



CPT400-RS

Edge AI GPU Computer



User's Manual

Revision Date: Jan. 06. 2026

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 local distributor.

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 any technical problems with the product, contact your local distributor

Statement

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- All product specifications are subject to change without prior notice



Revision History

Revision	Date (yyyy/mm/dd)	Changes
V1.0	2024/06/25	First release
V1.1	2026/01/06	Update CPU Gen.

Packing List

Item	Description	Q'ty
1	CPT400-RS system	1
2	Driver CD	1
3	Wall Mount Brackets	1
4	2 pin Terminal Block Male Connector	1
5	4 pin Terminal Block Power Connector	2
6	GPU Power Cable kit	1



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



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Chapter 1: Product Introduction

1.1 Key Features

SYSTEM

CPU	14th/13th Gen Intel® Raptor Lake-Refresh/S Core i9/i7/i5/i3/Celeron/Pentium (Up to 125W)
Chipset	Intel® R680E
Memory type	DDR5 4800MHz, 2 x 262-pin SO-DIMM, Max. 64GB(Non-ECC/ECC)
Storage Device	2 x 2.5" SATAIII HDD / SSD SWAP tray
Graphics	Intel®UHD Graphics
Display	1 x VGA, 1 x DisplayPort 1.4, 1 x HDMI 2.0b
Storage Slot	1 x mSATA 1 x M.2 B Key 2280/2260/2242 Slot 2 x Hot Swappable 2.5" HDD Tray (support 7-9.5mm height) 2 x Hot Swappable 3.5" HDD Tray 1 x CFAST slot / 1 x M.2 M Key 2280/2262/2242 SSD slot *4 x SATA, 2 x M.2 SATA, and 1 x mSATA, all these 7 SATA ports can be configured in SATA RAID 0/1/5/10.
Ethernet	1 x Intel® I225-LM 2.5GbE LAN + 1 x Intel® Ethernet I225-V 2.5GbE LAN
Audio	Realtek® Audio ALC888S
I/O Chipset	Nuvoton NCT6126D
TPM	TPM Header
Expansion Slot	1 x M.2 3052 / 3042 / 2242 / 2260 / 2280 B key (USB3.0 , SATAIII, PCIeX1) w/ SIM slot 1 x M.2 2230/ 2242 / 2260 / 2280 M key (PCIeX4 NVME, SATAIII) 1 x M.2 2230 E key (CNVi , PCIeX1, USB 2.0) 1 x Mini PCIe Full size (USB2.0 / SATAIII / PCIeX1) 1 x Mini PCIe Full size (USB2.0 / PCIeX1) #1: 1 x PCIe X16 (Gen4) or PCIe X8 (Gen4) #2: 1 x PCIe X4 in PCIe X16 physical connector (Gen4) #3: 1 x PCIe X4 in PCIe X16 physical connector (Gen4) #4: 1 x PCIe X8 in PCIe X16 physical connector (Gen4 x8 = Gen3 x16 Bandwidth) #5: 1 x PCIe X1 in open ended connector (Gen3)

FRONT I/O

Display	1 x HDMI 2.0b 1 X DP1.4 1X VGA
Terminal Block	1 x 2-pin Terminal Block Remote Power on / off

COM	3 X RS232 + 1 X RS232/ 422/ 485
SMA	6 x SMA hole with rubber cap
DIO	1 x DB37 connector for 32 bit DIO
AUDIO	1 X Mic-in / 1 X Line-out
USB	4 X USB3.2 Gen2 4 X USB3.2 Gen1

REAR I/O

SIM	2 x SIM Slot to M.2 B-Key 2 x SIM Slot to mPCIe Slot
CFast	1 x CFast
GPIO	8bit(4in/4out)
Power Input	2 x 4-pin Terminal Block

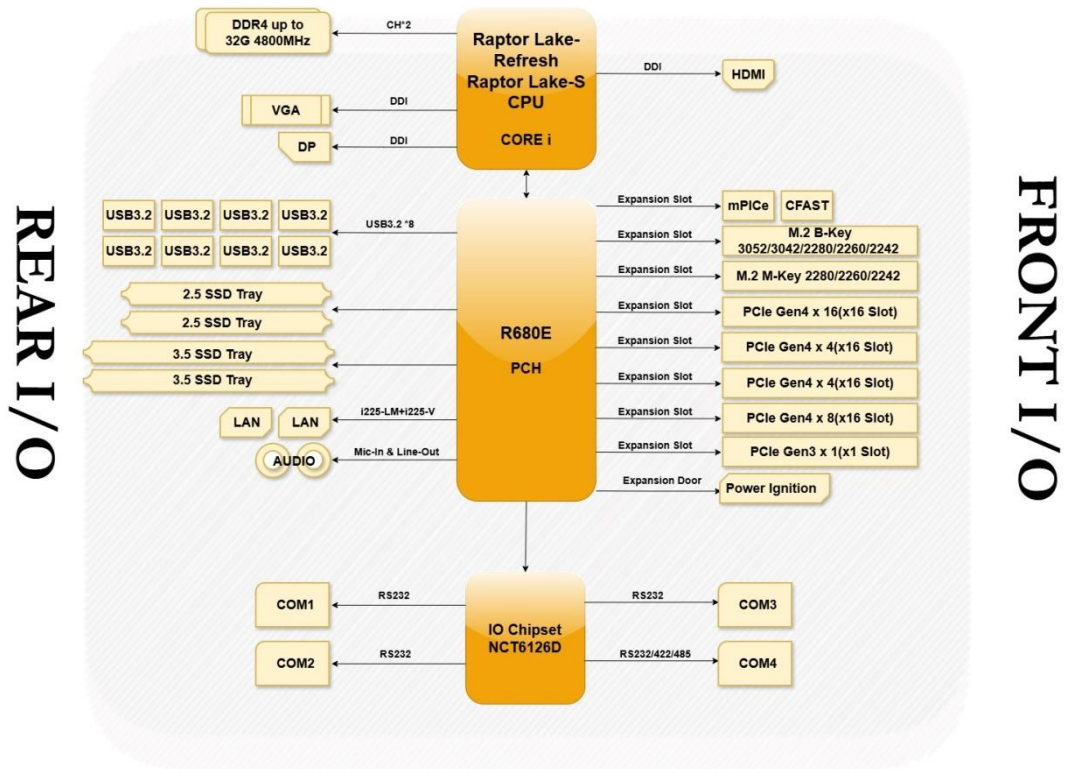
REAR I/O

Internal Speaker	1 x Buzzer
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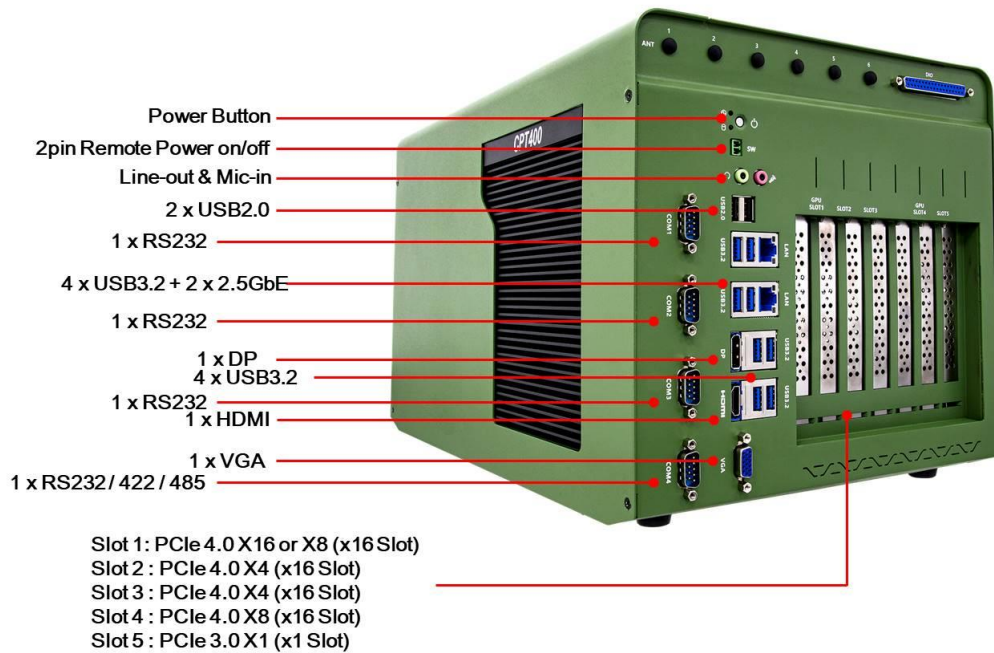
MECHANICAL & ENVIRONMENT

Dimension (W x H x D)	264 x 256 x 415 mm
Thermal Design	FAN
Mounting	Wallmount
Material	Top cover: Aluminum Alloy, Bezel and chassis: Steel
Operating Temp.	-40°C ~ 70°C (w/ 35W CPU, w/o GPU card) -40°C ~ 60°C (w/ 65W CPU, w/o GPU card) -40°C ~ 50°C (w/ 80W CPU, w/o GPU card) -40°C ~ 40°C (w/ 125W CPU, w/o GPU card) *Max OT limit -10°C w/ dual GPU card / with 0.7m/s Air Flow and Wide Temperature Memory/Storage *Please consult with your sales contact window about the Operating Temperature of GPU Card Configurations
Storage Temp.	-40 to +85°C
Relative Humidity	10% to 95%, non-condensing
CE/FCC	CE/FCC Compliance
OS Support	Windows 10 / 11 , Linux by request

1.2 Block Diagram



1.3 Front I/O Placement





1.4 Rear I/O Placement



1.5 CPU List

CPU Name	Cache	E Core Boost Clock	P Core Boost Clock	Boost Clock	Cores	Therads	TDP
13th Generation Intel® Raptor Lake-S							
Intel® Core™ i9-13900	36M	1.50GHz	2.00GHz	5.60GHz	8+16	32	65W
Intel® Core™ i9-13900E	36M	1.30GHz	1.80GHz	5.20GHz	8+16	32	65W
Intel® Core™ i9-13900TE	36M	800MHz	1.00GHz	5.00GHz	8+16	32	35W
Intel® Core™ i7-13700	30M	1.50GHz	2.00GHz	5.20GHz	8+8	32	65W
Intel® Core™ i7-13700E	30M	1.30GHz	1.90GHz	5.10GHz	8+8	32	65W
Intel® Core™ i7-13700TE	30M	800MHz	1.10GHz	4.80GHz	8+8	32	35W
14th Generation Intel® Raptor Lake-Refresh							
Intel® Core™ i9-14901E	36M		3.80GHz	5.80GHz	8	16	65W
Intel® Core™ i9-14901TE	36M		2.80GHz	5.60GHz	8	16	45W
Intel® Core™ i7-14701E	33M		2.60GHz	5.40GHz	8	16	35W
Intel® Core™ i7-14701TE	33M		2.10GHz	5.20GHz	8	16	45W
Intel® Core™ i7-14900	36M	1.50GHz	2.00GHz	5.80GHz	16+8	32	65W
Intel® Core™ i7-14900T	36M	0.8GHz	1.10GHz	5.50GHz	16+8	32	35W
Intel® Core™ i7-14700	33M	1.50GHz	2.10GHz	5.40GHz	12+8	28	65W
Intel® Core™ i7-14700T	33M	0.9GHz	1.30GHz	5.20GHz	12+8	28	35W

1.6 GPU List

GPU Name	Display	Memory	CUDA	TDP
NVIDIA A40 48GB *with optional fan duct kit	3 x DP1.4a	48GB GDDR6	10,752	300W
NVIDIA RTX 6000 Ada Gen.	4 x DP1.4a	24GB GDDR6	18,176	300W
NVIDIA RTX A6000 48GB	4 x DP1.4a	48GB GDDR6	10,752	300W
NVIDIA RTX A5500 24GB	4 x DP1.4a	24GB GDDR6	10,240	230W
NVIDIA RTX A5000 24GB	4 x DP1.4a	24GB GDDR6	8,192	230W
NVIDIA RTX A4500 20GB	4 x DP1.4a	20GB GDDR6	7,168	200W
NVIDIA RTX 4000 SFF Ada Gen. 20GB	4 x mDP1.4a	20GB GDDR6	6,144	70W
NVIDIA RTX A4000 16GB	4 x DP1.4a	16GB GDDR6	6,144	140W
NVIDIA RTX A2000 12GB	4 x mDP1.4a	12GB GDDR6	3,328	70W
NVIDIA Quadro T1000 8GB	4 x mDP1.4a	8GB GDDR6	896	50W
NVIDIA Quadro T1000 4GB	4 x mDP1.4a	4GB GDDR6	896	50W
NVIDIA Quadro T400 4GB	3 x mDP1.4a	4GB GDDR6	384	30W
Leadtek RTX 4090 AI Blower 24GB	1 x HDMI2.1 3 x DP1.4a	24GB GDDR6	16,384	450W
Leadtek RTX 4080 AI Blower 16GB	1 x HDMI2.1 3 x DP1.4a	16GB GDDR6	9,728	320W
Leadtek RTX 4070 AI BLOWER 12GB	1 x HDMI2.1 3 x DP1.4a	12GB GDDR6	5,888	200W
Leadtek RTX 3060 Classic 12GB (LHR)ver.B	1 x HDMI2.1 3 x DP1.4a	12GB GDDR6	3,584	170W

