

IPCTECH Motherboard User's Manual

QY-MB-Q670-ATX

1.Models and Attentions

1.1 Models

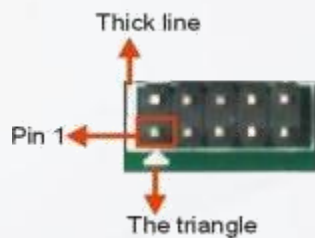
This manual is applied to following models:

Chipset	COM	LAN	USB	PCIE	PCI	DVI	HDMI	VGA	eDP	M,2 Key-E	M,2 Key-M	SATA 3.0
Q670	6	2	13	2*8X 4*4X	1	1	1	1	1	PCIE+ USB2.0 + CNVi	NVMe /SATA SSD	4
Q670	6	2	13	1*16 X 4*4X	1	1	1	1	1	PCIE+ USB2.0 + CNVi	NVMe /SATA SSD	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

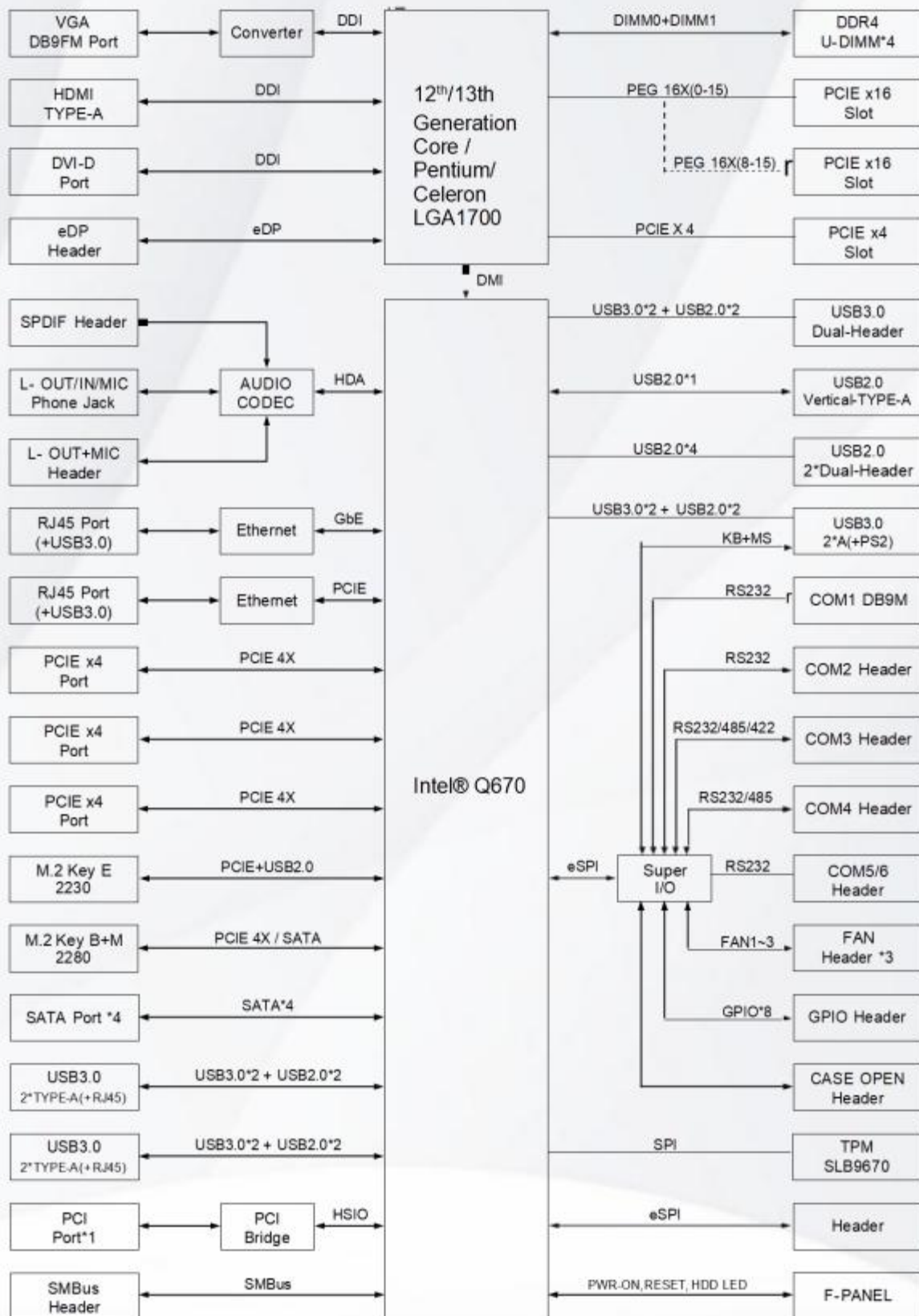
Model	QY-MB-Q670-ATX
CPU	Support Intel® 12/13th Generation Core / Pentium/ Celeron Desktop CPU, LGA1700 Support MAX CPU TDP: 8+8 Core 125W
Chipset	Intel Q670,TDP 6W
Dispaly	1*DVI (DVI-D): Support max resolution up to 1920*1200@60Hz 1*HDMI (type-A): Support max resolution up to 4090*2160@30Hz 1*VGA (DB15/F): Support max resolution to 1920*1200@60Hz 1*eDP/LVDS (Header): Support max resolution up to 4090*2160@60Hz
