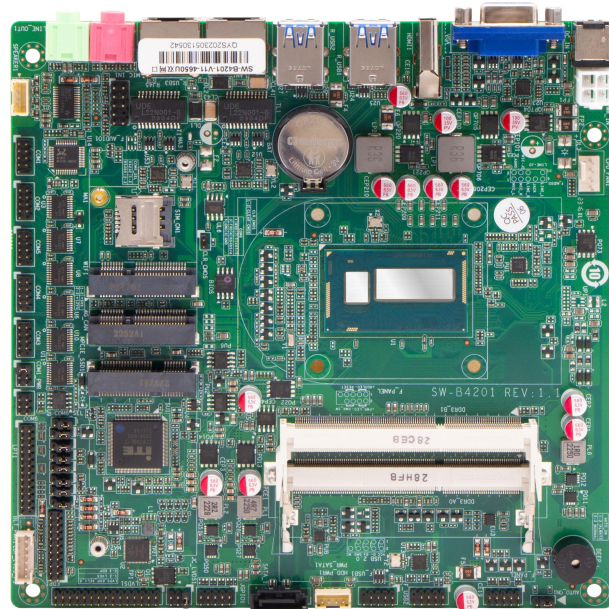


SW-B4201-V11-4650U双网口

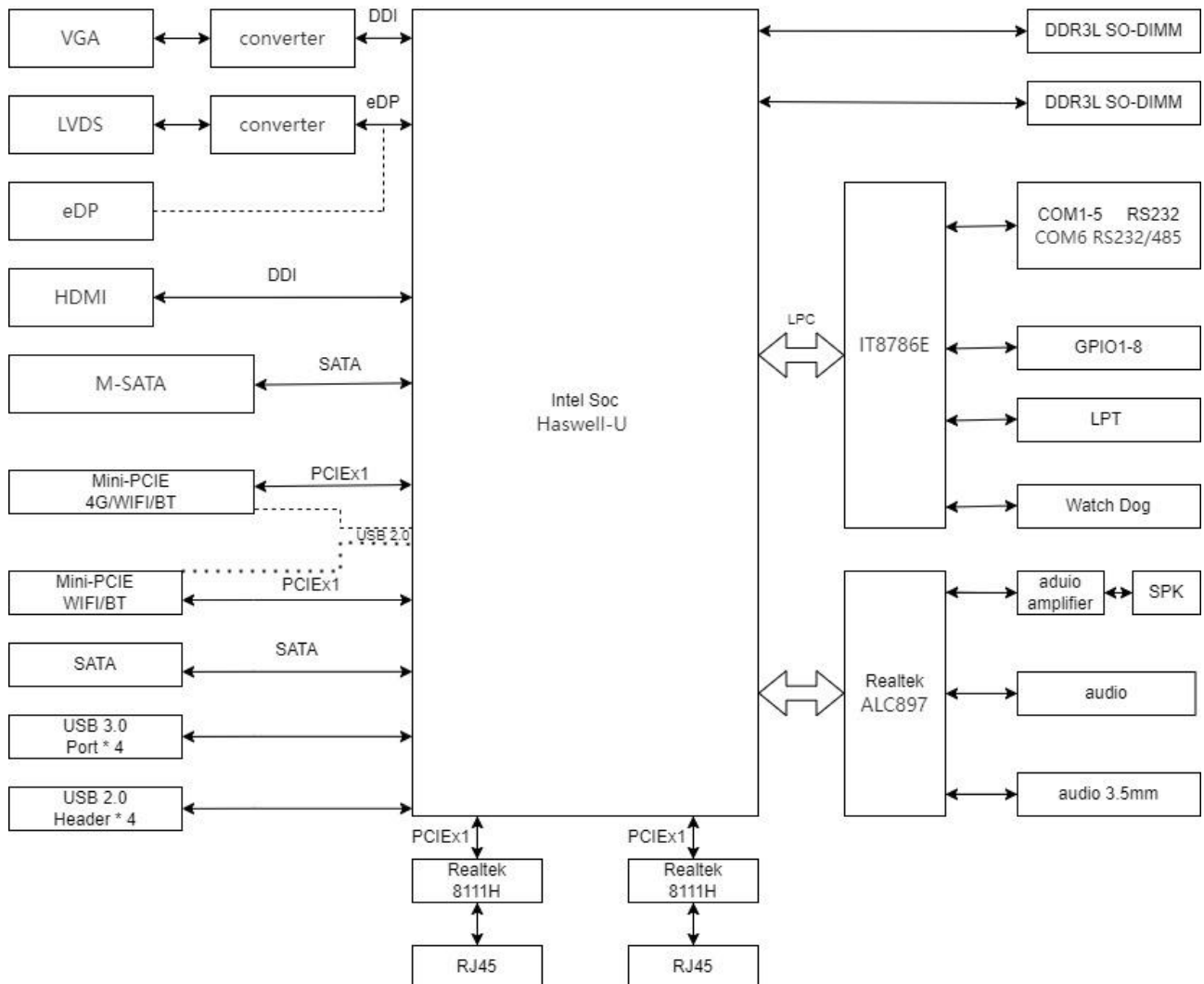
- Intel Haswell 4thCore™ i7 CPU
- 6*COM, 4*USB3.0, 4*USB2.0, 2*Gigabit LAN
- 1*LVDS/eDP, 1*HDMI, 1*VGA
(Support triplet display simultaneously)
- 2*Mini-PCle (4G/Wifi/BT)
- 1*M-SATA
- Mini-ITX, DC 12V Power Input



