IPCTECH Motherboard User's Manual

QY-MB-Q670-MATX

Ver 0.0

1.Models and Attentions

1.1 Models

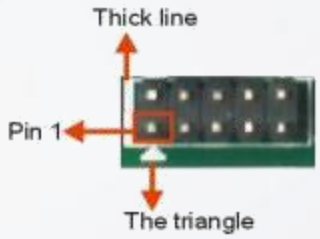
This manual is applied to following models:

Model	Chip set	COM	LAN	USB	PCIE	PCI	HDMI	VGA	DP	eDP	M.2 Key-E	M.2 Key-M	SATA 3.0
QY-MB-Q670-MATX	Q670	6	3	16	1*16X 2*4X	1	1	1	1	1	PCIE	PCIE 4× /SATA	4

1.2 Attentions

1. Notes under a table or figure indicate the difference of models, or alternative definition of specific pin of the header (jumper/connector).
2. How to identify the first pin of a header or jumper

Usually, there is a thick line or a triangle near the header’s or jumper’s pin 1.



Square pad, which you can find on the back of the motherboard, is usually used for pin 1.

2.Specification

Model	QY-MB-Q670-MATX
CPU	Support Intel® 12/13th Generation Core / Pentium/ Celeron Desktop CPU, LGA1700 Support MAX CPU TDP: 8+8 Core 125W
Chipset	Intel Q670,TDP 6W
Dispaly	1 * DP (TYPE-A): max resolution up to 4096 x 2160@30Hz 1 * DVI-D (24P/F): Support DVI-D, max resolution up to 1920x1200@60Hz 1 * VGA (DB15/F): max resolution up to 1920x1200@60Hz 1 * eDP (Header): max resolution up to 4096x2304@60Hz
Memory	Support DDR4-3200MHZ,4*NonECC U-DIMM Slot,up to 128GB
Storage	4 * SATA3.0 7PConnector 1 * M.2 Key-M Slot (PCIE 4x/SATA, Support PCIe 4x Gen4 NVMe/SATA SSD, Auto Detect, 2242/2280)
Ethernet	2 * Intel® GbE LAN Chip (10/100/1000 Mbps) 1 * Intel® 2.5G LAN Chip (10/100/1000/2500Mbps)
Audio	Realtek Audio HDA Codec, 1 * Front Audio Header (Line-Out + MIC) 1 * SPDIF Out Header 1 * Line-out + Line-in + MIC 3.5mm Jack
Expansion Slots	1 * PCIE 16x Slot 1 * PCI Slot 1 * PCI CLK 66MHz/33MHz Select Jumper 2 * PCIE 4x (PCIE 4x Signal) 1 * M.2 Key-E Slot (PCIE +USB2.0, Support WiFi+ Bluetooth, 2230) [4]
COM	4 * RS232 (COM1/2/5/6, BOX Header) 1 * RS232/RS485/RS422 (COM3, BOX Header) [5] 1 * RS232/RS485 (COM4, BOX Header) [5]
USB	8 * USB3.0 (TYPE-A, Rear IO) 2 * USB2.0 (TYPE-A, Rear IO) 2 * USB3.0 (Header, Internal) 1 * USB2.0 (Vertical TYPE-A, Internal) 3 * USB2.0 (Header, Internal)

Other Ports	1 * 8-bit GPIO Header 1 * Front Panel Header 1 * CPU FAN Wafer 2 * System FAN Wafer 1 * Case Open Header 1 * DNX Force Reload Disable/Enable Select Jumper 1 * Watch Dog Reset Enable/Disable Select Jumper 1 * SMBUS Wafer 1 * Power On Wafer 1 * Power Monitor Wafer 1 * AT or ATX Select Jumper 1 * Power LED Wafer
TPM	SLB 9670VQ2.0, TPM2.0 (Not onboard by default), Support Intel PTT Default
System	Windows 10 IoT Enterprise 2021 LTSC, Windows 10 (21H2), Windows 11 (21H2) or later, Linux Kernel 5.17 or later
Temperature	Storage: -20~75℃ Operating: 0~60℃
BIOS	AMI UEFI BIOS (Support Watchdog Timer)
Power Supply	ATX Standard (24P + 8P + 4P) 1 * ATX 4P CPU Power Input Connector 1 * ATX 8P CPU Power Input Connector 1 * ATX 24P Power Input Connector
Size	244mm * 244mm

Notes:

1.Chipset can be customized into Intel® Q670E/R680E.