Memory	Support DDR4-3200MHz, 4 * Non-ECC U-DIMM Slot, Up to 128GB
Storage	4 * SATA3.0 7P Upright Connector 1 * M.2 Key-M Slot (PCIe x4 GEN4 NVMe/SATA SSD Auto Detect, 2242/2280)
Ethernet	RJ45-USB1 (RJ45): 1 * Intel I219-V GBE LAN Chip (10/100/1000 Mbps) RJ45-USB2 (RJ45): 1 * Intel I225-V 2.5G LAN Chip (10/100/1000/2500Mbps)
Audio	Reltek 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 * PCI-E 16x Slot (PCIe 8X, GEN4) [5] 1 * PCI-E 16x Slot (PCIe 8X, GEN4) [5] 3 * PCI-E 4x Slot (PCIe 4X, GEN4) 1 * PCI-E 4x Slot (PCIe 4X, GEN3) [6] 1 * PCI Slot 1 * M.2 Key-E Slot (PCIe+USB2.0+ CNVi, support WIFI +Bluetooth Module, 2230) 1 * PCI CLK 66MHz Enable/Disable Select Jumper
COM	1 * RS232 (COM1, DB9/M) 3 * RS232 (COM2/5/6, BOX Header) 1 * RS232/RS422/RS485 (COM3, BOX Header) [8] 1 * RS232/RS485 (COM4, BOX Header) [8]
USB	6 * USB3.0 (TYPE-A, Rear IO) 2 * USB3.0 (Header, Internal) 1 * USB2.0 (Vertical TYEP-A, Internal) 4 * USB2.0 (Header, Internal))

