Q670M-EM-A

Industrial Motherboard

E22867
First Edition
November 2023

Contents

Chapter 1
Product overview

1.1 Package contents

Check your industrial motherboard package for the following items.

- ☑ 1 x ASUS Q670M-EM-A Motherboard
- ☑ 1 x Serial ATA 6.0 Gb/s cable
- ☑ 2 x M.2 screw packages
- ☑ 1 x ASUS I/O Shield

If any of the above items is damaged or missing, contact your distributor or sales representative immediately.

1.2 Features

- Intel® Socket LGA1700 for Intel® Core™ 14th & 13th Gen Processors, Intel® Core™ 12th Gen, Pentium® Gold and Celeron® Processors, Max. 125W TDP
- Four Dual Channel DDR4 U-DIMMs up to 128GB
- 4 x SATA 6.0 Gb/s, 4 x USB 3.2 Gen 2, 6 x USB 3.2 Gen 1, 4 x USB 2.0, 6 x COM ports
- 1 x PCIe x16 slot, 1 x PCIe 4.0 x16 slot (run at x4), 1 x PCIe x1 slot, 1 x PCI slot, 1 x M.2 (Key M, 2242/2260/2280) with PCIe 4.0 x4 and SATA modes, 1 x M.2 (Key M, 2242/2260/2280) with PCIe 4.0 x4 mode
- Multi-display: 1 x HDMI™ port, 1 x VGA port, 2 x DisplayPort

1.3 Specifications

CPU	Intel® Socket LGA1700 for Intel® Core™ 14th & 13th Gen Processors, Intel® Core™ 12th Gen, Pentium® Gold and Celeron® Processors Supports up to 125W TDP
Chipset	Intel® Q670 Chipset
Memory	4 x U-DIMM, Max. 128GB, DDR4, 2400/2666/2933/3200 MHz
Display	1 x HDMI™ port supports HDMI™ 2.1, up to 4096 x 2160 @ 60 Hz 1 x VGA port, up to 1920 x 1200 @ 60 Hz 2 x DisplayPort, up to 3840 x 2160 @ 60 Hz
Expansion slots	1 x PCIe 4.0 x16 slot 1 x PCIe 4.0 x16 slot (x4 mode) 1 x PCIe 4.0 x1 slot 1 x PCI slot
Storage	4 x SATA Gen 3.0, Up to 6Gb/s 1 x M.2 M key, Type 2242/2260/2280 (PCIe 4.0 x4 / SATA mode) 1 x M.2 M key, Type 2242/2260/2280 (PCIe 4.0 x4 mode)
LAN	1 x Intel® I219LM(vPRO), 1 x Realtek RTL 8111H
Audio	Realtek ALC897 High Definition Audio CODEC
Rear panel I/O ports	1 x HDMI™ port 1 x VGA port 2 x DisplayPort 4 x USB 3.2 Gen 2 ports 4 x USB 3.2 Gen 1 ports 2 x RJ45 LAN ports 1 x Serial port (supports RS232/422/485) 3 x Audio jack (Line-Out, Line-In, Mic in)
Internal I/O ports	5 x COM Port headers (RS232) 1 x USB 3.2 Gen 1 header supports 2 additional USB 3.2 Gen 1 ports 2 x USB 2.0 headers support 4 additional USB 2.0 ports 1 x CPU Fan header with PWM mode

(continued on the next page)

Internal I/O ports	2 x Chassis Fan headers with PWM mode 1 x Front Panel Audio header (AAFP) 1 x System Panel header 1 x Chassis Intrusion header 1 x Speaker header 1 x I²C header 1 x Clear CMOS header 1 x COM Debug header 1 x Buzzer 1 x PS/2 header 1 x SPI TPM header 1 x AT/ATX mode selection header 1 x 24-pin ATX Power connector 1 x 8-pin ATX Power connector
GPIO	1 x 8-bit GPIO header
Watch dog timer	Yes
Power requirement	AT mode / ATX mode
Operation Temperature	0~60°C
Non-Operation Temperature	-40~85°C
Relative Humidity	40°C @ 10%~95%
OS support	Windows® 10 (64-bit) Windows® IoT Enterprise Ubuntu RedHat Enterprise Fedora Workstation OpenSUSE
Certification	CE, FCC
Form Factor	Micro ATX Form Factor, 244mm x 244mm

Specifications are subject to change without notice. Please refer to the ASUS website for the latest specifications.

Chapter 2
Motherboard information

2.1 Before you proceed

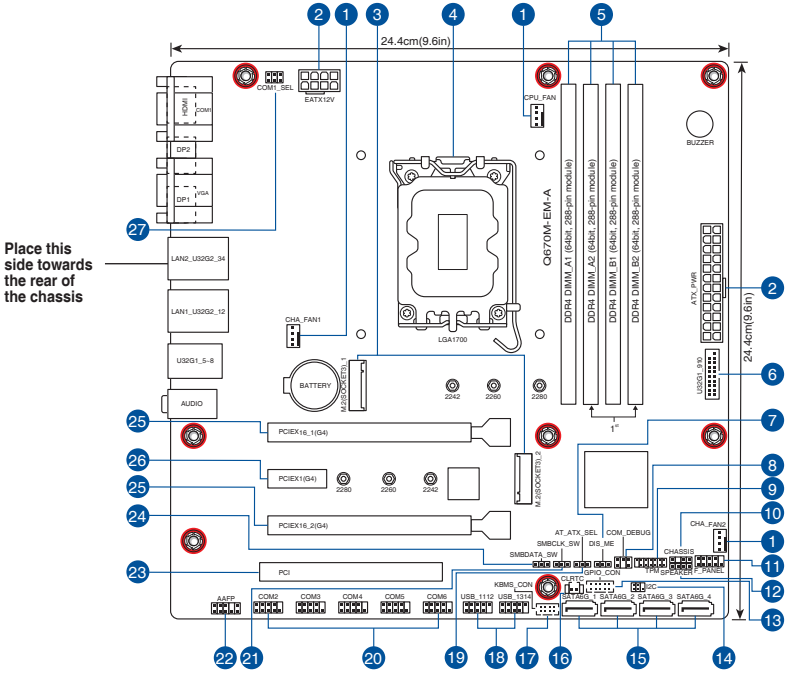
Take note of the following precautions before you install motherboard components or change any motherboard settings.

- Unplug the power cord from the wall socket before touching any component.
- Before handling components, use a grounded wrist strap or touch a safely grounded object or a metal object, such as the power supply case, to avoid damaging them due to static electricity.
- Hold components by the edges to avoid touching the ICs on them.
- Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that came with the component.
- Before you install or remove any component, always remove the AC power by unplugging the power cord from the power outlet. Failure to do so may cause severe damage to the motherboard, peripherals, or components.

2.2 Motherboard layout

Place eight (8) screws into the holes indicated by circles to secure the motherboard to the chassis.

Do not overtighten the screws! Doing so can damage the motherboard.



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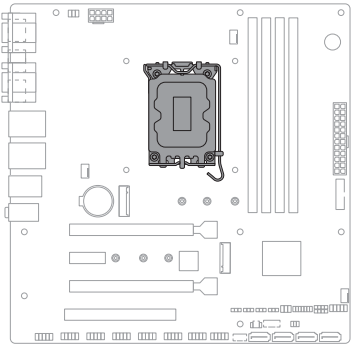
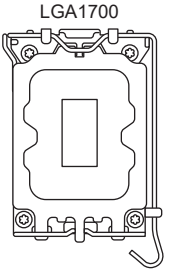
2.3 Central Processing Unit (CPU)

The motherboard comes with a surface mount LGA1700 socket designed for Intel® Core™ 14th & 13th Gen Processors, Intel® Core™ 12th Gen, Pentium® Gold and Celeron® Processors.

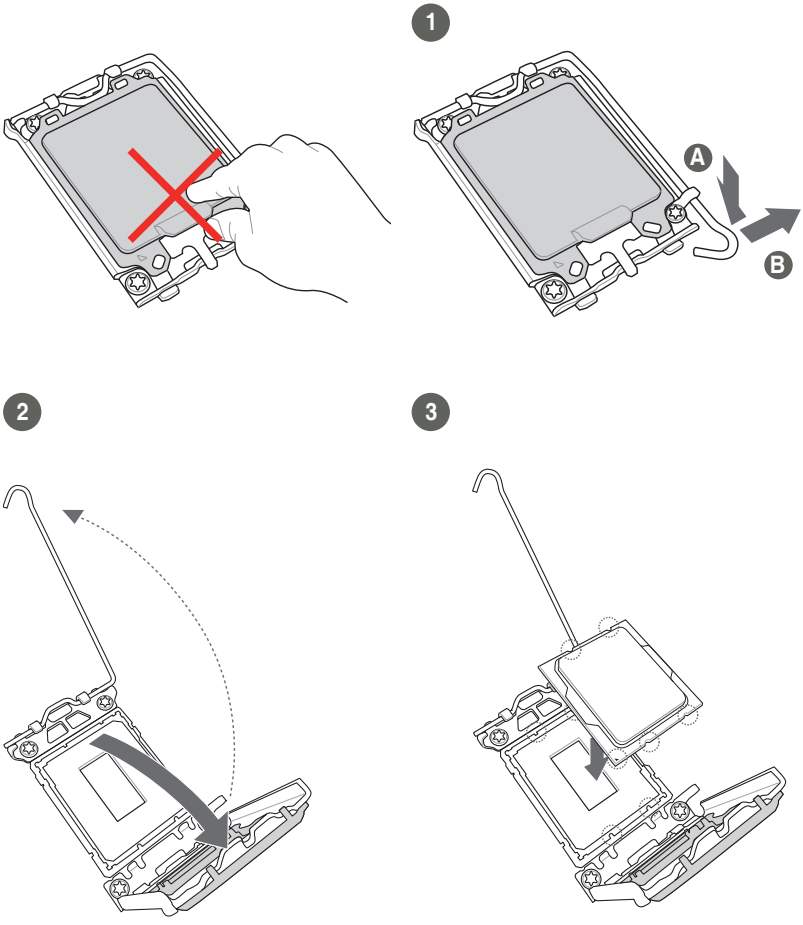




Unplug all power cables before installing the CPU.

