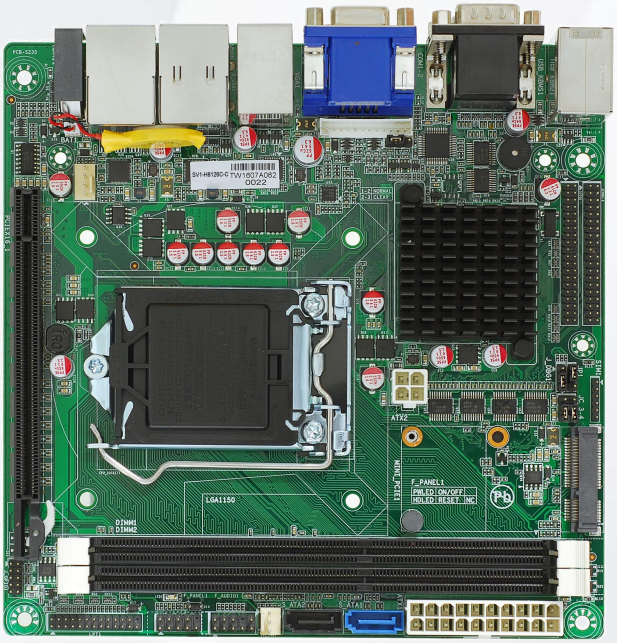
Mother Board

QY-MB-H81-MITX

- Intel H81 chipset
- Support Pentium/Celeron/4th-i3/i5/i7 CPU
- 2*Gigabit LAN,8*USB 2.0,2*USB 3.0,6*COM
- 1*HDMI,1*VGA
- 2*DDR III RAM slot
- 1*MSATA SSD slot,2*SATA SSD slot
- 1*Mini PCIE slot
- DC 12V power input
- Mini-ITX type board, 17*17 cm
- 1*Mic-in,1*Line-out connector



QY-MB-H81-MITX

1. Specification:

Model	QY-MB-H81-MITX
CPU	Intel Pentium / Celeron / 4th Generation Core i3/i5/i7 CPU, LGA1150 Intel H81 chipset, TDP 4.1W
Display	Support dual display simultaneously: 1*HDMI: resolution up to 1920*1080@60Hz[1] 1*VGA: resolution up to 1920*1080@60Hz
Memory	Support DDR3 1333/1600 MHz, 2*DIMM Slots, Up to 16GB[2]
Storage	1*SATA 2.0 Port[3]+1*SATA 3.0 Port 1*MSATA
Expansion	1*Mini-PCIE slot,support WIFI
Ethernet	2*Realtek PCI-E NIC RTL8111F for 1000Mbps
USB	8*USB 2.0 (Rear I/O) 2*USB 3.0 (Rear I/O)
COM	6*RS-232, Header
Audio	Realtek ALC662 2.1 Channel HDA Codec, Support MIC / Line-out Ports
Other Ports	8*GPIO 1*PS/2[4] 1*Front Audio 1*SIM Card Header 1*PCIE 16X Slot 1*Parallel Pin Header
System	Windows 7 / 10, Linux
Temperature	Storage: -20℃ ~ 75℃ Operating: 0℃ ~ 60℃
BIOS	AMI UEFI BIOS
Factor	Mini-ITX (17cm*17cm)

Note:

