

User's Manual

SYM86603VGGA-Q370

Ver 1.0

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1. Models and Attentions

1.1 Models

This manual is applied to following models:

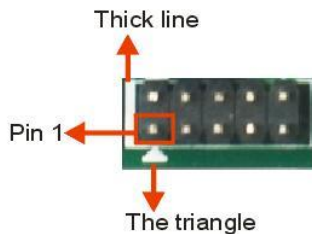
| Model | Chipset | COM | LAN | USB | PCIE | PCI | DVI | HDMI | VGA | eDP | SATA 3.0 |
|-----------------------|---------|-----|-----|-----|---------------|-----|-----|------|-----|-----|----------|
| SYM86603V GGA-Q370 | Q370 | 6 | 2 | 13 | 1*16X 4*4X | 2 | 1 | 1 | 1 | 1 | 4 |

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 | SYM86603VGGA-Q370 | SYM86603VGGA-C246 |
|-------------------------------|--|---|
| CPU | Support 8-9 th Generation Intel® Core /Pentium/Celeron Processors, LGA1151 Support MAX CPU TDP: Hexa-Core 95W (Do not support Octa-Core 65W/95W CPU) | Support 8-9 th Generation Intel® Xeon/ Core/ Pentium/ Celeron Processors, LGA1151 Support MAX CPU TDP: Hexa-Core 95W (Do not support Octa-Core 65W/95W CPU) |
| Chipset | Intel® Q370, TDP 6W | Intel® C246, TDP 6W |
| Display ^[1] | 1 * DVI-D(DVI-I): Supports DVI-D with max resolution up to 1920x1200@60Hz 1 * HDMI 1.4b (TYPE-A): Supports max resolution up to 4096x2160@30Hz 1 * VGA (DB15/F): Supports max resolution up to 1920x1200@60Hz 1 * eDP: Supports max resolution up to 1920x1200@60Hz | |
| Memory ^[2] | Support DDR4 2400/2666 MHz, 4 * U-DIMM Slot, Up to 64GB | Support ECC Memory, Support DDR4 2400/2666 MHz, 4 * U-DIMM Slot, Up to 64GB |
| Storage | Supports RST RAID 0,1,5,10, 4 * SATA 3.0 Connector ^[3] 1 * Mini SATA Slot (mSATA) ^[3] | |
| Ethernet | 1 * I219 GBE LAN Chip (RJ45, 10/100/1000 Mbps) ^[4] 1 * I211 GBE LAN Chip (RJ45, 10/100/1000 Mbps) ^[5] | |
| Audio | Realtek ALC662 5.1 Channel HDA Codec, 1 * Line-Out + MIC + Line-In 3.5mm Jack 1 * Audio Pin Header (Line-Out + MIC) 1 * SPDIF OUT Pin Header | |
| COM | 1 * RS232 (COM1, DB9/M) 3 * RS232 (COM2, COM5, COM6, Header) 1 * RS232/RS422/RS485 (COM3, Header) 1 * RS232/RS485 (COM4, Header) | |
| USB | 4 * USB3.0 (Rear I/O, TYPE-A) 2 * USB3.0 (Header) 2 * USB2.0 (Rear I/O, TYPE-A) 1 * USB2.0 (Vertical TYPE-A) 4 * USB2.0 (Header) | |
| PCI-E | 1 * PCI-E 16X Slot (PCI-E 3.0) 4 * PCI-E 4X Slot (PCI-E 3.0) ^[6] | |
| PCI | 2 * PCI Slot | |
| Other Ports | Supports onboard TPM 1.2/2.0 (optional, onboard by default), 1 * Mini PCI-E Slot (WIFI+4G) ^[6] 8 * GPIO 1 * Front Panel 3 * Smart FAN 1 * SIM Card Slot 1 * PS/2 Combo (Mouse and Keyboard Supported) 1 * SMBUS Pin Header 1 * ATX 8P CPU Power Input Connector 1 * Chassis Open Select Jumper | |

| | |
|---------------------|--|
| | 1 * AT or ATX Select Jumper |
| System | Windows 10, Linux |
| Temperature | Storage: -20~80°C Operating: -10~60°C |
| BIOS | AMI UEFI BIOS (Support Watchdog Timer) |
| Power Supply | ATX 24P |
| Factor | 305mm * 244mm (ATX) |

Notes:

[1]: Intel® Q370 and C246 supports three independent displays.

[2]: The maximum memory frequency depends on CPU.

