

MiTAC Mini-ITX Board PD11EHI

Product Guide

Mini-ITX Board Features

This chapter briefly describes the features of Mini-ITX Board PD11EHI.

Below to summarizes the major features of the industrial motherboard.

Feature Summary

TABLE: MITAC DESKTOP BOARD PD11EHI FEATURES

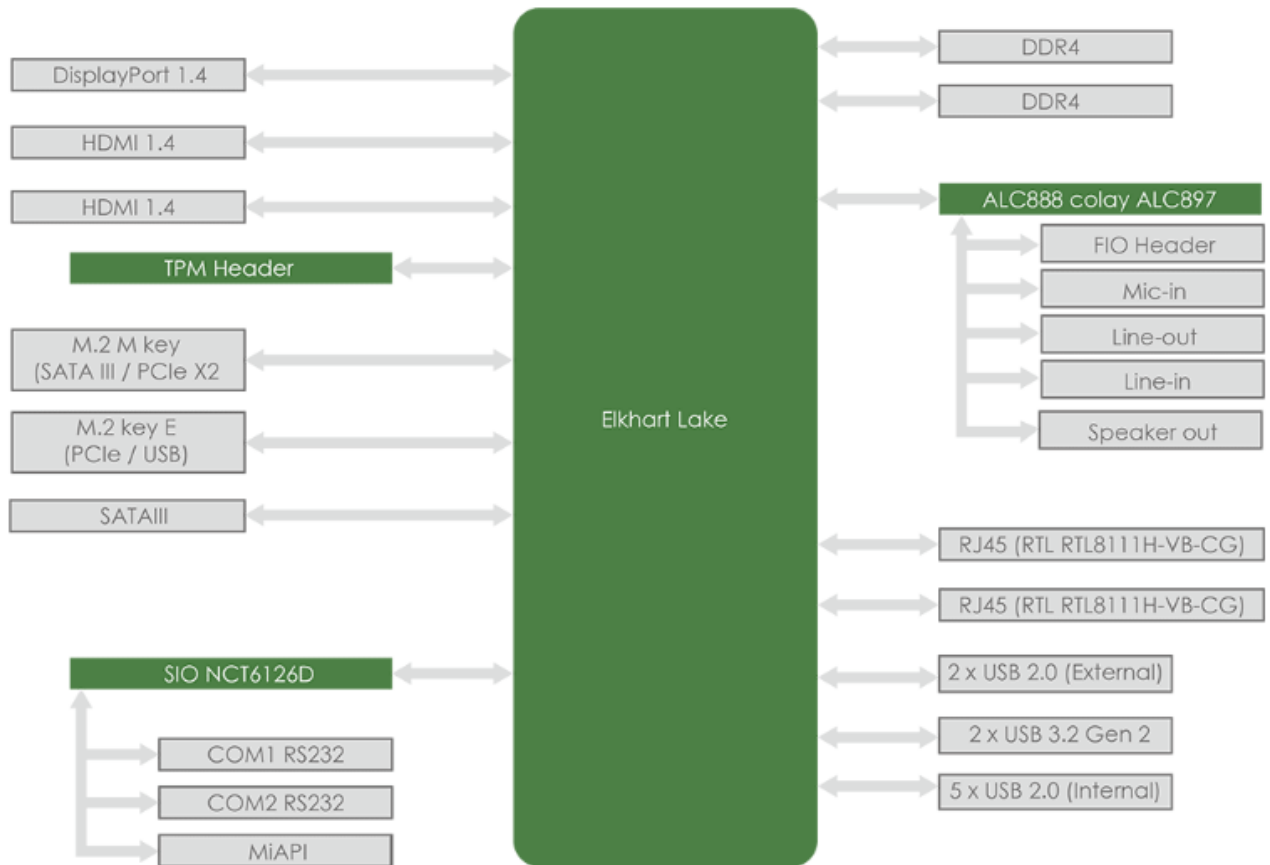
Form Factor	Mini-ITX 170.18 millimeters [6.7 inches] x 170.18 millimeters [6.7 inches]	
Processor Chipset	Intel Elkhart Lake Processor with integrated graphics	
Main Memory	• Support for dual channel DDR4 3200 SO-DIMMs	
	• Maximum support up to 32GB	
	• 260-pin DDR4 SO-DIMM	2
Audio Controller	Realtek ALC888 audio codec	
Expansion	• M.2 2242 / 2280 M key (SATAIII, PCIe X2)	1
Capability	• M.2 2230 E key (PCIeX1, USB 2.0)	1
External I/O	• HD-out	2
	• DP-out	1
	• Line-in	1
	• line-out	1
	• Mic-in	1
	• USB 3.2 Gen2 back panel connectors	2
	• USB 2.0 back panel connectors	2
	• RS232	2
Internal I/O	• RJ45	2
	• USB 2.0	5
	• Stereo speaker header (w/o Amplifier)	1
	• Front Audio Header with Mic-in and Line-out	1
	• SATA 3.0 Gb/s port	1
	• MiAPI header (Option with Parallel port header)	1
	• 4-pin CPU fan header	1
• 4-pin system fan header	1	

