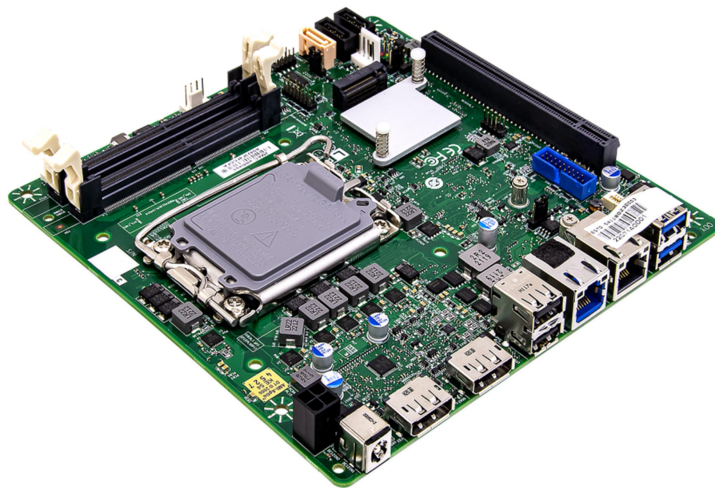


INS8367A

*Intel® Alder Lake-S 13th /12th Processor
with H610/Q670 Chipset Mini-ITX*



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

- All rights reserved. No part of this publication may be reproduced in any form or by any means, without prior written permission from the publisher.
- All trademarks are the properties of the respective owners.
- All product specifications are subject to change without prior notice

RoHS Compliance



Perfectron RoHS Environmental Policy and Status Update

Perfectron is a global citizen for building the digital infrastructure. We are committed to providing green products and services, which are compliant with

European Union RoHS (Restriction on Use of Hazardous Substance in Electronic Equipment) directive 2011/65/EU, to be your trusted green partner and to protect our environment.

In order to meet the RoHS compliant directives, Perfectron has established an engineering and manufacturing task force to implement the introduction of green products. The task force will ensure that we follow the standard Perfectron development procedure and that all the new RoHS components and new manufacturing processes maintain the highest industry quality levels for which Perfectron are renowned.

The model selection criteria will be based on market demand. Vendors and suppliers will ensure that all designed components will be RoHS compliant

Revision History

Revision	Date (yyyy/mm/dd)	Changes
V1.0	2023/06/29	First release

Packing List

Item	Description	Q'ty
1	INS8367A	1
2	CD(Driver + User's manual)	1
3	2 x IO Bracket(Half and Full Height)	1
4	SATA Cable	1
5	SATA Power Cable	1



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

Table of Contents

Safety Information	1
<i>Electrical safety</i>	1
<i>Operation safety</i>	1
<i>Statement</i>	1
RoHS Compliance	2
Revision History	3
Packing List	3
Chapter 1 : Product Introduction	6
1.1 <i>Specifications</i>	6
1.2 <i>Block Diagram</i>	8
1.3 <i>Board Placement</i>	9
Chapter 2 : Jumpers and Connectors Location	10
2.1 <i>Jumpers And Connectors List</i>	10
2.2 <i>Jumper Settings</i>	11
Chapter 3: AMI BIOS UTILITY	15
3.1 <i>Staring</i>	15
3.2 <i>Navigation Keys</i>	15
3.3 <i>Main Page</i>	16
3.4 <i>Advance Page</i>	17
3.4.1 <i>Onboard Device</i>	18
3.4.2 <i>CPU Configuration</i>	20
3.4.3 <i>VMD setup menu</i>	21
3.4.4 <i>Trusted Computing</i>	22
3.4.5 <i>NCT6126D Super IO Configuration</i>	23
3.4.6 <i>Serial Port 1 Configuration</i>	24
3.4.7 <i>Serial Port 2 Configuration</i>	25
3.4.8 <i>Hardware Monitor</i>	26
3.4.9 <i>S5 RTC Wake Settings</i>	27
3.4.10 <i>Network Stack Configuration</i>	28
3.4.11 <i>NVMe Configuration</i>	29
3.5 <i>Security Page</i>	30

3.5.1 HDD Security configuration.....	31
3.5.2 Secure Boot	32
3.5.3 Key Management	33
3.5.4 BIOS Update.....	35
3.6 Boot Page	36
3.6.1 (List Boot Device Type) Drive BBS Priorities	37
3.7 Save & Exit Page.....	38
3.8 Event Logs.....	39
3.8.1 Change Smbios Event Log Setting.....	40
3.8.2 ViewSmbios Event Log.....	411

Chapter 1 : Product Introduction

1.1 Specifications

System

CPU	12 th / 13 th Gen Intel® Alder Lake LGA1700 Socket Processor / Core i9/i7/i5/i3 Processor TDP 35/65W
System Memory	DDR4 3200 MHz / 2 x 262-pin SO-DIMM / Max. 64GB (Non-ECC) Vertical
Chipset	Intel® H610/Q670
Graphics	Nuvoton NCT6126D
I/O Chipset	TPM Header
TPM	Temperature Monitor, Voltage Monitor, Fan Monitor
BIOS	1-255 sec. or 1-255 min. software programmable and can be generate system reset
H/W Monitor	CPU FAN / System FAN
Watchdog Timer	AMI BIOS

Expansion

M.2	1 x M.2 2280M-Key (PCIe3.0 X4, SATAIII)
PCIe Slot	1 x PCIe 4.0 X16 slot

Display

Chipset	Intel® UHD Graphics 770
Display Port	Up to 4K (4096 x 2304) @60 Hz
2nd Display Port	Up to 4K (4096 x 2304) @60 Hz

Ethernet

Chipset	Intel® I219-LM GbE LAN + Intel® I225V 2.5 GbE LAN
---------	---

Rear I/O

USB	2 x USB3.1 ; 2 x USB2.0
Display port	2 x DP
LAN	2(1 x GbE ; 1 x 2.5GbE)

Internal I/O

SATAIII	2
USB3.1	2
USB2.0	5
Display I/O	1 x LVDS 1 x Backlight connector

Serial	2 (1 x Support RS-232/422/485)
FAN	1 x 4-pin CPU Fan Connector / 1 x 4-pin System Fan Header
Power	1 x 12V DC IN Jack(Colay 19V) 1 x ATX 4pin (AT/ATX mode by jumper setting)
Others	1 x Front Audio Header (Mic-in / Line-out), 1 x CMOS Jumper, 1 x panel power select header, 1 x SATA power, 1 x FIO header, 1 x intrusion switch header, 1 x DMIC header, 1x buzzer header 1 x GPIO header

Environmental

Form Factor	Mini ITX
Power Type	12V DC-IN
Dimension	170mm x 170mm
Operating Temperature	ET : -20°C ~ 70°C UT : -40°C ~ 85°C
Storage Temperature	-40°C ~ 85°C
Relative humidity	10% to 95%, non-condensing

