THOR100-X4

MIL-STD-810 Military Computer 1U 1/2 Size Intel Xeon E-2276ML processor, MIL-STD-461 EMI 18-36V DC-In

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

Revision History

Revision	Date (yyyy/mm/dd)	Changes
Version 1.0	2022/03/21	Initial release

Packing list

- **THOR100-X4 1U 1/2 Rugged Military System**
- **CD (Driver + Quick Installation Guide)**

Ordering information

Model Number	[Scription]
THOR100X4-D10	MIL-STD Fanless Rugged Computer with Intel® 9th Gen Xeon® E-2276ML, IP65, with 10 MIL-DTL-D38999 Connectors, Operating Temp. -40 to 70°C
THOR100X4-D9	MIL-STD Fanless Rugged Computer with Intel® 9th Gen Intel® Core i7-9850HL, IP65, with 10 MIL-DTL-D38999 Connectors, Operating Temp. -40 to 70°C

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

Table Contents

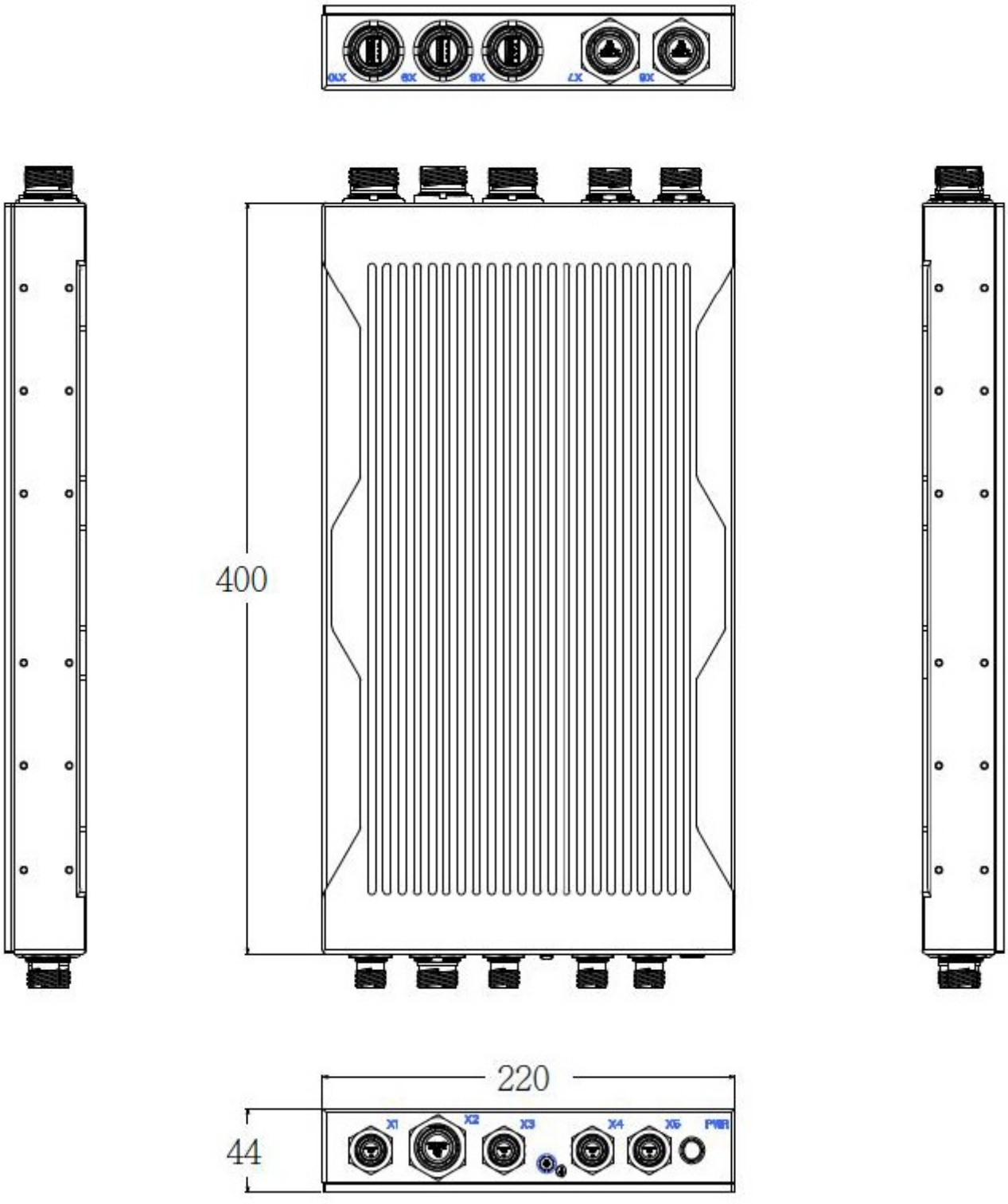
Chapter 1: Product Introduction

- **Key Features**

System	
CPU	Intel® 9th Gen. XEON E-2276ML Processor (12M Cache, Base Frequency 20GHz; Max Turbo Frequency 4.2GHz)
Memory Type	4 x DDR4 2666MHz up to 128GB
Processor Graphics	Intel® UHD Graphics P630
BIOS	AMI® BIOS
Storage Device	1x M.2 2280 NVMe up to 2TB
Digital Input/Output	8 bit digital I/O, split into 2 groups of 4. Programmable I/O
Front I/O	
DC In	1 x Amphenol TV06RW-09-98P
DIO	1 x 3 DIO Mic-In/Line Out Amphenol TV07RW-13-35SD
LAN	1 x Amphenol TV07RW-09-09S
LAN	1 x Amphenol TV07RW-09-09S
LAN	1 x Amphenol TV07RW-09-09S
Power Button with LED backlight	
Rear I/O	
DVI	1 x Amphenol TV07RW-13-35S
DVI	1 x Amphenol TV07RW-13-35S
USB 3.0	1 x Amphenol USB3FTV7AZNF312
USB 3.0	1 x Amphenol USB3FTV7AZNF312
USB 3.0	1 x Amphenol USB3FTV7AZNF312
Applications	
Applications	1U Half Size Rugged Mission MIL-STD 810 Computer is built to meet strict size, weight, and power (SWaP) requirements and to withstand harsh environments, including temperature extremes, shock/vibe, sand/dust, and salt/fog.
Operation System	
OS Support	Windows 10 64bit, Windows server 2019 64bit, Windows 2016 64bit, Hyper-V Server 2016 R2, Ubuntu 16.04.3 LTS/17.10/18.04.1 LTS, Fedora 25/26, RedHat Linux EL 6.8/6.9/7.3/7.4/7.6, VMware ESXi6.5u1, VMware ESXi6.7u2
Mechanical & Environment	
Chassis	Aluminum Alloy, Corrosion design
Finish	Anodic aluminum oxide
Cooling	Natural Passive Convection/Conduction. No Moving Parts
Ingress Protection	IP65
Power Requirements	MIL-STD-461 EMI Power Supply, 18-36V DC In
Dimension (W x D x H)	220 x 400 x 44mm (8.6" x 15.7" x 1.7")
Operating Temp.	-40 to 70°C
Storage Temp.	-40 to 85°C
Relative Humidity	5% to 95%, non-condensing

* Specifications are subject to change without notice*

- **Dimensions**



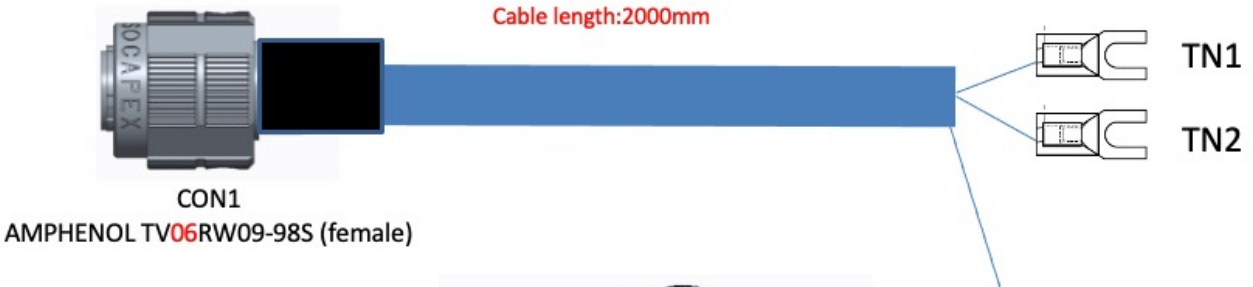
- **Panel Component**

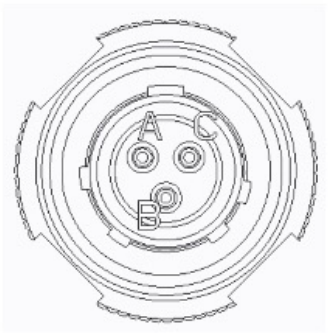
1	DC In label (X1)
2	DIO, label (X2)
3	LAN, label (X3)
4	LAN, label (X4)
5	LAN, label (X5)
6	DVI, label (X6)
7	DVI, label (X7)
8	USB 3.0, label (X8)
9	USB 3.0, label (X9)
10	USB 3.0, label (X10)

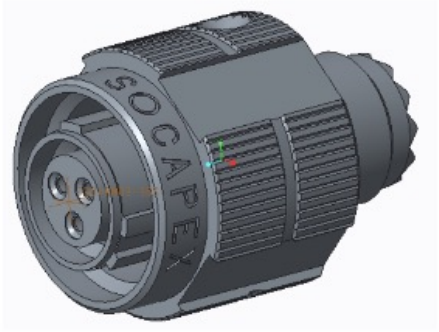
Chapter 2: Jumpers and Connectors Locations

- **D38999 Connector Pin Definitions**

X1:DC-In

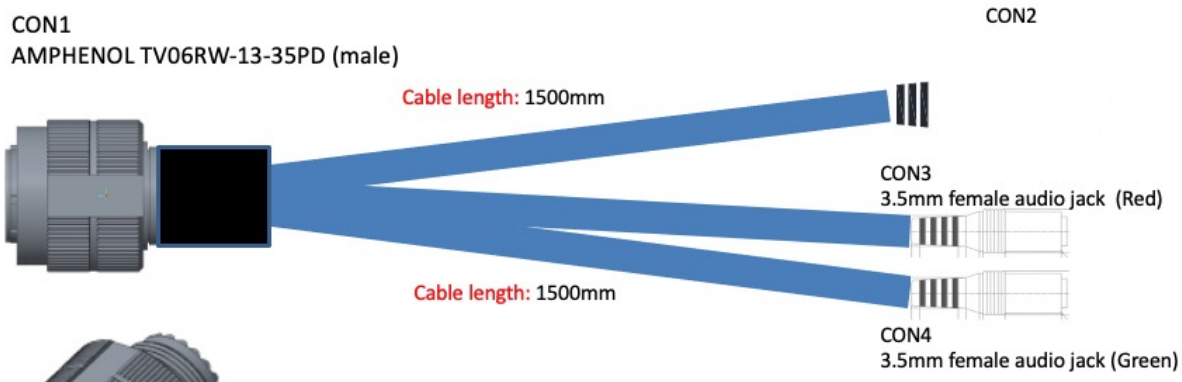


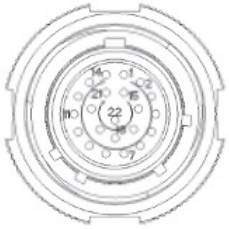




CON1	
A	TN1(DC+)
B	TN2(DC-)
Shell	O Plug

X2: DIO



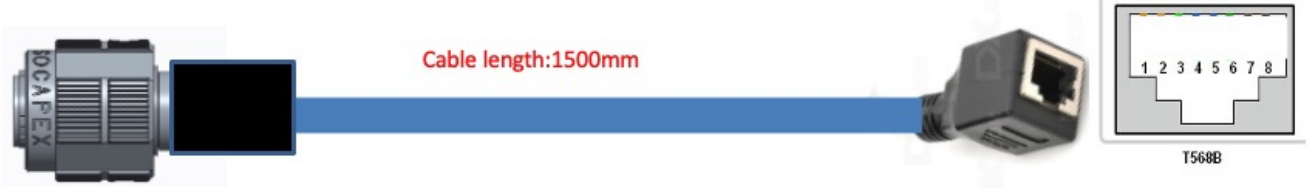


CON1	CON2		CON1	CON3	CON4	
1	1	DIO0	11	GND	GND	AUDIO_GND
2	2	DIO1	12			
3	3	DIO2	13	MIC Right		MIC_R
4	4	DIO3				
5	5	DIO4	14	MIC Left		MIC_L
6	6	DIO5				
7	7	DIO6	15			
8	8	DIO7	16		Right Audio	AUD_R
9	9	DIO_3.3V				
10	10	DIO_GND	17		Left Audio	AUD_L

X3, X4, X5: LAN

CON1
AMPHENOL TV06RW-9-09P (male)

CON2
RJ45 female socket

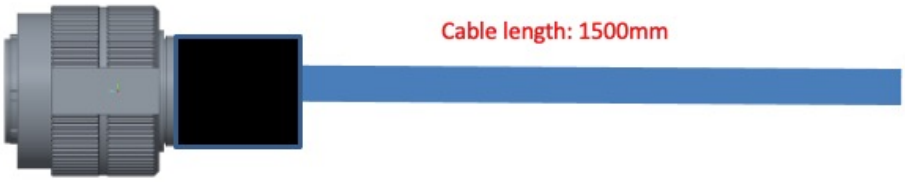


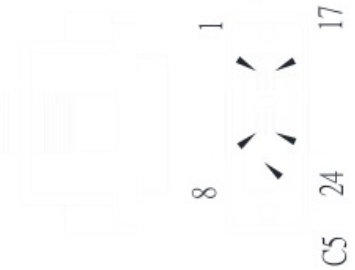
	CON1	CON2	
	1	1	WHITE / ORANGE
	2	2	ORANG
	3	3	WHITE / GREEN
	4	4	BLUE
	5	5	WHITE / BLUE
	6	6	GREEN
	7	7	WHITE / BROWN
	8	8	BROWN
	Shell	Shell	

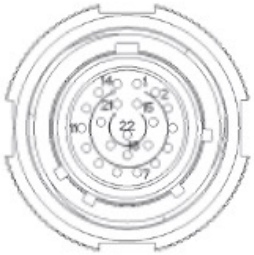
X6, X7 DVI

CON1
AMPHENOL TV06RW-13-35P (male)

CON2
DVI CONNECTOR (male)





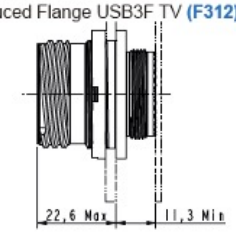
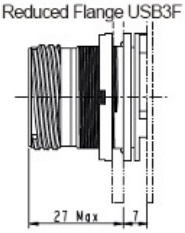
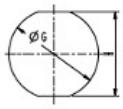


CON1	CON2			CON1	CON2	
1	1	DPA_TN0		14	18	DPA_TP2
2	2	DPA_TP0		15	19	GND
3	3	GND		16	22	CLOCK Shield
4	6	DPA_AUXP_CLK(p)		17	23	DPA_TP3
5	7	DPA_AUXP_CLK(n)		18	24	DPA_TN3
6		GND		19	shell	GND
7	9	DPA_TN1		20		
8	10	DPA_TP1		21		
9	11	GND		22		
10	14	DPA_PWR		23		
11	15	Return GND		24		
12	16	DPA_DET		C5		
13	17	DPA_TN2		SHELL		

X8, X9, X10 USB 3.0

CON1

AMPHENOL USB3FTV7AZNF312 (Female)

Product	Length (mm)		Footprint (mm)	Panel dimension
Reduced Flange USB3F TV	Reduced Flange USB3F TV **(F312)**	Stand off Reduced Flange USB3F TV **(F059)**	Reduced Flange USB3F TV	Reduced Flange USB3F TV
				

Pin assignments:

USB 3.0 Standard A front coupling side connector				USB 3.0 Standard A back side connector		
Pin number	Signal name	Description	Sequence	Pin number	Signal name	
1	VBUS	Power	Second	1	VBUS	
2	D-	USB 2.0 differential pair	Third	2	D-	
3	D+			3	D+	
4	GND	Ground for power return	Second	4	GND	
5	StdA_SSRX-	Superspeed receiver differential pair	Last	8	StdB_SSTX-	←
6	StdA_SSRX+			9	StdB_SSTX+	←
7	GND_DRAIN	Ground for signal return		7	GND_DRAIN	Always crossed
8	StdA_SSTX-	Superspeed transmitter differential pair		5	StdB_SSRX-	←
9	StdA_SSTX+			6	StdB_SSRX+	←
Shell	Shield	Connector metal shell	First	Shell	Shield	

3: 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.

3.1 Starting

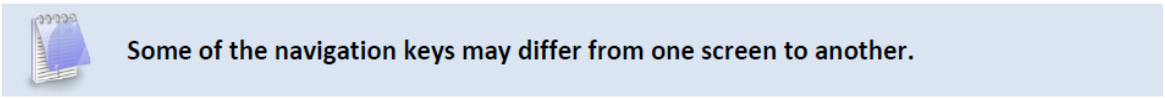
To enter the setup screens, perform the following steps:

- Turn on the computer and press the <Del> key immediately.
- After the <Del> 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.

3.2 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.

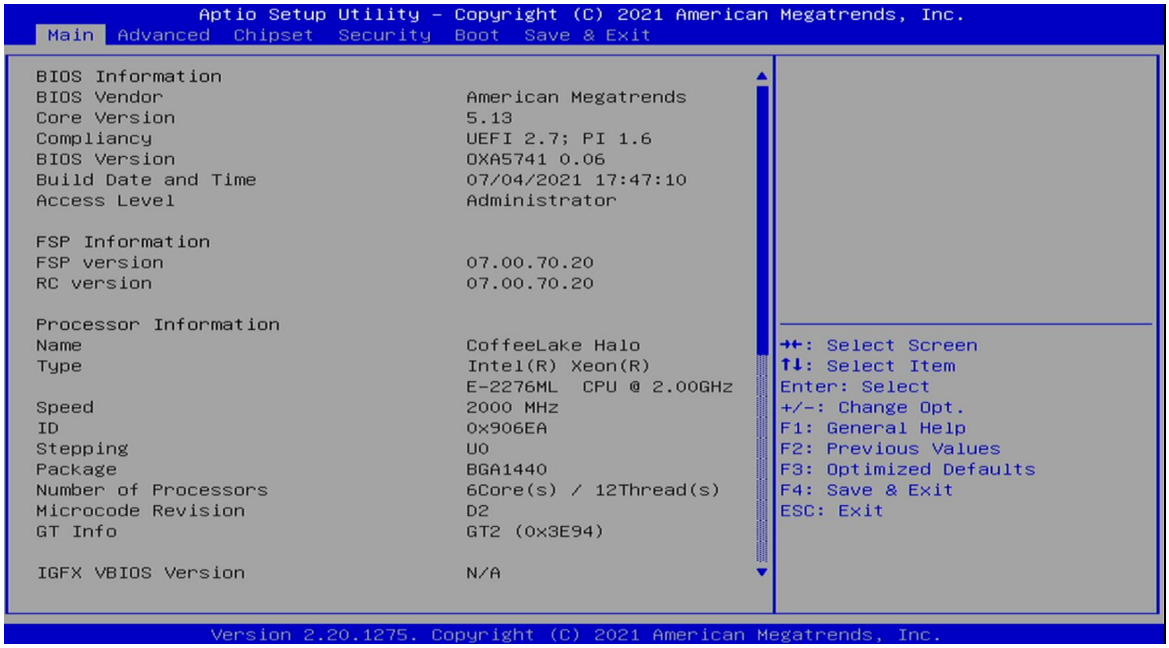


Left/Right	The Left and Right <Arrow> keys moves the cursor to select a menu.
Up/Down	The Up and Down <Arrow> keys moves the cursor to select a setup screen or sub-screen.
+− Plus/Minus	The Plus and Minus <Arrow> keys changes the field value of a particular setup setting.
Tab	The <Tab> key selects the 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.

3.3 Main Menu

The Main menu is the screen that first displays when BIOS Setup is entered, unless an error has occurred.

When you first enter the BIOS Setup Utility, you will encounter the Main setup screen. You can always return to the Main setup screen by selecting the Main tab. There are two Main Setup options. They are described in this section. The Main BIOS Setup screen is shown below.



The Main BIOS setup screen has two main frames. The left frame displays all the options that can be configured. Grayed-out options cannot be configured; options in blue can. The right frame displays the key legend. Above the key legend is an area reserved for a text message. When an option is selected in the left frame, it is highlighted in white. Often a text message will accompany it.

- **System Date**

Use this function to change the system date.

Select System Date using the Up and Down <Arrow> keys. Enter the new values through the keyboard. Press the Left and Right <Arrow> keys to move between fields.
The date setting must be entered in MM/DD/YY format.

- **System Time**

Use this function to change the system time.
Select System Time using the Up and Down <Arrow> keys. Enter the new values through the keyboard. Press the Left and Right <Arrow> keys to move between idles.
The time setting is entered in HH:MM:SS format.

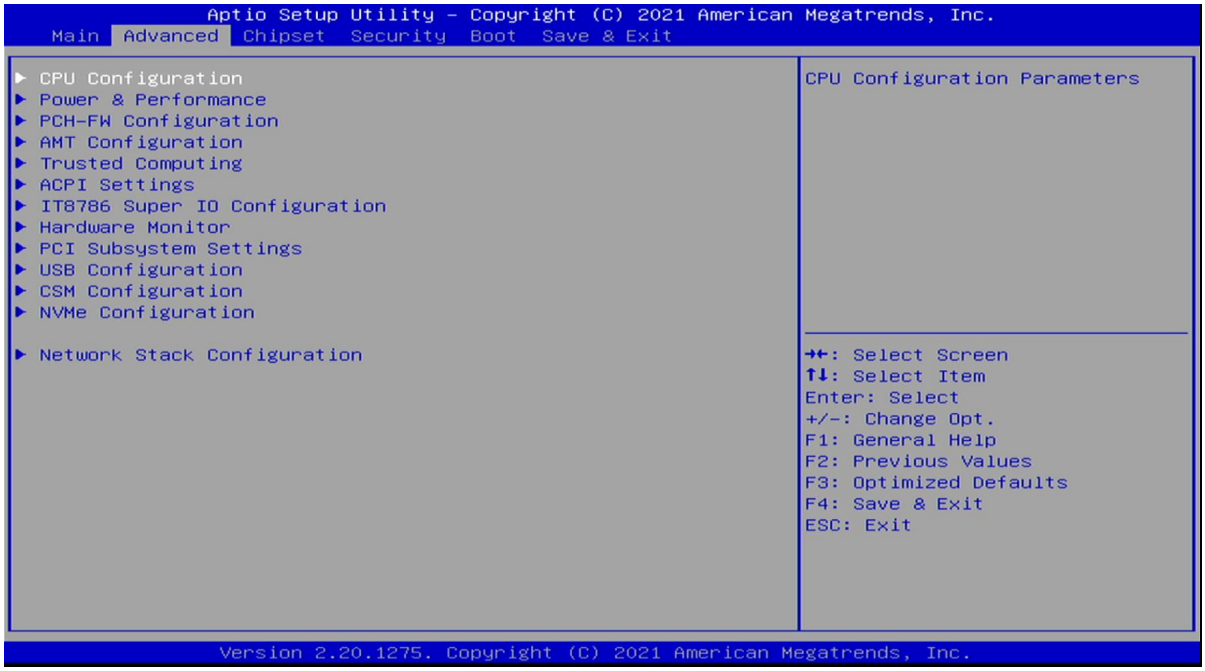
Note: The time is in 24-hour format. For example, 5:30 A.M. appears as 05:30:00, and 5:30 P.M. as 17:30:00.