	<ul style="list-style-type: none"> • 24-pin ATX Power Connector 	1
S I/O Controller	NCT6126D	
LAN Support	2 x Realtek® RTL8111H Giga LAN	
Power Requirement	ATX 24-pin	
Environment	Operating Temperature: 0°C to +60°C Storage Temperature: -40°C to +85°C Operating Humidity: 10% ~ 95% R/H (Non-condensing)	
OS SUPPORT	Windows® 11 64bit, / Windows® 10 IoT LTSC 64bit (LTSC 2021) / Ubuntu 22.04 / Linux (support by request)	
Certification	CE, FCC	

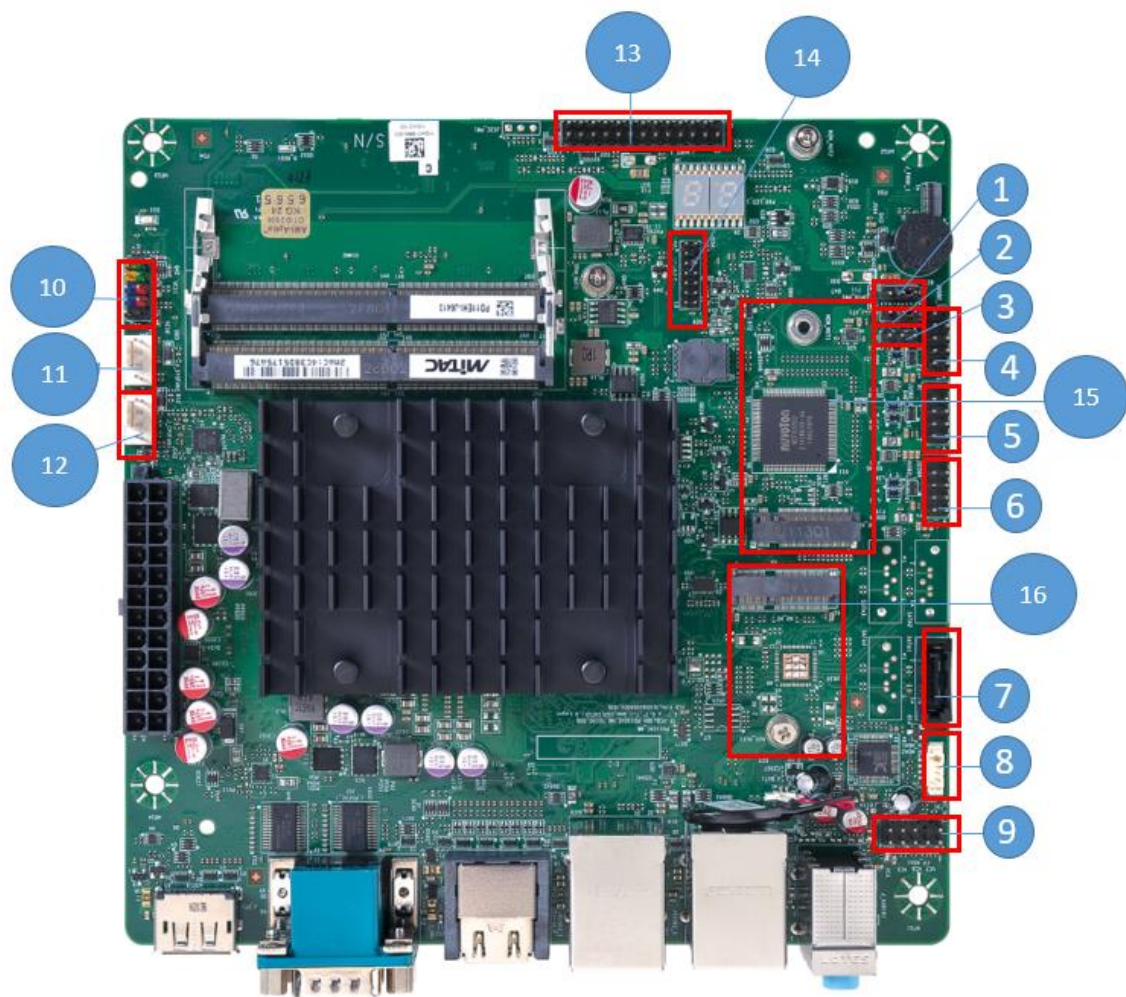
1. Hardware Specification

1.1 HW Design

1.1.1 Block Diagram

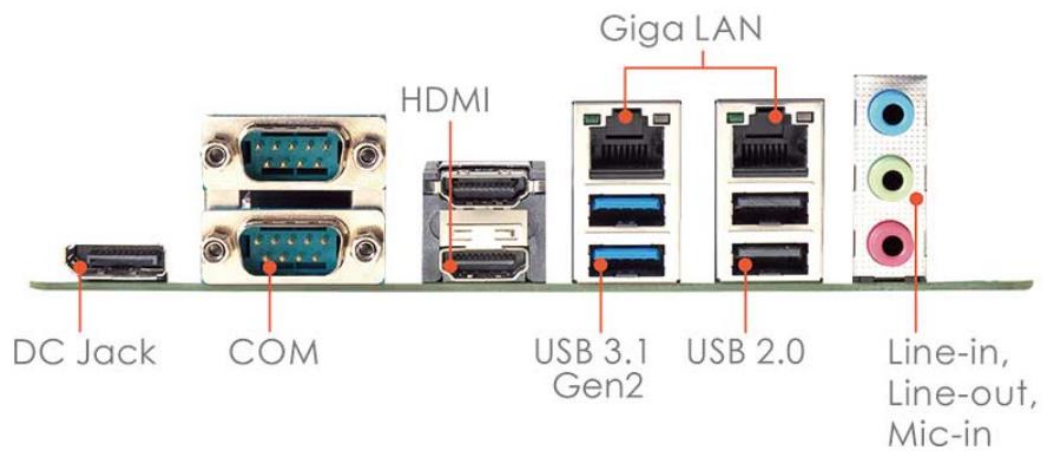


1.1.2 Placement



1	MiAPI Digital I/O power setting.	9	Front Audio Header
2	AT/ATX Mode setting	10	Front I/O Header
3	CMOS Clear	11	System FAN Header
4	Dual USB2.0 Header	12	CPU FAN Header