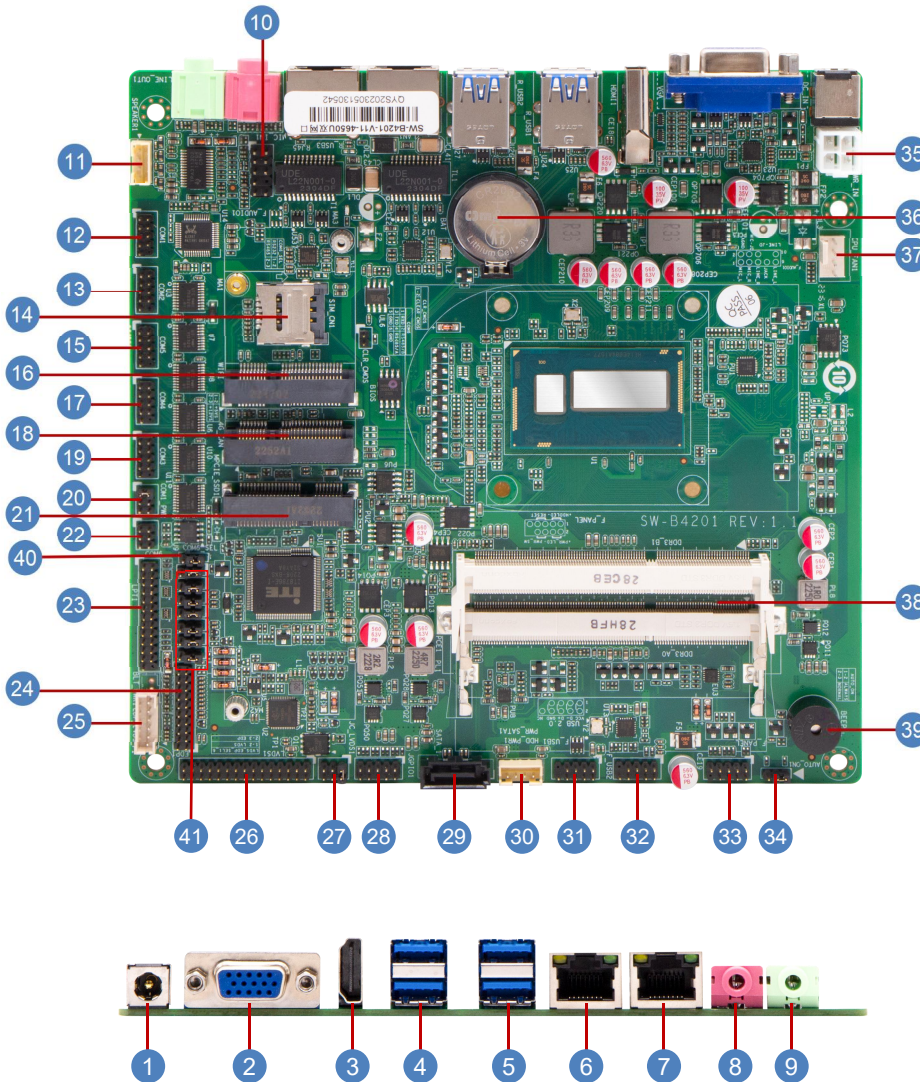
1. Specification

| | |
|----------------------------|--|
| Model | SW-B4201-V11 |
| CPU | Intel® Core™ i7-4650U, up to 3.30G, Dual-core |
| Display | Support quad display simultaneously: 1* HDMI: resolution up to 3000 * 2000@60Hz 1* VGA: resolution up to 1920*1080@60Hz 1 * LVDS/eDP: LVDS, resolution up to 1920 * 1080@60Hz 1 * eDP: resolution up to 1920 * 1200@60Hz |
| Memory | DDR3L-1333/1600,2 * SO-DIMM, up to 16GB *Note:Due to the limitation of Windows 32-bit operating system, if more than 4 GB of memory is installed, it is actually.The memory capacity displayed on will be less than 4 GB. |
| Storage | 1 * SATA3.0 7P Connector 1 * Mini-SATA |
| Expansion Interface | 2 * Mini-PCIe (Wifi supported with 4G/BT selectable) |
| Ethernet | 2 * Realtek® 1Gbps PCIe Ethernet Controller, RJ45 |
| Audio | Realtek® HDA Codec, with MIC/Line-out and Amplifier 1 * Front Audio Header (Line-Out + MIC) 1 * Line-Out/MIC Jack 1* SPK |
| COM | 5 * RS232 Header 1 * RS232/RS485 Header |
| USB | 4 * USB3.0 (Rear I/O, TYPE-A) 4 * USB2.0 (Internal, Header) |
| Other Ports | 1 * LPT Header 1 * Micro SIM Card Slot 1 * CPU FAN Header 1 * Front Panel Header 1 * GPIO Header 1 * CMOS Clear Jumper |
| System | Windows 7/10/11, Linux |
| Temperature | Storage: -30~75°C Operating: -20° ~60°C |
| BIOS | AMI UEFI BIOS (Support Watchdog Timer) |
| Power Input | DC 12V |
| Factor | MINI-ITX Standard (170mm * 170mm) |

2. Data Flow



3. Marking instruction



Connector&Header

| | |
|----|--|
| 1 | DC12V Power Input Connector |
| 2 | VGA Connector |
