MX150N

Intel® Alder Lake-N Soc Mini-ITX Motherboard

User's Manual

Ver. 1.0

Content

Safety Information

Electrical safety

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.
- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Make sure that your power supply is set to the correct voltage in your area. If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

Operation safety

- Before installing the motherboard and adding devices on it, carefully read all the manuals that came with the package.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.
- Place the product on a stable surface.
- If you encounter technical problems with the product, contact a qualified service technician or your retailer.

The 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.

Safety Declaration

This device complies with the requirements in Part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

About this guide

This user guide contains the information you need when installing and configuring the motherboard.

How this guide is organized

This manual contains the following parts:

- **Chapter 1: Product introduction**

  This chapter describes the features of the motherboard and the new technology it supports. This chapter also lists the hardware setup procedures that you have to perform when installing system components. It includes description of the jumpers and connectors on the motherboard.

- **Chapter 2: BIOS setup**

  This chapter tells how to change system settings through the BIOS Setup menus. Detailed descriptions of the BIOS parameters are also provided.

Where to find more information

Refer to the following sources for additional information and for product and software updates.

1. Technical Support

If a problem arises with your system and no solution can be obtained from the user's manual, please contact your place of purchase or local distributor.

2. Optional documentation

Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer. These documents are not part of the standard package.

Conventions used in this guide

To make sure that you perform certain tasks properly, take note of the following symbols used throughout this manual.

DANGER/WARNING: Information to prevent injury to yourself when trying to complete a task.

CAUTION: Information to prevent damage to the components when trying to complete a task.

IMPORTANT: Instructions that you MUST follow to complete a task.

NOTE: Tips and additional information to help you complete a task.

Typography

Bold text	Indicates a menu or an item to select
Italics	Used to emphasize a word or a phrase
<Key>	Keys enclosed in the less-than and greater-than sign means that you must press the enclosed key Example: <Enter> means that you must press the Enter or Return key
<Key1>+<Key2>+<Key3>	If you must press two or more keys simultaneously, the key names are linked with a plus sign (+) Example: <Ctrl>+<Alt>+<D>
Command	Means that you must type the command exactly as shown, then supply the required item or value enclosed in brackets Example: At the DOS prompt, type the command line: **afudos /i[filename]** **afudos /iP5P800VM.ROM**

Packing List

Before you begin installing your single board, please make sure that the following materials have been shipped:

- 1 x mini-ITX MX150N Main board
- 2 x I/O Shield (Full size and half size)

If any of the above items is damaged or missing, please contact your retailer.

Revision History

Revision	Revision History	Date
V 0.1	First release version	Jan, 2026

This chapter describes the motherboard features and the new technologies it supports.

1

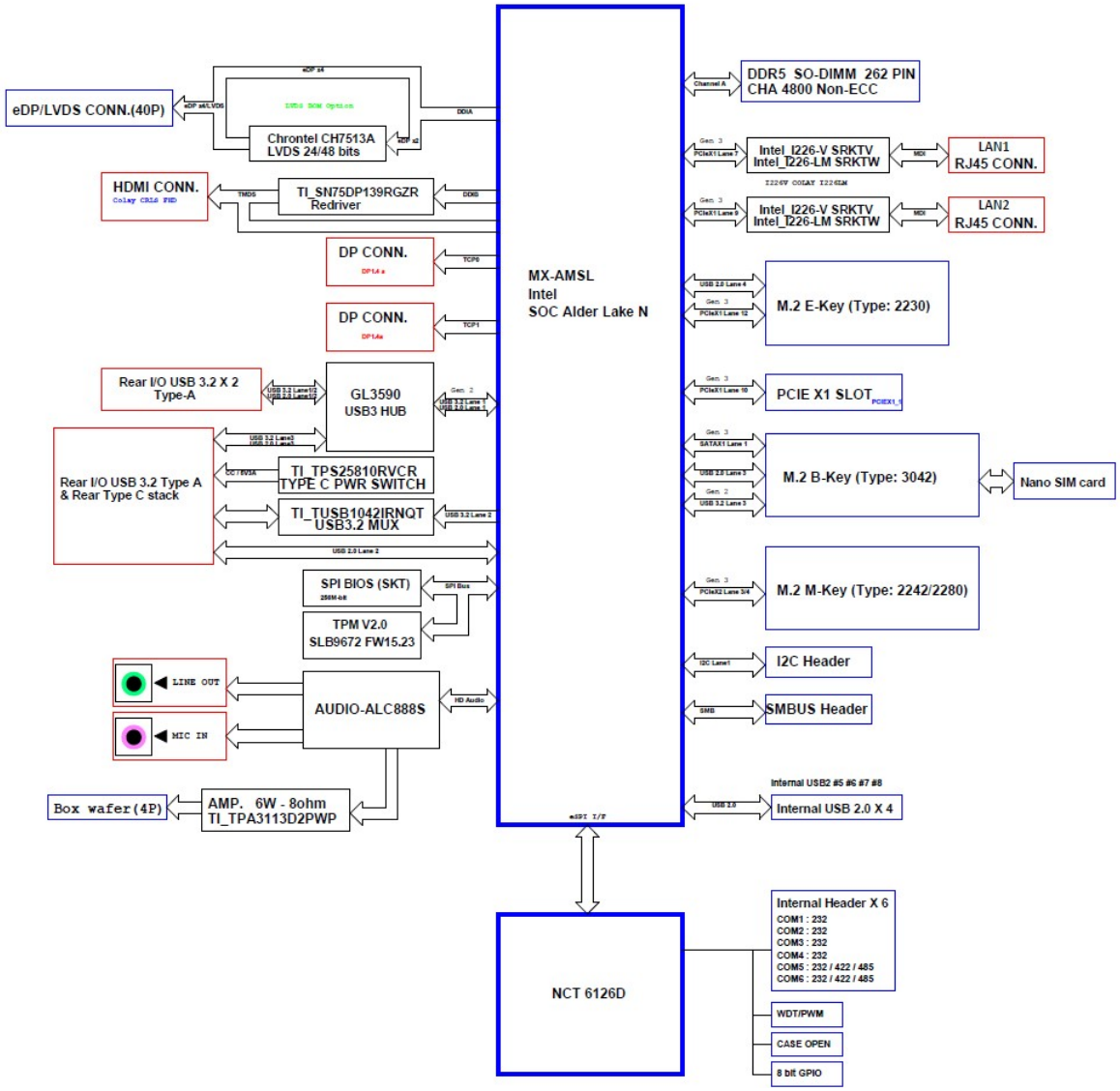
Product Introduction

Specifications Summary

Specifications	
System	
CPU	Intel® Alder Lake N150 Quad Core SoC(Optional Support for Alder Lake N & Amston Lake Up to 15W Max)
BIOS	Socket Type 256Mb SPI BIOS
System Chipset	Intel® Alder Lake N150 Quad Core SoC
Memory	1 x SoDIMM Up to 16GB Max DDR5 4800 MHz with non-ECC Support (Horizontal Type)
Watchdog Timer	1 ~ 255 sec timer
H/W Status Monitor	CPU & system temperature monitoring Voltages monitoring
Expansion Slots	1 x PCIe x1 Slot Open Ended 1 x M.2 3042 B Key with Nano SIM Socket (SATA III & USB 3.2) 1 x M.2 2242/2280 M Key (PCIe x2) 1 x M.2 2230 E Key (PCIe x 1 + USB 2.0)
Smart Fan Control	Yes
Display	
Chipset	Intel® 12th Gen UHD Integrated Graphic
Display Memory	Shared Memory
Ethernet	
LAN1	Intel® I226V 2.5 Gigabit Ethernet Controller
LAN2	Intel® I226V 2.5 Gigabit Ethernet Controller
Back I/O Port	
Back Panel	2 x DisplayPort Connectors 1 x HDMI Connector 2 x RJ-45 LAN Connectors 1 x USB 3.2 Gen 2 Type-A Stacked Connector (2 Ports Red) 1 x USB 3.2 Gen 2 Type A & Type-C Stacked Connector (OTG on Type C) 1 x Line-out 1 x Mic-in 1 x DC-In Connector (ID 2.5mm/OD 5.5mm/7.8mm)
Internal I/O Connector	
Internal I/O	4 x RS-232 Headers with Voltage Selection (2.0mm Pitch) 2 x RS-232/422/485 Headers with Voltage Selection (2.0mm Pitch) 2 x USB 2.0 Header (4 Ports on Header) 1 x LVDS Header 1 x eDP Header (Optional) 1 x Backlight Locking Type Header

	1 x SPI Header 1 x I^2C Header 1 x SMBus Header 1 x Front Audio Header with Shroud (2.54mm Pitch) 1 x Amplifier Locking Type Header (2.0mm Pitch) 1 x Front Panel Headers with Shroud (2.54mm Pitch) 1 x 8 bits GPIO Header with Shroud 1 x 4 Pin CPU Fan Header (4 Pin PWM) 1 x 4 Pin Chassis Fan Header (4 Pin PWM) 1 x Cable Type CMOS Battery 1 x Chassis Intrusion Locking Type Header 1 x 4 Pin Mini-Fit Jr DC-In Header
Mechanical & Environmental	
Operating Temperature	0~60°C (32~140°F) with 0.7 m/s air flow
Operating Humidity	5%~90% relative humidity, non-condensing
Size (L x W)	6.7" (L) x 6.7" (W) (170mm x 170mm)

Block Diagram



Chapter 1 - Product Introduction

1.1 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.
- Use a grounded wrist strap or touch a safely grounded object or a metal object, such as the power supply case, before handling components 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 anti-static pad or in the bag that came with the component.
- Before you install or remove any component, ensure that the ATX power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, and/or components.

1.2 Motherboard Overview

Before you install the motherboard, study the configuration of your chassis to ensure that the motherboard fits into it. Refer to the chassis documentation before installing the motherboard.

Make sure to unplug the power cord before installing or removing the motherboard. Failure to do so can cause you physical injury and damage motherboard components.

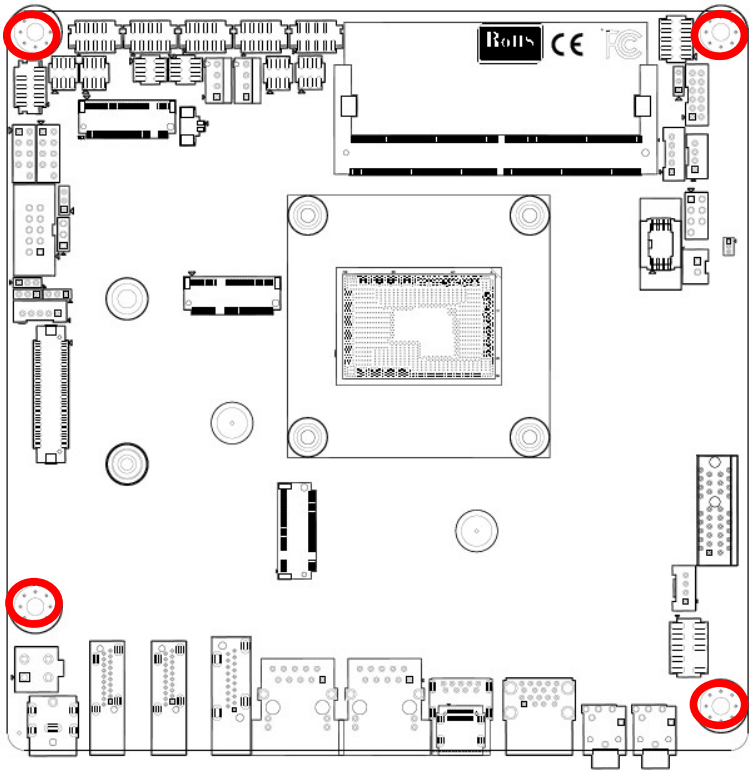
1.2.1 Placement Direction

When installing the motherboard, make sure that you place it into the chassis in the correct orientation. The edge with external ports goes to the rear part of the chassis as indicated in the image below.

1.2.2 Screw Holes

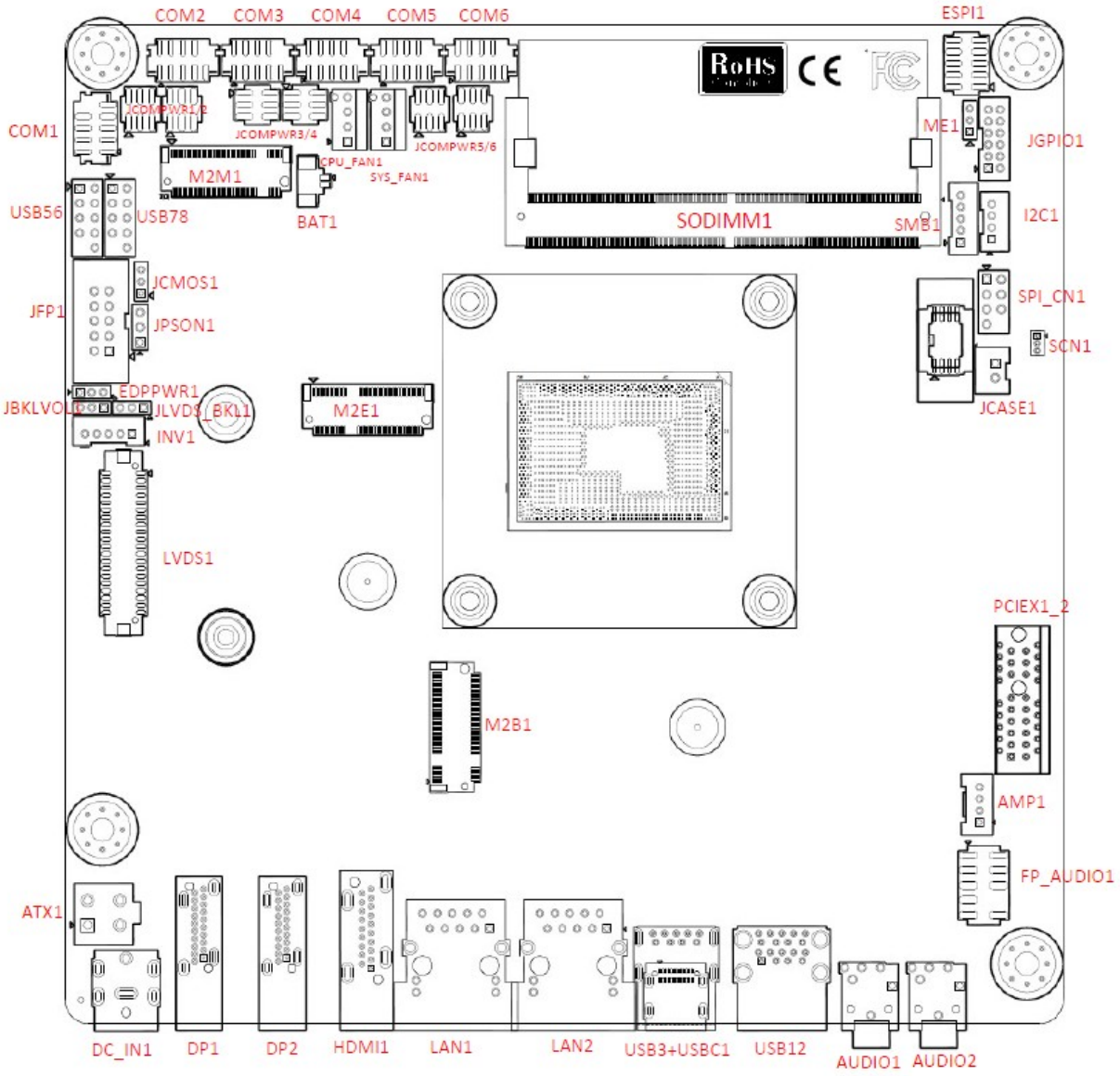
Place four screws into the holes indicated by circles to secure the motherboard to the chassis.

Do not over tighten the screws! Doing so can damage the motherboard.



Place this side towards the rear of the chassis.

1.2.3 Motherboard Layout



1.2.4 Layout Content List

Slots & socket		
Label	**Function**	**Note**
SODIMM1	DDR5 SODIMM Slot	Dual channel. (1 DIMMs per channel)
PCIEX1_2	PCIe x16 Gen5	
M2M1	M.2 key M slot	PCIEx2 interface
M2B1	M.2 key B slot	SATA III & USB 3.2
M2E1	M.2 key E slot	PCIe x 1 + USB 2.0

Jumpers		
Label	**Function**	**Note**
JCMOS1	Clear CMOS	1 x 3 header, pitch 2.00mm
JPSON1	AT/ATX Mode setting	1 x 3 header, pitch 2.00mm
JBKLVOL	LVDS panel power setting	1 x 3 header, pitch 2.00mm
EDPPWR1	eDP power setting	1 x 3 header, pitch 2.00mm
JCOMPWR1~6	COM port power setting	2 x 3 header, pitch 2.00mm
JLVDS_BKL1	LVDS brightness mode setting	1 x 3 header, pitch 2.00mm

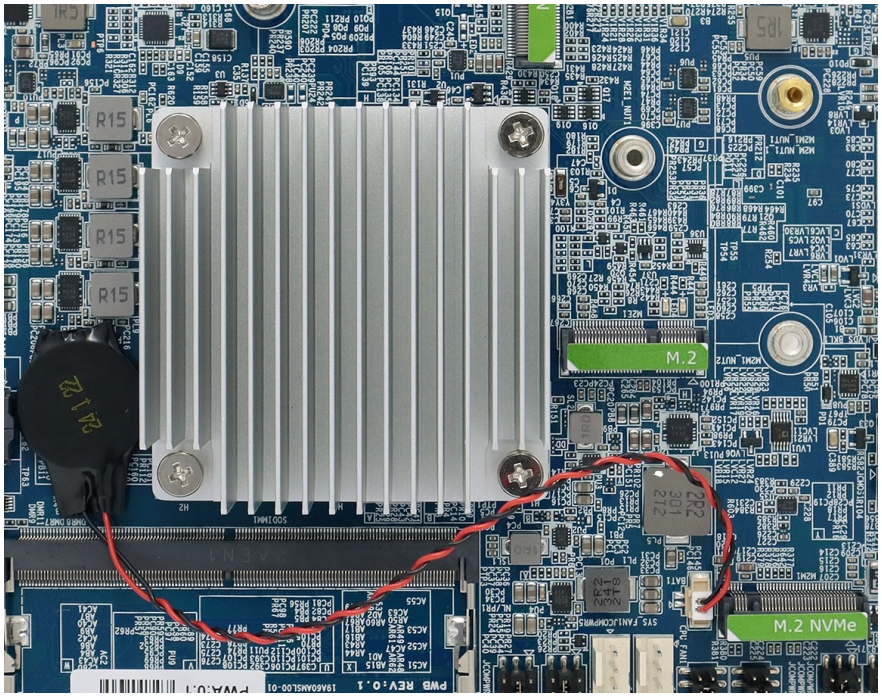
Rear Panel Connector		
Label	**Function**	**Note**
DC_IN1	DC in connector	
DP1/DP2	Display port	
HDMI1	HDMI port	
LAN1/LAN2	RJ45 connector	2.5 Gigabit Ethernet
USB3+USBC1	USB 3.2 Gen 2 Type A & Type-C Stacked Connector	
USB12	USB 3.2 Connectors	
AUDIO1	Line out port x1	Line out: Lime
AUDIO2	MIC-in port x1	MIC-in: Pink

Internal Connector		
Label	**Function**	**Note**
CPU_FAN1	CPU Fan connector	WAFER 1x4P, 2.54mm
SYS_FAN1	Chassis Fan connector	WAFER 1x4P, 2.54mm
JFP1	Front Panel connector	BOX header 2x5P, 2.54mm
ATX1	12V ATX power connectors	PWR Conn 2x2P
COM1~6	Serial Port Connector	Header 2x5P, 2.00mm
FP_ AUDIO1	Front Panel Audio Connector	Header 2x5P, 2.54mm
JGPIO1	Digital I/O Connector	WAFER 6x2P, 2.0mm
I2C1	I2C connector	WAFER 4P, 2.00mm
USB56/78	Front USB 2.0 Headers	BOX header 2x5P, 2.54mm
LVDS1	LVDS header	WAFER 2x20P, 1.25mm
INV1	LVDS backlight connector	WAFER 1x5P, 2.0mm
SMB1	SMBus connector	WAFER 1x5P, 2.0mm
AMP1	Amplifier Connector	WAFER 1x4P, 2.0mm
JCASE1	Chassis Intrusion Header	WAFER 1x2P, 2.5mm

1.3 Central Processing Unit (CPU)

1.3.1 CPU Heatsink and Fan

The motherboard comes with CPU heatsink already installed. CPU fan is optional.



1.4 System Memory

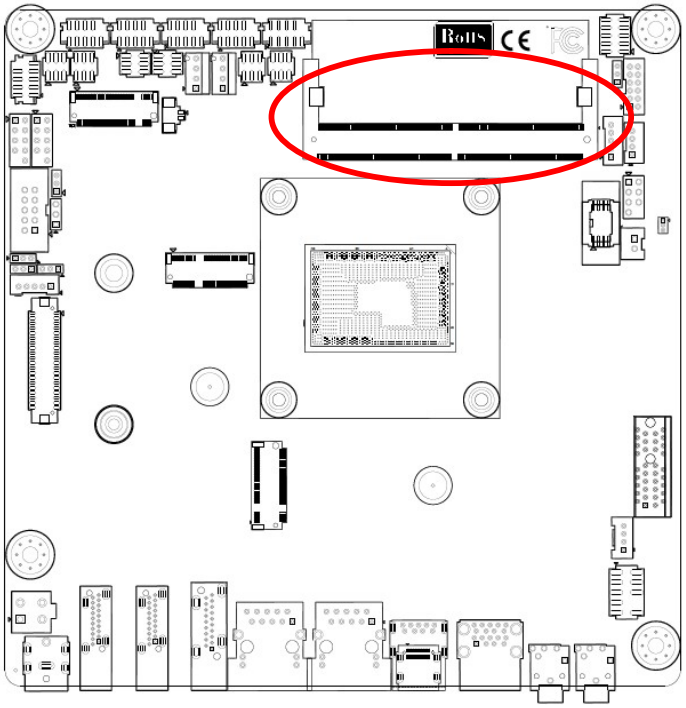
1.4.1 Overview

The motherboard comes with one 262-pin Double Data Rate 5 (DDR5) Dual Inline Memory Modules (DIMM) sockets.

DDR5 memory brings several key performance and power gains to the table, as well as new design challenges.

From the JEDEC JESD79-5 DDR5 standard, DDR5 specification has significant improvements in capacity, speed, and voltage. Structure-wise, the Power Management IC (PMIC) is moved onto the DIMM, reducing redundant power management circuitry on the motherboard for unused DIMM slots in previous generations.

The DDR5 specification is bringing the maximum potential capacity for a single DDR5 DIMM to 128GB, a theoretical maximum transfer speed of 6400MT/s which is doubling the rate of DDR4, along with the improved power consumption as 1.1V.



262-Pin DDR5 SODIMM sockets

1.4.2 Installing a SODIMM

Make sure to unplug the power supply before adding or removing DIMMs or other system components. Failure to do so may cause severe damage to both the motherboard and the components.

1. Locate the DIMM socket on the board.

2. Hold two edges of the DIMM module carefully, and keep away of touching its connectors.
3. Align the notch key on the module with the rib on the slot.
4. Firmly press the modules into the socket which will automatically snap into the mounting notch. Do not force the DIMM module in with extra force as the DIMM module only fits in one direction.

- A DDR5 SODIMM is keyed with a notch so that it fits in only one direction. DO NOT force a DIMM into a socket to avoid damaging the DIMM.
- The DDR5 SODIMM sockets do not support DDR/DDR2/DDR3/DDR4 SODIMMs.
- DO NOT install DDR/DDR2/DDR3/DDR4 SODIMMs to the DDR5 SODIMM socket.

1.4.3 Uninstalling a DDR5 SODIMM

Press the two ejector tabs on the slot outward simultaneously, and then pull out the DIMM module.

Support the DIMM lightly with your fingers when releasing the locking arms. The DIMM might get damaged when it flips out with extra force.

1.5 Expansion Card

In the future, you may need to install expansion cards. The following sub-sections describe the slots and the expansion cards that they support.

Make sure to unplug the power cord before adding or removing expansion cards. Failure to do so may cause you physical injury and damage motherboard components.

1.5.1 Installing an Expansion Card

1. Before installing the expansion card, read the documentation that came with it and make the necessary hardware settings for the card.
2. Remove the system unit cover (if your motherboard is already installed in a chassis).
3. Remove the bracket opposite the slot that you intend to use. Keep the screw for later use.
4. Align the card connector with the slot and press firmly until the card is completely seated on the slot.
5. Secure the card to the chassis with the screw you removed earlier.

6. Replace the system cover.

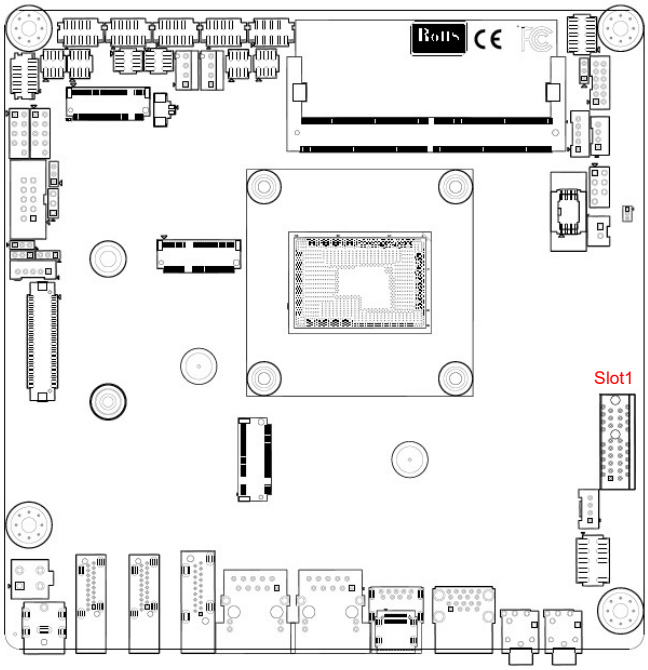
1.5.2 Configuring an Expansion Card

After installing the expansion card, configure it by adjusting the software settings.

1. Turn on the system and change the necessary BIOS settings, if any. See Chapter 2 for information on BIOS setup.
2. Assign an IRQ to the card if needed. Refer to the tables on the next page.
3. Install the software drivers for the expansion card.

1.5.3 PCI Express x1 slot

This motherboard supports 1 PCI Express x1 slot that complies with the PCI Express specifications.

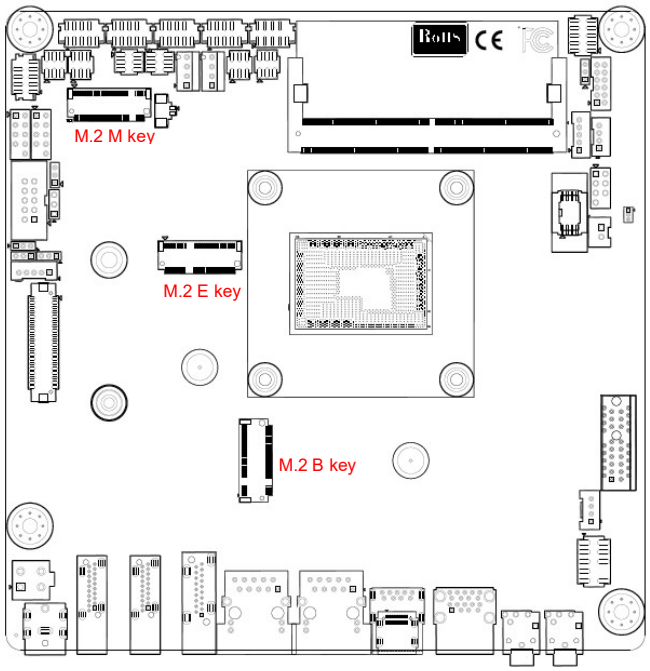


Slot1: Gen 3 PCIe x1

1.5.4 M.2 connector

Support PCIe, SATA and USB interface of this connector.

Top side:



1 x M.2 3042 B Key with Nano SIM Socket (SATA III & USB 3.2)

1 x M.2 2242/2280 M Key (PCIe x2)

1 x M.2 2230 E Key (PCIe x 1 + USB 2.0)

1.6 Jumpers

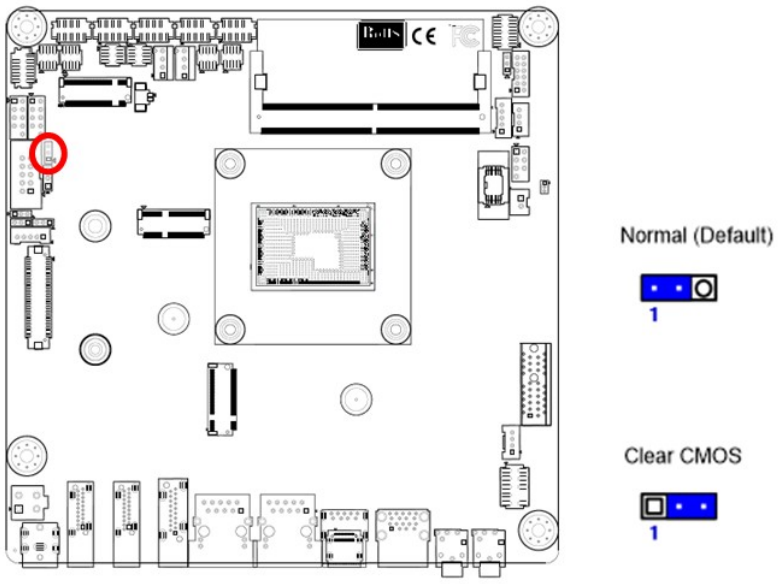
1.6.1 Clear CMOS (CLCMOS1)

This jumper allows you to clear the Real Time Clock (RTC) RAM in CMOS. You can clear the CMOS memory of date, time, and system setup parameters by erasing the CMOS RTC RAM data. The onboard button cell battery powers the RAM data in CMOS, which includes system setup information such as system passwords.