- Upon purchase of the motherboard, ensure that the PnP cap is on the socket and the socket contacts are not bent. Contact your retailer immediately if the PnP cap is missing, or if you see any damage to the PnP cap/socket contacts/motherboard components. The manufacturer will shoulder the cost of repair only if the damage is shipment/transit-related.
- Keep the cap after installing the motherboard. The manufacturer will process Return Merchandise Authorization (RMA) requests only if the motherboard comes with the cap on the socket.
- The product warranty does not cover damage to the socket contacts resulting from incorrect CPU installation/removal, or misplacement/loss/ incorrect removal of the PnP cap.

2.3.1 CPU installation



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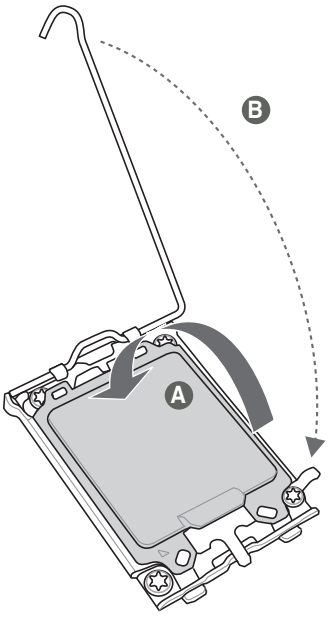

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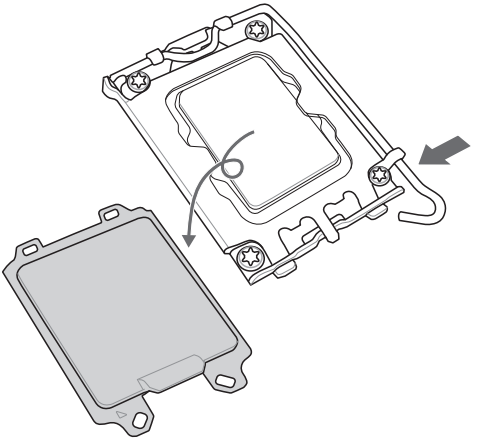
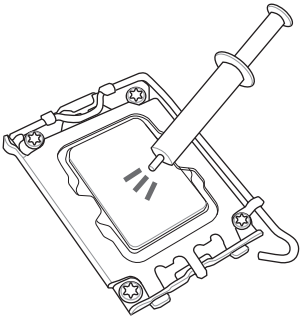
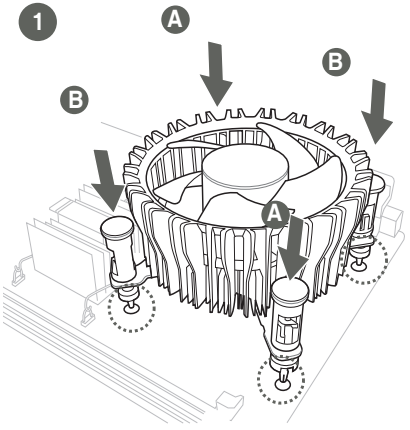


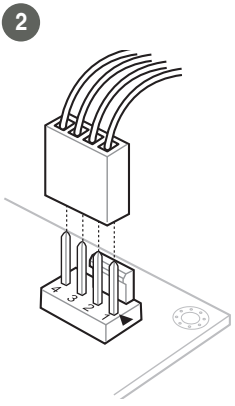
2.3.2 CPU heatsink and fan assembly installation



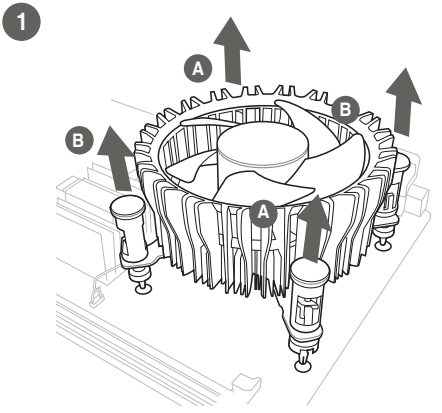
Apply Thermal Interface Material to the CPU cooling system and CPU before you install the cooling system, if necessary.

To install the CPU heatsink and fan assembly





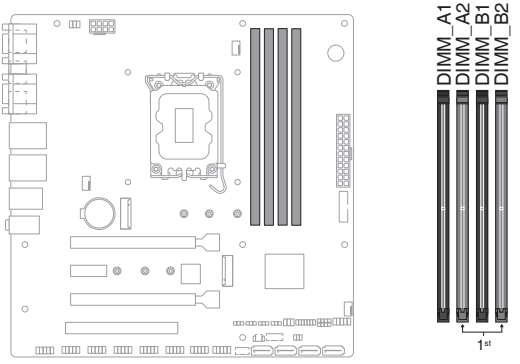
To uninstall the CPU heatsink and fan assembly



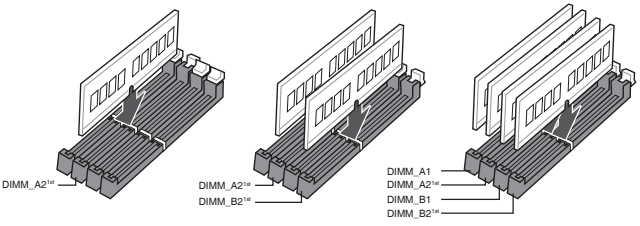
2.4 System memory

The motherboard comes with Dual Inline Memory Modules (DIMM) slots designed for DDR4 (Double Data Rate 4) memory modules.

A DDR4 memory module is notched differently from a DDR, DDR2, or DDR3 module. DO NOT install a DDR, DDR2, or DDR3 memory module to the DDR4 slot.



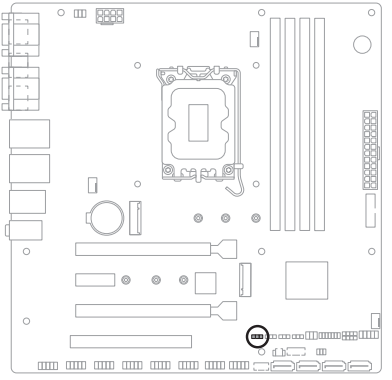
Recommended memory configurations

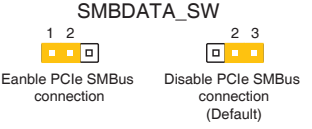


2.5 Jumpers

1. PCIe SMBus Data Connection jumper (3-pin SMBDATA_SW)

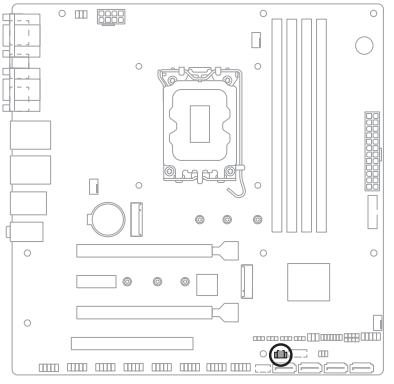
The PCIe SMBus Data Connection jumper allows you to enable or disable PCIe SMbus Data Connection. Set this jumper to pins 1-2 to enable (set to enabled by default) PCIe SMbus Data Connection and to pins 2-3 to disable it.

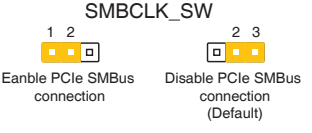




2. PCIe SMBus Clock Connection jumper (3-pin SMBCLK_SW)

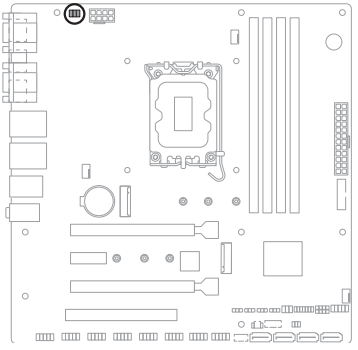
The PCIe SMBus Clock Connection jumper allows you to enable or disable PCIe SMbus Clock Connection. Set this jumper to pins 1-2 to enable (set to enabled by default) PCIe SMbus Clock Connection and to pins 2-3 to disable it.