- **Access Level**

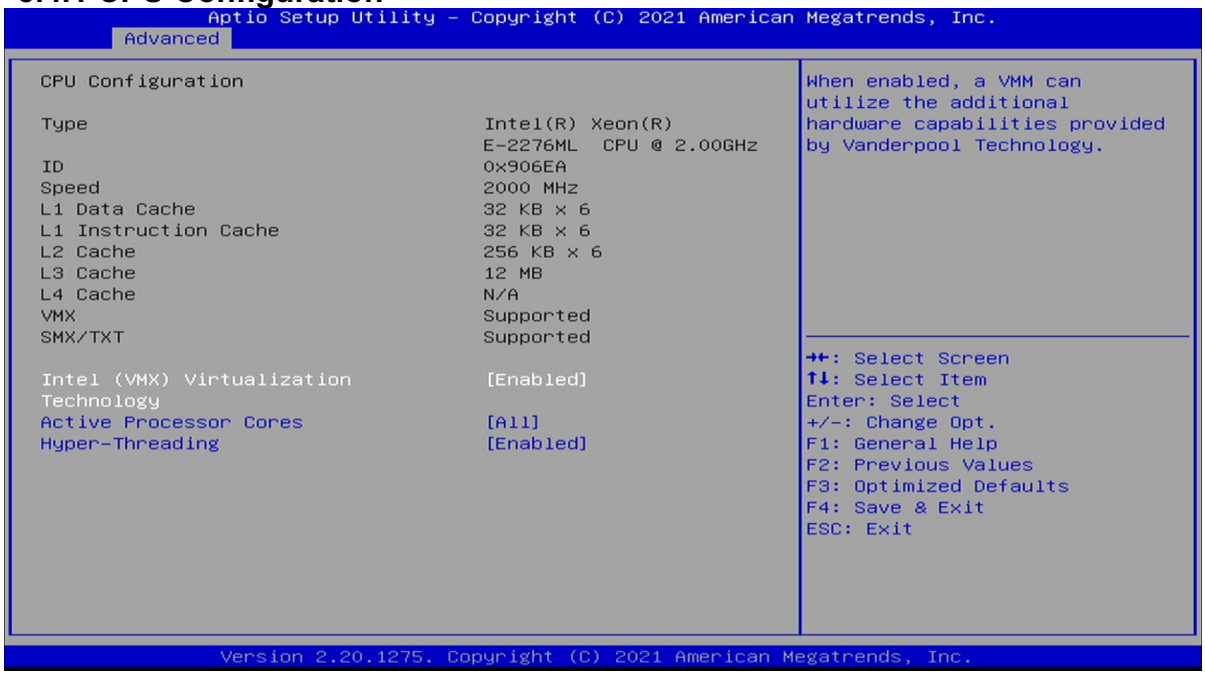
Display the access level of the current user in the BIOS.

3.4 Advanced Menu

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.**



3.4.1 CPU Configuration

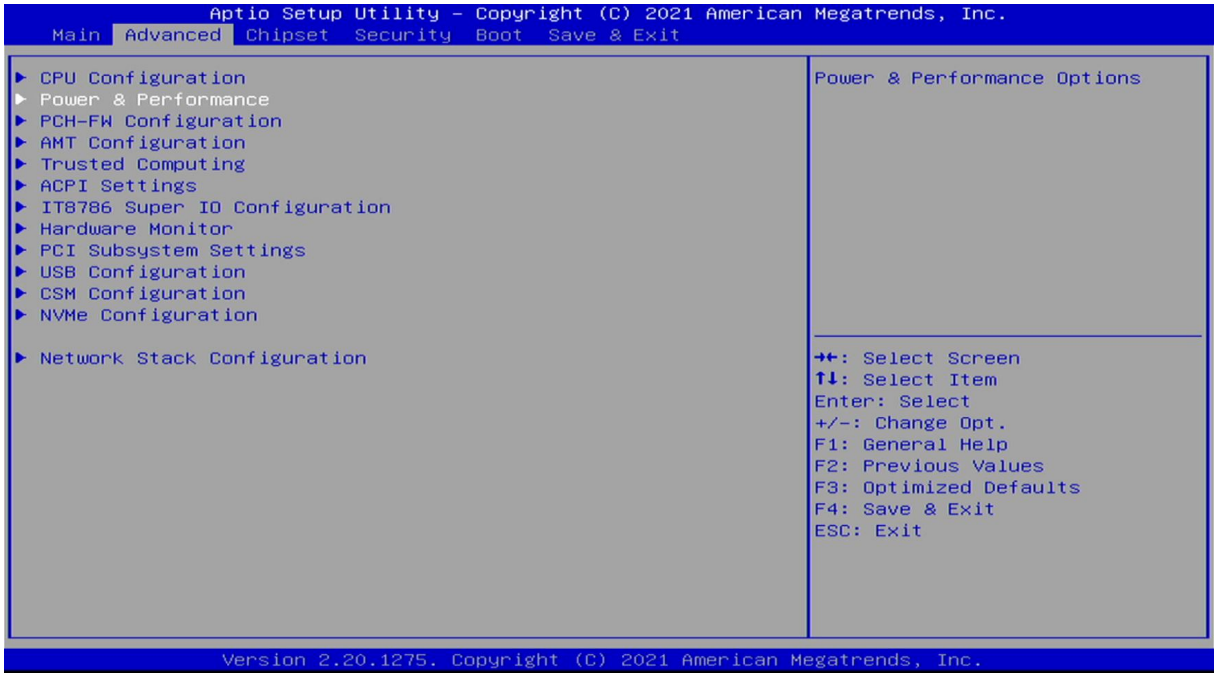


Field Name	**Intel (VMX) Virtualization Technology**
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	**Active Processor Cores**
Default Value	[A11]
Possible Value	A11 1 2 3 4 5

Field Name	Hyper-Threading
Default Value	[Enabled]
Possible Value	Disabled Enabled

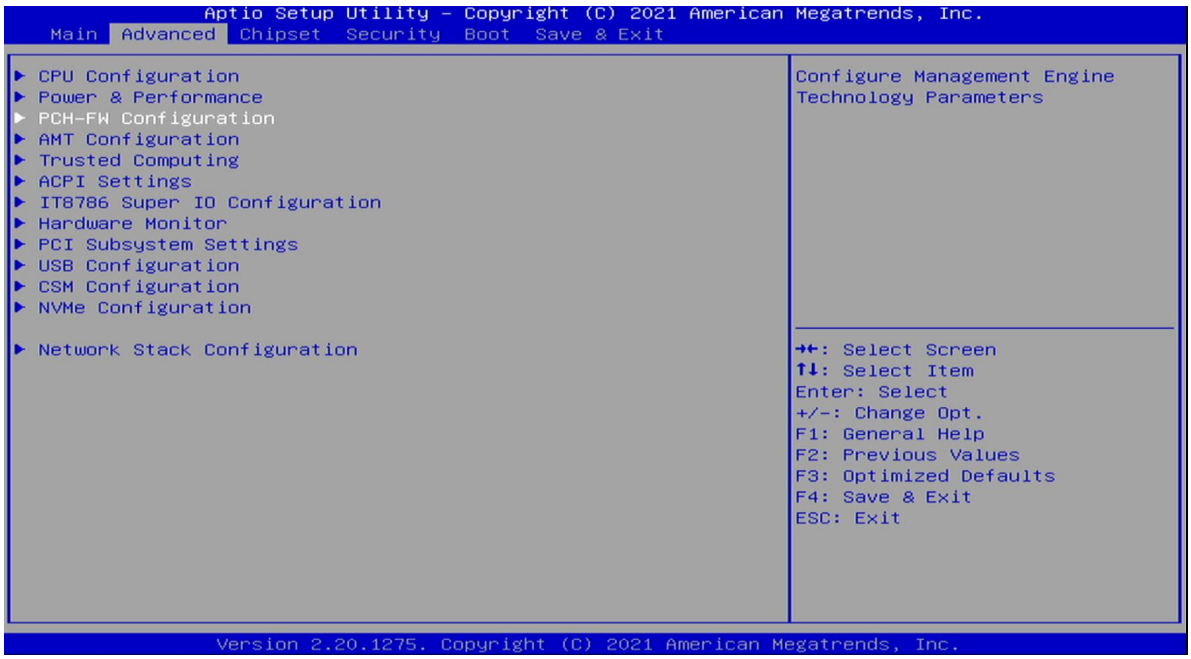
3.4.2 Power & Performance



Field Name	Intel (R) SpeedStep(tm)
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	Turbo Mode
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	C states
Default Value	[Disabled]
Possible Value	Disabled Enabled

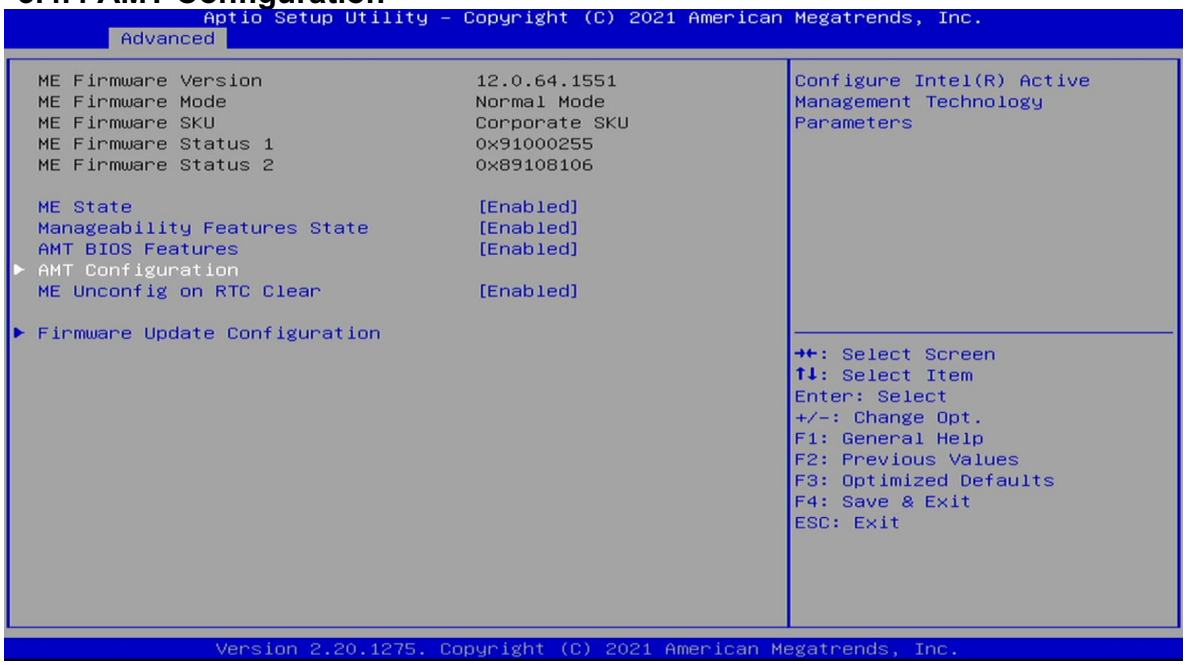


Field Name	ME State
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	Manageability Features State
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	AMT BIOS Features
Default Value	[Enabled]
Possible Value	Disabled Enabled

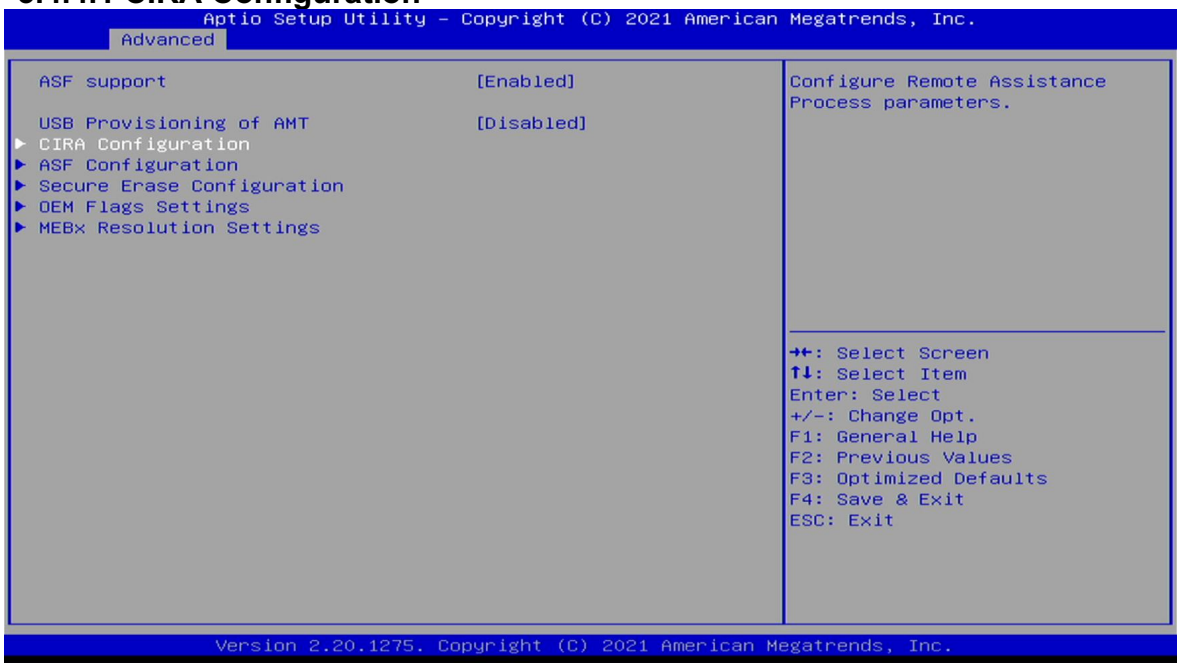
3.4.4 AMT Configuration



Field Name	ASF support
Default Value	[Enabled]
Possible Value	Disabled Enabled

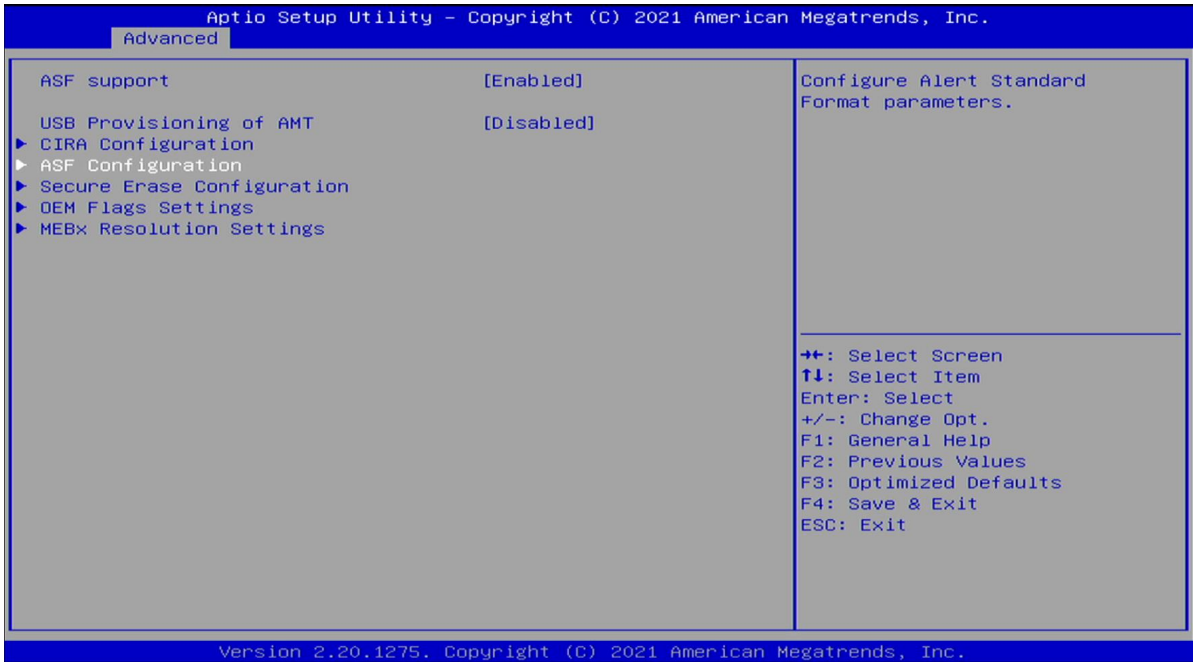
Field Name	USB Provisioning of AMT
Default Value	[Disabled]
Possible Value	Disabled Enabled

3.4.4.1 CIRA Configuration



Field Name	Activate Remote Assistance Process
Default Value	[Disabled]
Possible Value	Disabled Enabled

3.4.4.2 ASF Configuration

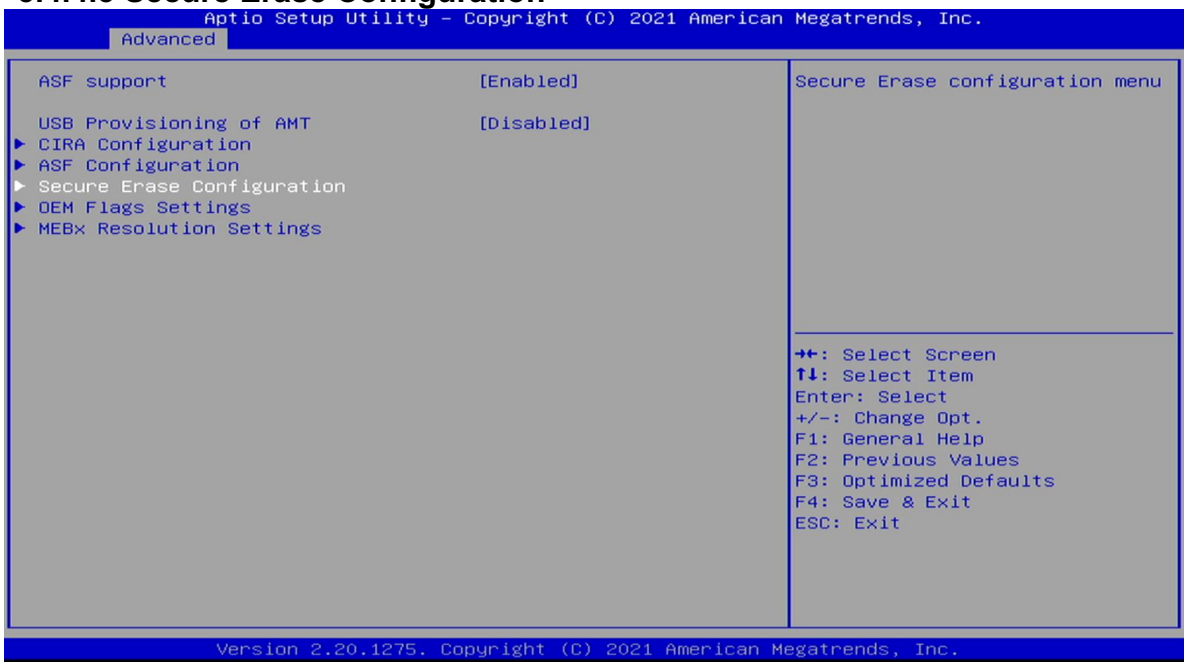


Field Name	PET Progress
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	WatchDog
Default Value	[Disabled]
Possible Value	Disabled Enabled

Field Name	ASF Sensors Table
Default Value	[Disabled]
Possible Value	Disabled Enabled

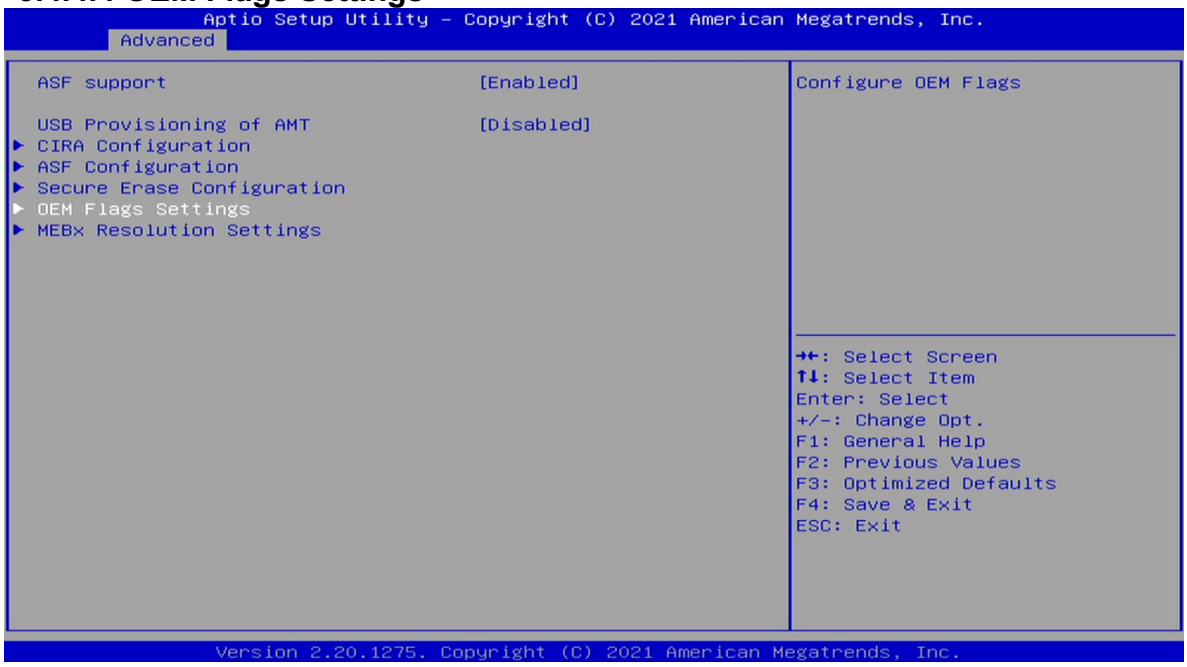
3.4.4.3 Secure Erase Configuration



Field Name	Secure Erase mode
Default Value	[Simulated]
Possible Value	Simulated Real