To erase the RTC RAM:

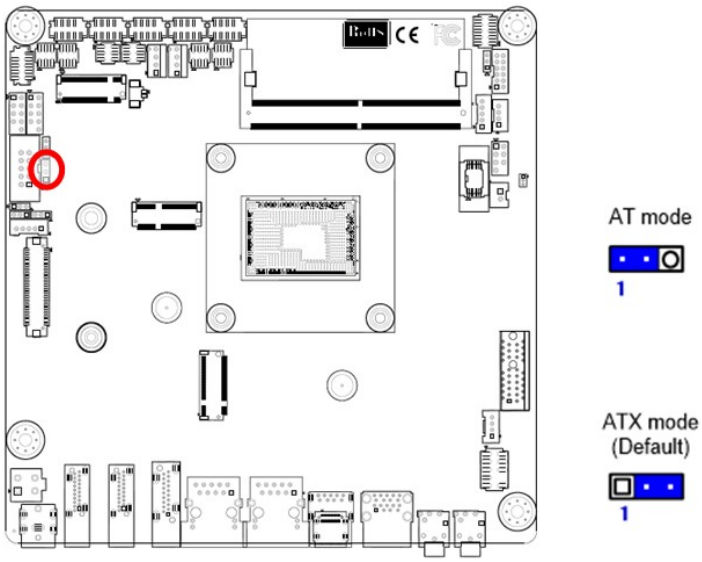
1. Turn OFF the computer and unplug the power cord.
2. Remove the onboard battery.
3. Move the jumper cap from pins 1-2 (default) to pins 2-3. Keep the cap on pins 2-3 for about 5~10 seconds, then move the cap back to pins 1-2.
4. Re-install the battery.
5. Plug the power cord and turn ON the computer.
6. Hold down the <Del> key during the boot process and enter BIOS setup to re-enter data.

Except when clearing the RTC RAM, never remove the cap on CLRTC jumper default position. Removing the cap will cause system boot failure!



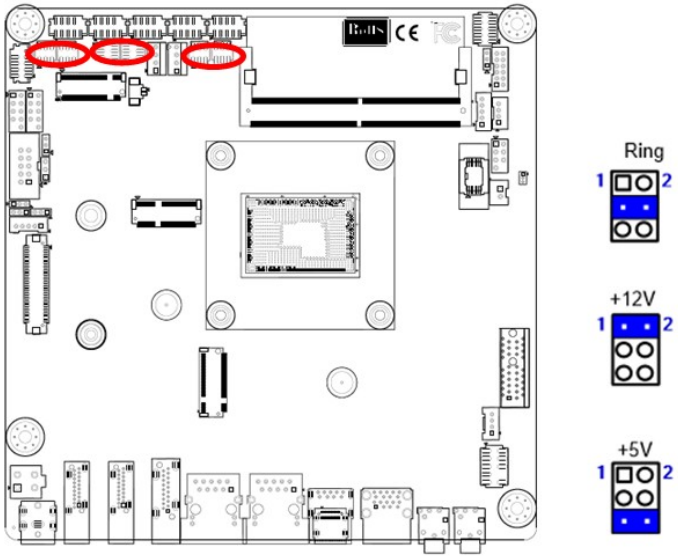
1.6.2 AT/ATX Power Mode Select (JPSON1)

This jumper allows you to select ATX Mode or AT mode



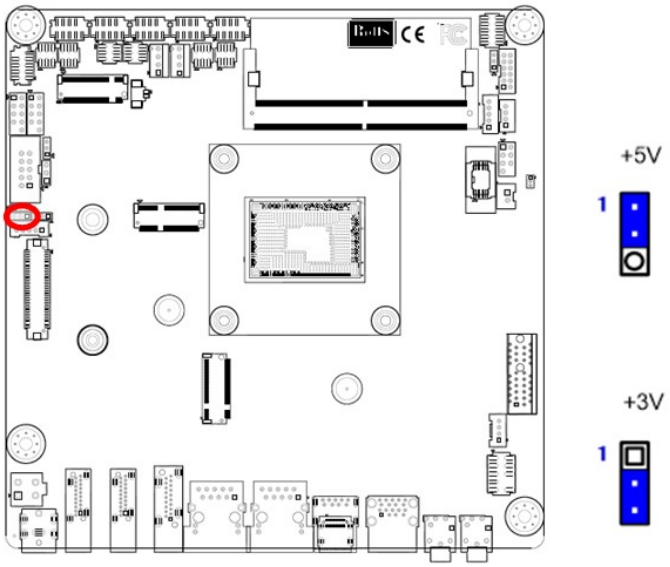
1.6.3 COM POWER SETTING (JCOMPWR1~6)

This jumper allows you to select COM1~6 to support Ring/+12V/+5V



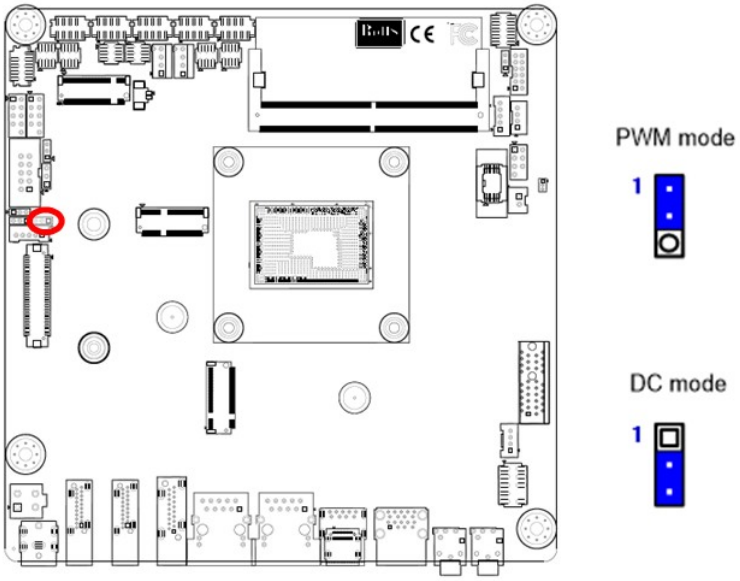
1.6.4 LVDS backlight voltage selection (JBKLVOL)

This jumper allows you to select 3V or 5V for LVDS backlight



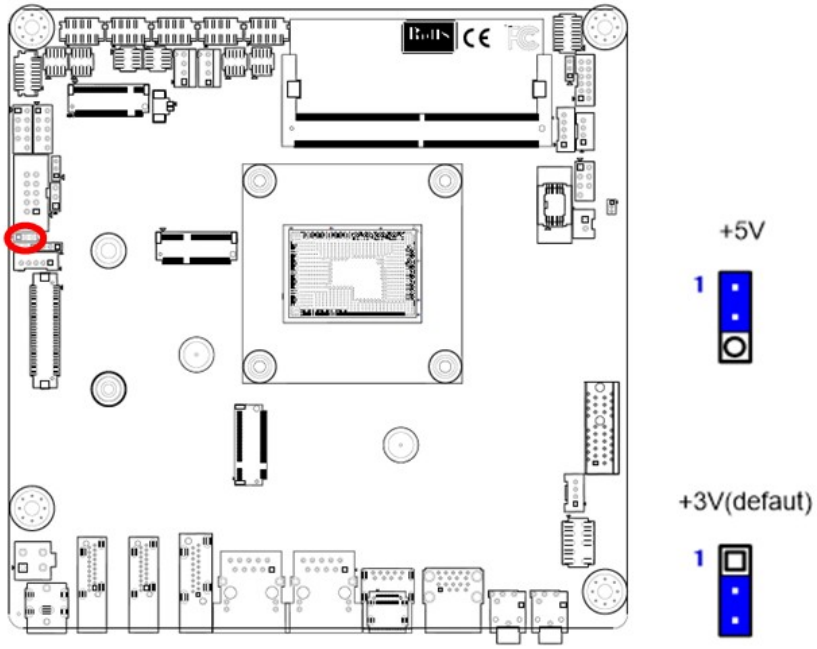
1.6.5 LVDS brightness control mode selection (JLVDS_BKL1)

This jumper allows you to select control mode for LVDS backlight



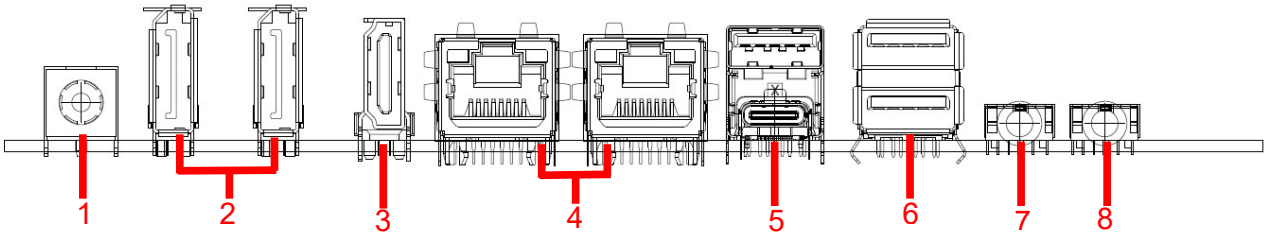
1.6.6 eDP voltage selection (EDPPWR1)

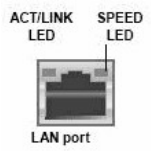
This jumper allows you to select 3V or 5V for eDP



1.7 Connectors

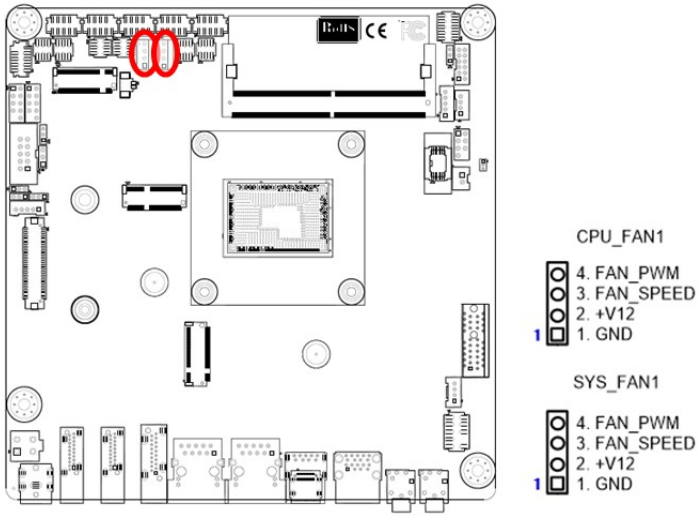
1.7.1 Rear panel connectors



<table>
<tr><th>Item</th><th>Name</th><th>Function</th><th>Description</th></tr>
<tr><td>1</td><td>DC_IN</td><td>DC-in connector</td><td>The connector is for DC-in (12-24V)</td></tr>
<tr><td>2</td><td>DP1/DP2</td><td>USB 2.0 Connectors</td><td>The display port Connector</td></tr>
<tr><td>3</td><td>HDMI</td><td>HDMI Port</td><td>The HDMI port Connector</td></tr>
<tr><td>4</td><td>LAN1/LAN2</td><td>2.5G LAN (RJ-45) Connectors
  </td><td>This port allows 2.5G connection to a Local Area Network (LAN) through a network hub. Refer to the table below for the LAN port LED indications.
<table>
<tr><th colspan="2">ACT/Link LED</th><th colspan="2">Speed LED</th></tr>
<tr><th>Status</th><th>Description</th><th>Status</th><th>Description</th></tr>
<tr><td>OFF</td><td>No link</td><td>OFF</td><td>10/100Mbps connection</td></tr>
<tr><td>Orange</td><td>Linked</td><td>Green</td><td>1Gbps connection</td></tr>
<tr><td>Blinking</td><td>Data activity</td><td>Orange</td><td>2.5Gbps connection</td></tr>
</table></td></tr>
<tr><td>5</td><td>USB3.2 Type A+TypeC</td><td>USB 3.2 Connectors (TypeA+TypeC)</td><td>These two Universal Serial Bus (USB) ports are available for connecting USB 3.2 devices.</td></tr>
<tr><td>6</td><td>USB3.2 Type A</td><td>USB 3.2 Connectors (TypeA)</td><td>These two Universal Serial Bus (USB) ports are available for connecting USB 3.2 devices.</td></tr>
<tr><td>7</td><td>AUDIO</td><td>Line-out port (Lime)</td><td>This port connects a headphone or a speaker.</td></tr>
<tr><td>8</td><td>AUDIO</td><td>Microphone port (Pink)</td><td>This port connects a microphone.</td></tr>
</table>

1.7.2 CPU and System fan connectors (CPU_FAN1, SYS_FAN1)

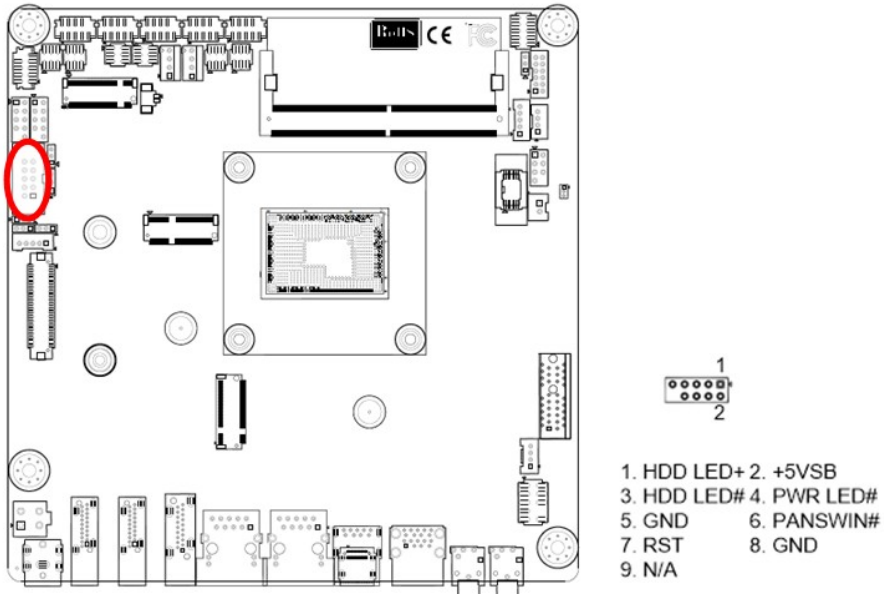
The fan connectors support cooling fans of 280mA (3.36 W max.) at 4800rpm or a total of 1A~2.22A (26.64W max.) at +12V. Connect the fan cables to the fan connectors on the motherboard, making sure that the black wire of each cable matches the ground pin of the connector.



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

1.7.3 System Panel (JFP1)

This connector is for a chassis-mounted front panel. The functions are as following.



- **ATX Power Button/Soft-off Button (Pin 6-8)**

This 2-pin connector is for the system power button. Pressing the power button turns the system on or puts the system in sleep or soft-off mode depending on the BIOS settings. Pressing the power switch and holding it for more than four seconds while the system is ON turns the system OFF.

- **Reset Button (Pin 5-7)**

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

- **Power LED (Pin 2-4)**

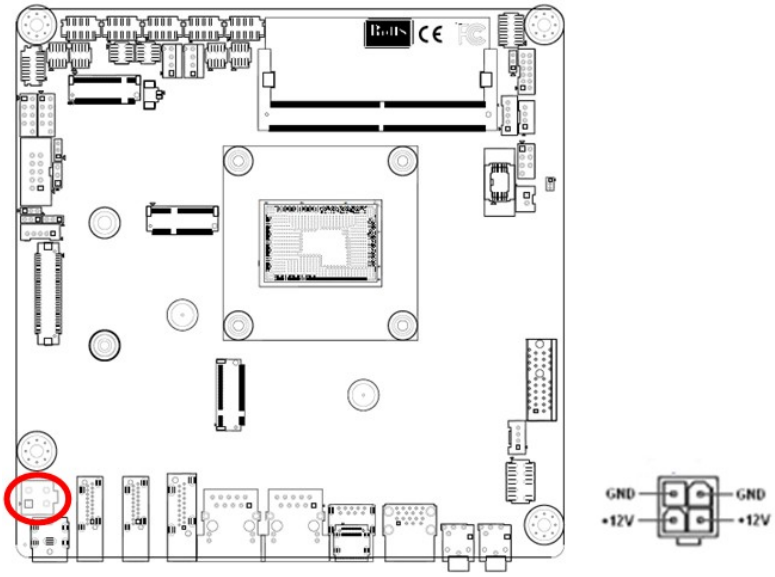
  This 2-pin connector is for the system power LED. Connect the chassis power LED cable to this connector. The system power LED lights up when you turn on the system power, and blinks when the system is in sleep mode.

- **Hard Disk Drive Activity LED (Pin 1-3)**

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

1.7.4 ATX power connectors (ATX1)

The connector is for ATX power supply plugs. The power supply plugs are designed to fit these connectors in only one orientation. Find the proper orientation and push down firmly until the connectors completely fit.

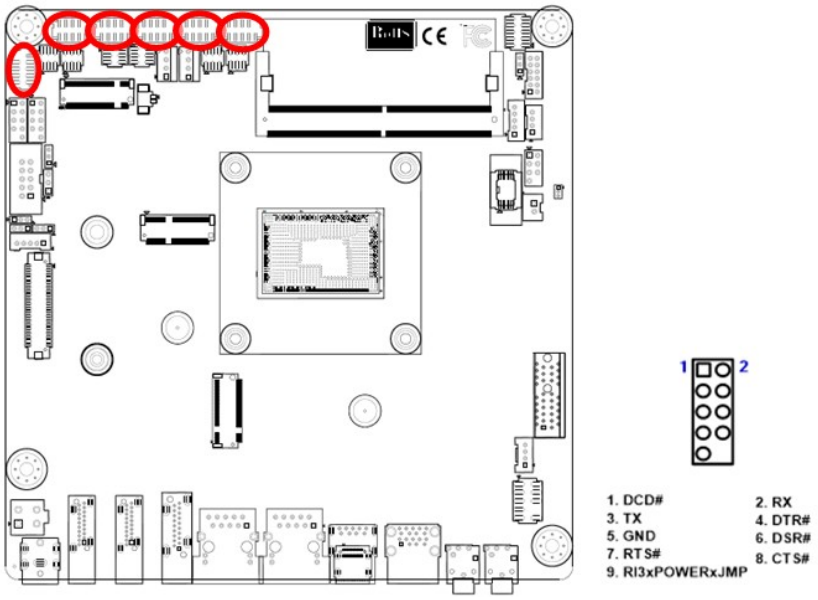


- Use of a PSU with a higher power output is recommended when configuring a system with more power-consuming devices. The system may become unstable or may not boot up if the power is inadequate.

- Make sure that your power supply unit (PSU) can provide at least the minimum power required by your system. See the table below for details.

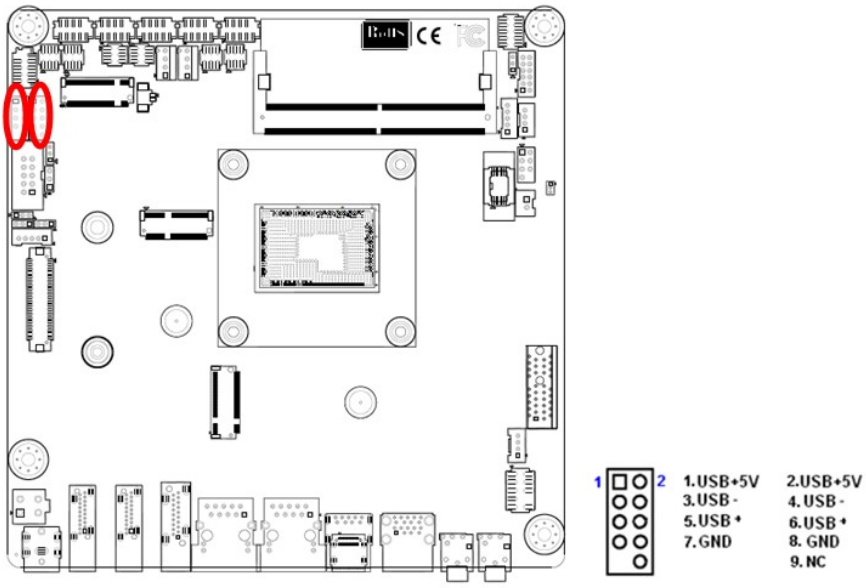
1.7.5 Serial Port connectors (COM1~6)

This connector is for a serial (COM) port. Connect the serial port module cable to this connector, then install the module to a slot opening at the back of the system chassis.



1.7.6 USB connectors (USB56/78)

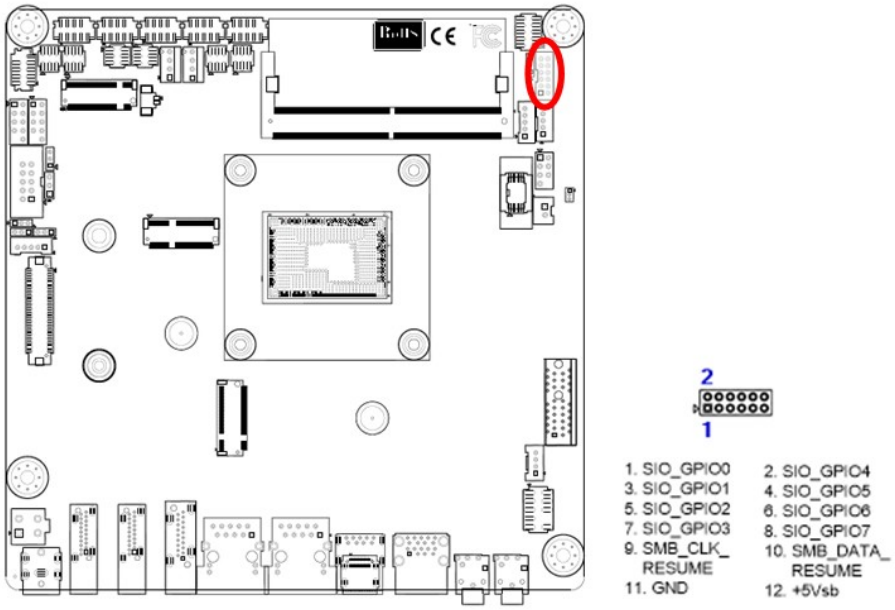
This connectors are for USB 2.0 ports. Connect the optional USB module cable to any of this connectors, then install the module to a slot opening at the back of the system chassis. These USB connectors comply with USB 2.0 specification that supports up to 480 Mbps connection speed.



	Never connect a **1394 cable** to the USB connectors. Doing so will damage the motherboard!
	The USB module is purchased separately.

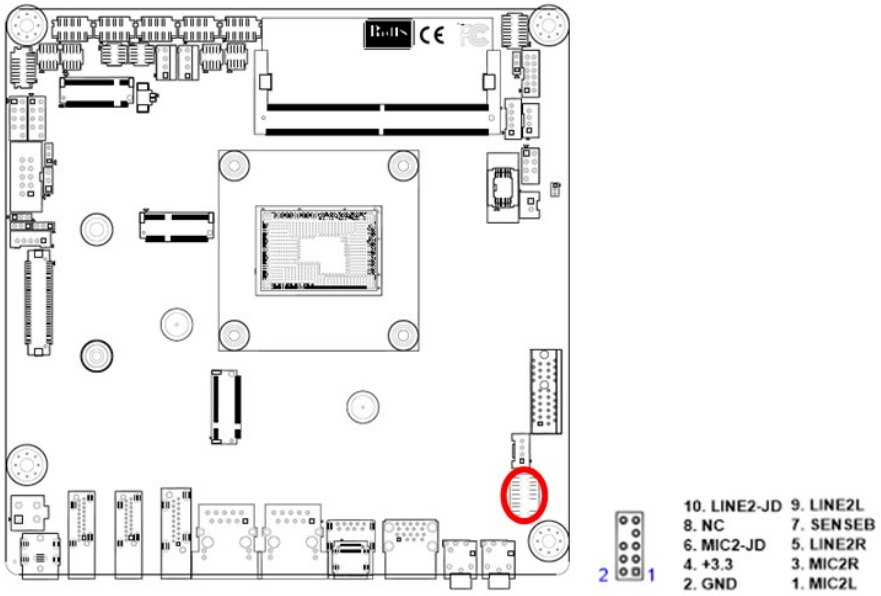
1.7.7 8 bit GPIO header (JGPIO1)

This connector provides a 8 bits input or output for general purpose.



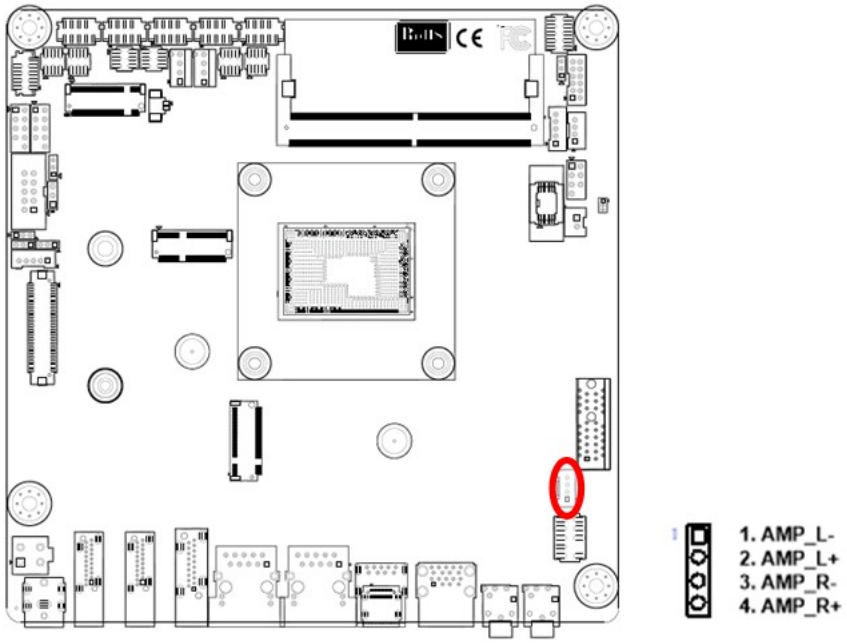
1.7.8 Front Audio connector (FP_AUDIO1)

This connector is for a chassis-mounted front panel audio I/O module that supports either HD Audio or legacy AC '150 (optional) audio standard.

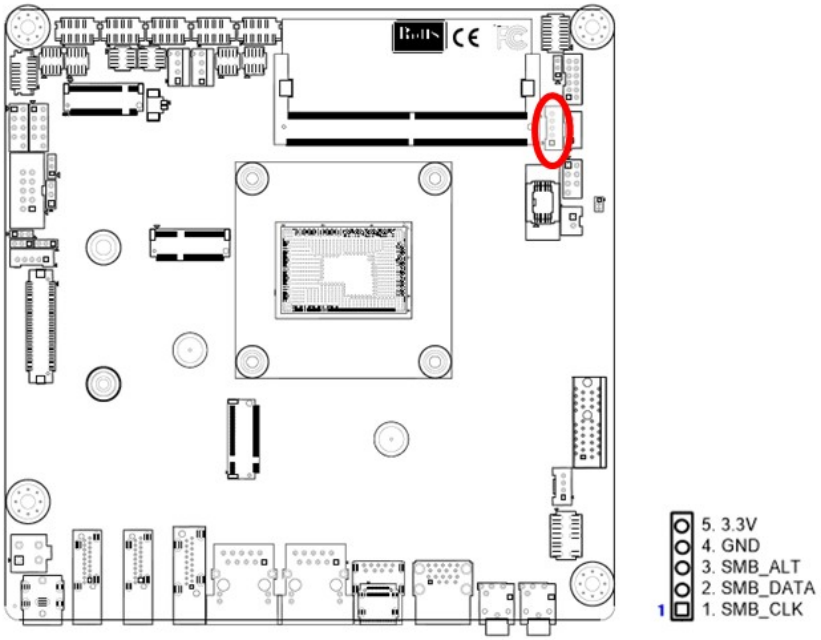


1.7.9 Amplifier Connector (AMP1)

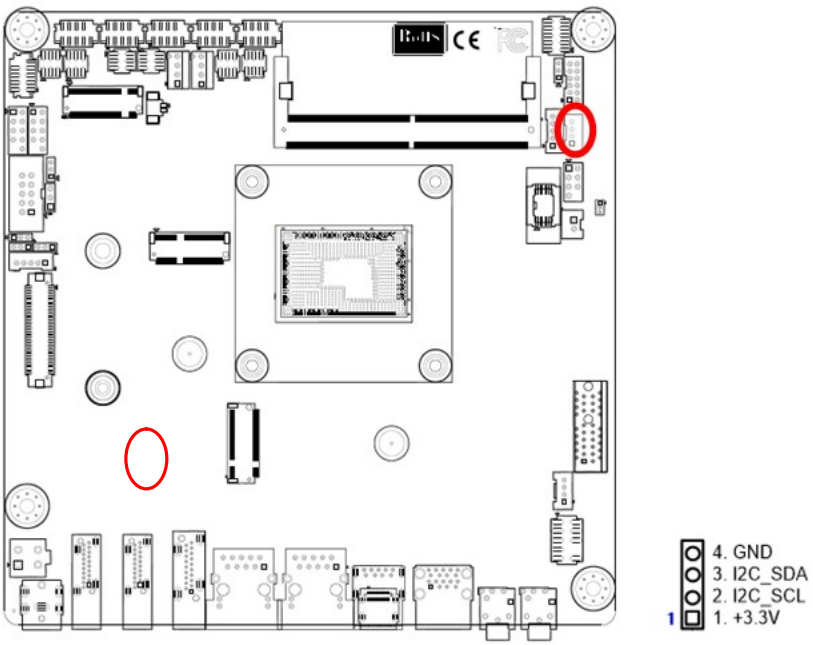
This connector allow user to connect an external audio amplifier.