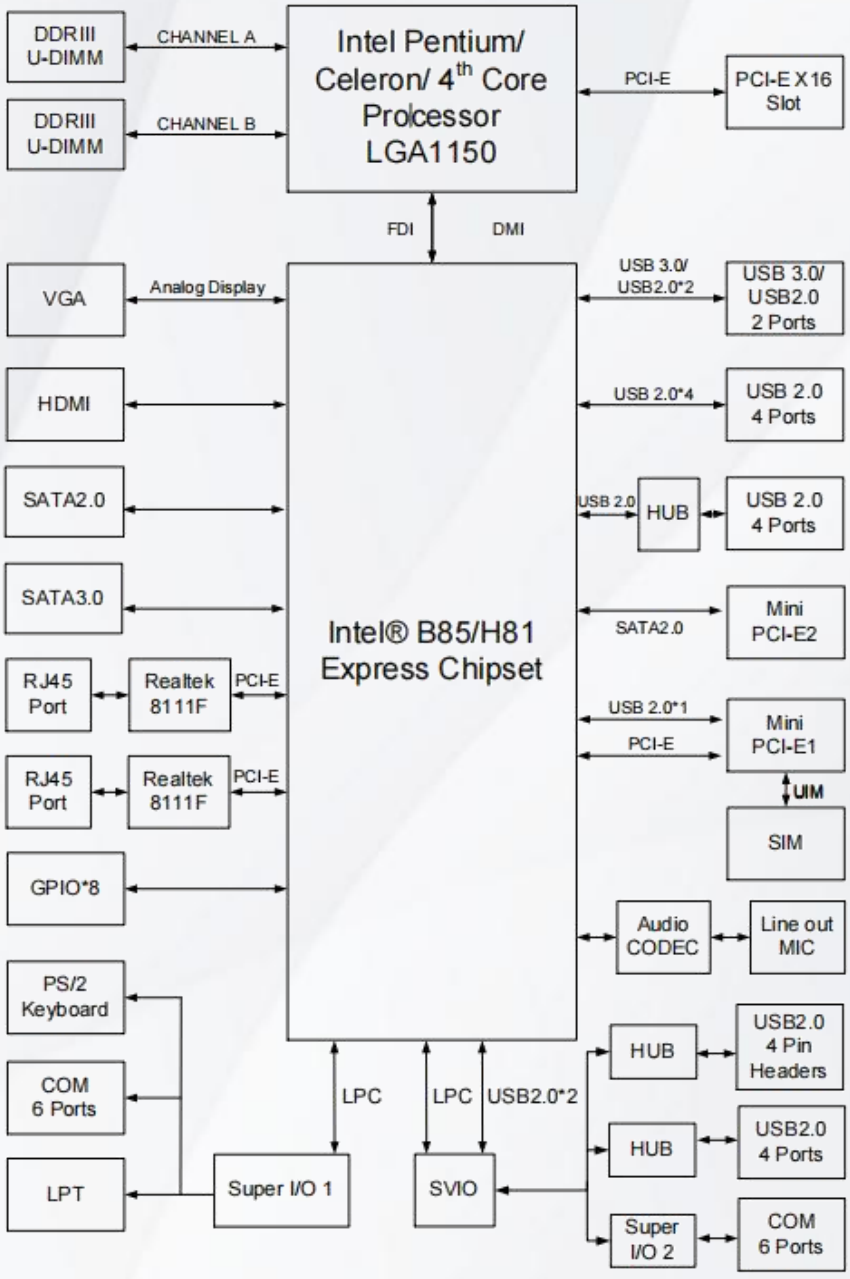
[1]: The VGA1 (DB15) and J-VGA1 share the same signal and can’ t be accessed simultaneously.

[2]: Due to the restriction of Windows 32 bit OS, when applier than 4G memory, 32 bit OS may detect less than actual size.