2. Intel® Q670 supports four independent displays.

3. The maximum memory frequency depends on CPU. Intel® W680/R680E supports ECC.

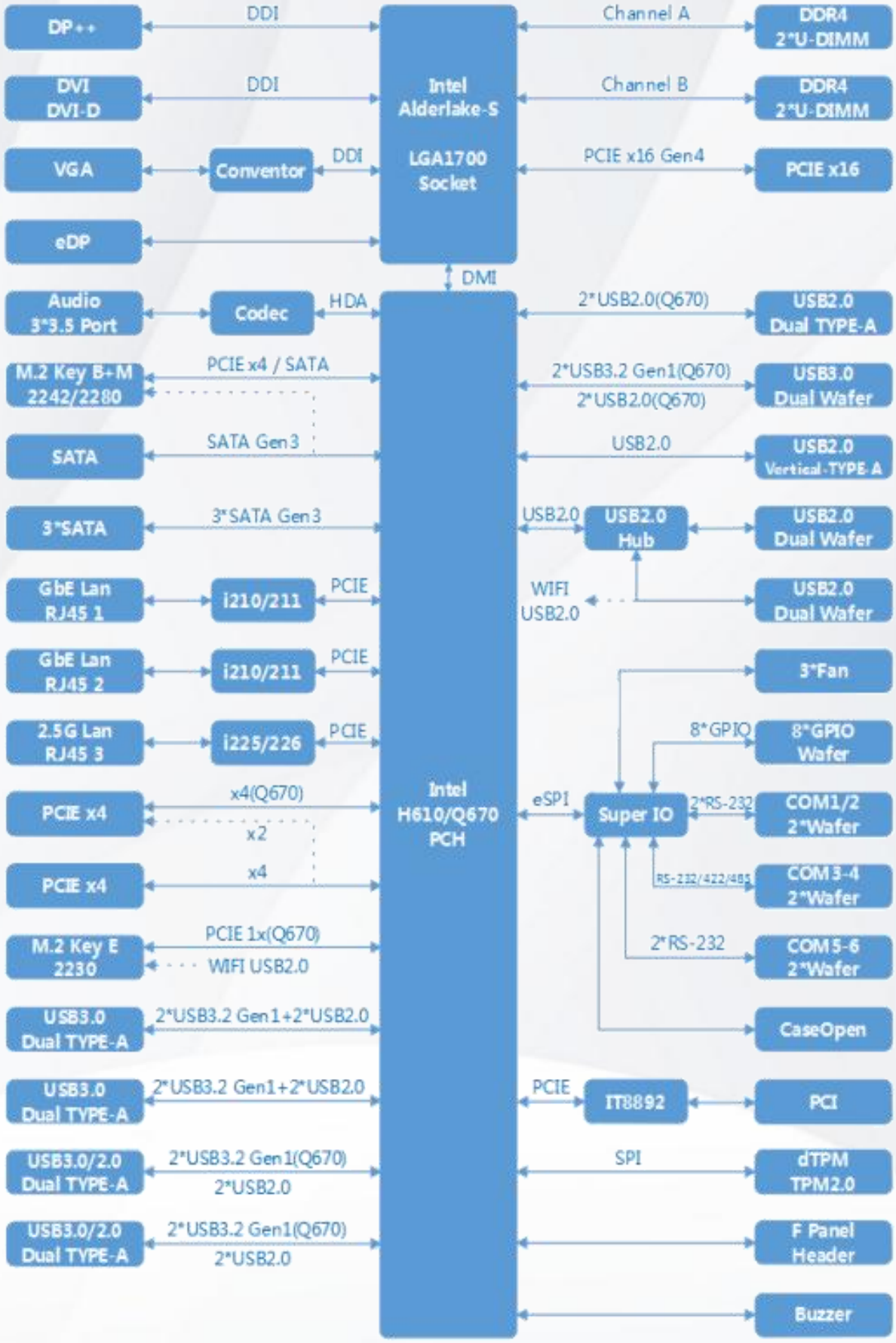
4.USB2.0 signal for M.2 Key-E Slot colay with F_USB2_1. They can’ t be used at the same time.

5. COM3 and COM4 are RS232 by default. COM3 can be RS485 or RS422 selecting by jumper and setting BIOS to RTS

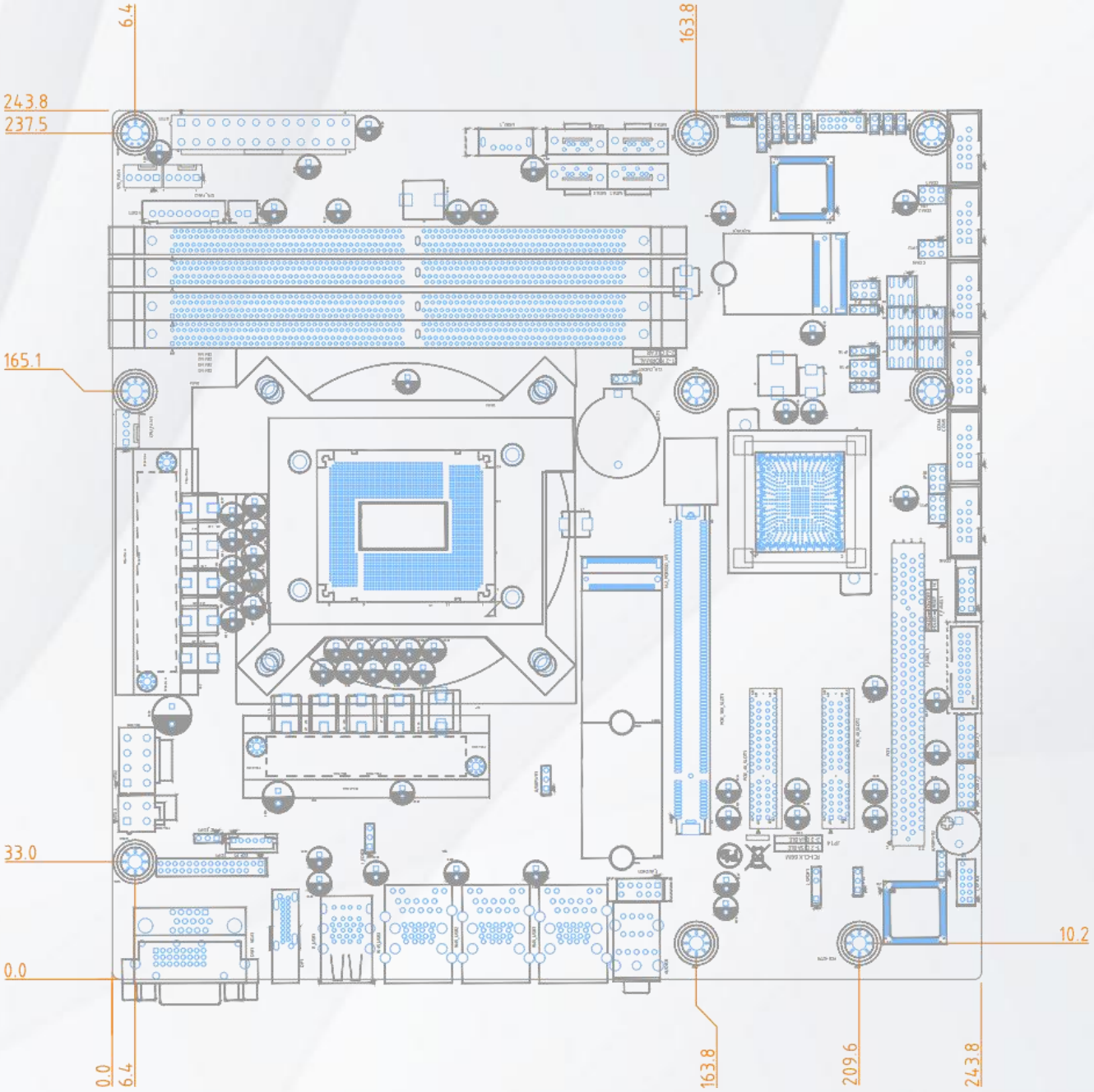
mode. COM4 can be RS485 selecting by jumper and setting BIOS to RTS mode.