1.7.10 SM bus connector (SMB1)

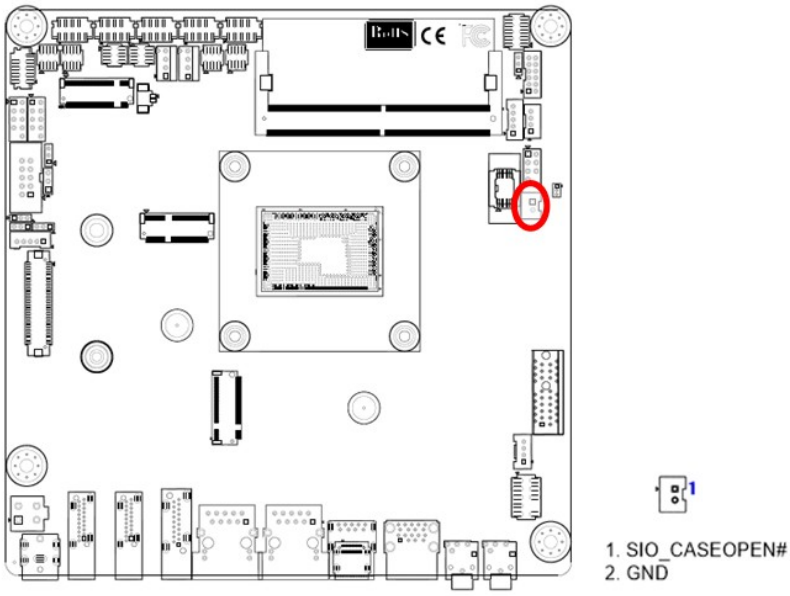


1.7.11 I2C connector (I2C1)



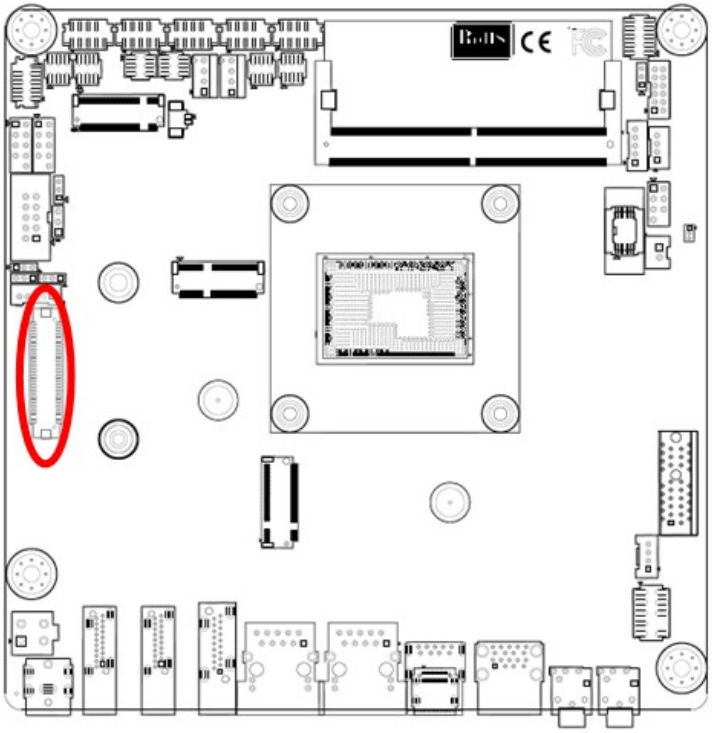
1.7.12 Chassis intrusion connector (JCASE1)

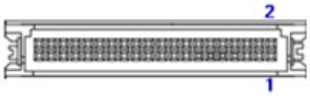
This connector allow user to connect a sensor in system case. Once the chassis is opened, system will alert user or administrator.



1.7.13 LVDS panel connector (LVDS1)

This connector allow user to connect an external LVDS panel. User must use suitable cable which matches this connector.





39. VDD_+12V	40. VDD_+12V
37. GND	38. GND
35. LVDS_B_CLK-	36. LVDS_A_CLK-
33. LVDS_B_CLK+	34. LVDS_A_CLK+
31. GND	32. GND
29. LVDS_B3-	30. LVDS_B2-
27. LVDS_B3+	28. LVDS_B2+
25. GND	26. GND
23. LVDS_B1-	24. LVDS_B0-
21. LVDS_B1+	22. LVDS_B0+
19. GND	20. GND
17. LVDS_A3-	18. LVDS_A2-
15. LVDS_A3+	16. LVDS_A2+
13. GND	14. GND
11. LVDS_A1-	12. LVDS_A0-
9. LVDS_A1+	10. LVDS_A0+
7. GND	8. GND
5. DDC_CLK	6. DDC_DATA
3. VDD_+3.3V	4. VDD_+5V
1. VDD_+3.3V	2. VDD_+5V

This chapter tells how to change the system settings through the BIOS Setup menus. Detailed descriptions of the BIOS parameters are also provided.

2

BIOS Setup

hapter 2 - BIOS Setup

2.1 BIOS Setup Program

This motherboard supports a programmable firmware chip that you can update using the provided utility. Use the BIOS Setup program when you are installing a motherboard,

reconfiguring your system, or prompted to "Run Setup." This section explains how to configure your system using this utility.

Even if you are not prompted to use the Setup program, you can change the configuration of your computer in the future. For example, you can enable the security password feature or change the power management settings. This requires you to reconfigure your system using the BIOS Setup program so that the computer can recognize these changes and record them in the CMOS RAM of the firmware hub.

The firmware hub on the motherboard stores the Setup utility. When you start up the computer, the system provides you with the opportunity to run this program. Press <Del> during the Power-On-Self-Test (POST) to enter the Setup utility; otherwise, POST continues with its test routines.

If you wish to enter Setup after POST, restart the system by pressing <Ctrl+Alt+Delete>, or by pressing the reset button on the system chassis. You can also restart by turning the system off and then back on. Do this last option only if the first two failed.

The Setup program is designed to make it as easy to use as possible. Being a menu-driven program, it lets you scroll through the various sub-menus and make your selections from the available options using the navigation keys.

- The default BIOS settings for this motherboard apply for most conditions to ensure optimum performance. If the system becomes unstable after changing any BIOS settings, load the default settings to ensure system compatibility and stability. Select the **Load Optimized Defaults** from the BIOS menu screen.
- The BIOS setup screens shown in this section are for reference purposes only, and may not exactly match what you see on your screen.
- Visit the system builder's website to download the latest BIOS file for this motherboard

2.1.1 Legend Box

The keys in the legend bar allow you to navigate through the various setup menus

Key(s)	Function Description
→←	Select Screen
↑↓	Select Item

Enter	Select
+ -	Change Opt.
F1	General Help
F2	Previous Values
F3	Optimal Defaults
F4	Save and Exit
ESC	Exit

2.1.2 List Box

This box appears only in the opening screen. The box displays an initial list of configurable items in the menu you selected.

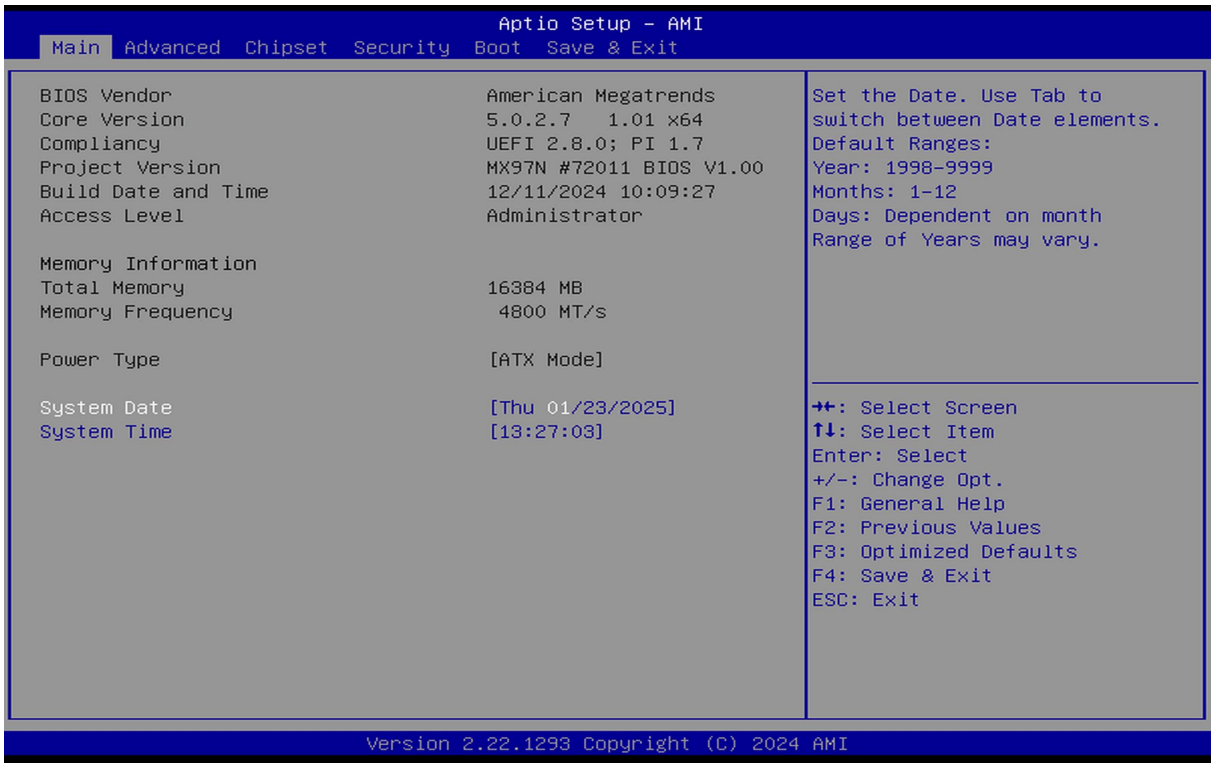
2.1.3 Sub-menu

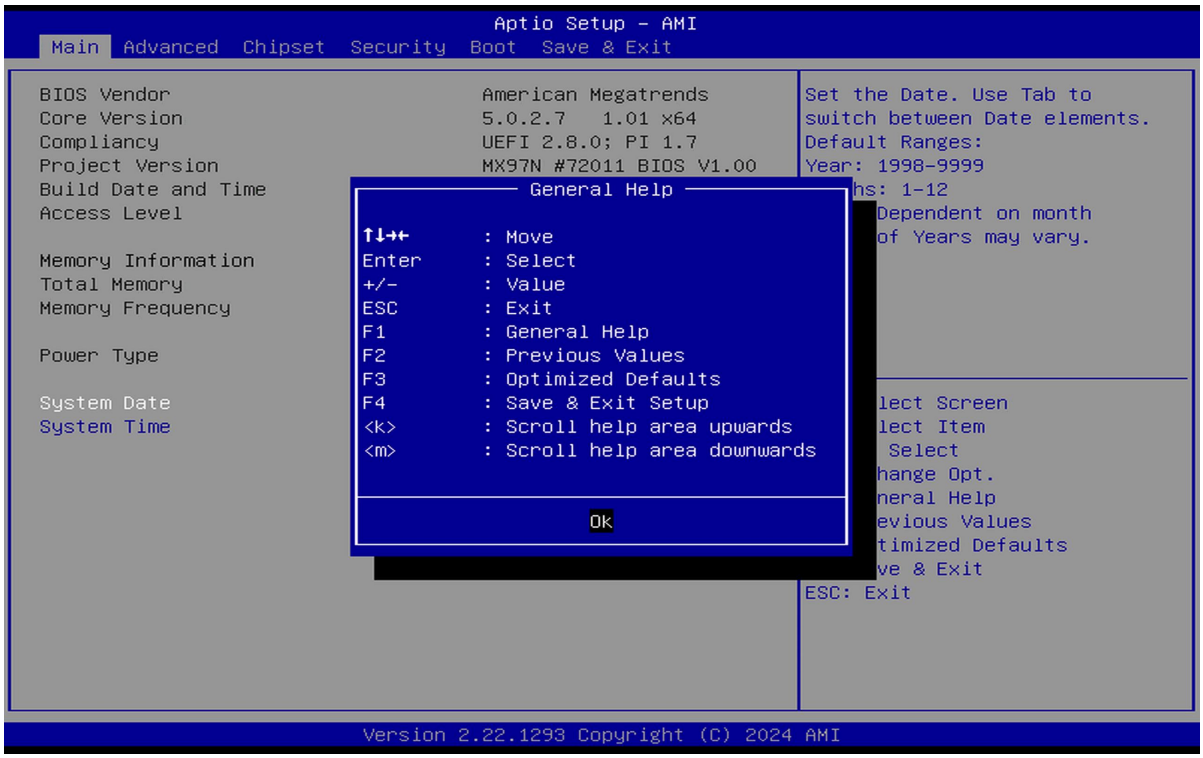
Note that a right pointer symbol  appears to the left of certain fields. This pointer indicates that you can display a sub-menu from this field. A sub-menu contains additional options for a field parameter. To display a sub-menu, move the highlight to the field and press <Enter>. The sub-menu appears. Use the legend keys to enter values and move from field to field within a sub-menu as you would within a menu. Use the <Esc> key to return to the main menu.

Take some time to familiarize yourself with the legend keys and their corresponding functions. Practice navigating through the various menus and submenus. If you accidentally make unwanted changes to any of the fields, press <F3> to load the optimal default values. While moving around through the Setup program, note that explanations appear in the Item Specific Help window located to the right of each menu. This window displays the help text for the currently highlighted field.

2.2 BIOS Menu Screen

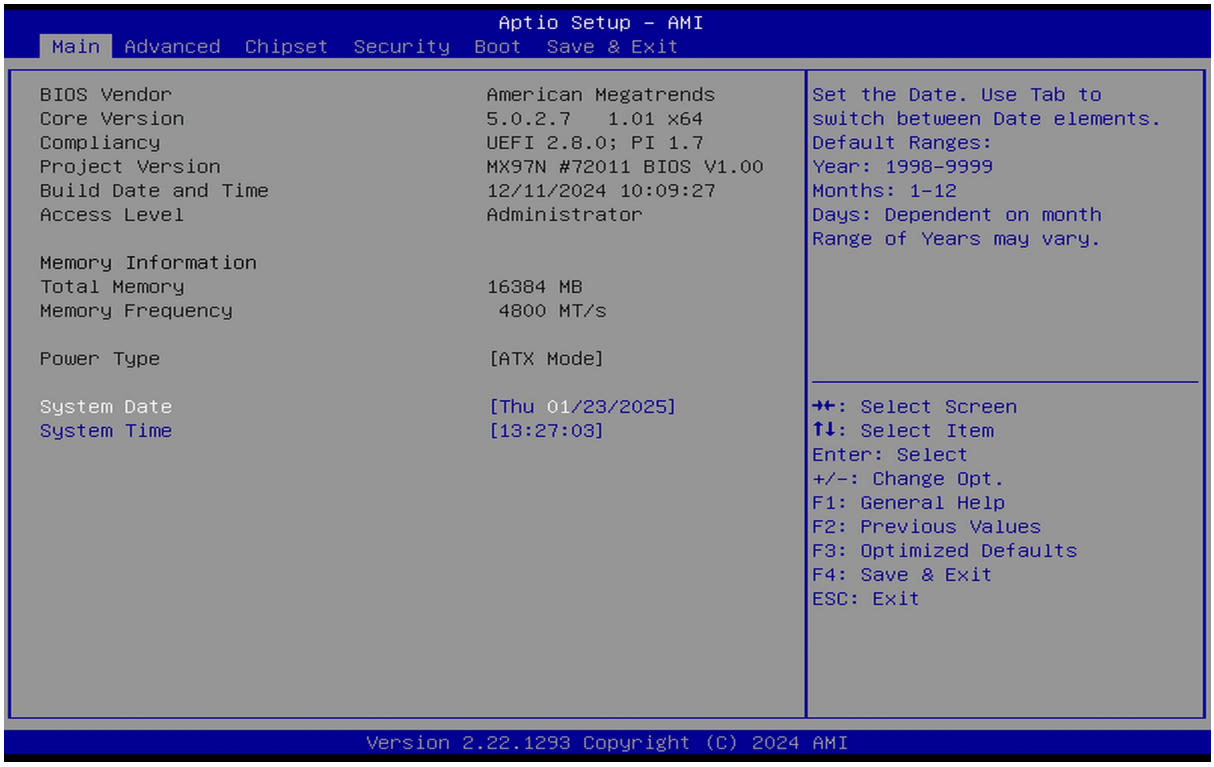
When you enter the BIOS, the following screen appears. The BIOS menu screen displays the items that allow you to make changes to the system configuration. To access the menu items, press the up/down/right/left arrow key on the keyboard until the desired item is highlighted, then press [Enter] to open the specific menu.


Aptio Setup – AMI
Main Advanced Chipset Security Boot Save & Exit
BIOS Vendor
American Megatrends
Core Version
5.0.2.7 1.01 x64
Compliancy
UEFI 2.8.0; PI 1.7
Project Version
MX97N #72011 BIOS V1.00
Build Date and Time
12/11/2024 10:09:27
Access Level
Administrator
Memory Information
Total Memory
16384 MB
Memory Frequency
4800 MT/s
Power Type
[ATX Mode]
System Date
[Thu 01/23/2025]
System Time
[13:27:03]
Set the Date. Use Tab to switch between Date elements.
Default Ranges:
Year: 1998-9999
Months: 1-12
Days: Dependent on month
Range of Years may vary.
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit
Version 2.22.1293 Copyright (C) 2024 AMI


Aptio Setup – AMI
Main Advanced Chipset Security Boot Save & Exit
BIOS Vendor
American Megatrends
Core Version
5.0.2.7 1.01 x64
Compliancy
UEFI 2.8.0; PI 1.7
Project Version
MX97N #72011 BIOS V1.00
Build Date and Time
Access Level
Memory Information
Total Memory
Memory Frequency
Power Type
System Date
System Time
General Help
↑↓→← : Move
Enter : Select
+/- : Value
ESC : Exit
F1 : General Help
F2 : Previous Values
F3 : Optimized Defaults
F4 : Save & Exit Setup
<k> : Scroll help area upwards
<m> : Scroll help area downwards
Ok
Set the Date. Use Tab to switch between Date elements.
Default Ranges:
Year: 1998-9999
Dependent on month
of Years may vary.
ESC: Exit
Version 2.22.1293 Copyright (C) 2024 AMI

2.3 Main Setup

This menu gives you an overview of the general system specifications. The BIOS automatically detects the items in this menu. Use this menu for basic system configurations, such as time, date etc.



BIOS Information

Displays the auto-detected BIOS information.

- **System Date**

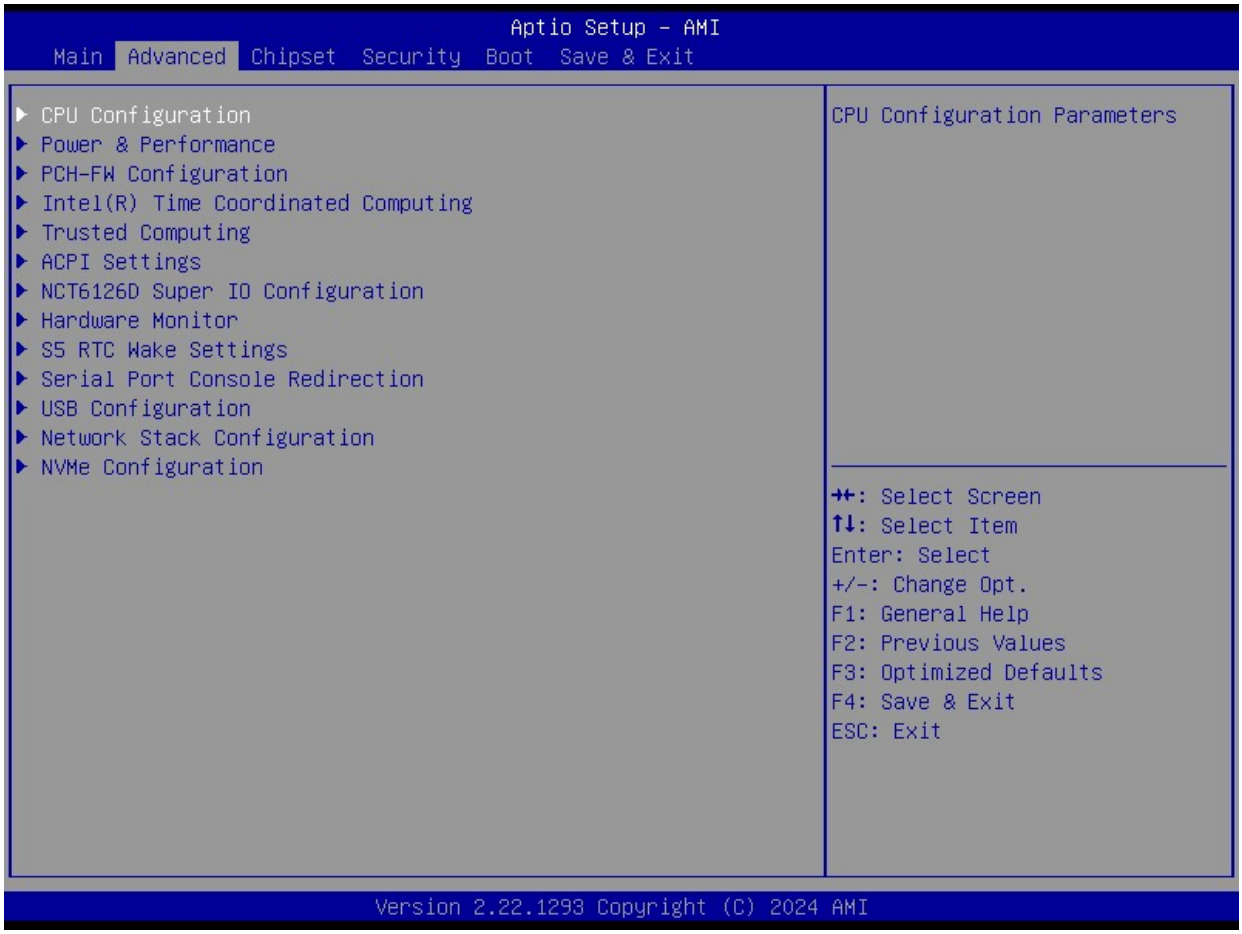
The date format is <Date>,<Month>,<Day>,<Year>.

- **System Time**

The time format is <Hour>,<Minute>,<Second>.

2.4 Advanced BIOS Setup

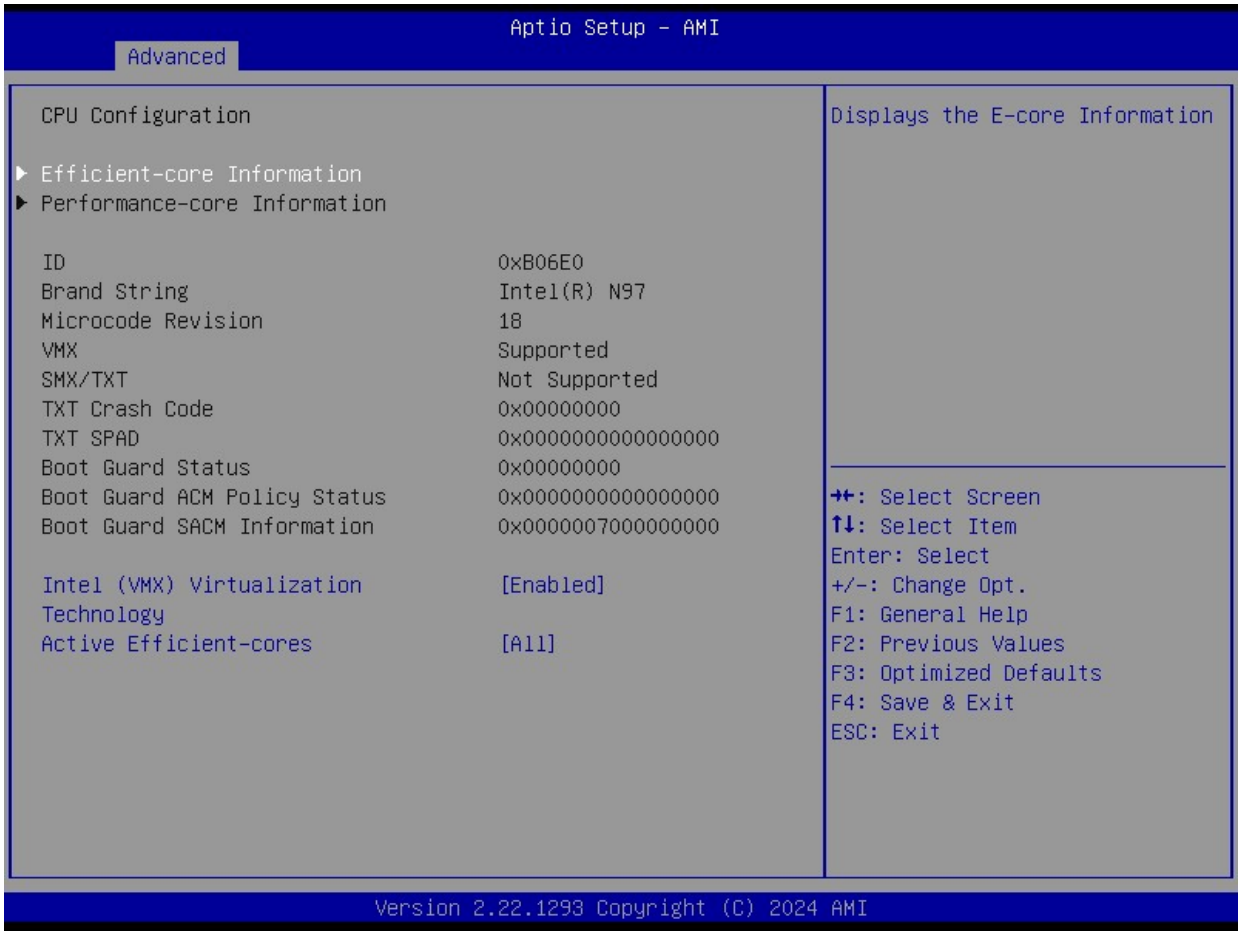
Select the Advanced tab from the setup screen to enter the Advanced BIOS Setup screen. You can select any of the items in the left frame of the screen, such as Chipset configuration, to go to the sub menu for that item. You can display an Advanced BIOS Setup option by highlighting it using the <Arrow> keys. All Advanced BIOS Setup options are described in this section. The Advanced BIOS Setup screen is shown below. The sub menus are described on the following pages.



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

2.4.1 CPU Configuration

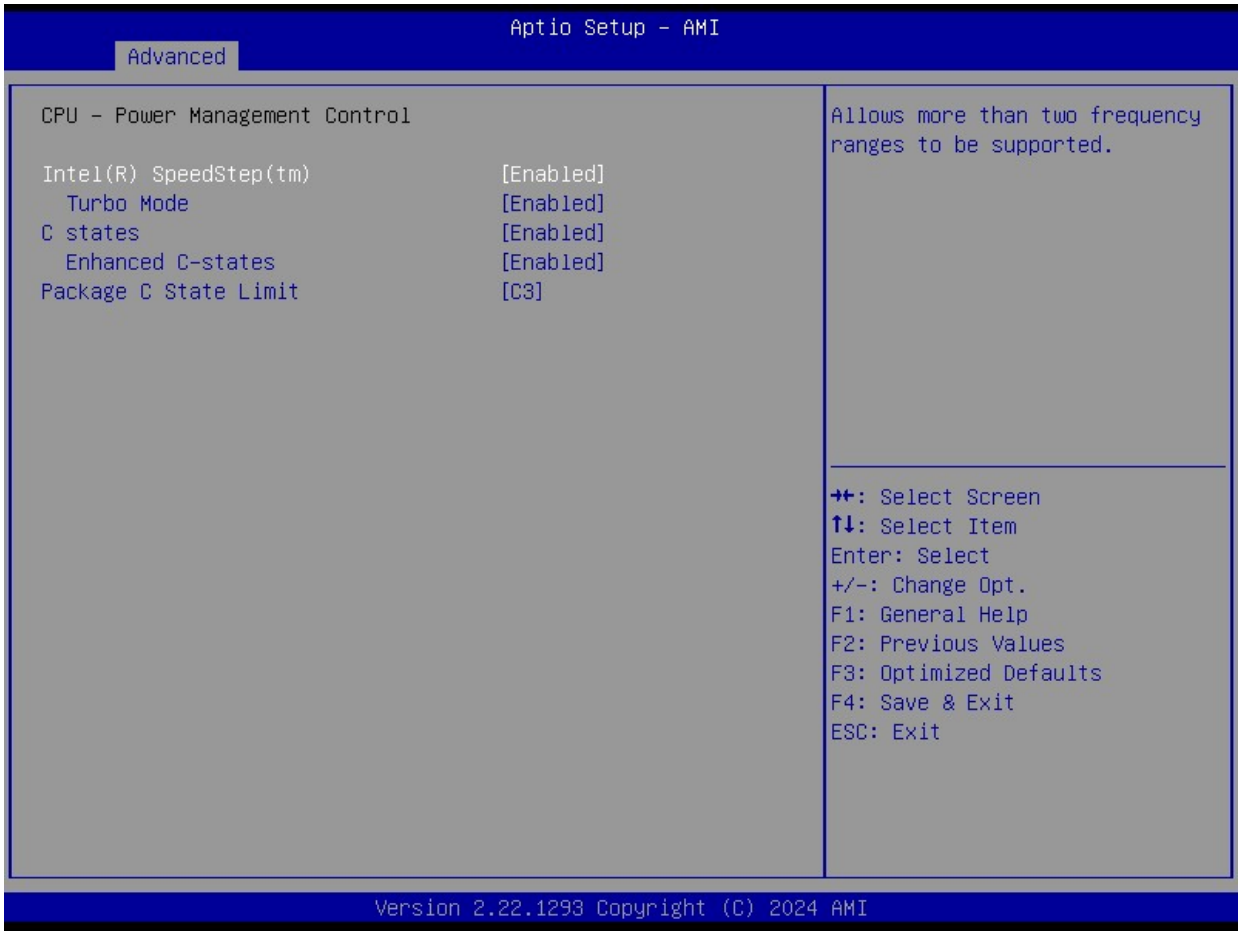
Display CPU information and related setting



- **Intel(VMX)Virtualization[Enabled]**
  When enabled, a VMX can utilize the additional hardware compatibilities provided by Vandorpool Technology
  Configuration options: [Enable] [Disable]
- **Active Efficient-cores**
  Number of E-core to enable in each processor package