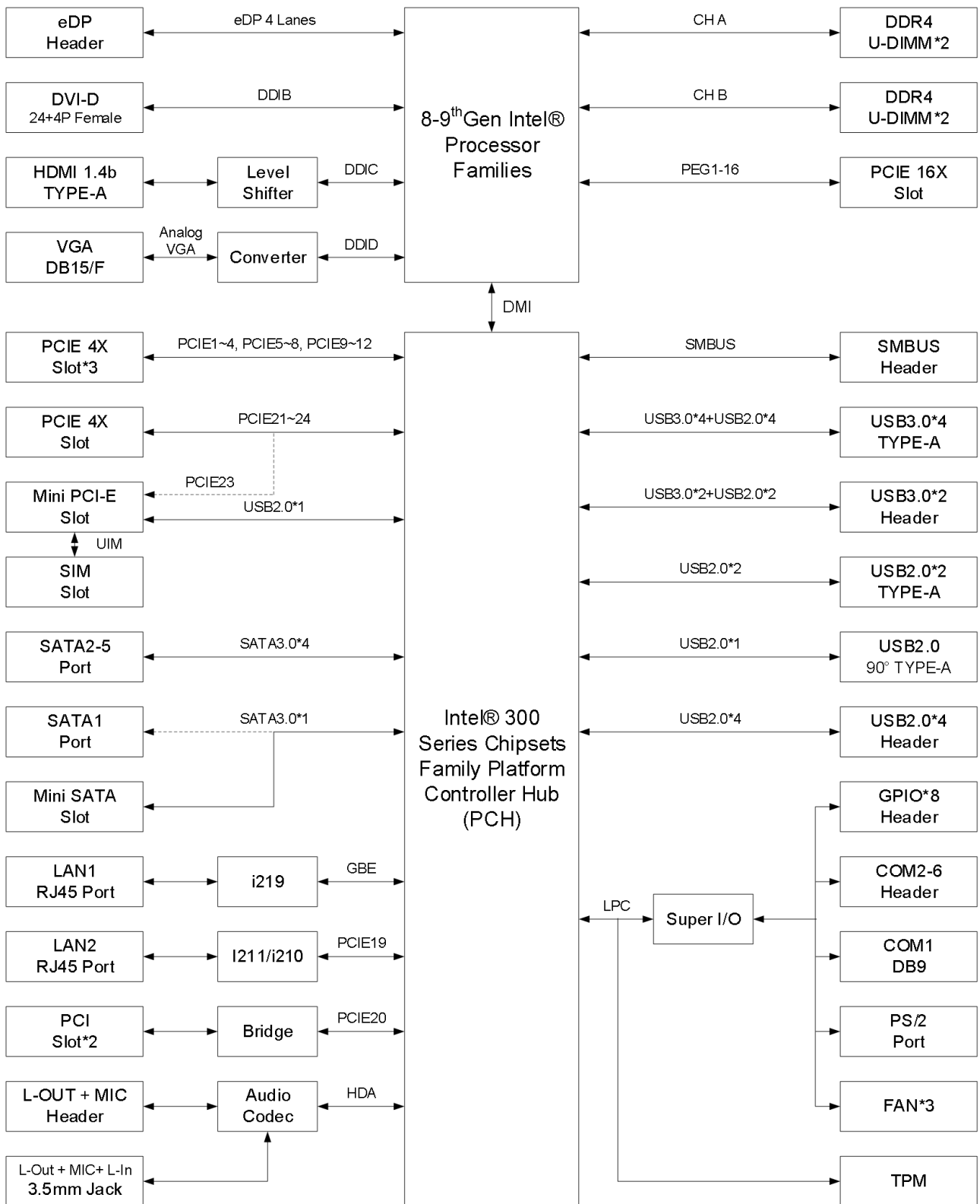
[3]: MSATA1 and SATA1 share the same SATA3.0 signal, they can't be accessed simultaneously. If not supports mSATA1, it can also support a total of five SATA interface.

[4]: I219 supports Intel AMT 12.0 and Intel vPro competent.

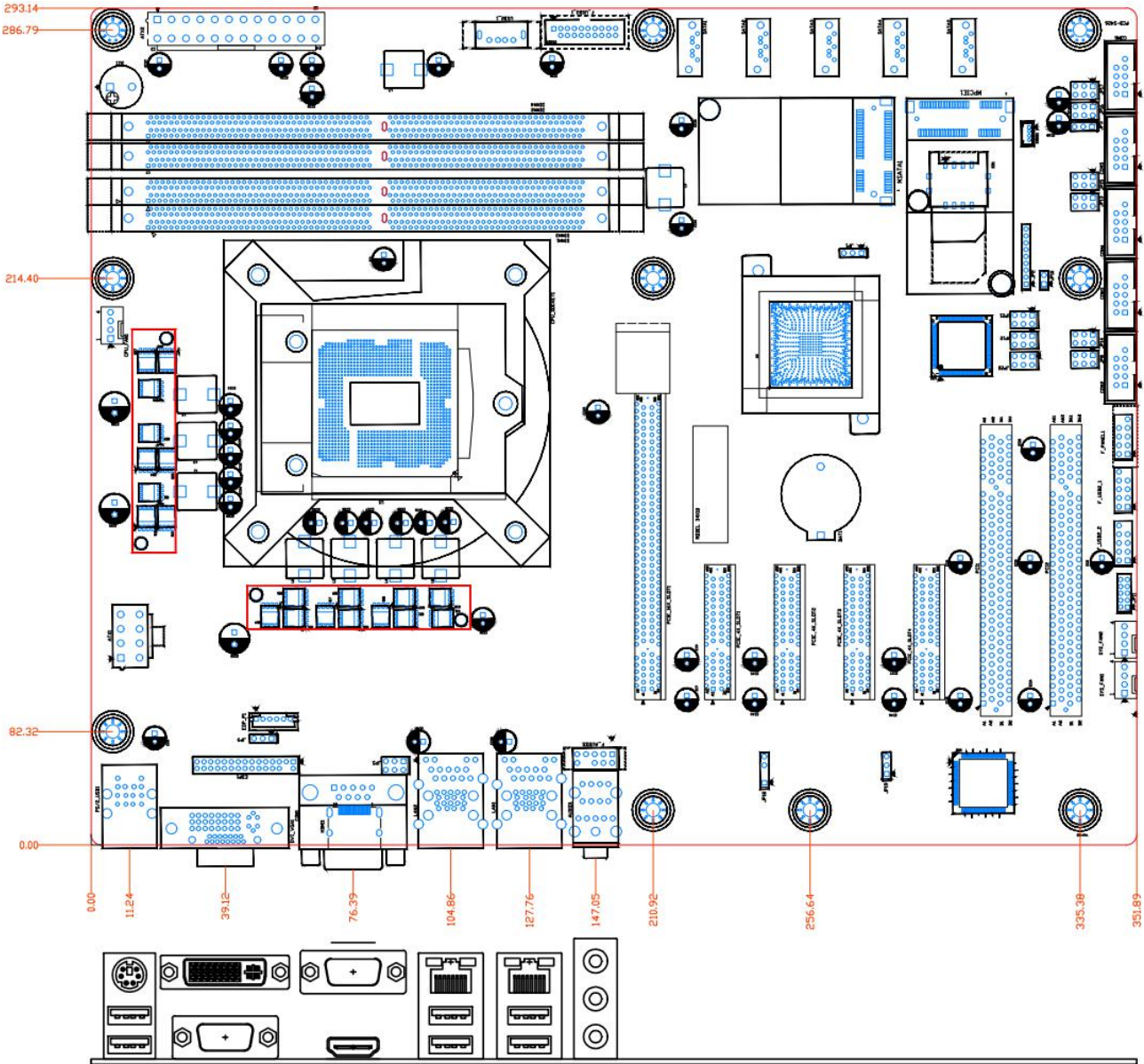
[5]: LAN2 Support I211 by default and also can support I210 if **specified**.