Other Ports	8 * GPIO 1 * PS/2 Connector (Keyboard & Mouse) 1 * Front Panel Header (HDD LED+ PWR LED+ PWR- ON+ RESET) 1 * ESPI Header (Debug Only) 1 * SMBUS Header 2 * System FAN Header 1 * CPU FAN Header 1 * Case Open Header 1 * CMOS Clear Jumper 1 * AT or ATX Select Jumper 1 * ME Flash Header 1 * Power Monitor wafer
TPM	1 * 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°C Operating: 0~60°C
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	305mm * 244mm

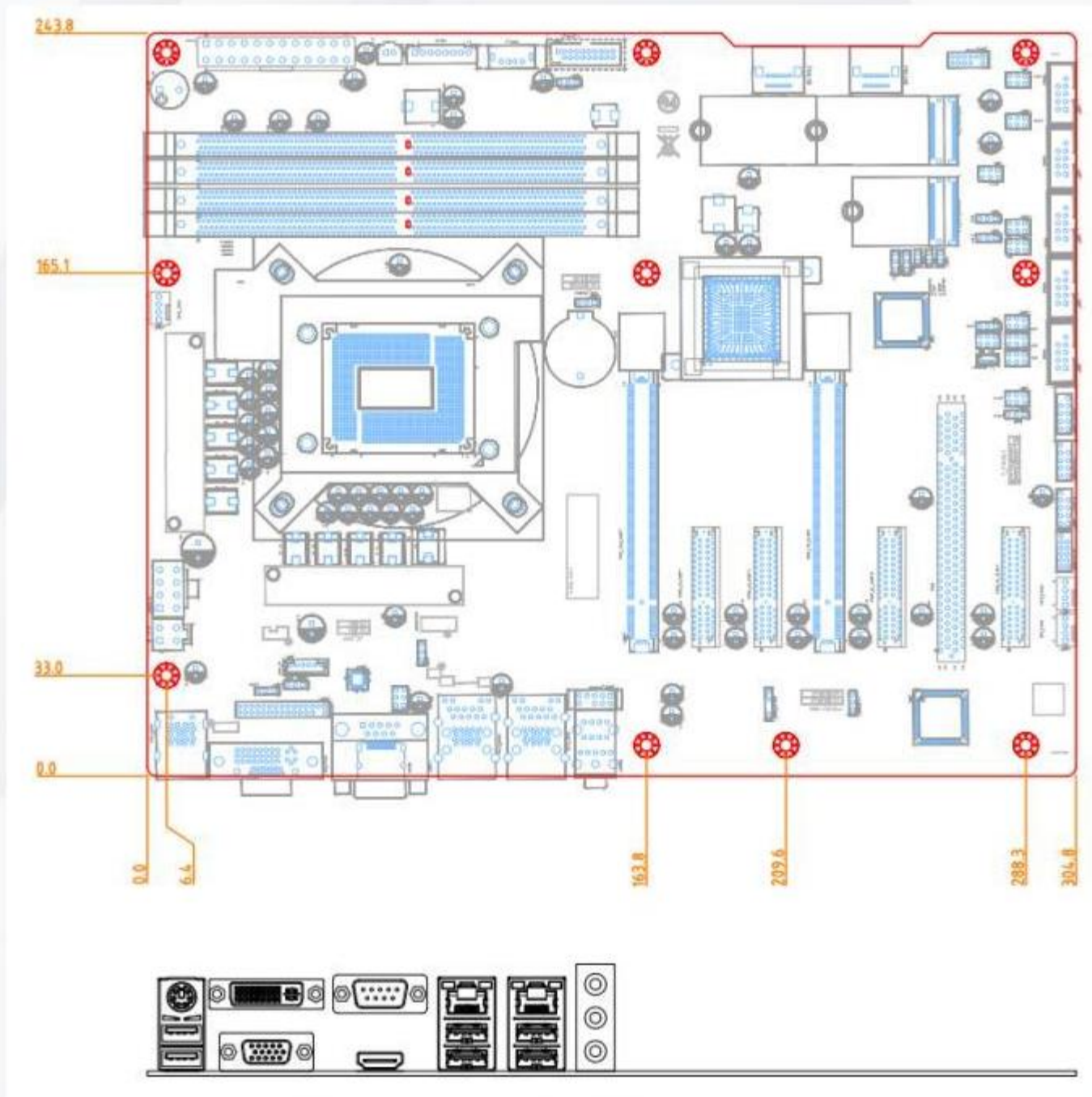
Notes:

1. Intel Q670 supports four independent displays.
2. RJ45-USB1 (RJ45) I219-V does not support Intel AMT 12.0 and Intel vPro competent by default.
3. 2 * PCI-E 16X Slot can support 2*PCIE 8x(default) or 1*PCIE 16X. (BOM selectable)
4. PCIE-4X-SLOT2 support the PCIE 4X GEN3 signal.
5. Intel® Kiosk Peripheral Management Utility (Intel® KPM Utility) function selection support, not on board by default.
6. 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.