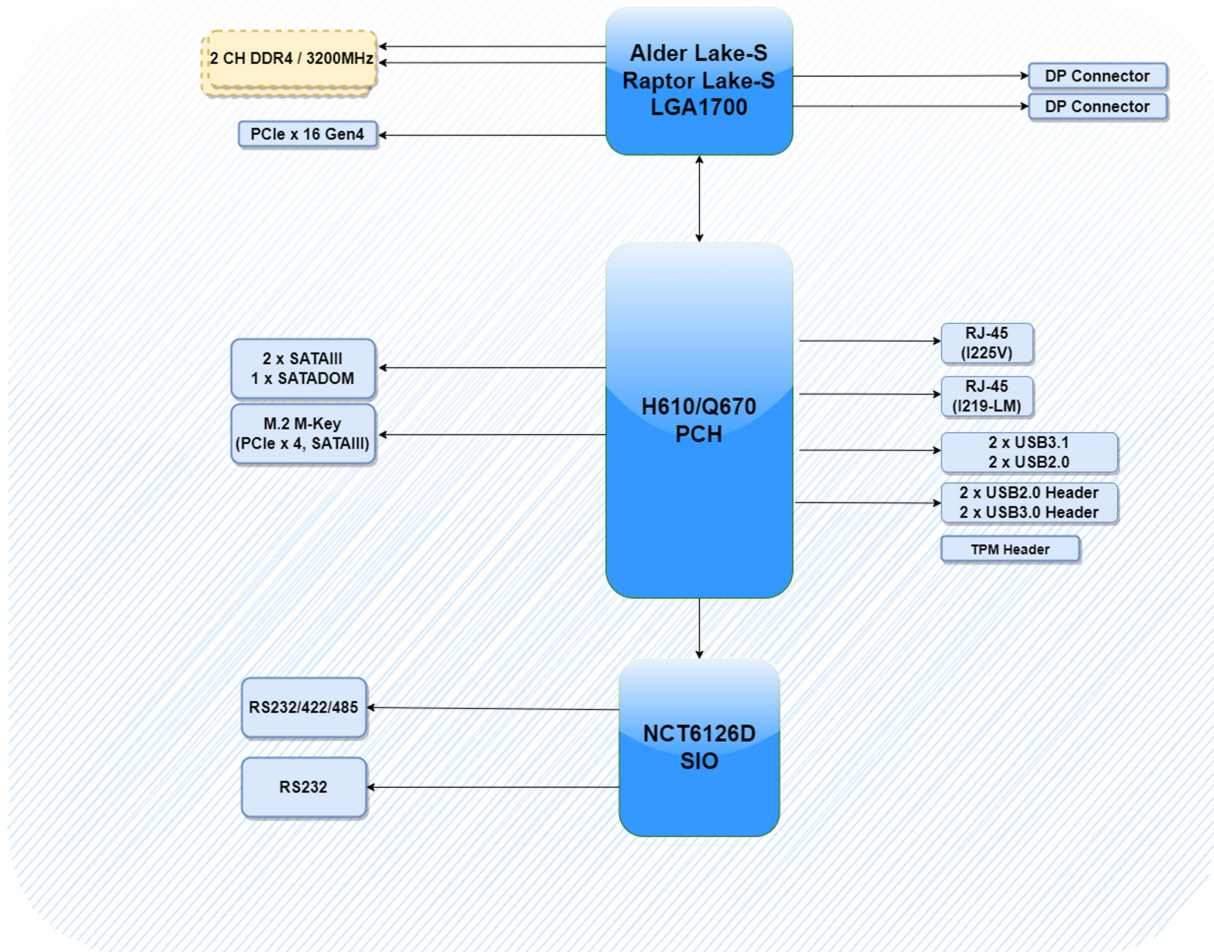
Standard Compliance

Standart Compliance CE / FCC

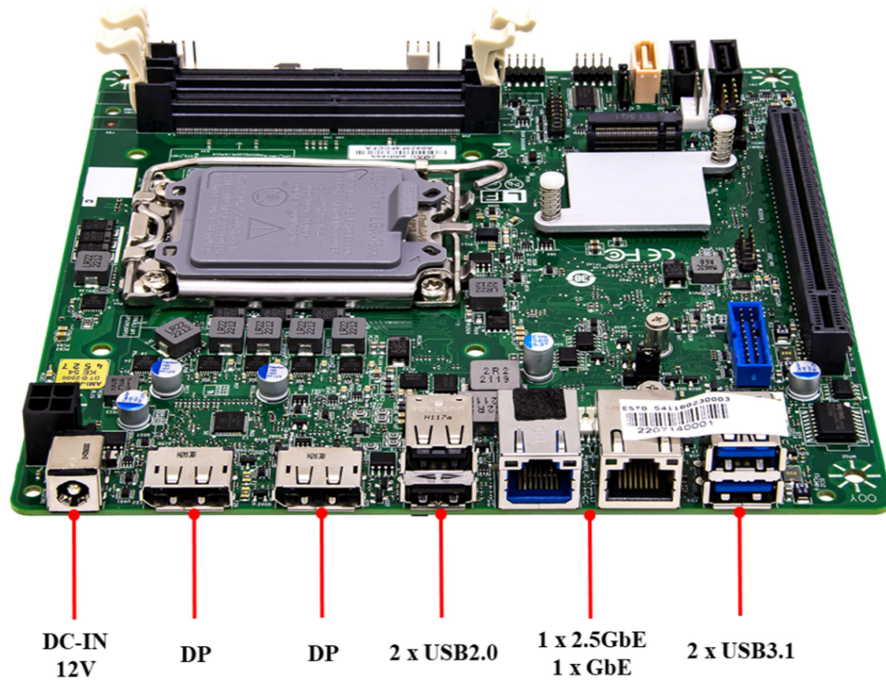
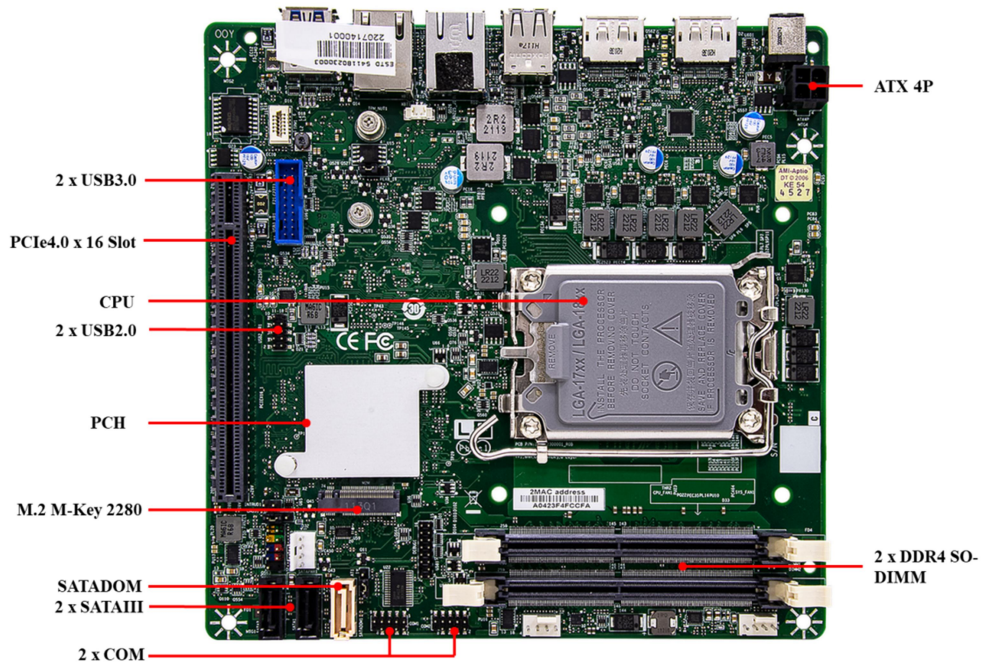
OS

OS Support	Windows®10 64-bit Linux(Support by request)
------------	--

1.2 Block Diagram



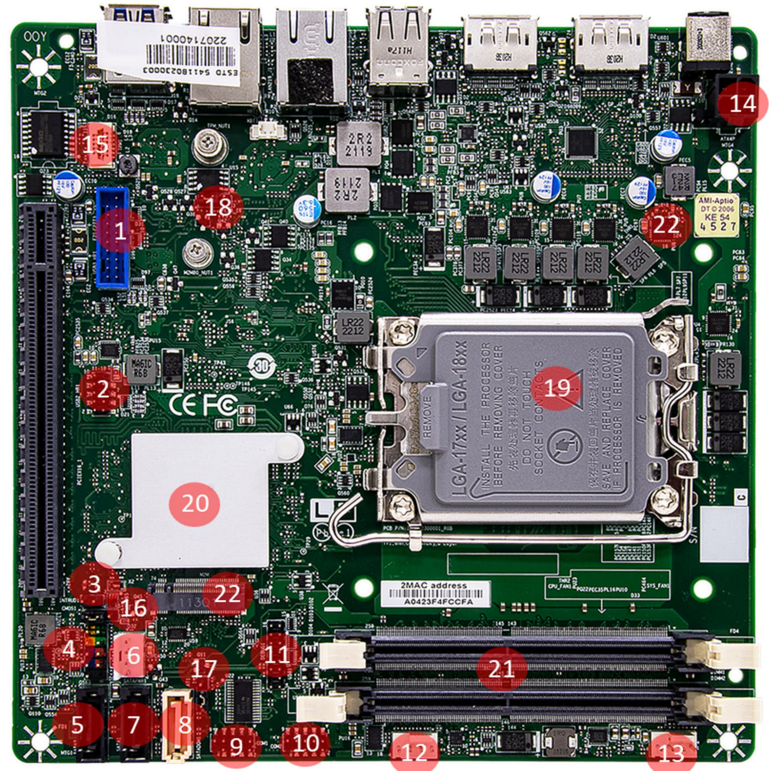
1.3 Board Placement



Chapter 2 : Jumpers and Connectors Location

2.1 Jumpers And Connectors List

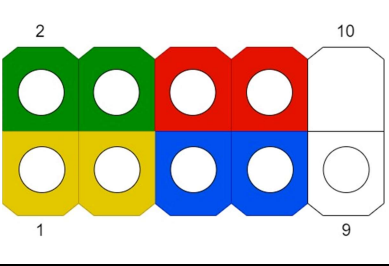
Label	Function
1	USB3.0 Header
2	USB Header
3	Inturder Header
4	Front Panel Header
5	SATA
6	SATA Power Header
7	SATA
8	SATADOM
9	COM1
10	COM2
11	P2398 Card Header
12	CPU FAN Header
13	System Fan Header
14	ATX 4pin
15	TPM Header
16	Clear CMOS Header
17	AT/ATX Select Header
18	PCIe x 16 /8 Select Header
19	LGA1700 CPU Socket
20	PCH
21	2 x DDR4 SO-DIMM Socket
22	M.2 2280 M-Key



2.2 Jumper Settings

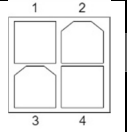
Front Panel Header

PIN	DEFINITION	PIN	DEFINITION
1	HDD_POWER_LED	2	POWER_LED_MAIN
3	HDD_LED#	4	POWER_LED_ALT
5	GND	6	POWER_SWITCH#
7	RESET_SWITCH#	8	GND
9	+5V_DC	10	Key(no pin)



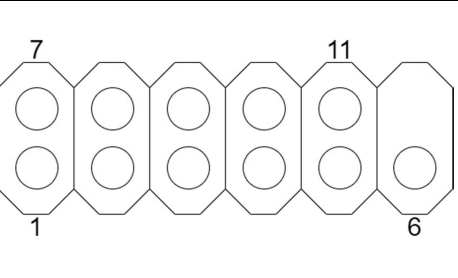
ATX Power Input Header

PIN	DEFINITION	PIN	DEFINITION
1	GND	2	GND
3	DC12V_IN	4	DC12V_IN



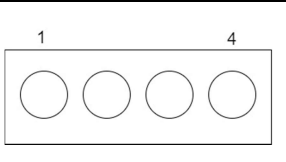
TPM Header

PIN	DEFINITION	PIN	DEFINITION
1	SPI_CLK	7	3VSB
2	PLTRST_N	8	TPM_DET
3	SPI_MOSI	9	TPM_PIRQ_N
4	SPI_MISO	10	VCC3_TPM
5	SPI_CS2_N	11	GND
6	NC		