Chapter 2: Connectors Pin Define

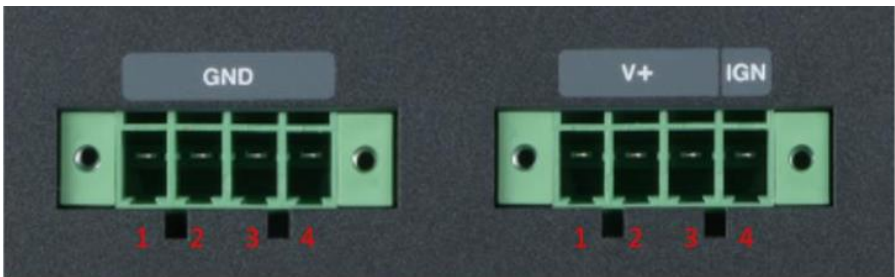
2.1 External Connector Pin Definition

DC input power connector at DC_P1 & DC_P2 location

V_IN_A input PWR range from +12V~48V

12V max PWR = 600W

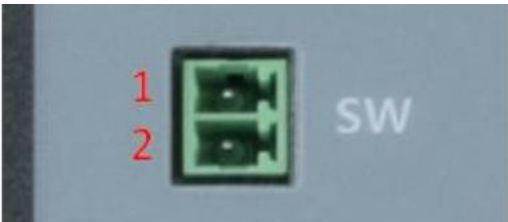
48V max PWR = 1500W



DC_P1	
Pin	Signal Name
1	V_IN_A
2	V_IN_A
3	V_IN_A
4	CAR_IGN

DC_P2	
Pin	Signal Name
1	GND
2	GND
3	GND
4	GND

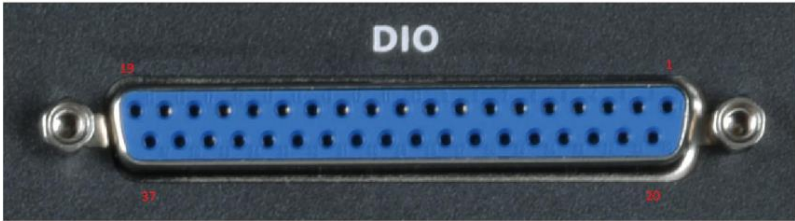
2-pin Terminal Block for Remote Power ON/OFF





Pin	Signal
1	EXT_PWRBT_ON/OFF
2	GND

32-bit GPIO in DB37

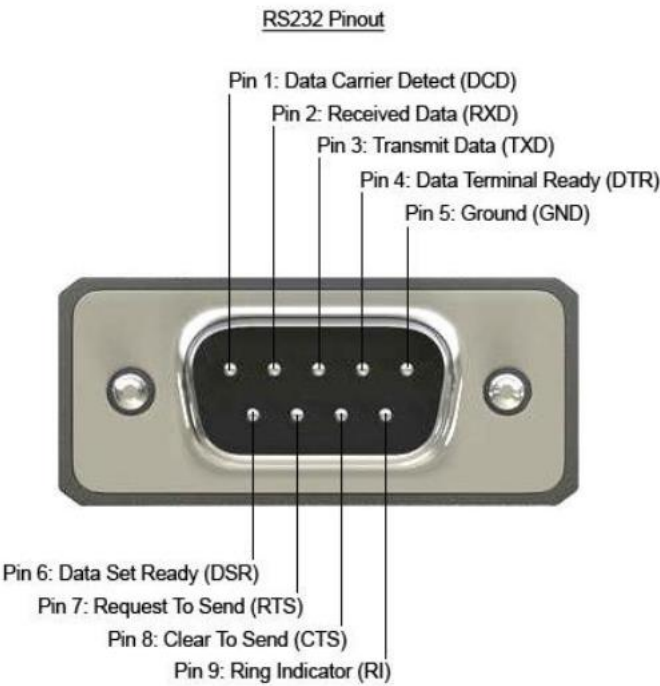


Pin	DB37	Default GPIO Type
1	VCC	-
2	VCC	-
3	USBM_GPIOA0	Output Low
4	USBM_GPIOA1	Output Low
5	USBM_GPIOA2	Output Low
6	USBM_GPIOA3	Output Low
7	USBM_GPIOA5	Output Low
8	USBM_GPIOA6	Output Low
9	USBM_GPIOA7	Output Low
10	USBM_GPIOA8	Output Low
11	USBM_GPIOB0	Output Low
12	USBM_GPIOB1	Output Low
13	USBM_GPIOB2	Output Low
14	USBM_GPIOB3	Output Low
15	USBM_GPIOB4	Output Low
16	USBM_GPIOB5	Output Low
17	USBM_GPIOB6	Output Low
18	USBM_GPIOB7	Output Low
19	GND	-
20	GND	-
21	USBM_GPIOC0	Input
22	USBM_GPIOC1	Input
23	USBM_GPIOC2	Input
24	USBM_GPIOC3	Input
25	USBM_GPIOC4	Multi Function for UART0_TX



Pin	DB37	Default GPIO Type
26	USBM_GPIOC5	Multi Function for UART0_RX
27	USBM_GPIOC6	Input
28	USBM_GPIOC7	Output low for Power LED
29	USBM_GPIOD0	Input
30	USBM_GPIOD1	Input
31	USBM_GPIOD2	Input
32	USBM_GPIOD3	Input
33	USBM_GPIOD4	Input
34	USBM_GPIOD5	Input
35	USBM_GPIOD6	Input
36	USBM_GPIOD7	Input
37	GND	-

COM#1 / COM#2 / COM#3 / COM#4



Pin	PWR RS232	RS232	RS422	RS485
1	DCD	DCD	TX- [TX(B)]	RS485 D-(B)
2	RX	RX	TX+ [TX(A)]	RS485 D+(A)
3	RTX	RTX	RX+ [RX(A)]	NC
4	DTR	DTR	RX- [RX(B)]	NC
5	GND	GND	GND	GND



Pin	PWR RS232	RS232	RS422	RS485
6	DSR	DSR	NC	NC
7	RTS	RTS	NC	NC
8	CTS	CTS	NC	NC
9	5V/12V	RI	NC	NC

Chapter 3: SYSTEM SETUP

This chapter provides information about how to set up the CPT400-RS GPU Computing System hardware installation.

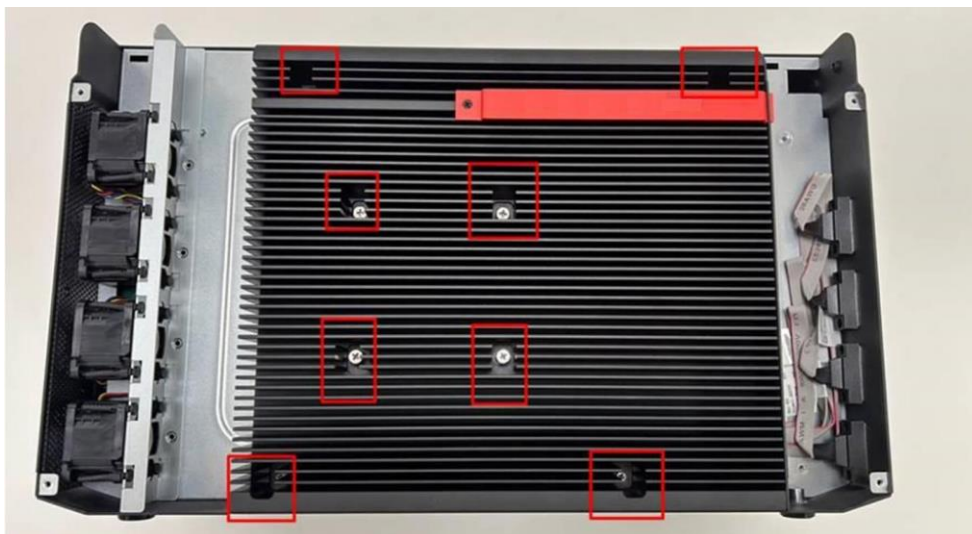
3.1 CPU, Memory, and M.2 M Key Module Installation

Please follow the instructions to install CPU & memory as below.

- Loosen 7 screws to release heatsink front cover



- Loosen 8 screws for heatsink



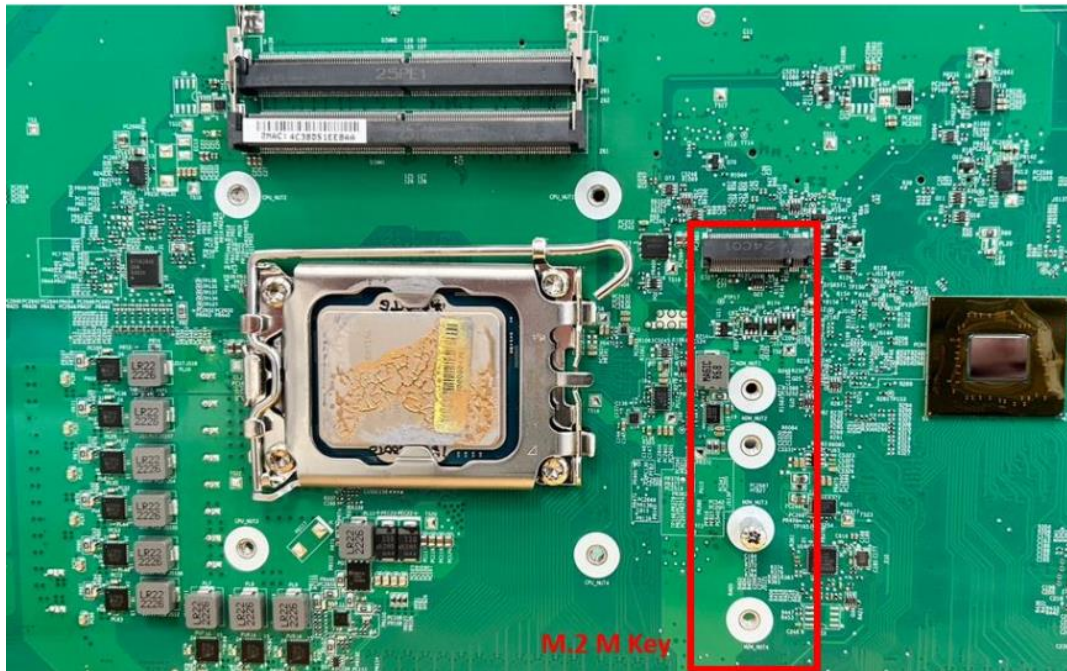
- Remove black mylar and CPU socket cover, and follow CPU direction to install CPU.