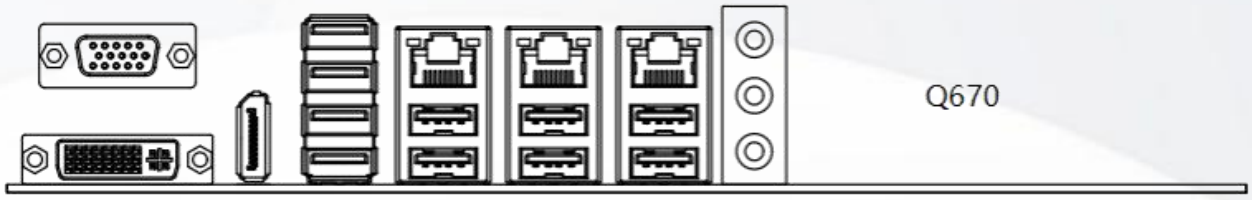

Q6731

3.Functional Block Diagram

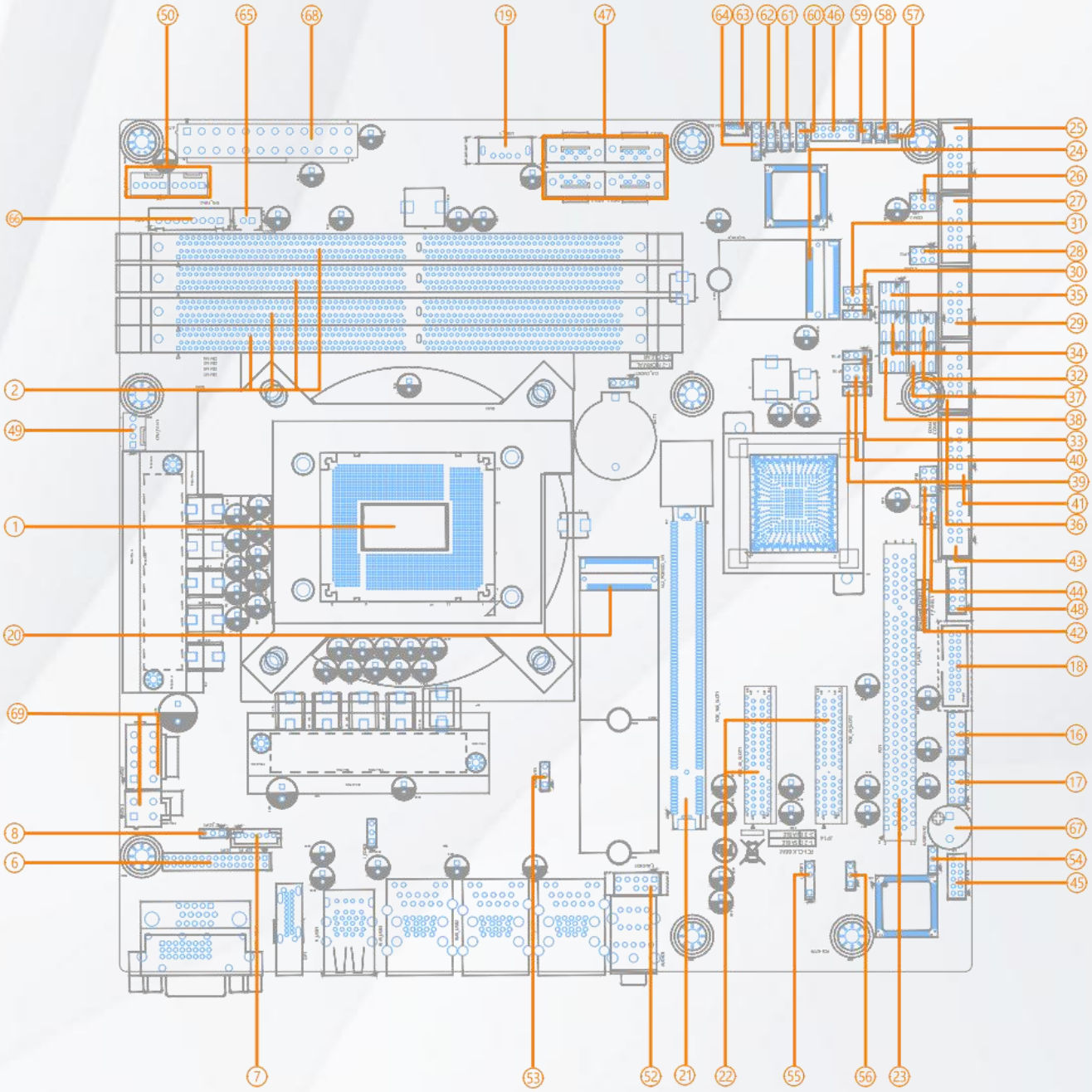


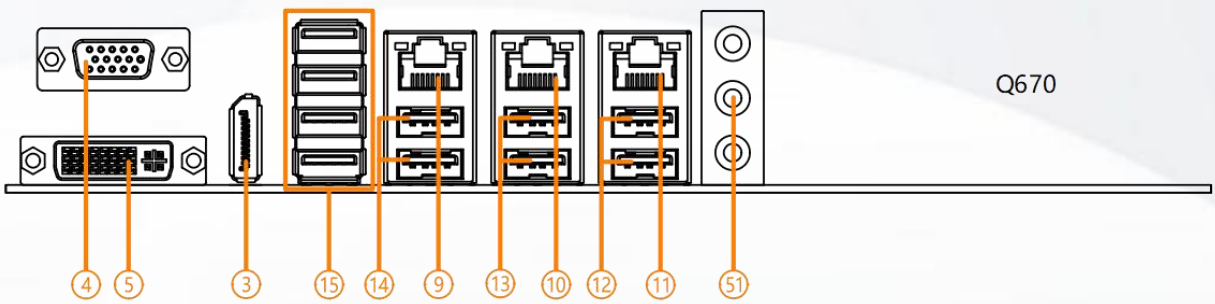
4.Mechanical Drawing





5.Jumpers / Wafers and Connectors





Jumpers / Wafers and Connectors		
1	U1	CPU
2	DIMM1/2/3/4	DDR4 CHA/B DIMM Slot
3	DP1	DP Upright Connector
4	VGA1	VGA DB15/F Connector
5	DVI1	DVI-D 24P/F Connector
6	EDP1	EDP Signal Wafer
7	EDP_P1	EDP Backlight Control Wafer
8	JC_EDP1	EDP VDD Select Jumper
9	RJ45_USB3(LAN)	2.5G LAN RJ45 Connector1
10	RJ45_USB2(LAN)	GBE LAN RJ45 Connector2
11	RJ45_USB1(LAN)	GBE LAN RJ45 Connector3
12	RJ45_USB1(USB)	Dual USB3.0 TYPE-A Connector1
13	RJ45_USB2(USB)	Dual USB3.0 TYPE-A Connector2
14	RJ45_USB3(USB)	Dual USB3.0 TYPE-A Connector3
15	R_USB1	Dual USB3.0 + Dual USB2.0 TYPE-A Connector
16	F_USB2_1	Front USB2.0 Header