2.4.2 Power & Performance

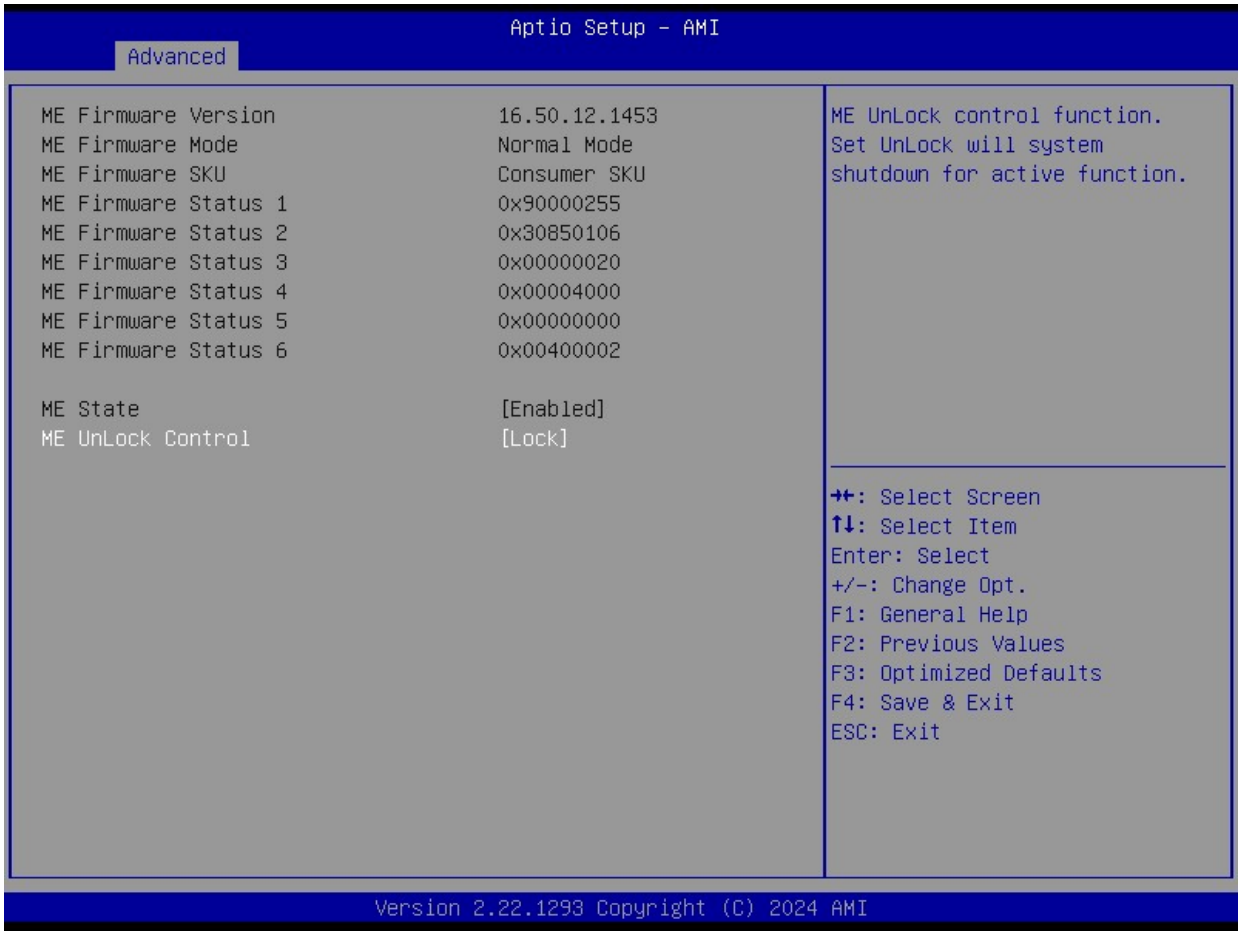
Power management control for CPU



- **Intel® Speedstep™ [Enabled]**
  Allow more than two frequency range to be supported
  Configuration options: [Enable] [Disable]
- **Turbo Mode [Enabled]**
  Enable or Disable processor Turbo mode
  Configuration options: [Enable] [Disable]
- **C states [Enabled]**
  Enable/Disable CPU power management. Allows CPU to go to C states when it's not 100% utilized
  Configuration options: [Enable] [Disable]
- **Enhanced C states [Enabled]**
  When enabled, CPU will switch to minimum speed when all cores enter C state
  Configuration options: [Enable] [Disable]
- **Package C state limit [C3]**
  Maximum package C state limit setting. CPU default : Leaves to factory default value
  Configuration options: [C0/C1] [C2] [C3]…[Auto]

2.4.3 PCH-FW configuration

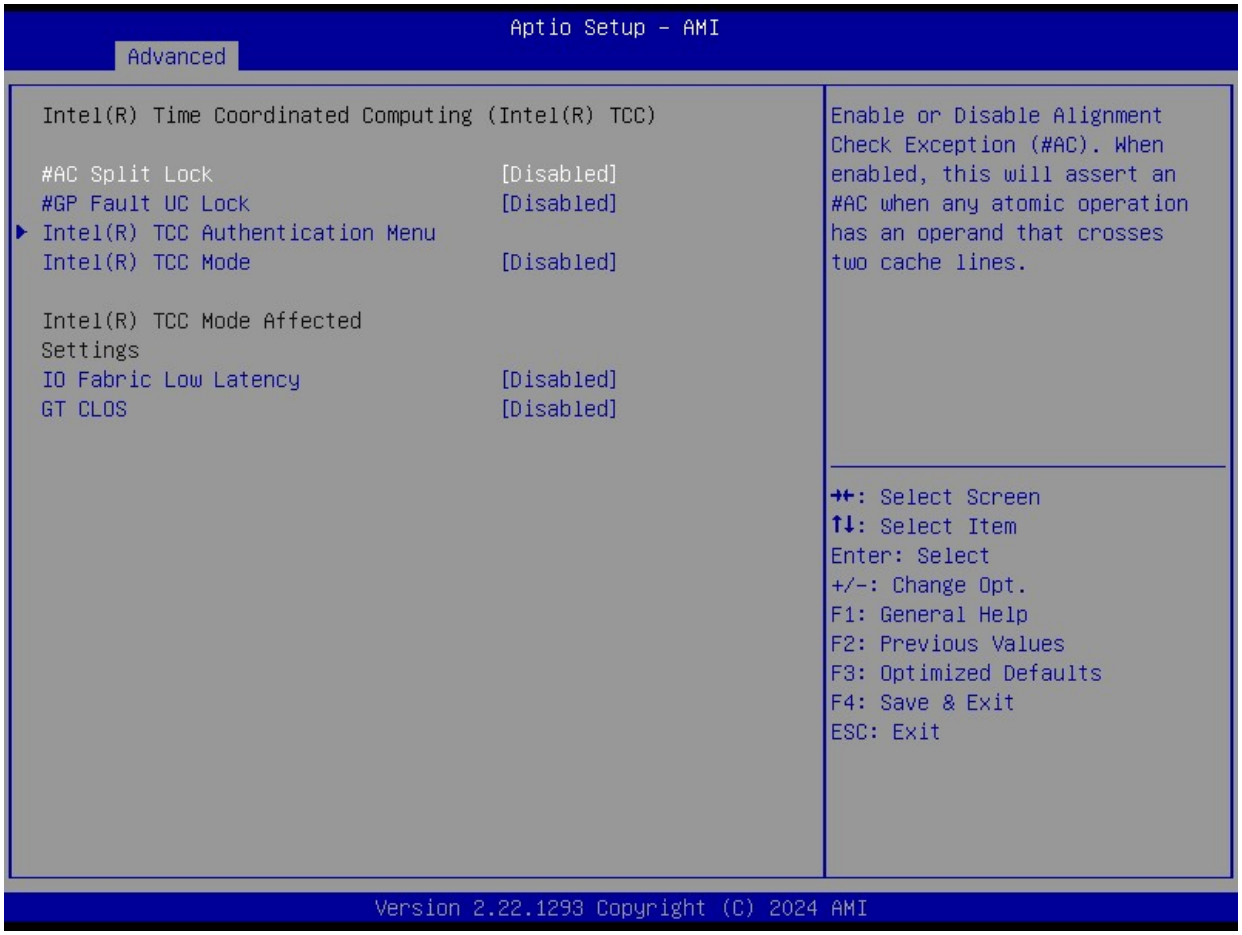
Configure Management Engine Technology Parameters



- **ME State [Enabled]**
  When disabled ME will be put into ME temporarily disabled mode
  Configuration options: [Enable] [Disable]
- **ME unlock control [Lock]**
  When Set unlock, system will shut down for active function
  Configuration options: [Lock] [Unlock]

2.4.4 Intel® Time Coordinated Computing

Intel time Coordinated computing (Intel® TCC) option



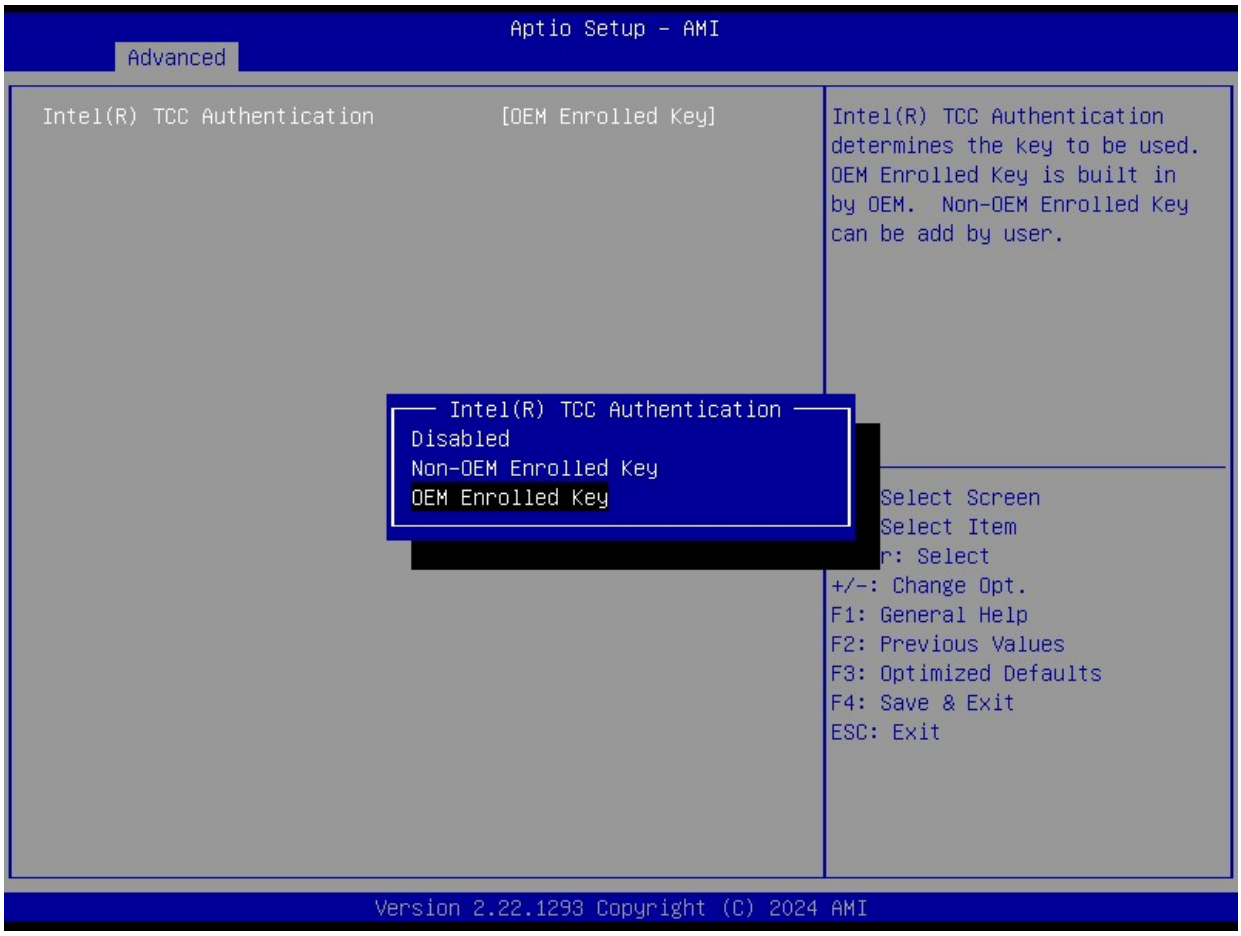
- **#AC Split Lock [Disabled]**
  Enable or Disable Alignment Check Exception(#AC). When enabled, this will assert an #AC When any atomic operation has an operand that crossed two cache lines.
  Configuration options: [Enable] [Disable]
- **#GP Fault UC Lock [Disabled]**
  Enabled or Disabled GP Fault Exception(GP#). When enabled, this will assert and GP# when encountering a Lock to in-cacheable memory before bus is locked
  Configuration option: [Enable] [Disable]
- **Intel® TCC mode[Disabled]**
  Enable or disable Intel® TCC mode:
  Configuration options: [Disabled] [Enabled]
- **IO Fabric low latency [Disabled]**
  This is turn off some power management in PCH IO Fabrics. This option provides the most aggressive IO fabric performance setting. S3 state is not supported
  Configuration options: [Disabled] [Enabled]
- **GT CLOS [Disabled]**
  Enable or disable Graphics Technology(GT) class of service. Enable will reduce Gfx LLC

allocation to minimized impact of Gfx workload on LCC.

Configuration options: [Disabled] [Enabled]

2.4.4.1 Intel® TCC Authentication Menu

Intel TCC Authentication determines the key to be used. OEM Enrolled Key is built in by OEM. Non-OEM Enrolled Key can be added by user.



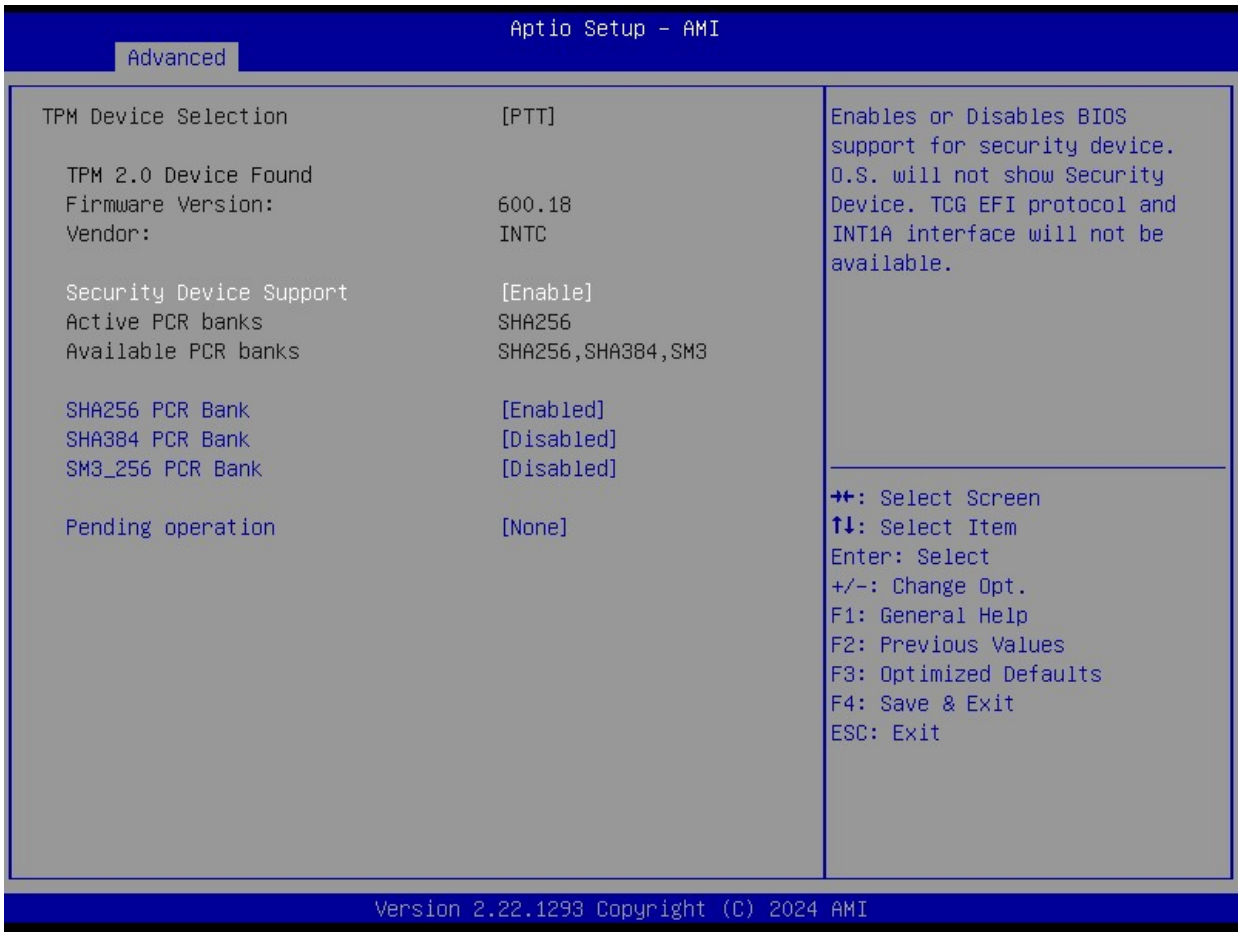
- **Intel® TCC Authentication [OEM Enrolled Key]**

  Intel® TCC Authentication determines the key to be used. OED enrolled key is built in by OEM. Non-OEM Enrolled key can be by user.

  Configuration options: [Disabled] [Non-OEM Enrolled Key][OEM Enrolled Key]

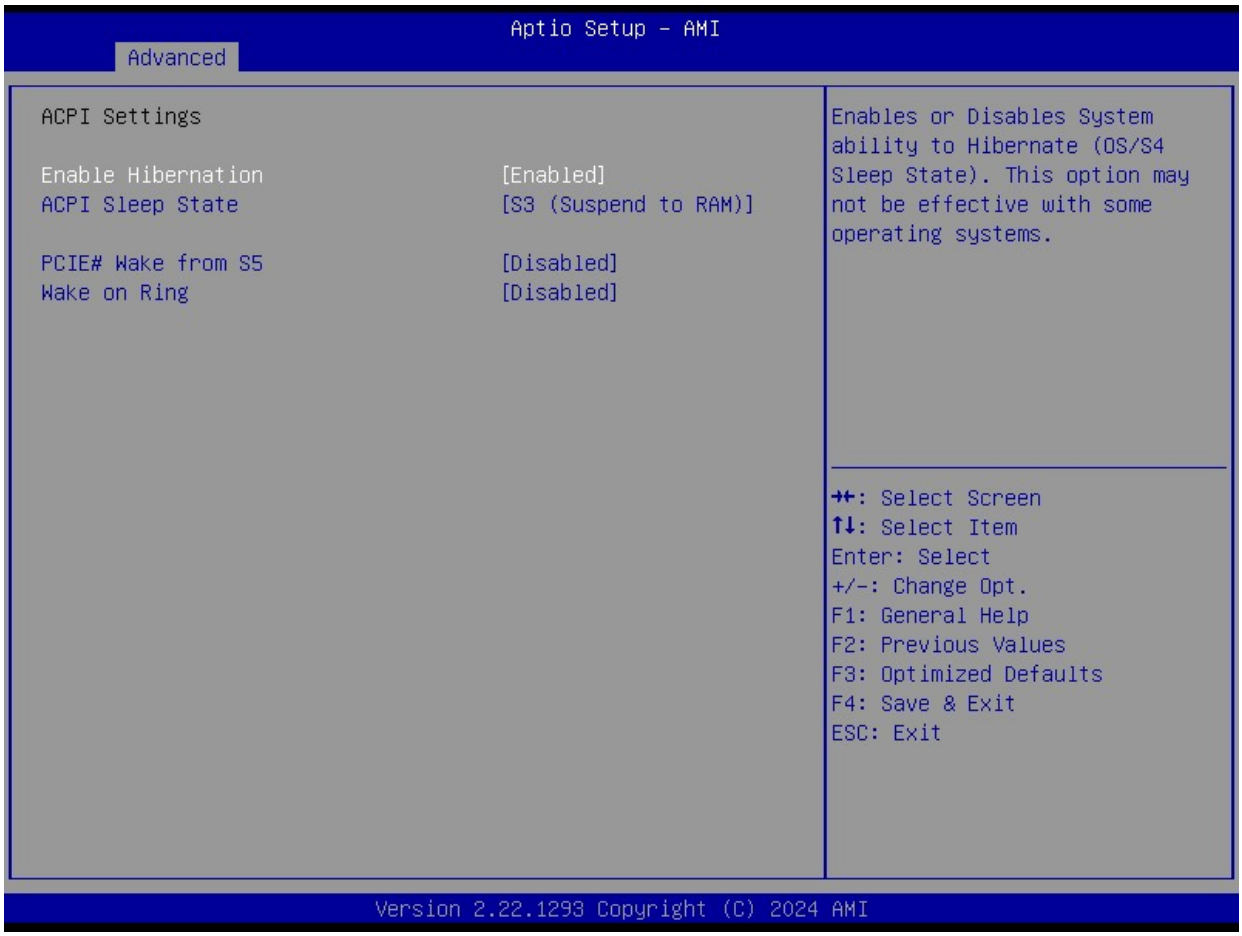
2.4.5 Trusted Computing

Trusted Computing settings



- **Security Device Support [Enable]**
  Enable or Disable BIOS support for security device.
  Configuration options: [enable][Disable]
- **SHA256 PCR Back [Enabled]**
  Enable or Disable SHA256 PCR Bank
  Configuration options: [Enable] [Disable]
- **SHA384 PCR Back [Disabled]**
  Enable or Disable SHA384 PCR Bank
  Configuration options: [Enable] [Disable]
- **SM3_256 PCR Back [Disabled]**
  Enable or Disable SM3_256 PCR Bank
  Configuration options: [Enable] [Disable]
- **Pending operation [None]**
  Schedule and Operation for the Security Device.
  Configuration options: [None] [TPM Clear]

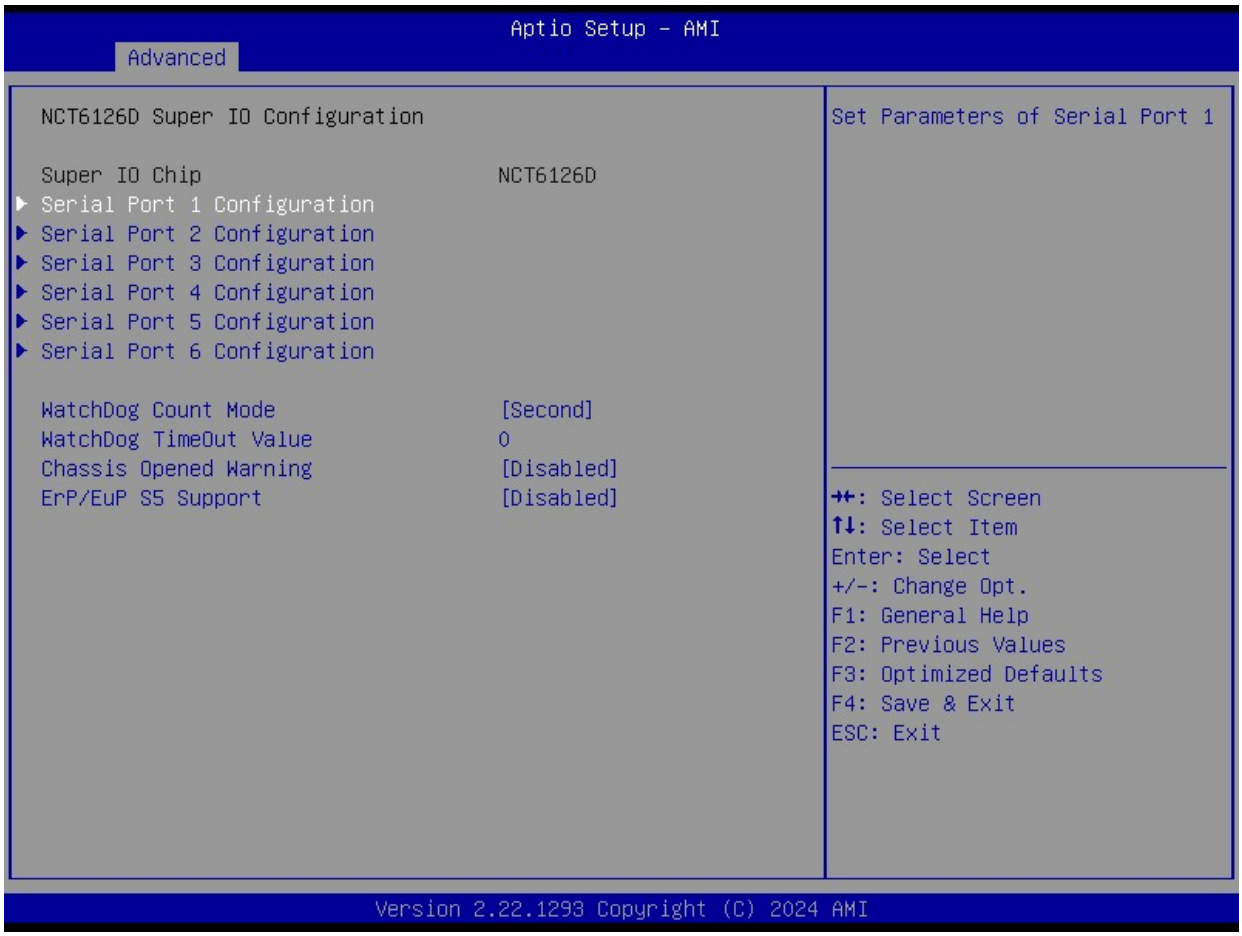
2.4.6 ACPI Settings



- **Enable Hibernation [Enable]**
  Enable or Disable system ability to Hibernation.
  Configuration options: [Enable] [Disable]
- **ACPI Sleep State [S3 (Suspend to RAM)]**
  Select the highest ACPI sleep state the system will enter the SUSPEND button is press.
  Configuration options: [Suspend Disable] [S3 (suspend to RAM)]
- **PCIE# wake from S5 [Disabled]**
  Enable or disable PCIE wake the system from S5.
  Configuration options: [Disabled] [Enabled]
- **Wake on Ring [Disabled]**
  Enable or disable wake on ring function under ACPI S3/S4/S5.
  Configuration options: [Disabled] [Enabled]

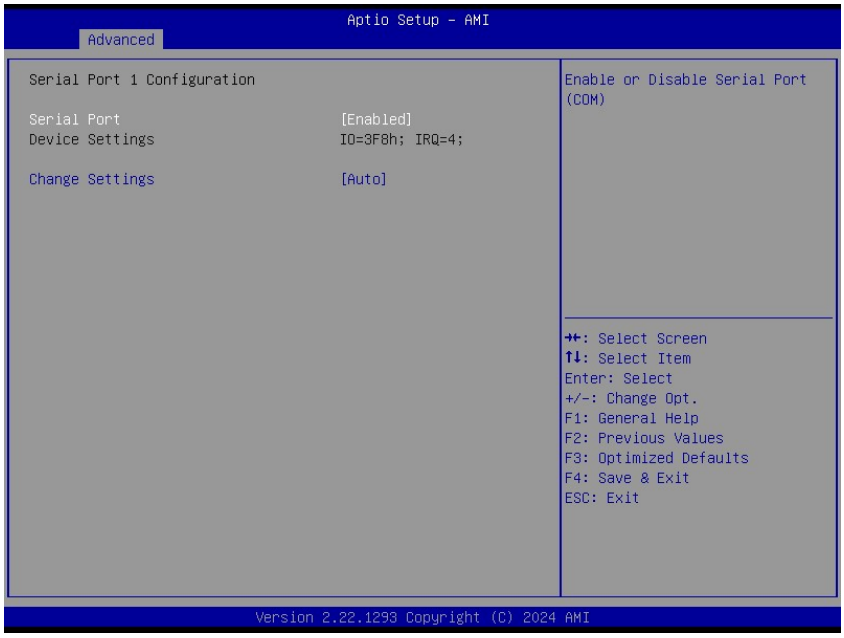
2.4.7 NCT6126D Super IO configuration

Provide NCT6126D super IO configuration settings

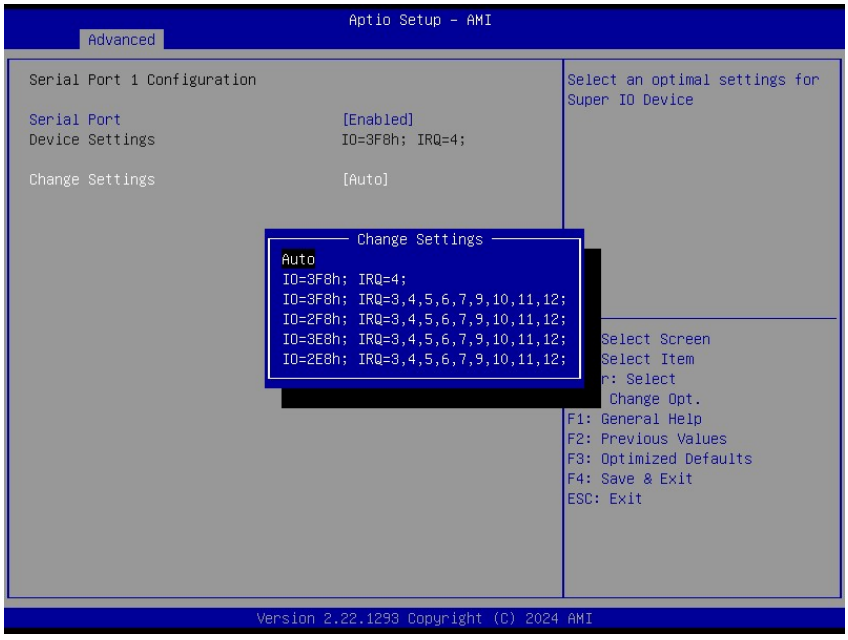


- **WatchDog count mode [Second]**
  WatchDog count mode Selection
  Configuration options: [Second] [Minute]
- **WatchDog Timeout value**
  Fill watchdog timeout value, 0 means disables
- **Chassis opened warning [Disabled]**
  Select chassis intrusion enabled to Disabled
  Configuration options: [Disabled] [Enabled]
- **ErP/EuP S5 Support [Disabled]**
  Configuration options: [Disabled] [Enabled]