3.Functional Block Diagram



4.Mechanical Drawing



5. Jumpers / Headers and Connectors





Jumpers / Headers and Connectors

1	SYS-FAN1	System FAN Wafer1
2	SYS-FAN2	System FAN Wafer2
3	J-GPIO1	GPIO Header
4	F-USB2-2	Front USB2.0 Header2
5	JP19	Watch Dog Reset Enable/Disable Select Jumper
6	F-USB2-1	Front USB2.0 Header1
7	JP12	COM2 VCC5/DCD+ VCC12/RI Select Jumper
8	F-PANEL1	Front Panel Header
9	JP8	COM3 VCC5/DCD+ VCC12/RI Select Jumper
10	JP6	COM3 RS232/RS422 Select Jumper2
11	JP5	COM3 RS232/RS422 Select Jumper1
12	JP15	COM3 RS422 RX Signal 120Ω Resistive termination Select Jumper
13	JP9	COM4 VCC5/DCD+ VCC12/RI Select Jumper
14	JP7	COM4 RS232/RS485 Select Jumper1
15	JP18	COM4 RS232/RS485 Select Jumper2
16	JP17	COM4 RS485 Signal 120Ω Resistive termination Select Jumper
17	JP10	COM5 VCC5/DCD+ VCC12/RI Select Jumper

18	JP11	COM6 VCC5/DCD+VCC12/RI Select Jumper
19	COM2-6	COM2/3/4/5/6 Box Header
20	J-ESPI1	ESPI Header (Debug Only)
21	JP16	COM3 RS422 TX/RS485 Signal 120Ω Resistive termination Select Jumper
22	J-COPEN1	Case Open Header
23	J-DNX1	DNX Force Reload Disable/Enable Select Jumper
24	J-ME1	ME Flash Jumper
25	J-AT/ATX1	AT or ATX Select Jumper
26	J1	MCU Debug Header (Default not onboard)
27	F-USB3-1	Front USB3.0 Box Header
28	CLR-CMOS1	CMOS Clear Select Jumper
29	VOLT1	Power Monitor Wafer
30	JP4	COM3 RS232/422/485 Select Jumper3
31	PSON1	Power On Wafer
32	ATX1	ATX 24P CPU Power Input Connector
33	CPU-FAN1	CPU FAN Wafer
34	ATX2	ATX 8P CPU Power Input Connector
35	ATX3	ATX 4P CPU Power Input Connector
36	EDP-P1	eDP Backlight Control Wafer
37	EDP1	eDP Signal Header
38	JC-EDP1	eDPVDD Select Jumper
39	JP3	COM1 VCC5/DCD+VCC12/RI Select Jumper
40	F-AUDIO1	Front Audio Header (Line-Out + MIC)
41	J-SPDIF1	SPDIF Out Header
42	JP14	PCI CLK 66MHz Enable/Disable Select Jumper
43	SMBUS1	SMBUS Wafer
44	PCIE-4X-SLOT4	PCI-E 4x Slot4 (PCIe 4X)
45	M.2-PCIESSD-M1	M.2 Key-M Slot (PCIe x4 GEN4 NVMe/SATA SSD Auto Detect, 2242/2280)
46	M.2-KEYE-WLAN1	M.2 Key-E Slot (PCIe+USB2.0+ CNVi, support WIFI + BT/ CNVi Module, 2230)
47	SATA3-4	SATA3.0 7P Upright Connector3-4
48	SATA1-2	SATA3.0 7P Upright Connector1-2
49	USB2-1	USB2.0 Internal Vertical TYPE-A Connector
50	DIMM4	DDR4 CHB DIMM Slot4
51	DIMM2	DDR4 CHB DIMM Slot3
52	DIMM3	DDR4 CHA DIMM Slot2
53	DIMM1	DDR4 CHA DIMM Slot1
54	PCIE-16X-SLOT1	PCI-E 16x Slot1 (PCIe 16X) [1]
55	PCIE-4X-SLOT1	PCI-E 4x Slot1 (PCIe 4X)
56	PCIE-4X-SLOT2	PCI-E 4x Slot2 (PCIe 4X)

