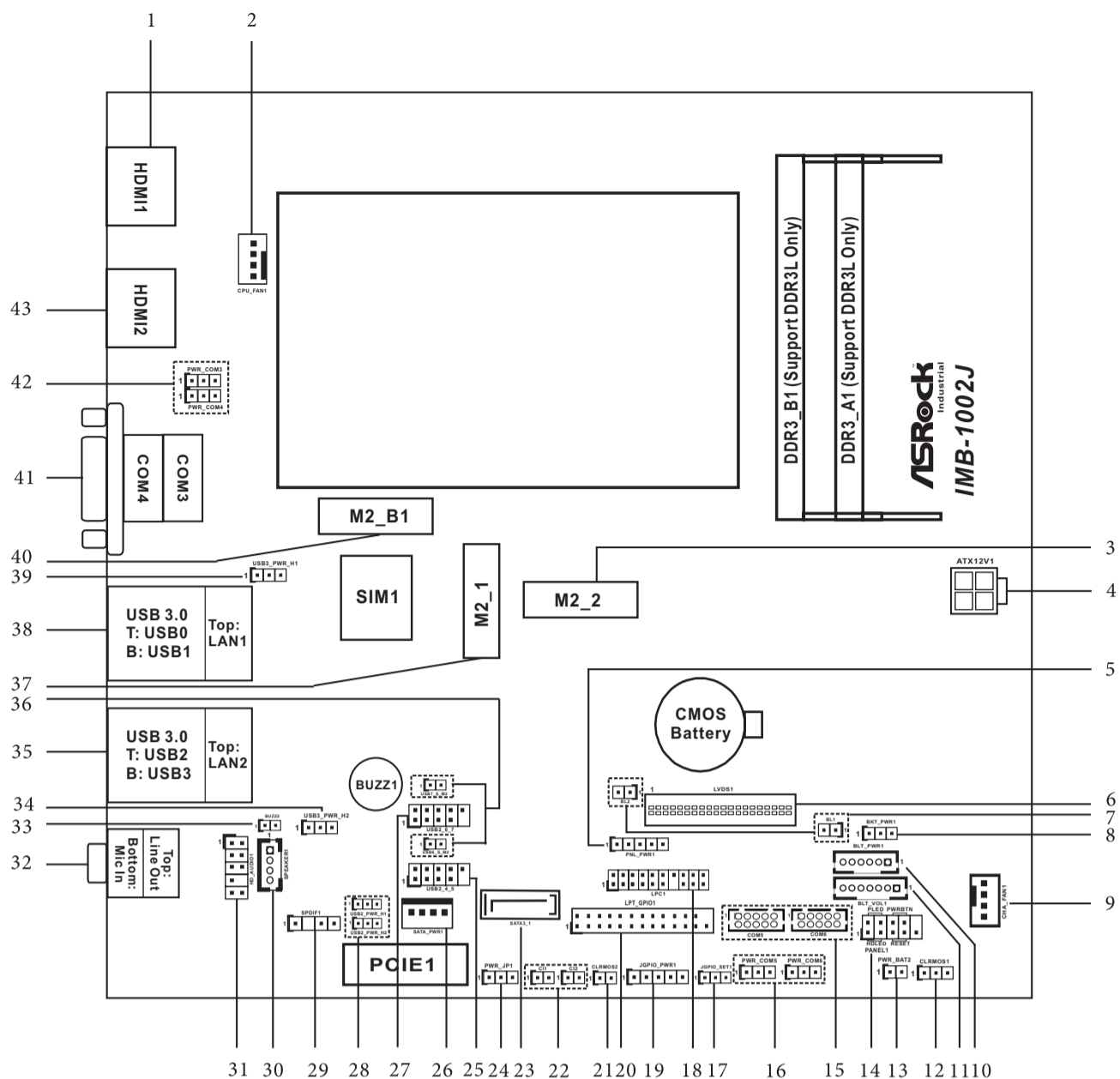
GPIO:

PIN	Signal Name	PIN	Signal Name
1	SIO_GP47	25	NA
2	SIO_GP46	26	NC
3	SIO_GP45	27	GND
4	SIO_GP44	28	GND
5	SIO_GP43	29	GND
6	SIO_GP42	30	GND
7	SIO_GP41	31	GND
8	SIO_GP40	32	GND
9	SIO_GP39	33	GND
10	SIO_GP38	34	GND
11	SIO_GP37	35	GND
12	SIO_GP36	36	GND
13	SIO_GP35	37	GND
14	SIO_GP34	38	GND
15	SIO_GP33	39	GND
16	SIO_GP32	40	GND
17	SIO_GP31	41	GND
18	SIO_GP30	42	GND
19	SIO_GP29	43	GND
20	SIO_GP28	44	GND
21	SIO_GP27	45	GND
22	SIO_GP26	46	GND
23	SIO_GP25	47	GND
24	SIO_GP24	48	GND
25	SIO_GP23	49	GND
26	SIO_GP22	50	GND
27	SIO_GP21	51	GND
28	SIO_GP20	52	GND
29	SIO_GP19	53	GND
30	SIO_GP18	54	GND
31	SIO_GP17	55	GND
32	SIO_GP16	56	GND
33	SIO_GP15	57	GND
34	SIO_GP14	58	GND
35	SIO_GP13	59	GND
36	SIO_GP12	60	GND
37	SIO_GP11	61	GND
38	SIO_GP10	62	GND
39	SIO_GP9	63	GND
40	SIO_GP8	64	GND
41	SIO_GP7	65	GND
42	SIO_GP6	66	GND
43	SIO_GP5	67	GND
44	SIO_GP4	68	GND
45	SIO_GP3	69	GND
46	SIO_GP2	70	GND
47	SIO_GP1	71	GND

\* If you want to use the printer port function, please short pin4 and pin5 on Digital Input / Output Power Select (JGPIO\_PWR1).

22 : Chassis Intrusion Headers  
CI1:  
Close: Active Case Open  
Open: Normal  
CI2:  
Close: Normal  
Open: Active Case Open

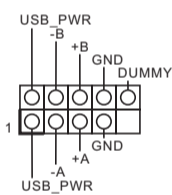




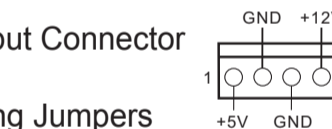
23 : SATA3 Connector (SATA3\_1)

24 : ATX/AT Mode Select (PWR\_JP1)   
 1-2: AT Mode  
 2-3: ATX Mode

USB2.0 Connectors  
 25 : USB2\_4\_5  
 27 : USB2\_6\_7



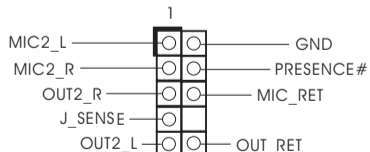
26 : SATA Power Output Connector   
 28 : USB Power Setting Jumpers (USB2\_PWR\_H1 (For USB2\_4\_5), USB2\_PWR\_H2 (For USB2\_6\_7))  
 1-2: +5V  
 2-3: +5VSB



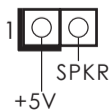
29 : SPDIF Header   
 30 : 3W Audio AMP Output Wafer

PIN	Signal Name
1	OUTLN
2	OUTLP
3	OUTRP
4	OUTRN

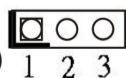
31 : Front Panel Audio Header



32 : Audio Output  
 Green – Line Out  
 Pink – Mic In



33 : Buzzer Header  
 34 : USB Power Setting Jumper (USB3\_PWR\_H2 (For USB3\_23))  
 1-2: +5V  
 2-3: +5VSB



35 : Top: RJ45 LAN Port (LAN2)  
 Bottom: USB3.0 Ports (USB3\_23)