- Assemble SO-DIMM DDR5 memory to slots

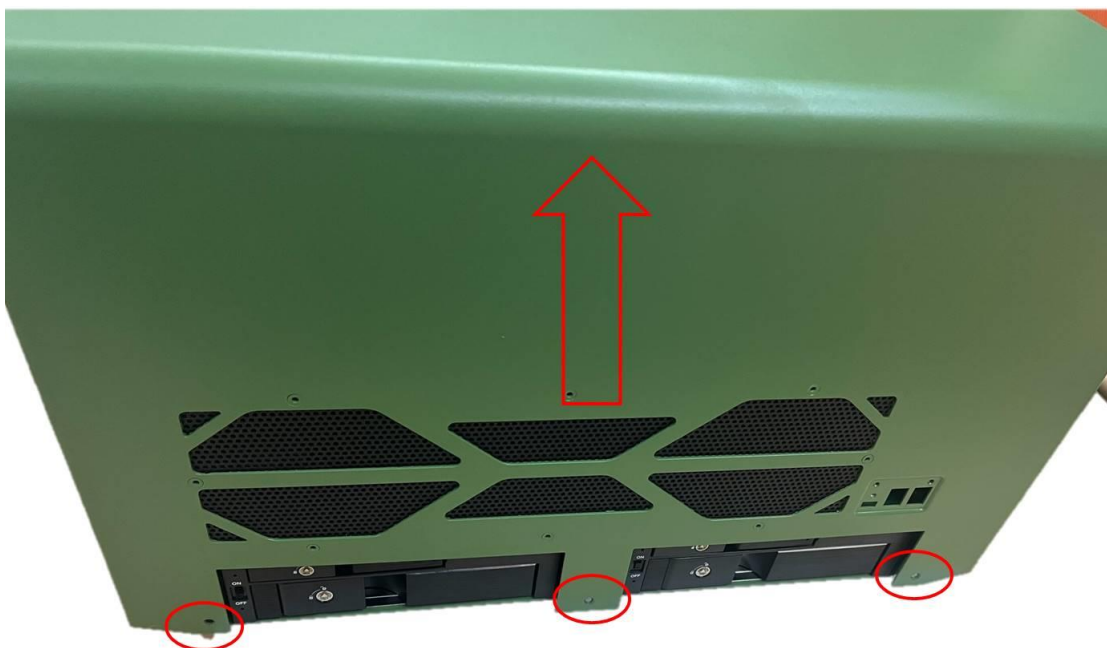


- Assemble M.2 M key/B-M key module to M.2 M key slot



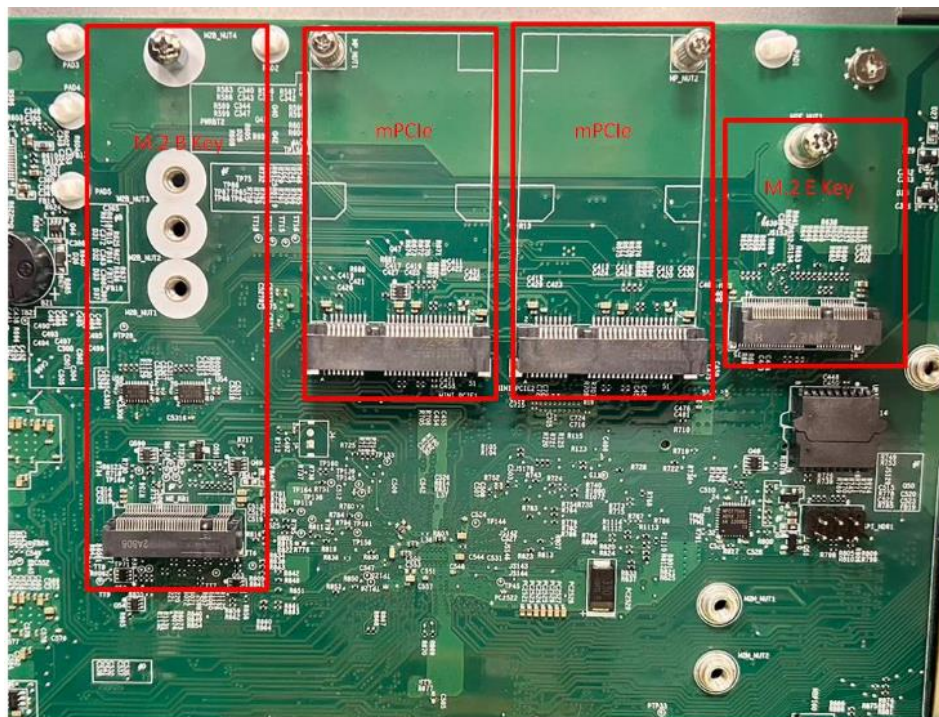
3.2 M.2 B Key/E Key/mPCIe Module Installation

- Loosen 7 screws and move chassis cover as below direction



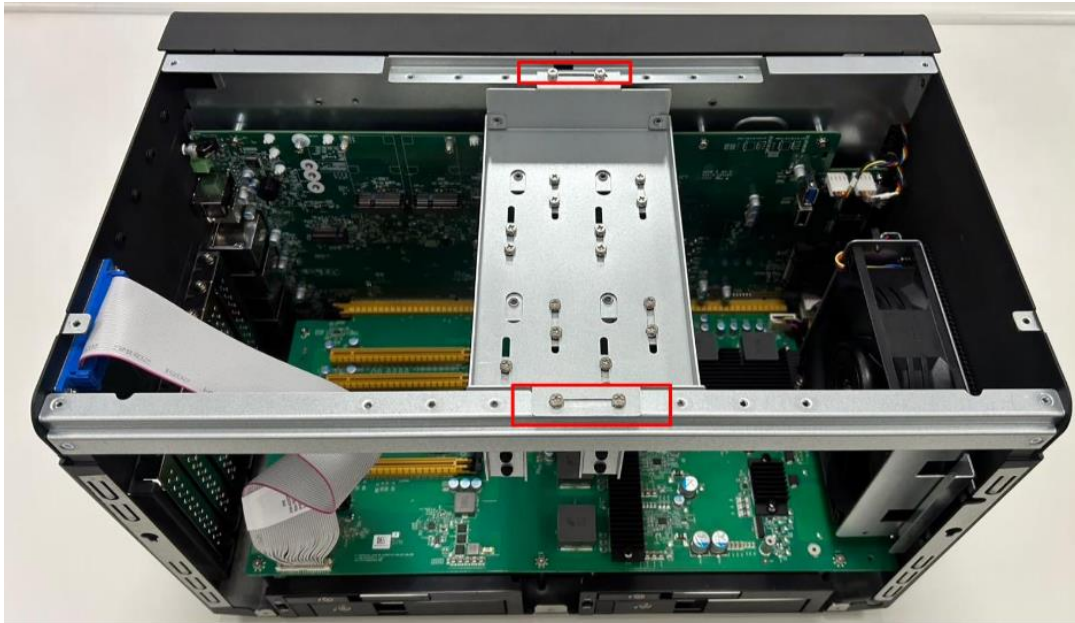


- Assemble M.2 B key/E key/mPCIe module as below location on the bottom of main board

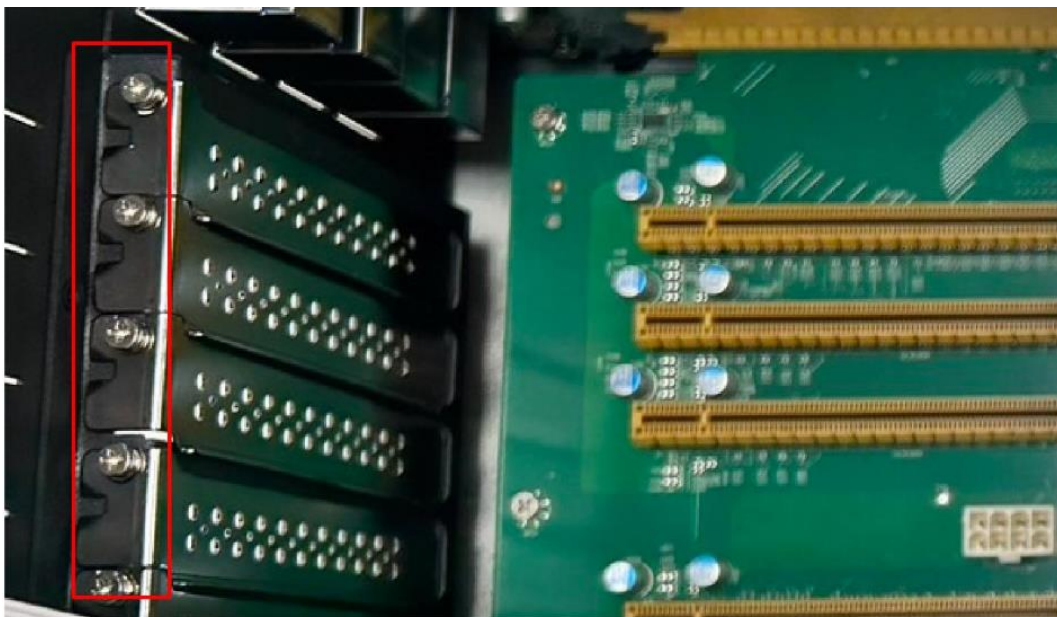


3.3 PCIe Card Installation

- Loosen 4 screws to release PCIe card holder bracket



- Loosen 1 screw for PCIe door plate which will be used for expansion card and assemble with PCIe card bracket. Then adjust PCIe card holder to fix the card to resist S&V conditions



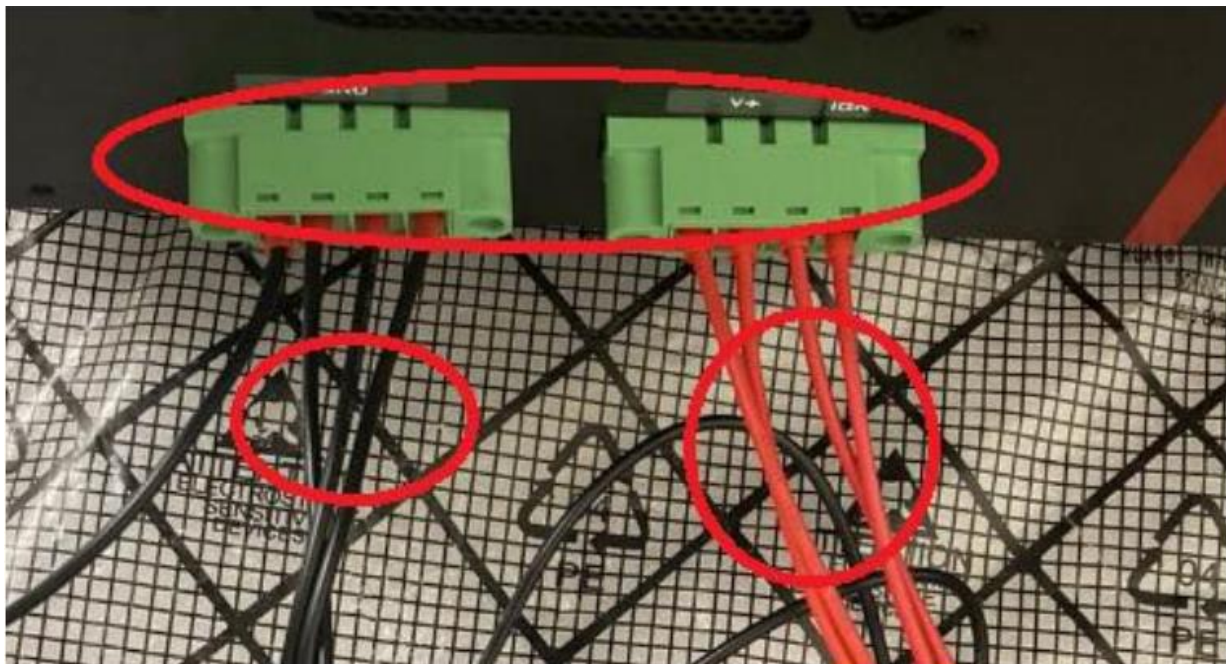
3.4 1000W PSU Cable Assembly

- Green, white, and black cables connect to power cords. Red and black cables connect to CPT400 terminal block connectors.

*Only experienced electronics personnel should open the PC chassis, or assemble the power supply with power cable connection.



- Black cables connect to GND, and red cables connect to V+.



Chapter 4: AMI BIOS UTILITY

This chapter provides users with detailed descriptions on how to set up a basic system configuration through the AMI BIOS setup utility.

4.1 Starting

To enter the setup screens, perform the following steps:

- Turn on the computer and press the key immediately.
- After the key is pressed, the main BIOS setup menu displays. Other setup screens can be accessed from the main BIOS setup menu, such as the Chipset and Power menus.

4.2 Navigation Keys

The BIOS setup/utility uses a key-based navigation system called hot keys. Most of the BIOS setup utility hot keys can be used at any time during the setup navigation process.

Some of the hot keys are <F1>, <F10>, <Enter>, <ESC>, and <Arrow> keys.