Field Name	Force Secure Erase
Default Value	[Disabled]
Possible Value	Disabled Enabled

3.4.4.4 OEM Flags Settings



Field Name	MEBx hotkey Pressed
Default Value	[Disabled]
Possible Value	Disabled Enabled

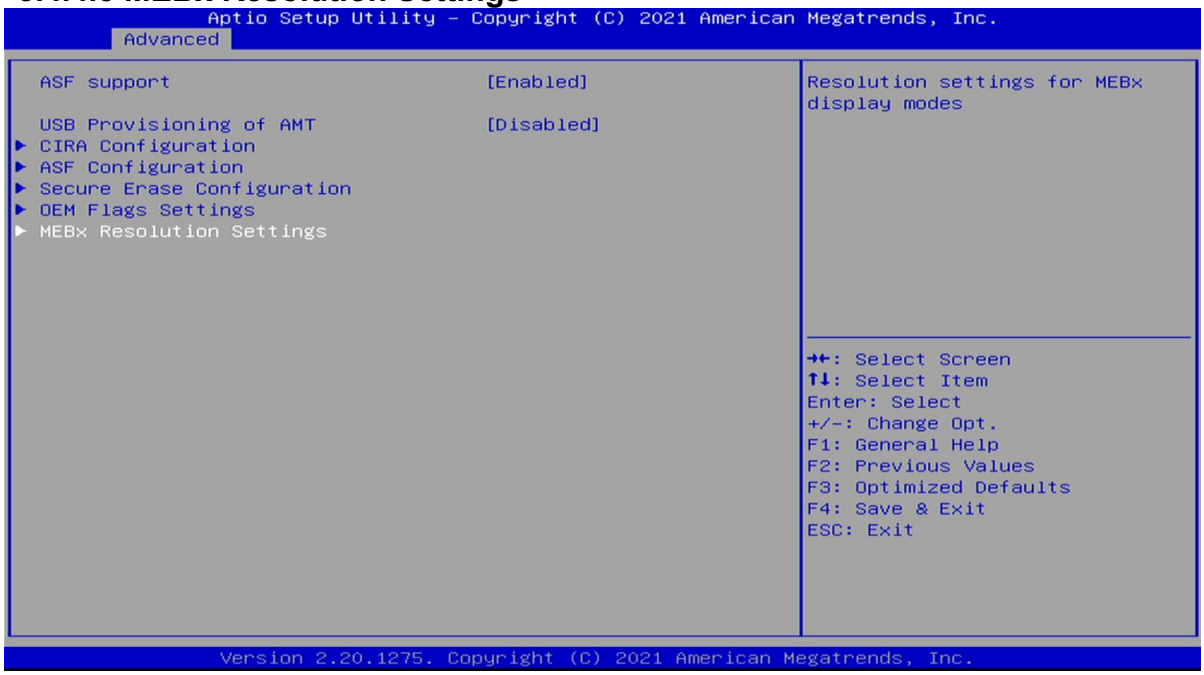
Field Name	MEBx Selection Screen
Default Value	[Disabled]
Possible Value	Disabled Enabled

Field Name	Hide Unconfigure ME Confirmation Prompt
Default Value	[Disabled]
Possible Value	Disabled Enabled

Field Name	MEBx OEM Debug Menu Enable
Default Value	[Disabled]
Possible Value	Disabled Enabled

Field Name	Unconfigure ME
Default Value	[Disabled]
Possible Value	Disabled Enabled

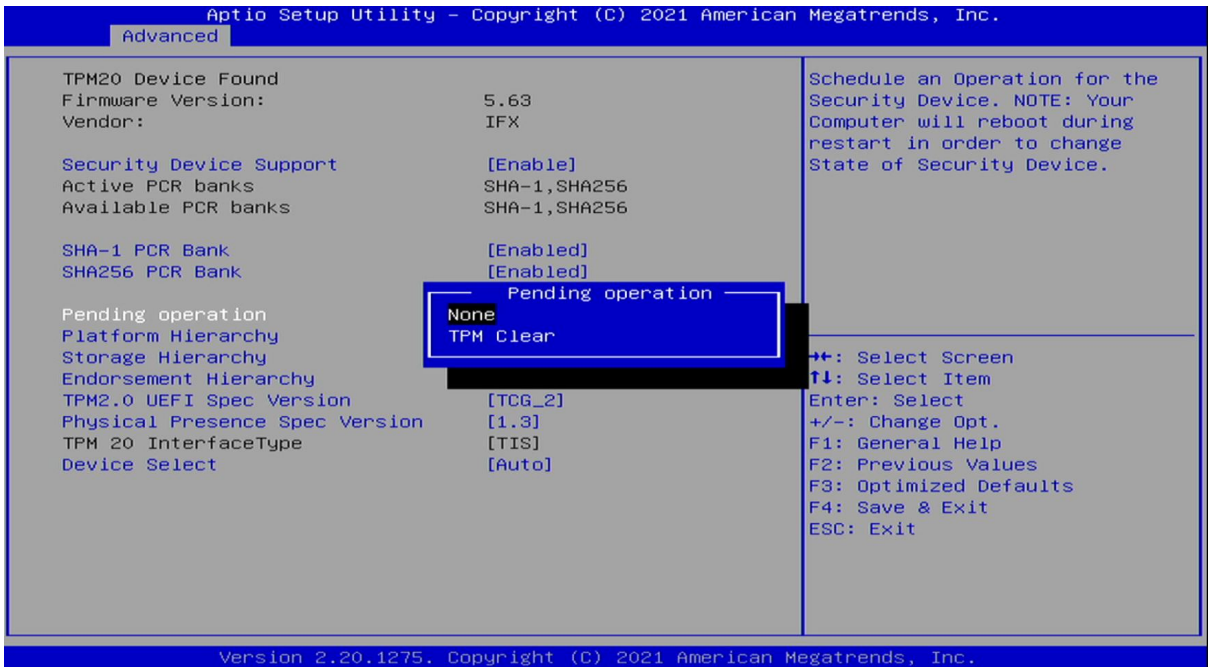
3.4.4.5 MEBx Resolution Settings



Field Name	Non-UI Mode Resoultion
Default Value	[Auto]
Possible Value	Auto 80x25 100x31

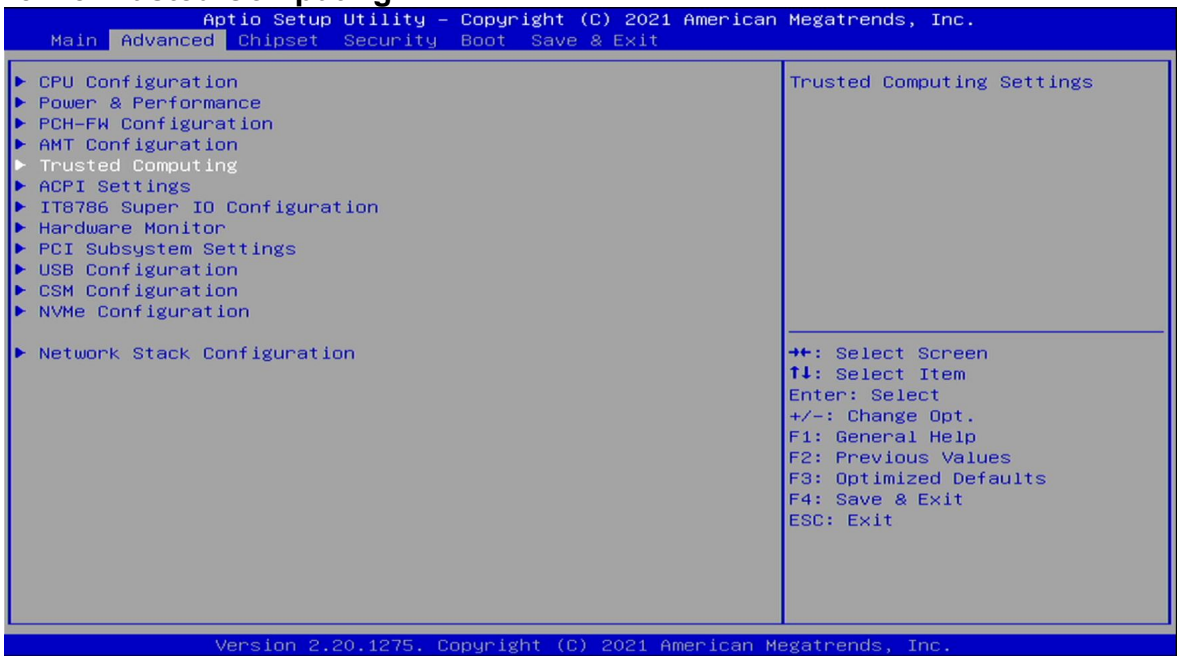
Field Name	UI Mode Resolution
Default Value	[Auto]
Possible Value	Auto 80x25 100x31

Field Name	Graphics Mode Resoultion
Default Value	[Auto]
Possible Value	Auto 640x480 800x600 1024x768



Field Name	Pending operation
Default Value	[None]
Possible Value	None TPM Clear

3.4.5 Trusted Computing



Field Name	Security Device Support
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	SHA-1 PCR Bank
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	SHA256 PCR Bank
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	Pending operation
Default Value	[None]
Possible Value	None TPM Clear

Field Name	Platform Hierarchy
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	Storage Hierarchy
Default Value	[Enabled]
Possible Value	Disabled Enabled

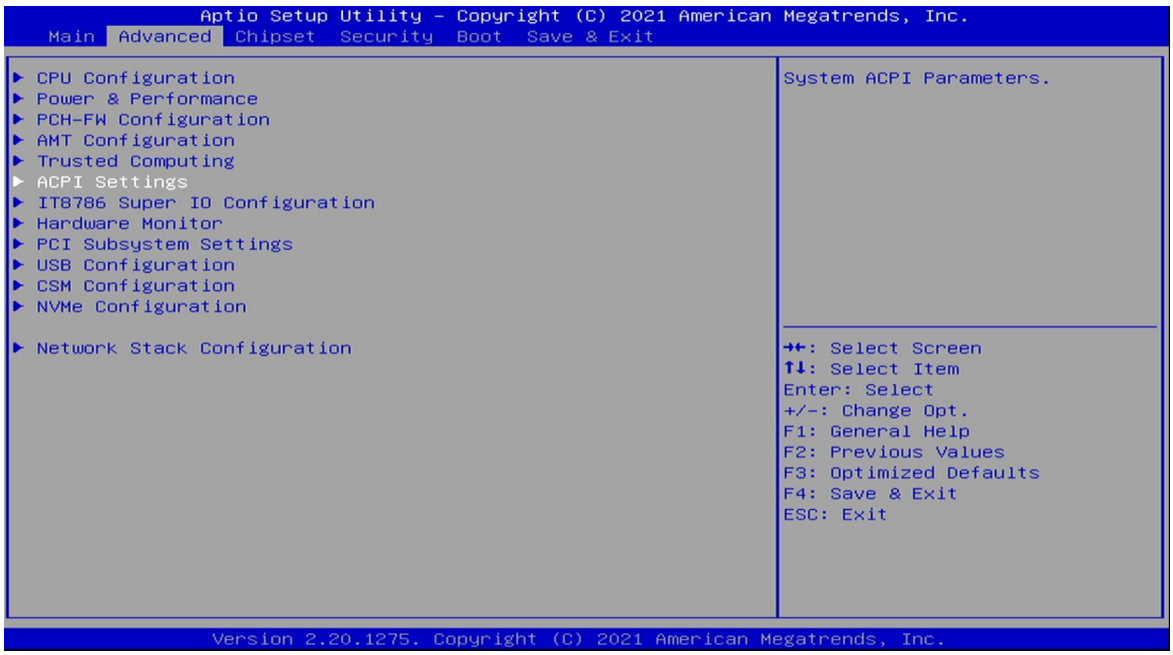
Field Name	Endorsement Hierarchy
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	TPM2.0 UEFI Spec Version
Default Value	[TCG_2]
Possible Value	TCG_1_2 TCG_2

Field Name	Physical Presence Spec Version
Default Value	[1.3]
Possible Value	1.2 1.3

Field Name	Device Select
Default Value	[Auto]
Possible Value	TPM 1.2 TPM 2.0 Auto

3.4.6 ACPI Settings



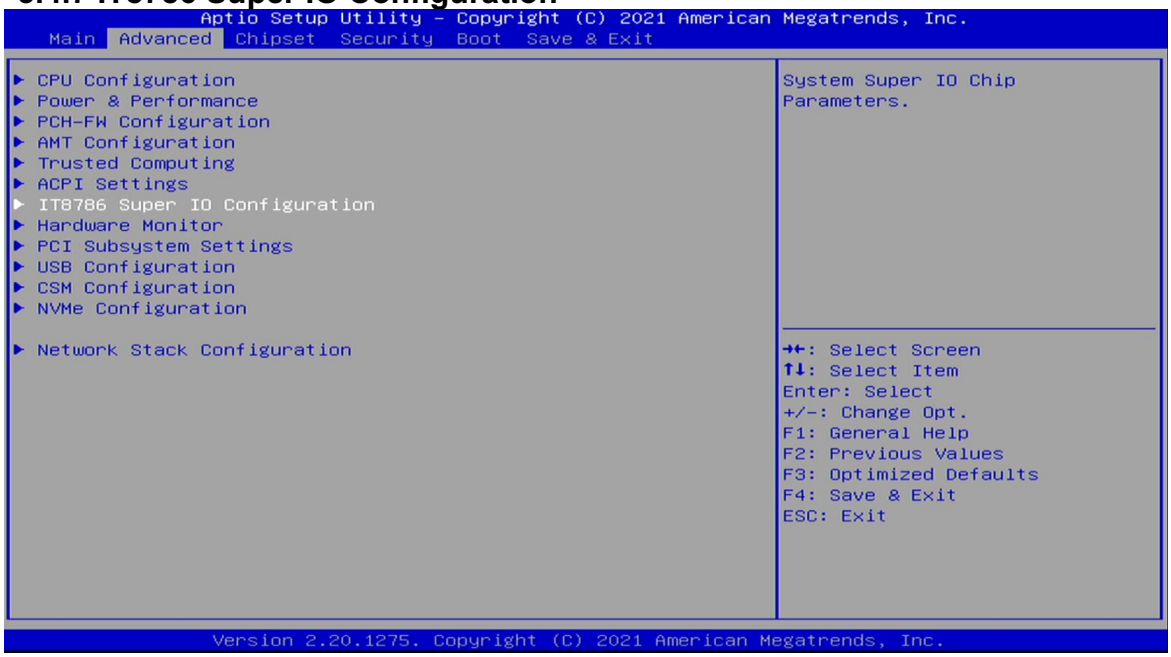
Field Name	**Enable ACPI Auto Configuration**
Default Value	[Disabled]
Possible Value	Disabled Enabled

Field Name	**Enable Hibernation**
Default Value	[Enabled]
Possible Value	Disabled Enabled

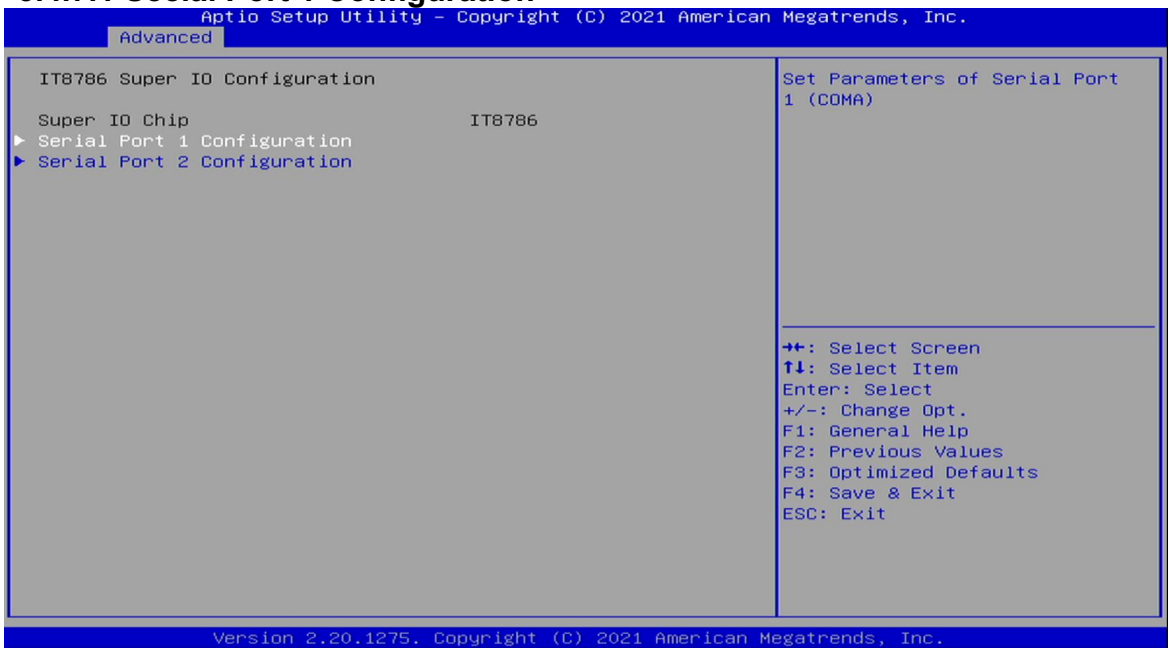
Field Name	**ACPI Sleep State**
Default Value	[S3 (Suspend to RAM)]
Possible Value	Suspend Disabled S3 (Suspend to RAM)

Field Name	**Lock Legacy Resources**
Default Value	[Disabled]
Possible Value	Disabled Enabled

3.4.7 IT8786 Super IO Configuration



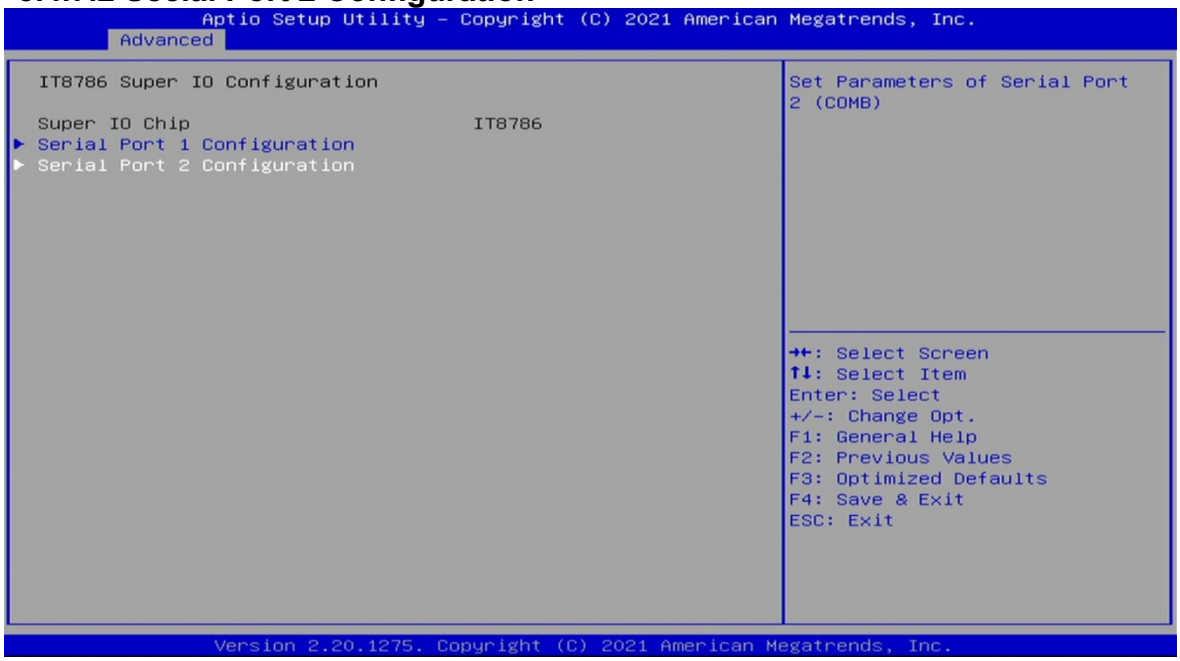
3.4.7.1 Secial Port 1 Configuration



Field Name	**Serial Port**
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	**COM1 Control**
Default Value	[RS-232]
Possible Value	Loopback RS-232 RS-485 Half Duplex RS-485/422 Full Duplex