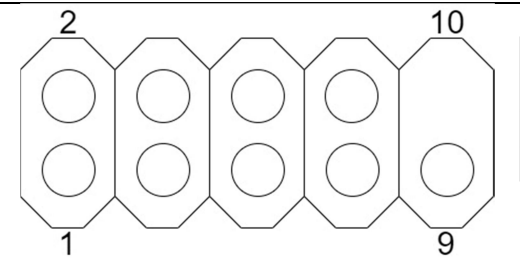
CPU/SYS FAN Header

PIN	DEFINITION
1	GND
2	+12V
3	CPU_FAN_TACH
4	CPU_FAN_CTRL



Serial Port Pin-Out(COM1/COM2)

PIN	DEFINITION	PIN	DEFINITION
1	DCD	2	RXD#
3	TXD#	4	DTR
5	GND	6	DSR
7	RTS	8	CTS
9	RI	10	Key(no pin)



Debug : P2398 Card Header

PIN	DEFINITION	PIN	DEFINITION
1	GND	2	VCC (5V)
3	Power Button	4	KEY
5	PORT80_A	6	3VSB
7	PORT80_B	8	PORT80_E
9	PORT80_C	10	PORT80_F
11	PORT80_D	12	PORT80_G
13	PORT80_DGH	14	PORT80_DGL
15	Dip switch_GPIO42	16	Dip switch_GPIO43

AT/ATX Mode Jumper

PIN	DEFINITION
1-2	AT Mode
2-3	ATX Mode(Default)

SATA Power Header

PIN	DEFINITION
1	12V
2	GND
3	GND
4	VCC(5V)

INTRUDER Header

PIN	DEFINITION
1	INTRUDER_N
2	Key(no pin)
3	GND

Dual USB2.0 Header

PIN	DEFINITION	PIN	DEFINITION
1	5V_USB2_FP	2	5V_USB2_FP
3	USB2_HR1_1N	4	USB2_HR1_2N
5	USB2_HR1_1P	6	USB2_HR1_2P
7	GND	8	GND
9	Key (no pin)	10	No Connect

Dual USB3.0 Header

PIN	DEFINITION	PIN	DEFINITION
1	5V_USB3_FP	20	Key(no pin)
2	USB3P4_RXN-	19	5V_USB3_FP
3	USB3P4_RXP	18	USB3P3_RXP
4	GND	17	USB3P3_RXP
5	USB3P4_TXN_C-	16	GND
6	USB3P4_TXP_C	15	USB3P3_TXN_C
7	GND	14	USB3P3_TXP_C
8	USB_PCH_C_DN5	13	GND
9	USB_PCH_C_DP5	12	USB_PCH_C_DN6
10	NC	11	USB_PCH_C_DP6

Front Audio Header

PIN	DEFINITION	PIN	DEFINITION
1	MIC	2	AUD_GND
3	MIC_BIAS	4	Presence
5	FP_OUT_R	6	AUD_SENSE_MIC_FP
7	FIO_SENSE	8	Key(no pin)
9	FP_OUT_L	10	AUD_SENSE_HP

DMIC Header

PIN	DEFINITION
1	3V3
2	DMIC_DATA
3	GND
4	DMIC_CLK
5	Key (no pin)

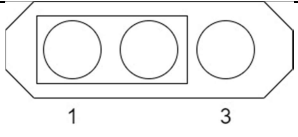
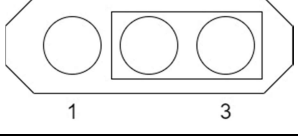
Internal Speaker Header

PIN	DEFINITION
1	LOUT-
2	LOUT+
3	ROUT+
4	ROUT-

Serial Port Pin-Out(COM2)

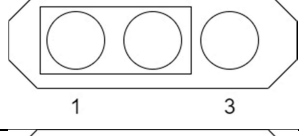
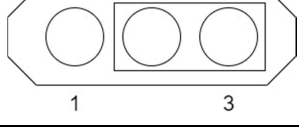
PIN	RS232	RS422	RS485
1	DCD	NC	NC
2	RXD#	NC	NC
3	TXD#	NC	NC
4	DTR	NC	NC
5	GND	NC	NC
6	DSR	NC	NC
7	RTS	NC	NC
8	CTS	NC	NC
9	RI	NC	NC
10	Key(no pin)	NC	NC

Clear CMOS Header

PIN	DEFINITION	
1-2	Normal(Default)	
2-3	Clear CMOS	

PEX8_16: PEX8 or PCIEX16 Select Header

PIN	DEFINITION
1	Pull High
2	DFG[5]: PCI Express Bifurcation High: 1 x16 PCI Express* (Default) Low: 2 x8 PCI Express
3	Pull Low

PIN	DEFINITION	
1-2	Pins 1&2 closed: High: 1 x16 PCI Express* (Default)	
2-3	Pins 2&3 closed: Low: 2 x8 PCI Express	

Chapter 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 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.

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.

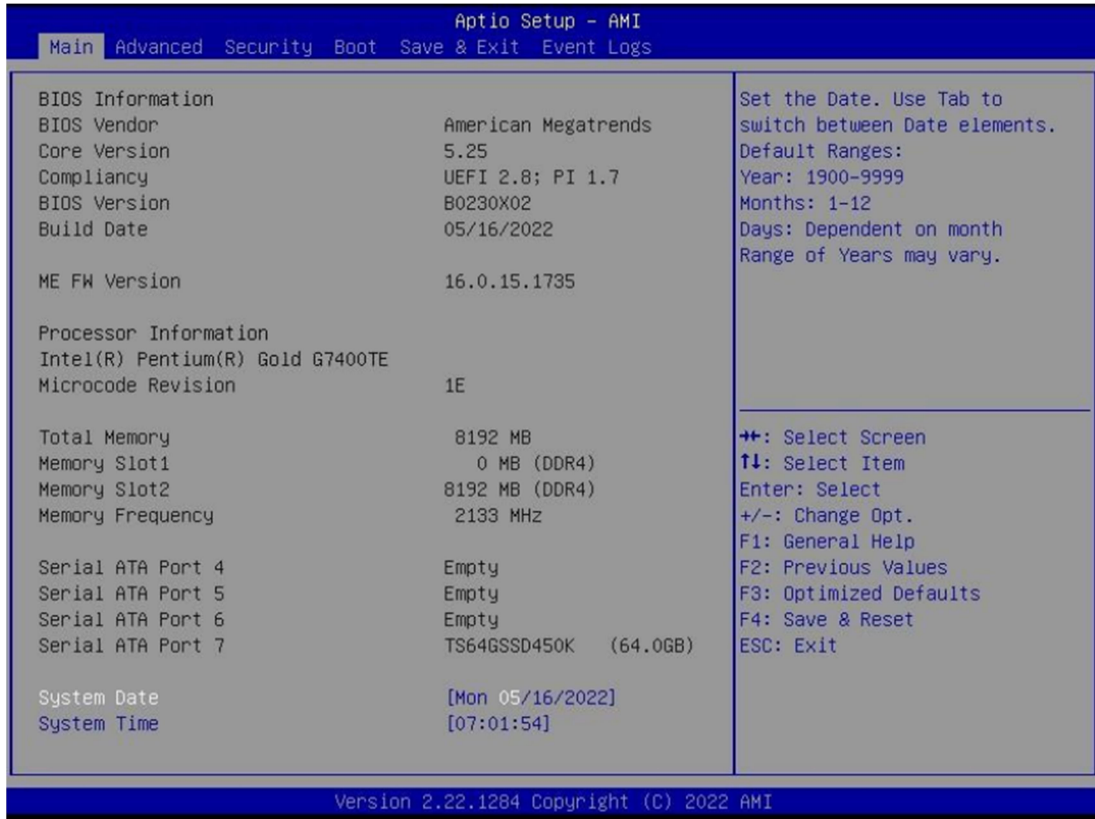
Some of the hot keys are <F1>, <F10>, <Enter>, <ESC>, and <Arrow> keys.



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.

3.3 Main Page



BIOS Information
It displays BIOS related information.
ME FW Version
ME Firmware Version.
Processor Information
Display the installed CPU brand.
Memory Information
This displays the installed memory size, installed memory size of Slot 1 & Slot2, and the installed memory frequency.
Serial ATA Port 4/5/6/7
Display the installed SATA device model/size of port 4/5/6/7.
System Date
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.

