



P/N: 15G06M106000AK V1.0

ASRock Industrial

Jumpers and Headers Setting Guide

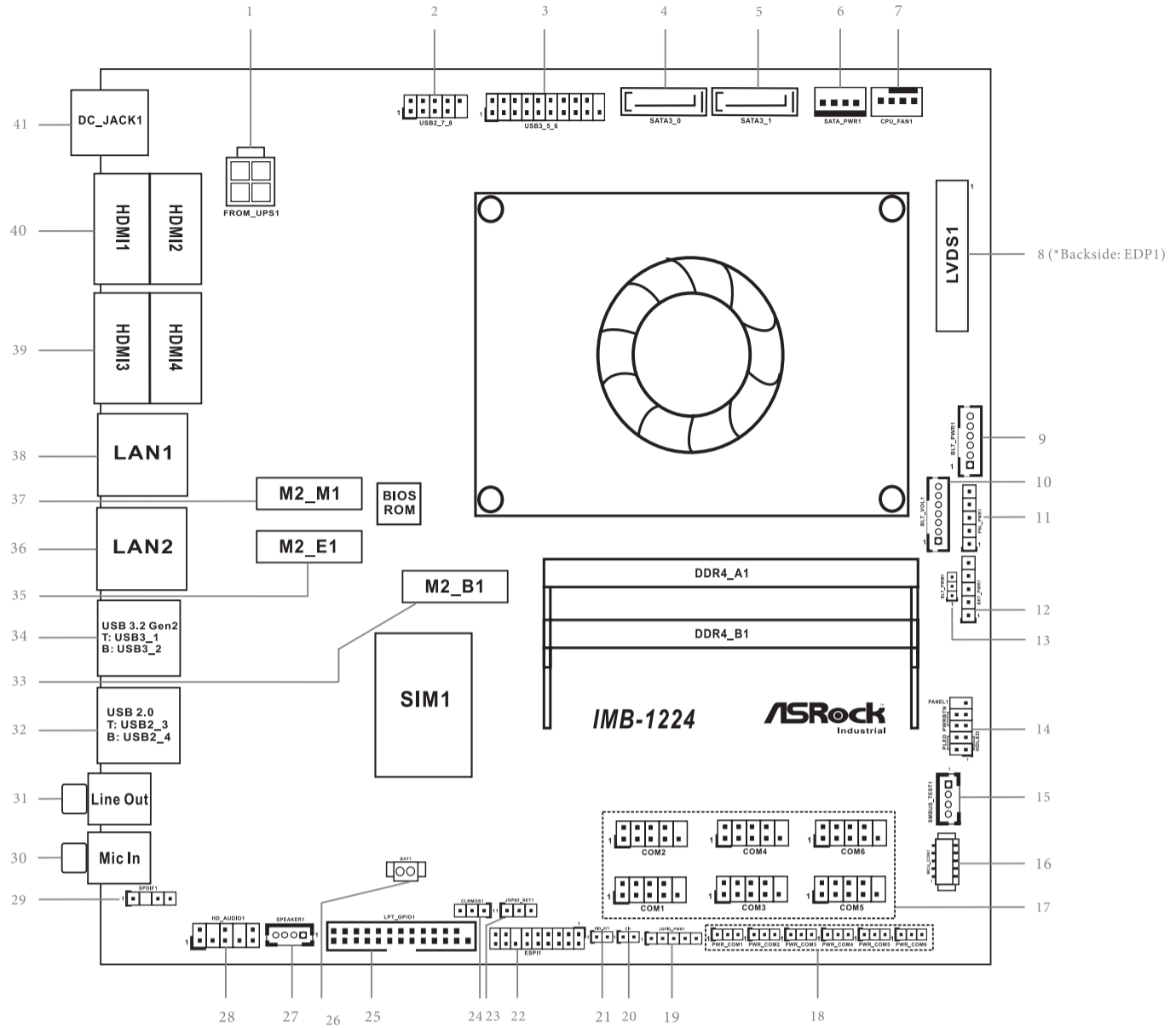
IMB-1224P IMB-1224M IMB-1224V IMB-1224E

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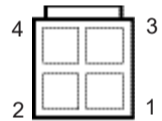