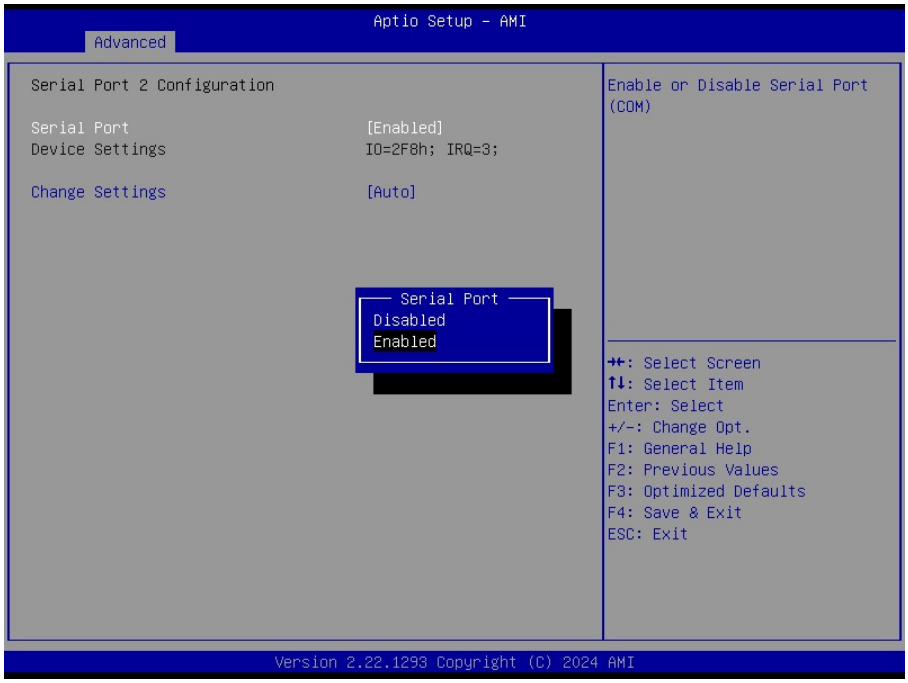
2.4.7.1 Serial Port 1 Configuration



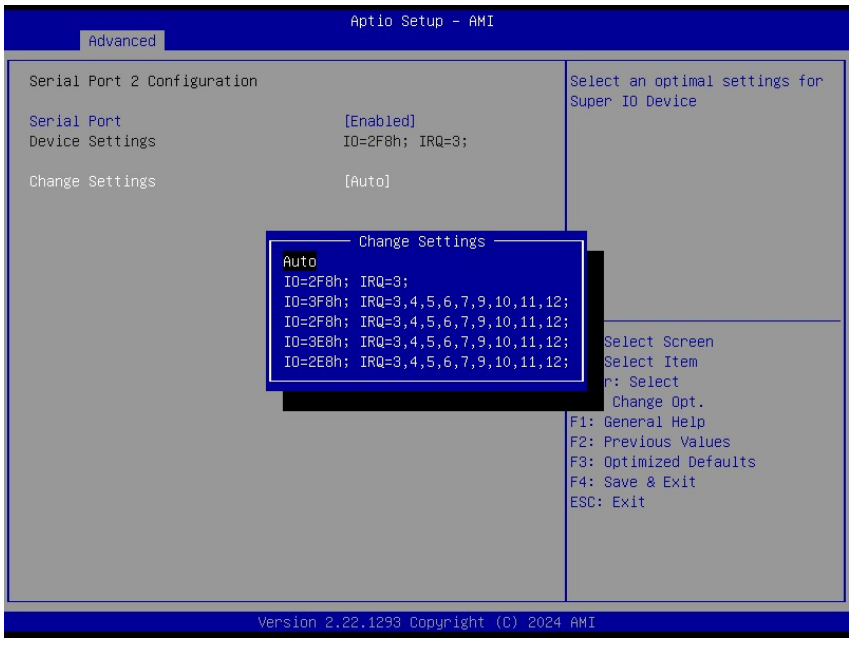
- **Serial Port [Enabled]**
  Enable or Disable serial Port (COM)
  Configuration options: [Disabled] [Enabled]
- **Change Setting [Auto]**
  Select an optimal settings for super IO device
  Configuration options: as below



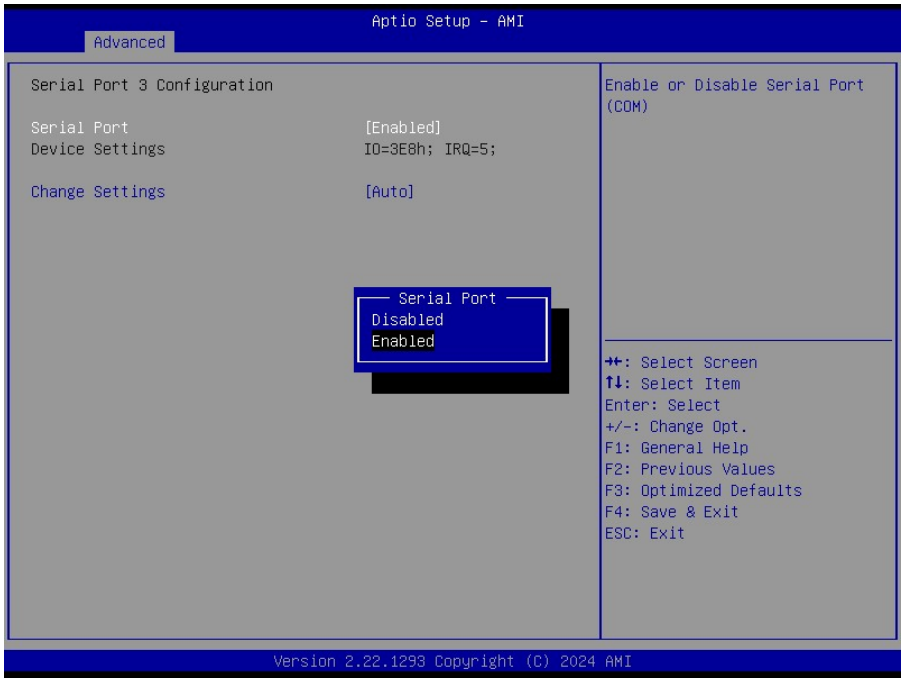
2.4.7.2 Serial Port 2 Configuration



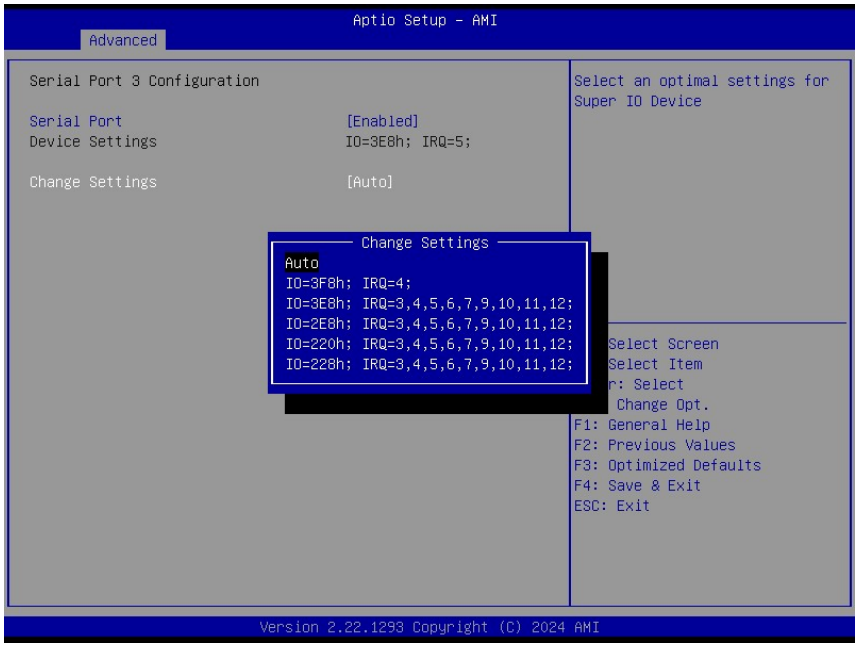
- **Serial Port [Enabled]**
  Enable or Disable serial Port (COM)
  Configuration options: [Disabled] [Enabled]
- **Change Settings [Auto]**
  Select an optimal settings for super IO device
  Configuration options: as below



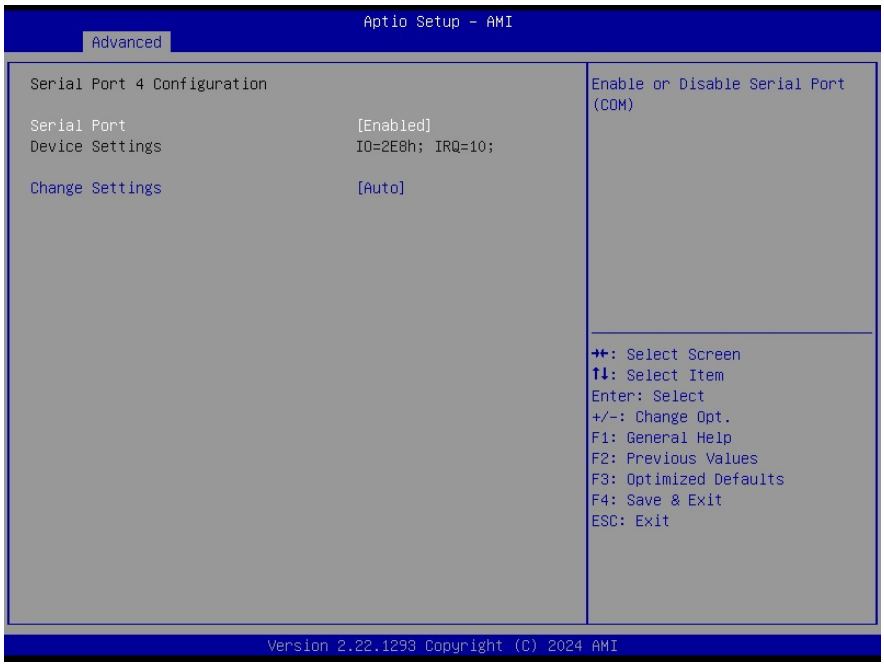
2.4.7.3 Serial Port 3 Configuration



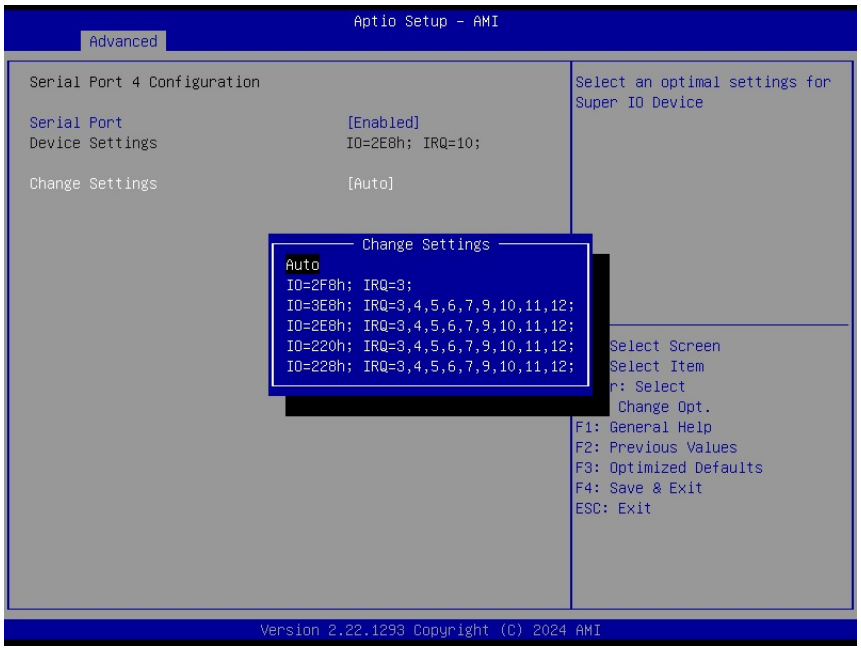
- **Serial Port [Enabled]**
  Enable or Disable serial Port (COM)
  Configuration options: [Disabled] [Enabled]
- **Change Settings [Auto]**
  Select an optimal settings for super IO device
  Configuration options: as below



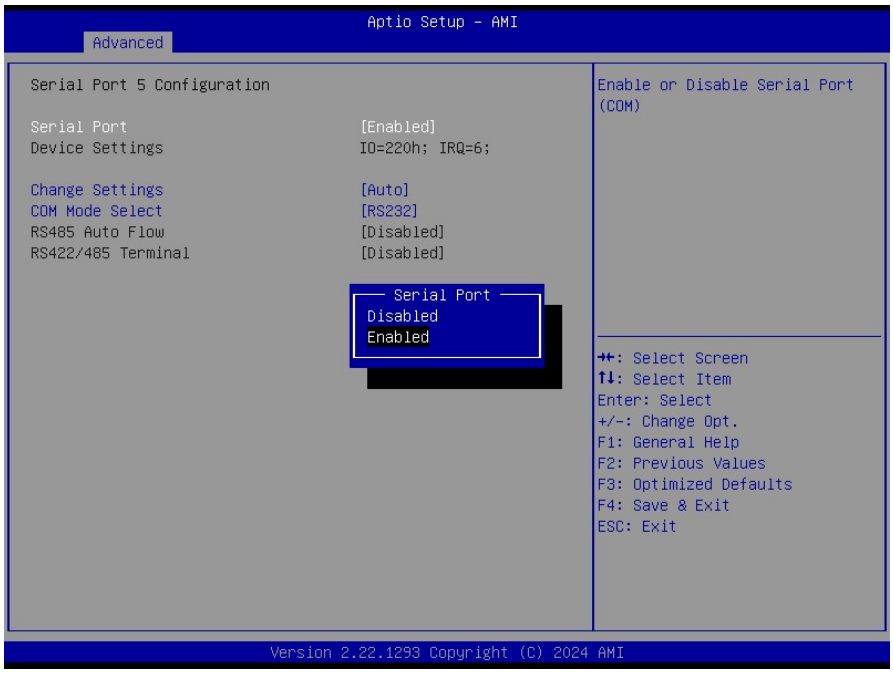
2.4.7.4 Serial Port 4 Configuration



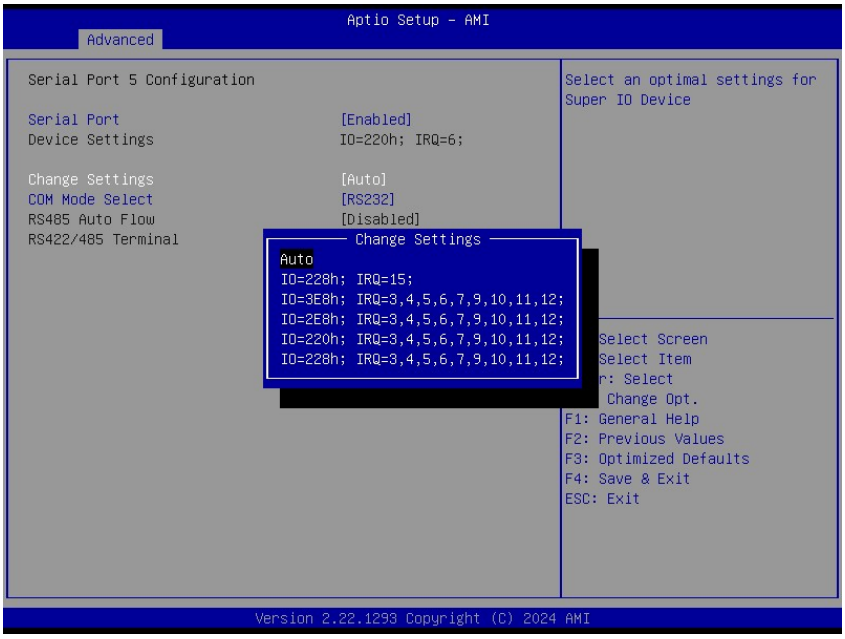
- **Serial Port [Enabled]**
  Enable or Disable serial Port (COM)
  Configuration options: [Disabled] [Enabled]
- **Change Settings [Auto]**
  Select an optimal settings for super IO device
  Configuration options: as below



2.4.7.5 Serial Port 5 Configuration

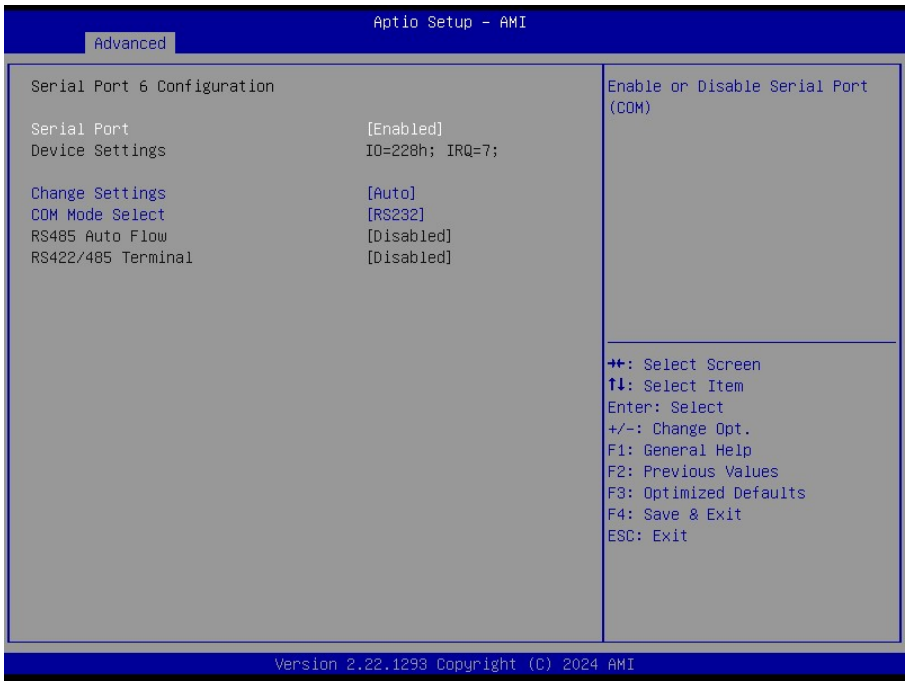


- **Serial Port [Enabled]**
  Enable or Disable serial Port (COM)
  Configuration options: [Disabled] [Enabled]
- **Change Settings [Auto]**
  Select an optimal settings for super IO device
  Configuration options: as below

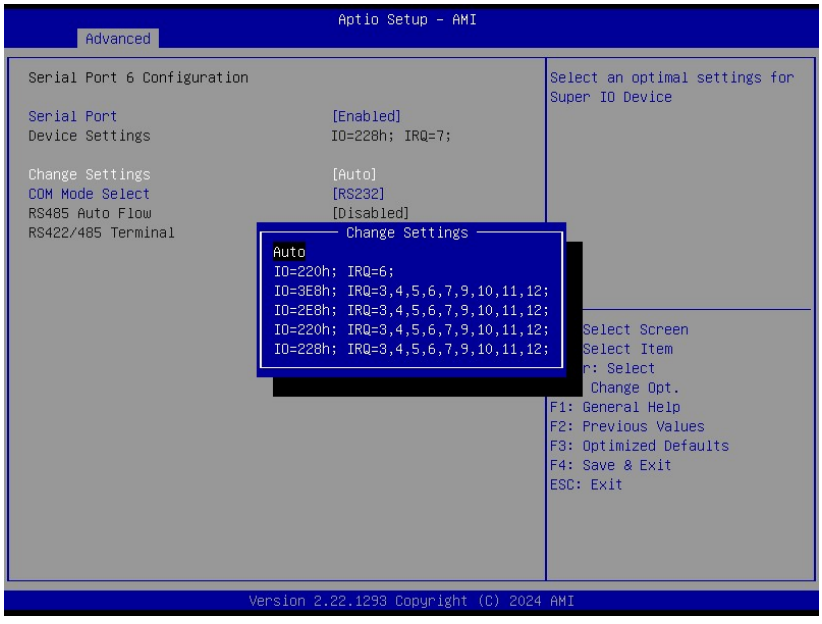


- **COM Mode Select [RS232]**
  Configure the COM Port Mode
  Configuration options: [RS232][RS485 Half Duplex][RS422 Full Duplex]

2.4.7.6 Serial Port 6 Configuration



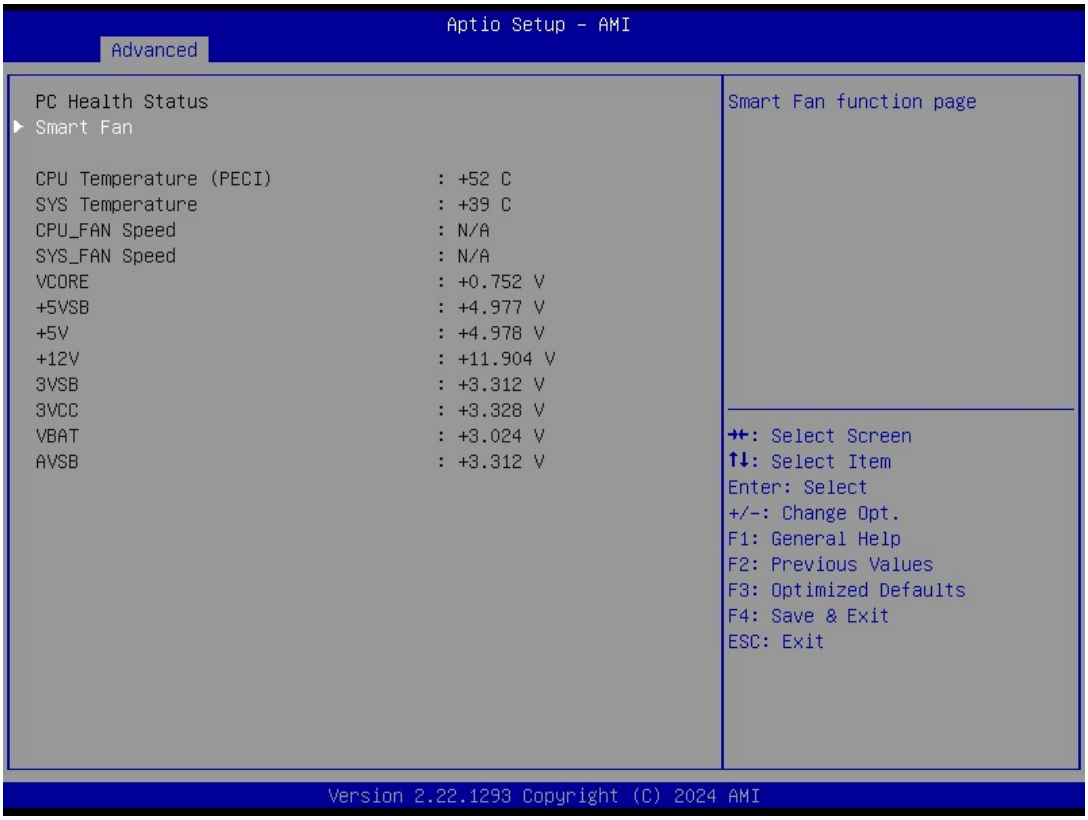
- **Serial Port [Enabled]**
  Enable or Disable serial Port (COM)
  Configuration options: [Disabled] [Enabled]
- **Change Settings [Auto]**
  Select an optimal settings for super IO device
  Configuration options: as below



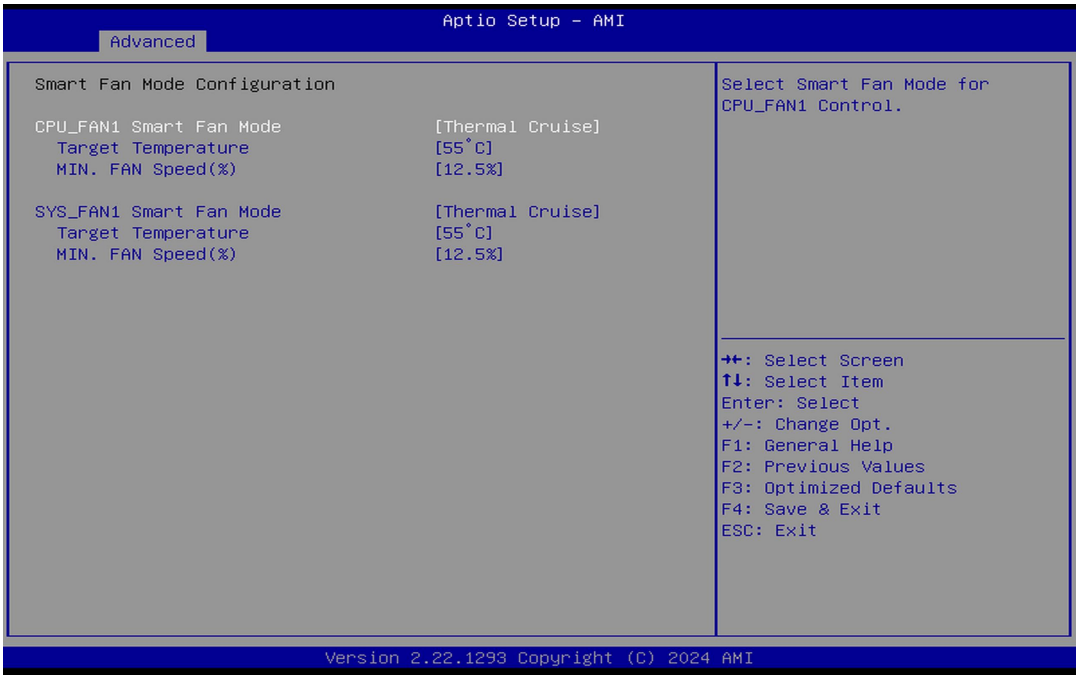
- **COM Mode Select [RS232]**
  Configure the COM Port Mode
  Configuration options: [RS232][RS485 Half Duplex][RS422 Full Duplex]

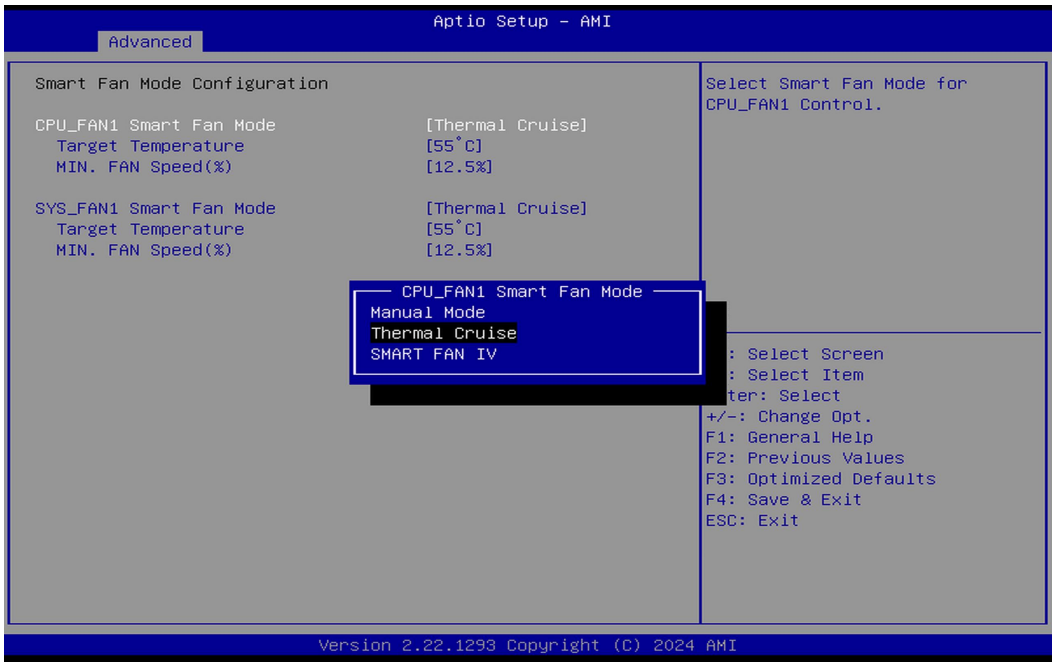
2.4.8 Hardware monitor

Display Hardware monitor information



2.4.8.1 Smart FAN

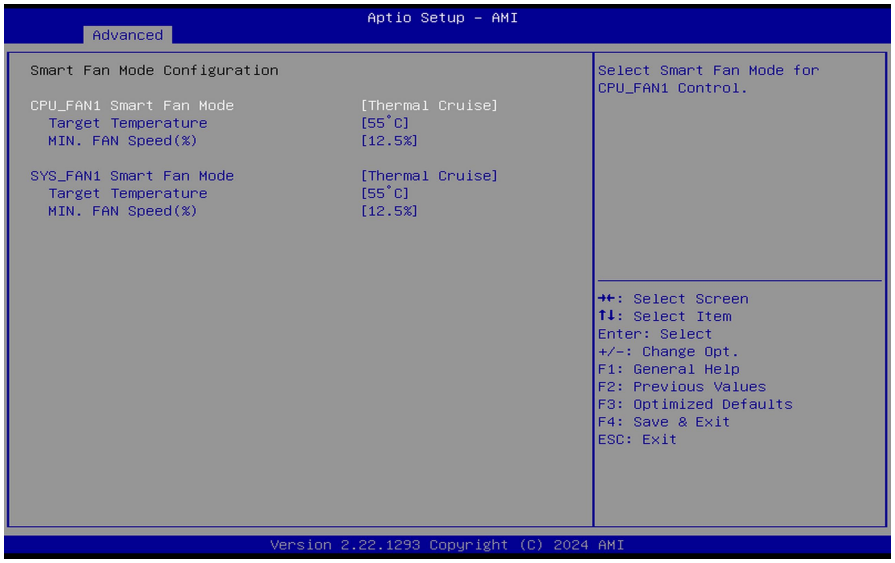




- **Smart FAN Function [Thermal Cruise]**
  Configuration options: [Manual Mode] [Thermal Cruise] [SMART FAN IV]

- 2.4.8.1.1 Smart FAN mode Configuration

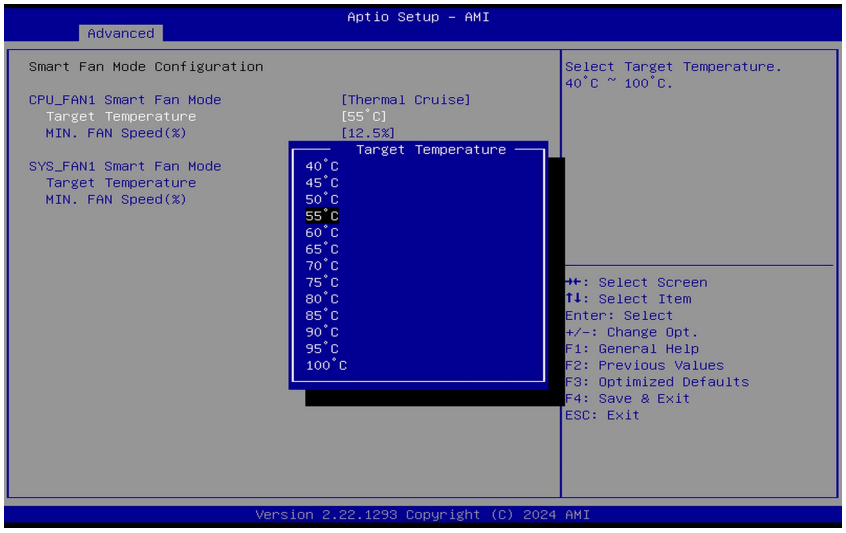
Setting different FAN on this motherboard