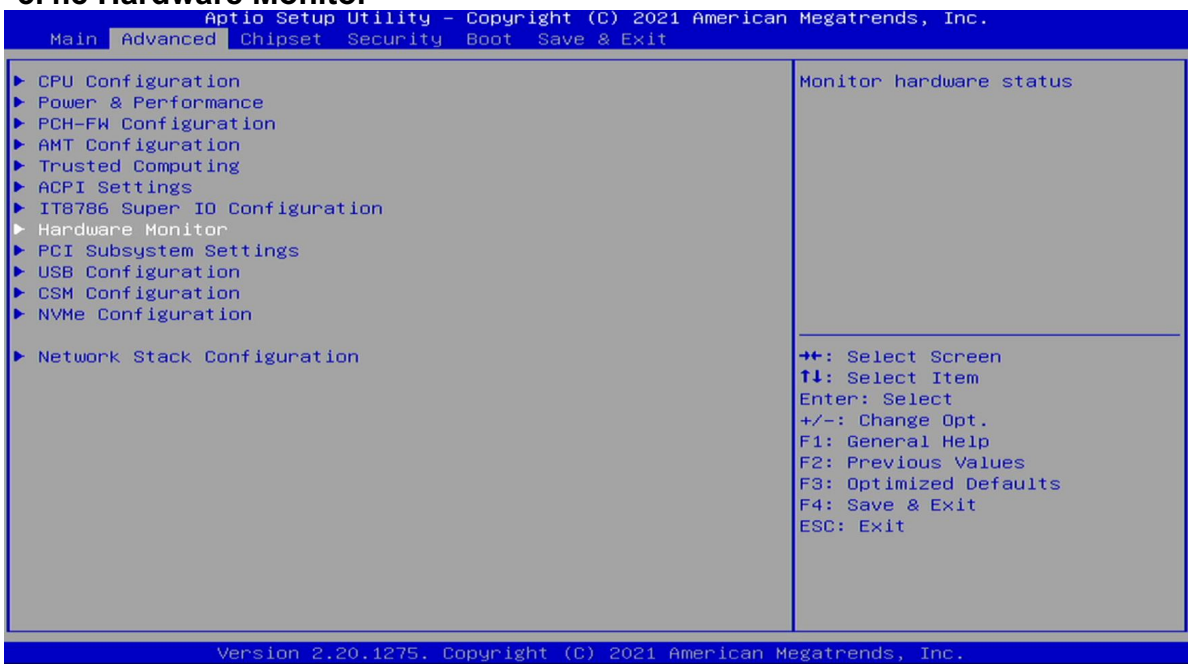
3.4.7.2 Secial Port 2 Configuration



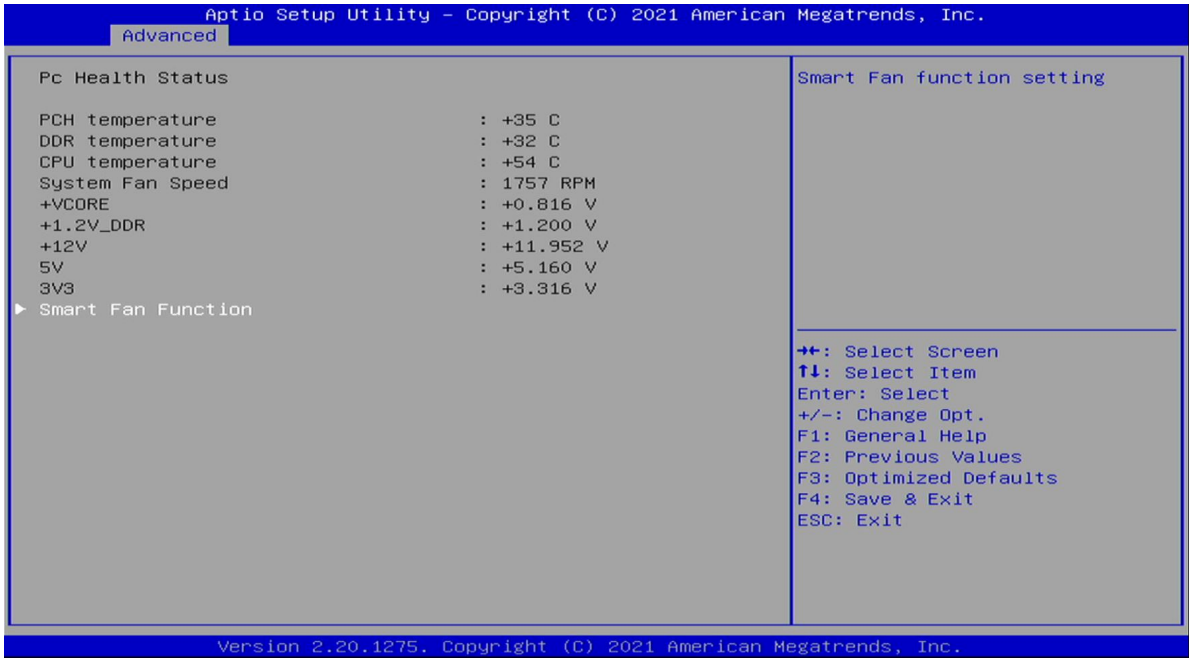
Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	COM2 Control
Default Value	[RS-232]
Possible Value	Loopback RS-232 RS-485 Half Duplex RS-485/422 Full Duplex

3.4.8 Hardware Monitor



3.4.8.1 Smart Fan Function



Field Name	FAN_CTL Polarity
Default Value	[Active high]
Possible Value	Active low Active high

Field Name	Smoothing control
Default Value	[4Hz]
Possible Value	1Hz 16Hz 8Hz 4Hz

3.4.8.2 System Fan Setting

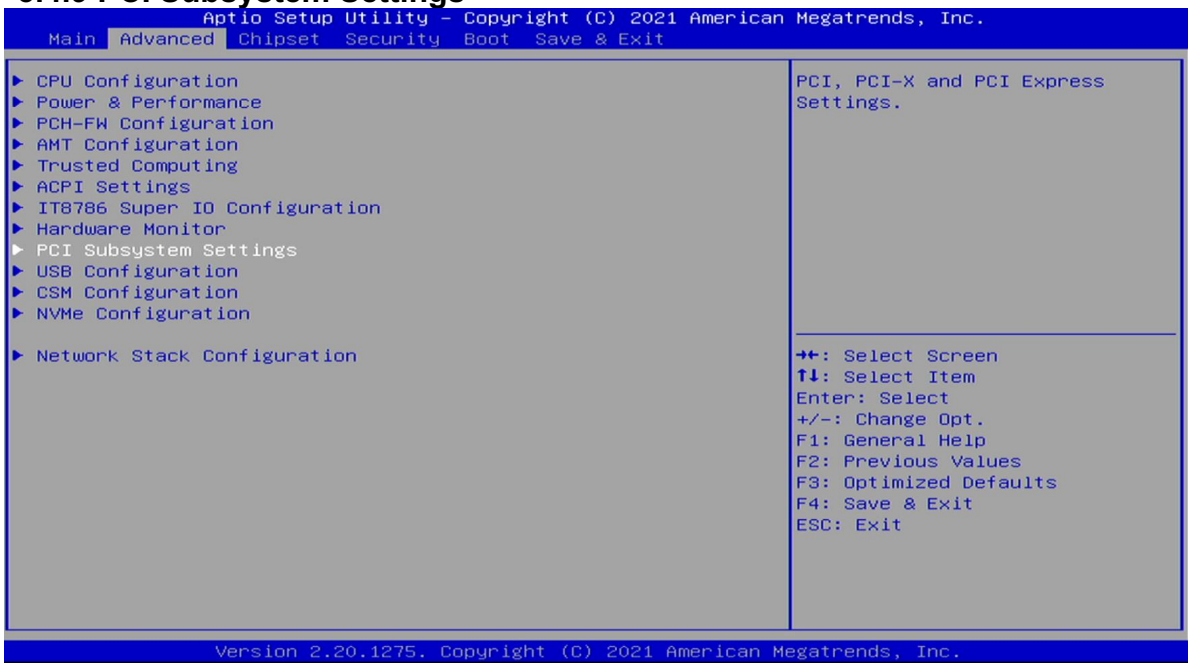
Field Name	Smart Fan Mode
Default Value	[Automatic Mode]
Possible Value	Software Mode Automatic Mode

Field Name	Smart Fan Mode
Default Value	[Automatic Mode]
Possible Value	Software Mode Automatic Mode

Field Name	System Fan Type
Default Value	[PWM]
Possible Value	PWM RPM

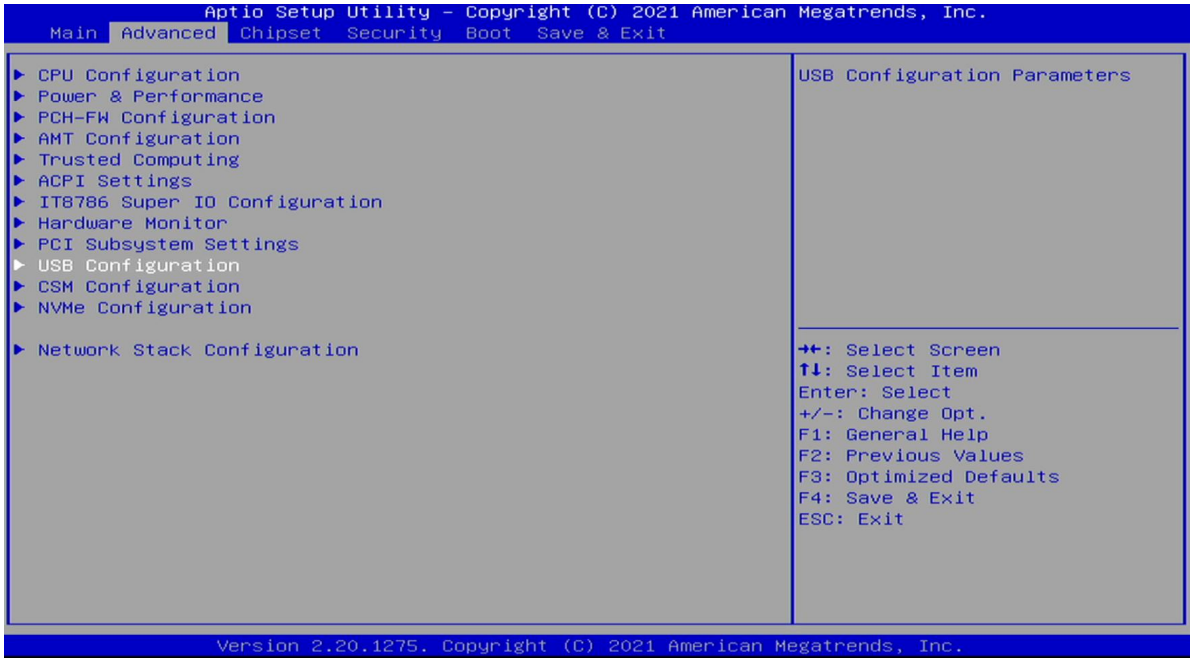
Field Name	Temperature select
Default Value	[TMP IN3]
Possible Value	TMP IN1 TMP IN2 TMP IN3

3.4.9 PCI Subsystem Settings



Field Name	Above 4G Decoding
Default Value	[Disabled]
Possible Value	Disabled Enabled

3.4.10 USB Configuation



Field Name	**Legacy USB Support**
Default Value	[Enabled]
Possible Value	Enabled Disabled Auto

Field Name	**XHCI Hand-off**
Default Value	[Enabled]
Possible Value	Enabled Disabled

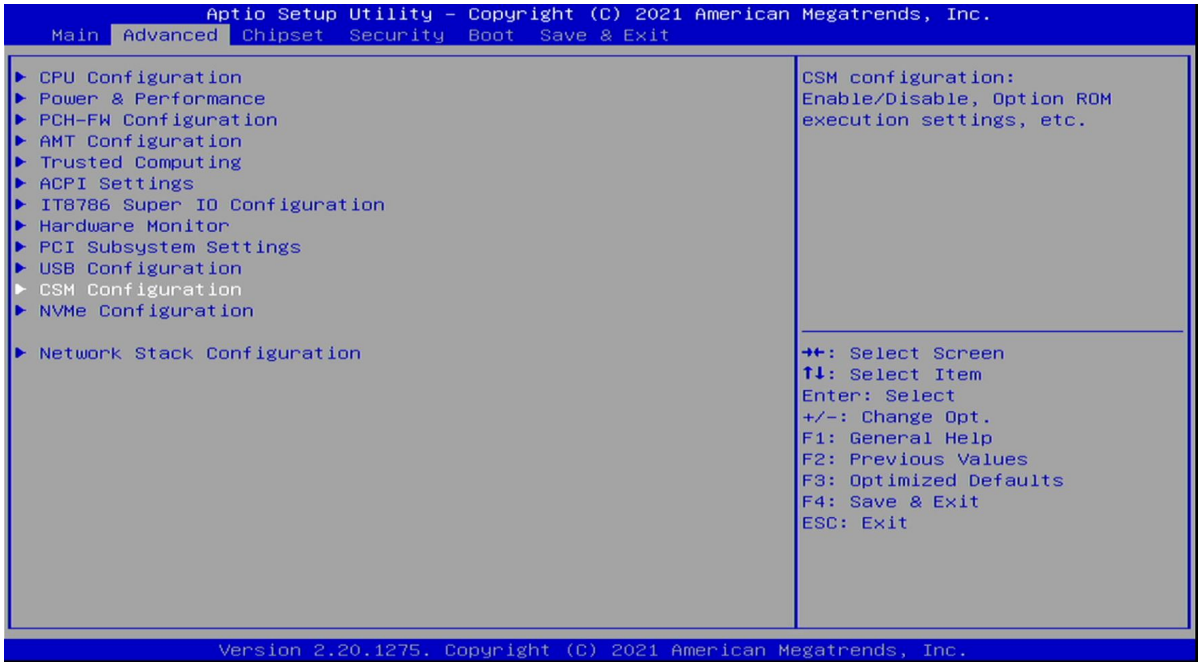
Field Name	**USB Mass Storage Driver Support**
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	**USB transfer time-out**
Default Value	[20 sec]
Possible Value	1 sec 5 sec 10 sec 20 sec

Field Name	**Device reset time-out**
Default Value	[20 sec]
Possible Value	10 sec 20 sec 30 sec 40 sec

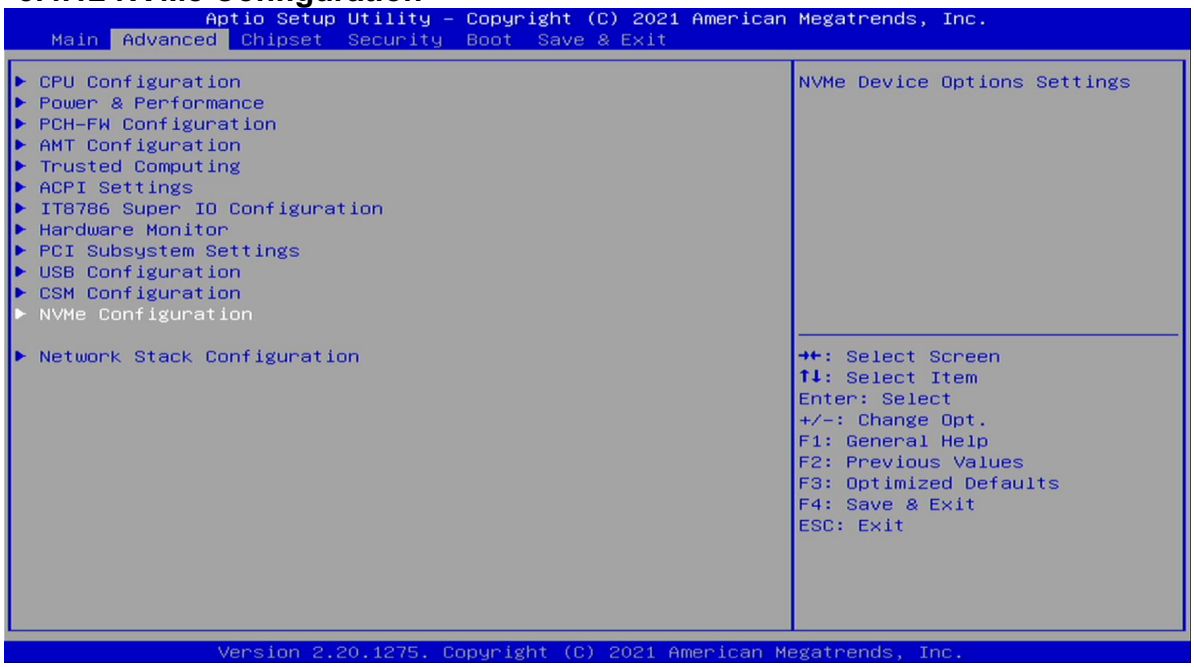
Field Name	**Device power-up delay**
Default Value	[Auto]
Possible Value	Auto Manual

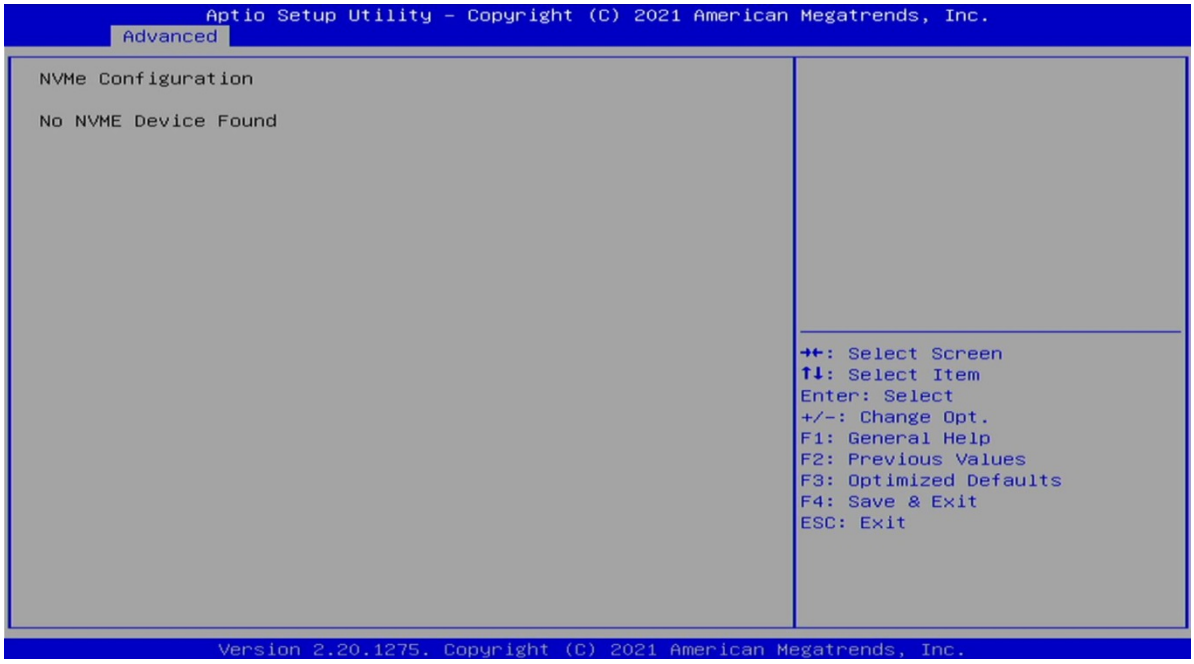
3.4.11 CSM Configuration



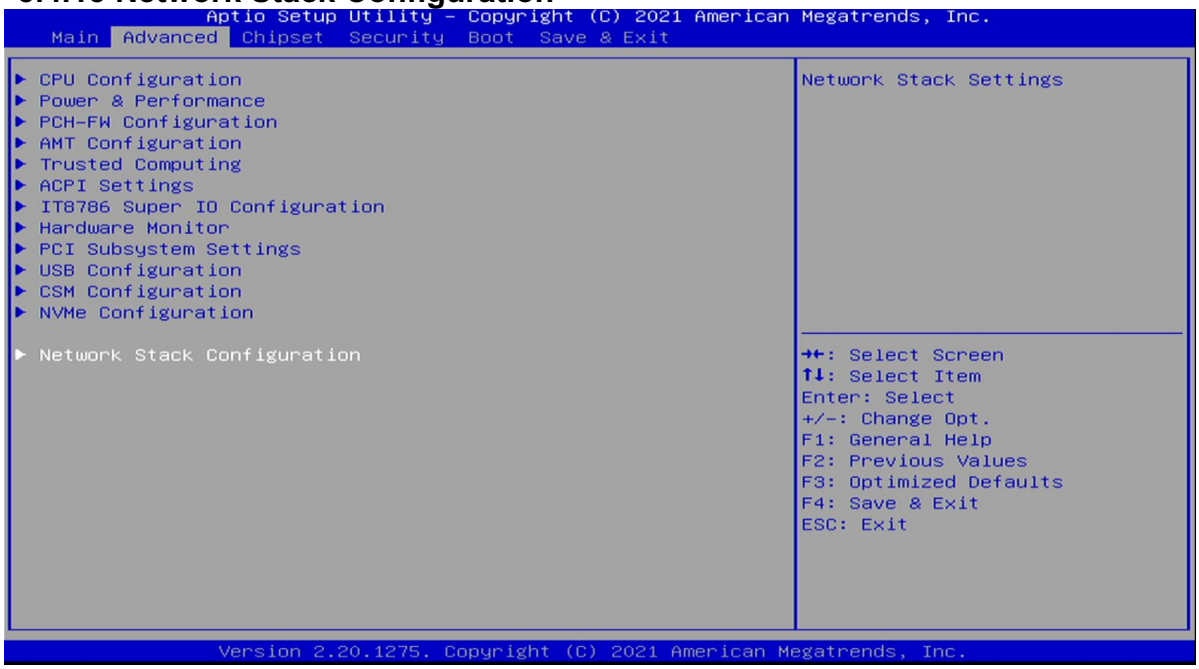
Field Name	CSM Support
Default Value	[Disabled]
Possible Value	Disabled Enabled

3.4.12 NVMe Configuration





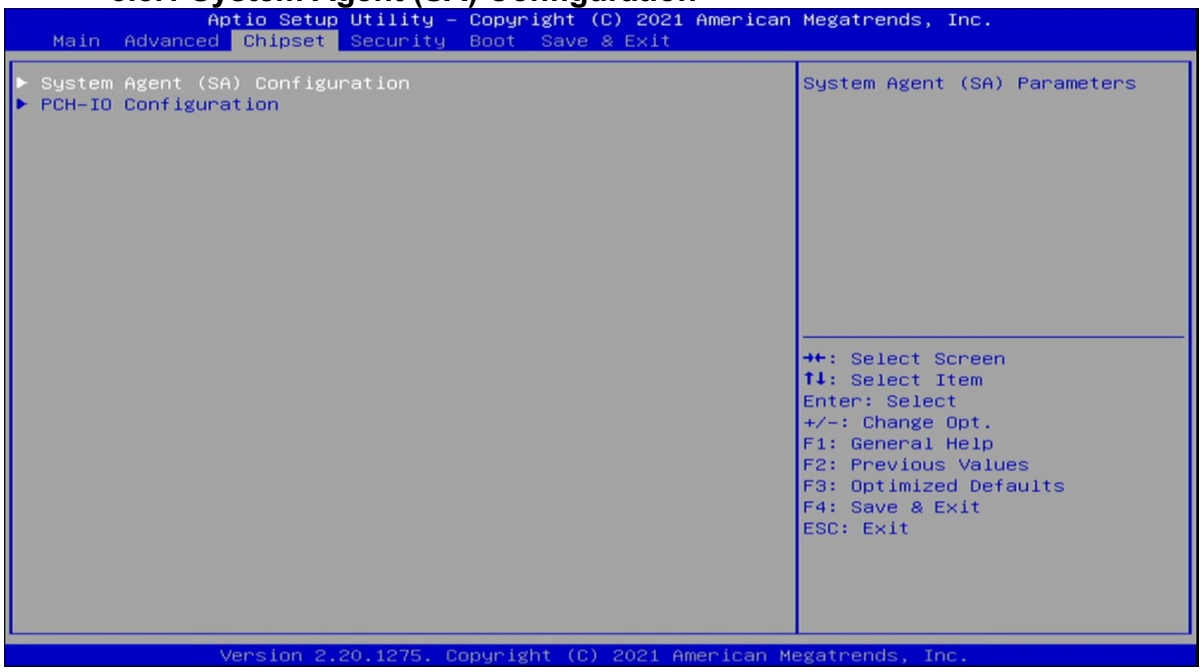
3.4.13 Network Stack Configuration

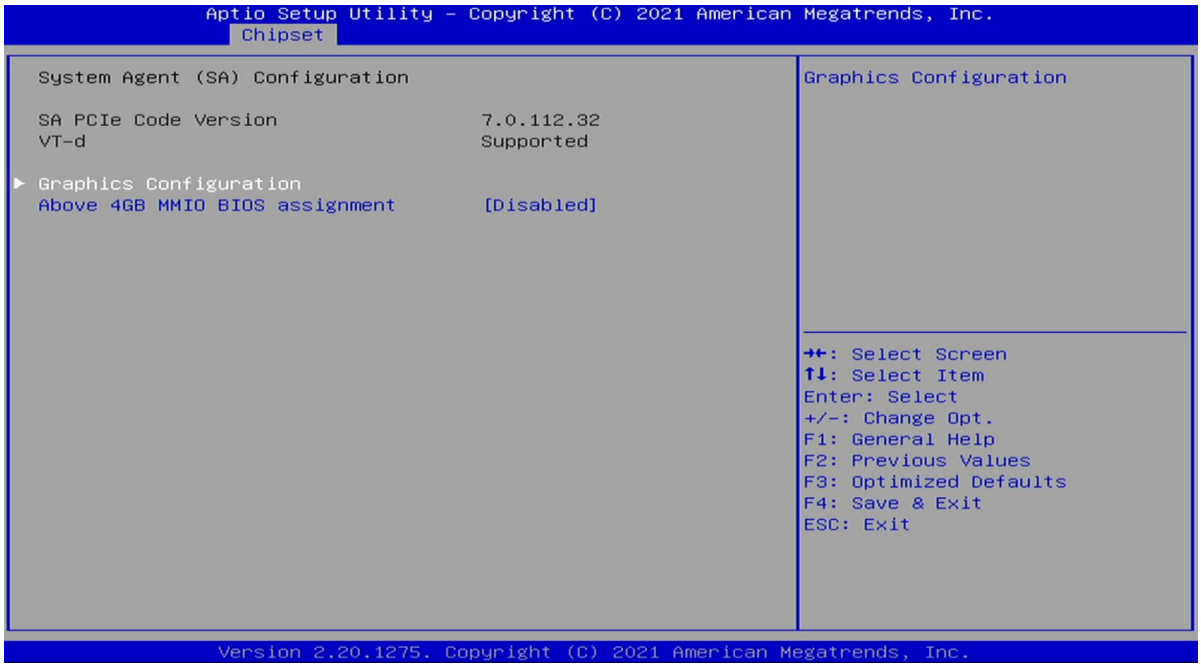


Field Name	Network Stack
Default Value	[Disabled]
Possible Value	Disabled Enabled