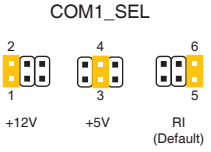




3. COM1 Ring/+5V/+12V selection jumper (6-pin COM1_SEL)

This jumper allows you to select 5V or 12V depending on your COM device.



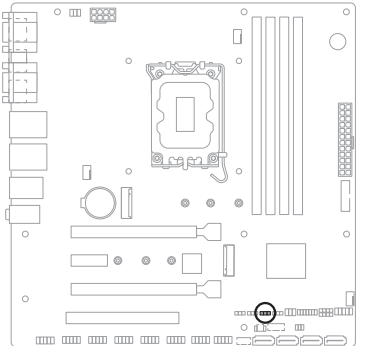


Setting	Pins
+12V	1-2
+5V	3-4
Ring (Default)	5-6

Connector type	HEADER 2x3p, 2.54mm pitch, S/T

4. AT/ATX mode selection jumper (3-pin AT_ATX_SEL)

In ATX mode (default), you will need to manually press the power button to turn on the system power. In AT mode, the board will automatically turn on when system power is connected.

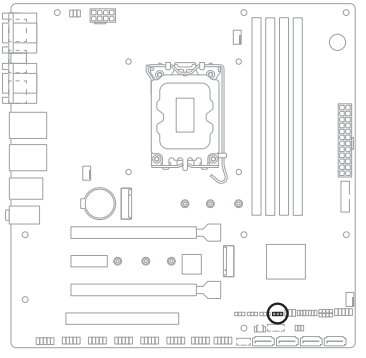


Pins	Description
1-2 (Default)	ATX mode
2-3	AT mode

Connector type	HEADER 1x3p, 2.54mm pitch, S/T

5. Disable ME jumper (3-pin DIS_ME)

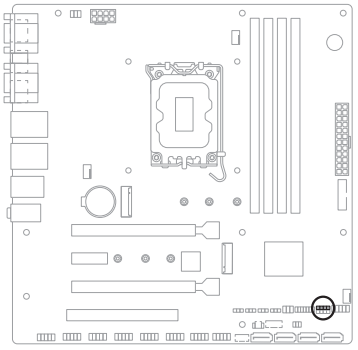
This jumper allows you to enable or disable the Intel® ME function. Set this jumper to pins 1-2 to enable (default) the Intel® ME function and to pins 2-3 to disable it.



Connector type	HEADER 1x3p, 2.54mm pitch, S/T

6. Chassis intrusion header (4-1 pin CHASSIS)

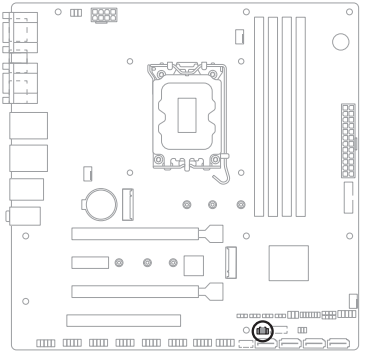
This header is for a chassis-mounted intrusion detection sensor or switch. Connect one end of the chassis intrusion sensor or switch cable to this connector. The chassis intrusion sensor or switch sends a high-level signal to this connector when a chassis component is removed or replaced. The signal is then generated as a chassis intrusion event.



Connector type	HEADER 4p, K2, 2.54mm pitch

7. Clear CMOS header (2-pin CLRTC)

This header allows you to clear the CMOS RTC RAM data of the system setup information such as date, time, and system passwords.



Connector type	HEADER 1x2p, 1.25mm pitch, S/T

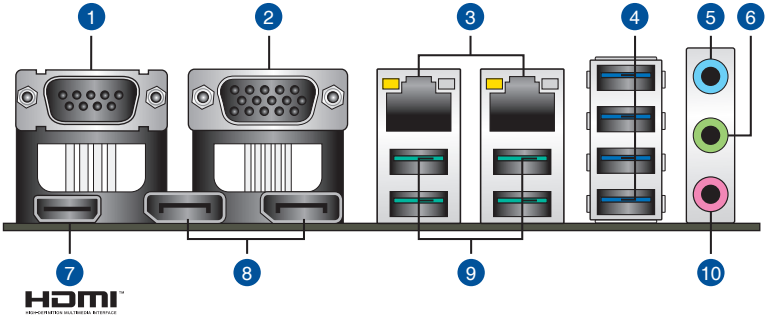
To erase the RTC RAM:

1. Turn OFF the computer and unplug the power cord.
2. Use a metal object such as a screwdriver to short the two pins.
3. Plug the power cord and turn ON the computer.
4. Hold down the **<Del>** key during the boot process and enter BIOS Setup to re-enter data.

If the steps above do not help, remove the onboard battery and move the jumper again to clear the CMOS RTC RAM data. After clearing the CMOS, reinstall the battery.

2.6 Connectors

2.6.1 Rear panel connectors

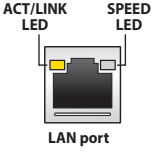


1. **Serial port (COM).** This port connects a modem or other device that conforms with serial specification.
2. **Video Graphics Adapter (VGA) port.** This 15-pin port is for a VGA monitor or other VGA-compatible devices.
3. **LAN (RJ-45) ports.** These ports allow Gigabit connection to a Local Area Network (LAN) through a network hub.

   LAN port LED indications

Activity/Link LED	
Status	Description
Off	No link
Orange	Linked
Orange (Blinking)	Data activity
Orange (Blinking then steady)	Ready to wake up from S5 mode

Speed LED	
Status	Description
OFF	10Mbps connection
ORANGE	100Mbps connection
GREEN	1Gbps connection



4. **USB 3.2 Gen 1 (up to 5Gbps) ports (blue, Type-A).** These 9-pin Universal Serial Bus (USB) ports are for USB 3.2 Gen 1 devices.

5. **Line In port (light blue).** This port connects to the tape, CD, DVD player, or other audio sources.

6. **Line Out port (lime).** This port connects to a headphone or a speaker. In the 4 and 5.1 channel configurations, the function of this port becomes Front Speaker Out.

7. **HDMI™ port.** This port is for a High-Definition Multimedia Interface (HDMI™) connector, and is HDCP compliant allowing playback of HD DVD, Blu-ray, and other protected content.

8. **DisplayPort.** These ports are for DisplayPort-compatible devices.

9. **USB 3.2 Gen 2 (up to 10Gbps) ports (teal blue, Type-A).** These 9-pin Universal Serial Bus (USB) ports are for USB 3.2 Gen 2 devices.

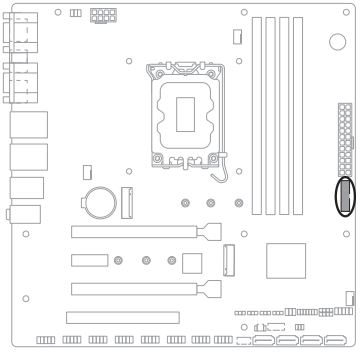
We strongly recommend that you connect USB 3.2 Gen 2 devices to USB 3.2 Gen 2 ports for faster and better performance from your USB 3.2 Gen 2 devices.

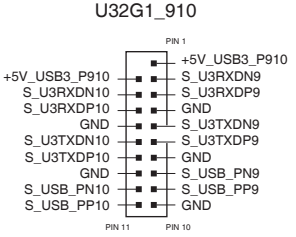
10. **Microphone port (pink).** This port connects a microphone.

2.6.2 Internal connectors

1. USB 3.2 Gen 1 connector (20-1 pin U32G1_910)

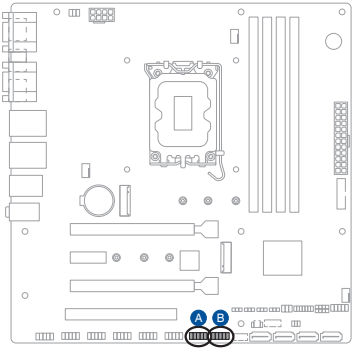
Connect a USB 3.2 Gen 1 module to any of these connectors for additional USB 3.2 Gen 1 front or rear panel ports. These connectors comply with USB 3.2 Gen 1 specifications and provide faster data transfer speeds of up to 5 Gbps, faster charging time for USB-chargeable devices, optimized power efficiency, and backward compatibility with USB 2.0.

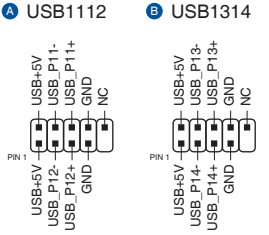




2. USB 2.0 headers (10-1 pin USB_1112, USB_1314)

These headers are for USB 2.0 ports. Connect the USB cable to any of these headers. These USB headers comply with USB 2.0 specification that supports up to 480 Mbps connection speed.