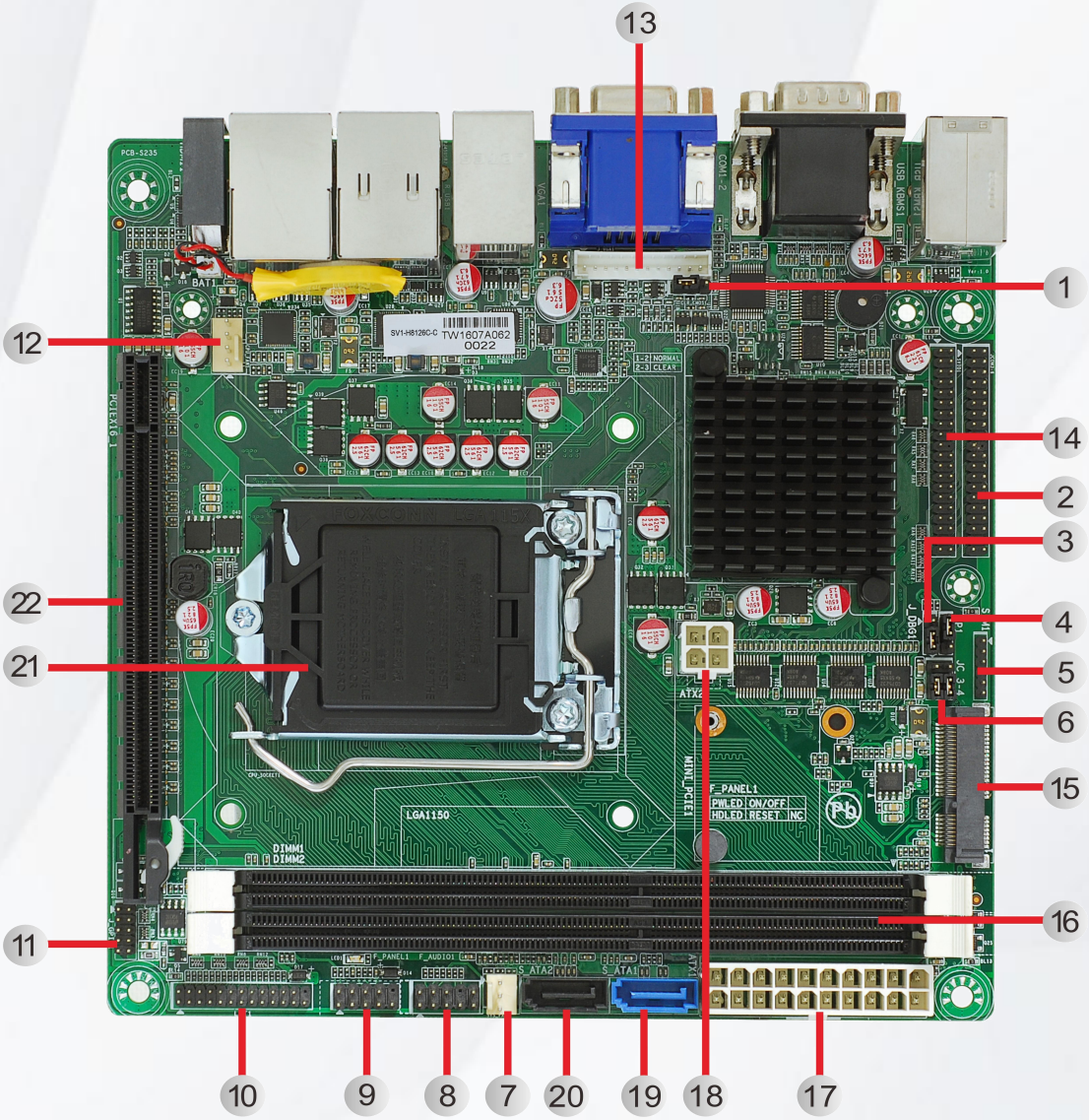
[3]: S-ATA1 is SATA 2.0 port,S-ATA2 is SATA 3.0 port.

[4]: The PS/2 only support keyboard.