3.5 Chipset

3.5.1 System Agent (SA) Configuration





Field Name	Primary Display
Default Value	[Auto]
Possible Value	Auto IGFX PEG PCI SG

Field Name	Internal Graphics
Default Value	[Auto]
Possible Value	Auto Disabled Enabled

Field Name	GTT Size
Default Value	[8MB]
Possible Value	2MB 4MB 8MB

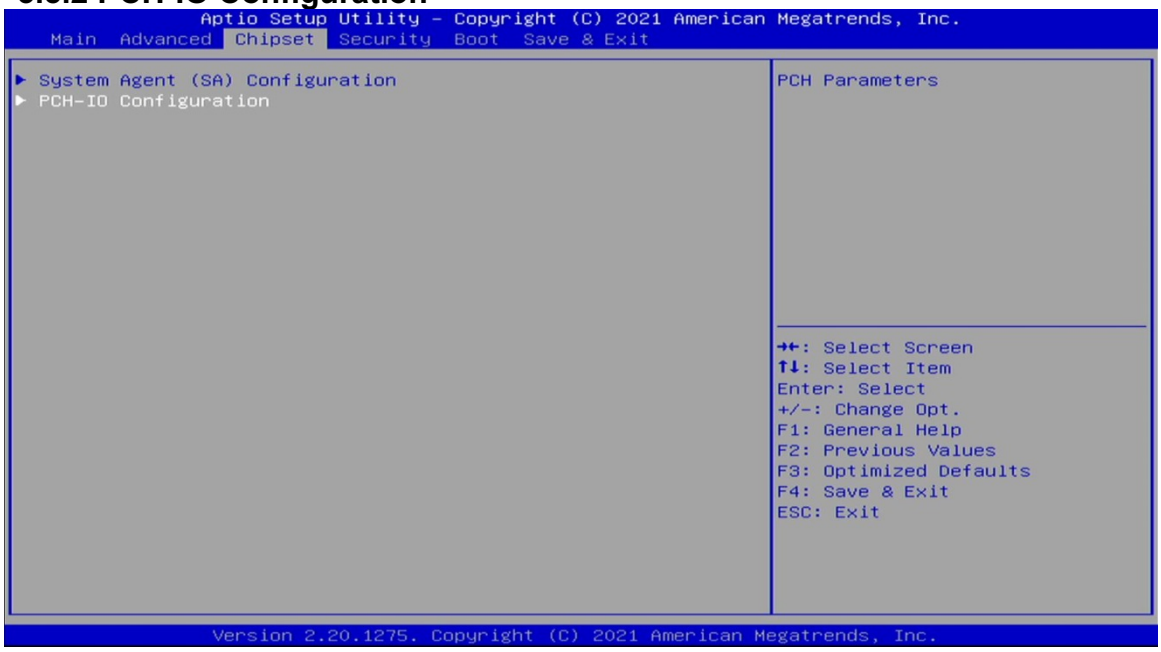
Field Name	Aperture Size
Default Value	[256MB]
Possible Value	128MB 256MB 512MB 1024MB 2048MB

Field Name	DVMT Pre-Allocated
Default Value	[32M]
Possible Value	0M 32M 64M 4M 8M 12M 16M 20M 24M 28M 32M/F7 36M 40M 44M 48M 52M 56M 60M

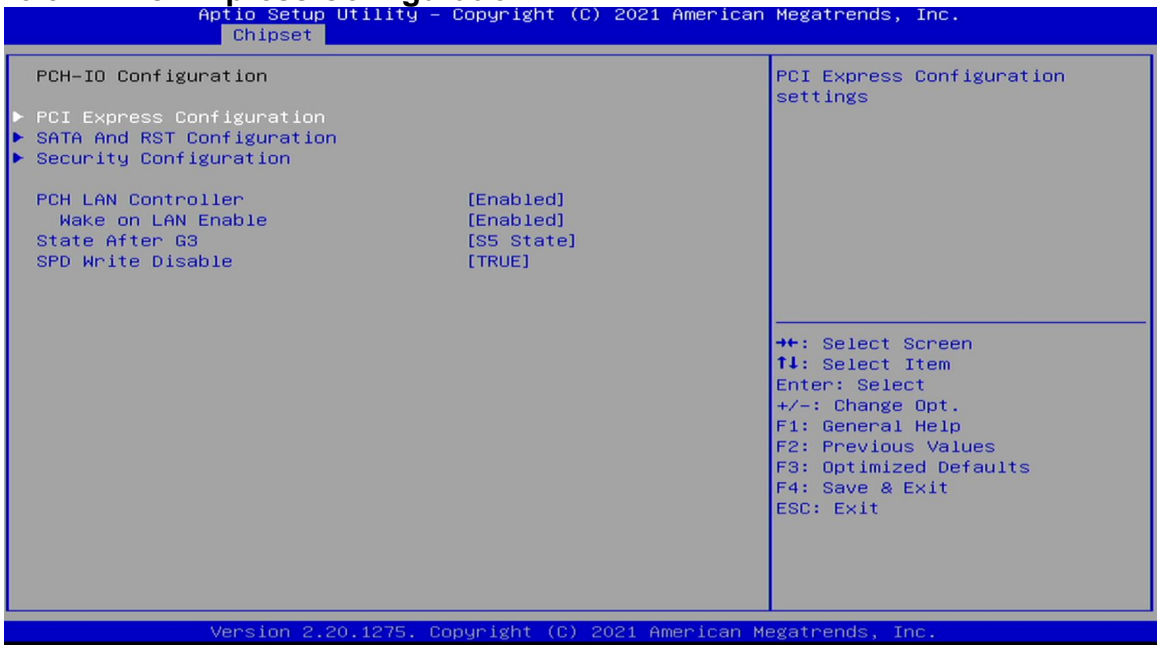
Field Name	DVMT Total Gfx Mem
Default Value	[128M]
Possible Value	128M 256M MAX

Field Name	Above 4GB MMIO BIOS assignment
Default Value	[Enabled]
Possible Value	Enabled Disabled

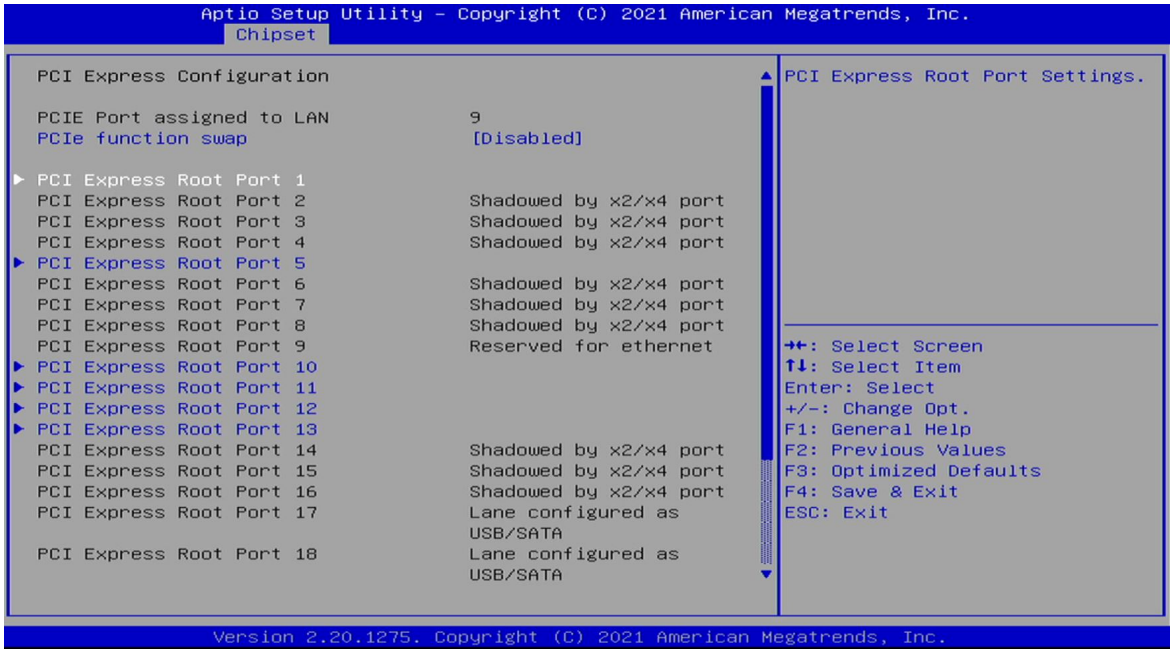
3.5.2 PCH-IO Configuration

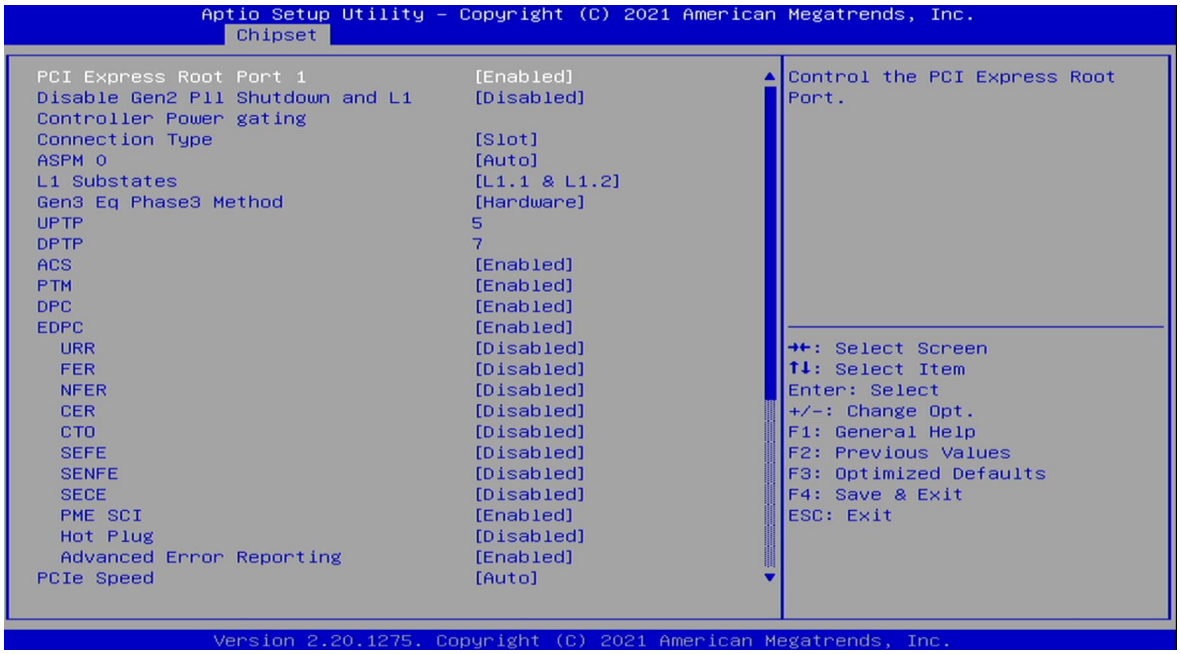


3.5.2.1 PCI Express Configuration



Field Name	PCIe function swap
Default Value	[Disabled]
Possible Value	Disabled Enabled





Field Name	**PCI Express Root Port 1**
Default Value	[Enabled]

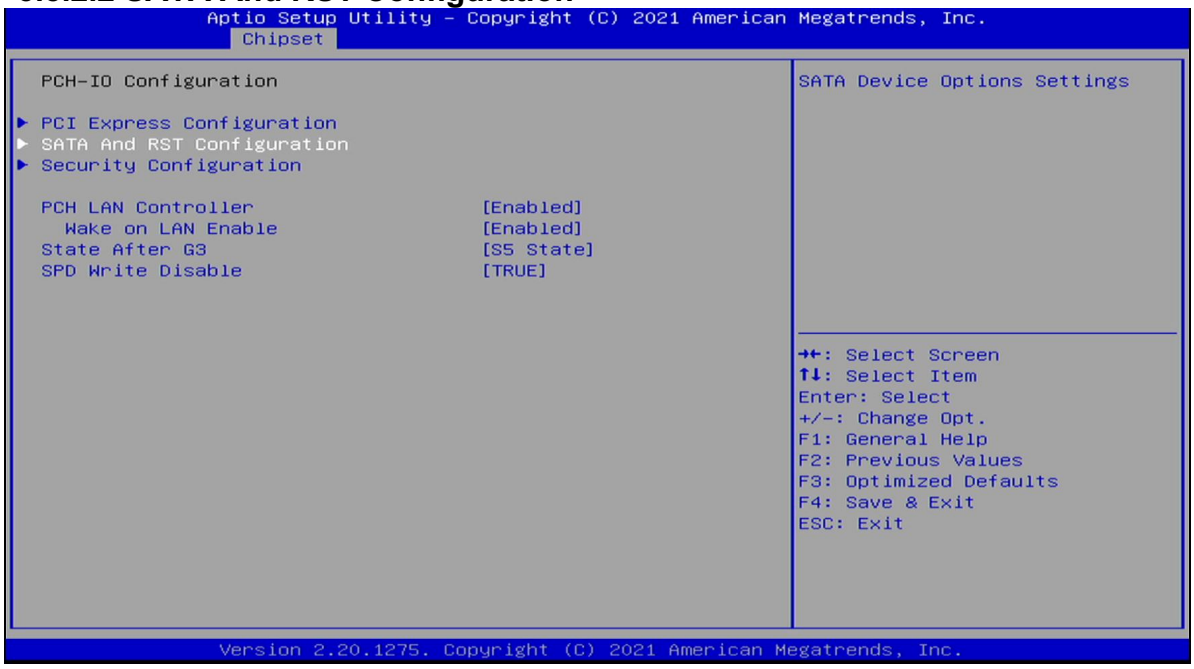
Field Name	**PCI Express Root Port 5**
Default Value	[Enabled]

Field Name	**PCI Express Root Port 10**
Default Value	[Enabled]
Field Name	**PCI Express Root Port 11**
Default Value	[Enabled]

Field Name	**PCI Express Root Port 12**
Default Value	[Enabled]

Field Name	**PCI Express Root Port 13**
Default Value	[Enabled]

3.5.2.2 SATA And RST Configuration



Field Name	SATA Controller(s)
Default Value	[Enabled]
Possible Value	Enabled Disabled

Field Name	SATA Mode Selection
Default Value	[AHCI]
Possible Value	AHCI Intel RST Premium With Intel Optane System Acceleration

Field Name	M.2 Port
Default Value	[Disabled]
Possible Value	Disabled Enabled

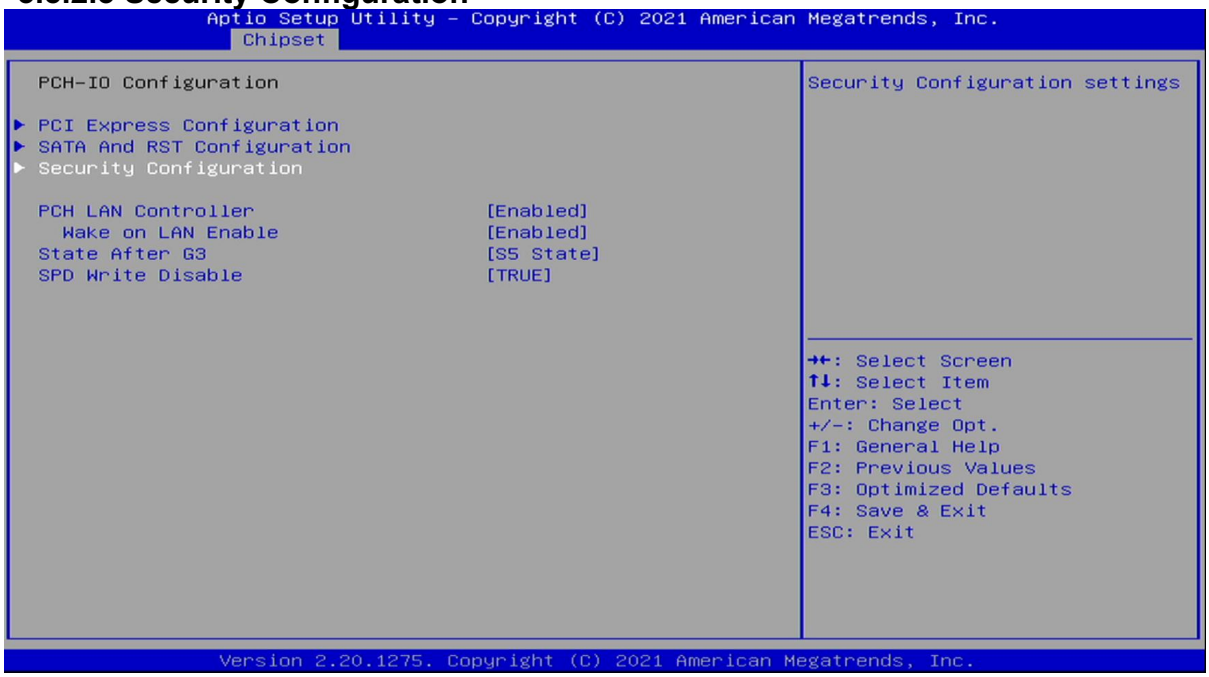
Field Name	Port 1
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	Port 2
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	Port 3
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	Port 4
Default Value	[Enabled]
Possible Value	Disabled Enabled

3.5.2.3 Security Configuration



Field Name	**RTC Memory Lock**
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	**BIOS Lock**
Default Value	[Enabled]
Possible Value	Disabled Enabled

Field Name	**Force unlock on all GPIO pads**
Default Value	[Disabled]
Possible Value	Disabled Enabled

Field Name	**PCH LAN Controller**
Default Value	[Enabled]
Possible Value	Enabled Disabled

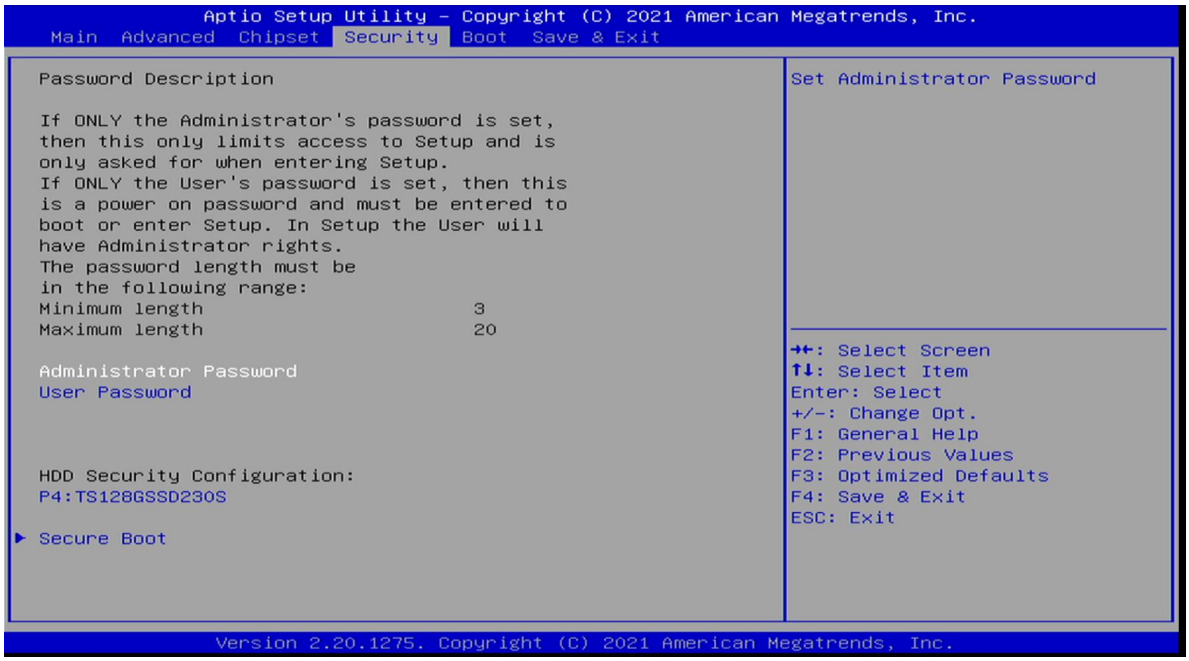
Field Name	**Wake on LAN Enable**
Default Value	[Enabled]
Possible Value	Enabled Disabled