17	F_USB2_2	Front USB2.0 Header
18	F_USB3_1	Front USB3.0 Header
19	USB2_1	USB2.0 TYPE-A Connector
20	M.2_PCIESSD_M1	M.2 Key-M Slot (PCIE 4x/SATA, Support PCIe x4 NVMe/SATA SSD, Auto Detect, 2242/2280)
21	PCIE_16X_SLOT1	PCI-E 16x Slot
22	PCIE_4X_SLOT1/2	PCI-E 4x Slot (PCIE 4x Signal)
23	PCI1	PCI Slot
24	M.2_WLAN_E1	M.2 Key-E Slot (PCIE+USB2.0, Support WIFI+BT, 2230)
25	COM1	COM1 BOX Header
26	JP3	COM1 VCC5/DCD+VCC12/RI Select Jumper
27	COM2	COM2 BOX Header
28	JP12	COM2 VCC5/DCD+VCC12/RI Select Jumper
29	COM3	COM3 BOX Header
30	JP15	COM3 RS422 RX Signal 120Ω Resistive termination Select Jumper
31	JP4	COM3 RS232/422/485 Select Jumper1
32	JP8	COM3 VCC5/DCD+VCC12/RI Select Jumper
33	JP16	COM3 RS422 TX Signal 120Ω Resistive termination Select Jumper
34	JP5	COM3 RS232/422/485 Select Jumper2
35	JP6	COM3 RS232/422/485 Select Jumper3
36	COM4	COM4 BOX Header