57	PCIE-16X-SLOT2	PCI-E 16x Slot2 (PCIe 8X) [1]
58	PCIE-4X-SLOT3	PCI-E 4x Slot3 (PCIe 4X)
59	PCI1	PCI Slot
60	PS/2-USB1(PS/2)	PS/2 Connector (Keyboard & Mouse)
61	PS/2-USB1(USB)	Dual USB3.0 TYPE-A Connector
62	DVI-VGA1(DVI)	DVI-I 24+4P/F Connector (Support DVI-D)
63	DVI-VGA1(VGA)	VGA DB15/F Connector
64	COM1	COM1 DB9/M Connector
65	HDMI1	HDMI TYPE-A Connector
66	RJ45-USB2(LAN)	GBE LAN RJ45 Connector2
67	RJ45-USB2(USB)	Dual USB3.0 TYPE-A Connector2
68	RJ45-USB1(USB)	Dual USB3.0 TYPE-A Connector1
69	RJ45-USB1(LAN)	GBE LAN RJ45 Connector1
70	AUDIO1	Line-Out + MIC + Line-In 3.5mm Jack

Notes:

[1]: 2*PCI-E 16X Slot can support 2*PCIe 8x(default) or 1*PCIe 16X. (BOM selectable)

6.Definition of Jumpers / Headers and Connectors

1)SYS-FAN1 (System FAN Header1 4*1 Pin 2.54mm)

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

2) SYS-FAN2 (System FAN Header2 4*1 Pin 2.54mm)

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

3) J-GPIO1 (GPIO Header 6*2 Pin 2.00mm)

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 (0xA06 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

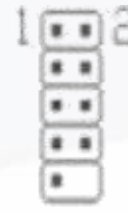
4) F-USB2-2 (Front USB2.0 Header2 5*2 Pin 2.54mm)

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

5)JP19(Watch Dog Reset Enable/Disable Select Jumper 3*1 Pin 2.54mm)

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

6) F-USB2-1(Front USB2.0 Header1 5*2 Pin 2.54mm)

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

7) JP12 (COM2 DCD/RI Select Jumper 3*2 Pin 2.54mm)

Graphic	Setting	Function
	1-3, 2-4	COM2-PIN1:VCC5 COM2-PIN8: VCC12
	3-5, .4-6(Default)	COM2-PIN1: DCD COM2-PIN8: RI

Notes:

*: Jumper 1-3/3-5 select the COM2-PIN1 signal. Jumper 2-4/4-6 select the COM2-PIN8 signal.

8) F-PANEL1(Front Panel Header 5*2 Pin 2.54mm)

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)

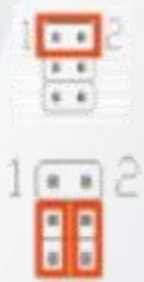
9) JP8 (COM3 VCC5/DCD+VCC12/RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-3, 2-4	COM3-PIN1: VCC5 COM3-PIN8: VCC12
	3-5, 4-6(Default)	COM3-PIN1: DCD/ RS422_TX-/ RS485- COM3-PIN8: RI

Notes:

*: Jumper 1-3/3-5 select the COM3-PIN1 signal. Jumper 2-4/4-6 select the COM3-PIN8 signal.

10) 11)30) JP6/JP5/JP4(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+)

12) JP15 (COM3 RS422 RX Signal 120Ω Resistive termination Select Jumper 3*1 Pin 2.54mm)

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

13) JP9 (COM4 VCC5/DCD+VCC12/RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-3, 2-4	COM4-PIN1: VCC5 COM4-PIN8: VCC12
	3-5, 4-6(Default)	COM4-PIN1: DCD/TX- COM4-PIN8: RI

14) 15) 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+)

16) JP17(COM4 RS485 Signal 120Ω Resistive termination Select Jumper 3*1 Pin 2.54mm)

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

17) JP10(COM5 VCC5/DCD+VCC12/RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-3, 2-4	COM5- PIN1: VCC5 COM5- PIN8: VCC12
	3-5, 4-6(Default)	COM5- PIN1: DCD COM5- PIN8: RI

Notes:

*: Jumper 1-3/3-5 select the COM5-PIN1 signal. Jumper 2-4/4-6 select the COM5-PIN8 signal.