[6]: It supports PCIE_4X_SLOT1 by default. MPCIE1 and PCIE_4X_SLOT1 only share one same PCIE3.0 signal, they can't be accessed simultaneously. PCIE_4X_SLOT1 can still supports PCIE 2X when motherboard supports MPCIE1(Need to match the corresponding BIOS).

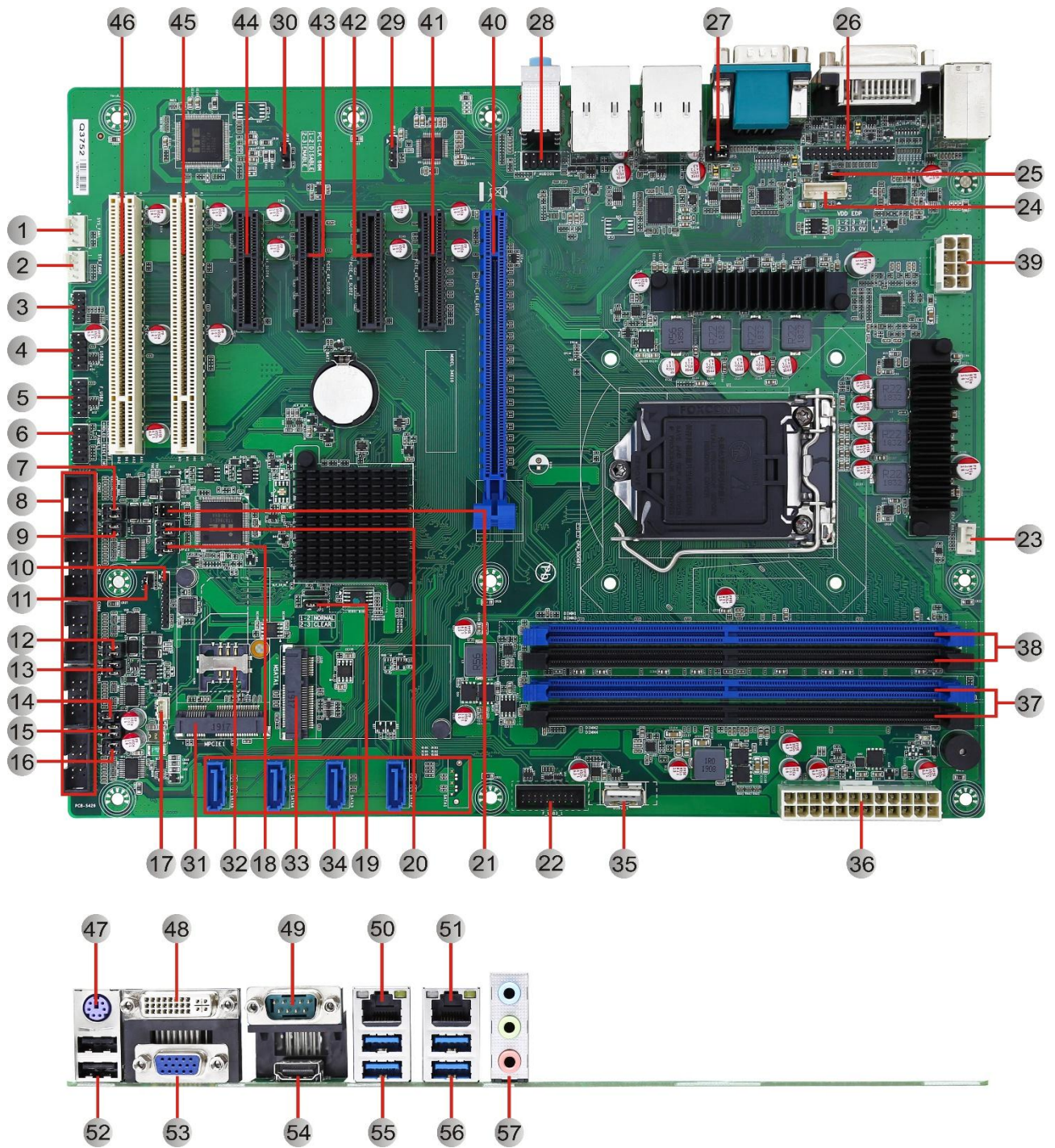
3. Functional Block Diagram

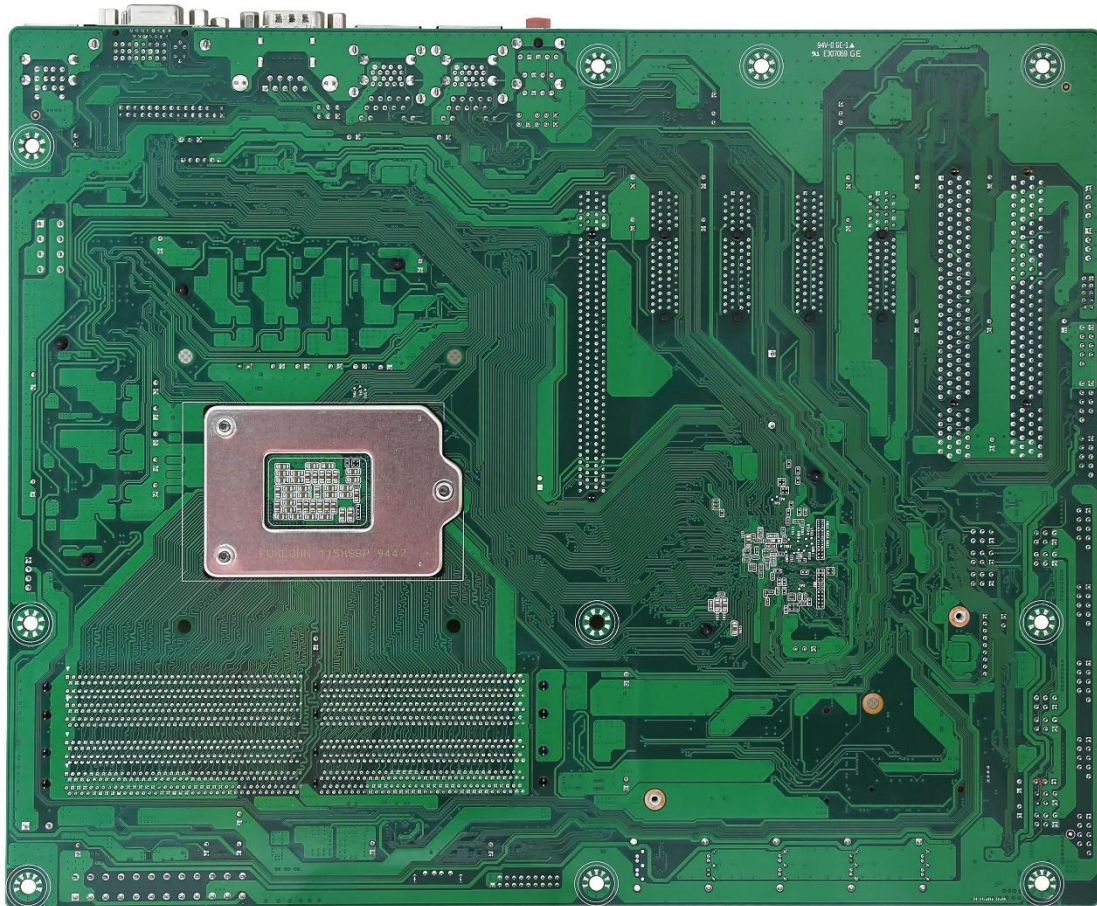


4. Mechanical Drawing



5. Jumpers / Headers and Connectors






Jumpers / Headers and Connectors

| | | |
|----|-----------|---------------------------------------|
| 1 | SYS_FAN1 | System Fan Connector1 |
| 2 | SYS_FAN2 | System Fan Connector2 |
| 3 | JP11 | GPIO Pin Header |
| 4 | F_USB2_2 | Front USB2.0 Pin Header2 |
| 5 | F_USB2_1 | Front USB2.0 Pin Header1 |
| 6 | F_PANEL1 | Front Panel Pin Header |
| 7 | JP8 | COM2 Pin1/Pin8 Select Jumper |
| 8 | COM2~COM6 | COM2/3/4/5/6 Pin Header |
| 9 | JP14 | COM3 Pin1/Pin8 Select Jumper |
| 10 | JP2 | Debug Pin Header |
| 11 | JP10 | Chassis Open Select Jumper |
| 12 | JP13 | COM4 RS232/RS485 Select Jumper |
| 13 | JP15 | COM4 Pin1/Pin8 Select Jumper |
| 14 | JP3 | AT or ATX Select Jumper |
| 15 | JP16 | COM5 Pin1/Pin8 Select Jumper |
| 16 | JP17 | COM6 Pin1/Pin8 Select Jumper |
| 17 | SMBUS1 | SMBUS Pin Header |
| 18 | JP21 | COM3 RS232/RS422/RS485 Select Jumper3 |
| 19 | JP1 | CMOS Clear Jumper |
| 20 | JP12 | COM3 RS232/RS422/RS485 Select Jumper2 |