- **CPU_FAN/SYS_FAN FAN Target**

  Smart FAN target temperature

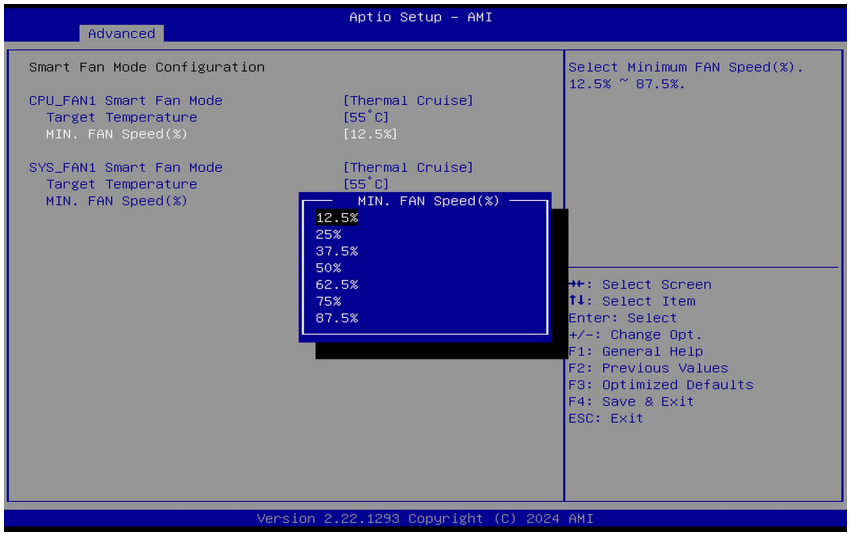
  Configuration options: Please see below picture



- **CPU_FAN/SYS_FAN MIN.FAN Speed (%)**

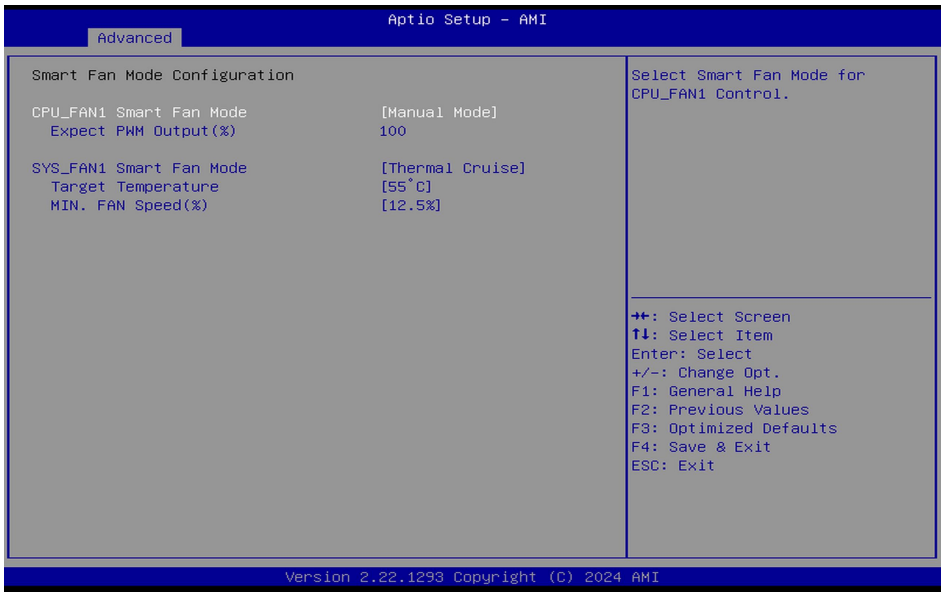
  CPU or Chassis Smart FAN minimum settings

  Configuration options: Please see below picture



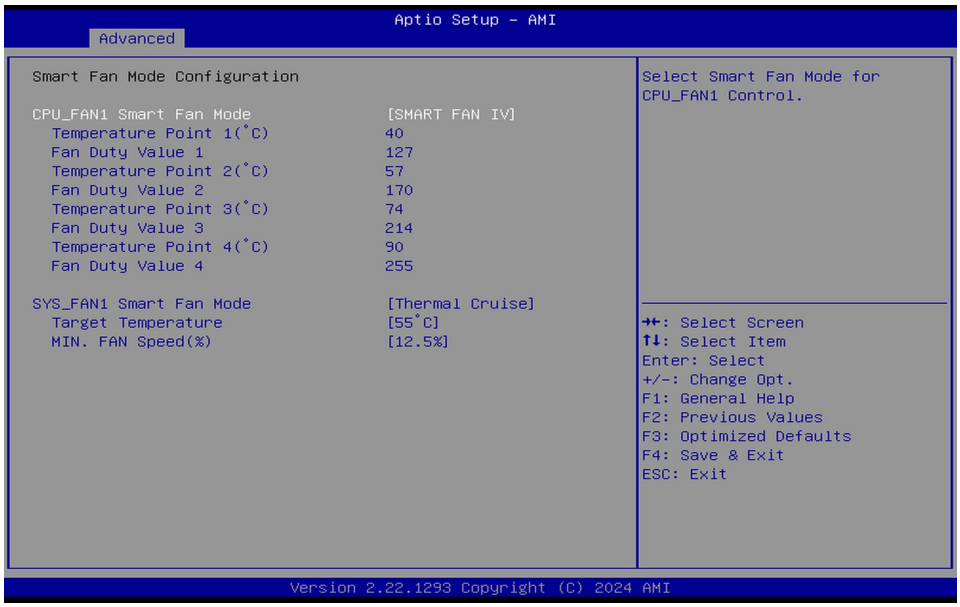
- **Smart FAN Function [Manual Mode]**

  Configuration options: Please see below picture

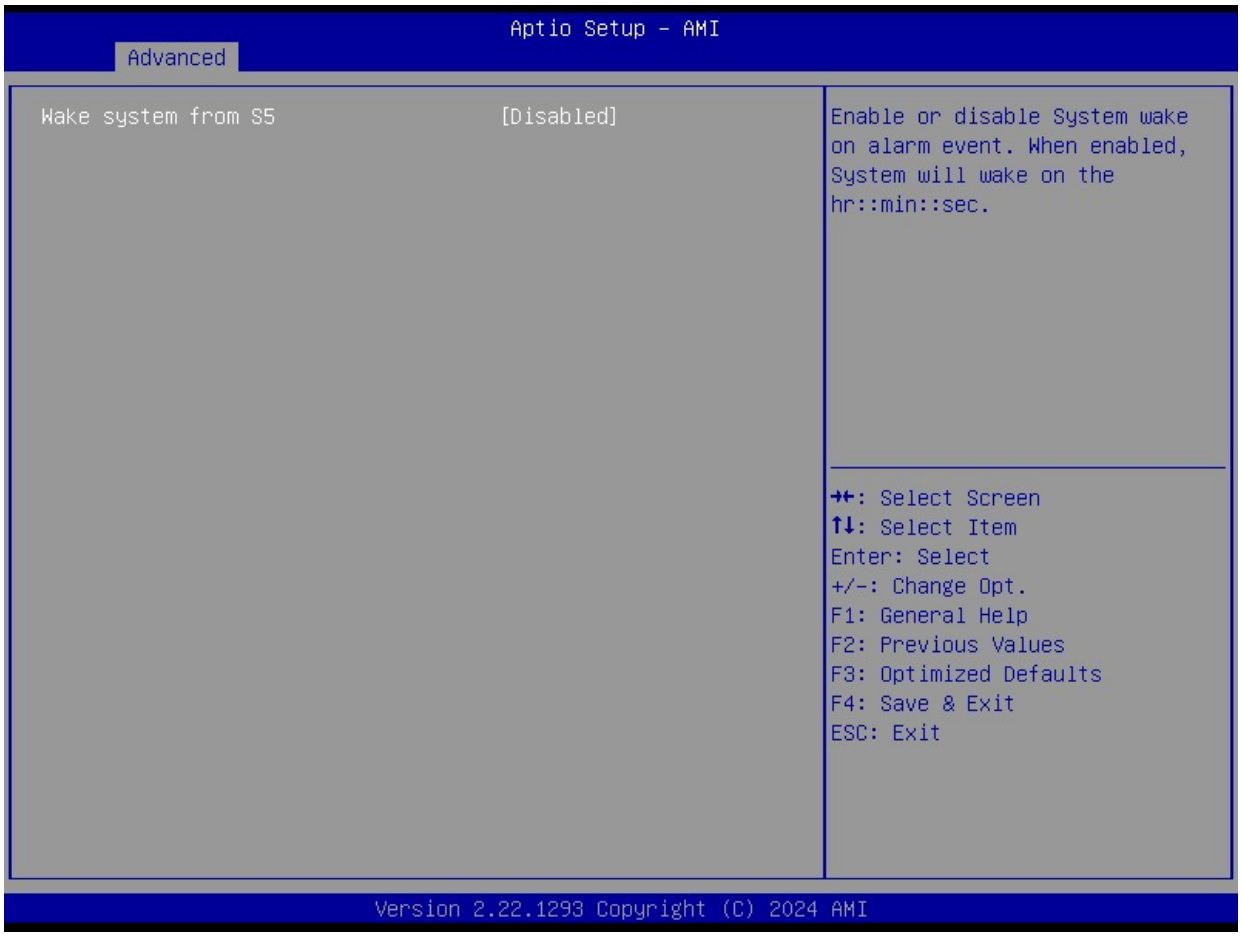


- **Smart FAN Function [SMART FAN IV]**

  Configuration options: Please see below picture



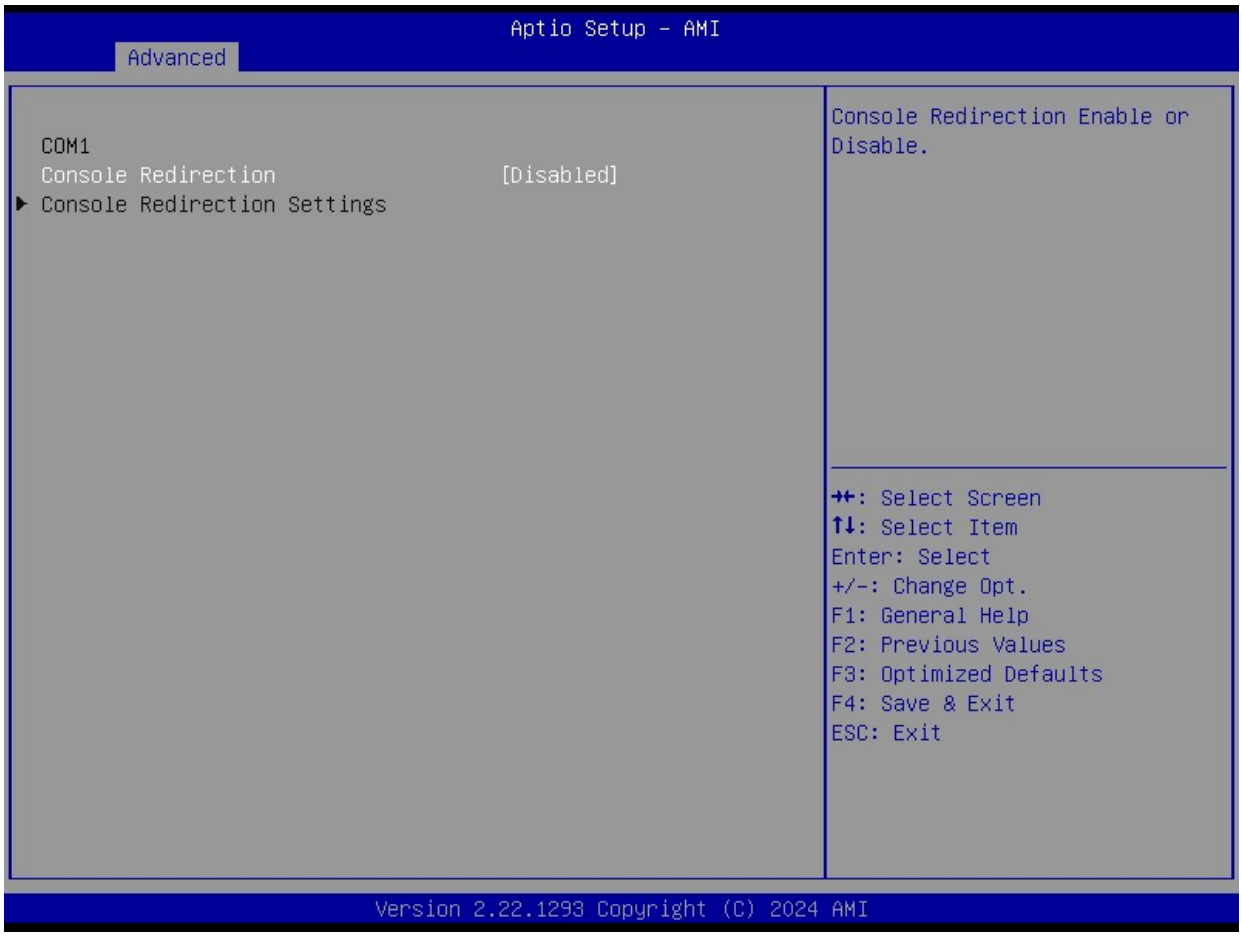
2.4.9 S5 RTC wake settings



- **Wake system from S5 [Disabled]**
  Enabled or Disabled system wake on alarm event
  Configuration options: [Enabled] [Disabled]

2.4.10 Serial Port Console Redirection

Serial Port Console Redirection

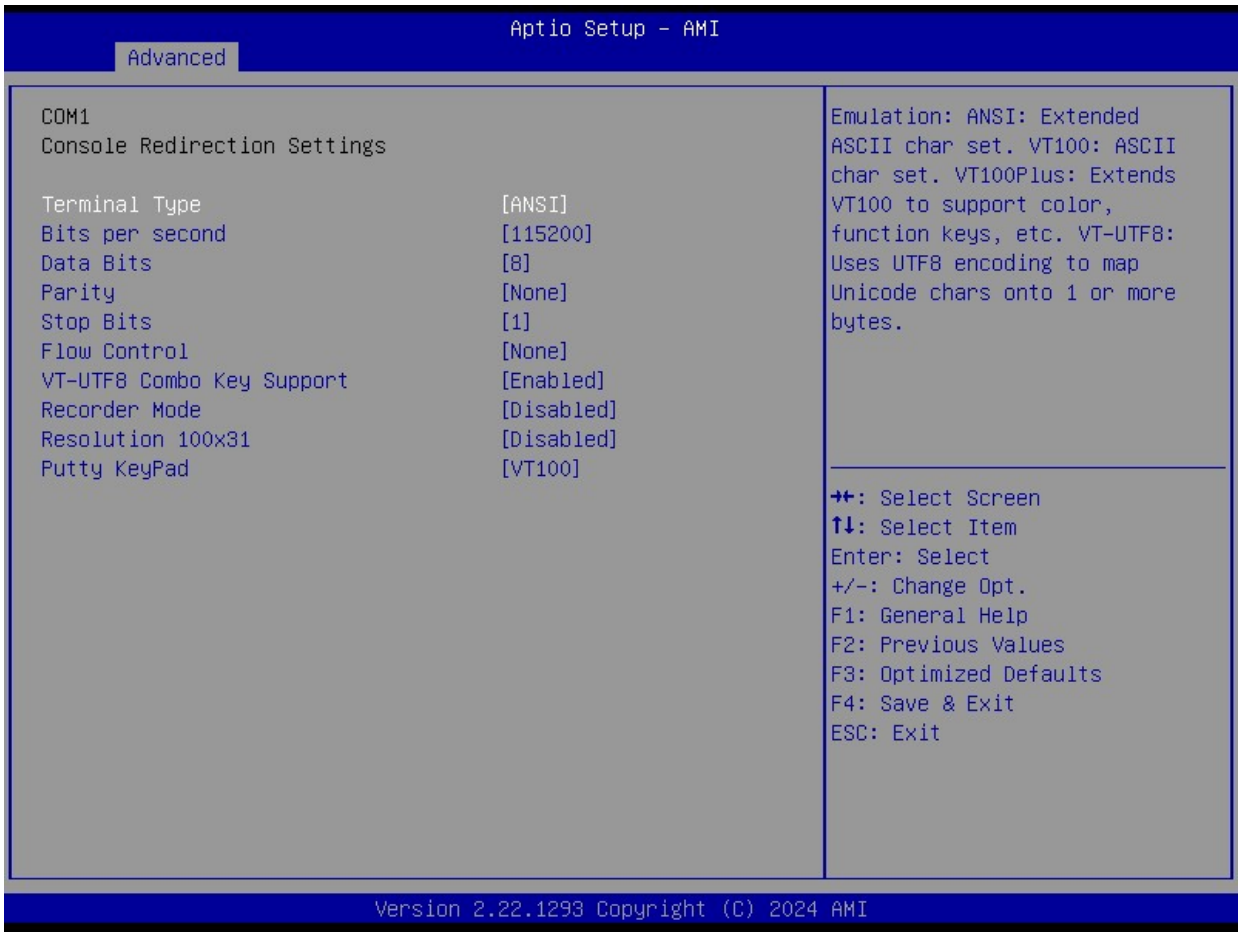


- **Console Redirection [Disabled]**

Enabled or Disabled COM1 Console redirection

Configuration options: [Disabled][Enabled]

2.4.10.1 Console Redirection settings



- **Terminal Type[ANSI]**
  Select terminal type
  Configuration options: [VT100][VT100Plus][VT-UTF8][ANSI]
- **Bits per second[115200]**
  Select serial port transmission speed
  Configuration options: [9600][19200][38400][57600][115200]
- **Data Bits[8]**
  Select data bits
  Configuration options: [7][8]
- **Parity[None]**
  A parity bit can be sent with the data bits to detect some transmission errors
  Configuration options: [None][Even][Odd][Mark][Space]
- **Stop Bits[1]**
  Stop bits indicate the end of a serial data package
  Configuration options: [1][2]
- **Flow Control[None]**
  Flow control can prevent data loss from buffer overflow.
  Configuration options: [None][Hardware RTS/CTS]
- **VT-UTF8 Combo key Support [Enabled]**

Enable VT-UTF8 combination key support for ANSI/VT100 terminals

Configuration options: [Enabled] [Disabled]

- **Recorder Mode [Disabled]**

  With this mode enabled only text will be sent.

  Configuration options: [Enabled] [Disabled]

- **Resolution 100x31 [Disabled]**

  Enables or disables extended terminal resolution

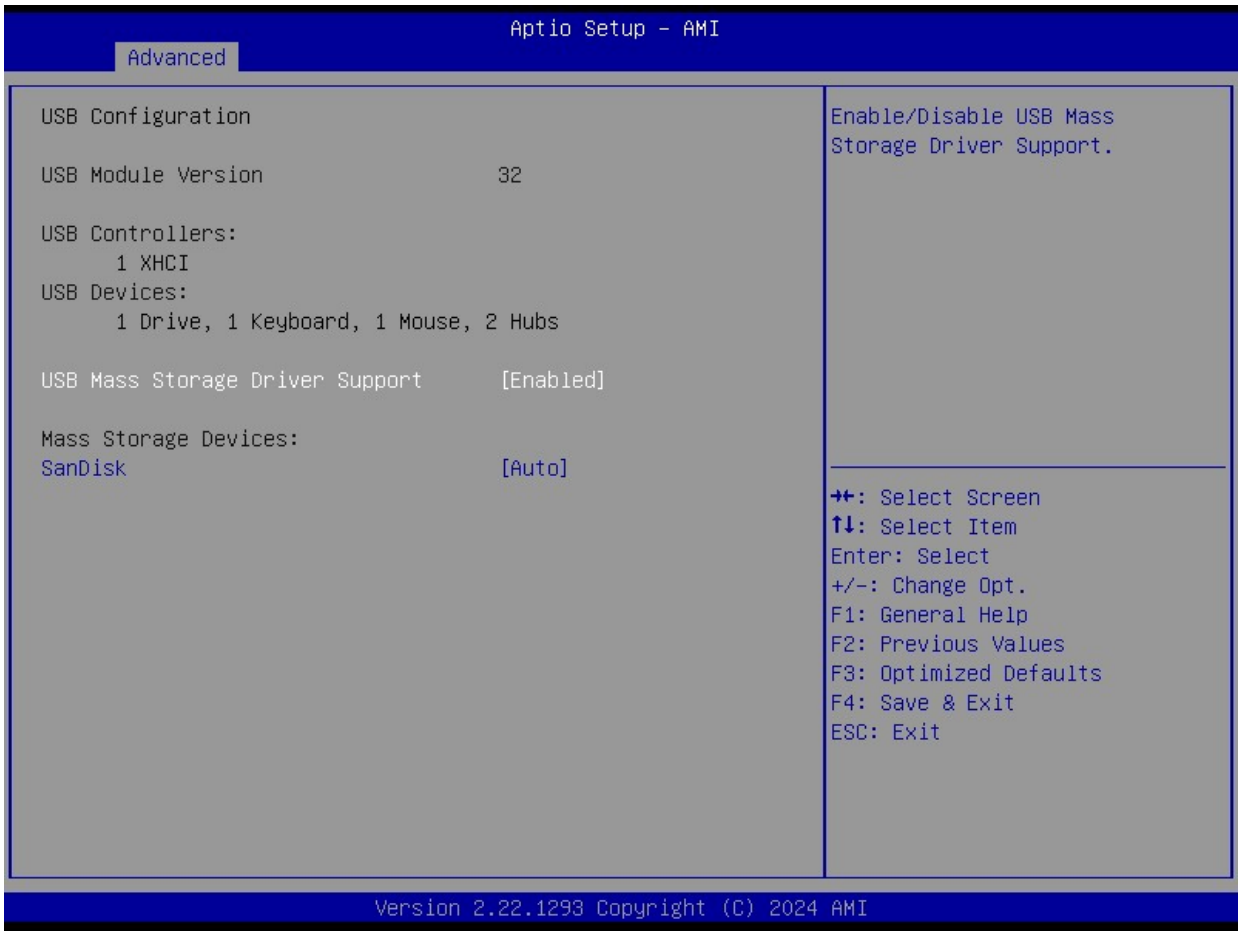
  Configuration options: [Enabled] [Disabled]

- **Putty Keypad [VT100]**

  Selects function key and keypad on putty

  Configuration options: [VT1000] [LINUX][XTERMR6][SCO][ESCN][VT400]

2.4.11 USB configuration



- **USB Mass Storage Driver Support [Enabled]**

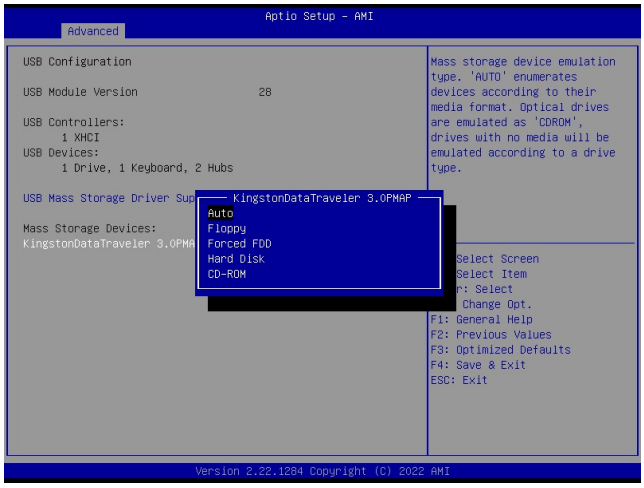
  Enable or Disable USB Mass Storage Driver Support

  Configuration options: [Enabled][Disabled]

- **Mass Storage Devices [Auto]**

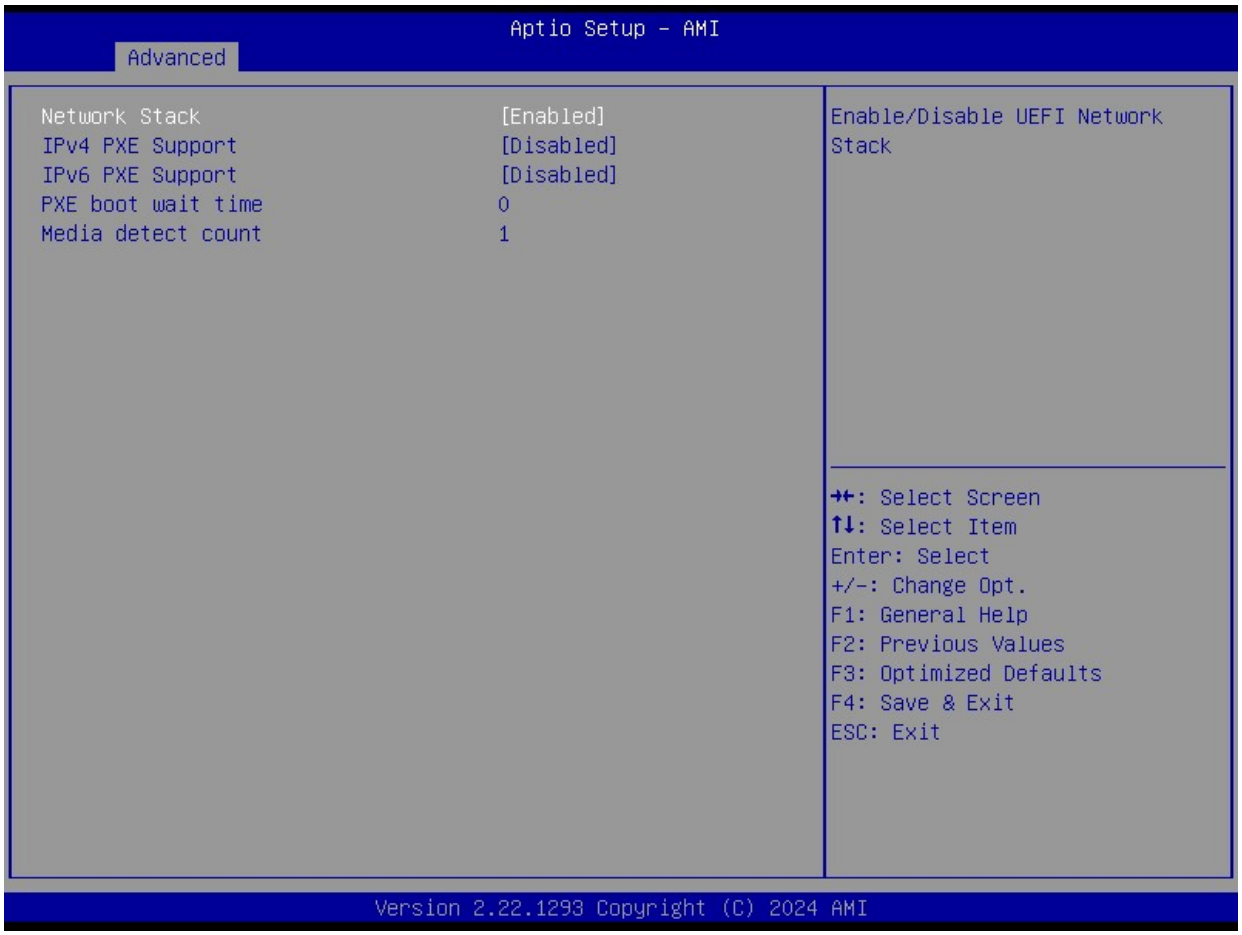
  Mass Storage device emulation Type. "Auto" enumerates device according to its media

format.