37	JP9	COM4 VCC5/DCD+VCC12/RI Select Jumper
38	JP7	COM4 RS232/RS485 Select Jumper1
39	JP17	COM4 RS485 Signal 120Ω Resistive termination Select Jumper
40	JP18	COM4 RS232/RS485 Select Jumper2
41	COM5	COM5 BOX Header
42	JP10	COM5 VCC5/DCD+VCC12/RI Select Jumper
43	COM6	COM6 BOX Header
44	JP11	COM6 VCC5/DCD+VCC12/RI Select Jumper
45	J_GPIO1	GPIO Header
46	J_ESPI1	ESPI Header (Debug Only)
47	SATA1/2/3/4	SATA 7P Connector1/2/3/4
48	F_PANEL1	Front Panel Header
49	CPU_FAN1	CPU FAN Wafer
50	SYS_FAN1/2	System FAN Wafer
51	AUDIO1	Line-Out + MIC + Line-In 3.5mm Jack
52	F_AUDIO1	Front Audio Header (Line-Out + MIC)
53	JUSBPWR1	USB Power Select Jumper1
54	JUSBPWR2	USB Power Select Jumper2
55	J_SPDIF1	SPDIF Out Header
56	JP14	PCI CLK 66MHz/33MHz Select Jumper
57	J_COPEN1	Case Open Header
58	J_DNX1	DNX Force Reload Disable/Enable Select Jumper
59	J_ME1	ME Flash Jumper
60	J_AT/ATX1	AT or ATX Select Jumper
61	J1	MCU Debug Header (Default not onboard)
62	JP19	Watch Dog Reset Enable/Disable Select Jumper
63	SMBUS1	SMBUS Wafer
64	J_PWR_LED1	Power LED Wafer
65	PSON1	Power On Wafer
66	VOLT1	Power Monitor Wafer
67	BZ1	Buzzer
68	ATX1	ATX 24P CPU Power Input Connector
69	ATX2/3	ATX 8P/4P CPU Power Input Connector

6.Definition of Jumpers / Headers and Connectors

1) Mark No.6 EDP1 (EDP Signal Header 15*2 Pin 2.00 mm)

Graphic	Pin	Definition	Pin	Definition
	1	VDD_PANEL	2	VDD_PANEL
	3	VDD_PANEL	4	
	5	GND	6	EDP_HPD
	7	N/C	8	N/C
	9	N/C	10	N/C
	11	N/C	12	N/C
	13	GND	14	GND
	15	N/C	16	N/C
	17	N/C	18	N/C
	19	EDP_TX0-	20	EDP_TX0+
	21	EDP_TX1-	22	EDP_TX1+
	23	EDP_TX2-	24	EDP_TX2+
	25	GND	26	GND
	27	EDP_TX3-	28	EDP_TX3+
	29	EDP_AUX-	30	EDP_AUX+

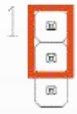
Notes:

[1]: Power on this pin can be VCC3.3 /VCC5, selectable by "EDP VDD Select Jumper". (JC_EDP1, Mark No.8)

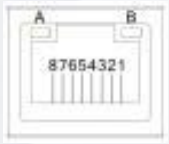
2)Mark No.7 EDP_P1 (EDP Backlight Control Wafer 6*1 Pin 2.00 mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	4	LVDS _EN_BKLT
	2	GND	5	VCC12
	3	EDP_BKL_TCTL	6	VCC12

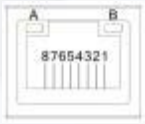
3) Mark No.8 JC_EDP1 (EDP VDD Select Jumper 3*1 Pin 2.54 mm)

Graphic	Setting	Function
	1-2(Default)	VCC3.3
	2-3	VCC5

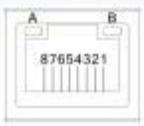
4) Mark No.9 RJ45_USB3 (LAN) (GBE LAN RJ45 Connector1)

Graphic	Pin	Definition		Pin	Definition	
	1	MDI0+		5	MDI2-	
	2	MDI0-		6	MDI1-	
	3	MDI1+		7	MDI3+	
	4	MDI2+		8	MDI3-	
	A	Speed LED	1000M: Turn Orange	B	Active LED	ACT: Twinkling Yellow
			100M: Turn Green			Only LINK: Lights On
			10M: Lights Off			Stop: Lights Off

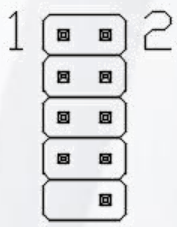
5) Mark No.10 RJ45_USB2 (LAN) (GBE LAN RJ45 Connector2)

Graphic	Pin	Definition		Pin	Definition	
	1	MDI0+		5	MDI2-	
	2	MDI0-		6	MDI1-	
	3	MDI1+		7	MDI3+	
	4	MDI2+		8	MDI3-	
	A	Speed LED	1000M: Turn Orange	B	Active LED	ACT: Twinkling Yellow
			100M: Turn Green			Only LINK: Lights On
			10M: Lights Off			Stop: Lights Off

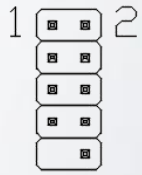
6) Mark No.11 RJ45_USB1 (LAN) (GBE LAN RJ45 Connector3)