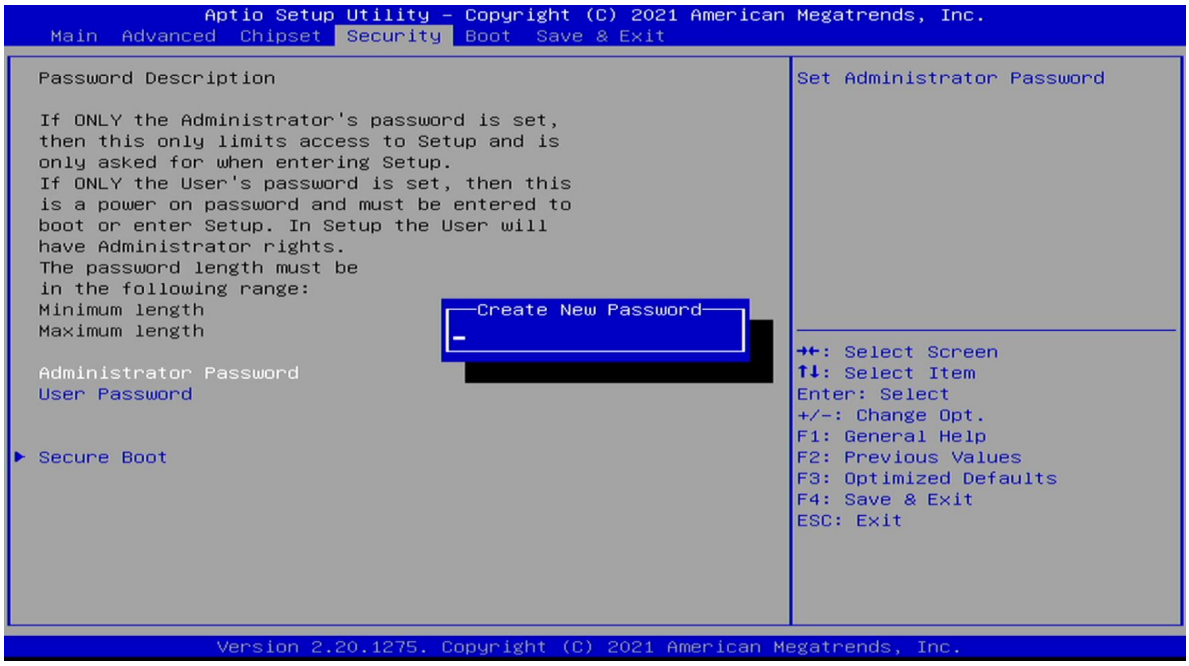
Field Name	**State After G3**
Default Value	[S5 State]
Possible Value	S0 State S5 State

Field Name	**SPD Write Disable**
Default Value	[TRUE]
Possible Value	TRUE FALSE

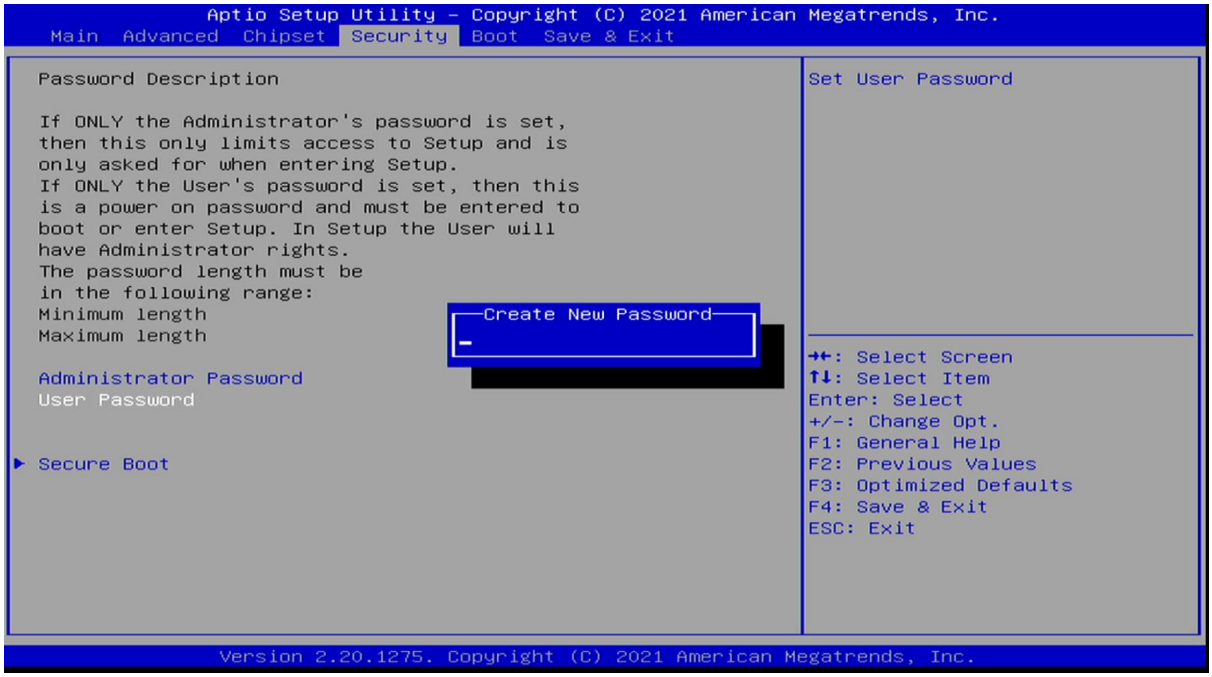
3.6 Security

3.6.1 Administrator Password

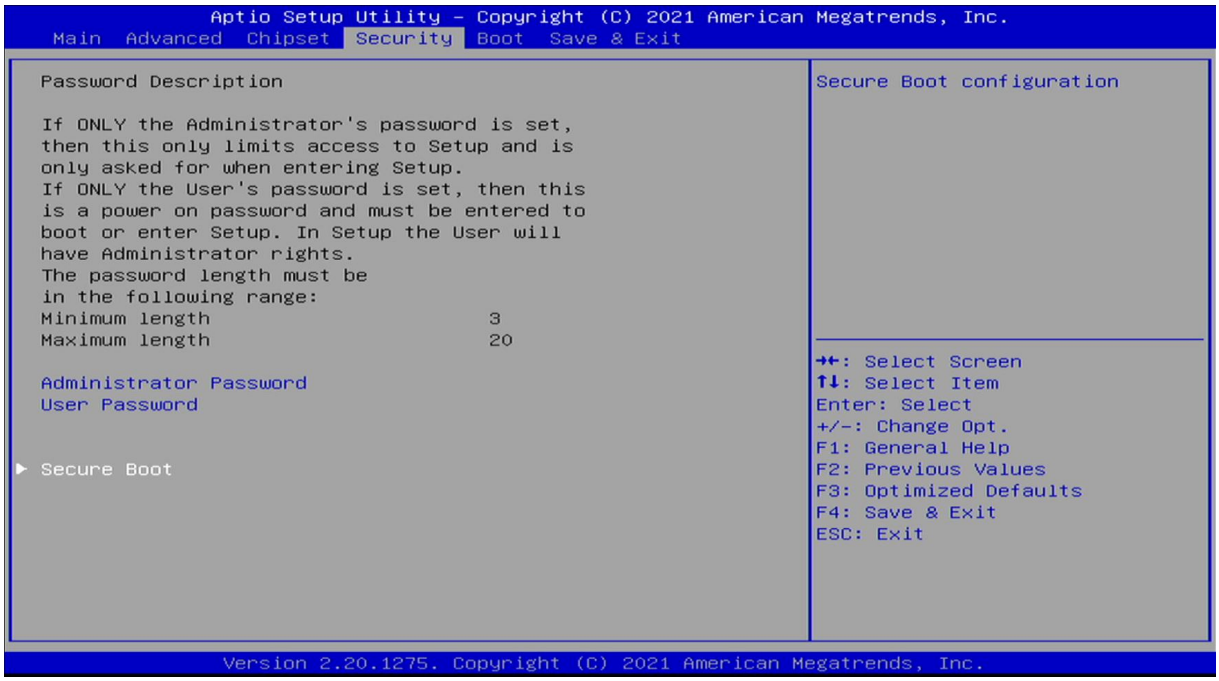




3.6.2 User Password



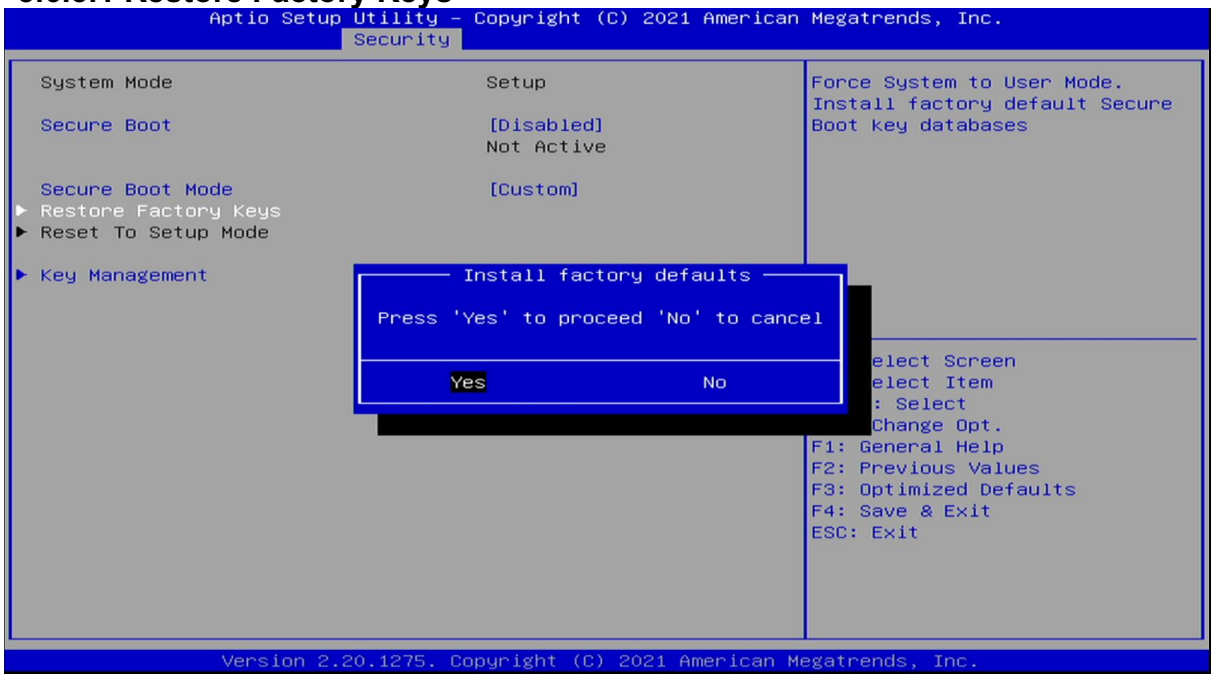
3.6.3 Secure Boot



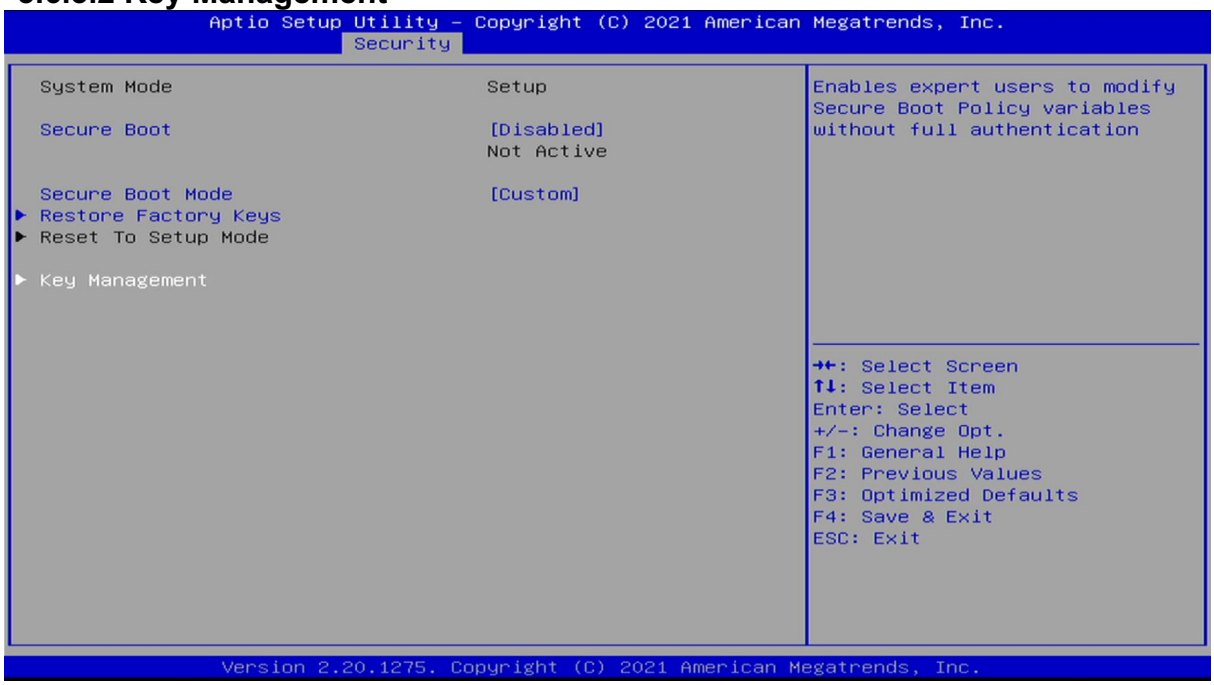
Field Name	**Secure Boot**
Default Value	[Disabled]
Possible Value	Disabled Enabled

Field Name	**Secure Boot Mode**
Default Value	[Custom]
Possible Value	Standard Custom

3.6.3.1 Restore Factory Keys

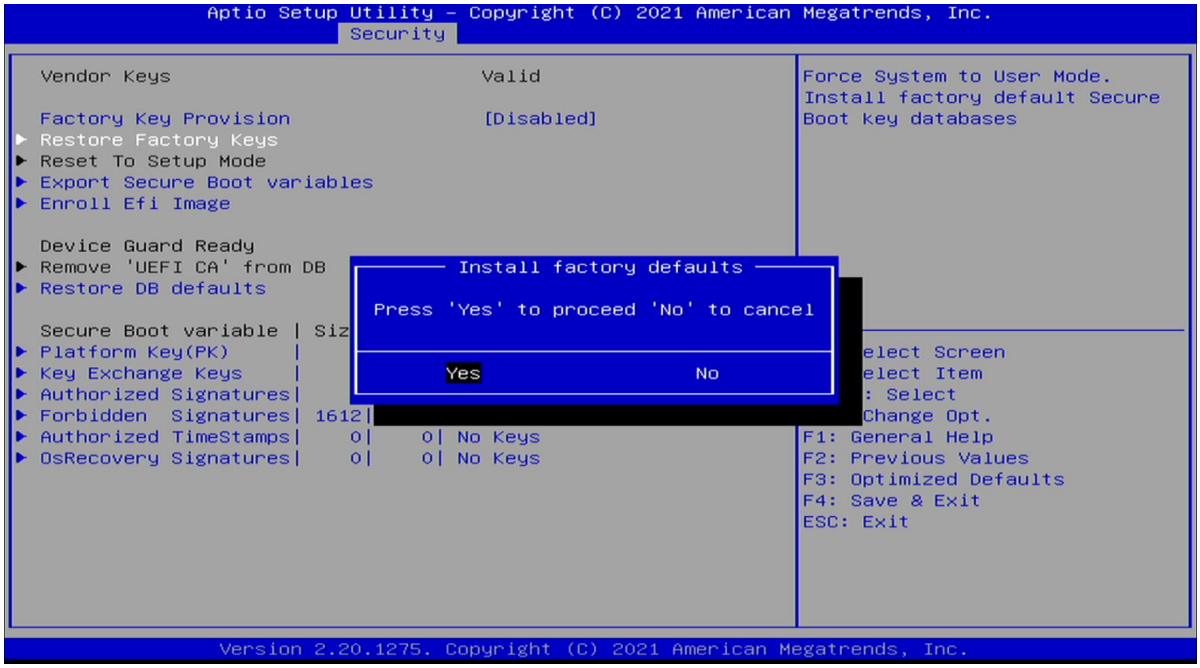


3.6.3.2 Key Management

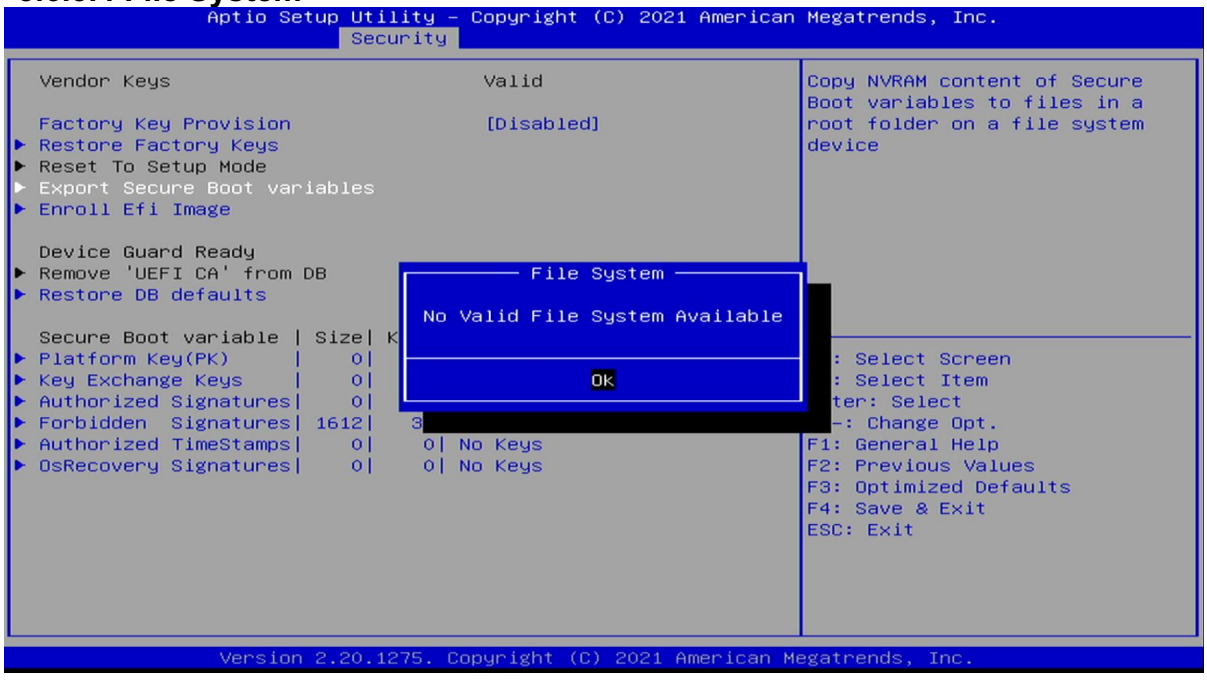


Field Name	Factory Key Provision
Default Value	[Disabled]
Possible Value	Disabled Enabled