| | | |
|----|-----------------|--|
| 21 | JP20 | COM3 RS232/RS422/RS485 Select Jumper1 |
| 22 | F_USB3_1 | Front Dual-USB3.0 Pin Header |
| 23 | CPU_FAN1 | CPU Fan Pin Header |
| 24 | EDP_P1 | EDP Backlight Control Pin Header |
| 25 | JP9 | EDP VDD Select Jumper |
| 26 | EDP1 | EDP Signal Pin Header |
| 27 | JP5 | COM1 Pin1/Pin9 Select Jumper |
| 28 | F_AUDIO1 | Front Audio Pin Header |
| 29 | JP18 | SPDIF OUT Pin Header |
| 30 | JP19 | PCI Clock Select Jumper |
| 31 | MPCIE1 | Mini PCI-E1 Slot (WIFI+4G) |
| 32 | SIM1 | SIM Card Slot |
| 33 | MSATA1 | Mini SATA Slot (mSATA) |
| 34 | SATA1~SATA5 | SATA1/2/3/4/5 3.0 Connector (SATA1 not on board by default) |
| 35 | USB2_1 | USB2.0 TYPE-A 90D Connector |
| 36 | ATX2 | ATX 24P Power Input Connector |
| 37 | DIMM2, DIMM4 | DDR4 CHB U-DIMM Slot2/4 |
| 38 | DIMM1, DIMM3 | DDR4 CHA U-DIMM Slot1/3 |
| 39 | ATX1 | ATX 8P CPU Power Input Connector |
| 40 | PCIE_16X_SLOT1 | PCI-E 16X Slot |
| 41 | PCIE_4X_SLOT1 | PCI-E 4X Slot1 |
| 42 | PCIE_4X_SLOT2 | PCI-E 4X Slot2 |
| 43 | PCIE_4X_SLOT3 | PCI-E 4X Slot3 |
| 44 | PCIE_4X_SLOT4 | PCI-E 4X Slot4 |
| 45 | PCI1 | PCI Slot1 |
| 46 | PCI2 | PCI Slot2 |
| 47 | PS/2_USB1(PS/2) | PS/2 Keyboard and Mouse Connector |
| 48 | DVI_VGA1(DVI) | DVI-I 24+4P Female Connector |
| 49 | COM1 | COM1 DB9/M Connector |
| 50 | LAN1(LAN) | LAN RJ45 Connector1 |
| 51 | LAN2(LAN) | LAN RJ45 Connector2 |
| 52 | PS/2_USB1(USB) | Dual USB2.0 TYPE-A Connector |
| 53 | DVI_VGA1(VGA) | VGA DB15/F Connector |
| 54 | HDMI1 | HDMI TYPE-A Connector |
| 55 | LAN1(USB) | Dual USB3.0 TYPE-A Connector1 |
| 56 | LAN2(USB) | Dual USB3.0 TYPE-A Connector2 |
| 57 | AUDIO1 | Line-Out + MIC + Line-In 3.5mm Jack |

6. Definition of Jumpers /Headers and Connectors

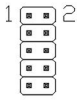
1) SYS_FAN1 (System Fan Connector1 4*1 Pin 2.54mm)

| Graphic | Pin | Definition | Pin | Definition |
|---|-----|----------------------|-----|--------------------|
|  | 1 | GND | 2 | + 12V |
| | 3 | FAN Speed Detection2 | 4 | FAN Speed Control2 |

2) SYS_FAN2 (System Fan Connector2 4*1 Pin 2.54mm)

| Graphic | Pin | Definition | Pin | Definition |
|---|-----|----------------------|-----|--------------------|
|  | 1 | GND | 2 | + 12V |
| | 3 | FAN Speed Detection4 | 4 | FAN Speed Control4 |

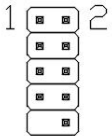
3) JP11 (GPIO Pin Header 5*2 Pin 2.00mm)

| Graphic | Pin | Definition | Pin | Definition |
|---|-----|-----------------------------------|-----|-----------------------------------|
|  | 1 | SIO_ GPO74 (0xA06 Bit4, H) [1] | 2 | SIO_ GPI70 (0xA06 Bit0, H) [1] |
| | 3 | SIO_ GPO75 (0xA06 Bit5, H) [1] | 4 | SIO_ GPI71 (0xA06 Bit1, H) [1] |
| | 5 | SIO_ GPO76 (0xA06 Bit6, H) [1] | 6 | SIO_ GPI72 (0xA06 Bit2, H) [1] |
| | 7 | SIO_ GPO77 (0xA06 Bit7, H) [1] | 8 | SIO_ GPI73 (0xA06 Bit3, H) [1] |
| | 9 | GND | 10 | GND |

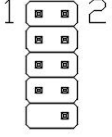
Note:

[1]: "H" or "L" means the default voltage is High or Low level, and GPIO output is 5V. GPI or GPO and High or Low level can be selected in BIOS.