Graphic	Pin	Definition		Pin	Definition	
	1	MDI0+		5	MDI2-	
	2	MDI0-		6	MDI1-	
	3	MDI1+		7	MDI3+	
	4	MDI2+		8	MDI3-	
	A	Speed LED	1000M: Turn Orange	B	Active LED	ACT: Twinkling Yellow
			100M: Turn Green			Only LINK: Lights On
			10M: Lights Off			Stop: Lights Off

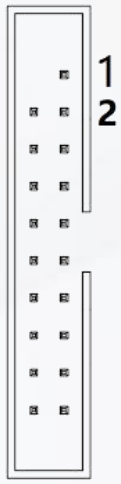
7)Mark No.16 F_USB2_1 (Front USB2.0 Header1 5*2 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	VCC5	2	VCC5
	3	USB2.0_1-	4	USB2.0_2-
	5	USB2.0_1+	6	USB2.0_2+
	7	GND	8	GND
			10	N/C

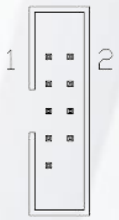
8) Mark No.17 F_USB2_2 (Front USB2.0 Header2 5*2 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	VCC5	2	VCC5
	3	USB2.0_1-	4	USB2.0_2-
	5	USB2.0_1+	6	USB2.0_2+
	7	GND	8	GND
			10	N/C

9)Mark No.18 F_USB3_1 (Front USB3.0 Box Header 10*2 Pin 2.00 mm)

Graphic	Pin	Definition	Pin	Definition
			1	VCC5
	19	VCC5	2	USB3.0_RX1-
	18	USB3.0_RX2-	3	USB3.0_RX1+
	17	USB3.0_RX2+	4	GND
	16	GND	5	USB3.0_TX1-
	15	USB3.0_TX2-	6	USB3.0_TX1+
	14	USB3.0_TX2+	7	GND
	13	GND	8	USB2.0_1-
	12	USB2.0_2-	9	USB2.0_1+
	11	USB2.0_2+	10	N/C

10)Mark No.25 COM1 (COM1 BOX Header 5*2 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	DCD/5V[1]	2	DSR
	3	RXD	4	RTS
	5	TXD	6	CTS
	7	DTR	8	RI/12V [1]
	9	GND		

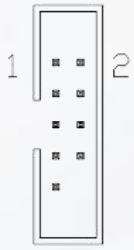
Notes:

[1] : PIN1 of COM1 can be DCD (default) /5V and Pin8 of COM1 can be RI(Default) / 12V, selectable by "COM1 DCD/RI Select Jumper" . (JP3, Mark No.26)

11) Mark No.26 JP3 (COM1 VCC5/DCD+VCC12/RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-3, 2-4	COM1_PIN1: + 5V COM1_PIN9: + 12V
	3-5 (Default), 4-6(Default)	COM1_PIN1: DCD COM1_PIN9: RI

12)Mark No.27 COM2 (COM2 BOX Header 5*2 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	DCD/5V [1]	2	DSR
	3	RXD	4	RTS
	5	TXD	6	CTS
	7	DTR	8	RI/12V[1]
	9	GND		

Notes:

[1]: PIN1 of COM2 can be DCD (default) /5V and Pin8 of COM2 can be RI (Default) / 12V, selectable by "COM2 VCC5/DCD+VCC12/RI Select Jumper" . (JP12, Mark No.28)

13)Mark No.28 JP12 (COM2 VCC5/DCD+VCC12/RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-3, 2-4	COM2_PIN1: + 5V COM2_PIN9: + 12V
	3-5 (Default), 4-6(Default)	COM2_PIN1: DCD COM2_PIN9: RI

Notes:

*: Jumper 1-3/3-5 select the COM2_PIN1 signal. Jumper 2-4/4-6 select the COM2_PIN9 signal.

14)Mark No.29 COM3 (COM3 BOX Header 5*2 Pin 2.54 mm)

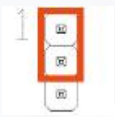
Graphic	Pin	Definition	Pin	Definition
	1	PIN1[1]	2	DSR
	3	RXD	4	RTS
	5	TXD	6	CTS
	7	DTR	8	PIN9 [1]
	9	GND		

Notes:

[1]: PIN1 of COM3 can be DCD (default) /5V and Pin8 of COM3 can be RI (Default) / 12V, selectable by "COM3 VCC5/DCD+VCC12/RI Select Jumper" . (JP8, Mark No.32)

[2]: COM3 can be RS232 (default) / RS422 / RS485 selecting by JP4, JP5, JP6 Jumper, check Mark No. 31/34/35 for detail.

15)Mark No.30 JP15 (COM3 RS422 RX Signal 120Ω Resistive termination Select Jumper 3*1 Pin 2.54 mm)

Graphic	Setting	Function
	1-2 (Default)	Disable
	2-3	Enable

16)Mark No.31/34/35 JP4/JP5/JP6(COM3 RS232/422/485 Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	JP4: 1-2 JP5: 3-5、4-6 JP6: 3-5、4-6 (Default)	COM3: RS232 (COM3_PIN1: DCD COM3_PIN3: RXD COM3_PIN5: TXD COM3_PIN7: DTR)
	JP4: 3-4 JP5: 1-3、2-4 JP6: 1-3、2-4	COM3: RS422 (COM3_PIN1: RS422_TX COM3_PIN3: RS422_TX+ COM3_PIN5: RS422_RX+ COM3_PIN7: RS422_RX-)
	JP4: 5-6 JP5: 1-3、2-4 JP6 (No Effect)	COM3: RS485 (COM3_PIN1: RS485- COM3_PIN3: RS485+)

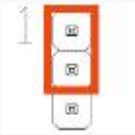
17)Mark No.32 JP8 (COM3 VCC5/DD+VCC12/RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-3, 2-4	COM3_PIN1: + 5V COM3_PIN9: + 12V
	3-5 (Default), 4-6(Default)	COM3_PIN1: DCD COM3_PIN9: RI

Notes:

*: Jumper 1-3/3-5 select the COM3_PIN1 signal. Jumper 2-4/4-6 select the COM3_PIN9 signal.

