Jumpers and Headers Setting Guide

ASRock Industrial

IMB-1251-WV

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HDMI®
HIGH-DEFINITION MULTIMEDIA INTERFACE

Revision History

Date	Description
August 11, 2025	First Release
October 2, 2025	Second Release
November 14, 2025	Third Release
January 28, 2026	Fourth Release
February 2, 2026	Fifth Release
March 6, 2026	Sixth Release

1 : 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+		
		CNV_BGI_DT	32
33	GND	CNV_RGI_RSP	34
35	PETp	CNV_BRI_DT	36
37	PETn	NA	38
39	GND	NA	40
41	PERp	NA	42
43	PERn	NA	44
45	GND	NA	46
47	PEFCLKp	NA	48
49	PEFCLKn	SUSCLK	50
51	GND	PERST0#	52
53	CLKREQ#	W_DISABLE1#	54
55	NA	W_DISABLE2#	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		

2 : 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_DISABLE	8
9	USB_D-	WWAN_LED#	10
11	GND		
		NA	20
21	GND	NA	22
23	NA	NA	24
25	NA	NA	26
27	GND	NA	28
29	USB3_RX-	UIM_RESET	30
31	USB3_RX+	UIM_CLK	32
33	GND	UIM_DATA	34
35	USB3_TX-	UIM_PWR	36
37	USB3_TX+	NA	38
39	GND	NA	40
41	NA	NA	42
43	NA	NA	44
45	GND	NA	46
47	NA	NA	48
49	NA	PERST#	50
51	GND	CLKREQ#	52
53	NA	NA	54
55	NA	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	PEDET	+3.3V	70
71	GND	+3.3V	72
73	GND	+3.3V	74
75	NA		

3 : 4-pin ATX PWR Connector (DC_4PIN1)

Pin	Signal Name
1	GND
2	GND
3	DC Input
4	DC Input

4 : 2-pin UPS Module Power Input Connector (TO_UPS1)

Pin	Signal Name
1	GND
2	DC Input

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

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

6 : SATA3 Connectors (SATA3_0, SATA3_1)

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

7 : PWR_BAT2

Open : Normal (Default)
Short : Charge Battery*

*Only supported by chargeable battery.

8 : SATA Power Output Connector (SATA0_PWR1)

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

9 : Battery Connector (BAT1)

Pin	Signal Name
1	BAT+
2	GND

10 : Digital Input/Output Pin Header (GPIO1)

Pin	Signal Name	Signal Name	Pin
1	GND	GND	2
3	MCU_SPI0_MOSI	GPP_D01	4
5	MCU_SPI0_MISO	GPP_E15	6
7	MCU_SPI0_CLK	GPP_D04	8
9	MCU_SPI0	GPP_D00	10
11	DIO_DETECT	GPP_E08	12
13	DIO_EN	GPP_E07	14
15	NA	GPP_E05	16
17	NA	GPP_B22	18
19	+3VA	+3V	20

• Supported by DSC-8DIO001-WT Card.

11 : USB6_M2OOB1

Pin	Signal Name
1	short USB2_5_6 pin 6
2	short USB2_5_6 pin 5

• Short Pin 1–2 to share USB2_5_6 signal (USB Port 6) with M2_OOB1
• USB2_5_6 disabled if M2_OOB1 USB2 is used.

12 : USB 2.0 Header (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

13 : 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

14 : Backlight Power Select (LCD_BLT_VCC) (BKT_PWR1)

1-2: LCD_BLT_VCC: +5V (Default)
2-3: LCD_BLT_VCC: +12V
4-5: LCD_BLT_VCC: DC_IN

15* : 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	PD (Panel Detection)	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

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

*eDP by pass mode (switch by BIOS)

Pin	Signal Name	Signal Name	Pin
1	LCD_VCC	LCD_VCC	2
3	+3V	NA	4
5	NA	NA	6
7	eDP_HPD	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_AUX-	18
19	eDP_AUX+	GND	20
21	NA	NA	22
23	GND	NA	24
25	NA	GND	26
27	NA	NA	28
29	LVDD_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

16 : JCTL1 (Default 1-2)

Pin	Signal Name
1	REMOTE_CTL_ATX
2	REMOTE_CTL
3	REMOTE_CTL_SP
1&2	ATX PWR
2&3	Special PWR

17 : Panel Power Select (LCD_VCC) (PNL_PWR1)

1-2: LCD_VCC : +3V (Default)
2-3: LCD_VCC : +5V
4-5: LCD_VCC : +12V

18 : 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

19 : 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.