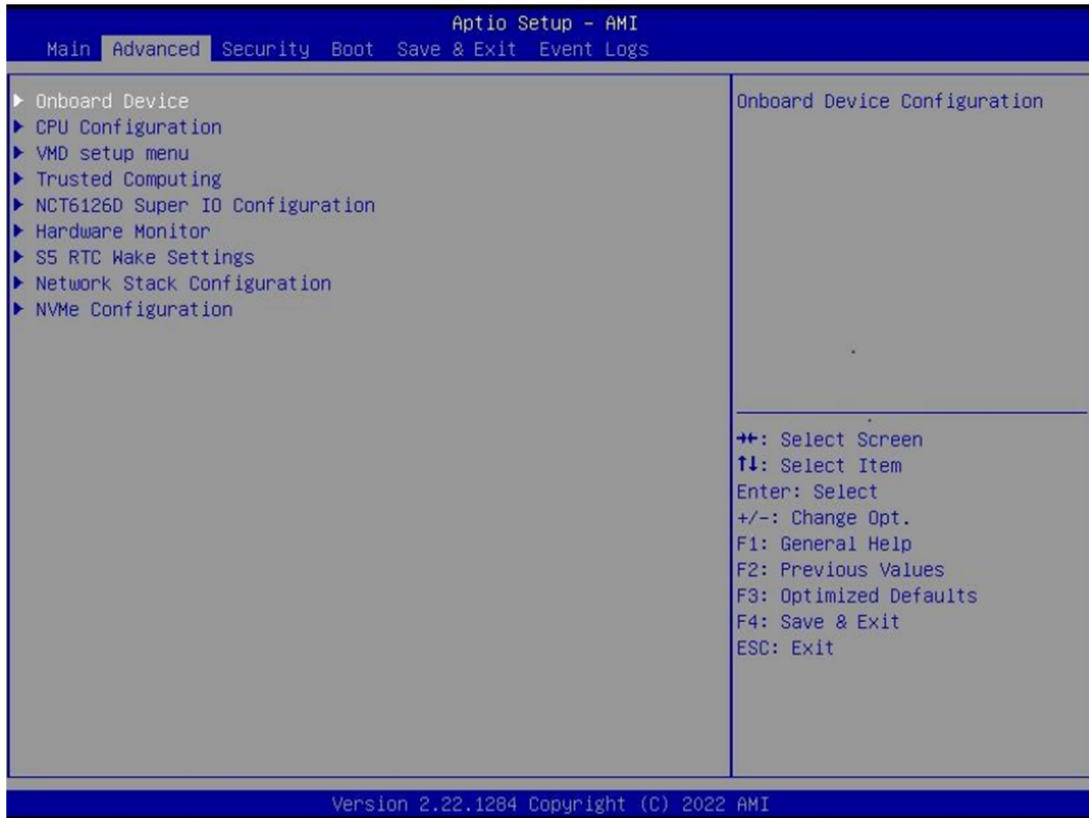
System Time

Set the Time. Use Tab to switch between Time elements.

hh: 0-23

mm: 0-59

ss: 0-59

3.4 Advance Page**Onboard Device**

Onboard Device Configuration

CPU Configuration

CPU Configuration Parameters

VMD setup menu

VMD Configuration setting

Trusted Computing

Trusted Computing Settings

NCT6126D Super IO Configuration

System Super IO Chip Parameters.

HW Monitor

Monitor hardware status

S5 RTC Wake Settings

Enable system to wake from S5 using RTC alarm.

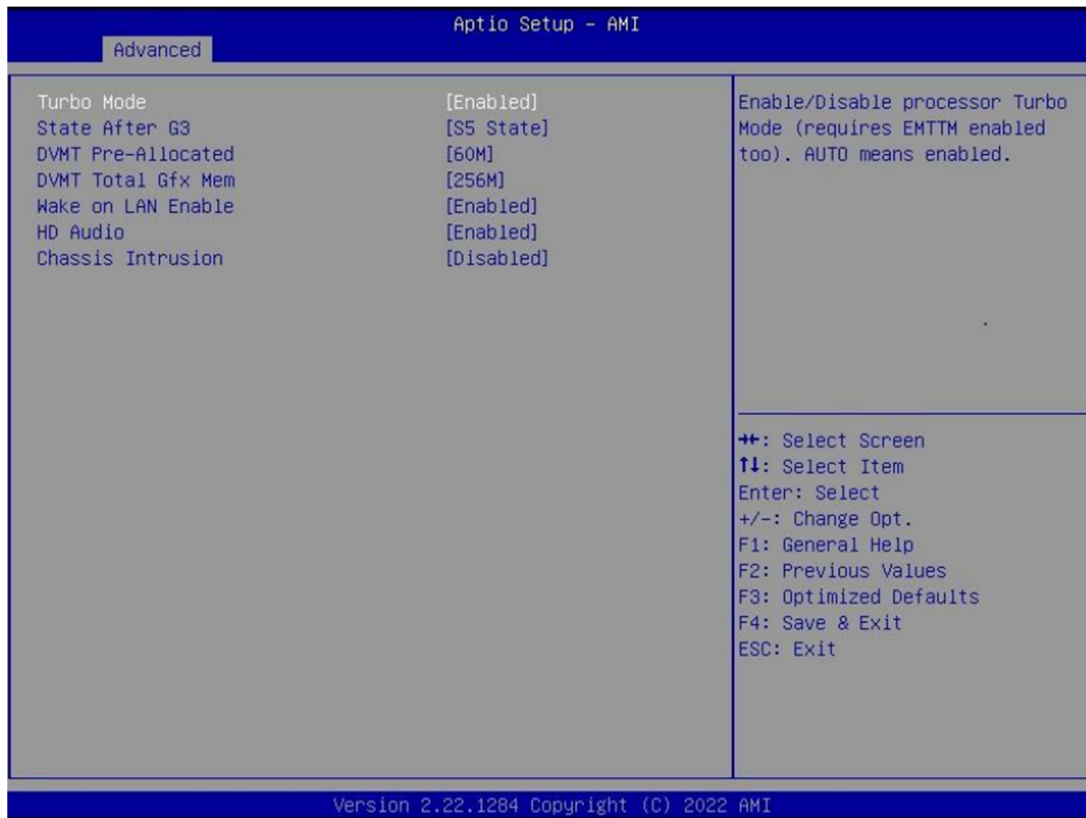
Network Stack Configuration

Network Stack Settings.

NVMe Configuration

NVMe Device Options Settings

3.4.1 Onboard Device

**Turbo Mode**

Enable/Disable processor Turbo Mode (requires Intel Speed Step or Intel Speed Shift to be available and enabled. Disabled / Enabled

State After G3

Specify what state to go to when power is re-applied after a power failure (G3 state). S0 State / S5 State

DVMT Pre-Allocated

Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device. 32M/F7 / 36M / 40M / 44M / 48M / 52M / 56M / 60M / 64M

DVMT Total Gfx Mem

Select DVMT5.0 Total Graphic Memory size used by the Internal Graphics Device. 128M / 256M / MAX

Wake on LAN Enable

Enable/Disable integrated LAN to wake the system. Disabled / Enabled

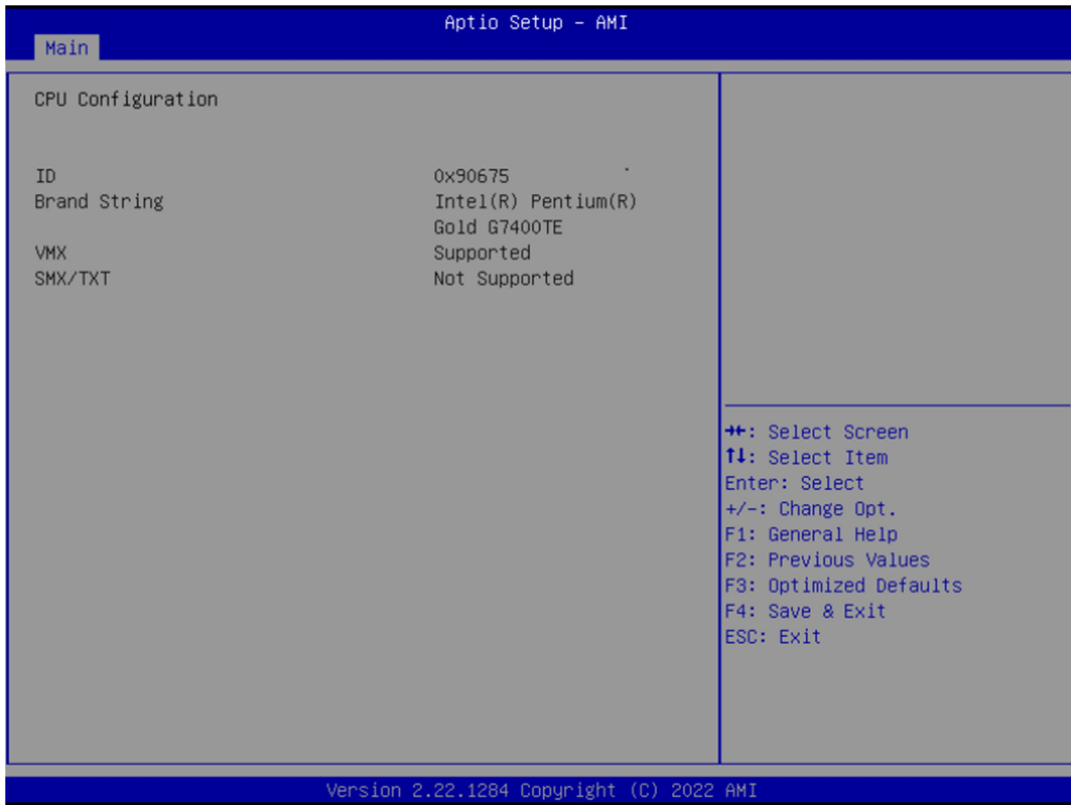
HD Audio

Control Detection of the HD-Audio device. Disabled: HDA will be unconditionally disabled. Enabled: HDA will be unconditionally enabled. Disabled / Enabled