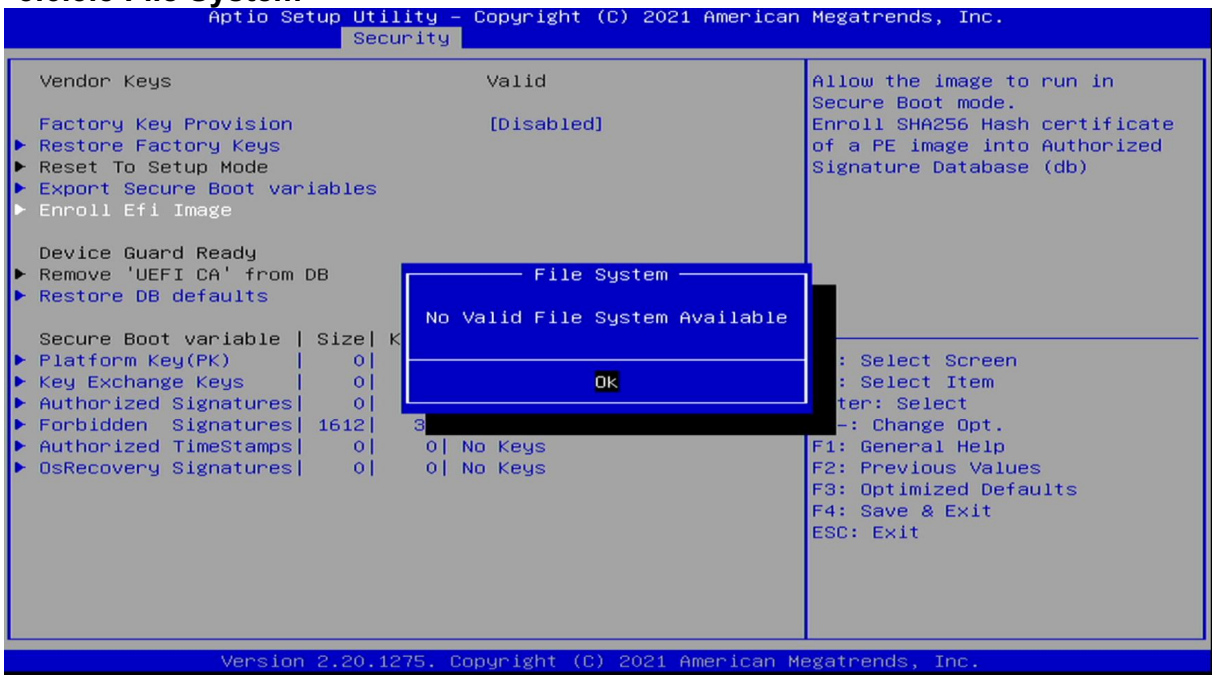
3.6.3.3 Install factory defaults



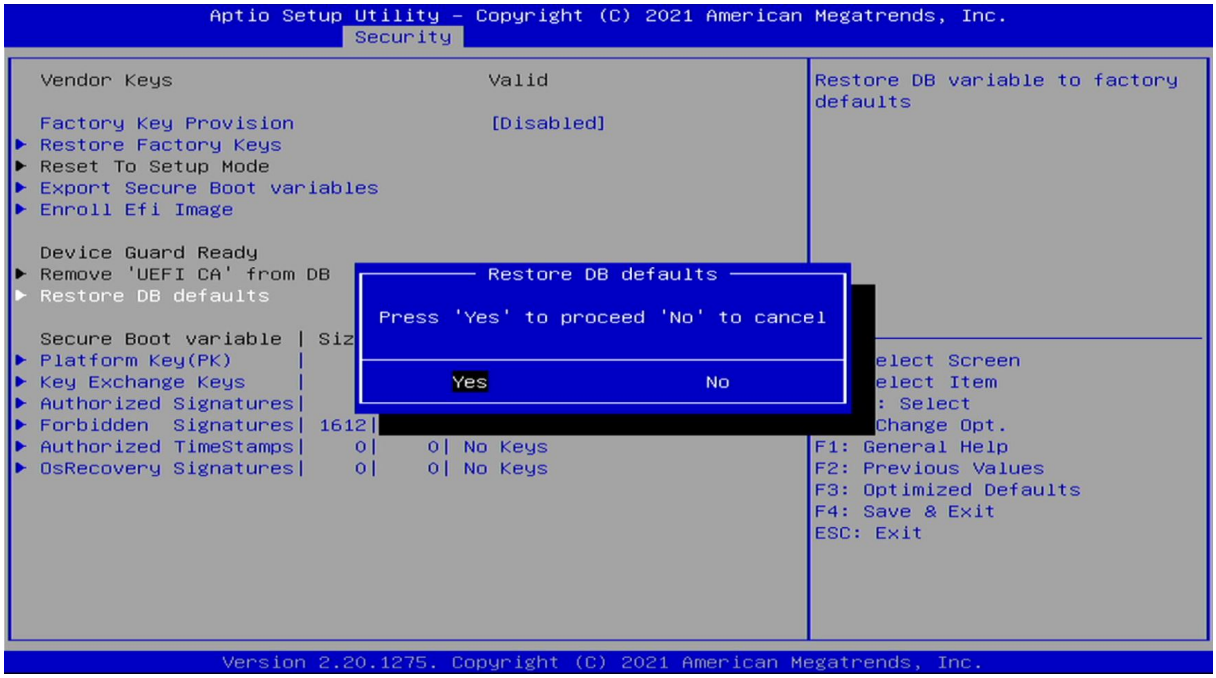
3.6.3.4 File System



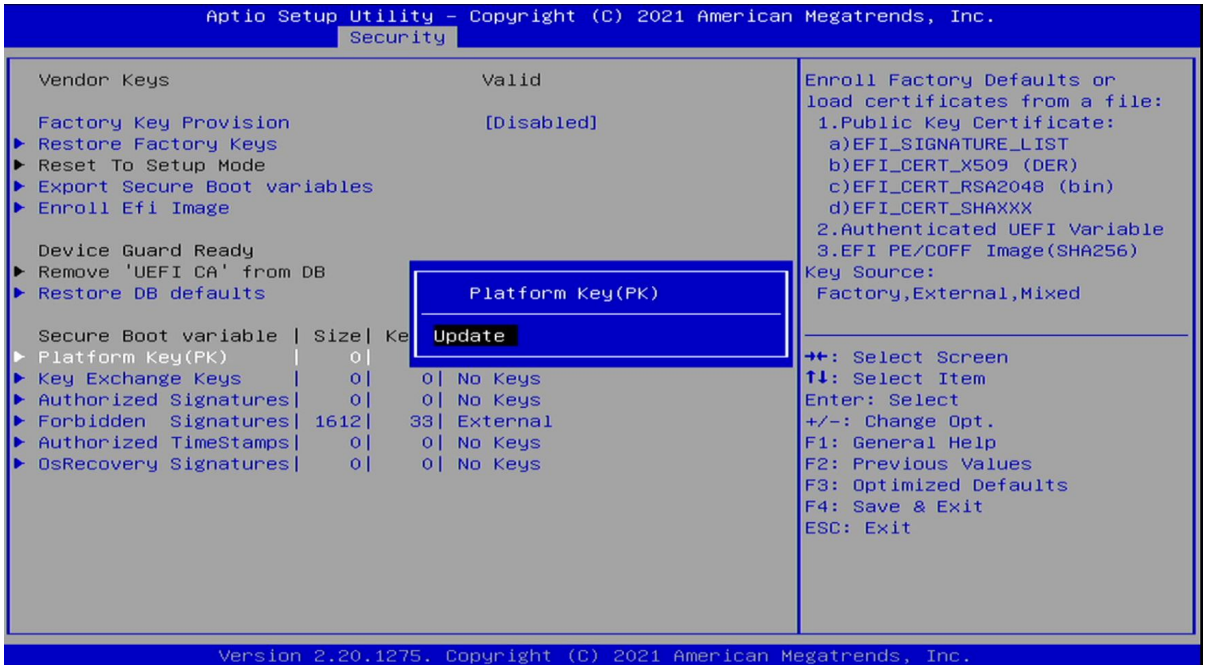
3.6.3.5 File System



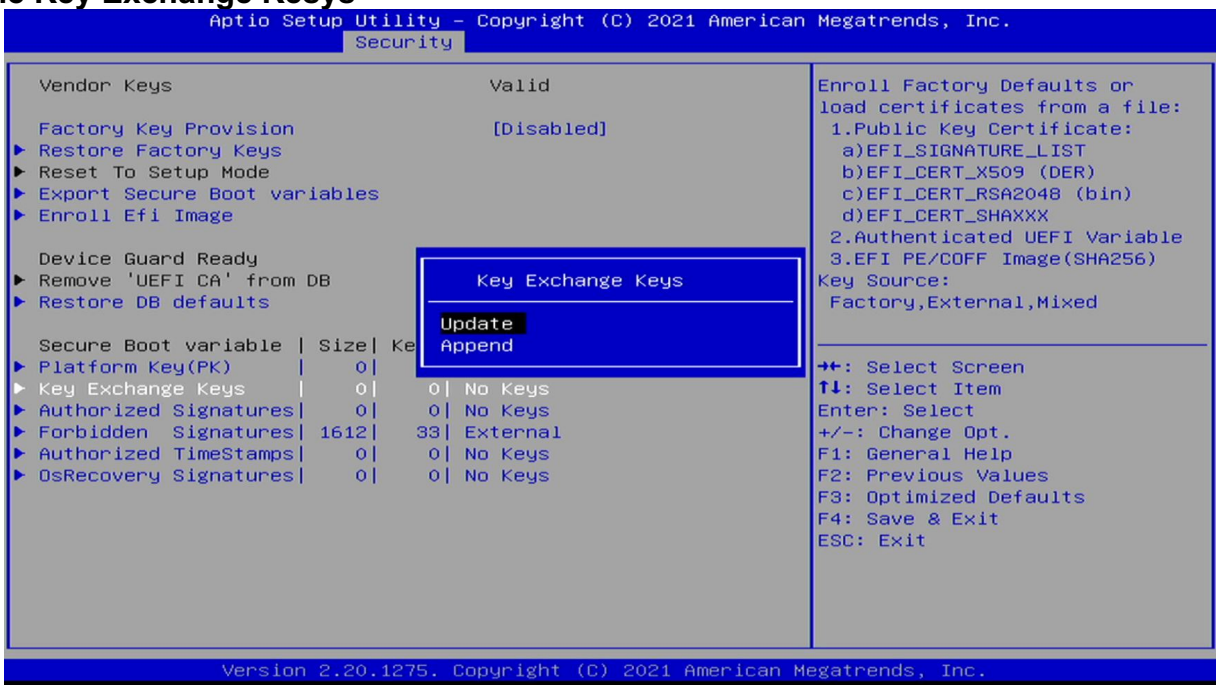
3.6.3.6 Restore DB defaults



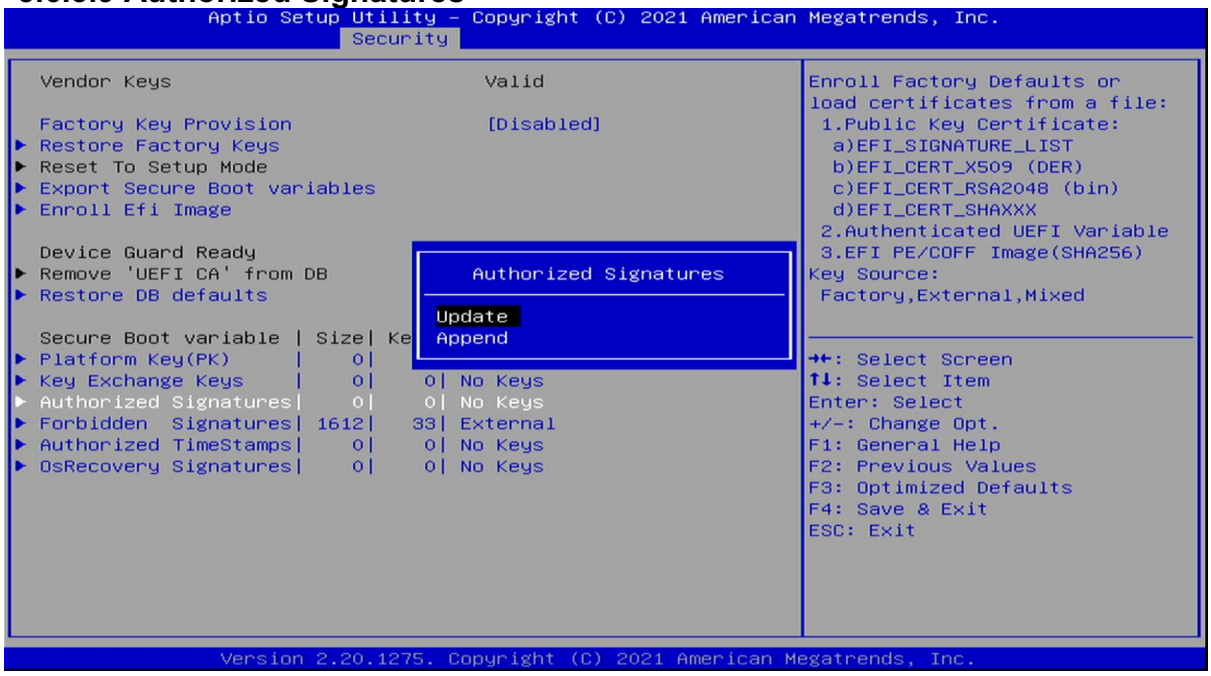
3.6.3.7 Platform Key(PK)



3.6.3.8 Key Exchange Kesys

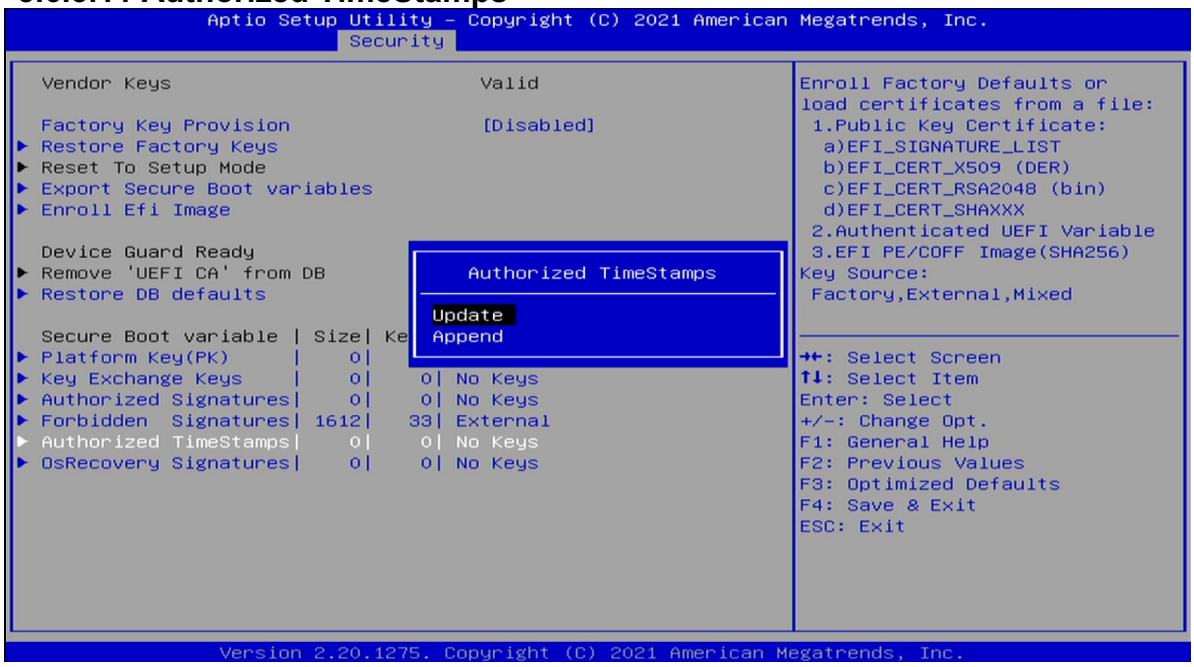


3.6.3.9 Authorized Signatures

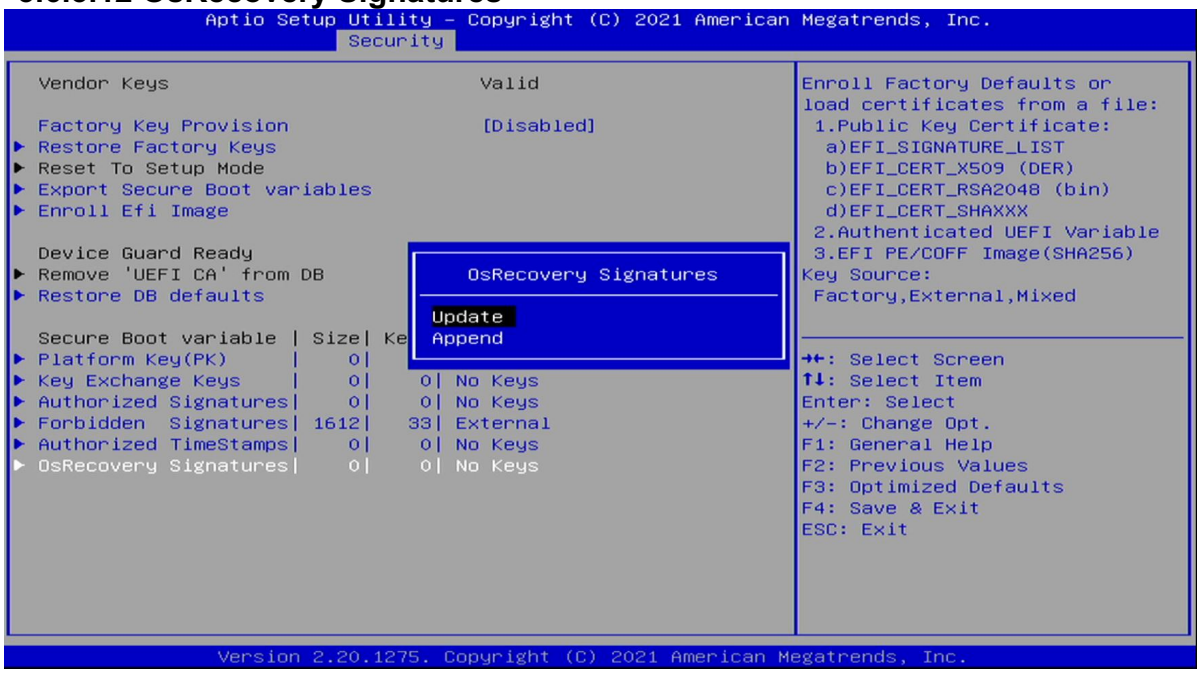


3.6.3.10 Forbidden Signatures

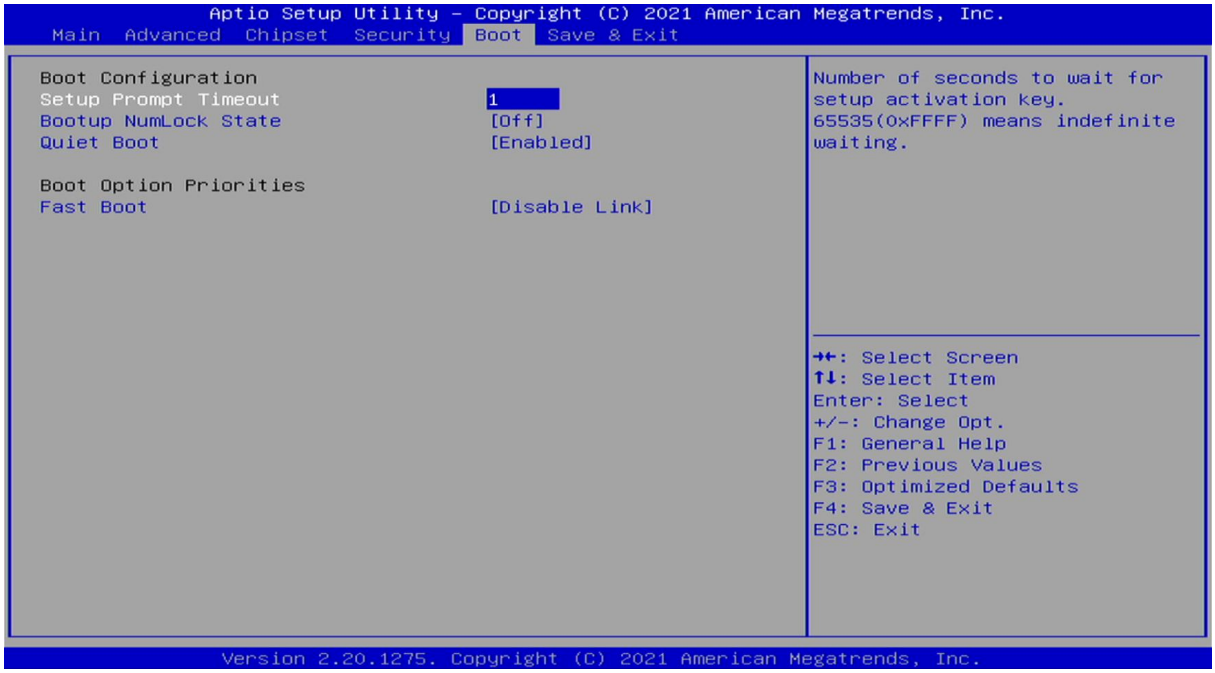
3.6.3.11 Authorized TimeStamps



3.6.3.12 OsRecovery Signatures



3.7 Boot



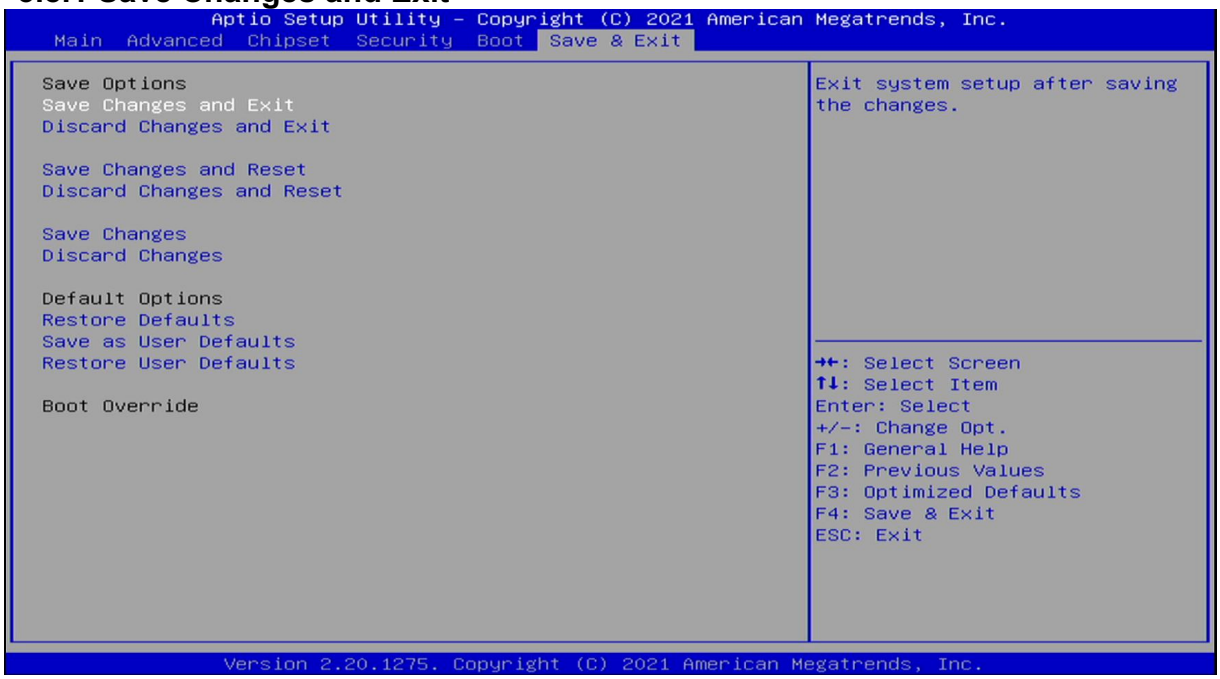
Field Name	Bootup NumLock State
Default Value	[Off]
Possible Value	On Off

Field Name	Quiet Boot
Default Value	[Enabled]
Possible Value	Disabled Enabled

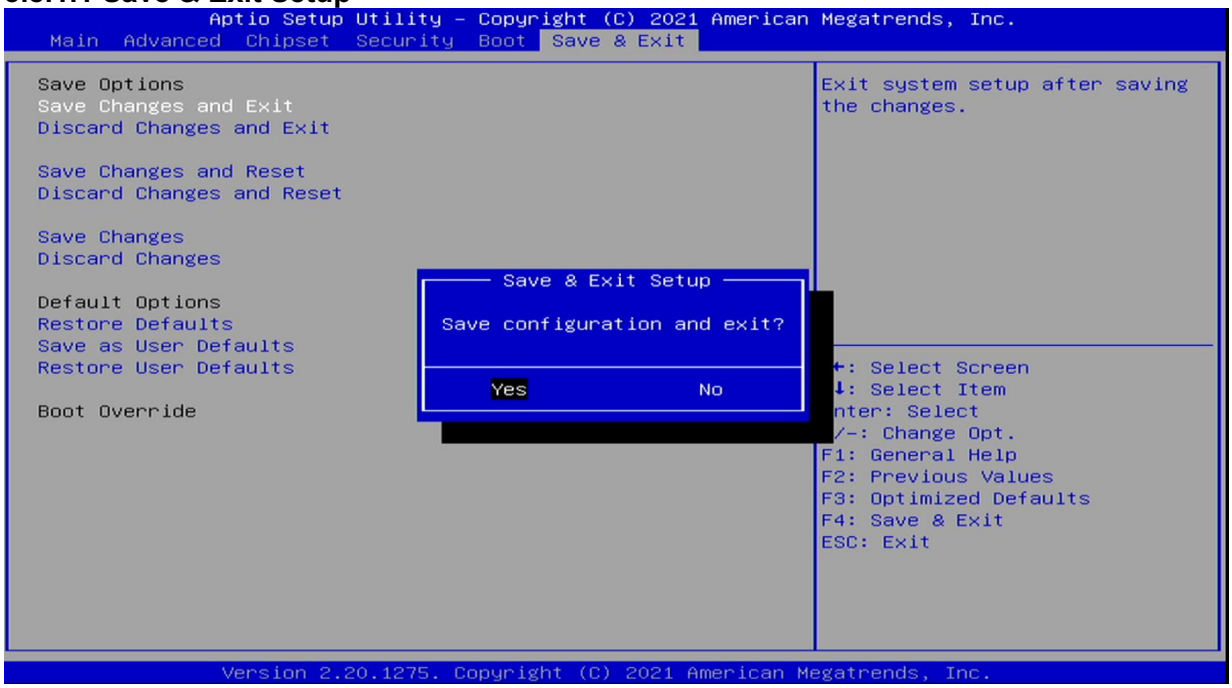
Field Name	Fast Boot
Default Value	[Disable Link]
Possible Value	Disable Link Enabled