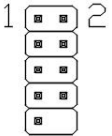
4) F_USB2_2 (Front USB2.0 Pin Header2 5*2 Pin 2.54mm)

| Graphic | Pin | Definition | Pin | Definition |
|---|-----|------------|-----|------------|
|  | 1 | + 5V | 2 | + 5V |
| | 3 | USB2_12- | 4 | USB2_13- |
| | 5 | USB2_12+ | 6 | USB2_13+ |
| | 7 | GND | 8 | GND |
| | | | 10 | N/C |


5) F_USB2_1 (Front USB2.0 Pin Header1 5*2 Pin 2.54mm)

| Graphic | Pin | Definition | Pin | Definition |
|---|-----|------------|-----|------------|
|  | 1 | + 5V | 2 | + 5V |
| | 3 | USB2_7- | 4 | USB2_8- |
| | 5 | USB2_7+ | 6 | USB2_8+ |
| | 7 | GND | 8 | GND |
| | | | 10 | N/C |


6) F_PANEL1 (Front Panel Pin Header 5*2 Pin 2.54mm)

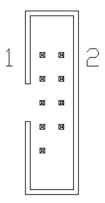
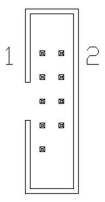
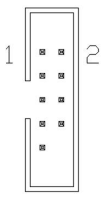
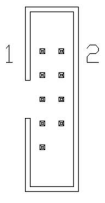
| Graphic | Pin | Definition | Pin | Definition |
|---|-----|------------|-----|------------|
|  | 1 | HD LED+ | 2 | Power LED+ |
| | 3 | HD LED- | 4 | Power LED- |
| | 5 | RESET- | 6 | Power+ |
| | 7 | RESET+ | 8 | Power- |
| | 9 | N/C | | |

7) JP8 (COM2 Pin1/Pin8 Select Jumper 3*2 Pin 2.54mm)

| Graphic | Settings | Function |
|---|--------------|------------------|
|  | 1-3 | COM2_Pin1: + 5V |
| | 2-4 | COM2_Pin8: + 12V |
| | 3-5(Default) | COM2_Pin1: DCD# |
| | 4-6(Default) | COM2_Pin8: RI# |

8) COM2~COM6 (COM2/3/4/5/6 Pin Header 5*2 Pin 2.54mm)

| Graphic | Pin | Definition | Pin | Definition |
|---|-----|--------------------------|-----|------------|
|  | 1 | COM2_PIN1 ^[1] | 2 | COM2_DSR# |

| | | | | |
|---|---|-------------------|---|-------------------|
| COM2 | 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] | 2 | COM3_DSR# |
| | 3 | COM3_RXD [3] | 4 | COM3_RTS# |
| | 5 | COM3_TXD [3] | 6 | COM3_CTS# |
| | 7 | COM3_DTR# [3] | 8 | COM3_PIN8 [2] [3] |
| | 9 | GND | | |
|  COM4 | 1 | COM4_PIN1 [4] [5] | 2 | COM4_DSR# |
| | 3 | COM4_RXD [5] | 4 | COM4_RTS# |
| | 5 | COM4_TXD | 6 | COM4_CTS# |
| | 7 | COM4_DTR# | 8 | COM4_PIN8 [4] |
| | 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# / 5V and Pin8 of COM2 can be RI# / 12V by selecting JP8 Jumper, check Table7 for detail.

[2]: Pin1 of COM3 can be DCD# / 5V and Pin8 of COM3 can be RI# / 12V by selecting JP14 Jumper, check Table9 for detail.

[3]: COM3 can be RS232 / RS422 / RS485 by selecting JP21, JP12, JP20 Jumper, check Table18/20/21 for detail.


[4]: Pin1 of COM4 can be DCD# / 5V and Pin8 of COM4 can be RI# / 12V by selecting JP15 Jumper, check Table 13 for detail.

[5]: COM4 can be RS232 / RS485 by selecting JP13 Jumper, check Table12 for detail.

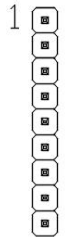
[6]: Pin1 of COM5 can be DCD# / 5V and Pin8 of COM5 can be RI# / 12V by selecting JP16 Jumper, check Table15 for detail.

[7]: Pin1 of COM6 can be DCD# / 5V and Pin8 of COM6 can be RI# / 12V by selecting JP17 Jumper, check Table16 for detail.


9) JP14 (COM3 Pin1/Pin8 Select Jumper 3*2 Pin 2.54mm)

| Graphic | Settings | Function |
|---|--------------|------------------|
|  | 1-3 | COM3_Pin1: + 5V |
| | 2-4 | COM3_Pin8: + 12V |
| | 3-5(Default) | COM3_Pin1: DCD# |
| | 4-6(Default) | COM3_Pin8: RI# |


10) JP2 (Debug Pin Header 9*1 Pin 2.00mm)

| Graphic | Pin | Definition | Pin | Definition |
|---|-----|------------|-----|------------|
|  | 1 | LFRAME_N | 6 | GND |
| | 2 | LAD3 | 7 | RST# |
| | 3 | LAD2 | 8 | LPC_CLK |
| | 4 | LAD1 | 9 | + 3.3V |
| | 5 | LAD0 | | |


11) JP10 (Chassis Open Select Jumper 2*1 Pin 2.54mm)

| Graphic | Setting | Function |
|---|--------------------------|------------------|
|  | 1-2: Connected (Default) | Normal |
| | 1-2: Open | Active Case Open |