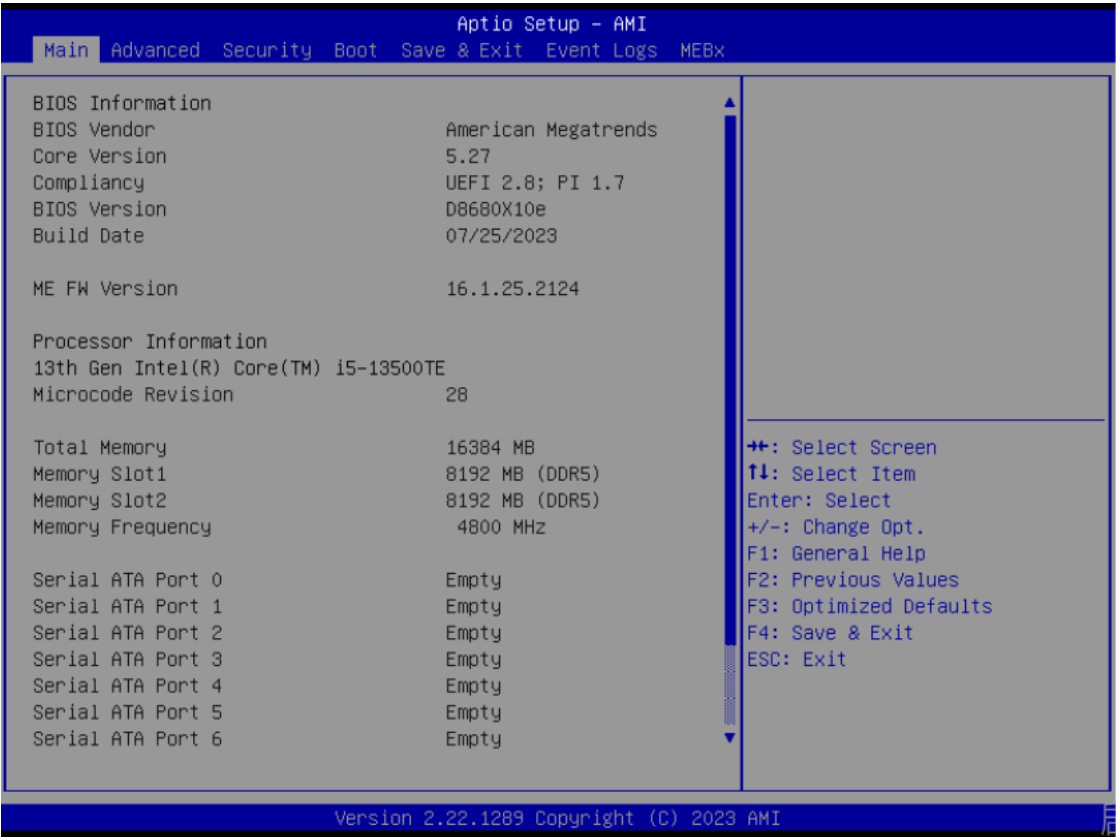
Some of the navigation keys may differ from one screen to another.

Left/Right	The Left and Right <Arrow> keys moves the cursor to select a menu.
Up/Down	The Up and Down <Arrow> keys moves the cursor to select a setup screen or sub-screen.
+– Plus/Minus	The Plus and Minus <Arrow> keys changes the field value of a particular setup setting.
Tab	The <Tab> key selects the setup fields.
F1	The <F1> key displays the General Help screen.
F10	The <F10> key saves any changes made and exits the BIOS setup utility.
Esc	The <Esc> key discards any changes made and exits the BIOS setup utility.
Enter	The <Enter> key displays a sub-screen or changes a selected or highlighted option in each menu.



4.3 Main Page

The Main menu is the first screen that you will see when you enter the BIOS Setup Utility.



Field Name	BIOS Vender
Default Value	American Megatrends
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Core Version
Default Value	5.24
Comment	This field is not selectable. There is no help text associated with it

Field Name	Compliance
Default Value	UEFI 2.8 ; PI 1.7
Comment	This field is not selectable. There is no help text associated with it

Field Name	BIOS Version
Default Value	Display the version of the BIOS
Comment	This field is not selectable. There is no help text associated with it
Field Name	BIOS Version

Default Value	Display build date of the BIOS
Comment	This field is not selectable. There is no help text associated with it.

Field Name	ME FW Version
Default Value	ME Firmware Version.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Processor Information
Default Value	Display the installed CPU brand.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Microcode Version
Default Value	Display the CPU microcode revision.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Total Memory
Default Value	Display the installed memory size.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Memory Slot1
Default Value	Display the installed memory size of slot1.
Comment	This field is not selectable. There is no help text associated with it

Field Name	Memory Slot2
Default Value	Display the installed memory size of slot2.
Comment	This field is not selectable. There is no help text associated with it

Field Name	Memory Frequency
Default Value	Display the installed memory Frequency
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Serial ATA Port 1
Value	Display the installed SATA device model/size of port 1.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Serial ATA Port 2
Value	Display the installed SATA device model/size of port 2.

Comment	This field is not selectable. There is no help text associated with it.
---------	---

Field Name	Serial ATA Port 3
Value	Display the installed SATA device model/size of port 3.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Serial ATA Port 4
Value	Display the installed SATA device model/size of port 4.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Serial ATA Port 5
Value	Display the installed SATA device model/size of port 5.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Serial ATA Port 6
Value	Display the installed SATA device model/size of port 6.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Serial ATA Port 7
Value	Display the installed SATA device model/size of port 7.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	System Date
Default Value	[Www mm/dd/yyyy]
Possible Value	Www : Mon/Tue/Wed/Thu/Fri/Sat/Sun mm : 1-12 dd : 1-31 yyyy : 1900-9999
Help	Set the Date. Use Tab to switch between Date elements. Default Rangers: Year : 1900-9999 Months : 1-12 Days : Dependent on month Range of Years may vary.

Field Name	System Time
Default Value	[hh :mm :ss]
Possible Value	hh : 0-23 mm : 0-59

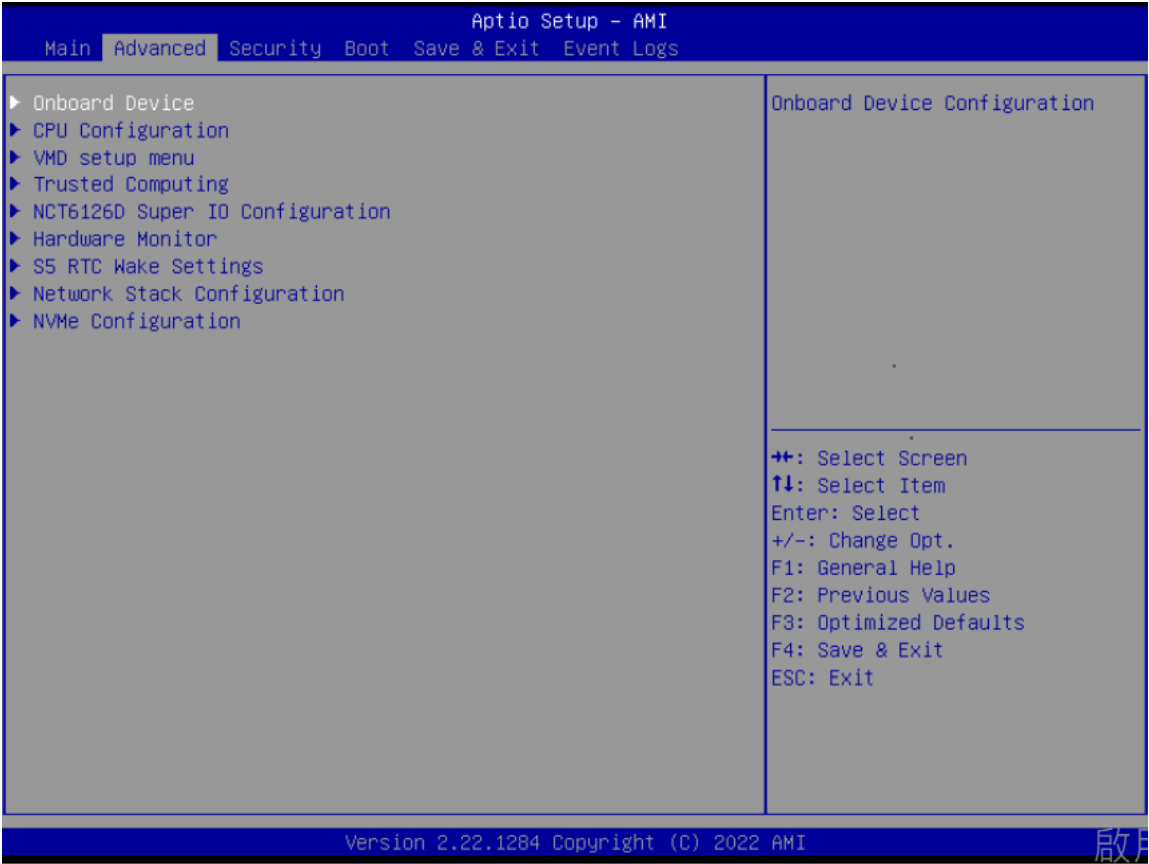


	ss : 0-59
Help	Set the Time. Use Tab to switch between Time elements.

4.4 Advanced Page

The Advanced Menu allows you to configure your system for basic operation. Some entries are defaults required by the system board, while others, if enabled, will improve the performance of your system or let you set some features according to your preference.

Setting incorrect field values may cause the system to malfunction.



Field Name	Onboard Device
Help	Onboard Device Configuration
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	CPU Configuration
Help	CPU Configuration Parameters.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	VMD setup menu
------------	----------------

Help	VMD setup menu
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Trusted Computing
Help	Trusted Computing Settings
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Super IO Configuration
Help	System Super IO Chip Parameters.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	HW Monitor
Help	Monitor hardware status
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	S5 RTC Wake Settings
Help	Enable system to wake from S5 using RTC alarm
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Network Stack Configuration
Help	Network Stack Settings.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	NVMe Configuration
Help	NVMe Device Options Settings
Comment	Press Enter when selected to go into the associated Sub-Menu.



4.4.1 Onboard Device



Field Name	Turbo Mode
Default Value	[256M]
Possible Value	128M 256M MAX
Help	Select DVMT5.0 Total Graphic Memory size used by the Internal Graphics Device.

Field Name	State After G3
Default Value	[S5 State]
Possible Value	S0 State S5 State
Help	Specify what state to go to when power is re-applied after a power failure (G3 state).

Field Name	DVMT Pre-Allocated
Default Value	[60M]
Possible Value	64M

	32M/F7 36M 40M 44M 48M 52M 56M 60M
Help	Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device.

Field Name	DVT Total Gfx Mem
Default Value	[256M]
Possible Value	128M 256M MAX
Help	Select DVMT5.0 Total Graphic Memory size used by the Internal Graphics Device.

Field Name	HD Audio
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Control Detection of the HD-Audio device. Disabled = HDA will be unconditionally disabled Enabled = HDA will be unconditionally enabled.

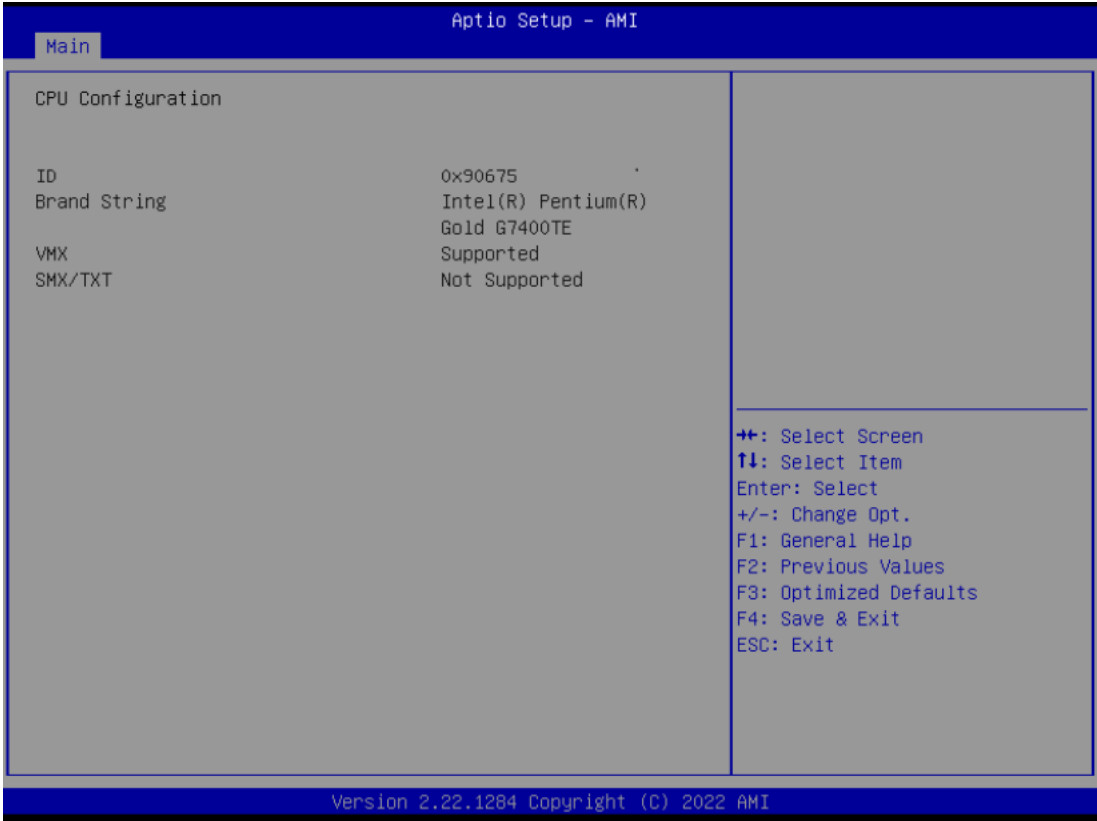
Field Name	M2 key BSIM card switch
Default Value	[M2B SIM1]
Possible Value	M2B SIM2 M2B SIM1
Help	M2 key B SIM card Switch function

Field Name	Mini Pcie SIM card switch
Default Value	[MPE SIM1_ MPE2 SIM2]
Possible Value	MPE1 SIM2_ MEP2 SIM1 MPE1 SIM1_ MEP2 SIM2



Help	Mini Pcie SIM card Switch function MPE SIM1_ MPE2 SIM2 MP1->MPE SIM1 MP2->MPE SIM2 MPE SIM2_ MPE2 SIM1 MP1->MPE SIM2 MP2->MPE SIM1
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4.4.2 CPU Configuration



Field Name	ID
Default Value	Displays CPU Signature
Comment	This field is not selectable. There is no help text associated with it.