3.8 Save & Exit

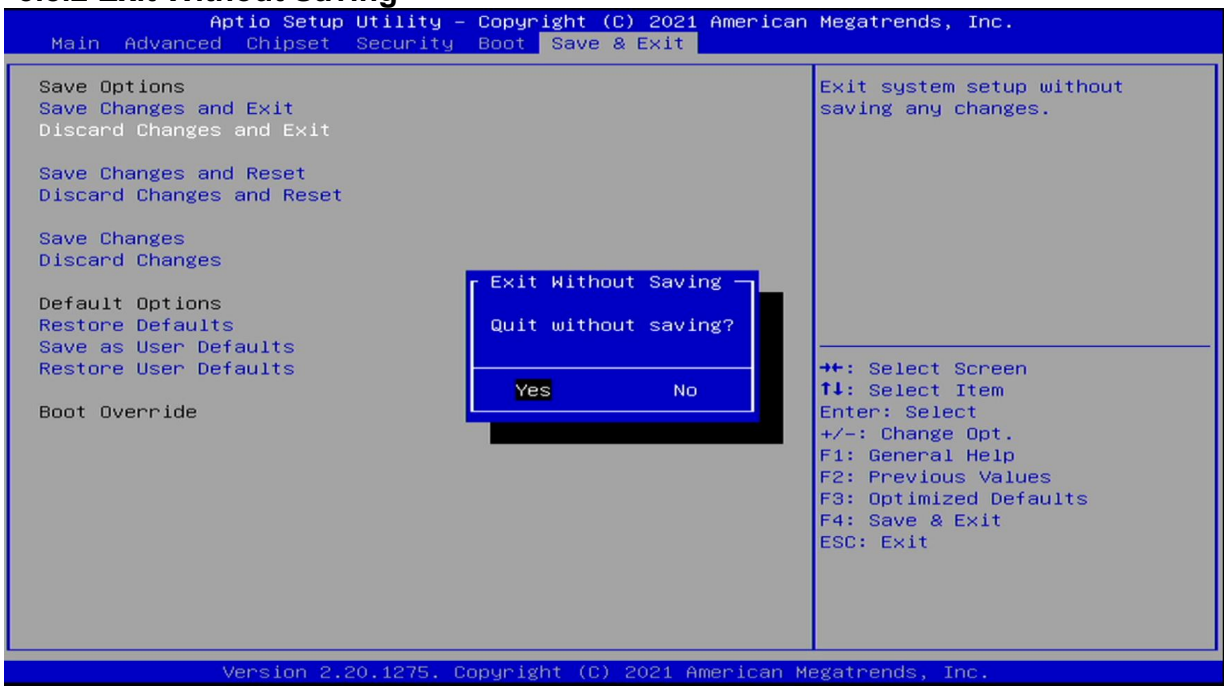
3.8.1 Save Changes and Exit



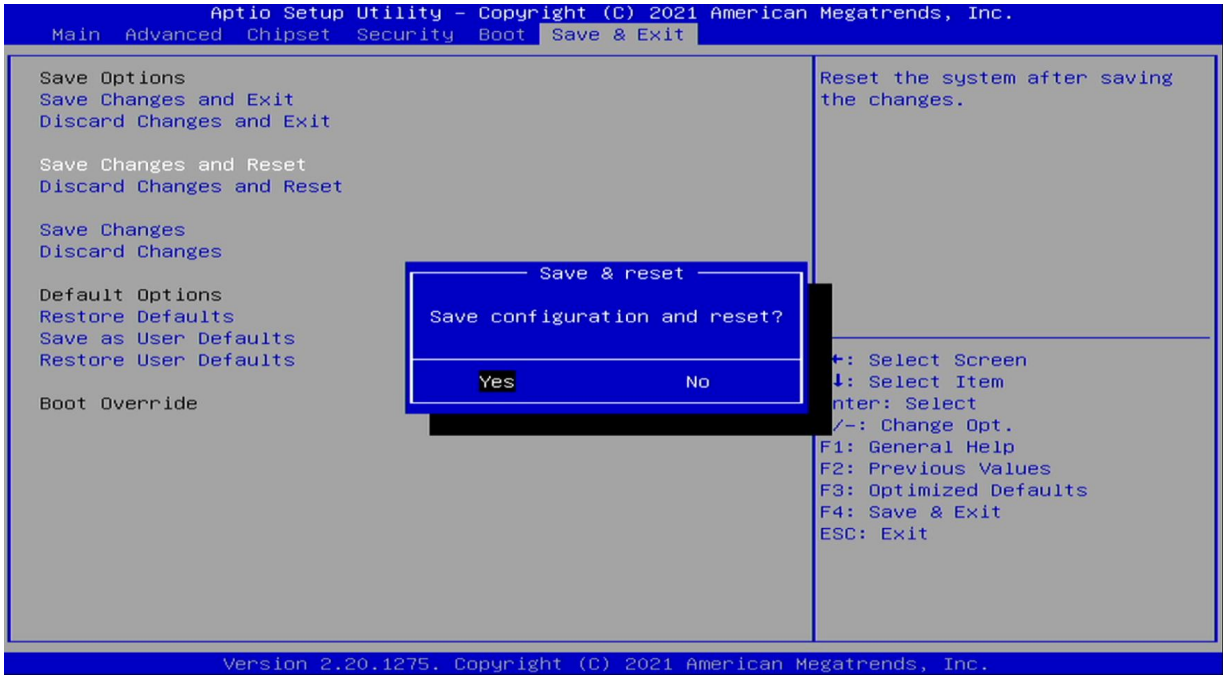
3.8.1.1 Save & Exit Setup



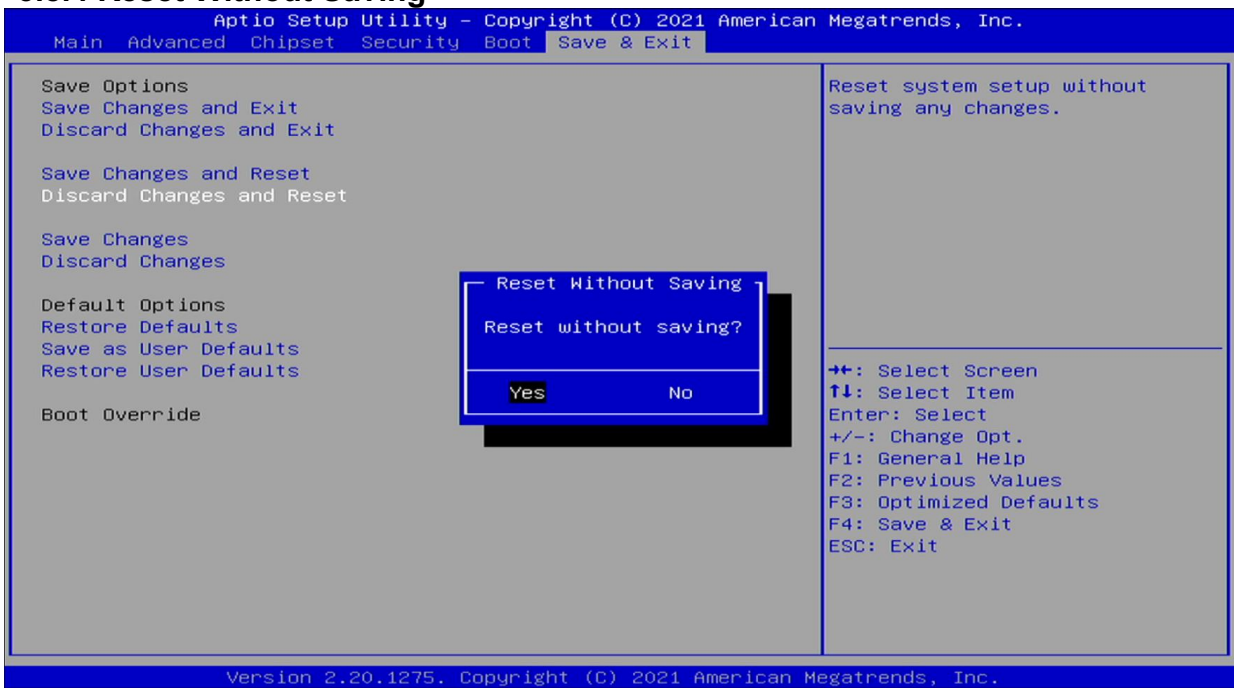
3.8.2 Exit Without Saving



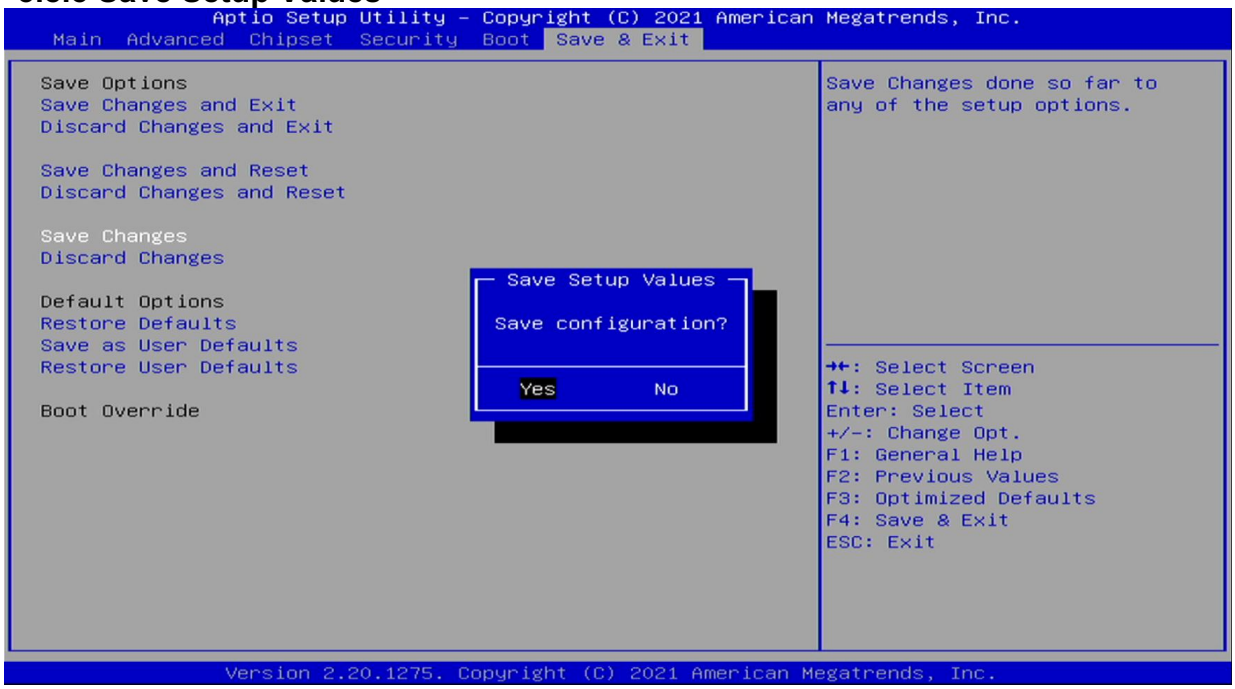
3.8.3 Save & reset



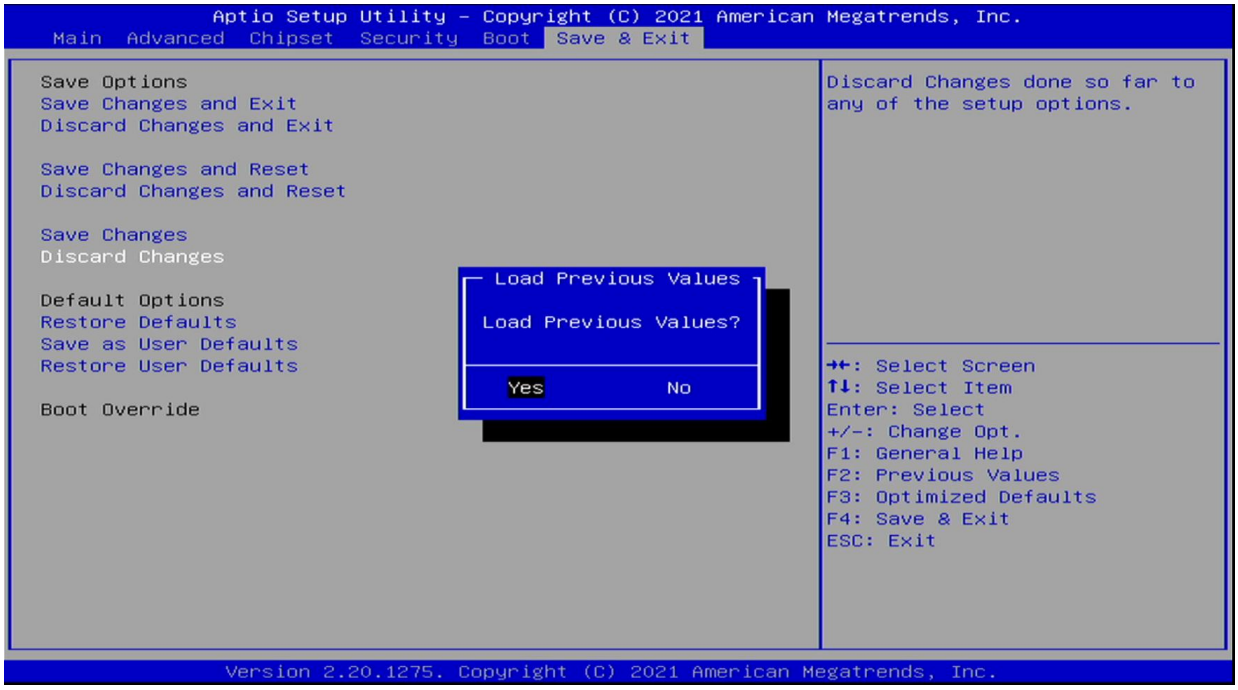
3.8.4 Reset Without Saving



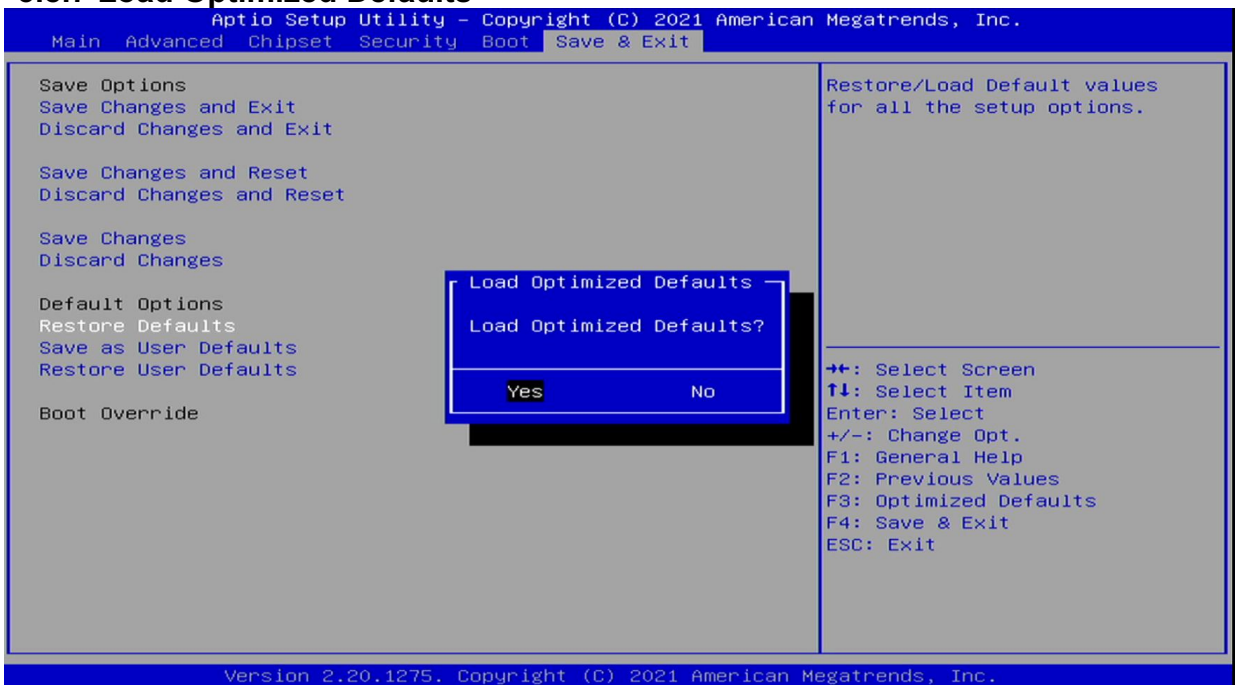
3.8.5 Save Setup Values



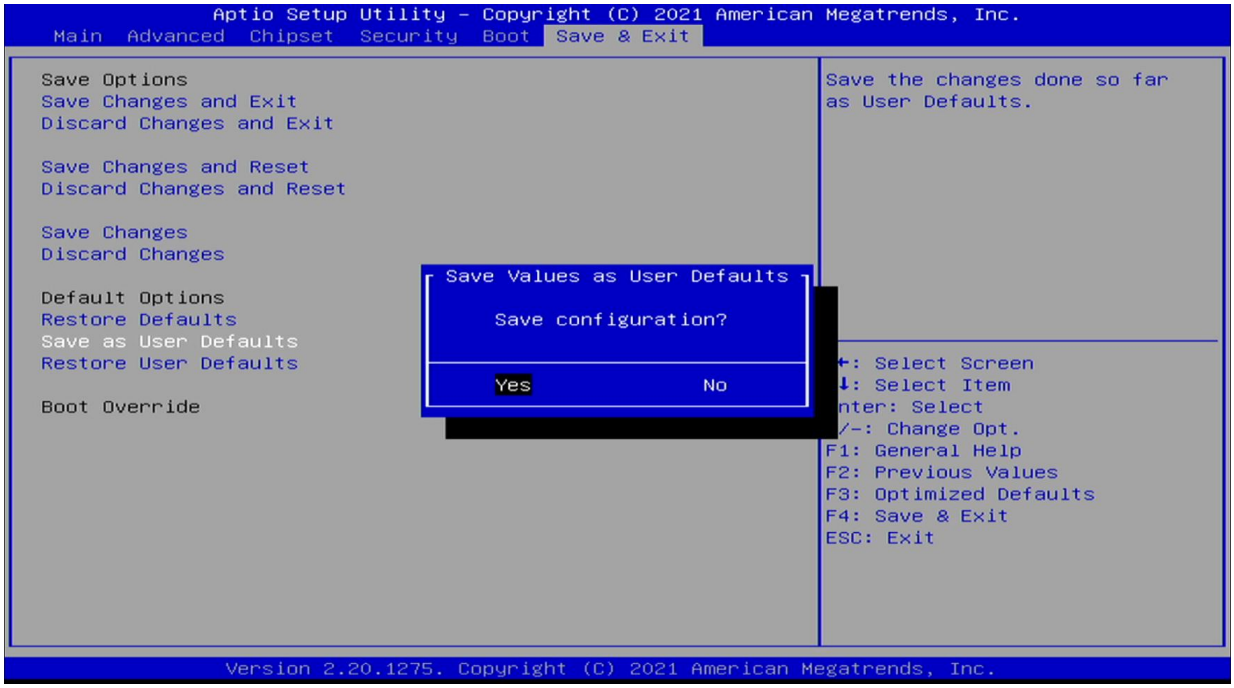
3.8.6 Load Previous Values



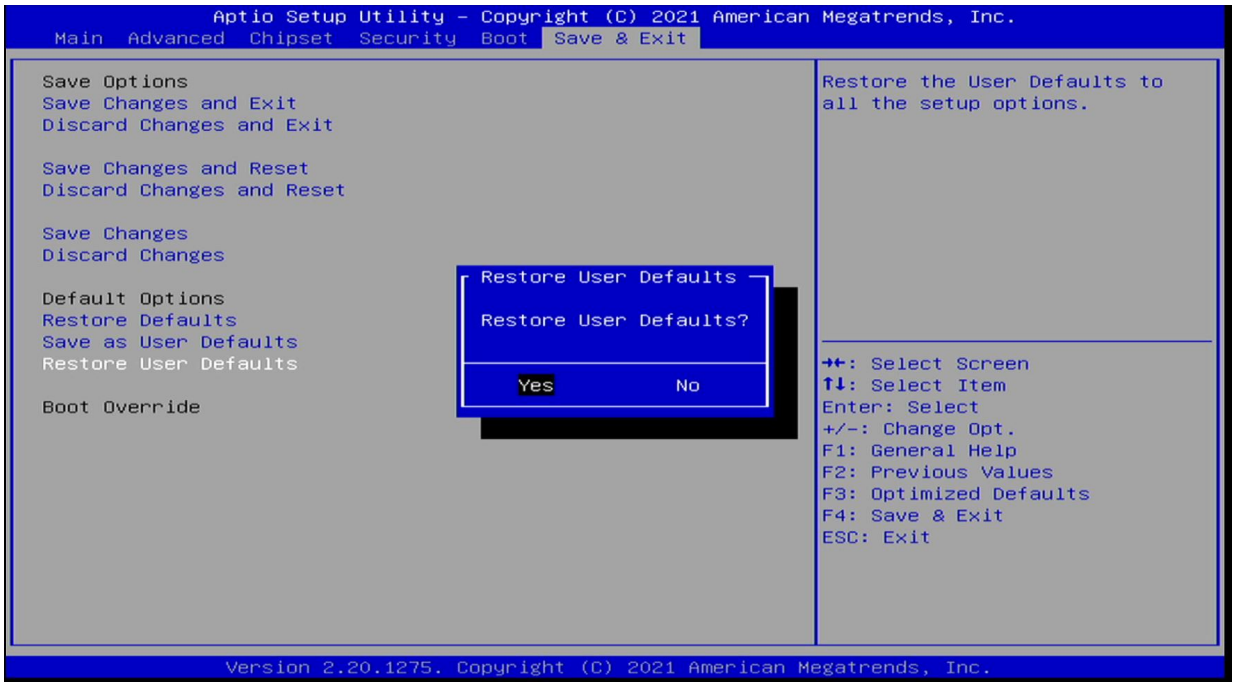
3.8.7 Load Optimized Defaults



3.8.8 Save Values as User Defaults



3.8.9 Restore User Defaults



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