12) JP13 (COM4 RS232/RS485 Select Jumper 3*2 Pin 2.54mm)

| Graphic | Settings | Function |
|---|-------------------|--|
|  | 3-5, 4-6(Default) | RS232 |
| | 1-3, 2-4 | RS485 (COM4_Pin1: RS485- COM4_RXD: RS485+) |


13) JP15 (COM4 Pin1/Pin8 Select Jumper 3*2 Pin 2.54mm)

| Graphic | Settings | Function |
|---|--------------|------------------|
|  | 1-3 | COM4_Pin1: + 5V |
| | 2-4 | COM4_Pin8: + 12V |
| | 3-5(Default) | COM4_Pin1: DCD# |
| | 4-6(Default) | COM4_Pin8: RI# |


14) JP3 (AT or ATX Select Jumper 3*1 Pin 2.54mm)

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

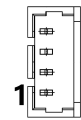
15) JP16 (COM5 Pin1/Pin8 Select Jumper 3*2 Pin 2.54mm)

| Graphic | Settings | Function |
|---|--------------|------------------|
|  | 1-3 | COM5_Pin1: + 5V |
| | 2-4 | COM5_Pin8: + 12V |
| | 3-5(Default) | COM5_Pin1: DCD# |
| | 4-6(Default) | COM5_Pin8: RI# |

16) JP17 (COM6 Pin1/Pin8 Select Jumper 3*2 Pin 2.54mm)

| Graphic | Settings | Function |
|---|--------------|------------------|
|  | 1-3 | COM6_Pin1: + 5V |
| | 2-4 | COM6_Pin8: + 12V |
| | 3-5(Default) | COM6_Pin1: DCD# |
| | 4-6(Default) | COM6_Pin8: RI# |


17) SMBUS1 (SMBUS Pin Header 4*1 Pin 1.25mm)

| Graphic | Pin | Definition | Pin | Definition |
|---|-----|---------------|-----|--------------|
|  | 1 | + 5V [1] | 2 | SMB_CLK_MAIN |
| | 3 | SMB_DATA_MAIN | 4 | GND |

Note:

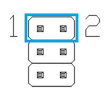


[1]: Pin1 of SMBUS Pin Header is 5V by default and can be 3.3V if specified (resistor selectable).

19) JP1 (CMOS Clear Jumper 3*1 Pin 2.54mm)

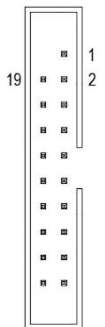
| Graphic | Setting | Function |
|---|---------------|------------|
|  | 1-2 (Default) | Normal |
| | 2-3 | Clear CMOS |

18) 20)21) JP21,JP12,JP20 (COM3 RS232/RS422/RS485 Select Jumpers 3*2 Pin 2.54mm)

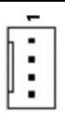
| Graphic | Settings | Function |
|---------|----------|----------|
|---------|----------|----------|

| | | |
|---|--|---|
|  JP20 | JP20(1-2, Default) JP12(3-5, 4-6, Default) JP21(3-5, 4-6, Default) | COM3: RS232 |
|  JP12 | JP20(3-4) JP12(1-3, 2-4) JP21(1-3, 2-4) | COM3: RS422 (COM3_DTR#: RS422_RX- COM3_TXD: RS422_RX+ COM3_PIN1: RS422_TX- COM3_RXD: RS422_TX+) |
|  JP21 | JP20(5-6) JP12(1-3, 2-4) JP21(No Effect) | COM3: RS485 (COM3_PIN1: RS485- COM3_RXD: RS485+) |


22) F_USB3_1 (Front Dual-USB3.0 Pin Header 10*2 Pin 2.00 mm)

| Graphic | Pin | Definition | Pin | Definition |
|--|-----|------------|-----|------------|
|  | | | 1 | + 5V |
| | 19 | + 5V | 2 | USB3_RX5- |
| | 18 | USB3_RX6- | 3 | USB3_RX5+ |
| | 17 | USB3_RX6+ | 4 | GND |
| | 16 | GND | 5 | USB3_TX5- |
| | 15 | USB3_TX6- | 6 | USB3_TX5+ |
| | 14 | USB3_TX6+ | 7 | GND |
| | 13 | GND | 8 | USB2_11- |
| | 12 | USB2_10- | 9 | USB2_11+ |
| | 11 | USB2_10+ | 10 | N/C |

23) CPU_FAN1 (CPU Fan Connector 4*1 Pin 2.54mm)


| Graphic | Pin | Definition | Pin | Definition |
|---|-----|----------------------|-----|--------------------|
|  | 1 | GND | 2 | + 12V |
| | 3 | FAN Speed Detection1 | 4 | FAN Speed Control1 |

24) EDP_P1 (EDP Backlight Control Pin Header 6*1 Pin 2.00mm)

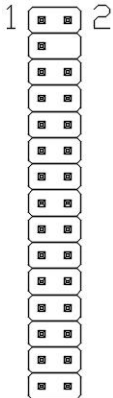
| Graphic | Pin | Definition | Pin | Definition |
|---|-----|------------|-----|------------|
|  | 1 | GND | 2 | GND |

| | | | |
|---|-------------|---|------------|
| 3 | EDP_BKL_CTL | 4 | EDP_BKL_EN |
| 5 | + 12V | 6 | + 12V |

25) JP9 (EDP VDD Select Jumper 3*1 Pin 2.54mm)

| Graphic | Setting | Function |
|---|---------------|----------|
|  | 1-2 (Default) | + 3.3V |
| | 2-3 | + 5V |