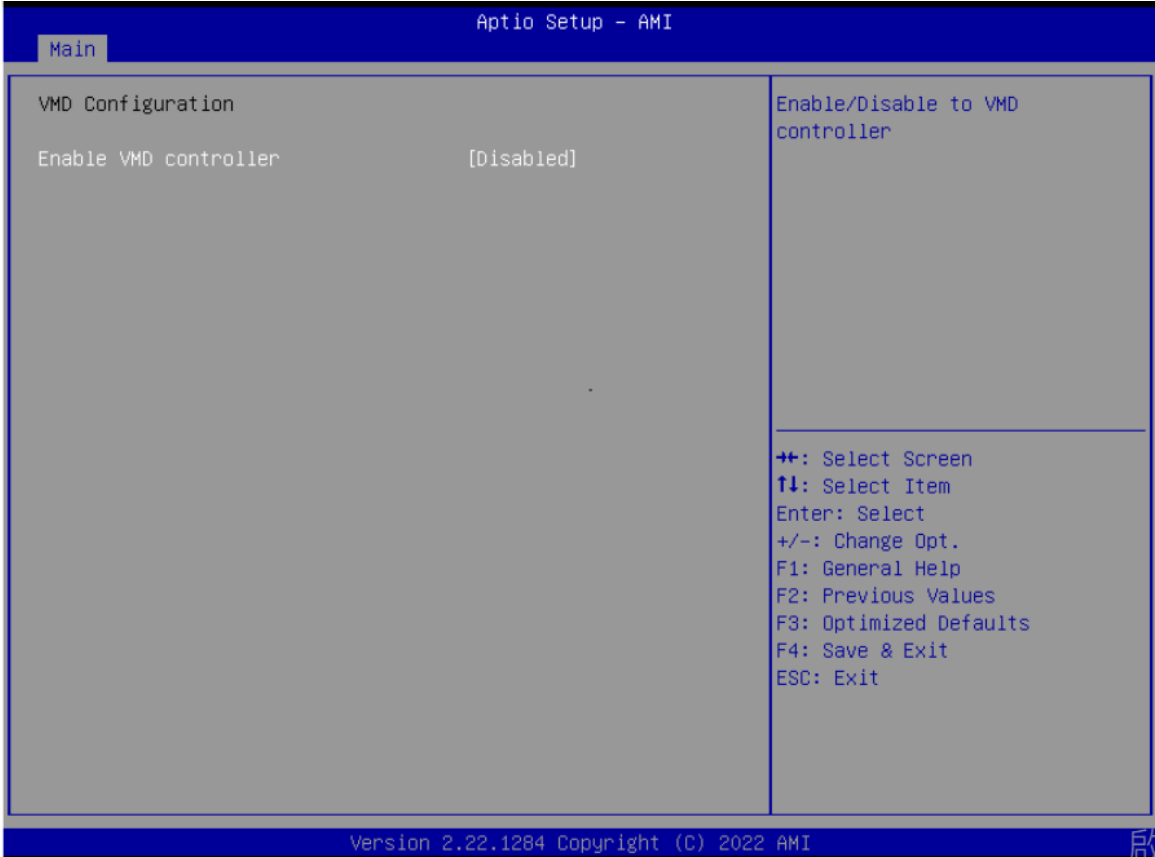
Field Name	Brand String
Default Value	Displays the CPU brand string
Comment	This field is not selectable. There is no help text associated with it.



Field Name	VXM
Default Value	L3 Cache Size
Comment	This field is not selectable. There is no help text associated with it.

Field Name	SMX/TXT
Default Value	SMX/TXT Supported or Not
Comment	This field is not selectable. There is no help text associated with it.

4.4.3 VMD Setup Menu

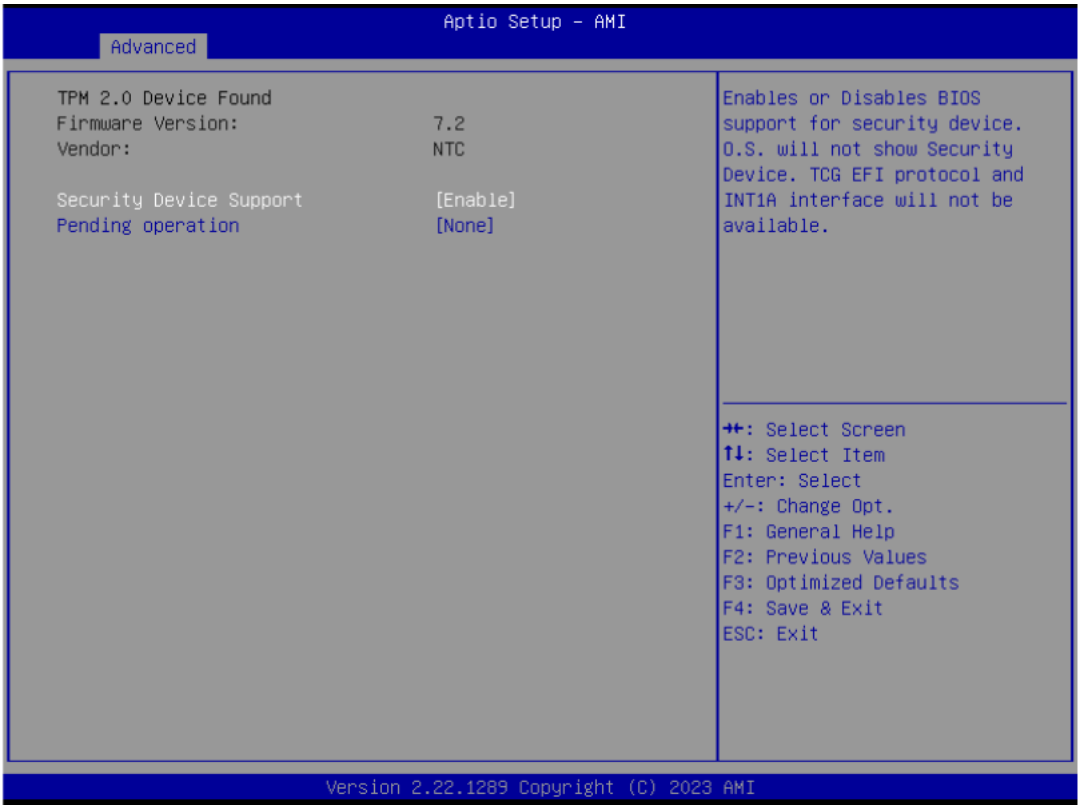


Field Name	VMD Configuration
Default Value	VMD Configuration.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Enable VMD controller
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Enable/Disable to VMD controller.



4.4.4 Trusted Computing



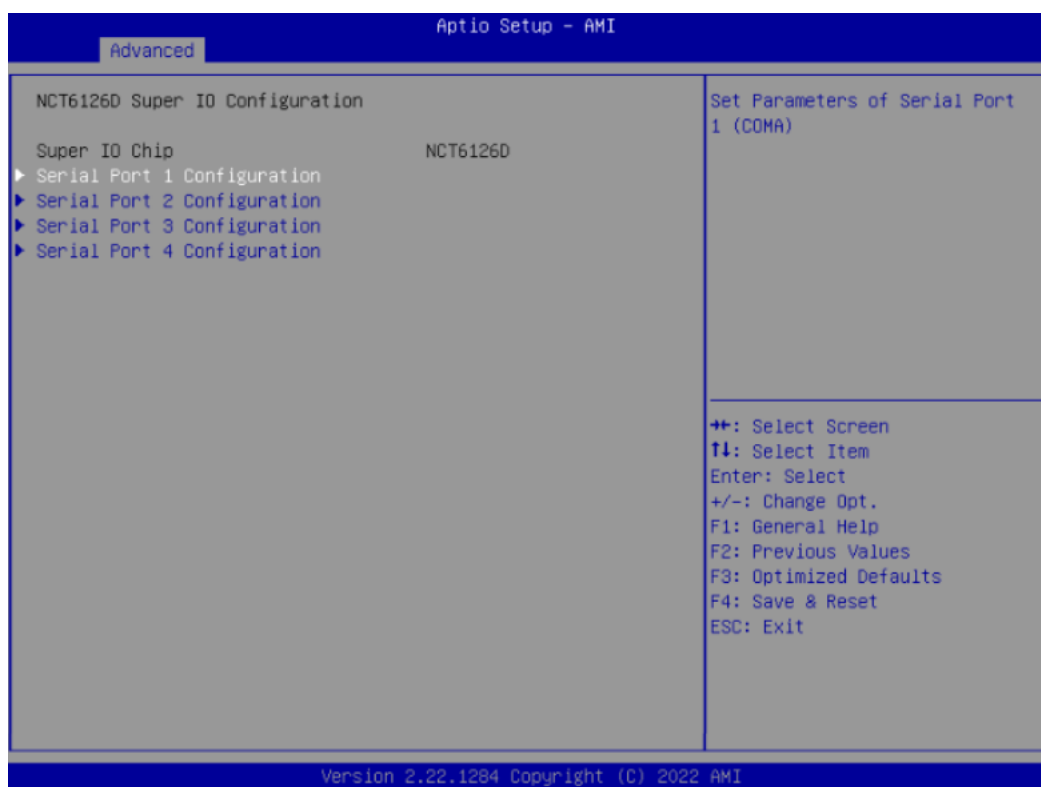
Field Name	FW Version
Default Value	TPM module version
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Vender
Default Value	TPM module version
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Security Device Support
Default Value	[Enable]
Possible Value	Enable Disable
Help	Enables or Disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available.

Field Name	Pending operation
Default Value	[None]
Possible Value	None TPM Clear
Help	Schedule an Operation for the Security Device. NOTE: Your Computer will reboot during restart in order to change State of Security Device.

4.4.5 Super IO Configuration



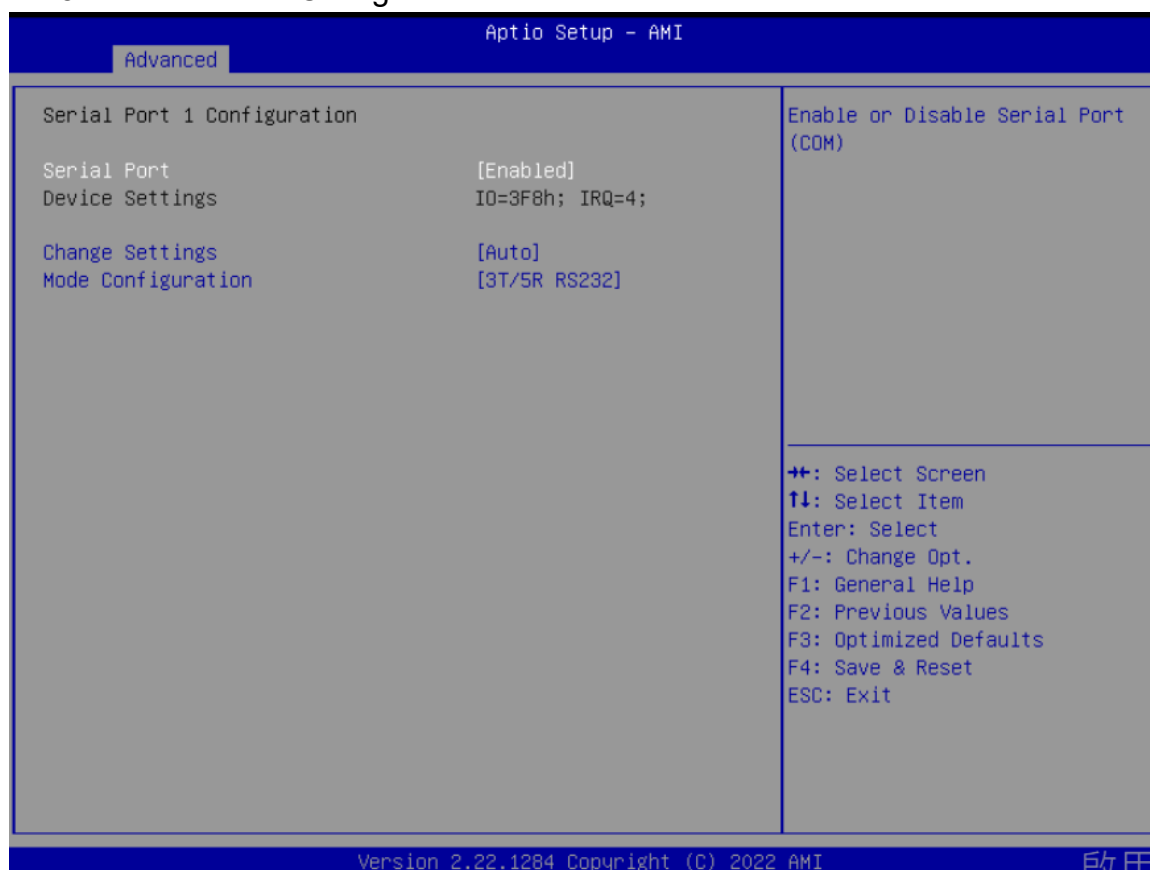
Field Name	Serial Port 1 Configuration
Help	Set Parameters of Serial Port 1 (COMA)
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Serial Port 2 Configuration
Help	Set Parameters of Serial Port 2 (COMB)
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Serial Port 3 Configuration
Help	Set Parameters of Serial Port 3 (COMC)
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Serial Port 4 Configuration
Help	Set Parameters of Serial Port 4 (COMD)
Comment	Press Enter when selected to go into the associated Sub-Menu.