Chassis Intrusion

Configure Chassis Intrusion. Disabled / Enabled / Reset

3.4.2 CPU Configuration



ID

Displays CPU Signature

Brand String

Displays the CPU brand string

VXM

L3 Cache Size

SMX/TXT

SMX/TXT Supported or Not

3.4.3 VMD setup menu



Enable VMD controller

Enable/Disable to VMD controller. Disabled / Enabled
--

3.4.4 Trusted Computing



Security Device Support

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. Disabled / Enabled

Pending operation

Schedule an Operation for the ecurity Device. NOTE: Your Computer will reboot during restart in order to change State of Security Device. None / TPM Clear

3.4.5 NCT6126D Super IO Configuration



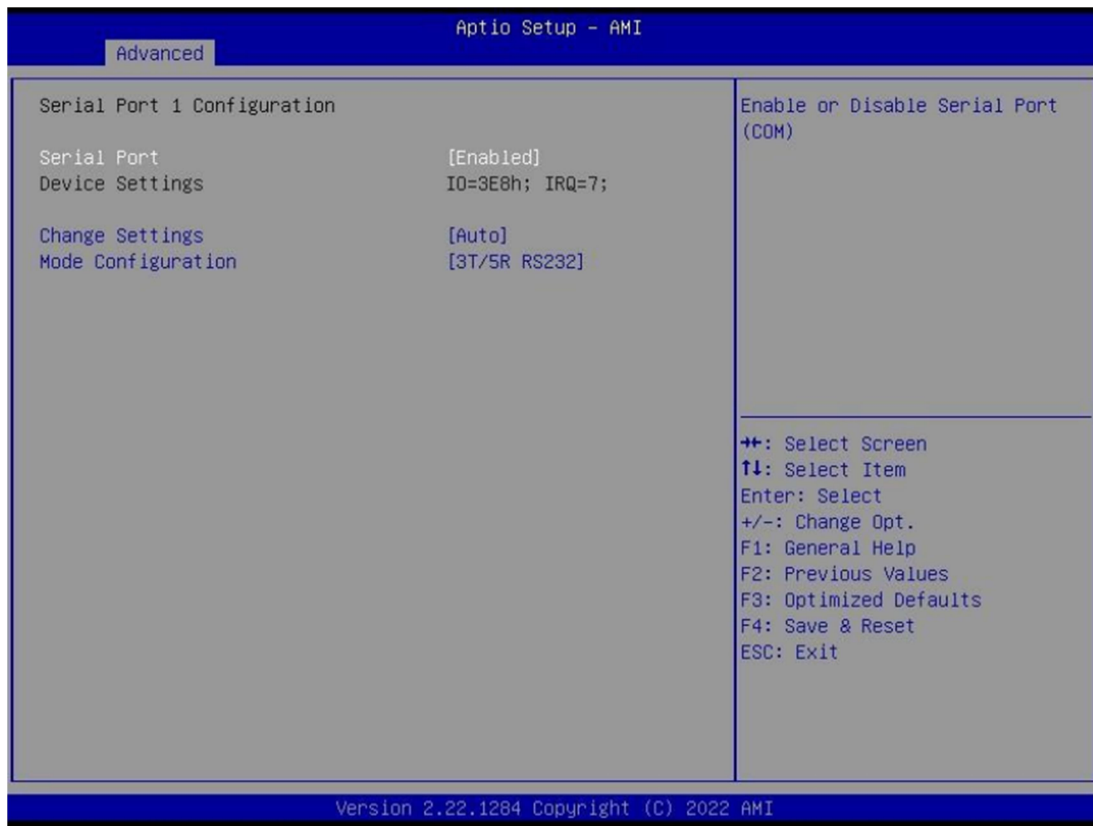
Serial Port 1 Configuration

Set Parameters of Serial Port 1 (COMA)
--

Serial Port 2 Configuration

Set Parameters of Serial Port 2 (COMB)
--

3.4.6 Serial Port 1 Configuration



Serial Port

Enable or Disable Serial Port (COM). Disabled / Enabled

Device Settings

Device Super IO COM1 Address and IRQ. Read only

Change Settings

Select an optimal setting for Super IO Device.

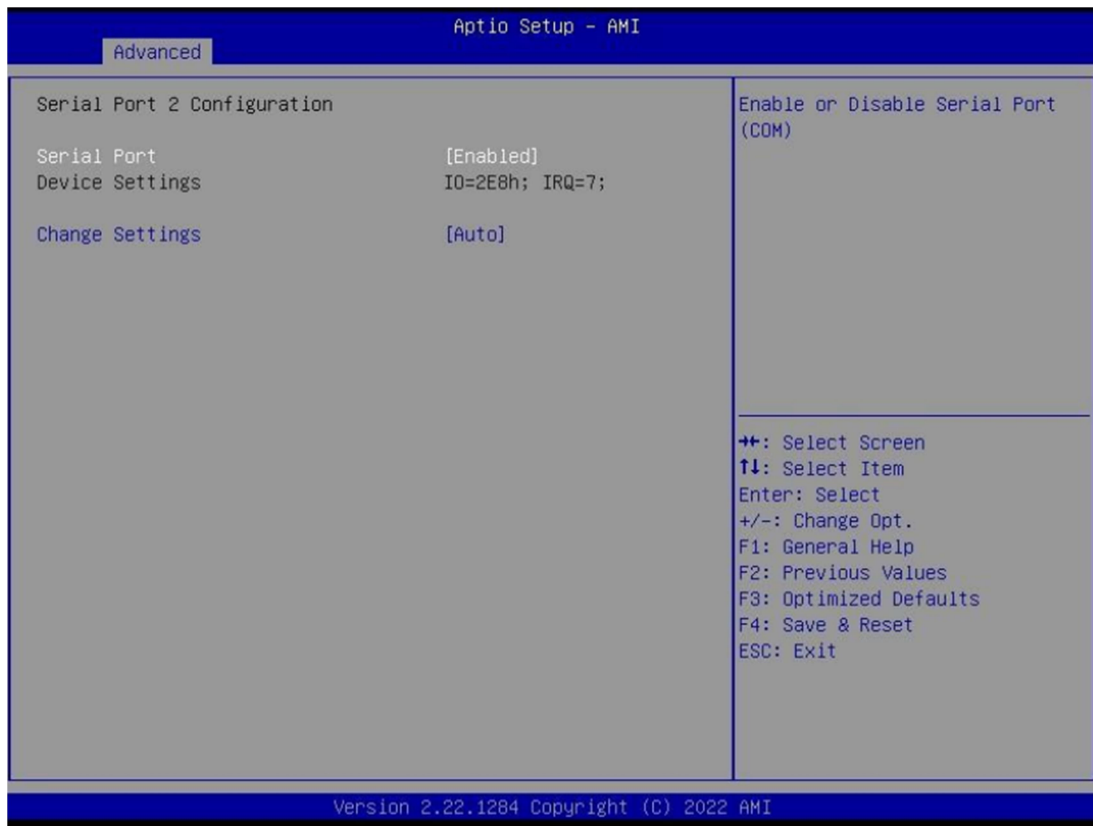
Auto / IO=3E8h; IRQ=7;
 / IO=3E8h, IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;
 / IO=2E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;
 / IO=220h, IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;
 / IO=228h, IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;

Mode Configuration

Configure serial port as RS232/RS422/RS485.

1T/1R RS422 / 3T/5R RS232 / 1T/1R RS485 TX ENABLE Low Active /
 1T/1R RS422 with termination resistor /
 1T/1R RS485 with termination resistor TX ENABLE Low Active /
 Disabled

3.4.7 Serial Port 2 Configuration



Serial Port

Enable or Disable Serial Port (COM). Disabled / Enabled

Device Settings

Device Super IO COM2 Address and IRQ. Read only

Change Settings

Select an optimal setting for Super IO Device.
--

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;

3.4.8 Hardware Monitor



Hardware Monitor Alert Enable

[Disabled If Enabled, POST monitors voltage, temperature, and fan status. If these values are out of range, BIOS display warning message and turn on beep sound. Disabled / Enabled]

System Fan Enable (Suppressed if Hardware Monitor Alert is Disabled)

If Enabled, POST monitors system fan status. If this value is out of range, BIOS display warning message and turn on beep sound. Disabled / Enabled

3.4.9 S5 RTC Wake Settings

**Wake system from S5**

Enable or disable System wake on alarm event. Select Fixed Time, system will wake on the hr:min:sec specified. Disabled / Fixed Time

Wake up hour(Show when Wake system from S5 set to Fixed Time)

Select 0-23. For example enter 3 for 3am and 15 for 3pm.

0

Wake up minute(Show when Wake system from S5 set to Fixed Time)

Select 0-59. For example enter 3 for 3am and 15 for 3pm.

0

Wake up second(Show when Wake system from S5 set to Fixed Time)

Select 0-59. For example enter 3 for 3am and 15 for 3pm.

