



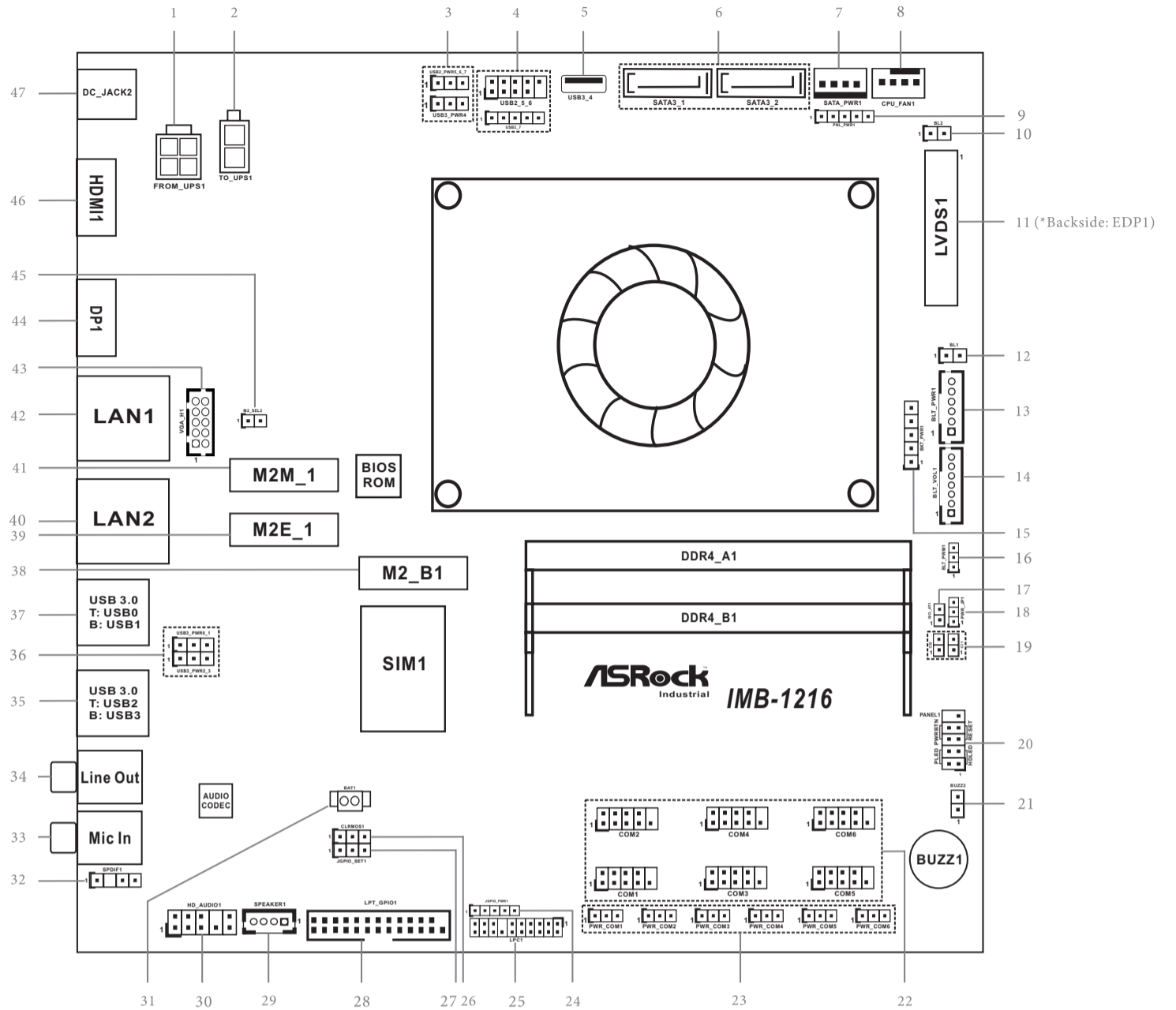
P/N: 15G06M083000AK V1.0

ASRock Industrial

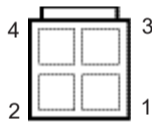
Jumpers and Headers Setting Guide

IMB-1216

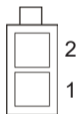
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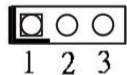
1 : 4-Pin ATX Power Connector (Input +12V~28V)
1-2 : GND
3-4 : DC Input