5	Dual USB2.0 Header	13	MiAPI Header
6	Dual USB2.0 Header	14	TPM Header
7	SATAIII	15	M.2 M Key
8	Speaker header	16	M.2 E Key

1.1.3 Placement – Rear IO



2. Product Specification

2.1 Jumper Setting

1. JPIO_PW1

MiAPI Digital I/O power setting.



Default: Set JP on pin 1-2 for 3.3V support



Set JP on pin 2-3 for 5V support

2. J_AT1

AT/ATX Mode setting.



Default: Set JP on pin 1-2: ATX Mode



Set JP on pin2-3: AT Mode

3. J_CMOS1

CMOS Clear



Pins 1&2: jumper position for CMOS Reset

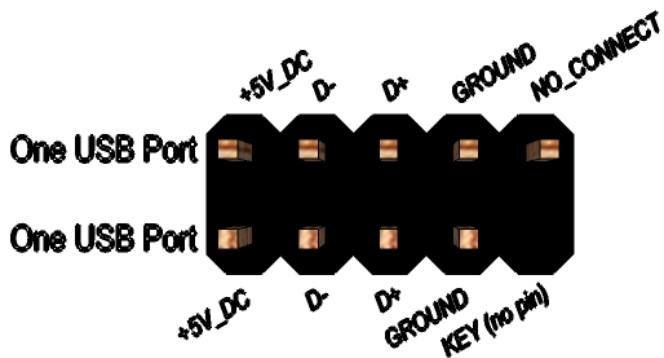


Default Set JP on pin 2-3: no

2.2 Connector Pinout

4. JUSB2_3

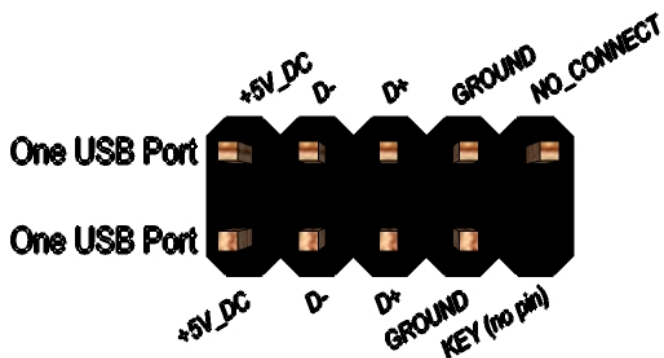
Dual USB2.0 Header



Pin	Signal	Pin	Signal
1	N/A	2	+5V DC
3	N/A	4	Data (negative)
5	N/A	6	Data (positive)
7	N/A	8	Ground
9	Key (no pin)	10	No Connect