0

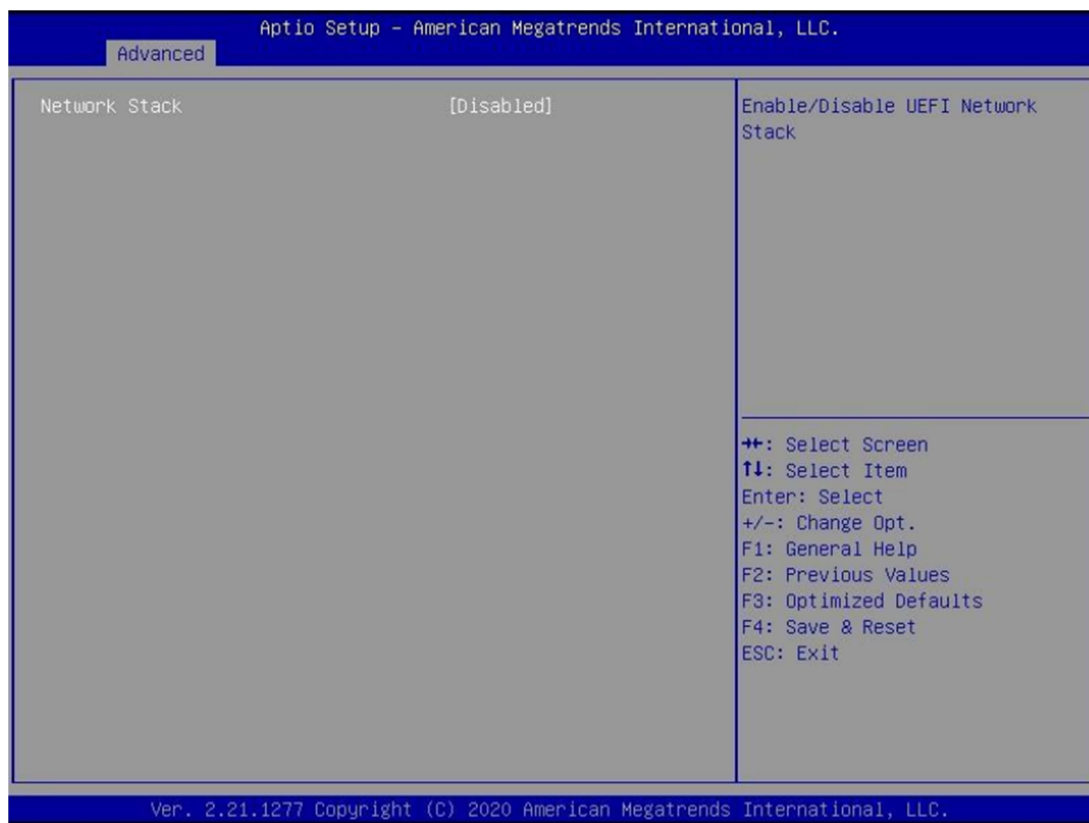
Wake system from S5 (when set to [Dynamic time])

Wake up minute increase

Select 1-5.

1

3.4.10 Network Stack Configuration

**Network stack**

Enable/Disable UEFI Network Stack. Disabled / Enabled

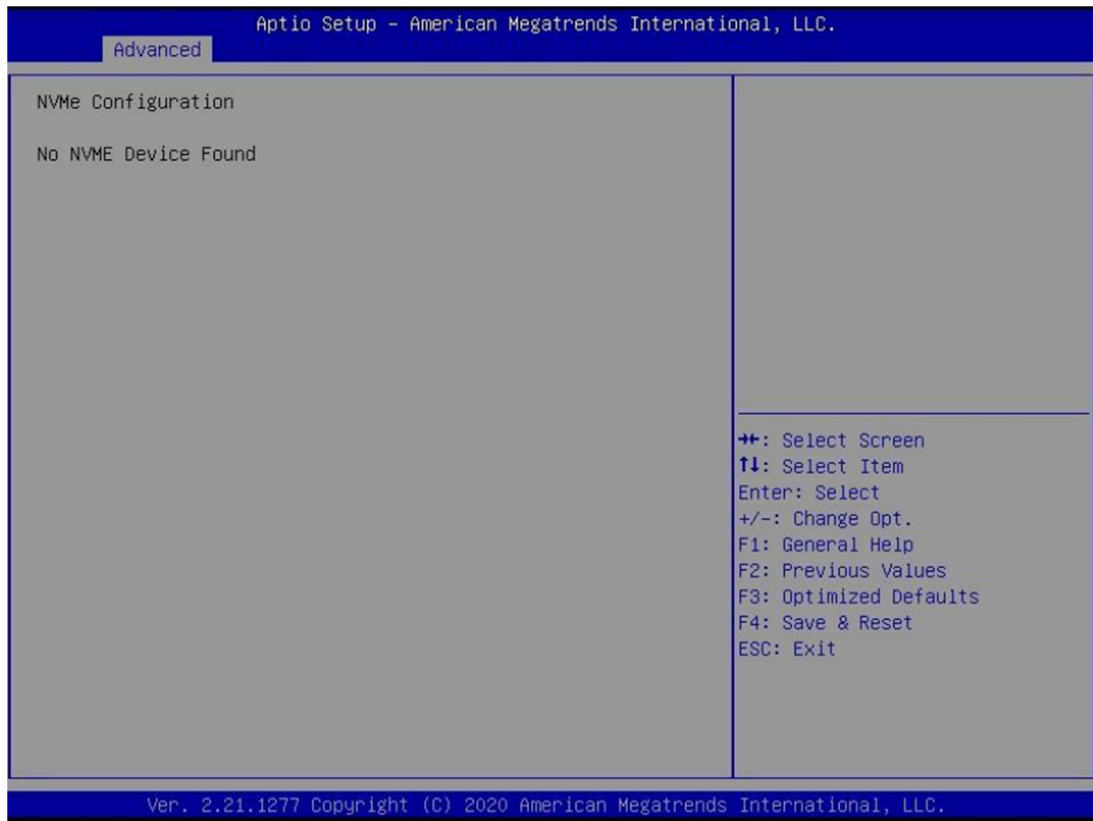
Ipv4 PXE Support (Available when Network stack Enabled)

Enable/Disable Ipv4 PXE Boot Support. If disabled IPV4 PXE boot option will not be created. Disabled / Enabled

Ipv6 PXE Support (Available when Network stack Enabled)

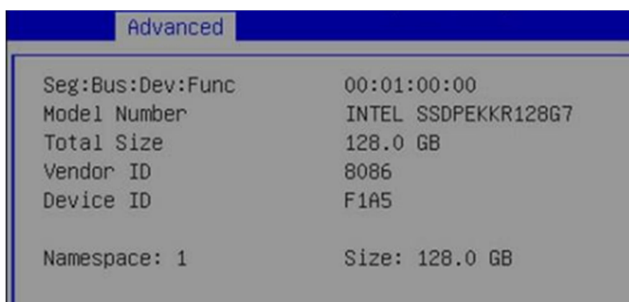
Enable/Disable Ipv6 PXE Boot Support. If disabled IPV6 PXE boot option will not be created. Disabled / Enabled

3.4.11 NVMe Configuration

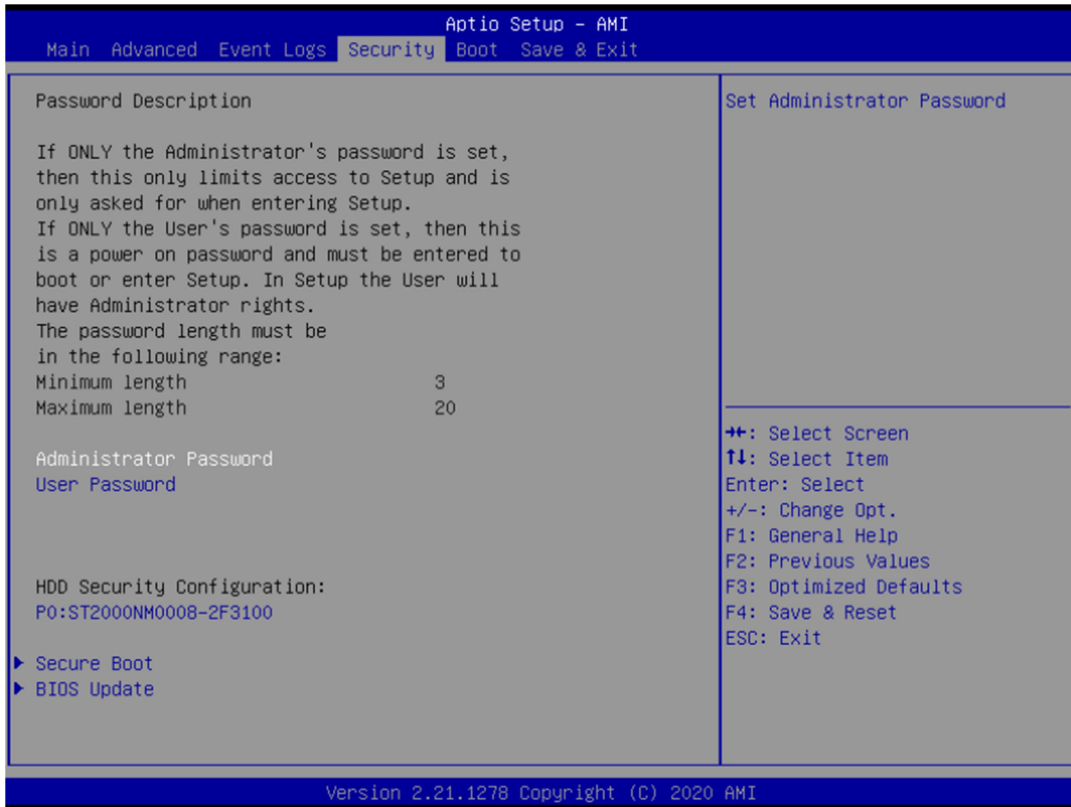


(Device)

Here shows the Device Name you installed. A sample screenshot shows below.