4.2.5.1 Serial Port 1 Configuration



Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

Field Name	Device Settings
Default Value	Device Super IO COM1 Address and IRQ.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Change Settings
Default Value	[AUTO]

Possible Value	Auto IO=3F8h; IRQ=4; IO=3F8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2F8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

4.2.5.2 Serial Port 2 Configuration



Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

Field Name	Device Settings
Default Value	Device Super IO COM2 Address and IRQ.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Change Settings
Default Value	[AUTO]
Possible Value	Auto IO=2F8h; IRQ=3; IO=3F8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2F8h; IRQ=3,4,5,6,7,9,10,11,12; IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

4.2.5.3 Serial Port 3 Configuration



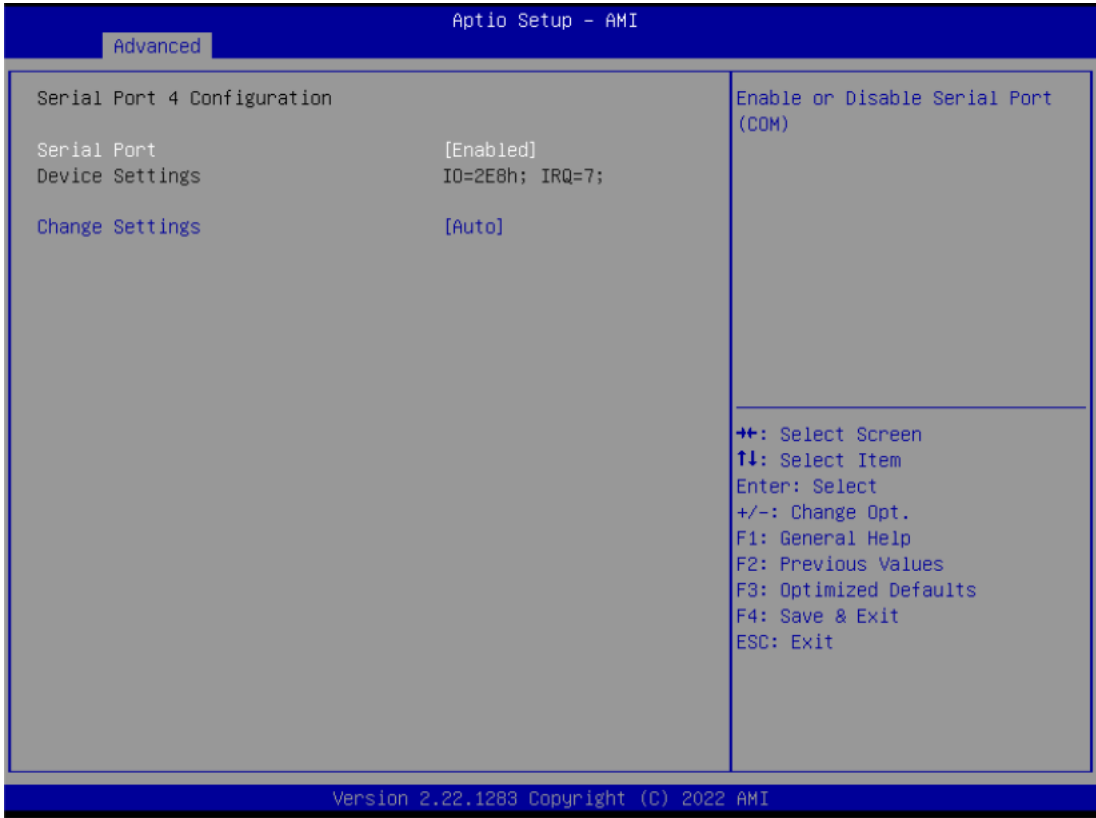
Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)



Field Name	Device Settings
Default Value	Device Super IO COM3 Address and IRQ.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Change Settings
Default Value	[AUTO]
Possible Value	Auto IO=3E8h; IRQ=7; IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=220h; IRQ=3,4,5,6,7,9,10,11,12; IO=228h; IRQ=3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

4.2.5.4 Serial Port 4 Configuration



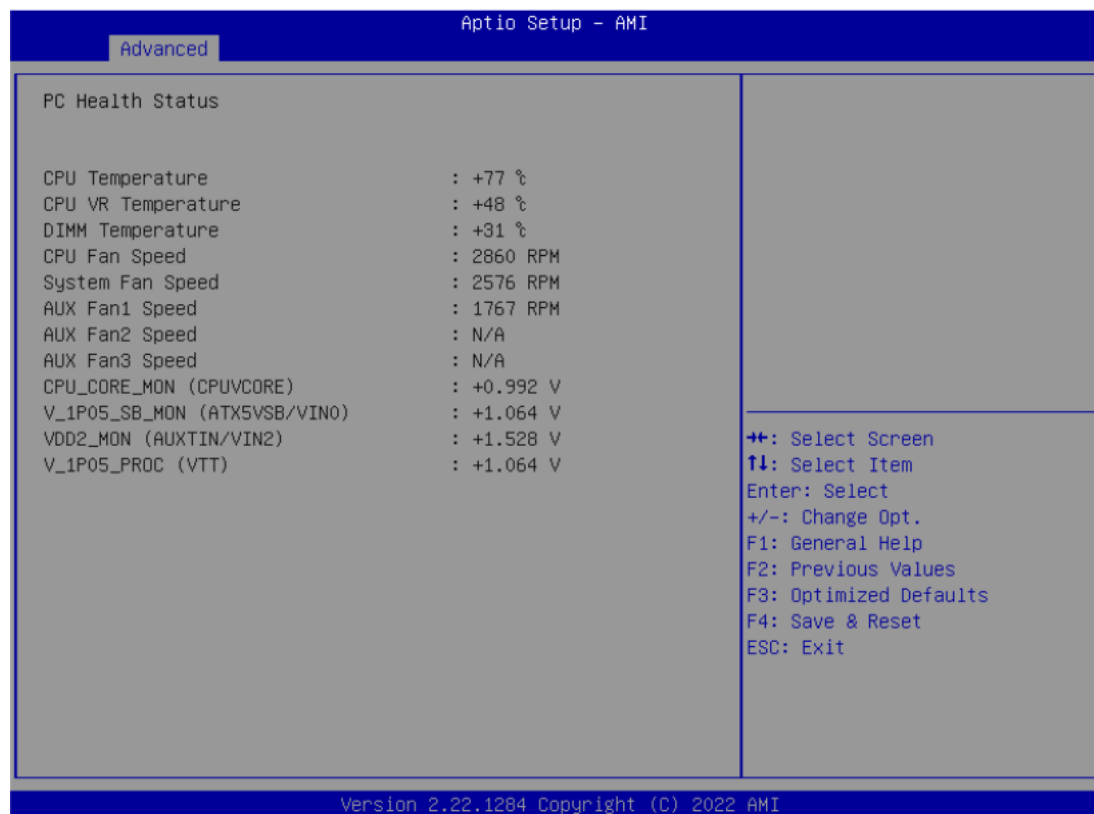
Field Name	Serial Port
Default Value	[Enabled]

Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

Field Name	Device Settings
Default Value	Device Super IO COM4 Address and IRQ.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Change Settings
Default Value	[AUTO]
Possible Value	Auto IO=2E8h; IRQ=12; IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=220h; IRQ=3,4,5,6,7,9,10,11,12; IO=228h; IRQ=3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

4.4.6 HW Monitor



Type	Range
CPU Temperature	-20 ~ (By Processor Tjmax) °C
CPU VR Temperature	-20 ~ 120 °C
DIMM Temperature	-20 ~ 120 °C
CPU Fan Speed	There are many kinds of the fan could be installed into the system, so we could only set 0 RPM for the failed fan speed, and there is also no high RPM limitation.
System Fan Speed	
AUX Fan1 Speed	
AUX Fan2 Speed	
AUX Fan3 Speed	
CPU_CORE_MON	0~1.72V
V_1P05_SB_MON	0.9975~1.1025V
VDD2_MON	1.045~1.155V
V_1P05_PROC	0.9975~1.1025V



4.4.7 S5 RTC Wake Setting



Field Name	Wake system from S5
Default Value	[Disabled]
Possible Value	Disabled Fixed Time
Help	Enable or disable System wake on alarm event, Select FixedTime, system will wake on the hr::min::sec specified.

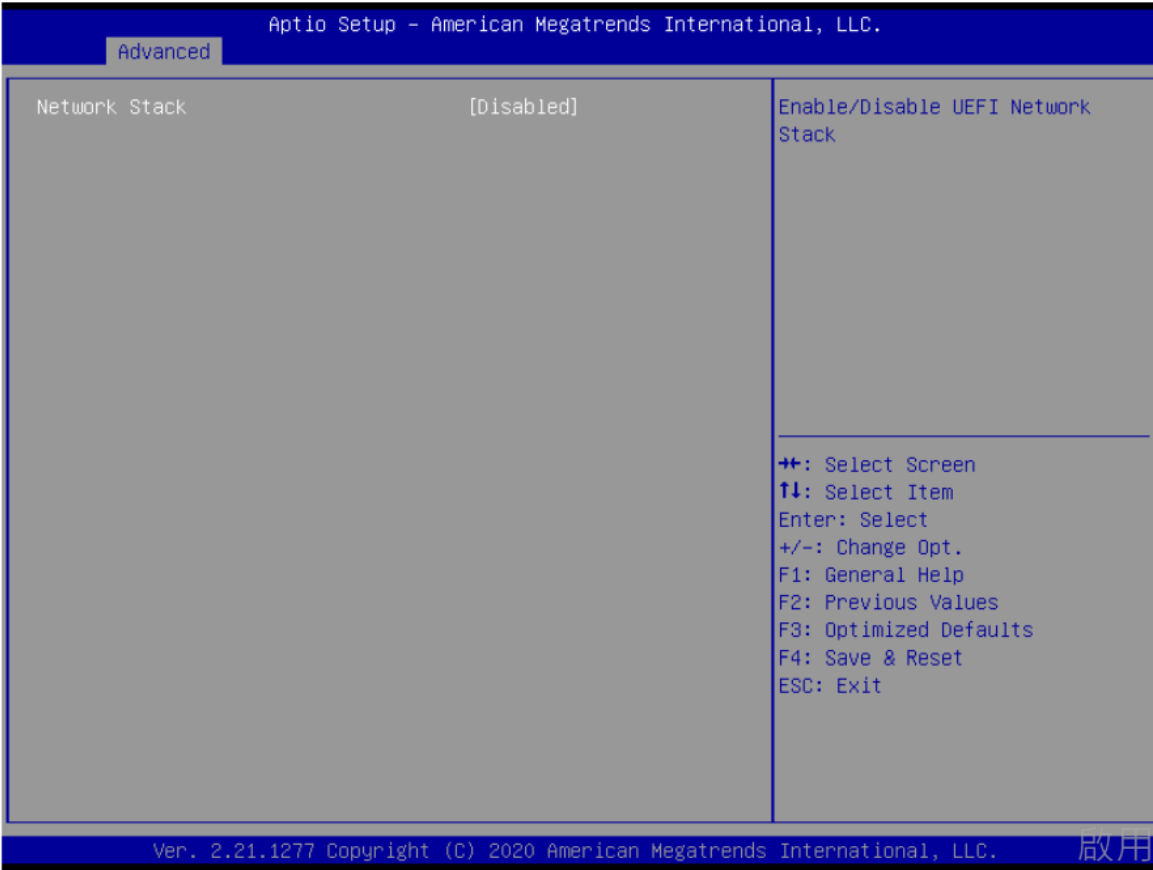
Field Name	Wake up hour(Show when Wake system from S5 set to Fixed Time)
Default Value	0
Possible Value	0-23
Help	Select 0-23 For example enter 3 for 3am and 15 for 3pm