18) JP11(COM6 VCC5/DCD+VCC12/RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-3, 2-4	COM6- PIN1: VCC5 COM6- PIN8: VCC12
	3-5, 4-6(Default)	COM6- PIN1: DCD COM6- PIN8: RI

Notes:

*: Jumper 1-3/3-5 select the COM6-PIN1 signal. Jumper 2-4/4-6 select the COM6-PIN8 signal.

19) COM2-6(COM2/3/4/5/6 Box Header 5*2 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
 COM2	1	COM2 - PIN1 [1]	2	COM2 - DSR
	3	COM2 - RXD	4	COM2 - RTS
	5	COM2 - TXD	6	COM2 - CTS
	7	COM2 - DTR	8	COM2 - PIN8 [1]
	9	GND		
 COM3	1	COM3 - PIN1 [2] [3]	2	COM3 - DSR
	3	COM3 - PIN3 [3]	4	COM3 - RTS
	5	COM3 - PIN5 [3]	6	COM3 - CTS
	7	COM3 - PIN7 [3]	8	COM3 - PIN8 [2] [3]
	9	GND		
 COM4	1	COM4 - PIN1 [4] [5]	2	COM4 - DSR
	3	COM4 - PIN3 [4]	4	COM4 - RTS
	5	COM4 - TXD	6	COM4 - CTS
	7	COM4 - DTR	8	COM4 - PIN8 [5]
	9	GND		
 COM5	1	COM5 - PIN1 [6]	2	COM5 - DSR
	3	COM5 - RXD	4	COM5 - RTS
	5	COM5 - TXD	6	COM5 - CTS
	7	COM5 - DTR	8	COM5 - PIN8 [6]
	9	GND		
 COM6	1	COM6 - PIN1 [7]	2	COM6 - DSR
	3	COM6 - RXD	4	COM6 - RTS
	5	COM6 - TXD	6	COM6 - CTS
	7	COM6 - DTR	8	COM6 - PIN8 [7]
	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, Location 7)
- [2]: 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, Location 9)
- [3]: COM3 can be RS232 (default) / RS422 / RS485 selecting by JP4, JP5, JP6 Jumper, check Location 10/11/30 for detail. COM3 can be RS485 or RS422 selecting by jumper and setting BIOS to RTS mode.
- [4]: COM4 can be RS232 (default) / RS485 selecting by JP7, JP18 Jumper, check Location 14/15 for detail. COM4 can be RS485 selecting by jumper and setting BIOS to RTS mode.
- [5]: 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, Location 13)
- [6]: 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, Location 17)
- [7]: PIN1 of COM6 can be DCD (default) /5V and Pin8 of COM6 can be RI(Default) / 12V, selectable by "COM5 VCC5/DCD+VCC12/RI Select Jumper" . (JP11, Location 18)

20) J-ESPI1(ESPI Header(Debug Only) 6*2 Pin 2.00mm)

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)

21) JP16(COM3 RS422 TX/RS485 Signal 120Ω Resistive termination Select Jumper 3*1 Pin 2.54mm)

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

22) J-COPEN1(Case Open Header 2*1 Pin 2.54mm)

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

23) J-DNX1(DNX Force Reload Disable/Enable Select Jumper 2*1 Pin 2.54mm)

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

24) 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

25) J-AT/ATX1(AT or ATX Select Jumper 3*1 Pin 2.54mm)

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

26) J1 (MCU Debug Header 3*1 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	TTL-RX	3	GND
	2	TTL-TX		

27) F-USB3-1(Front USB3.0 Box Header 10*2 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
			1	VCC5
	4	VCC5	3	USB3.0-RX1-
	6	USB3.0-RX2-	5	USB3.0-RX1+
	8	USB3.0-RX2+	7	GND
	10	GND	9	USB3.0-TX1-
	12	USB3.0-TX2-	11	USB3.0-TX1+
	14	USB3.0-TX2+	13	GND
	16	GND	15	USB2.0-1-
	18	USB2.0-2-	17	USB2.0-1+
	20	USB2.0-2+	19	N/C

28) CLR-CMOS1(CMOS Clear Jumper 3*1 Pin 2.54mm)