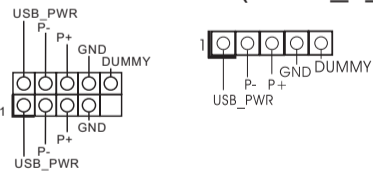
2 : 2-pin UPS Module Power Input Connector
Pin1 : GND
Pin2 : DC Input



3 : USB Power Setting Jumpers (USB2_PWR5_6_7 (For USB2_5_6 and USB2_7)) (USB3_PWR4 (For USB3_4))
1-2 : +5V
2-3 : +5VSB



4 : USB2.0 Headers (USB2_5_6, USB2_7)



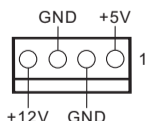
5 : Vertical Type A USB3.0 (USB3_4)



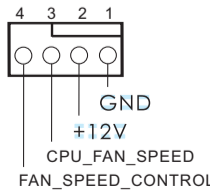
6 : SATA3 Connectors (SATA3_1, SATA3_2)



7 : SATA Power Output Connector



8 : 4-Pin CPU FAN Connector (+12V)



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

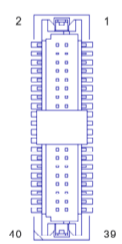


10 : BL2
Open : Protect LCD_VCC
Short : No Protect LCD_VCC



11 : LVDS Panel Connector

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



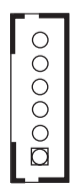
* eDP Connector (on the Backside of PCB)

PIN	Signal Name
40	NA
39	LCD_BLT_VCC
38	LCD_BLT_VCC
37	LCD_BLT_VCC
36	LCD_BLT_VCC
35	NA
34	NA
33	CON_LBKLT_CTL
32	CON_LBKLT_EN
31	GND
30	GND
29	GND
28	GND
27	eDP_HPD_CON
26	GND
25	GND
24	GND
23	GND
22	NA
21	LCD_VCC
20	LCD_VCC
19	LCD_VCC
18	LCD_VCC
17	GND
16	eDP_AUX#_CON
15	eDP_AUX_CON
14	GND
13	eDP_TX0_CON
12	eDP_TX#0_CON
11	GND
10	eDP_TX1_CON
9	eDP_TX#1_CON
8	GND
7	eDP_TX2_CON
6	eDP_TX#2_CON
5	GND
4	eDP_TX3_CON
3	eDP_TX#3_CON
2	GND
1	NA

12 : BL1
Open : Protect LCD_BLT_VCC
Short : No Protect LCD_BLT_VCC



13 : Backlight Power Connector (BLT_PWR1)



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

14 : Backlight Volume Control (BLT_VOL1)



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

15 : 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_IN



16 : Backlight Control Level (CON_LBKLT_CTL) (BLT_PWM1)
1-2 : eDP Control
2-3 : CH7511B Control



17 : SIO_AT1
Open : ATX Mode
Short : AT Mode

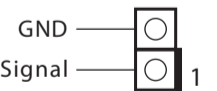


18 : ATX/AT Mode Select (PWR_JP1)
1-2 : AT Mode
2-3 : ATX Mode

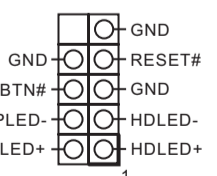


19 : Chassis Intrusion Headers

C11
Close : Active case open
Open : Normal
C12
Close : Normal
Open : Active case open