| 3 | HDMI Connector |
| 4 | USB3.0 Connectors |
| 5 | USB3.0 Connectors |
| 6 | LAN Connectors |
| 7 | LAN Connectors |
| 8 | Mic-in Connector |
| 9 | Line-out Connector |
| 10 | Front Audio Pin Header |
| 11 | Amplifier Pin Header |
| 12 | COM1 Pin Headers |
| 13 | COM2 Pin Headers |
| 14 | SIM Card Slot |
| 15 | COM3 Pin Headers |
| 16 | Mini PCI-WIFI Slot (WIFI/BT) |
| 17 | COM4 Pin Headers |
| 18 | Mini PCI-4G_CAN Slot (WIFI/4G/BT) |
| 19 | COM5 Pin Headers |
| 20 | COM1 PWR Select Jumper |
| 21 | M-SATA Connector |
| 22 | COM6 Pin Headers |
| 23 | Parallel Port Pin Header |
| 24 | eDP Signal Pin Header |
| 25 | eDP/LVDS Backlight Control Pin Header |
| 26 | LVDS Signal Pin Header |
| 27 | eDP/LVDS VDD Select Jumper |
| 28 | GPIO Pin Header |
| 29 | SATA 3.0 Connector |
| 30 | SATA Power Pin Header |
| 31 | USB Pin Headers |
| 32 | USB Pin Headers |
| 33 | Front Panel Pin Header |
| 34 | AUTO_ON Pin Headers |
| 35 | DC12V Power Input Header |
| 36 | CMOS battery Holder |
| 37 | CPU Fan Header |
| 38 | DDR3 SO-DIMM Slot |
| 39 | buzzer |
| 40 | COM6 RS232/RS485 Signal Select Jumpers |
| 41 | eDP/LVDS Signal Select Jumpers |

4. Definition

[1] DC12V Power Input Header(5.5*2.5mm)

Positive inside and negative outside, 5.5mm outer diameter and 2.5mm inner diameter DC power head

[2] VGA Connector

This socket supports VGA(D-Sub) specification and can support the resolution up to 1920x1080@60 Hz (the actual supported resolution will be Depending on the monitor you use), you can connect a monitor that supports VGA(D-Sub) interface to this socket.