3.5 Security Page



Administrator Password
Set Administrator Password

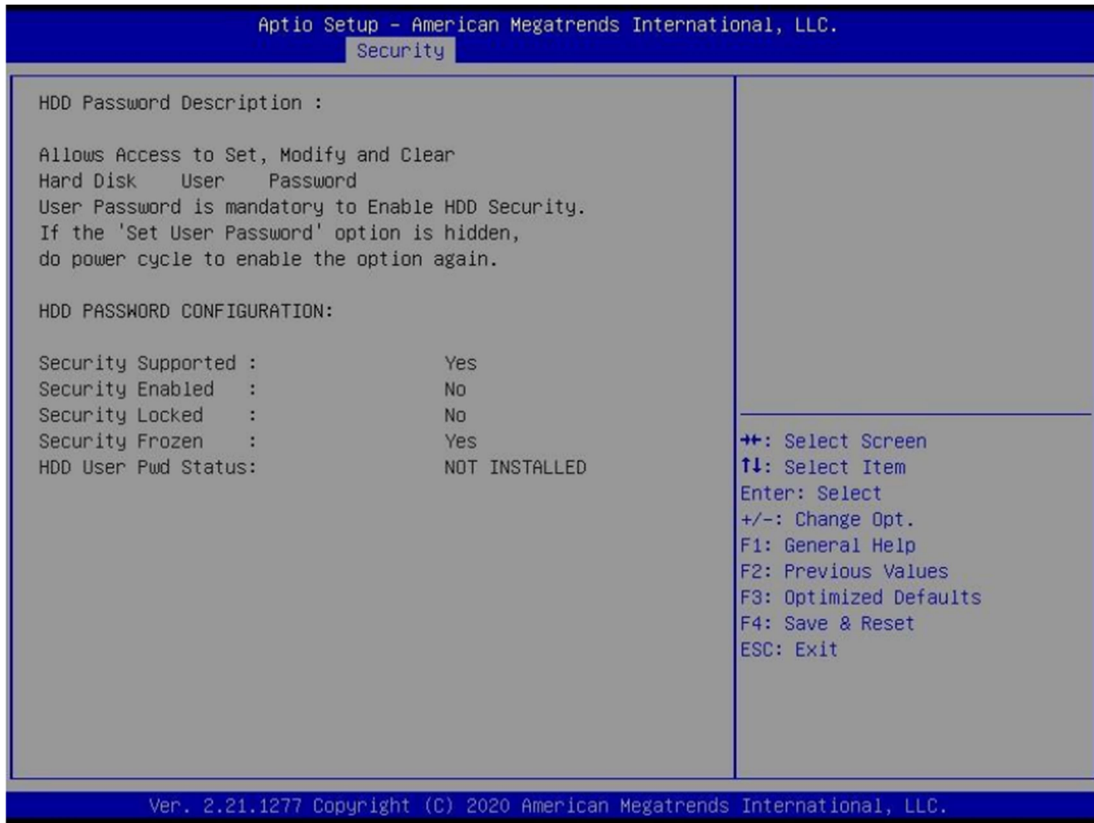
User Password
Set User Password.

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

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

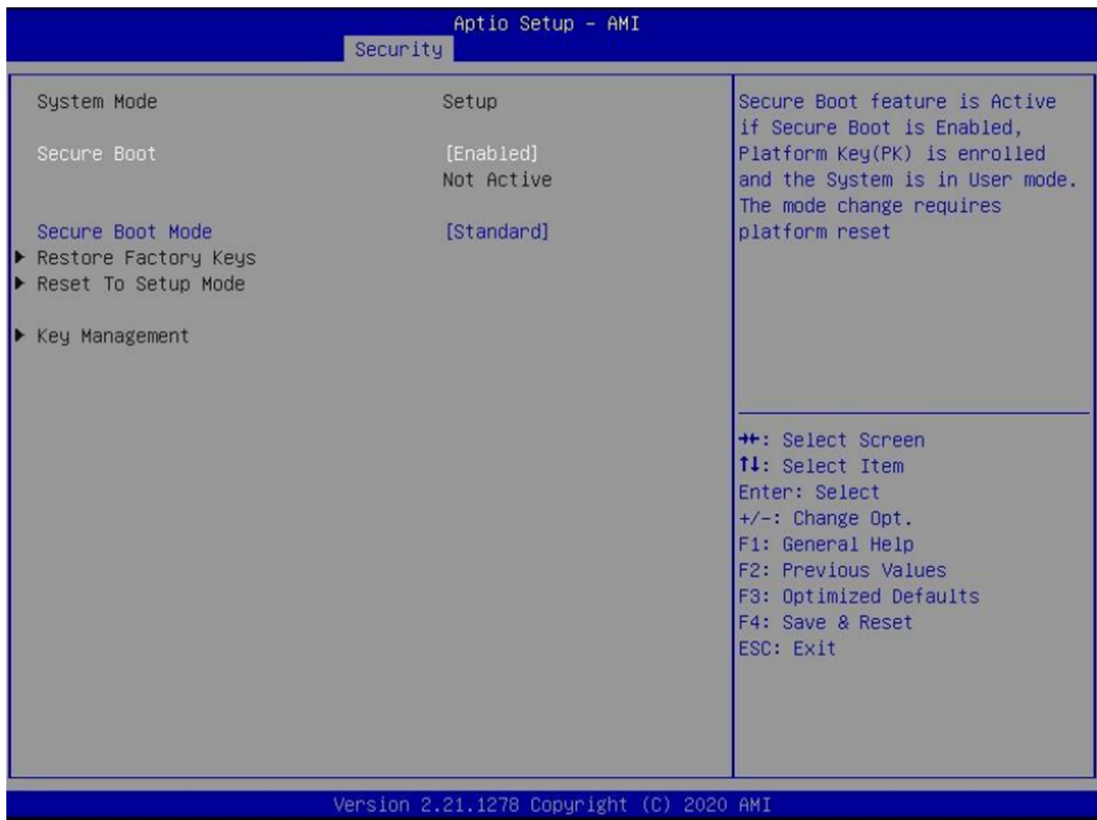
BIOS Update
BIOS Update support
Press Enter when selected to go into the associated Sub-Menu.

3.5.1 HDD Security configuration



(Device)
Read only

3.5.2 Secure Boot



Secure Boot

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. Disabled / Enabled

Secure Boot Mode

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. Custom / Standard

Restore Factory Keys

Force System to User Mode. Install factory default Secure Boot key databases.

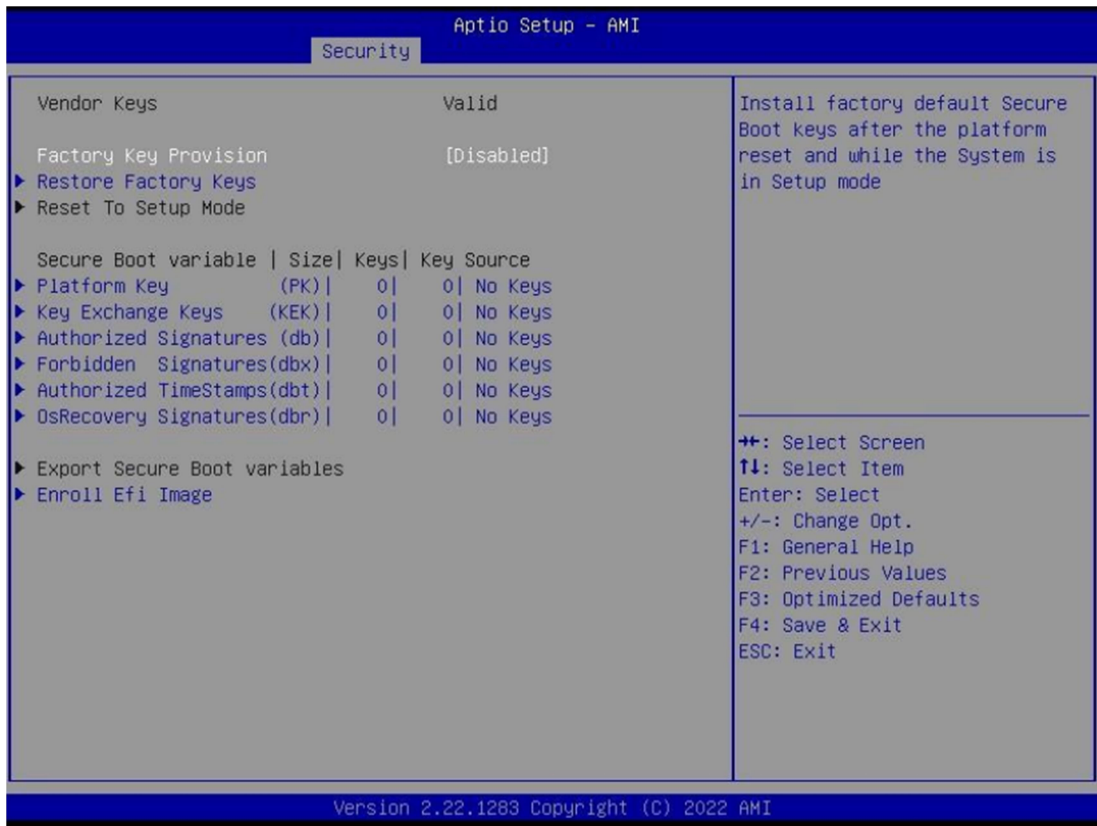
Reset to Setup Mode

Delete all Secure Boot key databases from NVRAM.