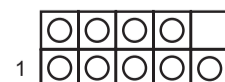
20 : System Panel Header



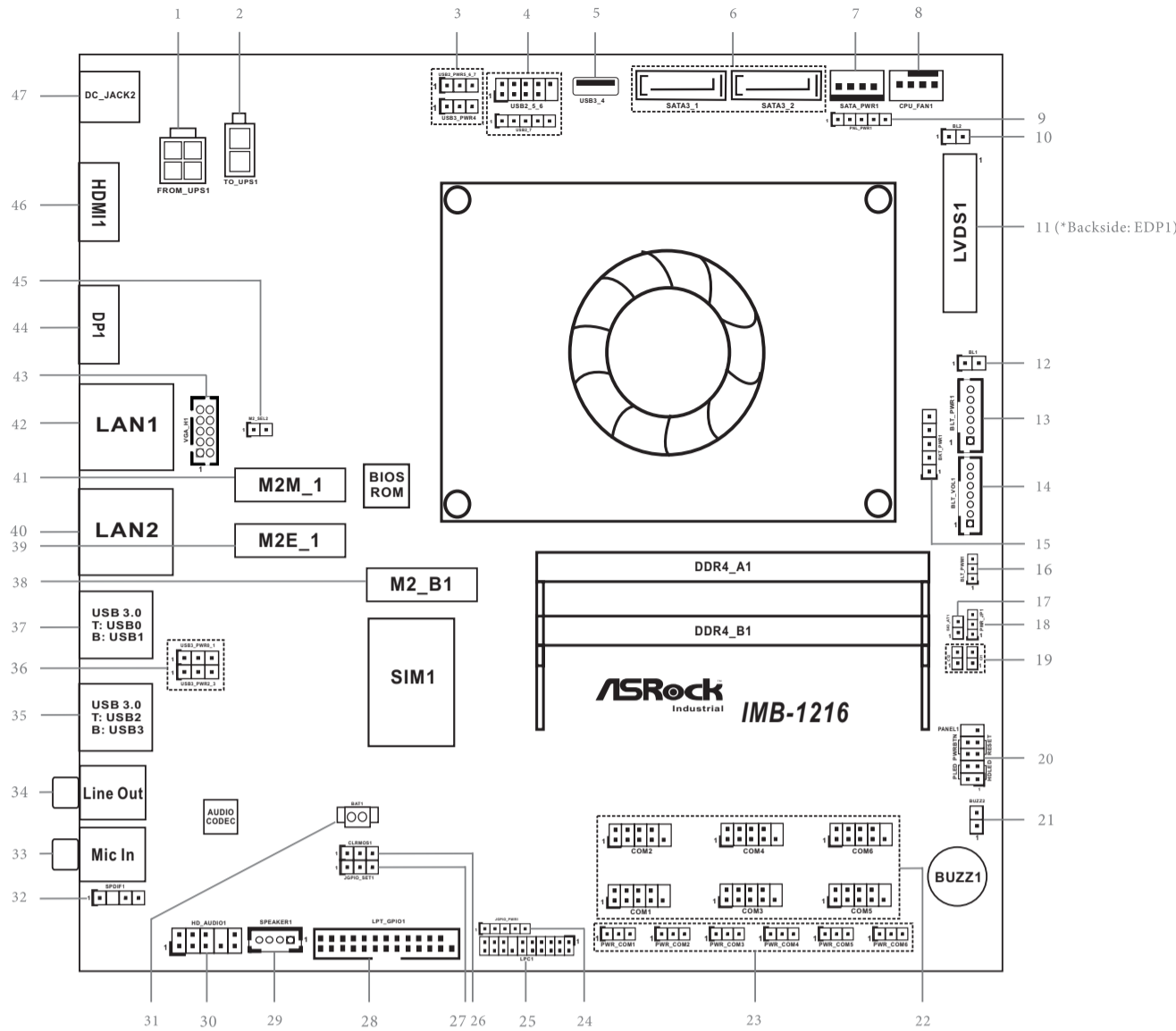
21 : Buzzer



22 : COM1, 2, 3, 4, 5, 6 Headers



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



M.2 Socket Pin Definition

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

Pin	Signal	Signal	Pin
1	NA	+3.3V	2
2	GND	+3.3V	4
3	GND	FULL_CKPT_POWER_0#	6
7	USB_D+	W_DISABLE	8
9	USB_D-	WWAN_LED#	10
11	GND		
21	GND	NA	20
23	NA	NA	22
25	NA	NA	24
27	GND	NA	26
29	USB3_EX-	NA	28
31	USB3_EX+	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	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

39 : M.2 Key-E Socket (M2E_1)

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_BF_RESET	10
11	CNV_WGR_D1+	NA	12
13	GND	MODEM_CLKREQ	14
15	CNV_WGR_DD-	NA	16
17	CNV_WGR_DD+	GND	18
19	GND	NA	20
21	CNV_WGR_CLK-	CNV_BRI_RSP	22
23	CNV_WGR_CLK+		
33	GND	CNV_RGI_DT	32
35	PETp	CNV_RSI_RSP	34
37	PETn	CNV_BRI_OT	36
39	GND	NA	38
41	PERp0	NA	40
43	PERn0	NA	42
45	GND	NA	44
47	PECLKp	NA	46
49	PECLKn	NA	48
51	GND	SURCLK	50
53	CLKREQ#	PERST0#	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

41 : M.2 Key-M Socket (M2M_1)