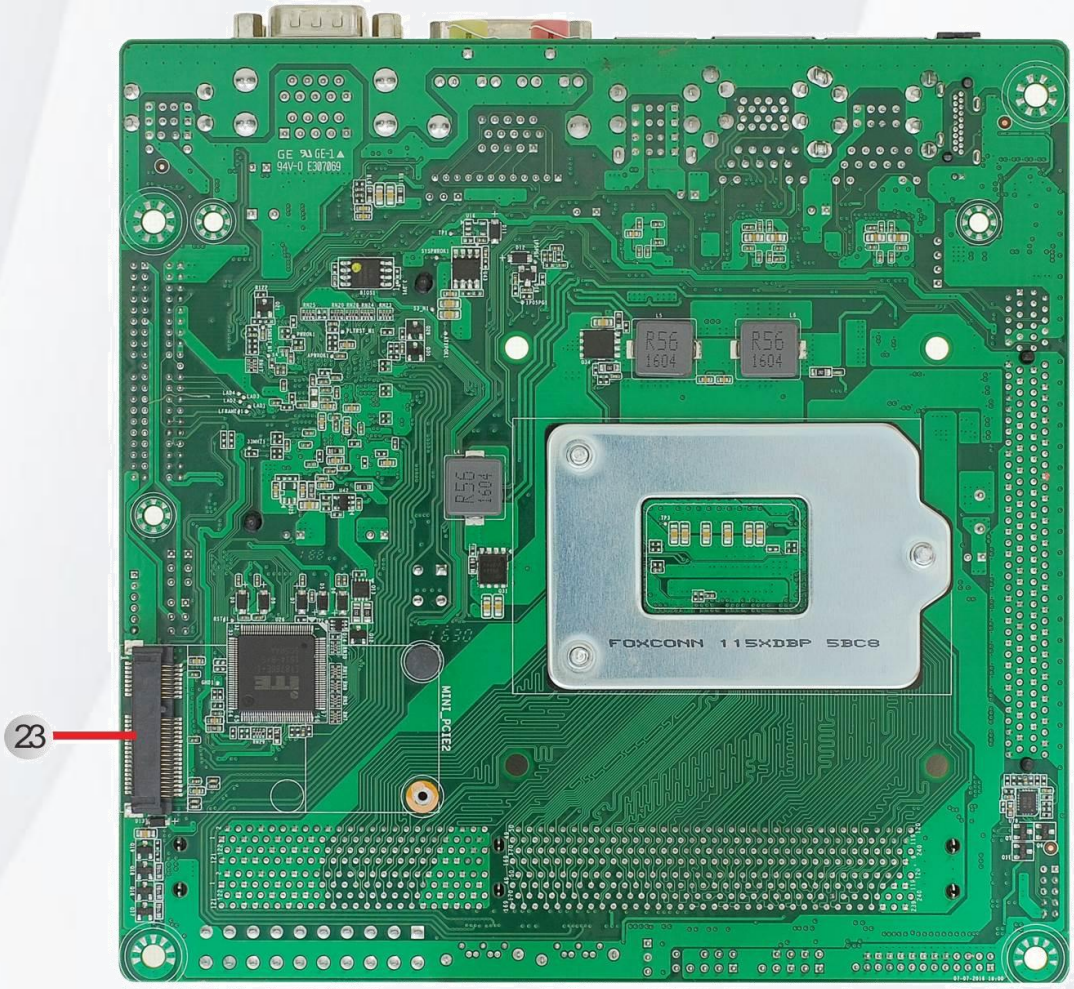
2. Date Flow

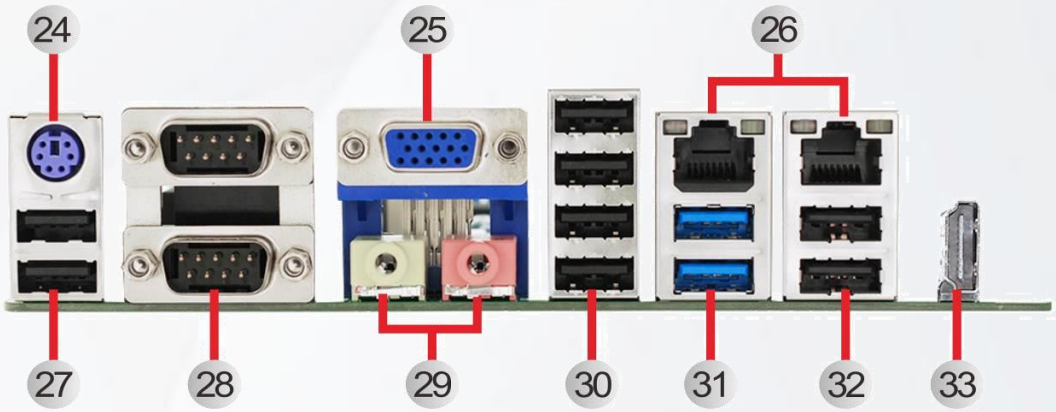

DDRIII U-DIMM
CHANNEL A
DDRIII U-DIMM
CHANNEL B
Intel Pentium/ Celeron/ 4th Core Processor LGA1150
PCI-E
PCI-E X16 Slot
FDI
DMI
VGA
Analog Display
HDMI
SATA2.0
SATA3.0
RJ45 Port
Realtek 8111F
PCI-E
RJ45 Port
Realtek 8111F
PCI-E
GPIO*8
PS/2 Keyboard
COM 6 Ports
LPT
Super I/O 1
Intel® B85/H81 Express Chipset
LPC
LPC
USB2.0*2
SVIO
USB 3.0/ USB2.0*2
USB 3.0/ USB2.0 2 Ports
USB 2.0*4
USB 2.0 4 Ports
USB 2.0
HUB
USB 2.0 4 Ports
SATA2.0
Mini PCI-E2
USB 2.0*1
PCI-E
Mini PCI-E1
UIM
SIM
Audio CODEC
Line out MIC
HUB
USB2.0 4 Pin Headers
HUB
USB2.0 4 Ports
Super I/O 2
COM 6 Ports