Field Name	Wake up hour(Show when Wake system from S5 set to Fixed Time)
Default Value	0
Possible Value	0-59
Help	Select 0-59 For Minute

Field Name	Wake up hour(Show when Wake system from S5 set to Fixed Time)
Default Value	0
Possible Value	0-59
Help	Select 0-59 For Second

4.4.8 Network Stack Configuration



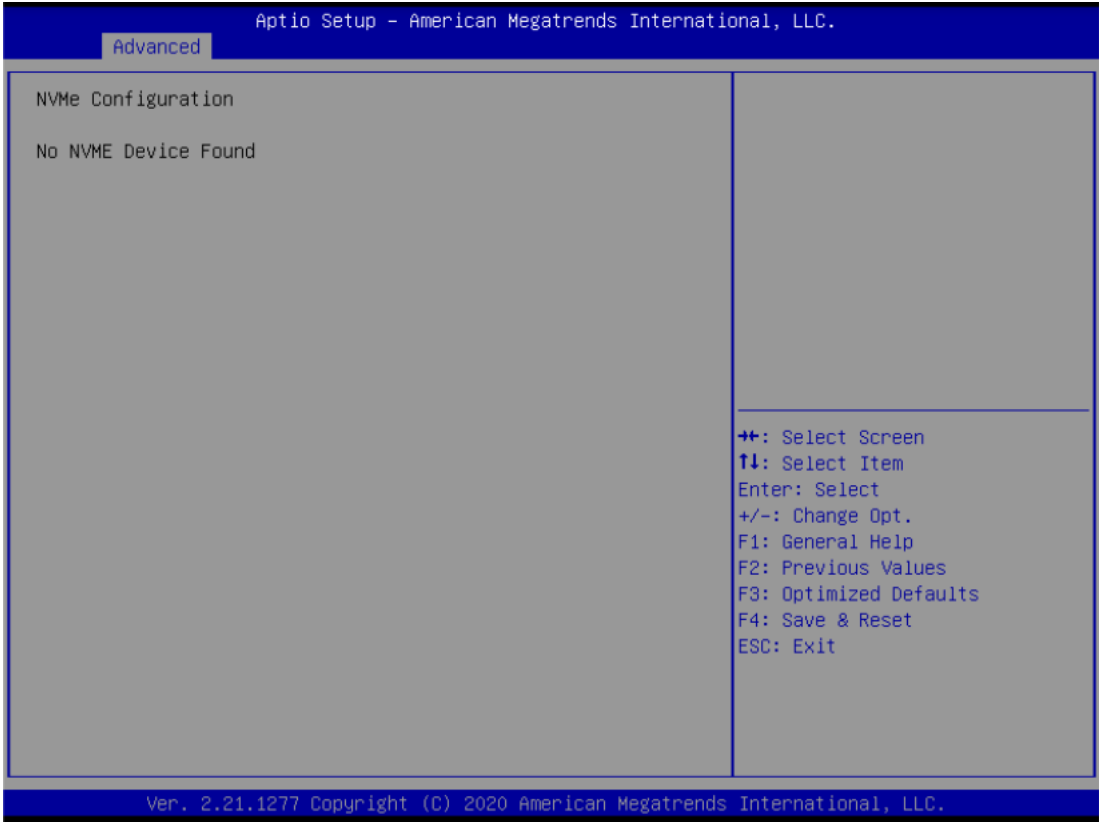
Field Name	Network stack
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enable/Disable UEFI Network stack.



Field Name	Ipv4 PXE Support (Available when Network stack Enabled)
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable Ipv4 PXE Boot Support. If disabled IPV4 PXE boot support will not be available.

Field Name	Ipv6 PXE Support (Available when Network stack Enabled)
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable Ipv6 PXE Boot Support. If disabled IPV6 PXE boot support will not be available.

4.4.9 NVMe Configuration



Field Name	(Device)
Comment	Press Enter when selected to go into the associated Sub-Menu.

4.5 Security Page



Field Name	Administrator Password
Help	Set Administrator Password

Field Name	User Password
Help	Set User Password.

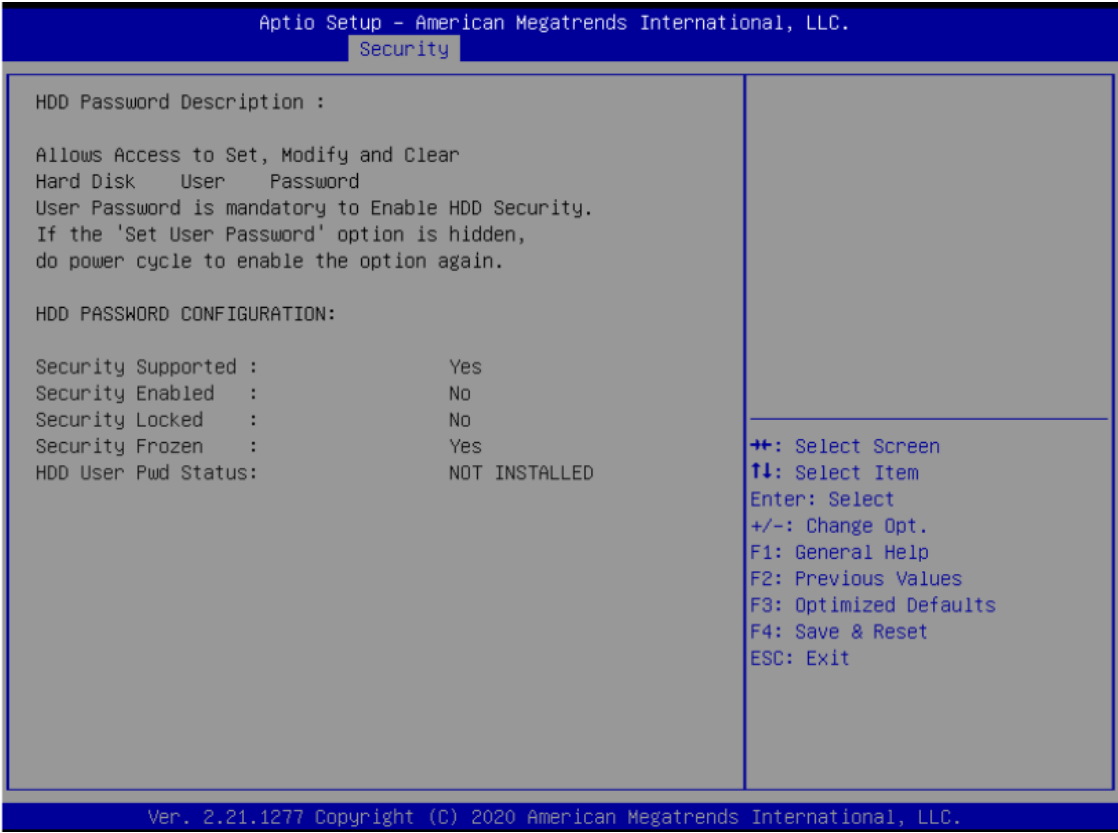
Field Name	HDD Security drive
Help	HDD Security Configuration for selected drive
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Secure Boot
Help	Set User Password.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	BIOS Update
Help	BIOS Update support
Comment	Press Enter when selected to go into the associated Sub-Menu.



4.5.1 HDD Security



Field Name	Set User Password
Help	Set HDD User Password. *** Advisable to Power Cycle System after Setting Hard Disk Passwords ***.Discard or Save changes option in setup does not have any impact on HDD when password is set or removed. If the 'Set HDD User Password' option is hidden, do power cycle to enable the option again



4.5.2 Secure Boot



Field Name	Secure Boot
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Secure Boot feature is Active if Secure Boot is Enabled,Platform Key(PK) is enrolled and the System is in User mode.The mode change requires platform reset

Field Name	Secure Boot Mode
Default Value	[Standard]
Possible Value	Standard Custom
Help	Secure Boot mode options:Standard or Custom.In Custom mode, Secure Boot Policy variables can be configured by a physically present user without full authentication

Field Name	Restore Factory Keys
Help	Force System to User Mode. Install factory default Secure Boot key

	databases
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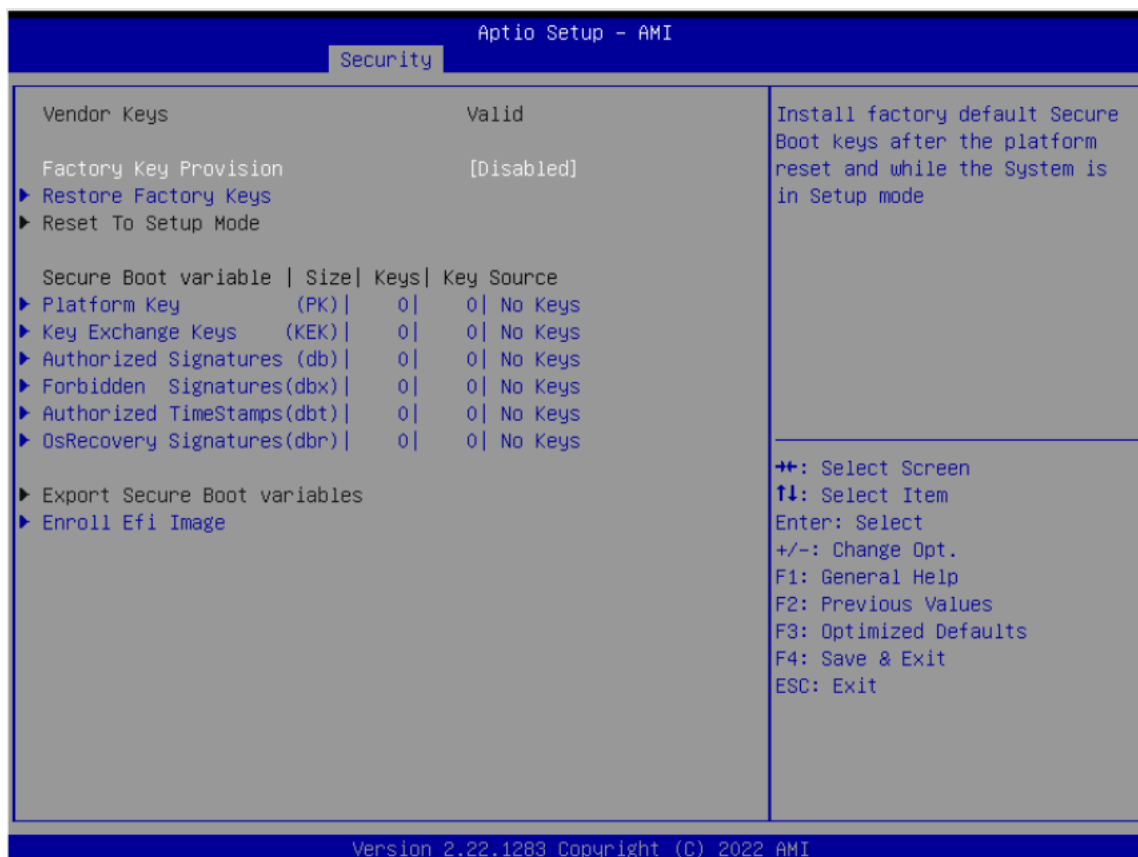
Field Name	Reset to Setup Mode
Help	Delete all Secure Boot key databases from NVRAM

Field Name	Enter Audit Mode
Help	Enter Audit Mode workflow. Transitions from User to Audit Mode will result in erasing of PK variable
Comment	Enter Audit Mode workflow. Transitions from User to Audit Mode will result in erasing of PK variable

Field Name	Enter Deployed Mode
Help	Transition between Deployment and User Modes
Comment	Transition between Deployment and User Modes

Field Name	Key Management
Help	Enables expert users to modify Secure Boot Policy variables without full authentication
Comment	Enables expert users to modify Secure Boot Policy variables without full authentication

4.5.2.1 Key Management



Field Name	Factory Key Provision
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Install factory default Secure Boot keys after the platform reset and while the System is in Setup mode

Field Name	Restore Factory Keys
Help	Force System to User Mode. Install factory default Secure Boot key databases

Field Name	Reset to Setup Mode
Help	Delete all Secure Boot key databases from NVRAM

Field Name	Platform Key (PK)
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file:

	1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
Comment	Press Enter when selected to go into the associated Sub-Menu “Key Management”.