2.4.12 Network Stack Configuration

Network Stack setting

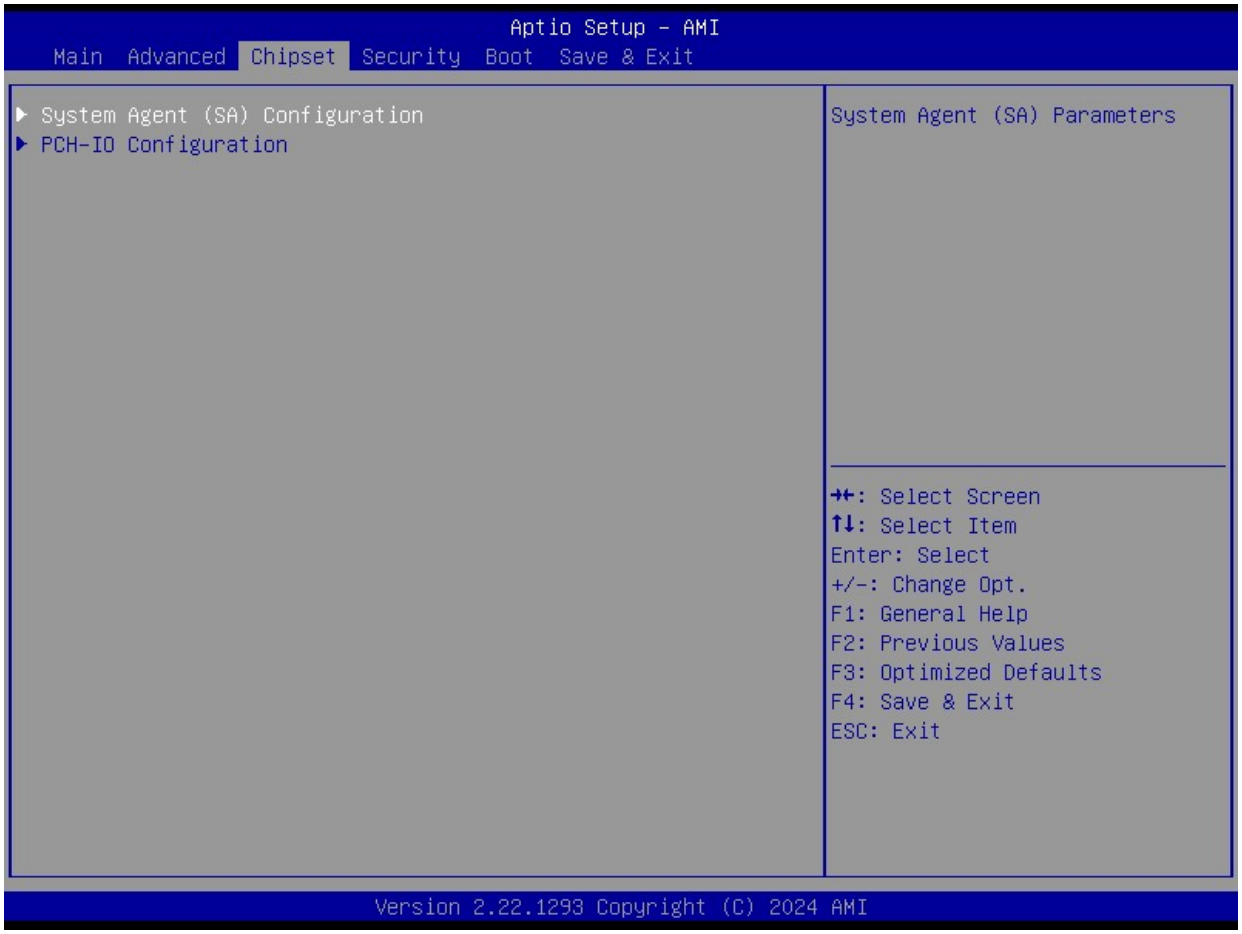


- **Network Stack [Disabled]**
  Enabled/Disabled UEFI Network Stack
  Configuration options: [Enabled][Disabled]
- **IPv4 PXE Support [Disabled]**

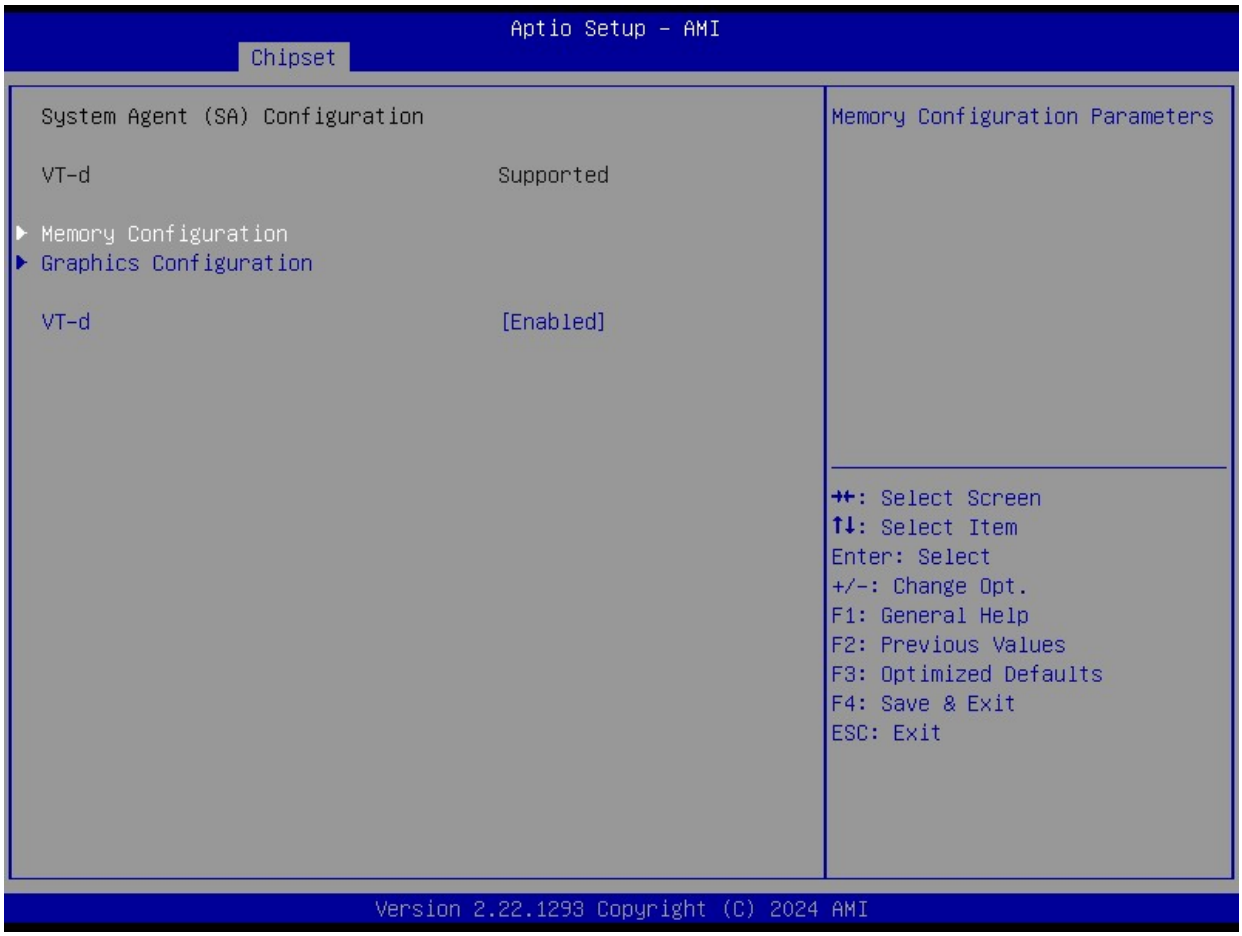
Enabled or disabled IPv4 PXE boot Support
Configuration options: [Enabled][Disabled]

- **IPv6 PXE Support [Disabled]**
  Enabled or disabled IPv6 PXE boot Support
  Configuration options: [Enabled][Disabled]
- **PXE boot wait time**
  Wait time in seconds to press ESC key to abort the PXE boot.
- **Media detect count**
  Number of times the presence of media will be checked. +/- or numeric keys to set the value

2.5 Chipset



2.5.1 System Agent (SA) Configuration



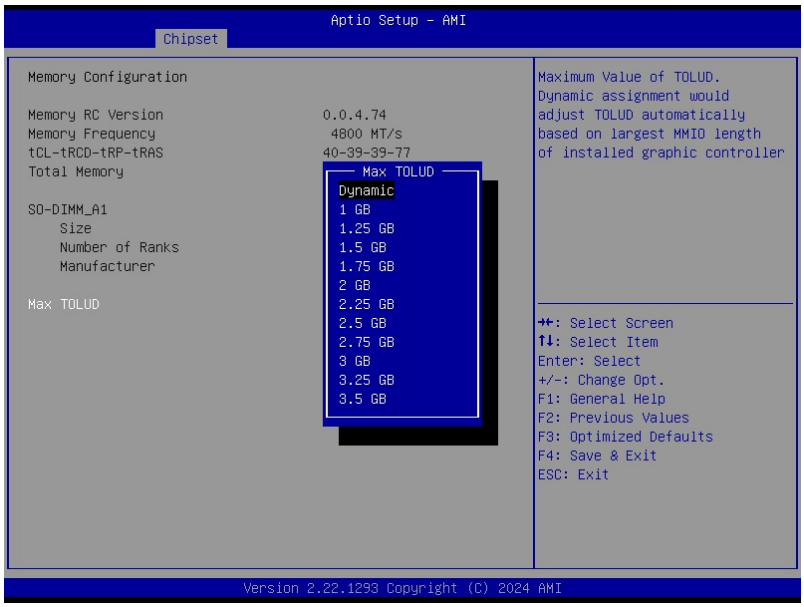
- **VT-d [Enabled]**

VT-d capability

Configuration options: [Disabled] [Enabled]

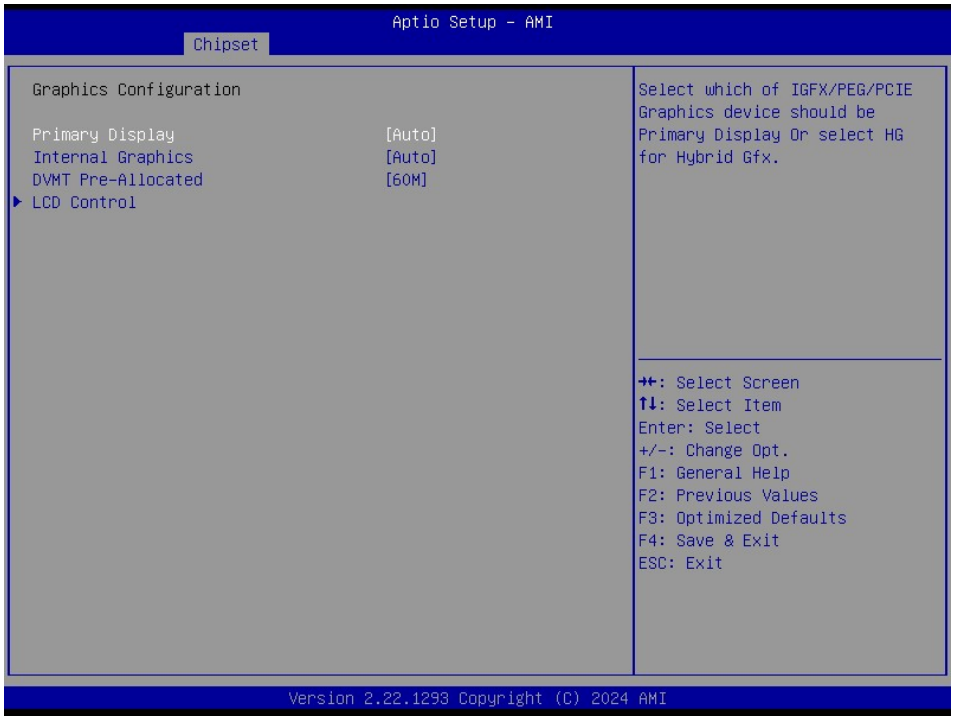
2.5.1.1 Memory Configuration

Maximum Value of TOLUD. Dynamic assignment would adjust TOLUD automatically based on largest MMIO length of installed graphic controller.



2.5.1.2 Graphic Configuration

Graphic configuration settings



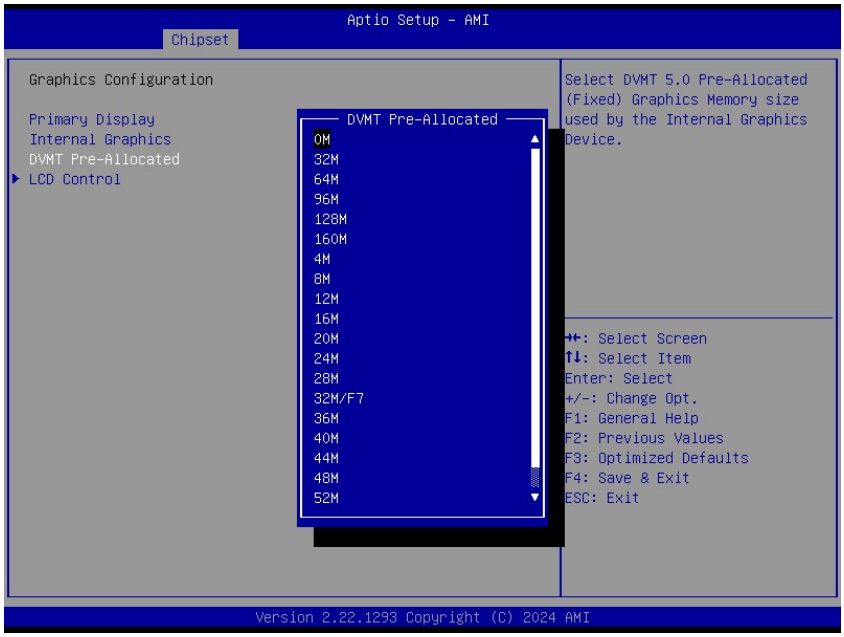
- **Primary Display[Auto]**
  Select which of IGFX/PEG/PCIE graphic device should be primary display or select HG for Hybrid Gfx.
  Configuration options: [Auto] [IGFX][PEG slot][PCIE]
- **Internal Graphics [Auto]**
  Keep IGFX enabled based on the setup options

Configuration options: [Auto] [disabled][enabled]

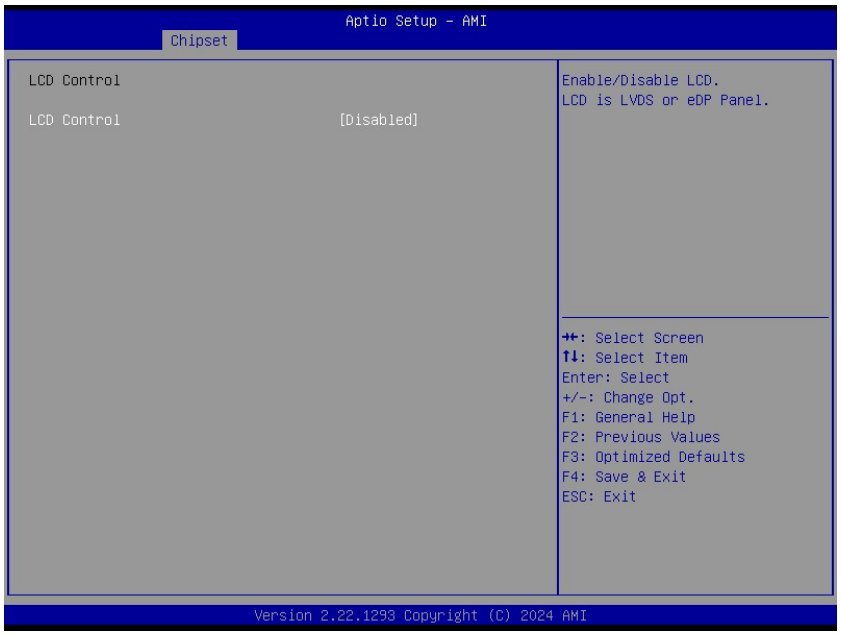
- **DVMT Pre-allocated [60M]**

  Select DVMT 5.0 Pre-allocated (Fixed) Graphics memory size used by the internal graphics device.

  Configuration options: As below picture



- 2.5.1.2.1 LCD Control

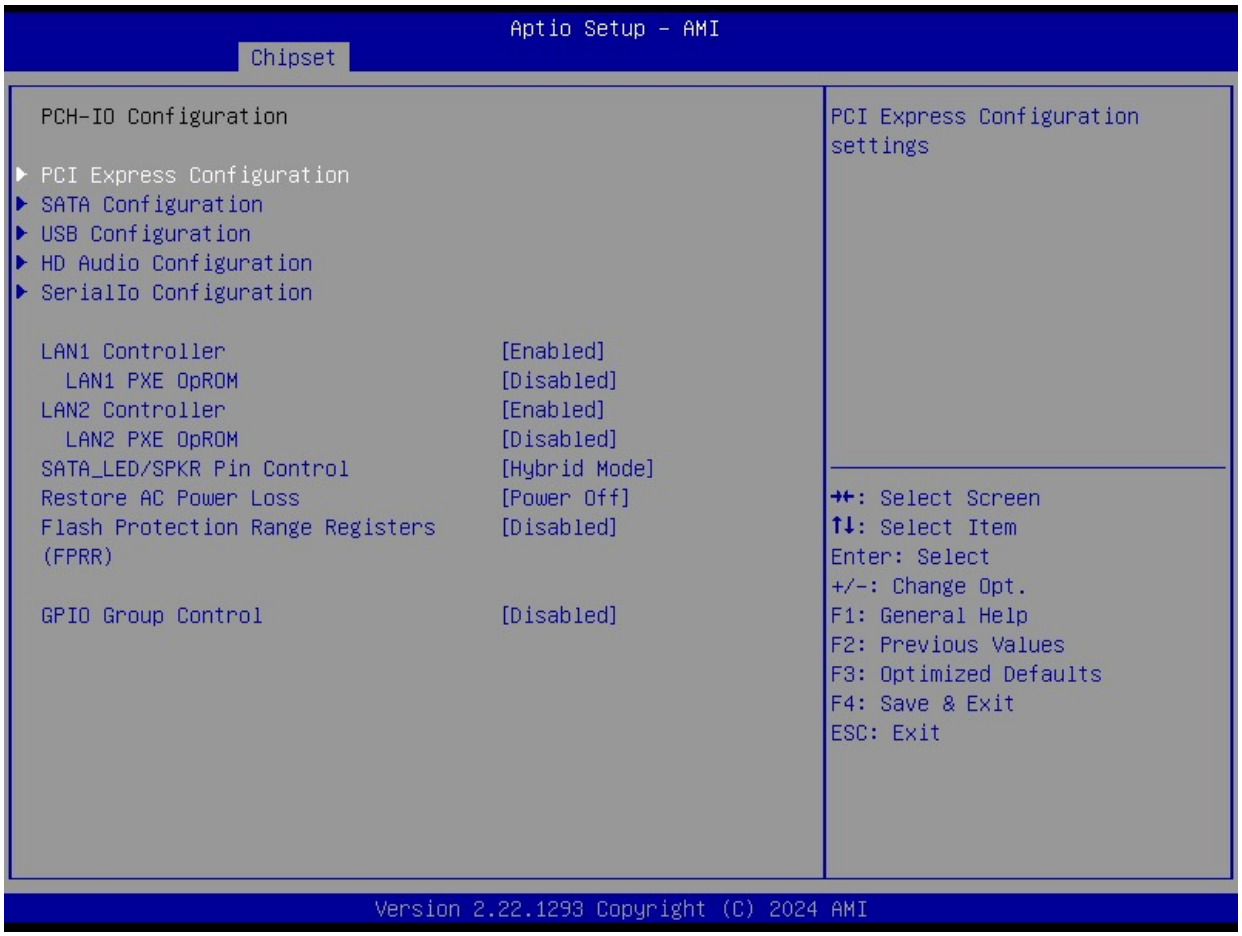


- **LCD Control [Disabled]**

  Enable/Disable LCD. LCD is LVDS or eDP panel

  Configuration options: [Disabled][Enabled]

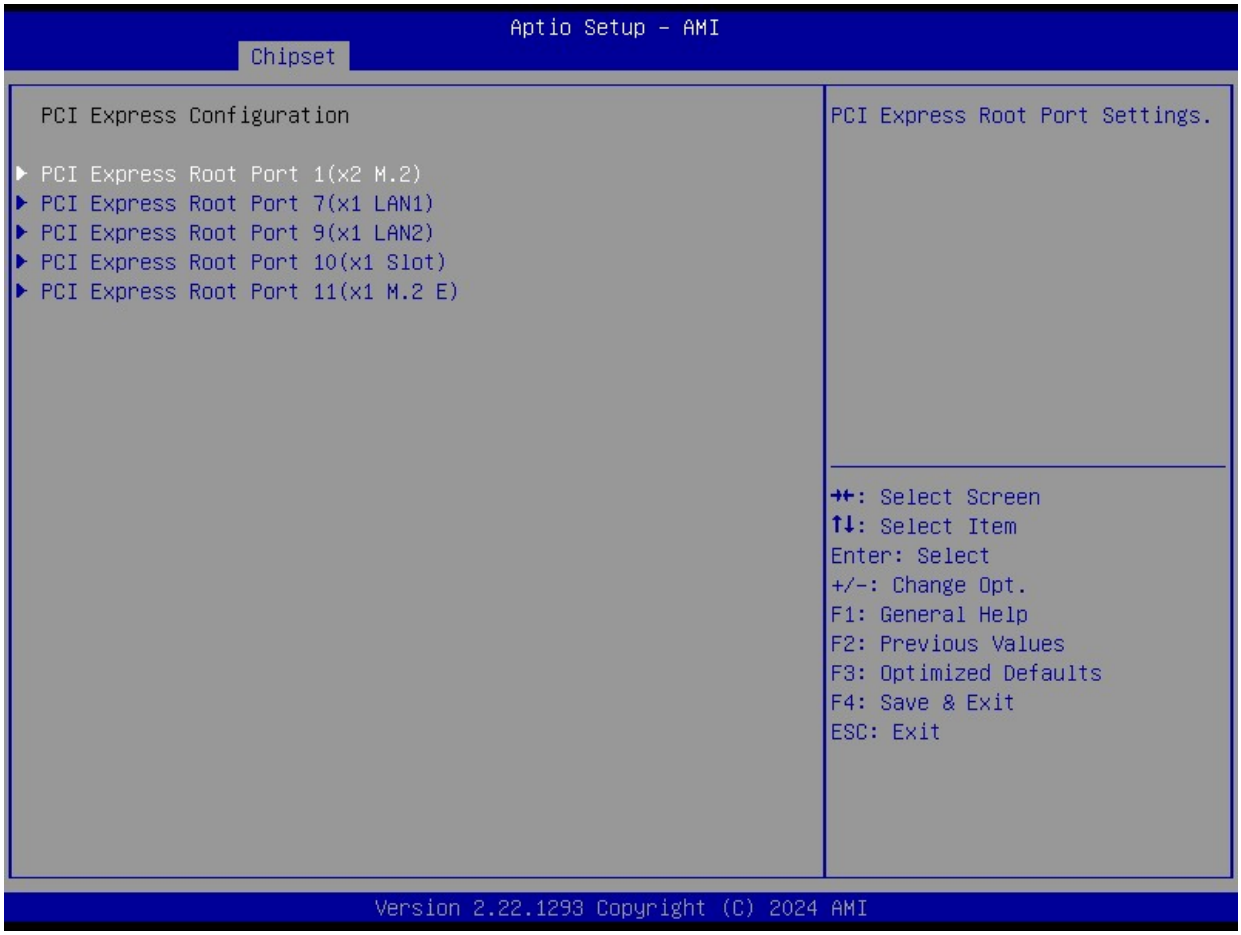
2.5.2 PCH-IO Configuration



- **LAN1 Controller [Enabled]**
  Enable or Disable onboard LAN1
  Configuration options: [Disabled][Enabled]
- **LAN1 PXE OpROM [Disabled]**
  Enabled or Disabled boot option for LAN1 controller
  Configuration options: [Disabled][Enabled]
- **LAN2 Controller [Enabled]**
  Enable or Disable onboard LAN2
  Configuration options: [Disabled][Enabled]
- **LAN2 PXE OpROM [Disabled]**
  Enabled or Disabled boot option for LAN2 controller
  Configuration options: [Disabled][Enabled]
- **SATA_LED/SPKR Pin Control [Hybrid Mode]**
  Select GPP_B14 pin function to serial ATA LED or Speaker output.
  Configuration options: [Speaker Output][Serial ATA LED][Hybrid Mode]]
- **Restore AC power Loss [Power off]**
  Specify what state to go to when power is re-applied after a power failure (G3 state)
  Configuration options: [Power on][Power off] [Last State]

- **Flash Protection Range Registers(FPRR) [Disabled]**
  Enabled Flash Protection Range Registers
  Configuration options: [Disabled][Enabled]
- **GPIO Group Control [Disabled]**
  Configure the digital GPIO pins
  Configuration options: [Disabled][Enabled]

2.5.2.1 PCI Express Configuration



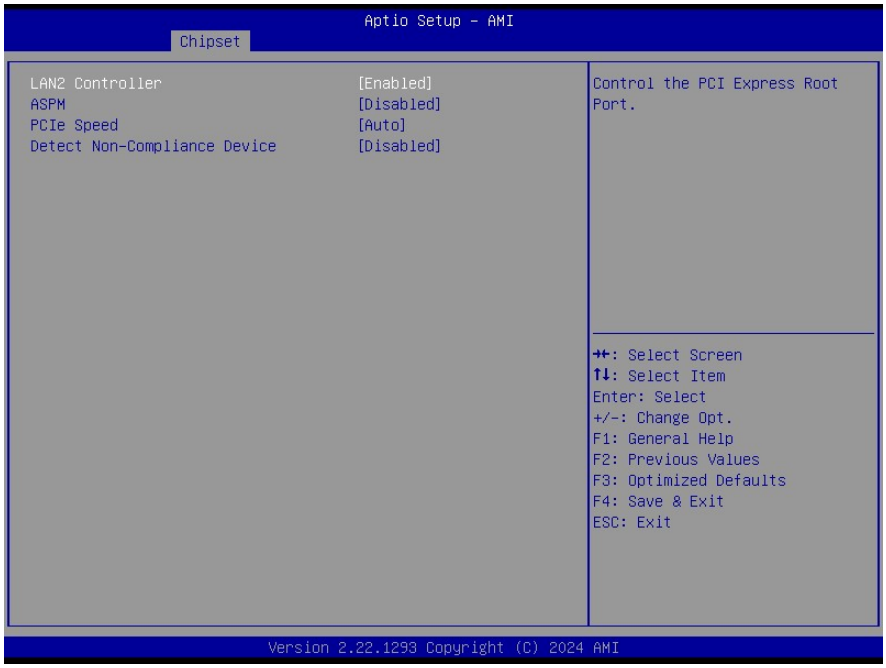
- **2.5.2.1.1 PCI Express Root Port 1(x2 M.2)**

- **PCI Express Root Port 1 [Enabled]**
  Control the PCI Express Port
  Configuration options: [Disabled][Enabled]
- **ASPM [Enabled]**
  Set the ASPM level: Force L0s- Force all links to L0s State; Auto- BIOS auto configure; Disabled- Disables ASPM
  Configuration options: [Disabled][L1][Auto]
- **PCIe Speed [Auto]**
  Select PCI Express Port speed
  Configuration options: [Auto][Gen1][Gen2][Gen3]
- **Detect Non-compliance device [Disabled]**
  Detect non-compliance PCI express Device, If enabled, it will take more time at Post time.
  Configuration options: [Disabled][Enabled]

- **2.5.2.1.2 PCI Express Root Port 7(x1 LAN1)**

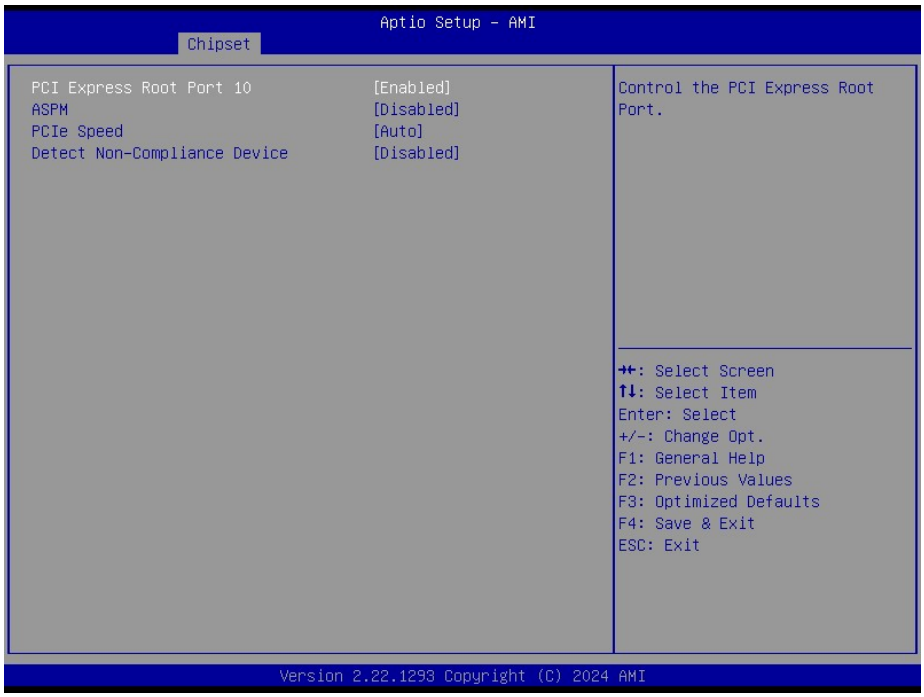
- **LAN1 Controller [Enabled]**
  Control the PCI Express Port
  Configuration options: [Disabled][Enabled]
- **ASPM [Enabled]**
  Set the ASPM level: Force L0s- Force all links to L0s State; Auto- BIOS auto configure; Disabled- Disables ASPM
  Configuration options: [Disabled][L1][Auto]
- **PCIe Speed [Auto]**
  Select PCI Express Port speed
  Configuration options: [Auto][Gen1][Gen2][Gen3]
- **Detect Non-compliance device [Disabled]**
  Detect non-compliance PCI express Device, If enabled, it will take more time at Post time.
  Configuration options: [Disabled][Enabled]

- **2.5.2.1.3 PCI Express Root Port 9(x1 LAN2)**



- **LAN2 Controller [Enabled]**
  Control the PCI Express Port
  Configuration options: [Disabled][Enabled]
- **ASPM [Enabled]**
  Set the ASPM level: Force L0s- Force all links to L0s State; Auto- BIOS auto configure; Disabled- Disables ASPM
  Configuration options: [Disabled][L1][Auto]
- **PCIe Speed [Auto]**
  Select PCI Express Port speed
  Configuration options: [Auto][Gen1][Gen2][Gen3]
- **Detect Non-compliance device [Disabled]**
  Detect non-compliance PCI express Device, If enabled, it will take more time at Post time.
  Configuration options: [Disabled][Enabled]

- **2.5.2.1.4 PCI Express Root Port 10(x1 Slot)**

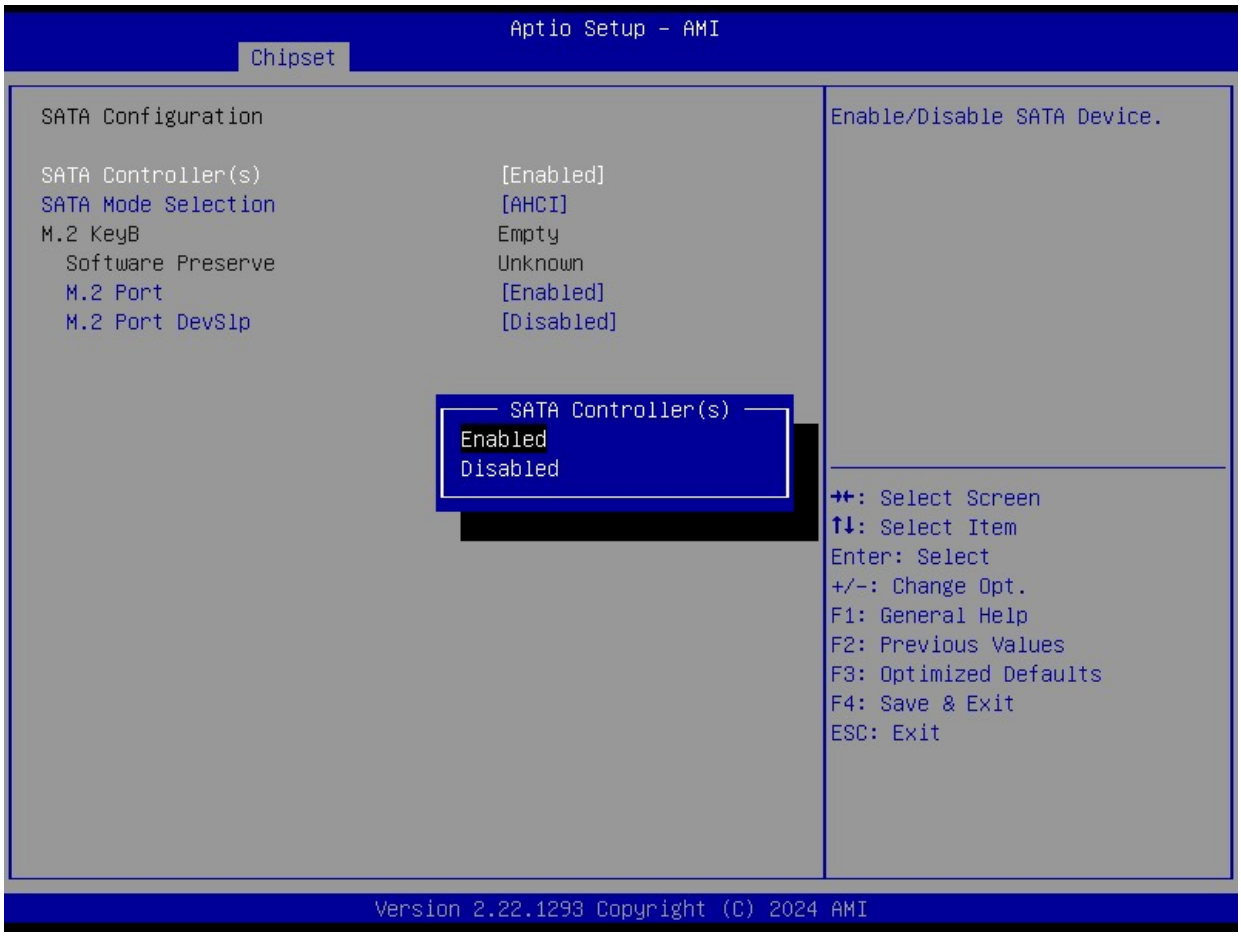


- **PCI Express Root Port 10 [Enabled]**
  Control the PCI Express Port
  Configuration options: [Disabled][Enabled]
- **ASPM [Enabled]**
  Set the ASPM level: Force L0s- Force all links to L0s State; Auto- BIOS auto configure; Disabled- Disables ASPM
  Configuration options: [Disabled][L1][Auto]
- **PCIe Speed [Auto]**
  Select PCI Express Port speed
  Configuration options: [Auto][Gen1][Gen2][Gen3]
- **Detect Non-compliance device [Disabled]**
  Detect non-compliance PCI express Device, If enabled, it will take more time at Post time.
  Configuration options: [Disabled][Enabled]