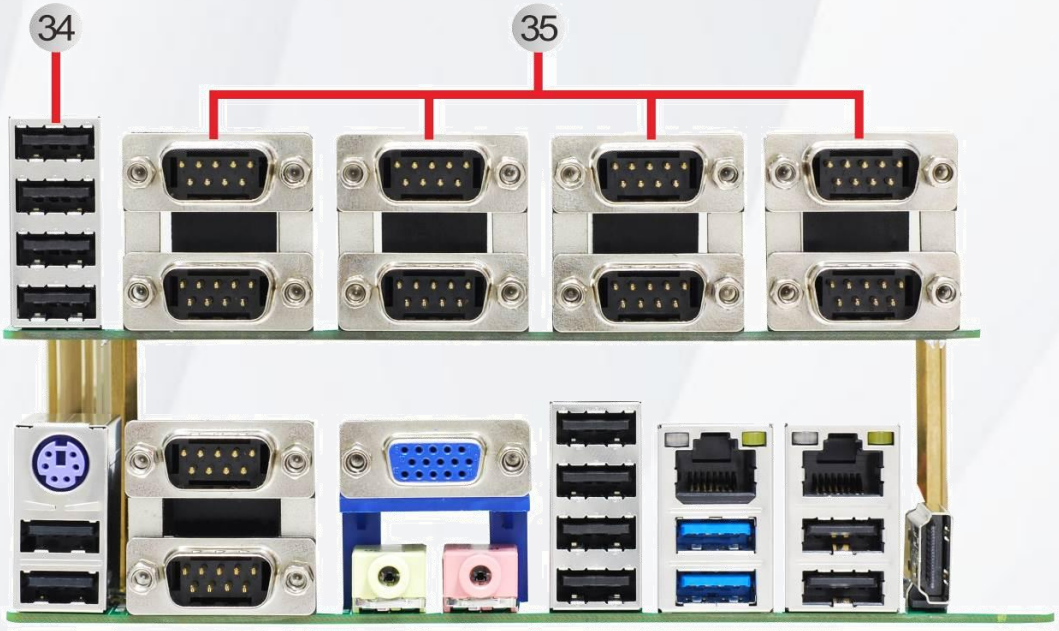
3. Jumpers / Headers and Connectors



QY-MB-H81-MITX



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QY-MB-H81-MITX

Jumpers / Headers / Connectors				
1	COMS Clear Jumper	P9	18	ATX 2 Power Input Connector
2	COM3-6 Pin Header	P9	19	SATA 3.0 Connectors
3	Debug Pin Header		20	SATA 2.0 Connectors
4	AT or ATX Select Jumper	P10	21	CPI Slot
5	SIM Card Pin Header	P10	22	PCIE 16X Slot
6	COM3/4 Pin1 Signal Select Jumper	P10	23	Mini PCIE 2 Slot
7	System Fan Connector	P10	24	PS/2 Connector
8	Front Audio Pin Header	P10	25	VGA Connecotr
9	Front Panel Pin Header	P11	26	LAN Connectors
10	Parallel Pin Header	P11	27	USB 2.0 Connectors
11	GPIO Pin Header	P11	28	COM Connectors
12	CPU Fan Header	P12	29	Audio Connectors
13	VGA Pin Header	P12	30	USB 2.0 Connectors
14	I/O Connector		31	USB 3.0 Connectors
15	Mini PCIE 1 Slot		32	USB 2.0 Connectors
16	DIMM Slots SIM Card Slot		33	HDMI Connector
17	ATX 1 Power Input Connector			

With Daughter Board:

34	USB 2.0 Connectors	35	COM 3-10 Connectors

4. Definition

(1)COMS Clear Jumper (3*1 Pin 2.54mm)

No.	Location	Setting	Function
1	CLR-CMOS1	1-2(Default)	Normal
		2-3	Clear CMOS

(2)COM3-6 Pin Headers (20*2 Pin 2.00mm)

No.	Location	Pin	Definition	Pin	Definition
2	JCOM3-6	1	JC-3-4*	2	COM3-RXD
		3	COM3-TXD	4	COM3-DTR
		5	GND	6	COM3-DSR
		7	COM3-RTS	8	COM3-CTS
		9	COM3-RI	10	GND
		11	JC-3-4*	12	COM4-RXD
		13	COM4-TXD	14	COM4-DTR
		15	GND	16	COM4-DSR
		17	COM4-RTS	18	COM4-CTS
		19	COM4-RTS	20	
		21	DCD	22	COM5-RXD
		23	COM5-TXD	24	COM5-DTR
		25	GND	26	COM5-DSR
		27	COM5-RTS	28	COM5-CTS
		29	COM5-RO	30	GND
		31	GND	32	COM5-RXD
		33	COM6-TXD	34	COM5-DTR
		35	GND	36	COM6-DSR
		37	COM6-RTS	38	COM6-CTS
		39	COM6-RI	40	GND