Revision History

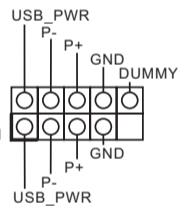
Date	Description
January 25, 2021	First Release



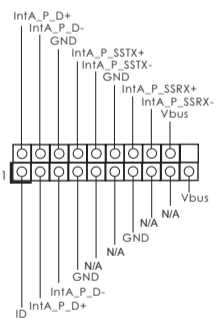
1 : 4-Pin ATX Power Connector
(Input +12V~28V)
1-2 : GND
3-4 : DC Input



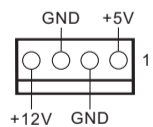
2 : USB2.0 Header



3 : USB3.2 Gen1 Header

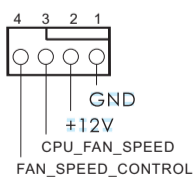


4 : SATA3 Connector (SATA3_0)
(Shared with M2_M1)
5 : SATA3 Connector (SATA3_1)
(Shared with M2_B1)

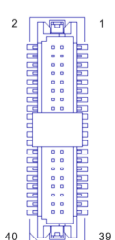


6 : SATA Power Output Connector

7 : 4-Pin CPU FAN Connector (+12V)



8 : LVDS Panel Connector



PIN	Signal Name	PIN	Signal Name
2	LCD_VCC	1	LCD_VCC
4	LDCC_CLK	3	+3.3V
6	LVDS_A_DATA0#	5	LDCC_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)



9 : 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



10 : 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

11 : Panel Power Select (LCD_VCC)
(PNL_PWR1)

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



PIN	Signal Name
40	NA
39	+12V
38	+12V
37	+12V
36	+12V
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	+3V
20	+3V
19	+3V
18	+3V
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

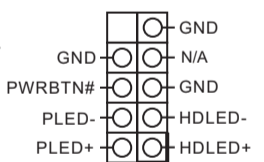
12 : Backlight Power Select
(LCD_BLT_VCC) (BKT_PWR1)
1-2 : LCD_BLT_VCC : +5V
2-3 : LCD_BLT_VCC : +12V
4-5 : LCD_BLT_VCC : DC_IN



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



14 : System Panel Header



15 : SMBUS_TEST1

PIN	Signal Name
1	+3V
2	SMB_CLK
3	SMB_DATA
4	GND



16 : MCU Connector

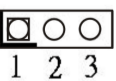
17 : COM Port Headers (COM1~6)