Pin	Signal	Signal	Pin
1	GND	+3.3V	2
3	GND	+3.3V	4
5	PERn3	NA	6
7	PERp3	NA	8
9	GND	SATA_LED	10
11	PETn0	+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	DEVSP	38
39	GND	SMB_CLK	40
41	PERn0/SATA-B+	SMB_DATA	42
43	PERp0/SATA-B-	NA	44
45	GND	NA	46
47	PETn0/SATA-A-	NA	48
49	PETp0/SATA-A+	PERST#	50
51	GND	CLKREQ#	52
53	PECLKn	WAKE#	54
55	PECLKp	NA	56
57	GND	NA	58
67	NA	NA	66
69	PDET	+3.3V	70
71	GND	+3.3V	72
73	GND	+3.3V	74
75	GND		

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

COM1, 2 Ports 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	PWR	PWR	PWR

23 : COM Port Pin9 PWR Setting Jumpers

- PWR_COM1 (For COM Port1)
- 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)

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

24 : Digital Input / Output Power Select (JGPIO_PWR) (JGPIO_PWR1)

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

25 : LPC Header



26 : Clear CMOS Header (CLRMOS1)

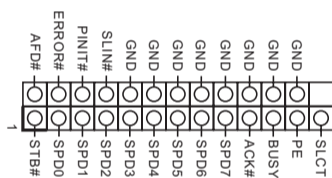
1-2 : Normal
2-3 : Clear CMOS

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

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

28 : Printer Port / GPIO Header (LPT_GPIO1)

Printer Port:

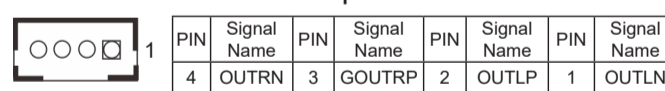


GPIO:

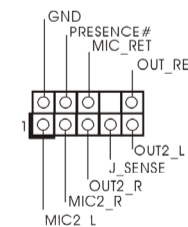
PIN	Signal Name	PIN	Signal Name
2	SIO_GPIO76	25	NA
4	SIO_GPIO75	26	NC
6	SIO_GPIO74	28	GND
8	SIO_GPIO73	30	GND
10	JGPIO_PWR	32	SIO_GPIO71
12	JGPIO_PWR	34	SIO_GPIO70
14	GND	36	GND
16	GND	38	SIO_GPIO72
18	GND	40	SIO_GPIO72
20	GND	42	SIO_GPIO71
22	GND	44	SIO_GPIO71
24	GND	46	SIO_GPIO71
26	NC	48	SIO_GPIO70
28	GND	50	NA
30	GND	52	NA
32	SIO_GPIO72	54	NA
34	SIO_GPIO71	56	NA
36	GND	58	NA
38	SIO_GPIO72	60	NA
40	SIO_GPIO72	62	NA
42	SIO_GPIO71	64	NA
44	SIO_GPIO71	66	NA
46	SIO_GPIO71	68	NA
48	SIO_GPIO70	70	NA
50	NA	72	NA
52	NA	74	NA
54	NA		
56	NA		
58	NA		
60	NA		
62	NA		
64	NA		
66	NA		
68	NA		
70	NA		
72	NA		
74	NA		

* If you want to use the printer port function, please short pin4 and pin5 on Digital Input / Output Power Select (JGPIO_PWR1).

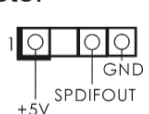
29 : 3W Audio AMP Output Wafer



30 : Front Panel Audio Header



31 : Battery Connector



32 : SPDIF Header

Audio Jacks

33 : Pink - Mic In 34 : Green - Line Out

35 : USB3.0 Ports (USB3_2_3)

36 : USB Power Setting Jumpers (USB3_PWR0_1 (For USB3_0_1) (USB3_PWR2_3 (For USB3_2_3))

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

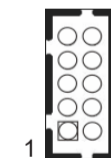
37 : USB3.0 Ports (USB3_0_1)

40 : RJ45 LAN Port (LAN2)

42 : RJ45 LAN Port (LAN1)

43 : VGA Connector (Optional)

PIN	Signal Name	PIN	Signal Name
9	DDC_CLK	10	DDC_DATA
7	HSYNC	8	VSYNC
5	BLUE	6	GND
3	GREEN	4	GND
1	RED	2	GND



* VGA Connector is shared with DisplayPort. If you enable one, the other one will not function.

44 : DisplayPort (Optional)

45 : M.2 Select (For Key-M)

Open : M.2 PCIe
Short : M.2 SATA

46 : HDMI Port

47 : DC Jack