36 : USBPort7\_S\_M2 Slot: Open: USB2.0 Connector Short: M2\_1 slot Function

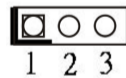


USBPort6\_S\_M2 Slot: Open: USB2.0 Connector Short: M2\_2 slot Function



38 : Top: RJ45 LAN Port (LAN1)  
 Bottom: USB3.0 Ports (USB3\_01)

39 : USB Power Setting Jumper (USB3\_PWR\_H1 (For USB3\_01))  
 1-2: +5V  
 2-3: +5VSB



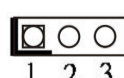
41 : Top: COM Port 3 (RS232/422/485)\*  
 Bottom: COM Port 4 (RS232)

\* This motherboard supports RS232/422/485 on COM3 port. Please refer to below table for the pin definition. In addition, COM port (RS232/422/485) can be adjusted in BIOS setup utility > Advanced Screen > Super IO Configuration. You may refer to our user manual for details.

**COM3 Port Pin Definition**

PIN	RS232	RS422	RS485
1	DCD	TX-	RTX-
2	RXD	RX+	N/A
3	TXD	TX+	RTX+
4	DTR	RX-	N/A
5	GND	GND	GND
6	DSR	N/A	N/A
7	RTS	N/A	N/A
8	CTS	N/A	N/A
9	COM1: +5V/+12V/+5VSB COM2, 3: +5V/+12V	COM1: +5V/+12V/+5VSB COM2, 3: +5V/+12V	COM1: +5V/+12V/+5VSB COM2, 3: +5V/+12V

42 : COM Port PWR Setting Jumpers  
 PWR\_COM3 (For COM Port3)  
 PWR\_COM4 (For COM Port4)  
 1-2: +5V  
 2-3: +12V



43 : HDMI Port (HDMI2)

**M.2 Socket Pin Definition**

3 : M.2 Key-E Socket (M2\_2)

Pin	Signal	Signal	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_BRU_RSP	22
23	CNV_WGR_CLK+	NA	24
33	GND	CNV_BGI_DT	32
35	PETp	CNV_RGI_RSP	34
37	PETn	CNV_BI_DT	36
39	GND	NA	38
41	PERp	NA	40
43	PERn	NA	42
45	GND	NA	44
47	PECLKp	NA	46
49	PECLKn	NA	48
51	GND	SUSCLK	50
53	CLKREQw	PERSTW	52
55	WAKE#	W_DISABLE#	54
57	GND	W_DISABLE#	56
59	CNV_WT_D1-	SMB_DATA	58
61	CNV_WT_D1+	SMB_CLK	60
63	GND	NA	62
65	CNV_WT_D0-	CLKIN_XTAL_LCP	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

37 : M.2 Key-M Socket (M2\_1)

Pin	Signal	Signal	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	DEVSLP	38
39	GND	SMB_CLK	40
41	SATA-B+	SMB_DATA	42
43	SATA-B-	NA	44
45	GND	NA	46
47	SATA-A-	NA	48
49	SATA-A+	PERST#	50
51	GND	CLKREQ#	52
53	PECLKn	WAKE#	54
55	PECLKp	NA	56
57	GND	NA	58
59	NA	NA	60
61	NA	NA	62
63	NA	NA	64
65	NA	NA	66
67	NA	NA	68
69	NA	NA	70
71	GND	+3.3V	72
73	GND	+3.3V	74
75	GND	+3.3V	74

40 : M.2 Key-M Socket (M2\_B1)

Pin	Signal	Signal	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-	WWAN_LED#	10
11	GND	NA	12
21	GND	NA	20
23	NA	NA	22
25	NA	NA	24
27	GND	NA	26
29	USB3_Rx-	UIM_RESET	28
31	USB3_Rx+	UIM_CLK	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	PERn1	NA	42
45	GND	NA	44
47	PETn0	NA	46
49	PETn1	NA	48
51	GND	PERST#	50
53	PECLKn	CLKREQ#	52
55	PECLKp	WAKE#	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	NA	NA	68
71	GND	+3.3V	70
73	GND	+3.3V	72
75	NA	+3.3V	74