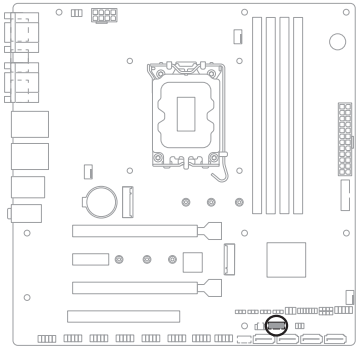
Connector type	Header 2x5p, K9, 2.54mm pitch

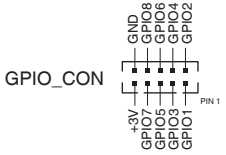
Never connect a 1394 cable to the USB connector. Doing so will damage the motherboard.

The USB cable is purchased separately.

3. General purpose input/output connector (10-pin GPIO_CON)

This connector is for a general purpose input/output module which allows you to customize the digital signal input/output.

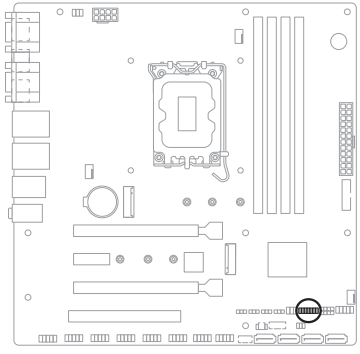


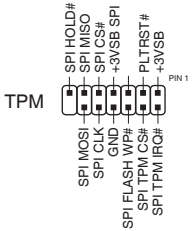


Connector type	WAFER HD 2x5p, 2.0mm pitch, S/T

4. SPI TPM header (14-1 pin TPM)

This header supports a Trusted Platform Module (TPM) system with a Serial Peripheral Interface (SPI), allowing you to securely store keys, digital certificates, passwords and data. A TPM system also enhances network security, protects digital identities, and ensures platform integrity.

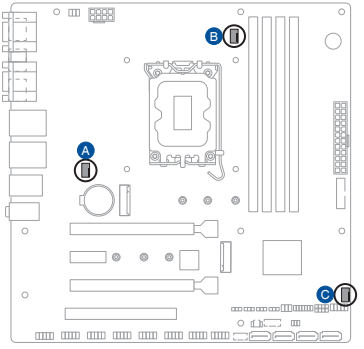


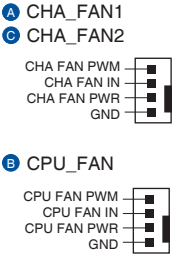


Connector type	Header 2x7p, K14, 2.0mm pitch

5. CPU and Chassis Fan headers (4-pin CPU_FAN, 4-pin CHA_FAN1-2)

Connect the fan cables to the fan headers on the motherboard, ensuring that the black wire of each cable matches the ground pin of the header.



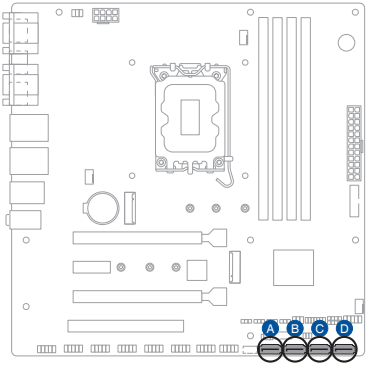


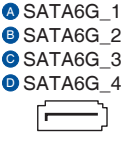
Connector type	WAFER HD 4p, 2.54mm pitch, S/T

Do not forget to connect the fan cables to the fan headers. Insufficient air flow inside the system may damage the motherboard components. These are not jumpers! Do not place jumper caps on the fan headers!

6. SATA 6.0Gb/s ports (7-pin SATA6G_1-4)

These ports connect to Serial ATA 6.0 Gb/s hard disk drives or an optical drive via Serial ATA 6.0 Gb/s signal cables.

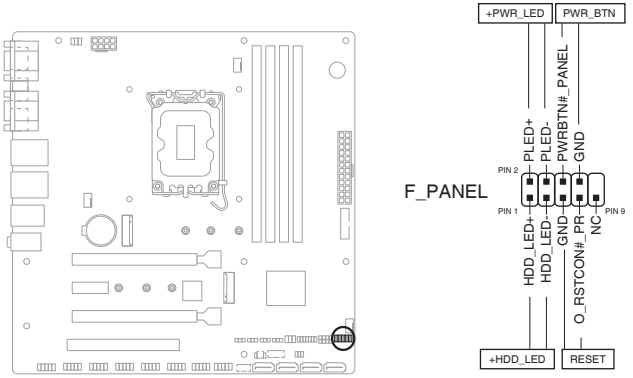




Connector type	WAFER HD 7p, 1.27mm pitch

7. System Panel header (10-1 pin F_PANEL)

This header supports several chassis-mounted functions.



Connector type	Header 2x5p, K10, 2.54mm pitch

- **System power LED (2-pin PWR_LED)**

  This 2-pin header is for the system power LED. Connect the chassis power LED cable to this header. The system power LED lights up when you turn on the system power, and blinks when the system is in sleep mode.

- **Hard disk drive activity LED (2-pin HDD_LED)**

  This 2-pin header is for the HDD Activity LED. Connect the HDD Activity LED cable to this header. The IDE LED lights up or flashes when data is read from or written to the HDD.

- **ATX power button/soft-off button (2-pin PWR_BTN)**

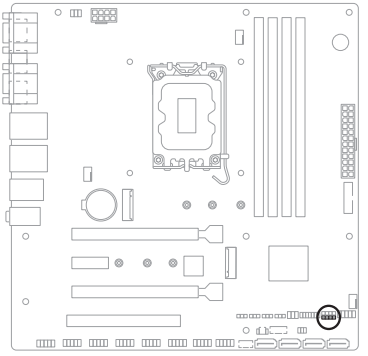
  This 2-pin header is for the system power button.

- **Reset button (2-pin RESET)**

  This 2-pin header is for the chassis-mounted reset button for system reboot without turning off the system power.

8. Speaker header (4-pin SPEAKER)

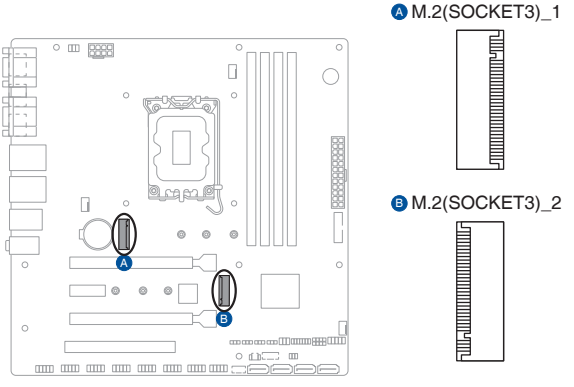
The 4-pin header is for the chassis-mounted system warning speaker. The speaker allows you to hear system beeps and warnings.



Connector type	HEADER 1x4p, 2.54mm pitch, S/T

9. M.2 socket 3 (M.2(SOCKET3))

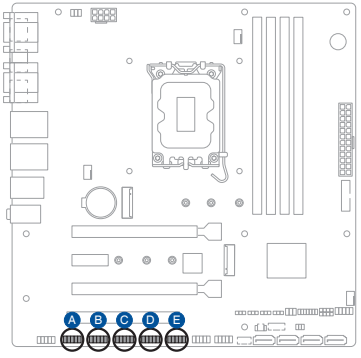
These sockets allow you to install M.2 SSD modules.

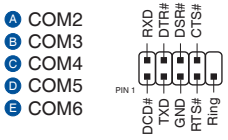


- The M.2 SSD modules are purchased separately.
- These sockets support M Key and 2242/2260/2280 storage devices.

10. Serial Port headers (10-1 pin COM2-6)

These headers are for serial (COM) ports. Connect the serial port cables to these headers, then install the module to a slot opening at the back of the system chassis.



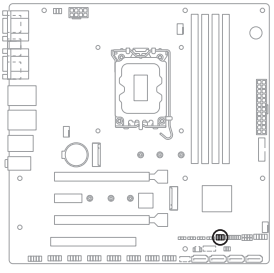


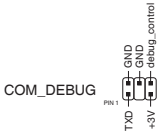
Connector type	BOX header 2x5p, K10, 2.0mm pitch

The serial port cables are purchased separately.

11. COM Debug header

The COM Debug header allows connection to a COM Debug card.

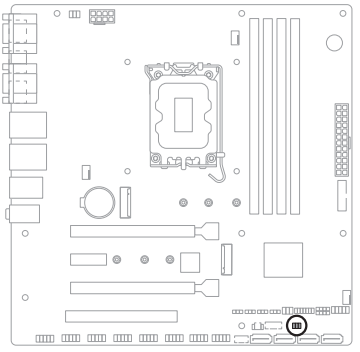




The COM Debug card is purchased separately.