Field Name	Key Exchange Keys
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Authorized Signatures
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source:

	Factory,External,Mixed
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Forbidden Signatures
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Authorized TimeStamps
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	OsRecovery Signatures
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER)

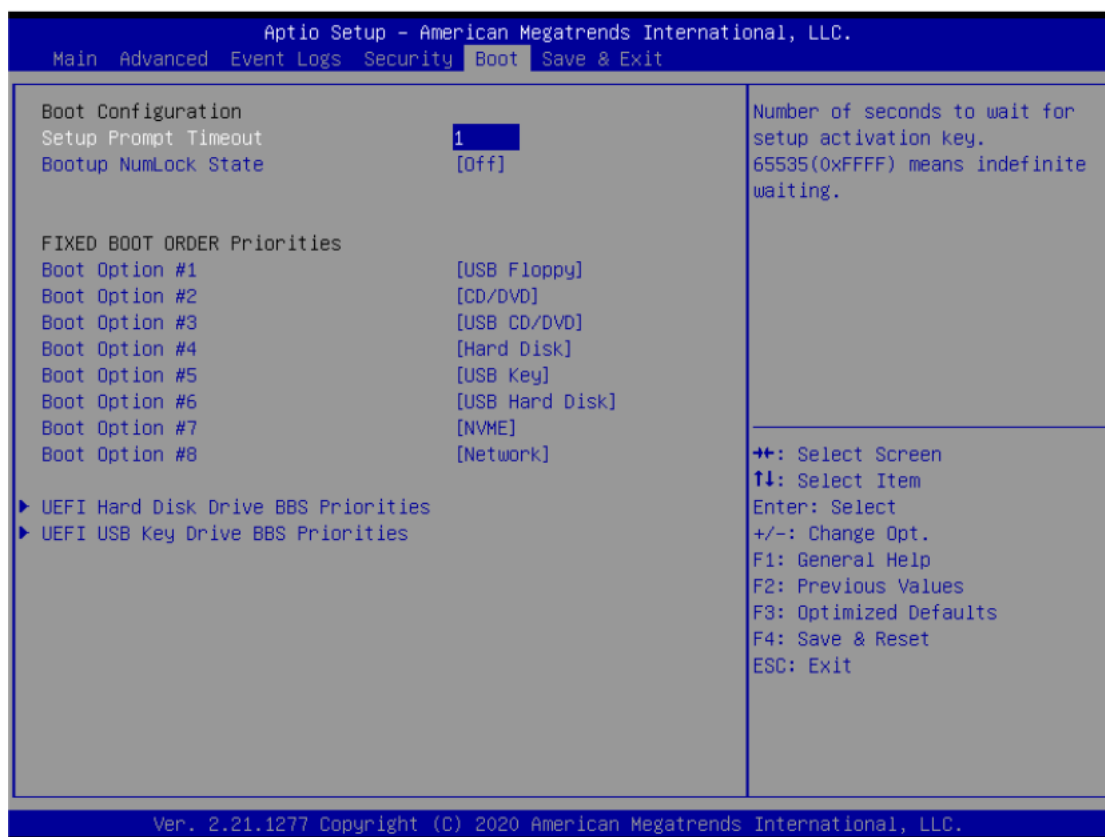


	c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Export Secure Boot variables
Help	Copy NVRAM content of Secure Boot variables to files in a root folder on a file system device

Field Name	Enroll Efi Image
Help	Allow the image to run in Secure Boot mode. Enroll SHA256 Hash certificate of a PE image into Authorized Signature Database (db)

4.6 Boot Page



Field Name	Setup Prompt Timeout
Default Value	1
Possible Value	1~65535
Comment	Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.

Field Name	Bootup NumLock State
Default Value	[Off]
Possible Value	On Off
Comment	Select the keyboard NumLock state

Field Name	Boot Option #1
Default Value	[USB Floppy]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , NVME, Network, Disabled
Comment	Sets the system boot order

Field Name	Boot Option #2
Default Value	[CD/DVD]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , NVME, Network, Disabled
Comment	Sets the system boot order

Field Name	Boot Option #3
Default Value	[USB CD/DVD]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , NVME, Network, Disabled
Comment	Sets the system boot order

Field Name	Boot Option #4
Default Value	[Hard Disk]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , NVME, Network, Disabled
Comment	Sets the system boot order

Field Name	Boot Option #5
Default Value	[USB Key]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , NVME, Network, Disabled
Comment	Sets the system boot order

Field Name	Boot Option #6
Default Value	[USB Hard Disk]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , NVME, Network, Disabled
Comment	Sets the system boot order

Field Name	Boot Option #7
Default Value	[NVME]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , NVME, Network, Disabled
Comment	Sets the system boot order

Field Name	Boot Option #8
Default Value	[Network]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , NVME, Network, Disabled
Comment	Sets the system boot order

Field Name	(UEFI) USB Floppy Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available USB Floppy Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	(UEFI) CDROM/DVD ROM Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available USB CDROM/DVD Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	(UEFI) USB CDROM/DVD ROM Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available USB CDROM/DVD Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	(UEFI) Hard Disk Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available Hard Disk Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

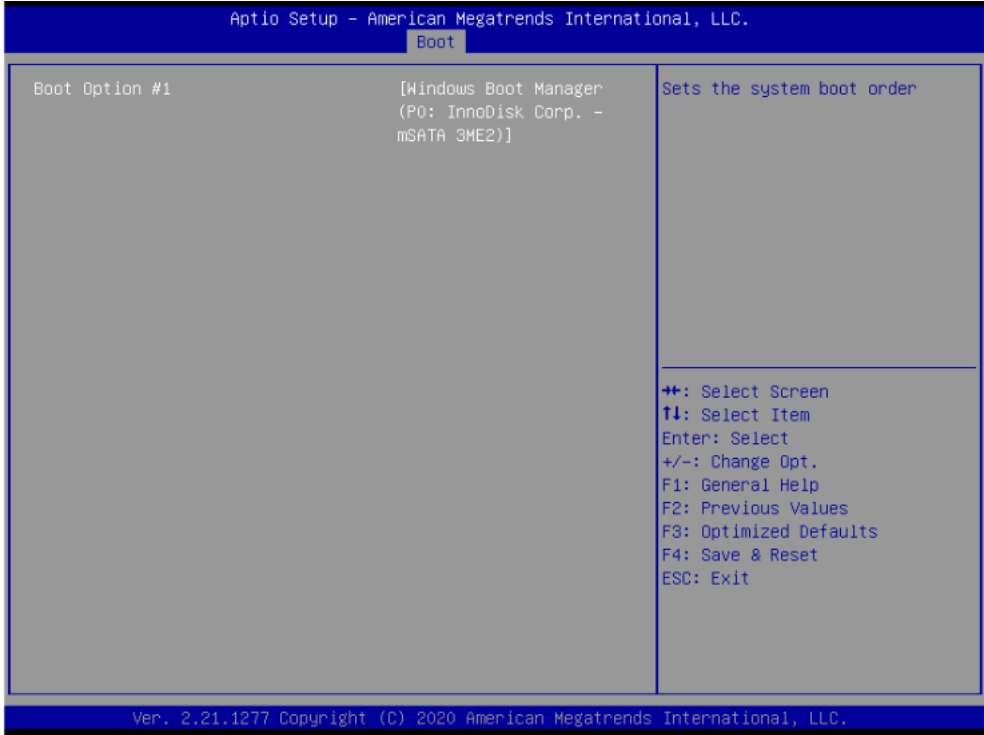
Field Name	(UEFI) USB KEY Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available Hard Disk Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.
Field Name	(UEFI) USB Hard Disk Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available Hard Disk Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	(UEFI) NETWORK Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available Hard Disk



	Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

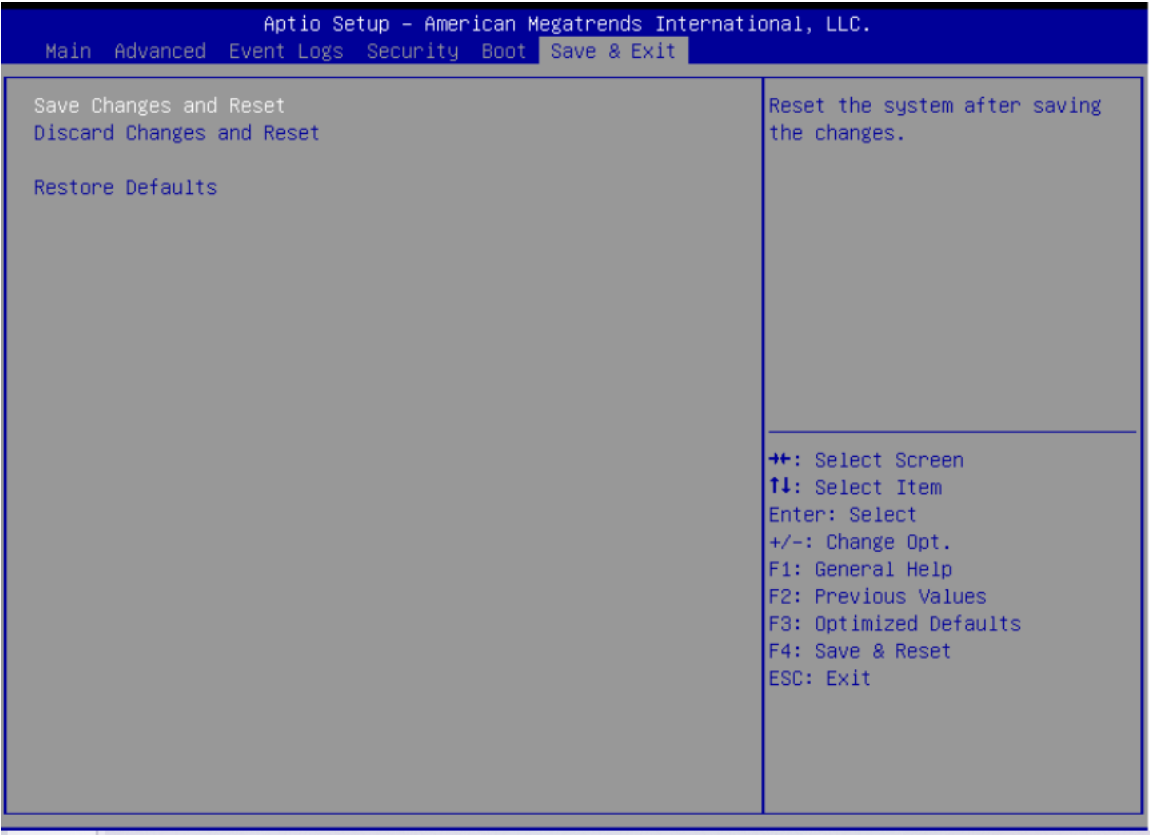
4.6.1 (List Boot Device Type) Drive BBS Priorities



Field Name	Boot Option #1
Default Value	
Possible Value	Boot Device Name 1 of this type
Help	Sets the system boot order



4.7 Save & Exit Page



Field Name	Discard Changes and Exit
Help	Exit system setup without saving any changes.

Field Name	Save Changes and Reset
Help	Reset the system after saving the changes.

Field Name	Restore Defaults
Help	Restore/Load Default values for all the setup options.



4.8 Event Logs



Field Name	Change Smbios Event Log Settings
Help	Press <Enter> to change the Smbios Event Log configuration.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	View Smbios Event Log
Help	Press <Enter> to change the Smbios Event Log configuration.
Comment	Press Enter when selected to go into the associated Sub-Menu.

4.8.1 Change Smbios Event Log Settings



Field Name	Smbios Event Log
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Change this to enable or disable all feature of Smbios Event Logging during boot.

Field Name	Erase Event Log
Default Value	[No]
Possible Value	No / Yes, Next reset / Yes, Every reset
Help	Choose options for erasing Smbios Event Log. Erasing is done prior to any logging activation during reset.

Field Name	When Log is Full
Default Value	[Do Nothing]
Possible Value	Do Nothing Erase Immediately
Help	Choose options for reactions to a full Smbios Event Log.

4.8.2 View Smbios Event Log



Field Name	DATE / TIME / ERROR CODE / SEVERITY / COUNT
Default Value	MM/DD/YY HH:MM:SS Smbios 0x16 N/A N/A
Possible Value	By Events.
Help	By Events.