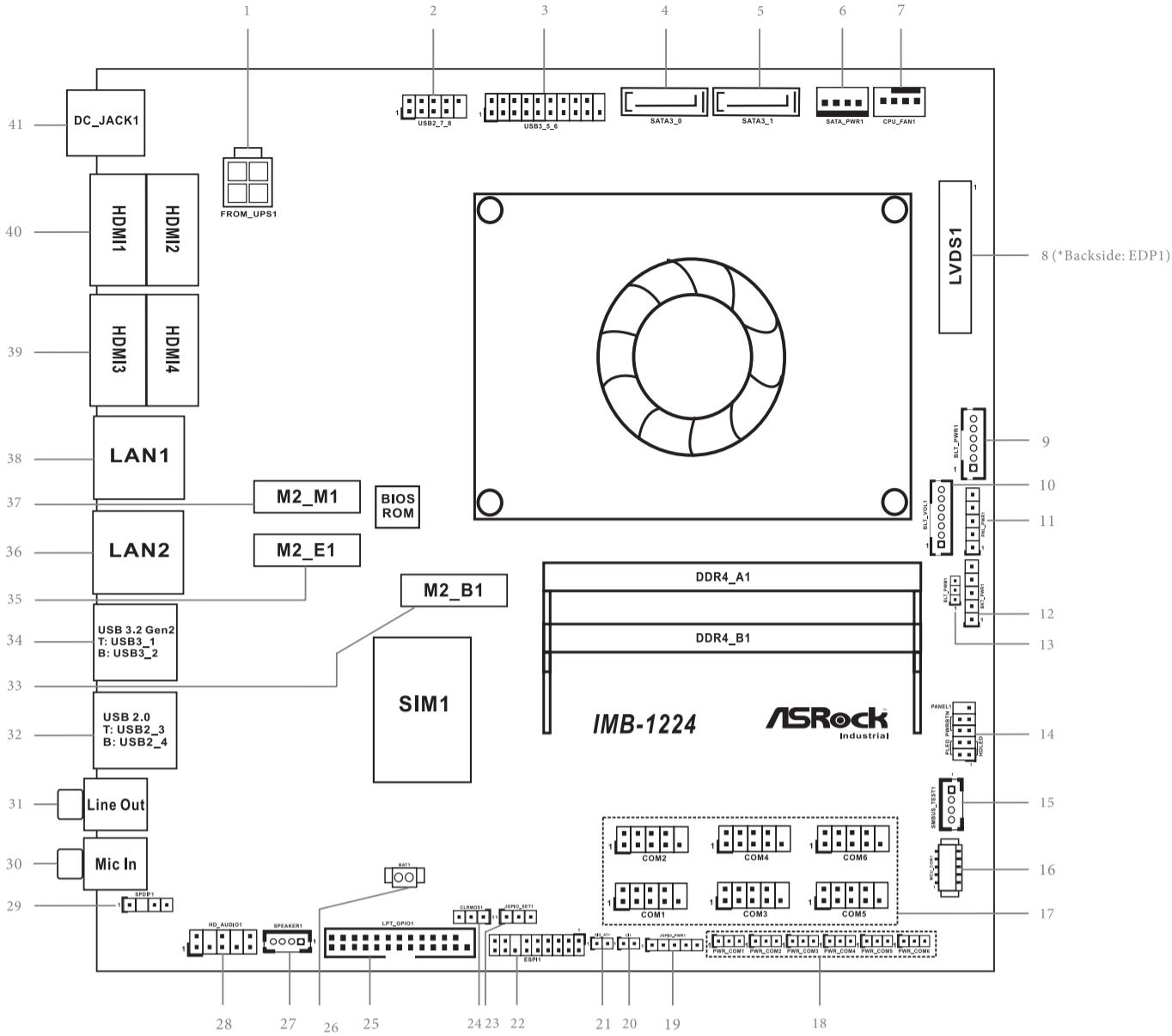
* This motherboard supports RS232/422/485 on COM3, 4 ports. Please refer to below table for the pin definition. In addition, COM3, 4 ports (RS232/422/485) can be adjusted in BIOS setup utility > Advanced Screen > Super IO Configuration. You may refer to our user manual for details.

COM3, 4 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	PWR	PWR	PWR

18 : 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





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



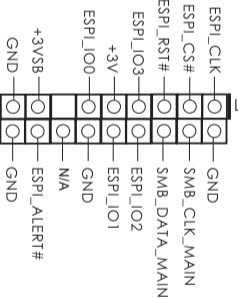
20 : Chassis Intrusion Header (CI1)
 Open : Normal
 Short : Active case open



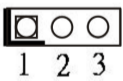
21 : SIO_AT1
 Open : ATX Mode
 Short : AT Mode



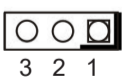
22 : ESPI Header



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



24 : Clear CMOS Header (CLRMOS1)
 1-2 : Short Auto Clear CMOS (Power Off)
 2-3 : Short Clear CMOS
 Open : Normal



25 : Printer Port / GPIO Header (LPT_GPIO1)

Printer Port:



GPIO:

PIN	Signal Name	PIN	Signal Name
2	SIO_GP46	1	SIO_GP47
4	SIO_GP44	3	SIO_GP42
6	SIO_GP43	5	SIO_GP41
8	JGPIOWR	9	SIO_GP40
10	JGPIOWR	11	SIO_GP37
12	JGPIOWR	13	SIO_GP36
14	GND	15	SIO_GP35
16	GND	17	SIO_GP34
18	GND	19	SIO_GP33/GPP_E16
20	GND	21	SIO_GP32/GPP_E15
22	GND	23	SIO_GP31/GPP_E5
24	GND	25	SIO_GP30/GPP_E4
26	NC	25	NA

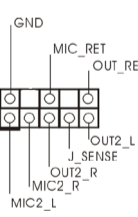
* If you want to use the printer port function, please short pin4 and pin5 on Digital Input / Output Power Select (JGPIO_PWR1).