12. I²C header (6-1 pin I2C)

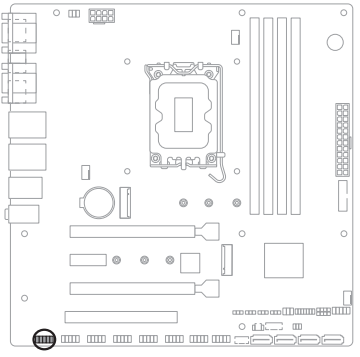
The I²C (Inter-Integrated Circuit) header allows you to connect an I²C compatible IoT security module.



Connector type	Header 2x3p, K6, 2.0mm pitch

13. Front Panel Audio header (10-1 pin AAFP)

This header is for a chassis-mounted front panel audio I/O module that supports HD Audio standard. Connect one end of the front panel audio I/O module cable to this header.

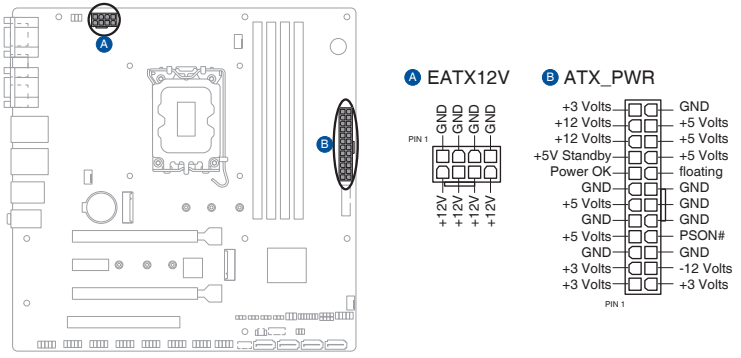


Connector type	HEADER 2x5p, K8, 2.54mm pitch

We recommend that you connect a high-definition front panel audio module to this header to avail of the motherboard's high-definition audio capability.

14. ATX Power connectors (24-pin ATX_PWR, 8-pin EATX12V)

Correctly orient the ATX power supply plugs into these connectors and push down firmly until the connectors completely fit.



DC Mode ATXPWR

Pins	Signal	Pins	Signal
1	+3.3V out	13	+3.3V out
2	+3.3V out	14	NC
3	GND	15	GND
4	+5V out	16	PSON#
5	GND	17	GND
6	+5V out	18	GND
7	GND	19	GND
8	NC	20	+12V out
9	NC	21	+5V out
10	+12V in	22	+5V out
11	+12V in	23	+5V out
12	+3.3V out	24	GND

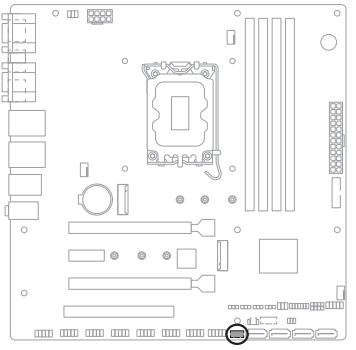
DC Mode EATX12V

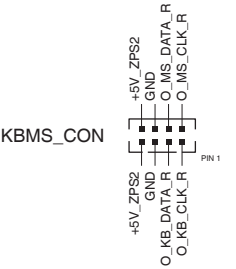
Pins	Signal	Pins	Signal
1	GND	5	+12V in
2	GND	6	+12V in
3	GND	7	+12V in
4	GND	8	+12V in

We recommend that you use a PSU with a higher power output when configuring a system with more power-consuming components. The system may become unstable or may not boot up if the power is inadequate.

15. Keyboard and Mouse Port connector (8-pin KBMS_CON)

The Keyboard and Mouse Port connector allows you to connect a PS/2 keyboard and mouse.



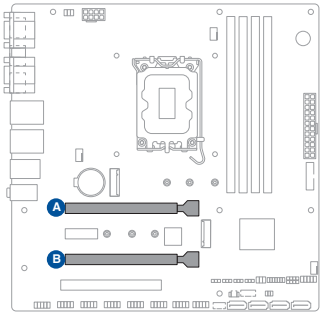


Pins	Signal	Pins	Signal
1	O_KB_CLK_R	2	O_MS_CLK_R
3	O_KB_DATA_R	4	O_MS_DATA_R
5	GND	6	+12V in
7	+5V_ZPS2	8	+5V_ZPS2

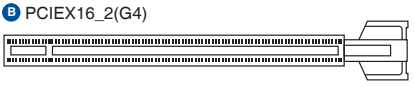
2.7 Slots

1. PCI Express x16 slots

This motherboard supports two PCIe x16 graphics cards that comply with the PCI Express specification.

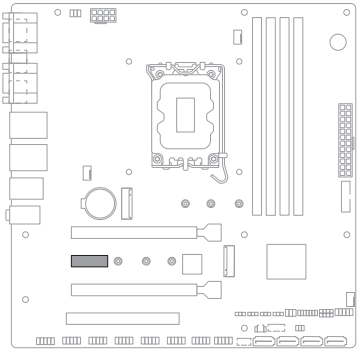


A PCIEX16_1(G4)
B PCIEX16_2(G4)

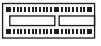


2. PCI Express x1 slot

This motherboard supports a PCIe x1 network card, SCSI card or other cards that comply with the PCI Express specification.

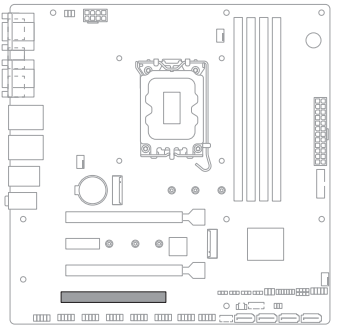


PCIEX1(G4)



3. PCI slot

The PCI slot supports a card such as a LAN card, SCSI card, USB card, or other cards that comply with PCI specifications.



Chapter 3
BIOS setup

Scan the QR code to view the BIOS update guide.

3.1 BIOS Setup program

Use the BIOS Setup program to configure its parameters. The BIOS screens include navigation keys and brief online help to guide you in using the BIOS Setup program.

Entering BIOS Setup at startup

Press <Delete> or <ECS> during the Power-On Self Test (POST). If you do not press <Delete> or <ECS>, POST continues with its routines.

Entering BIOS Setup after POST

- Press **<Ctrl>+<Alt>+<Del>** simultaneously.
- Press the reset button on the system chassis.
- Press the power button to turn the system off then back on. Do this option only if you failed to enter BIOS Setup using the first two options.

Using the power button, reset button, or the <Ctrl>+<Alt>+<Del> keys to reboot a running operating system can cause damage to your data or system. Always shut down the system properly from the operating system.

- Visit the ASUS website at www.asus.com to download the latest BIOS file for this motherboard.
- The default BIOS settings for this motherboard apply to most working conditions and ensures optimal performance. If the system becomes unstable after changing any BIOS settings, load the default settings to regain system stability. Select the option **Restore Defaults** under the Exit menu or press hotkey <F3>.
- The BIOS Setup screens shown in this section are for reference purposes only, and may not exactly match what you see on your screen.

BIOS menu screen

The menu bar on top of the screen has the following main items:

Main	For changing the basic system configuration.
Advanced	For changing the advanced system settings.
Hardware Monitor	For displaying the system temperatures, fan and power status, and changing smart fan settings.
Security	For configuring the system security settings.
Boot	For changing the system boot configuration.
Exit	For selecting the save options and default options.

To select an item on the menu bar, press the right or left arrow key on the keyboard until the desired item is highlighted.

3.2 Main menu

The Main menu provides you with an overview of the basic system information, and allows you to set the system date and the system time.

System Date [Day MM/DD/YYYY]

Allows you to set the system date.

System Time [HH:MM:SS]

Allows you to set the system time.

3.3 Advanced menu

The Advanced menu items allow you to change the settings for the CPU and other system devices.

Be cautious when changing the settings of the Advanced menu items. Incorrect field values can cause the system to malfunction.

3.3.1 PCH-FW Configuration

TPM Device Selection

Seledcts TPM device: PTT or dTPM.

[PTT] Enables PTT in SkuMgr.

[dTPM] Disables PTT in SkuMgr.

When PTT is disabled, all data saved on it will be lost.

3.3.2 Trusted Computing

Security Device Support

Allows you to enable or disable BIOS support for security device.
Configuration options: [Disabled] [Enabled]

The following items appear when a TPM device is installed on your motherboard.

SHA256 PCR Bank

Configuration options: [Disabled] [Enabled]

SHA384 PCR Bank

Configuration options: [Disabled] [Enabled]

SM3_256 PCR Bank

Configuration options: [Disabled] [Enabled]

Pending operation

Allows you to schedule an operation for security device.
Configuration options: [None] [TPM Clear]

Your computer will reboot during restart in order to change the state of security device.

Platform Hierarchy

Configuration options: [Disabled] [Enabled]

Storage Hierarchy

Configuration options: [Disabled] [Enabled]

Endorsement Hierarchy

Configuration options: [Disabled] [Enabled]

Physical Presence Spec Version

Allows you to select to tell O.S. to support PPI Spec Version 1.2 or 1.3.
Configuration options: [1.2] [1.3]

Some HCK tests might not support 1.3.