Key Management

Enables expert users to modify Secure Boot Policy variables without full authentication

3.5.3 Key Management



Factory Key Provision

Install factory default Secure Boot keys after the platform reset and while the System is in Setup mode. Disabled / Enabled

Restore Factory Keys

Force System to User Mode. Install factory default Secure Boot key databases

Reset to Setup Mode

Delete all Secure Boot key databases from NVRAM

Platform Key (PK)

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

Key Exchange Keys

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

Authorized Signatures

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

Forbidden Signatures

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

Authorized TimeStamps

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

OsRecovery Signatures

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

Export Secure Boot variables

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

Enroll Efi Image

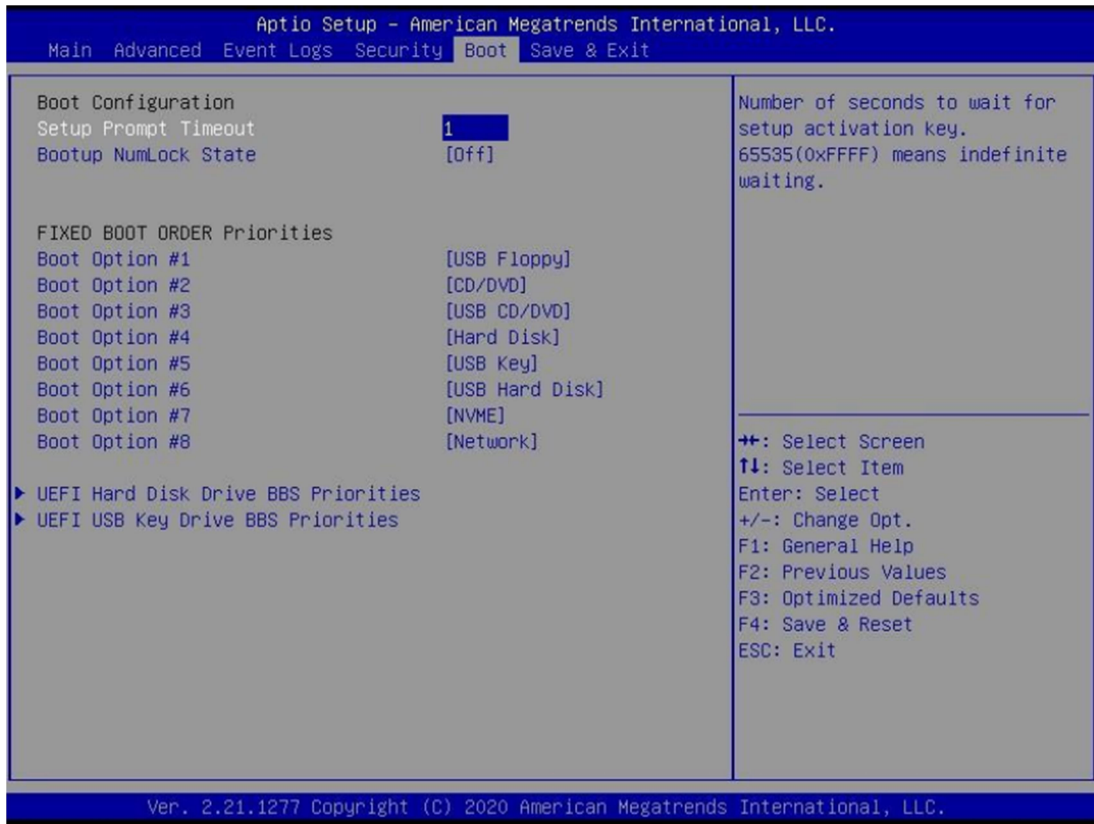
Allow the image to run in Secure Boot mode. Enroll SHA256 Hash certificate of a PE image into Authorized Signature Database (db)

3.5.4 BIOS Update

**Path for ROM Image**

Enter the path to the BIOS update option.

3.6 Boot Page



Setup Prompt Timeout
Number of seconds to wait for setup activation key. 65535 (0xFFFF) means indefinite waiting.
1

Bootup NumLock State
Select the keyboard NumLock state.
On / Off

Boot Option #1 ~ Boot Option #8
[Sets the system boot order. Device Name / Disabled

(UEFI) Hard Disk Drive BBS Priorities
Specifies the Boot Device Priority sequence from available Hard Disk Drives.

(UEFI) USB KEY Drive BBS Priorities
Specifies the Boot Device Priority sequence from available Hard Disk Drives.

(UEFI) USB Hard Disk Drive BBS Priorities
Specifies the Boot Device Priority sequence from available Hard Disk

Drives.

3.6.1 (List Boot Device Type) Drive BBS Priorities

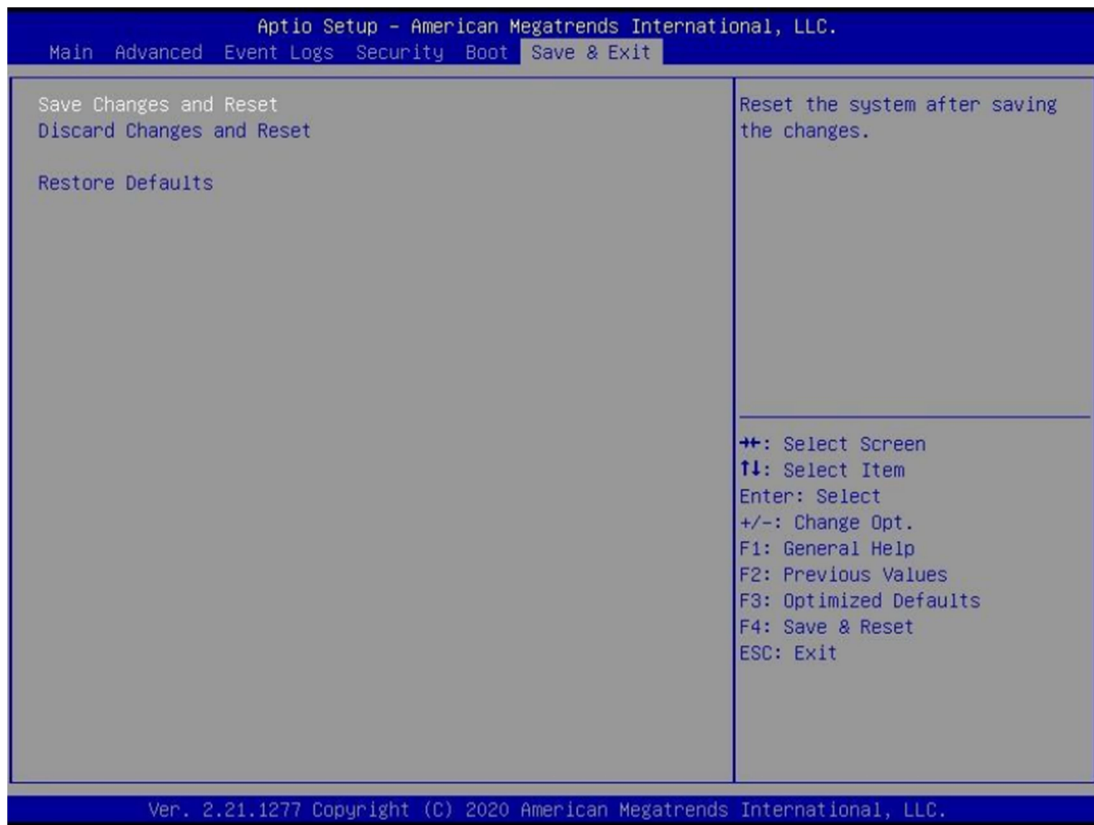


Boot Option #1

Sets the system boot order.

Boot Device Name #1 of this type / Disabled

3.7 Save & Exit Page



Discard Changes and Exit

Exit system setup without saving any changes.

Save Changes and Reset

Reset the system after saving the changes.
--

Restore Defaults

Restore/Load Default values for all the setup options.
--

3.8 Event Logs



Change Smbios Event Log Settings

Press <Enter> to change the Smbios Event Log configuration.

View Smbios Event Log

Press <Enter> to change the Smbios Event Log records.

3.8.1 Change Smbios Event Log Setting



Smbios Event Log

Change this to enable or disable all feature of Smbios Event Logging during boot.

Disabled / Enabled

Erase Event Log

Choose options for erasing Smbios Event Log. Erasing is done prior to any logging activation during reset.

No / Yes, next reset / Yes, every reset

Whea Log is Full

Choose options for reactions to a full Smbios Event Log.

Do Nothing / Erase Immediately

3.8.2 ViewSmbios Event Log

Aptio Setup - AMI					
Event Logs					
DATE	TIME	ERROR CODE	SEVERITY	COUNT	DESCRIPTION
06/04/20	06:35:10	Smbios 0x16	N/A	N/A	Log Area Reset and Count is applicable only for Multi-Events
					++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Version 2.21.1278 Copyright (C) 2020 AMI					

DATE / TIME / ERROR CODE / SEVERITY / COUNT

Description: Log Area Reset and Count is applicable only for Multi-Events. By Events.

MM/DD/YY HH:MM:SS Smbios 0x16 N/A N/A