18)Mark No.33 JP16 (COM3 RS422 TX Signal 120Ω Resistive termination Select Jumper 3*1 Pin 2.54 mm)

Graphic	Setting	Function
	1-2 (Default)	Disable
	2-3	Enable

19)Mark No.36 COM4 (COM4 BOX Header 5*2 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	PIN1 [1]	2	DSR
	3	RXD	4	RTS
	5	TXD	6	CTS
	7	DTR	8	PIN9 [1]
	9	GND		

Notes:

[1]: PIN1 of COM4 can be DCD (default) /5V and Pin8 of COM4 can be RI (Default) / 12V, selectable by "COM4 VCC5/DCD+VCC12/RI Select Jumper". (JP9, Mark No. 37)

[2] COM4 can be RS232 (default) / RS485 selecting by JP7, JP18 Jumper, check Mark No. 38/40 for detail.

20)Mark No.37 JP9 (COM4 VCC5/DCD+VCC12/RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-3, 2-4	COM4_PIN1: + 5V COM4_PIN9: + 12V
	3-5 (Default), 4-6(Default)	COM4_PIN1: DCD COM4_PIN9: RI

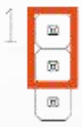
Notes:

***: Jumper 1-3/3-5 select the COM4_PIN1 signal. Jumper 2-4/4-6 select the COM4_PIN9 signal.**

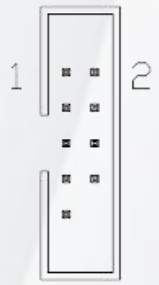
21)Mark No.38/40 JP7/JP18 (COM4 RS232/RS485 Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
 	JP18: 1-2 JP7: 3-5、4-6(Default)	COM4: RS232 (COM4_PIN1: DCD) COM4_PIN3: RXD
	JP18: 5-6 JP7: 1-3、2-4	COM4: RS485 (COM4_PIN1: RS485- COM4_PIN3: RS485+)

22)Mark No.39 JP17 (COM4 RS485 Signal 120Ω Resistive termination Select Jumper 3*1 Pin 2.54 mm)

Graphic	Setting	Function
	1-2 (Default)	Disable
	2-3	Enable

23)Mark No.41 COM5 (COM5 BOX Header 5*2 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	PIN1 [1]	2	DSR
	3	RXD	4	RTS
	5	TXD	6	CTS
	7	DTR	8	PIN9 [1]
	9	GND		

Notes:

[1]: PIN1 of COM5 can be DCD (default) /5V and Pin8 of COM5 can be RI (Default) / 12V, selectable by "COM5 VCC5/DCD+VCC12/RI Select Jumper" . (JP10, Mark No. 42)

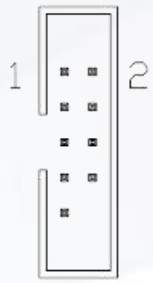
24)Mark No.42 JP10 (COM5 VCC5/DCD+VCC12/RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-3, 2-4	COM5_PIN1: + 5V COM5_PIN9: + 12V
	3-5, 4-6(Default)	COM5_PIN1: DCD COM5_PIN9: RI

Notes:

***: Jumper 1-3/3-5 select the COM5_PIN1 signal. Jumper 2-4/4-6 select the COM5_PIN9 signal.**

25)Mark No.43 COM6 (COM6 BOX Header 5*2 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	PIN1 [1]	2	DSR
	3	RXD	4	RTS
	5	TXD	6	CTS
	7	DTR	8	PIN9 [1]
	9	GND		

Notes:

[1]: PIN1 of COM6 can be DCD (default) /5V and Pin8 of COM6 can be RI (Default) / 12V, selectable by "COM6

VCC5/DCD+VCC12/RI Select Jumper" . (JP9, Mark No. 44)

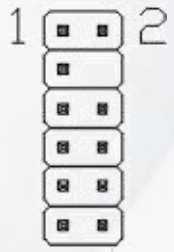
26)Mark No.44 JP11 (COM6 VCC5/DCD+VCC12/RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-3, 2-4	COM6_PIN1: + 5V COM6_PIN9: + 12V
	3-5 (Default), 4-6(Default)	COM6_PIN1: DCD COM6_PIN9: RI

Notes:

*: Jumper 1-3/3-5 select the COM6_PIN1 signal. Jumper 2-4/4-6 select the COM6_PIN9 signal.