26 : Battery Connector

27 : 3W Audio AMP Output Wafer

PIN	Signal Name	PIN	Signal Name	PIN	Signal Name	PIN	Signal Name
4	OUTRN	3	GOUTRP	2	OUTLP	1	OUTLN

28 : Front Panel Audio Header



29 : SPDIF Header

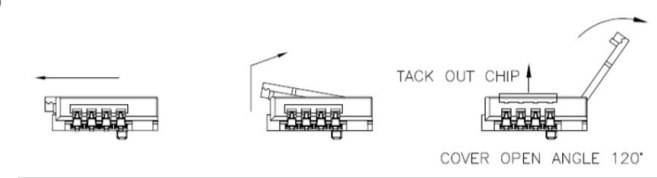
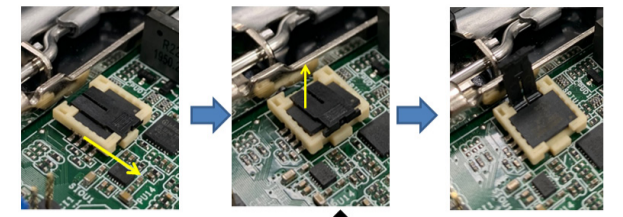


Audio Jacks

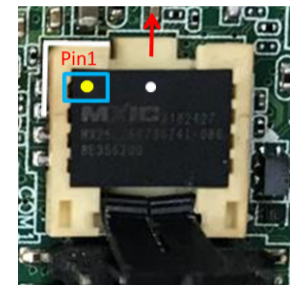
30 : Pink - Mic In
 31 : Green - Line Out

32 : USB2.0 Ports (USB2_3_4)
 34 : USB3.2 Gen2 Ports (USB3_1_2)
 36 : RJ45 LAN Port (LAN2)
 38 : RJ45 LAN Port (LAN1)
 39 : Top : HDMI Port (HDMI4)
 Bottom : HDMI Port (HDMI3)
 40 : Top : HDMI Port (HDMI2)
 Bottom : HDMI Port (HDMI1)
 41 : DC Jack (DC_JACK1)

Installation of ROM Socket



* Do not apply force to the actuator cover after ic inserted.
 * Do not apply force to actuator cover when it is opening over 120 degree, Otherwise, the actuator cover may be broken.



* The yellow dot (Pin1) on the ROM must be installed at pin1 position of the socket.
 * Make sure the white dot on the ROM is installed outwards of the socket.
 * For further details of how to install ROM, please refer to ASRI website.
Warning: If the installation does not follow as the picture, then it may cause severe damage to chipset & MB.

M.2 Socket Pin Definition

33 : M.2 Key-B 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		
21	GND	NA	20
23	NA	NA	22
25	NA	NA	24
27	GND	NA	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	PERn/SATA-B+	SMB_CLK	40
43	PERp/SATA-B-	SMB_DATA	42
45	GND	NA	44
47	PETn/SATA-A-	NA	46
49	PETp/SATA-A+	NA	48
51	GND	PERST#	50
53	PEFCLKn	CLKREQ#	52
55	PEFCLKp	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	PEDET	NA	68
71	GND	+3.3V	70
73	GND	+3.3V	72
75	NA	+3.3V	74

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

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_RST_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+	NA	24
33	GND	CNV_BRI_DT	32
35	PETn	CNV_BRI_RSP	34
37	PETn	CNV_BRI_DT	36
39	GND	NA	38
41	PERn	NA	40
43	PERn	NA	42
45	GND	NA	44
47	PEFCLKp	NA	46
49	PEFCLKn	NA	48
51	GND	SUSCLK	50
53	CLKREQ#	PERST#	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-	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

37 : M.2 Key-M Socket (M2_M1)

Pin	Signal	Signal	Pin
1	GND	+3.3V	2
3	GND	+3.3V	4
5	PERn3	NA	6
7	PERn3	NA	8
9	GND	SATA_LED	10
11	PETn3	+3.3V	12
13	PETn3	+3.3V	14
15	GND	+3.3V	16
17	PERn2	+3.3V	18
19	PERn2	NA	20
21	GND	NA	22
23	PETn2	NA	24
25	PETn2	NA	26
27	GND	NA	28
29	PERn1	NA	30
31	PERn1	NA	32
33	GND	NA	34
35	PETn1	NA	36
37	PETn1	NA	38
39	GND	NA	40
41	PERn0/SATA-B+	NA	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	PEFCLKn	WAKE#	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		