[3] HDMI Connector

This socket supports HDMI specifications and can support resolutions up to 1920x1080@60 Hz (the actual supported resolutions will be Depending on the monitor you use), you can connect a monitor that supports HDMI interface to this socket.

[4] USB3.0 Connectors

Two USB3.0 Type-A™ interfaces are on the rear panel, supporting 5Gbps. And can be compatible with USB 2.0 specification. You can connect USB devices to this interface.

[5] USB3.0 Connectors

Two USB3.0 Type-A™ interfaces are on the rear panel, supporting 5Gbps. And can be compatible with USB 2.0 specification. You can connect USB devices to this interface.

[6] LAN Connectors

This network cable interface is an ultra-high-speed Ethernet, which provides connection to the Internet with the highest transmission rate per second.Up to 1 GB (1 Gbps)

[7] LAN Connectors

This network cable interface is an ultra-high-speed Ethernet, which provides connection to the Internet with the highest transmission rate per second.Up to 1 GB (1 Gbps).

[8] Mic-in Connector (pink)

This jack is a microphone connection hole.

[9] Line-out Connector(green)

This jack is an audio output hole and supports audio amplification function. It is recommended to connect headphones and speakers to this jack for better performance.Output audio (the actual effect may vary depending on the device you use).

[10] Front Audio Pin Header (2*5 Pin 2.54mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 10 | F_AUDIO1 | 1 | MIC_L | 2 | GND |
| | | 3 | MIC_R | 4 | + 3.3VS |
| | | 5 | LINE_R | 6 | MIC_Sense |
| | | 7 | GND | | |
| | | 9 | LINE_L | 10 | LINE_Sense |

[11] Amplifier Pin Header (1*4 Pin 2.00mm Wafer Header)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 11 | J_BKL1 | 1 | SPKR- | 2 | SPKR+ |
| | | 3 | SPKL+ | 4 | SPKL- |

[12] COM1 Pin Header (2*5 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 12 | COM1 | 1 | DCD | 2 | RXD |
| | | 3 | TXD | 4 | DTR |
| | | 5 | GND | 6 | DSR |
| | | 7 | RTS | 8 | CTS |
| | | 9 | RI-PWR | | |

Note:

[1] Pin9 of COM1 also can be 0/5/12V(COM1 PWR Select Select Jumper).

[13] COM2 Pin Header (2*5 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 13 | COM2 | 1 | DCD | 2 | RXD |
| | | 3 | TXD | 4 | DTR |
| | | 5 | GND | 6 | DSR |
| | | 7 | RTS | 8 | CTS |
| | | 9 | RI | | |

[14] SIM Card Slot (Micro SIM)

[15] COM3 Pin Header (2*5 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 15 | COM3 | 1 | DCD | 2 | RXD |
| | | 3 | TXD | 4 | DTR |
| | | 5 | GND | 6 | DSR |
| | | 7 | RTS | 8 | CTS |
| | | 9 | RI | | |

[16] Mini PCI-WIFI Slot(WIFI/BT)

[17] COM4 Pin Header (2*5 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 17 | COM4 | 1 | DCD | 2 | RXD |
| | | 3 | TXD | 4 | DTR |
| | | 5 | GND | 6 | DSR |
| | | 7 | RTS | 8 | CTS |
| | | 9 | RI | | |

[18] Mini PCI-4G_CAN Slot (WIFI/4G/BT)

[19] COM5 Pin Header (2*5 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 19 | COM5 | 1 | DCD | 2 | RXD |
| | | 3 | TXD | 4 | DTR |
| | | 5 | GND | 6 | DSR |
| | | 7 | RTS | 8 | CTS |
| | | 9 | RI | | |