Graphic	Setting	Function
	1-2(Default)	Normal
	2-3	Clear CMOS

29) VOLT1(Power Monitor wafer 8*1 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	VCC5A	5	VCC5S
	2	GND	6	VCC3.3S
	3	GND	7	VCC12-N
	4	VCC5PS	8	VCC12S

31) PSON1(Power On Wafer 2*1 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	PSON-N	2	GND

33) CPU-FAN1(CPU FAN Wafer 4*1 Pin 2.54mm)

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

36) EDP_P1(eDP Backlight Control Wafer 6*1 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	4	EDP-BKLT-EN
	2	GND	5	VCC12
	3	EDP-BKLT-CTL	6	VCC12

37) EDP1(eDP Signal Header 15*2 Pin 2.00mm)

Graphic	Pin	Definition	Pin	Definition
	1	VDD-PANEL [1]	2	VDD-PANEL [1]
	3	VDD-PANEL [1]		
	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] : Panel Power VDD can be 3.3V (default) /5V selectable by eDP VDD Select Jumper” (JC-EDP1 Location 39).

38) JC-EDP1(eDP VDD Select Jumper 3*1 Pin 2.54mm)

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

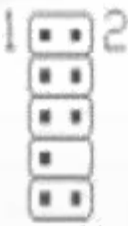
39) JP3(COM1 VCC5/DCD+VCC12/RI Select Jumper 3*2 Pin 2.54 mm)

Graphic	Setting	Function
	1-3, 2-4	COM1-PIN1: + 5V COM1-PIN8: + 12V
	3-5 (Default), 4-6(Default)	COM1-PIN1: DCD COM1-PIN8: RI

Notes:

*: Jumper 1-3/3-5 select the COM1-PIN1 signal. Jumper 2-4/4-6 select the COM1-PIN8 signal.

40) F-AUDIO1(Front Audio Header (Line-Out + MIC) 5*2 Pin 2.54mm)

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

41) J-SPDIF1(SPDIF Out Header 4*1 Pin 2.54mm)

Graphic	Pin	Definition	Pin	Definition
	1	VCC5	3	SPDIF-OUT
			4	GND

42) JP14(PCI CLK 66MHz Enable/Disable Select Jumper 3*1 Pin 2.54mm)

Graphic	Setting	Function
	1-2 (Default)	Disable PCI CLK 66MHz
	2-3	Enable PCI CLK 66MHz

43) SMBUS1(SMBUS Wafer 4*1 Pin 1.25mm)

Graphic	Pin	Definition	Pin	Definition
	1	GND	3	SMB-CLK
	2	SMB-DATA	4	VCC5 [1]

64) COM1(COM1 DB9/M Connector)

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

Notes:

[1] : PIN1 of COM1 can be DCD (default) /5V and Pin9 of COM1 can be RI(Default) / 12V, selectable by "COM1 DCD/RI Select Jumper" . (JP3, Location 28)

66) RJ45-USB2(LAN) (GBE LAN RJ45 Connector2)

Graphic	Pin	Definition		Pin	Definition	
	1	MDI2-0+		5	MDI2-2+	
	2	MDI2-0-		6	MDI2-2-	
	3	MDI2-1+		7	MDI2-3+	
	4	MDI2-1-		8	MDI2-3-	
	A	Active LED	ACT: Twinkling Green	B	Speed LED	1000M/2.5G: Turn Orange
			Only LINK: Lights On			100M: Turn Green
			Stop: Lights Off			10M: Lights Off

69) RJ45-USB1(LAN) (GBE LAN RJ45 Connector1)

Graphic	Pin	Definition		Pin	Definition	
	1	MDI1-0+		5	MDI1-2+	
	2	MDI1-0-		6	MDI1-2-	
	3	MDI1-1+		7	MDI1-3+	
	4	MDI1-1-		8	MDI1-3-	
	A	Active LED	ACT: Twinkling Green	B	Speed LED	1000M/2.5G: Turn Orange
			Only LINK: Lights On			100M: Turn Green
			Stop: Lights Off			10M: Lights Off

[END]