PH Randomization

Allows you to enable or disables Platform Hierarchy randomization. Configuration options: [Disabled] [Enabled]

Do not enable this question in production platforms. This is for development testing. OVERRIDE ChangePlatformAuth ELINK for production platforms supports TXT.

3.3.3 CPU Configuration

The items in this menu show CPU-related information the BIOS automatically detects.

Intel (VMX) Virtualization Technology

This item, when set to [enabled], will allow a VMM to utilize the additional hardware capacities provided by Vanderpool Technology.
Configuration options: [Disabled] [Enabled]

VT-d

Configuration options: [Disabled] [Enabled]

CPU - Power Management Control

This item allows you to manage and configure the CPU's power.

Intel(R) SpeedStep(tm)

Allows your system to support more than two frequency ranges.
Configuration options: [Disabled] [Enabled]

Intel(R) Speed Shift Technology

Allows you to enable or disable Intel® Speed Shift Technology support. When enabled, CPPC v2 interface allows hardware controlled P-state.
Configuration options: [Disabled] [Enabled]

C states

Allows you to enable or disable CPU Power Management.
Configuration options: [Disabled] [Enabled]

The following item appears only when you set **C states** to **[Enabled]**.

Enhanced C-states

Allows you to enable or disable C1E. CPU will switch to minimum speed when all cores enter C-state.
Configuration options: [Disabled] [Enabled]

Power Limit 1 Override

Allows you to enable or disable Power Limit 1 Override. If this option is set to **[Disabled]**, BIOS will program the default values for Power Limit 1 and Power Limit 1 Time Window.
Configuration options: [Enabled] [Disabled]

The following item appears only when you set **Power Limit 1 Override** to **[Enabled]**.

Power Limit 1

Allows you to configure Power Limit 1 value in milliwatts.

Power Limit 2 Override

Allows you to enable or disable Power Limit 2 Override. If this option is set to **[Disabled]**, BIOS will program the default values for Power Limit 2.
Configuration options: [Enabled] [Disabled]

The following item appears only when you set **Power Limit 2 Override** to **[Enabled]**.

Power Limit 2

Allows you to configure Power Limit 2 value in milliwatts.

Max TOLUD

Allows you to select the maximum value of TOLUD.

Configuration options: [Dynamic] [0.75 GB] [1 GB] [1.25 GB] [1.5 GB] [1.75 GB] [2 GB] [2.25 GB] [2.25 GB]

3.3.4 Graphics Configuration

This item allows you to select a primary display from IGFX and PEG graphical devices.

Primary Display

Allows you to select which of the IGFX/PEG/PCI Graphics devices should be the primary display or select HG for Hybrid Gfx.
Configuration options: [Auto] [IGFX] [PEG Slot] [PCH PCI]

Internal Graphics

[Disabled] Disables internal graphics.

[Enabled] Enables internal graphics.

RC6 (Render Standby)

Allows you to enable or disable render standby support.
Configuration options: [Disabled] [Enabled]

3.3.5 Power Management

This item allows you to configure system ACPI parameters.

Enable ACPI Auto Configuration

Allows you to enable or disable BIOS ACPI Auto Configuation.
Configuration options: [Disabled] [Enabled]

Enable Hibernation

Enables or disables system ability to Hibernate (0S/S4 Sleep State).
Configuration options: [Disabled] [Enabled]

ACPI Sleep State

Allows you to select the highest ACPI sleep state the system will enter when the SUSPEND button is pressed.
Configuration options: [S3 (Suspend to RAM)] [Suspend Disabled]

3.3.6 PCI Express Configuration

This item allows you to configure PCI Express settings.

PCH PCIE Clock Gating

Configuration options: [Disabled] [Enabled]

PCH PCIE Power Gating

Configuration options: [Disabled] [Enabled]

PCIEx16_1(G4) Slot

Allows you to configure the PCI Express Root Port settings.

PCIEx16_1(G4) Slot

Allows you to enable or disable the PCI Express Root Port.
Configuration options: [Disabled] [Enabled]

The following items appear only when you set **PCIEx16_1(G4) Slot** to **[Enabled]**.

PCIe Speed

Allows you to configure the PCIe speed.
Configuration options: [Auto] [Gen1] [Gen2] [Gen3] [Gen4]

Detect Timeout

Allows you to set the time (milliseconds) of waiting for link to exit Detect state for enabled ports before assuming there is no device and potentially disabling the port. Use the <+> and <-> keys to adjust the value or input the desired value.

Detect Non-Compliance Device

When set to [Enabled], this item allows you to detect the non-compliance device in PEG.
Configuration options: [Disabled] [Enabled]

PCIEx16_2(G4) Slot

Allows you to configure the PCI Express Root Port settings.

PCIEx16_2(G4) Slot

Allows you to enable or disable the PCI Express Root Port.
Configuration options: [Disabled] [Enabled]

The following items appear only when you set **PCIEx16_2(G4) Slot** to **[Enabled]**.

PCIe Speed

Allows you to configure the PCIe speed.
Configuration options: [Auto] [Gen1] [Gen2] [Gen3] [Gen4]

Detect Timeout

Allows you to set the time (milliseconds) of waiting for link to exit Detect state for enabled ports before assuming there is no device and potentially disabling the port. Use the <+> and <-> keys to adjust the value or input the desired value.

Detect Non-Compliance Device

When set to [Enabled], this item allows you to detect the non-compliance device in PEG.
Configuration options: [Disabled] [Enabled]

PCIEx1(G4) Slot

Allows you to configure the PCI Express Root Port settings.

PCIEx1(G4) Slot

Allows you to enable or disable the PCI Express Root Port.
Configuration options: [Disabled] [Enabled]

The following items appear only when you set **PCIEx1(G4) Slot** to **[Enabled]**.

PCIe Speed

Allows you to configure the PCIe speed.
Configuration options: [Auto] [Gen1] [Gen2] [Gen3] [Gen4]

Detect Timeout

Allows you to set the time (milliseconds) of waiting for link to exit Detect state for enabled ports before assuming there is no device and potentially disabling the port. Use the <+> and <-> keys to adjust the value or input the desired value.

Detect Non-Compliance Device

When set to [Enabled], this item allows you to detect the non-compliance device in PEG.
Configuration options: [Disabled] [Enabled]

3.3.7 Super IO Configuration

Serial Port 1 Configuration

This item allows you to set parameters of Serial Port 1 (COMA).

Serial Port

Allows you to enable or disable the serial port (COM).
Configuration options: [Disabled] [Enabled]

The following item appears only when you set **Serial Port** to **[Enabled]**.

COM1 Control

Allows you to select COM1 mode.
Configuration options: [RS232] [RS422] [RS485]

Serial Port 2 Configuration

This item allows you to set parameters of Serial Port 2 (COMB).

Serial Port

Allows you to enable or disable the serial port (COM).
Configuration options: [Disabled] [Enabled]

The following item appears only when you set **Serial Port** to **[Enabled]**.

Serial Port 3 Configuration

This item allows you to set parameters of Serial Port 3 (COMC).

Serial Port

Allows you to enable or disable the serial port (COM).
Configuration options: [Disabled] [Enabled]

Serial Port 4 Configuration

This item allows you to set parameters of Serial Port 4 (COMD).

Serial Port

Allows you to enable or disable the serial port (COM).
Configuration options: [Disabled] [Enabled]

Serial Port 5 Configuration

This item allows you to set parameters of Serial Port 5 (COME).

Serial Port

Allows you to enable or disable the serial port (COM).
Configuration options: [Disabled] [Enabled]

Serial Port 6 Configuration

This item allows you to set parameters of Serial Port 6 (COMF).

Allows you to enable or disable the serial port (COM).
Configuration options: [Disabled] [Enabled]

3.3.8 Serial Console Redirection

COM1(~6)

Console Redirection

Allows you enable or disable the console redirection feature.
Configuration options: [Enabled] [Disabled]

The following item is accessible when you set **Console Redirection** to **[Enabled]**.

Console Redirection Settings

The settings specify how the host computer and the remote computer (which the user is using) will exchange data. Both computers should have the same or compatible settings.

Terminal Type

[VT100]	ASCII char set.
[VT100Plus]	Extends VT100 to support color, function keys, etc.
[VT-UTF8]	Uses UTF8 encoding to map Unicode chars onto 1 or more bytes.
[ANSI]	Extended ASCII char set.

Bits per second

Allows you to select serial port transmission speed. The speed must be matched on the other side. Long or noisy lines may require lower speeds.
Configuration options: [9600] [19200] [38400] [57600] [115200]

Data Bits

Configuration options: [7] [8]

Parity

A parity bit can be sent with the data bits to detect some transmission errors.

[None]	Disables parity check.
[Even]	Parity bit is 0 if the num of 1's in the data bits is even.
[Odd]	Parity bit is 0 if the num of 1's in the data bits is odd.
[Mark]	Parity bit is always 1.
[Space]	Parity bit is always 0.

Mark and Space Parity do not allow for error detection.