Note:

*: Pin 1 of JCOM3/4 can be 5v or signal DCD (selected via JC-3-4, Location 6)

(4) AT or ATX Select jumper (3*1 Pin 2.54mm)

No.	Location	Setting	Function
4	JP1	1-2(Default)	ATX Mode
		2-3	AT Mode

(5) SIM Card Pin Header (6*1 Pin 2.00mm)

No.	Location	Pin	Definition	Pin	Definition
5	SIM1	1	UIM_PWR	2	GND
		3	UIM_DAT	4	UIM_CLK
		5	UIM_RST	6	UIM_VPP

(6) COM3/4 Pin1 Signal Select Jumper (3*2 Pin 2.54mm)

No.	Location	Setting	Function
6	JP1	1-3、2-4	COM3_PIN1 : 5V COM4_PIN1 : 5V
		3-5、4-6 (Default)	COM3_PIN1 : DCD COM4_PIN1 : DCD

(7) System Fan Connector (3*1 Pin 2.54mm)

No.	Location	Pin	Definition	Pin	Definition
7	SYS-FAN1	1	GND	2	+12V
		3	FAN Speed Detection		

(8) Front Audio Pin Header (5*2 Pin 2.54mm)

No.	Location	Pin	Definition	Pin	Definition
8	F-AUDIO1	1	FP_MIC_L	2	GND
		3	FP_MIC_R	4	+ 3.3V
		5	FP_OUT_R	6	MIC_Detect
		7	GND		
		9	FP_OUT_L	10	MIC_Detect

(9) Front Panel Pin Header (5*2 Pin 2.54mm)

No.	Location	Pin	Definition	Pin	Definition
9	F-AUDIO1	1	FP_MIC_L	2	GND
		3	FP_MIC_R	4	+ 3.3V
		5	FP_OUT_R	6	MIC_Detect
		7	GND		
		9	FP_OUT_L	10	MIC_Detect

(10) Parallel Pin Header (13*2 Pin 2.00mm)

No.	Location	Pin	Definition	Pin	Definition
10	LTP1	1	STROBE#	2	AUTOFEED#
		3	DATA0	4	ERROR#
		5	DATA1	6	INIT#
		7	DATA2	8	SLCTIN#
		9	DATA3	10	GND
		11	DATA4	12	GND
		13	DATA5	14	GND
		15	DATA6	16	GND
		17	DATA7	18	GND
		19	ACKNLG#	20	GND
		21	BUSY	22	GND
		23	PE	24	GND
		25	SLCT		

(11) GPIO Pin Header (5*2 Pin 2.00mm)

No.	Location	Pin	Definition	Pin	Definition
11	J-GPIO1	1	GPO68(0x1C48 Bit4,H) [1]	2	GPO69(0x1C48 Bit5,H)
		3	GPO70(0x1C48 Bit6,H)	4	GPO71(0x1C48 Bit7,H)
		5	GND	6	GPI1(0x1C0C Bit1)
		7	GPI6(0x1C0C Bit 6)	8	GPI7(0x1C0C Bit7)
		9	GPI17(0x1C0E Bit1)	10	+ 5 V *

Note:

[1]: "H" or "L" means the default voltage is high or low level.

[2]: * power on this pin and GPIO output is 5v signaling by default, 3.3V is avaliable if specified (resistor selectable).

(12) CPU Fan Connector (4*1 Pin 2.54mm)

No.	Location	Pin	Definition	Pin	Definition
12	CPU-FAN1	1	GND	2	+12V
		3	FAN Speed Detection	4	FAN Speed Control

(13) VGA Pin Header (12*1 Pin 2.00mm)

No.	Location	Pin	Definition	Pin	Definition
13	J-VGA1	1	GND	2	VSYNC
		3	HSYNC	4	GND
		5	RED	6	GND
		7	GREEN	8	GND
		9	BLUE	10	GND
		11	DDCDAT	12	DDCCLK

[END]