26) EDP1 (EDP Signal Pin Header 15*2 Pin 2.00mm)

| Graphic | Pin | Definition | Pin | Definition |
|--|-----|---------------|-----|---------------|
|  | 1 | VDD_PANEL [1] | 2 | VDD_PANEL [1] |
| | 3 | VDD_PANEL [1] | | |
| | 5 | HPDET_DPD | 6 | HPDET_DPD |
| | 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 | EDP_TX3- | 18 | EDP_TX3+ |
| | 19 | EDP_TX0- | 20 | EDP_TX0+ |
| | 21 | EDP_TX1- | 22 | EDP_TX1+ |
| | 23 | EDP_TX2- | 24 | EDP_TX2+ |
| | 25 | GND | 26 | GND |
| | 27 | N/C | 28 | N/C |
| | 29 | EDP_AUX- | 30 | EDP_AUX+ |

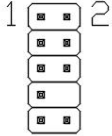
Note:

[1]: Panel Power VDD is 3.3V by default, 5V is selectable by “EDP VDD Select Jumper” (JP9, Table25).

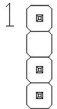
27) JP5 (COM1 Pin1/Pin9 Select Jumper 3*2 Pin 2.54mm)

| Graphic | Settings | Function |
|---|--------------|------------------|
|  | 1-3 | COM1_Pin1: + 5V |
| | 2-4 | COM1_Pin9: + 12V |
| | 3-5(Default) | COM1_Pin1: DCD# |
| | 4-6(Default) | COM1_Pin9: RI# |


28) F_AUDIO1 (Front Audio Pin Header 5*2 Pin 2.54mm)

| Graphic | Pin | Definition | Pin | Definition |
|---|-----|------------|-----|-------------|
|  | 1 | MIC_IN_L | 2 | GND |
| | 3 | MIC_IN_R | 4 | + 3.3V |
| | 5 | AUD_OUT_R | 6 | MIC_IN_RET |
| | 7 | GND | | |
| | 9 | AUD_OUT_L | 10 | AUD_OUT_RET |

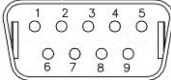
29) JP18 (SPDIF OUT Pin Header 4*1 Pin 2.54mm)

| Graphic | Pin | Definition | Pin | Definition |
|---|-----|------------|-----|------------|
|  | 1 | + 5V | | |
| | 3 | SPDIF_OUT | 4 | GND |

30) JP19 (PCI Clock Select Jumper 3*1 Pin 2.54 mm)

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

49) COM1 (COM1 DB9/M Connector)

| Graphic | Pin | Definition | Pin | Definition |
|---|-----|---------------|-----|------------|
|  | 1 | COM1_PIN1 [1] | 2 | COM1_RXD# |
| | 3 | COM1_TXD# | 4 | COM1_DTR# |
| | 5 | COM1_GND | 6 | COM1_DSR# |
| | 7 | COM1_RTS# | 8 | COM1_CTS# |
| | 9 | COM1_PIN9 [1] | | |

Note:

[1]: Pin1 of COM1 can be DCD# / 5V and Pin9 of COM1 can be RI# / 12V by selecting JP5 Jumper, check Table27 for detail.

50) LAN1* (LAN RJ45 Connector1 8Pin)

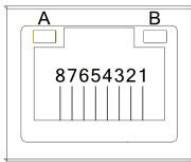
| Graphic | Pin | Definition | Pin | Definition |
|---------|-----|------------|-----|------------|
|---------|-----|------------|-----|------------|

| | | | | |
|---|---|-----------|---|---------|
|  | 1 | MDI1_0+ | 5 | MDI1_2- |
| | 2 | MDI1_0- | 6 | MDI1_1- |
| | 3 | MDI1_1+ | 7 | MDI1_3+ |
| | 4 | MDI1_2+ | 8 | MDI1_3- |
| | A | Speed LED | 1000M: Turn Orange 100M: Turn Green 10M: Lights Off | B |

Note:

*: LAN RJ45 Connector1 can supports AMT and Wake-On-LAN.

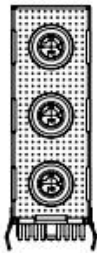
51) LAN2* (LAN RJ45 Connector2 8Pin)

| Graphic | Pin | Definition | Pin | Definition |
|--|-----|------------|---|------------|
|  | 1 | MDI2_0+ | 5 | MDI2_2- |
| | 2 | MDI2_0- | 6 | MDI2_1- |
| | 3 | MDI2_1+ | 7 | MDI2_3+ |
| | 4 | MDI2_2+ | 8 | MDI2_3- |
| | A | Speed LED | 1000M: Turn Orange 100M: Turn Green 10M: Lights Off | B |

Note:

*: LAN RJ45 Connector2 supports Wake-On-LAN.

57) AUDIO1 (Line-Out + MIC + Line-In 3.5mm Jack)

| Graphic | Setting | Function |
|---|---------|----------|
|  | Blue | Line-In |
| | Green | Line-Out |
| | Pink | MIC-In |

7. BIOS setup

See “BIOS Spec for SYM86603VGGA-Q370 Series” for detail information of BIOS setup.

【End】