Stop Bits

Stop bits indicate the end of a serial data packet. The standard setting is 1 stop bit. Communication with slow devices may require more than 1 stop bit.
Configuration options: [1] [2]

Flow Control

Flow control can prevent data loss from buffer overflow. When sending data, if the receiving buffers are full, a "stop" signal can be sent to stop the data flow. Once the buffers are empty, a "start" signal can be sent to re-start the flow. Hardware flow control uses two wires to send start/stop signals.
Configuration options: [None] [Hardware RTS/CTS]

VT-UTF8 Combo Key Support

Allows you to enable or disable VT-UTF8 Combination Key Support for ANSI/ VT100 terminals.
Configuration options: [Disabled] [Enabled]

Recorder Mode

With this mode enabled only text will be sent. This is to capture Terminal data.
Configuration options: [Disabled] [Enabled]

Resolution 100x31

Allows you to enable or disable extended terminal resolution.
Configuration options: [Disabled] [Enabled]

Putty KeyPad

Allows you to select FunctionKey and KeyPad on Putty.
Configuration options: [VT100] [LINUX] [XTERMR6] [SCO] [ESCN] [VT400]

COM7(Pci Bus0, Dev0, Func0) (Disabled)

The following items can be configured only when AMT is provisioned.

Console Redirection Settings

Terminal Type

[VT100]	ASCII char set.
[VT100Plus]	Extends VT100 to support color, function keys, etc.
[VT-UTF8]	Uses UTF8 encoding to map Unicode chars onto 1 or more bytes.
[ANSI]	Extended ASCII char set.

Bits per second

Allows you to select serial port transmission speed. The speed must be matched on the other side. Long or noisy lines may require lower speeds.
Configuration options: [9600] [19200] [38400] [57600] [115200]

Data Bits

Configuration options: [7] [8]

Parity

A parity bit can be sent with the data bits to detect some transmission errors.

[None]	Disables parity check.
[Even]	Parity bit is 0 if the num of 1's in the data bits is even.
[Odd]	Parity bit is 0 if the num of 1's in the data bits is odd.
[Mark]	Parity bit is always 1.
[Space]	Parity bit is always 0.

Mark and Space Parity do not allow for error detection.

Stop Bits

Stop bits indicate the end of a serial data packet. The standard setting is 1 stop bit. Communication with slow devices may require more than 1 stop bit.
Configuration options: [1] [2]

Flow Control

Flow control can prevent data loss from buffer overflow. When sending data, if the receiving buffers are full, a “stop” signal can be sent to stop the data flow. Once the buffers are empty, a “start” signal can be sent to re-start the flow. Hardware flow control uses two wires to send start/stop signals.
Configuration options: [None] [Hardware RTS/CTS]

VT-UTF8 Combo Key Support

Allows you to enable or disable VT-UTF8 Combination Key Support for ANSI/ VT100 terminals.
Configuration options: [Disabled] [Enabled]

Recorder Mode

With this mode enabled only text will be sent. This is to capture Terminal data.
Configuration options: [Disabled] [Enabled]

Resolution 100x31

Allows you to enable or disable extended terminal resolution.
Configuration options: [Disabled] [Enabled]

Putty KeyPad

Allows you to select FunctionKey and KeyPad on Putty.
Configuration options: [VT100] [LINUX] [XTERMR6] [SCO] [ESCN] [VT400]

3.3.9 SATA Configuration

This item allows you to configure SATA device options settings.

SATA Controller(s)

Allows you to enables or disables the onboard SATA device.
Configuration options: [Disabled] [Enabled]

The following item appears only when you set **SATA Controller(s)** to **[Enabled]**.

SATA Mode Selection

Allows you to determine how SATA controller(s) operate.
Configuration options: [AHCI]

SATA6G_1(~4)

Allows you to enable or disable SATA Port.
Configuration options: [Disabled] [Enabled]

M.2

Configuration options: [Disabled] [Enabled]

3.3.10 VMD setup menu

Enable VMD controller

This item allows you to disable or enable VMD controller.
Configuration options: [Disabled] [Enabled]

3.3.11 Network Stack Configuration

Network Stack

This item allows you to disable or enable the UEFI Network Stack.
Configuration options: [Disabled] [Enabled]

The following items appear only when you set **Network Stack** to **[Enabled]**.

IPv4 PXE Support

Allows you to enable or disable IPv4 PXE boot support. If disabled, IPv4 PXE boot support will be unavailable.
Configuration options: [Disabled] [Enabled]

IPv6 PXE Support

Allows you to enable or disable IPv6 PXE boot support. If disabled, IPv6 PXE boot support will be unavailable.
Configuration options: [Disabled] [Enabled]

3.3.12 USB Configuration

XHCI Hand-off

This item functions as a workaround for OSes without XHCI hand-off support. The XHCI ownership change should be claimed by XHCI driver.
Configuration options: [Enabled] [Disabled]

USB Mass Storage Driver Support

Allows you to enable or disable USB Mass Storage Driver Support.
Configuration options: [Disabled] [Enabled]

U32G2_1

Allows you to enable or disable USB port. Once set to **[Disabled]**, any USB devices plugged into the connector will not be detected by BIOS or OS.
Configuration options: [Disabled] [Enabled]

U32G2_2

Allows you to enable or disable USB port. Once set to **[Disabled]**, any USB devices plugged into the connector will not be detected by BIOS or OS.
Configuration options: [Disabled] [Enabled]

U32G2_3

Allows you to enable or disable USB port. Once set to **[Disabled]**, any USB devices plugged into the connector will not be detected by BIOS or OS. Configuration options: [Disabled] [Enabled]

U32G2_4

Allows you to enable or disable USB port. Once set to **[Disabled]**, any USB devices plugged into the connector will not be detected by BIOS or OS. Configuration options: [Disabled] [Enabled]

U32G1_5

Allows you to enable or disable USB port. Once set to **[Disabled]**, any USB devices plugged into the connector will not be detected by BIOS or OS. Configuration options: [Disabled] [Enabled]

U32G1_6

Allows you to enable or disable USB port. Once set to **[Disabled]**, any USB devices plugged into the connector will not be detected by BIOS or OS. Configuration options: [Disabled] [Enabled]

U32G1_7

Allows you to enable or disable USB port. Once set to **[Disabled]**, any USB devices plugged into the connector will not be detected by BIOS or OS. Configuration options: [Disabled] [Enabled]

U32G1_8

Allows you to enable or disable USB port. Once set to **[Disabled]**, any USB devices plugged into the connector will not be detected by BIOS or OS. Configuration options: [Disabled] [Enabled]

U32G1_9

Allows you to enable or disable USB port. Once set to **[Disabled]**, any USB devices plugged into the connector will not be detected by BIOS or OS. Configuration options: [Disabled] [Enabled]

U32G1_10

Allows you to enable or disable USB port. Once set to **[Disabled]**, any USB devices plugged into the connector will not be detected by BIOS or OS. Configuration options: [Disabled] [Enabled]

USB11(~14)

Allows you to enable or disable USB port. Once set to **[Disabled]**, any USB devices plugged into the connector will not be detected by BIOS or OS. Configuration options: [Disabled] [Enabled]

3.3.13 NVMe Configuration

The NVMe Configuration menu displays the NVMe controller and drive information of the devices connected and allows you to configure NVMe device options settings.

3.3.14 Onboard Devices Configuration

HD Audio

Allows you to control detection of the HD-Audio device.

[Enabled] Enables the HD Audio Device unconditionally.

[Disabled] Disables the HD Audio Device unconditionally.

LAN1 I219LM

Configuration options: [Disabled] [Enabled]

LAN2 RTL8111H

Configuration options: [Disabled] [Enabled]

I2C0 Controller

If given device is Function 0 PSF disabling is skipped. PSF default will remain and device PCI CFG Space will still be visible. This is needed to allow PCI enumerator access functions above 0 in a multifunction device. The following devices depend on each other: I2C0 and I2C1, 2, 3; UART0 and UART1, SPIO, 1; UART2 and I2C4, 5. UART 0 (00:30:00) cannot be disabled when: 1. Child device is enabled like CNVi Bluetooth (_SB.PC00.UA00.BTH0). UART 0 (00:30:00) cannot be enabled when: 1. I2S Audio codec is enabled (_SB.PC00.I2C0.HDAC). Configuration options: [Disabled] [Enabled]

CPU PCIEX16 switch function

Configuration options: [2x8] [1x16] [AUTO]

3.3.15 APM Configuration

This item allows you to configure APM (Advanced Power Management) settings.

ErP Ready

Allows BIOS to switch off some power at S5 to get the system ready for ErP requirement. When set to **[Enabled]**, all other PME options will be switched off.
Configuration options: [Disabled] [Enabled]

Restore AC Power Loss

Allows you to select AC power state when power is re-applied after a power failure.
Configuration options: [S5 State] [S0 State]

Power On By PCIE

Allows you to enable or disable the Wake-on-LAN function of the onboard LAN controller or other installed PCIe LAN cards.
Configuration options: [Disabled] [Enabled]

Power On By PS2

Configuration options: [Disabled] [Enabled]

Power On By Ring

Configuration options: [Disabled] [Enabled]

Power On By RTC

Configuration options: [Disabled] [Enabled]

The following items appear when you set **Power On By RTC** to **[Single event]** or **[Daily event]**.