[20] COM1 PWR Select Jumper (2*3 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|----------------------|-----|------------|
| 20 | COM1 PWR | 1 | COM1-RI-PW(Default)- | 2 | RI |
| | | 3 | COM1-RI-PW- | 4 | + 5VS |
| | | 5 | COM1-RI-PW- | 6 | + 12VS |

Note:

[1] Pin9 of COM1 also can be 0/5/12V(COM1 PWR Select Select Jumper)

[21] M-SATA Connector

[22] COM6 Pin Headers (2*3 Pin 2.0mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 22 | COM6 | 1 | COM6_RXD | 2 | RS485_B |
| | | 3 | COM6_TXD | 4 | RS485_A |
| | | 5 | GND | 6 | GND |

[23] Parallel Port Pin Header (2*13 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 23 | LPT1 | 1 | STB | 2 | AFD |
| | | 3 | D0 | 4 | ERR |
| | | 5 | D1 | 6 | INIT |
| | | 7 | D2 | 8 | SLINT |
| | | 9 | D3 | 10 | GND |
| | | 11 | D4 | 12 | GND |
| | | 13 | D5 | 14 | GND |
| | | 15 | D6 | 16 | GND |
| | | 17 | D7 | 18 | GND |
| | | 19 | ACK | 20 | GND |
| | | 21 | BUSY | 22 | GND |
| | | 23 | PE | 24 | GND |
| | | 25 | SLCT | | |

[24] eDP Signal Pin Header (2*10 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 24 | eDP | 1 | LCD_VDD | 2 | LCD_VDD |
| | | 3 | GND | 4 | GND |
| | | 5 | AUX_CH_N | 6 | AUX_CH_P |
| | | 7 | GND | 8 | GND |
| | | 9 | N/C | 10 | N/C |
| | | 11 | N/C | 12 | N/C |
| | | 13 | LANE1_N | 14 | LANE1_P |
| | | 15 | LANE0_N | 16 | LANE0_P |
| | | 17 | GND | 18 | GND |
| | | 19 | N/C | 20 | HPD |

Note:

[1] LV_EDP_SEL is the function switching jumper of EDP or LVDS. And only one of them can be used simultaneously. See [41]eDP/LVDS Signal.

[25] eDP/LVDS Backlight Control Pin wafer Header (1*6 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 25 | BLT_PWR1 | 1 | INVT_PWR | 2 | INVT_PWR |
| | | 3 | BLK_EN | 4 | BLK_PWM |
| | | 5 | GND | 6 | GND |

[26] LVDS Signal Pin Header (2*15 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 26 | LVDS | 1 | LCD_VDD | 2 | LCD_VDD |
| | | 3 | LCD_VDD | 4 | N/C |
| | | 5 | GND | 6 | GND |
| | | 7 | TA0N- | 8 | TA0P+ |
| | | 9 | TA1N- | 10 | TA1P+ |
| | | 11 | TA2N- | 12 | TA2P+ |
| | | 13 | N/C | 14 | GND |
| | | 15 | CLK_TAN- | 16 | CLK_TAP+ |
| | | 17 | TA3N- | 18 | TA3P+ |
| | | 19 | TB0N- | 20 | TB0P+ |
| | | 21 | TB1N- | 22 | TB1P+ |
| | | 23 | TB2N- | 24 | TB2P+ |
| | | 25 | GND | 26 | GND |
| | | 27 | CLK_TBN- | 28 | CLK_TBP+ |
| 29 | TB3N- | 30 | TB3P+ | | |

Note:

[1] LV_EDP_SEL is the function switching jumper of EDP or LVDS. And only one of them can be used simultaneously. See [41]eDP/LVDS Signal.