20 : CON_LBKLT_CTL Voltage Level (BLT_PWM2)

1-2 : 3V Level (Default)
2-3 : 5V Level

21 : Power Adapter (PWR_ADAPTER1)

Pin	Signal Name
1	GND
2	5VA_CONTROL
3	5VA
4	GND

22 : Chassis FAN Connector (+12V) (CHA_FAN1)

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

23 : SMB1

Pin	Signal Name
1	GPP_F16
2	SMB_CLK_MAIIN
3	SMB_DATA_MAIN
4	GND

24 : System Panel Header (PANEL1)

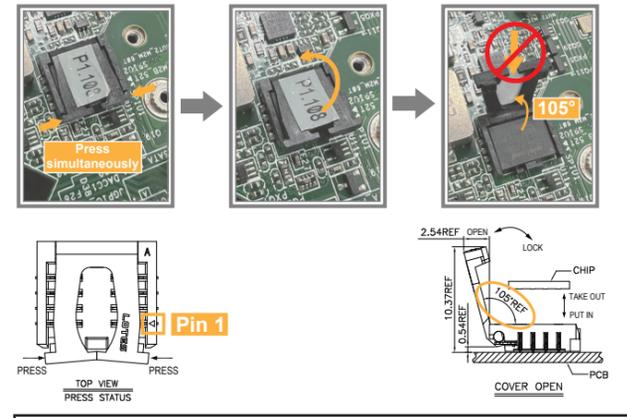| Pin	Signal Name	Signal Name	Pin
1	HDLED+	PLED+	2
3	HDLED-	PLED-	4
5	GND	PWRBTN#	6
7	RESET#	GND	8
9	+5VSB		10

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.

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25 : Buzzer Header (BUZZ2)

Pin	Signal Name
1	+5V#
2	BUZZ

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

27 : DACC1
Open: no ACC
Short: ACC (Default)
* Auto clear CMOS when system boot improperly.

28 : COM Port PWR Setting Jumpers
PWR_COM3 (For COM Port3)
PWR_COM4 (For COM Port4)
PWR_COM5 (For COM Port5)
Open : +0V
1-2: +5V (Default)
2-3: +12V

29 : COM Port Headers (COM3~5)
(RS232/422/485) *

* This motherboard supports RS232/422/485 on COM3, 4 and 5 ports. Please refer to the table below for the pin definition. In addition, COM3, 4 and 5 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.

COM3, 4 and 5 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

30 : BIOS_PH1 (Programming Header)
*For offline BIOS flashing with the EQUIP-USB3-SPI programmer only.

31 : TPM Header (TPM1)

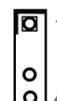| Pin	Signal Name	Signal Name	Pin
1	TPM PWR	RST#	2
3		CS#	4
5	IRA	MOSI	6
7	MISO	GND	8
9	CLK	GND	10
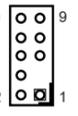
32 : M2_OOB1

33 : Clear CMOS Headers
CLRMOS1
1-2 : Normal (Default)
2-3 : Clear CMOS
CLRMOS2
Open : Normal (Default)
Short : Auto Clear CMOS
       When AC Power On

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34 : Chassis Intrusion Header (CI1)
Open : Normal (Default)
Short : Active Case Open

35 : 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	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	USB_D+	34
35	NA	USB_D-	36
37	NA	DEVSLP	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	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		

36 : SPDIF Header (SPDIF1)

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

37 : Mic In (MIC1)

38 : 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

39 : Line Out (LOUT1)

40 : USB 3.2 Gen1 Ports (USB3H_3_4)
Top: USB3H_4
Bottom: USB3H_3

41 : 3W Audio AMP Output Wafer (SPEAKER1)

Pin	Signal Name
1	OUTLN
2	OUTLP
3	OUTRP
4	OUTRN

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42 : RJ45 LAN Port (LAN2)

43 : RJ45 LAN Port (LAN1)

44 : Top: USB 3.2 Gen1 Port (USB3H_2)
Bottom: USB 3.2 Gen2x2/DP Type-C Port
(TC_U3D_1)

45 : Top: USB 3.2 Gen2 Port (USB3_1)
Bottom: USB 3.2 Gen2x2/DP Type-C Port
(TC_U3D_0)

46 : HDMI Ports (HDMI1_2)
Top: HDMI2
Bottom: HDMI1

47 : DC_JACK1

Back Side :

48 : M.2 Key-M Socket (M2_M2)

Pin	Signal Name	Signal Name	Pin
1	GND	+3.3V	2
3	GND	+3.3V	4
5	PERn3	NA	6
7	PERp3	NA	8
9	GND	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	PERn1	NA	30
31	PERp1	NA	32
33	GND	NA	34
35	PETn1	NA	36
37	PETp1	NA	38
39	GND	NA	40
41	PERn0	NA	42
43	PERp0	NA	44
45	GND	NA	46
47	PETn0	NA	48
49	PETP0	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		

49 : ESPI Header (ESPI1)

Pin	Signal Name
1	GND
2	ESPI_CLK
3	GND
4	ESPI_CS0#
5	ESPI_RESET#
6	GND
7	+3V
8	ESPI_CS1#
9	SMBus_CLK
10	SMBus_DATA
11	ESPI_IO0
12	ESPI_IO1
13	ESPI_IO2
14	ESPI_IO3
15	NA
16	+3VSB
17	Internal Use
18	NA
19	ESPI_ALERT0#
20	GND