27)Mark No.45 J_GPIO1 (GPIO Header 6*2 Pin 2.00 mm)

Graphic	Pin	Definition	Pin	Definition
	1	SIO_GPI70 (0xA06 Bit0, H [1])	2	SIO_GPI71 (0xA06 Bit1, H)
	3	SIO_GPI72 (0xA06 Bit2, H)	4	SIO_GPI73 (0x A06 Bit3, H)
	5	GND	6	SIO_GPO74 (0xA06 Bit4, H)
	7	SIO_GPO75 (0xA06 Bit5, H)	8	SIO_GPO76 (0xA06 Bit6, H)
	9	SIO_GPO77 (0xA06 Bit7, H)	10	VCC5
			12	N/C

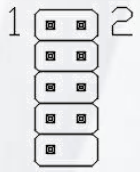
28)Mark No.46 J_ESPI1 (ESPI Header (Debug Only) 6*2 Pin 2.00 mm)

Graphic	Pin	Definition	Pin	Definition
	1	ESPI_IO0	2	VCC3.3_Dual
	3	ESPI_IO1		
	5	ESPI_IO2	6	ESPI_CLK
	7	ESPI_IO3	8	GND
	9	ESPI_CS0	10	VCC3.3S
	11	ESPI_ALERT0_N	12	PLT_RST_N [1]

Notes:

[1] : Signal on this Pin is PLT_RST_N by default, ESPI_RST0_N is available if specified. (resistor selectable)

29)Mark No.48 F_PANEL1 (Front Panel Header 5*2 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	HDD 3.3V LED+	2	POWER 3.3V LED+
	3	HDD 3.3V LED-	4	POWER 3.3V LED-
	5	RESET-	6	POWER+
	7	RESET+	8	POWER-
	9	N/C		

Notes:

[1] : Power on this Pin is VCC3.3S by default, VCC3.3_DUAL is available if specified. (resistor selectable)

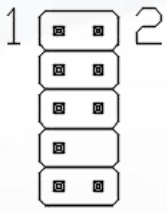
30)Mark No.49 CPU_FAN1 (CPU FAN Wafer 4*1 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	3	FAN Speed Detection
	2	VCC12	4	FAN Speed Control

31)Mark No.50 SYS_FAN1/2 (System FAN Wafer 4*1 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	3	FAN Speed Detection
	2	VCC12	4	FAN Speed Control

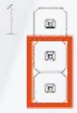
32)Mark No.52 F_AUDIO1 (Front Audio Header (Line-Out + MIC) 5*2 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	MIC_IN_L	2	GND
	3	MIC_IN_R	4	VCC3.3
	5	LINE_OUT_R	6	MIC_RET
	7	GND		
	9	LINE_OUT_L	10	LINE_OUT_RET

33)Mark No.53 JUSBPWR1 (USB Power Select Jumper 3*1 Pin 2.54 mm)

Graphic	Setting	Function
	1-2	VCC3.3_DUAL
	2-3(Default)	VCC3.3S

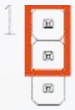
34)Mark No.54 JUSBPWR2 (USB Power Select Jumper 3*1 Pin 2.54 mm)

Graphic	Setting	Function
	1-2	VCC3.3_DUAL
	2-3(Default)	VCC3.3S

35)Mark No.55 J_SPDIF1(SPDIF Out Header 4*1 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	VCC5	3	SPDIF_OUT
			4	GND

36)Mark No.56 JP14 (PCI CLK 66MHz/33MHz Select Jumper 3*1 Pin 2.54mm)

Graphic	Setting	Function
	1-2 (Default)	33MHz
	2-3	66MHz

37)Mark No.57 J_COPEN1 (Case Open Header 2*1 Pin 2.54 mm)

Graphic	Setting	Function
	1-2: Connected	Active Case Open
	1-2: Open	Normal

38)Mark No.58 J_DNX1 (DNX Force Reload Disable/Enable Select Jumper 2*1 Pin 2.54 mm)

Graphic	Setting	Function
	1-2: Connected	Enable
	1-2: Open	Disable

39) Mark No.59 J_ME1 (ME Flash Jumper 2*1 Pin 2.54 mm)

Graphic	Setting	Function
	1-2: Open (Default)	ME Protect Enable
	1-2: Connected	ME Protect Disable

40) Mark No.60 J_AT/ATX1 (AT or ATX Select Jumper 3*1 Pin 2.54 mm)

Graphic	Setting	Function
	1-2 (Default)	ATX Mode
	2-3	AT Mode

41) Mark No.61 J1 (MCU Debug Header 3*1 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	GP3.0_RXD	3	GND
	2	GP3.1_TXD		

42) Mark No.62 JP19 (Watch Dog Reset Enable/Disable Select Jumper 3*1 Pin 2.54mm)

Graphic	Setting	Function
	1-2 (Default)	Normal
	2-3	Reset

43) Mark No.63 SMBUS1 (SMBUS Wafer 4*1 Pin 1.25 mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	3	SMB_CLK
	2	SMB_DATA	4	VCC5 [1]

Notes:

[1]: Power on this Pin is 5V by default, 3.3V is available if specified. (resistor selectable)

44) Mark No.64 J_PWR_LED1 (LED Power Select Jumper 4*1 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	VCC3.3_DUAL	3	GPIO
	2	PWR_LED-	4	GND

45) Mark No.65 PSON1 (Power On Wafer 2*1 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	PSON_N	2	GND

46) Mark No.66 VOLT1 (Power Monitor wafer 8*1 Pin 2.54 mm)

Graphic	Pin	Definition	Pin	Definition
	1	VCC5A	5	VCC5S
	2	GND	6	VCC3.3S
	3	GND	7	VCC12_N
	4	VCC5PS	8	VCC12S

【End】