- **2.5.2.1.5 PCI Express Root Port 11(x2 M.2 E)**

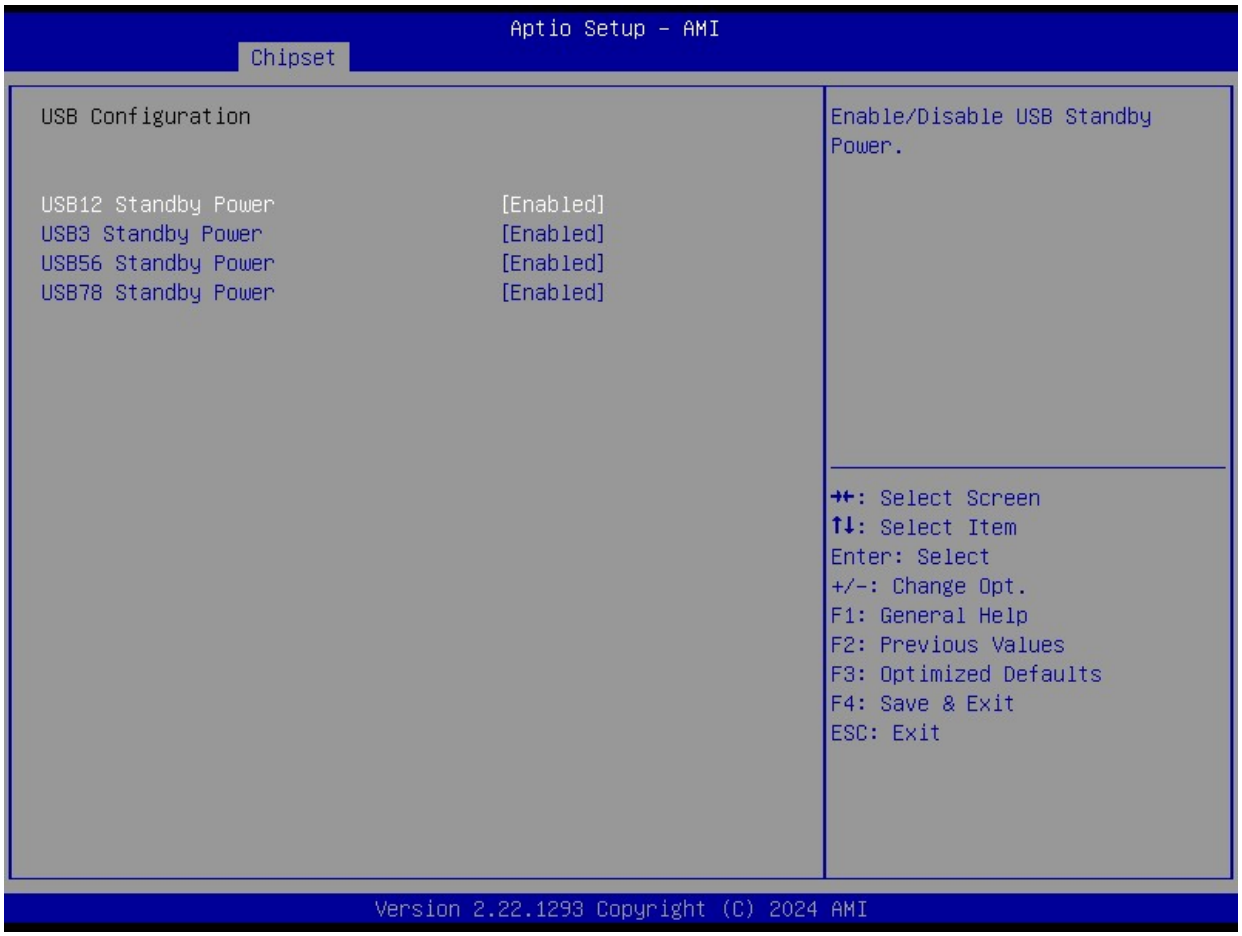
- **PCI Express Root Port 11 [Enabled]**
  Control the PCI Express Port
  Configuration options: [Disabled][Enabled]
- **ASPM [Enabled]**
  Set the ASPM level: Force L0s- Force all links to L0s State; Auto- BIOS auto configure; Disabled- Disables ASPM
  Configuration options: [Disabled][L1][Auto]
- **PCIe Speed [Auto]**
  Select PCI Express Port speed
  Configuration options: [Auto][Gen1][Gen2][Gen3]
- **Detect Non-compliance device [Disabled]**
  Detect non-compliance PCI express Device, If enabled, it will take more time at Post time.
  Configuration options: [Disabled][Enabled]

2.5.2.2 SATA Configuration



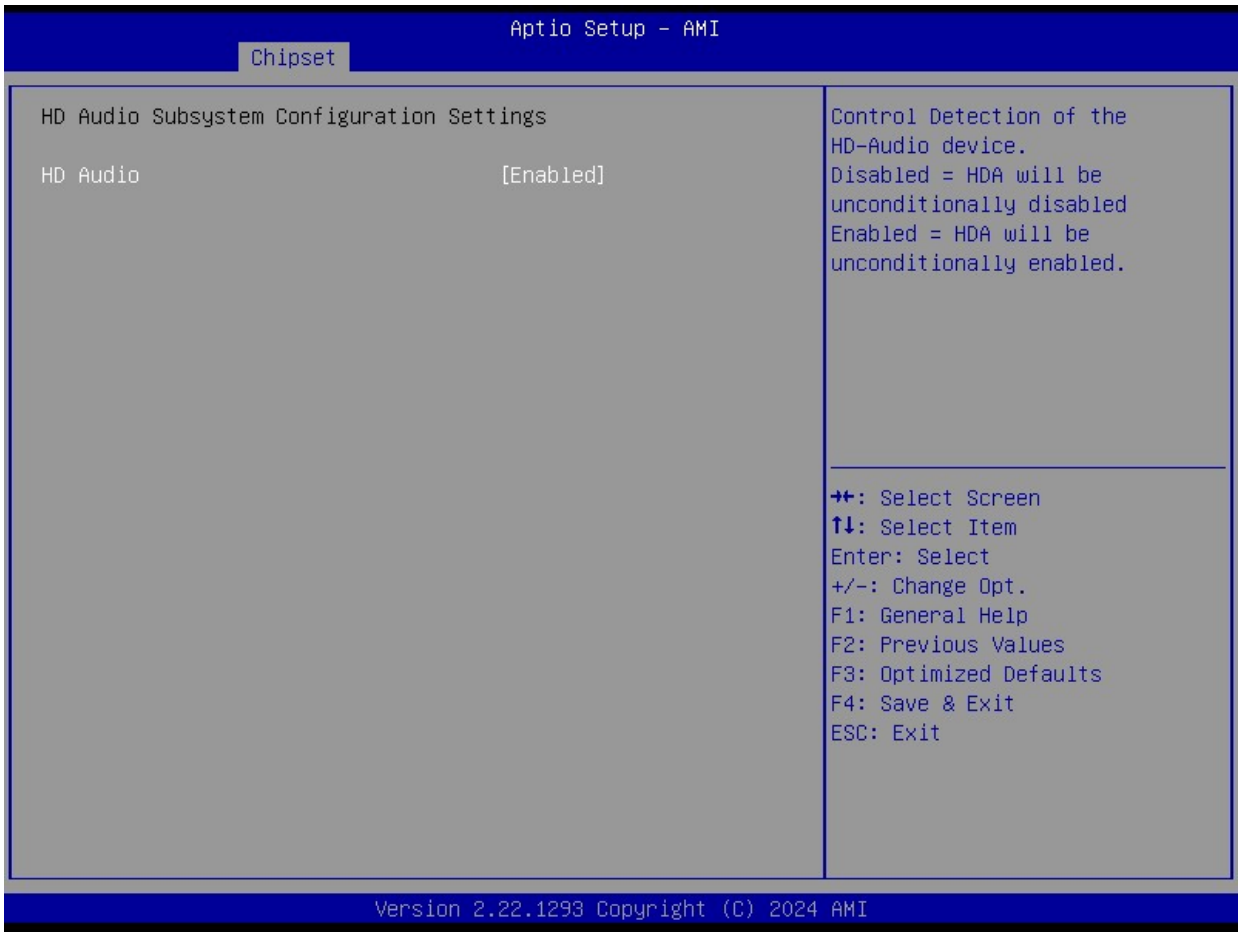
- **SATA Controller(s) [Enabled]**
  Enable or Disable SATA device
  Configuration options: [Enabled][Disabled]
- **SATA Mode Selection [AHCI]**
  Determines how SATA controller operate
  Configuration options: [AHCI]
- **M.2 Port [Enabled]**
  Enable or Disable M.2 port
  Configuration options: [Enabled][Disabled]
- **M.2 Port DevSlp [Enabled]**
  Enable or Disable M.2 port DevSlp. For DevSlp to woek, both hard drive and SATA port need to support DevSlp function.
  Configuration options: [Enabled][Disabled]

2.5.2.3 USB Configuration



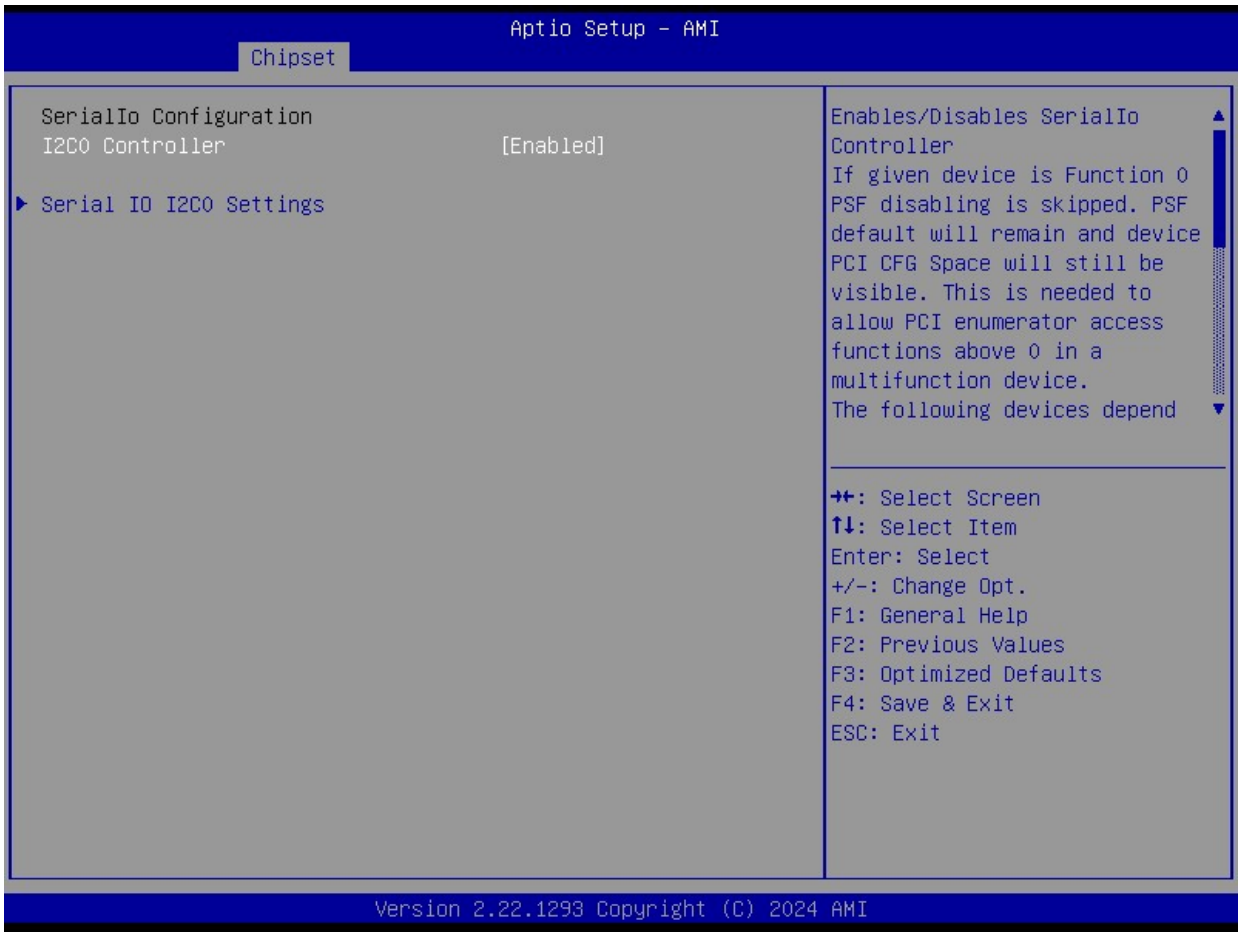
- **USB12 Standby Power[Enabled]**
  Enable or Disable USB standby power
  Configuration options: [Disabled] [Enabled]
- **USB3 Standby Power[Enabled]**
  Enable or Disable USB standby power
  Configuration options: [Disabled] [Enabled]
- **USB56 Standby Power[Enabled]**
  Enable or Disable USB standby power
  Configuration options: [Disabled] [Enabled]
- **USB78 Standby Power[Enabled]**
  Enable or Disable USB standby power
  Configuration options: [Disabled] [Enabled]

2.5.2.4 HD audio Configuration



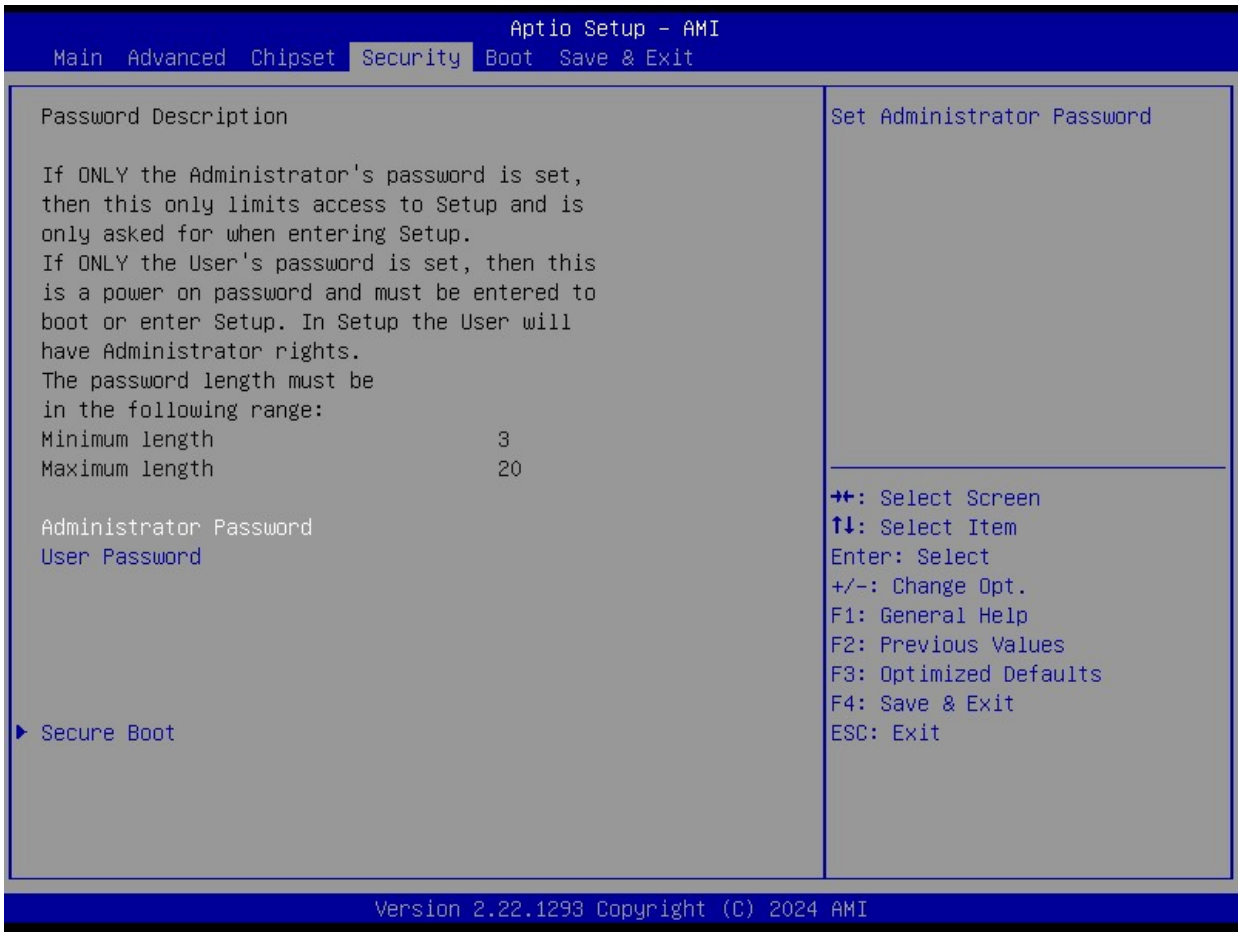
- **HD audio[Enabled]**
  Control Detection of the HD-Audio device.
  Configuration options: [Disabled] [Enabled]

2.5.2.5 Serial IO Configuration



- **I2C0 Controller[Enabled]**
  Enabled/Disabled Serial IO Controller
  Configuration options: [Disabled] [Enabled]

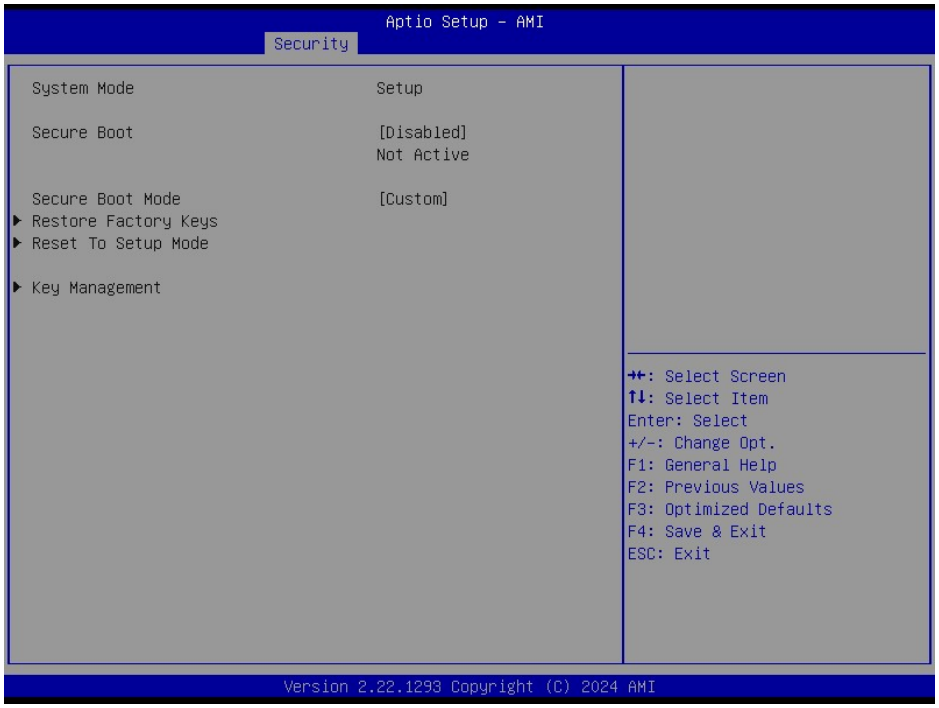
2.6 Security



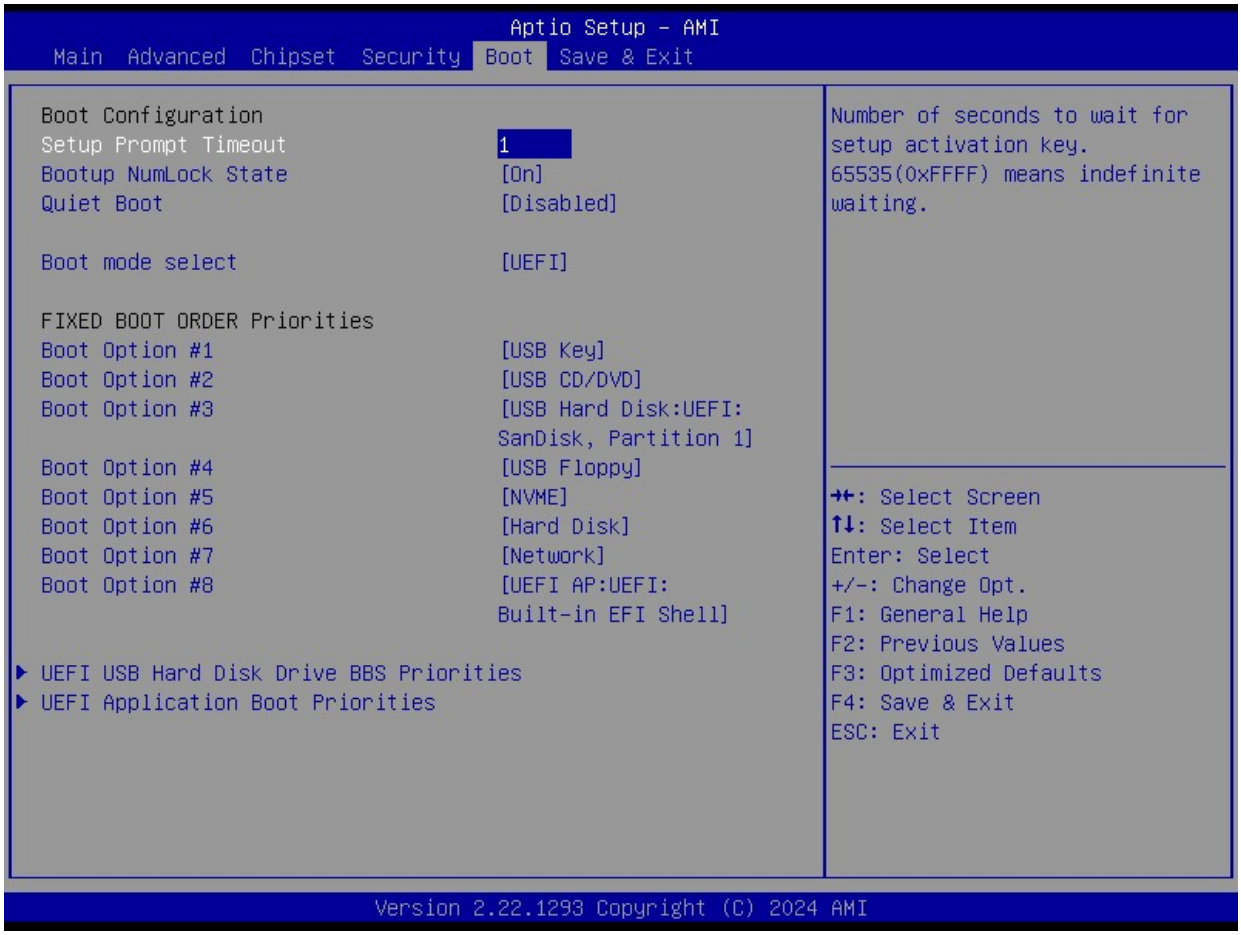
- **Administrator Password**
  Set Administrator Password
- **User Password**
  Set User Password

2.6.1 Secure Boot

Enable secure boot and insert key if necessary


Aptio Setup – AMI
Security
System Mode
Setup
Secure Boot
[Disabled]
Not Active
Secure Boot Mode
[Custom]
Restore Factory Keys
Reset To Setup Mode
Key Management
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit
Version 2.22.1293 Copyright (C) 2024 AMI

2.7 Boot


Aptio Setup – AMI
Main Advanced Chipset Security Boot Save & Exit
Boot Configuration
Setup Prompt Timeout
1
Bootup NumLock State
[On]
Quiet Boot
[Disabled]
Boot mode select
[UEFI]
FIXED BOOT ORDER Priorities
Boot Option #1
[USB Key]
Boot Option #2
[USB CD/DVD]
Boot Option #3
[USB Hard Disk:UEFI:
SanDisk, Partition 1]
Boot Option #4
[USB Floppy]
Boot Option #5
[NVME]
Boot Option #6
[Hard Disk]
Boot Option #7
[Network]
Boot Option #8
[UEFI AP:UEFI:
Built-in EFI Shell]
UEFI USB Hard Disk Drive BBS Priorities
UEFI Application Boot Priorities
Number of seconds to wait for
setup activation key.
65535(0xFFFF) means indefinite
waiting.
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit
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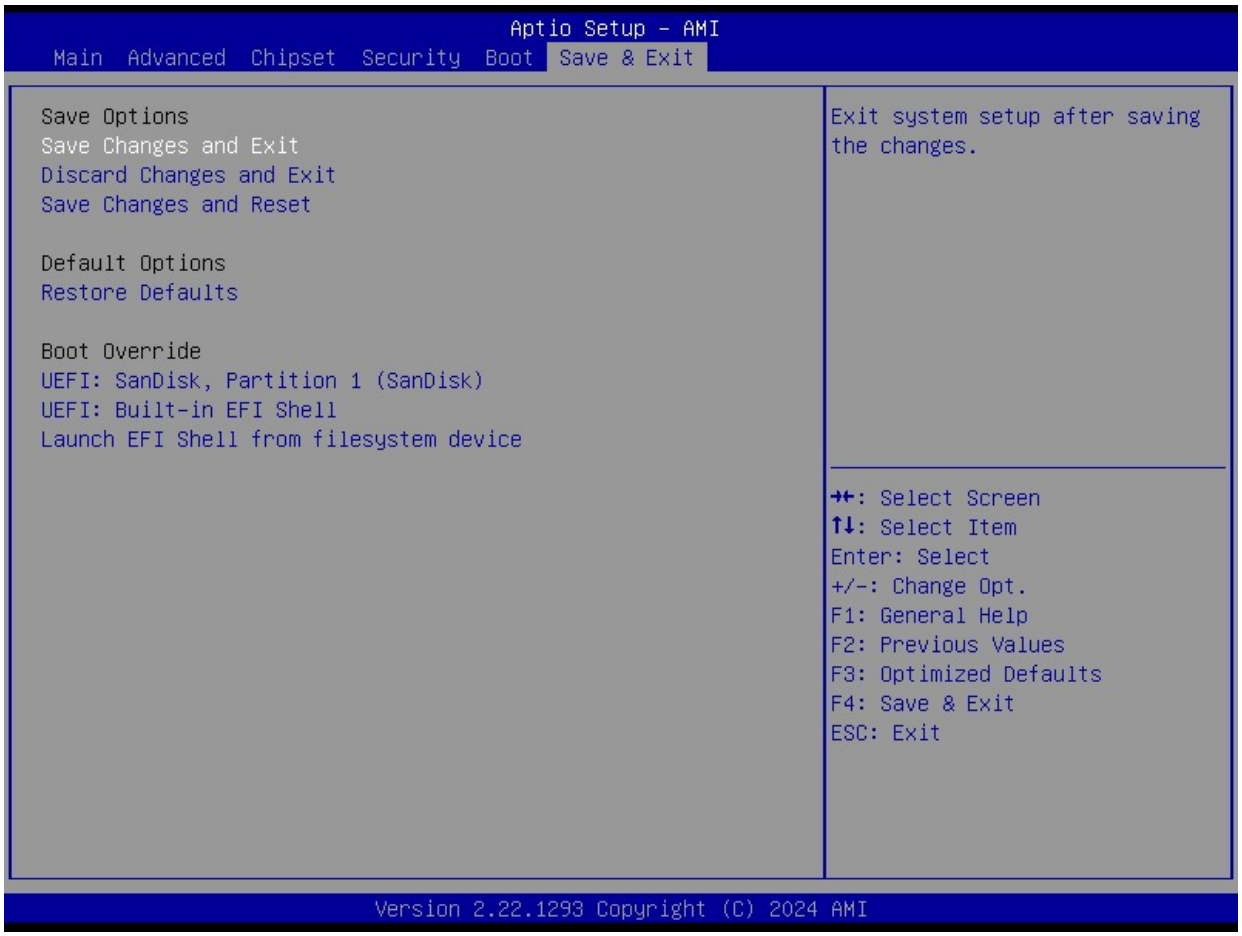
- **Setup Prompt Timeout [1]**
  Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.
- **Bootup NumLock State [On]**
  Select the keyboard NumLock state
  Configuration options: [On] [Off]
- **Quick Boot [Disable]**
  Enable or disable Quick Boot option
  Configuration options: [Disabled] [Enabled]
- **Boot mode select [UEFI]**
  Select boot mode UEFI
  Configuration options: [UEFI]
- **UEFI USB Key Drive BBS Priorities**
  Specifies the boot device priority sequence from available UEFI USB key Drives.
- **UEFI Application Boot Priorities**
  Specifies the boot device priority sequence from available UEFI Application.

2.8 Save & Exit



- **Save changes and Exit**
  Exit system setup after saving the changes.
- **Discard changes and Exit**
  Exit system setup without saving the changes.
- **Save changes and Reset**
  Reset the system after saving the changes.
- **Restore Default**
  Restore/Load default values for all the setup option.
- **Launch EFI Shell from filesystem device**
  Attempts to launch EFI shell application from one of the available filesystem devices.