[27] eDP/LVDS VDD Select Jumper (2*3 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------------|-----|------------|
| 25 | JC_LVDS1 | 1 | LCD_VDD(Default) | 2 | +V3.3S |
| | | 3 | LCD_VDD | 4 | +V5S |
| | | 5 | LCD_VDD | 6 | +V12S |

[28] GPIO Pin Header (2*5 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------------------|-----|------------------------|
| 28 | GPIO1 | 1 | +5VS | 2 | GND |
| | | 3 | IN_GP37 (A02.bit7) | 4 | OUT_GP47 (A03.bit7) |
| | | 5 | IN_GP36 (A02.bit6) | 6 | N/C |
| | | 7 | IN_GP23 (A01.bit3) | 8 | OUT_GP33 (A02.bit3) |
| | | 9 | OUT_GP10 (A00.bit0) | 10 | OUT_GP67 (A05.bit7) |

[29] SATA 3.0 Connector

[30] SATA Power Pin wafer Header (1*4 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 30 | HHD_PWR1 | 1 | +12V | 2 | GND |
| | | 3 | GND | 4 | + 5V |

[31] USB Pin Headers (2*5 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 31 | F_USB1 | 1 | +5VS | 2 | +5VS |
| | | 3 | Data0- | 4 | Data1+ |
| | | 5 | Data0+ | 6 | Data1+ |
| | | 7 | GND | 8 | GND |
| | | | | 10 | N/C |

[32] USB Pin Headers (2*5 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 32 | F_USB2 | 1 | +5VS | 2 | +5VS |
| | | 3 | Data0- | 4 | Data1+ |
| | | 5 | Data0+ | 6 | Data1+ |
| | | 7 | GND | 8 | GND |
| | | | | 10 | N/C |

[33] Front Panel Pin Header (2*5 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 33 | F_PANEL | 1 | HDD_LED+ | 2 | PWR_LED+ |
| | | 3 | HDD_LED- | 4 | GND |
| | | 5 | GND | 6 | PWE_SW |
| | | 7 | RESET | 8 | GND |
| | | 9 | N/C | | |

[34] AUTO_ON Pin Headers (1*3 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|---------------|-----|------------|
| 34 | AUTO_ON1 | 1 | AUTO(Default) | 2 | PWR_SW |
| | | 3 | +V3.3S | | |

[35] DC12V Power Input Header (ATX_4PIN)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|------------|-----|------------|
| 35 | PWR_IN | 1 | GND | 2 | GND |
| | | 3 | DC_IN_12V | 4 | DC_IN_12V |

[36] CMOS battery Holder

[37] CPU Fan Header (4*1 Pin 2.54mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|---------------------|-----|-------------------|
| 37 | CPU_FAN1 | 1 | GND | 2 | + 12V |
| | | 3 | FAN Speed Detection | 4 | FAN Speed Control |

[38] DDR3 SO-DIMM Slot

[39] buzzer

[40] COM6 RS232/RS485 Signal Select Jumpers (1*3 Pin 2.00mm)

| No. | Location | Pin | Definition | Pin | Definition |
|-----|----------|-----|---------------------|-----|------------|
| 40 | COM6_SEL | 1 | COM6_RS232(Default) | 2 | COM6_RXD |
| | | 3 | COM6_RS485 | | |

[41] eDP/LVDS Signal Select Jumpers (1*3 Pin 2.00mm*7 pairs)

Jump 1-2pin for LVDS signal output, and jump 2-3pin for eDP signal output. Default 1-2pin LVDS signal output.

【 END】

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安全提示

1. 产品使用前，务必请仔细阅读安全手册，并妥善保管以便日后参考。
2. 当您给设备供电前，请确认电源电压是否符合设备要求。
3. 为避免人体被电击或产品被损坏，用洗板水或电路板专用清洁剂前，请从插座上拔下电源线。
4. 请不要使用液体或去污喷雾剂去清洗设备。
5. 请不要让任何液体流入或溅入到设备表面，以免引起短路或者火灾。
6. 对于使用电源线的设备，设备周围必须有容易接触到的电源插座。
7. 请不要在潮湿环境中使用设备。
8. 请在安装前确保设备放置在可靠的平面上，意外跌落或翻倒可能会导致设备故障或损坏。
9. 当需连接或拔除任何信号线前，须确定所有的电源线事先已被拔掉。
10. 为避免频繁开关机对产品造成不必要的损伤，关机后，应至少等待30秒后再开机。
11. 如果长时间不使用设备，请断开电源线，避免设备被瞬间电压损坏。
12. 如果要进行升级或拆装等动作，须在静电放电工作台上完成所有操作，因为有些精密器件对静电放电(ESD)很敏感。
13. 保证系统良好的散热与通风。
14. 请不要自行拆卸设备，为了安全起见，此设备只能交由专业维修人员。