Wake up hour

Allows you to enter a natural number within 0-23 for hour. For example, enter 3 for 3:00 am and 15 for 3:00 pm.

Wake up minute

Allows you to enter a natural number within 0-59 for minute.

Wake up second

Allows you to enter a natural number within 0-59 for second.

The following items appear when you set **Power On By RTC** to **[Weekly event]**.

Alarm day of Week

Allows you to select the day of the week when the system is to wake up.
Configuration options: [Sunday] [Monday] [Tuesday] [Wednesday] [Thursday] [Friday] [Saturday]

Wake up hour

Allows you to enter a natural number within 0-23 for hour. For example, enter 3 for 3:00 am and 15 for 3:00 pm.

Wake up minute

Allows you to enter a natural number within 0-59 for minute.

Wake up second

Allows you to enter a natural number within 0-59 for second.

The following items appear when you set **Power On By RTC** to **[Monthly event]**.

Day of the Month

Allows you to select the day of the month when the system is to wake up.

Wake up hour

Allows you to enter a natural number within 0-23 for hour. For example, enter 3 for 3:00 am and 15 for 3:00 pm.

Wake up minute

Allows you to enter a natural number within 0-59 for minute.

Wake up second

Allows you to enter a natural number within 0-59 for second.

3.3.16 EZ-Flash

This item allows you to enter EZ-Flash mode. After you press <Enter>, a confirmation message appears. Use the left/right arrow key to select between **[Yes]** or **[No]**, then press <Enter> to confirm your choice.

3.3.17 Watchdog Timer

Watchdog Support

Configuration options: [Disabled] [Enabled]

The following items appear when you set **Watchdog Support** to **[Enable]**.

Watchdog Count mode

Allows you to select Watchdog Timer I count mode.
Configuration options: [Second Mode] [Minute Mode]

Watchdog Timer

Allows you to set the Watchdog Timer I Time-out value.

3.4 Hardware Monitor menu

The Hardware Monitor menu displays the system temperatures, fan and power status, and allows you to configure the smart fan.

Smart Fan Mode

Allows you to select the Smart Fan mode.
Configuration options: [Disabled] [Normal] [Manual Mode]

The following items appear only when you set **Smart Fan Mode** to **[Manual Mode]**.

Smart Fan Function

Chassis Fan 1 Setting

Chassis Fan1 Temperature 1(~4)
Allows you to set the value of temperature1(~4).

Chassis Fan1 FD/RPM 1(~4)
Allows you to set the value of Fan Duty/PRM 1(~4) when temperature is T1(~4).

Chassis Fan 2 Setting

Chassis Fan2 Temperature 1(~4)
Allows you to set the value of temperature1(~4).

Chassis Fan2 FD/RPM 1(~4)
Allows you to set the value of Fan Duty/PRM 1(~4) when temperature is T1(~4).

CPU Fan Setting

CPU Fan Temperature 1(~4)
Allows you to set the value of temperature1(~4).

CPU Fan FD/RPM 1(~4)
Allows you to set the value of Fan Duty/PRM 1(~4) when temperature is T1(~4).

3.5 Security menu

The Security menu allows a new password to be created or a current password to be changed. The menu also enables or disables the Secure Boot state and lets the user configure the System Mode state.

3.5.1 Administrator Password

If you have set an administrator password, we recommend that you enter the administrator password for accessing the system.

To set an administrator password:

1. Select the **Administrator Password** item and press <Enter>.
2. From the **Create New Password** box, key in a password, then press <Enter>.

To change an administrator password:

1. Select the **Administrator Password** item and press <Enter>.
2. From the **Enter Current Password** box, key in the current password, then press <Enter>.
3. From the **Create New Password box**, key in a new password, then press <Enter>.
4. Confirm the password when prompted.

To clear the administrator password, follow the same steps as in changing an administrator password, but press <Enter> when prompted to create/confirm the password.

3.5.2 User Password

If you have set a user password, you must enter the user password for accessing the system.

To set a user password:

1. Select the **User Password** item and press <Enter>.
2. From the **Create New Password** box, key in a password, then press <Enter>.
3. Confirm the password when prompted.

To change a user password:

1. Select the **User Password** item and press <Enter>.
2. From the **Enter Current Password** box, key in the current password, then press <Enter>.
3. From the **Create New Password** box, key in a new password, then press <Enter>.
4. Confirm the password when prompted.

To clear a user password:

1. Select the **Clear User Password** item and press <Enter>.
2. Select **Yes** from the Warning message window then press <Enter>.

3.5.3 Secure Boot

Secure Boot feature is active when Secure Boot is set to [Enabled], Platform Key (PK) is enrolled and the system is running in User mode. Changing the mode requires platform reset.
Configuration options: [Disabled] [Enabled]

Secure Boot Mode

Allows you to select Secure Boot Mode. When set to [Custom], Secure Boot Policy variables can be configured by a physically present user without full authentication.
Configuration options: [Standard] [Custom]

Key Management

Allows you to modify Secure Boot Policy variables without full authentication.

Platform Key (PK)

Configuration options: [Details] [Export] [Update] [Delete]

Key Exchange Keys (KEK) / Authorized Signatures (db) / Forbidden Signatures (dbx)

Configuration options: [Details] [Export] [Update] [Append] [Delete]

3.6 Boot menu

The items in the Boot menu allow you to change the system boot options.

Boot Configuration

CHASSIS INTRUDE

Allows you to enable or disable CHASSIS INTRUDE. Configuration options: [Disabled] [Enabled]

Setup Prompt Timeout

Allows you to set the number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.

Post Time Delay

Allows you to set the delay for specific situation needs. For example, HDD spin up time (Delay time = value * 500ms). Use the <+> and <-> keys to adjust the value or input the desired value.

Bootup NumLock State

Allows you to select the keyboard NumLock state.
Configuration options: [On] [Off]

Quiet Boot

Configuration options: [Disabled] [Enabled]

Fast Boot

Allows you to enable or disable boot with initialization of a minimal set of devices required to launch active boot option. This has no effect for BBS boot options.

[Enabled] Select to accelerate the boot speed.

[Disabled] Select to go back to normal boot speed.

FIXED BOOT ORDER Priorities

Boot Option #1(~6)

Allows you to set the system boot order.
Configuration options: [Hard Disk] [NVME] [CD/DVD] [SD] [USB Device] [Network] [Disabled]

UEFI USB Drive BBS Priorities

Specifies the Boot Device Priority sequence from available UEFI USB Drives.

3.7 Exit menu

The items in the Exit menu allow you to save or discard your changes to the BIOS items.

Save Changes and Exit

Allows you to exit the system setup program after saving the changes.

Discard Changes and Exit

Allows you to exit the system setup program without saving the changes you made. When you select this option or if you press <Esc>, a confirmation window appears. Select **Yes** to discard changes and exit.

Save Changes and Reset

Allows you to reset the system setup after saving the changes.

Discard Changes and Reset

Allows you to reset the system setup without saving the changes you made.

Save Options

Save Changes

Allows you to save changes done so far to any of the setup options.

Discard Changes

Allows you to discard changes done so far to any of the setup options.

Restore Defaults

Allows you to restore or load default values for all the setup options.

Save as User Defaults

Allows you to save the changes done so far as User Defaults.

Restore User Defaults

Allows you to restore the User Defaults to all the setup options.

Appendix

Notices

FCC Compliance Information

Responsible Party:	Asus Computer International
Address:	48720 Kato Rd., Fremont, CA 94538, USA
Phone / Fax No:	(510)739-3777 / (510)608-4555

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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HIGH-DEFINITION MULTIMEDIA INTERFACE

Compliance Statement of Innovation, Science and Economic Development Canada (ISED)

This device complies with Innovation, Science and Economic Development Canada licence exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

CAN ICES-003(B)/NMB-003(B)

Déclaration de conformité de Innovation, Sciences et Développement économique Canada (ISED)

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CAN ICES-003(B)/NMB-003(B)

VCCI: Japan Compliance Statement

Class B ITE

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取扱説明書に従って正しい取り扱いをして下さい。

ＶＣＣＩ－Ｂ

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DO NOT throw the motherboard in municipal waste. This product has been designed to enable proper reuse of parts and recycling. This symbol of the crossed out wheeled bin indicates that the product (electrical and electronic equipment) should not be placed in municipal waste. Check local regulations for disposal of electronic products.

DO NOT throw the mercury-containing button cell battery in municipal waste. This symbol of the crossed out wheeled bin indicates that the battery should not be placed in municipal waste.

Safety Precautions

Accessories that came with this product have been designed and verified for the use in connection with this product. Never use accessories for other products to prevent the risk of electric shock or fire.

安全上のご注意

付属品は当該専用品です。他の機器には使用しないでください。機器の破損もしくは、火災や感電の原因となることがあります。

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Service and Support

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