5. JUSB2_2

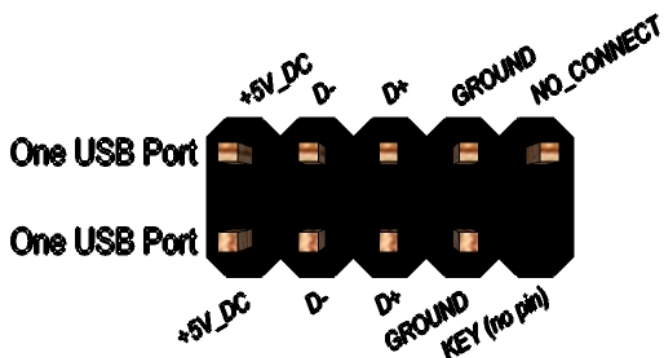
Dual USB2.0 Header



Pin	Signal	Pin	Signal
1	+5V DC	2	+5V DC
3	Data (negative)	4	Data (negative)
5	Data (positive)	6	Data (positive)
7	Ground	8	Ground
9	Key (no pin)	10	No Connect

6. JUSB2_1

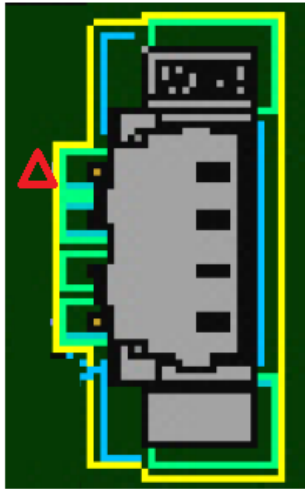
Dual USB2.0 Header



Pin	Signal	Pin	Signal
1	+5V DC	2	+5V DC
3	Data (negative)	4	Data (negative)
5	Data (positive)	6	Data (positive)
7	Ground	8	Ground
9	Key (no pin)	10	No Connect

8. INT_SPK1

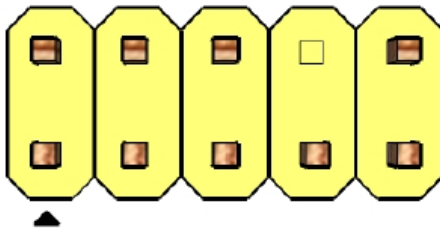
Speaker header



Pin	Signal
1	+12V DC
2	SPK-L
3	SPK-R
4	GND

9. FP_HDA1

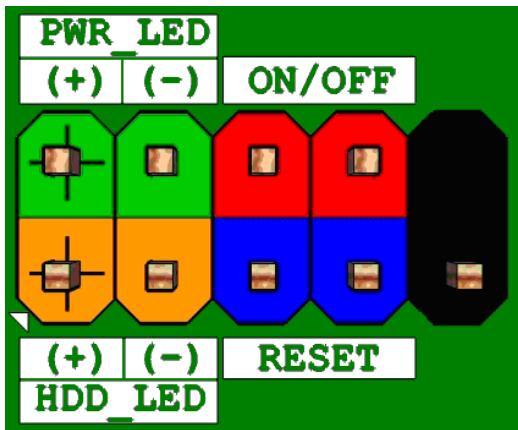
Front Audio Header



Pin	Signal name	Description
1	MIC	Front panel microphone input signal (biased when supporting stereo microphone)
2	AUD_GND	Ground used by analog audio circuits
3	MIC_BIAS	Microphone power / additional MIC input for stereo microphone support
4	PRESENCE#	Active low signal that signals BIOS that an Intel® HD Audio dongle is connected to the analog header. PRESENCE# = 0 when an Intel® HD Audio dongle is connected.
5	FP_OUT_R	Right channel audio signal to front panel (headphone drive capable)
6	AUD_GND	Ground used by analog audio circuits
7	RESERVED	Reserved
8	KEY	No pin
9	FP_OUT_L	Left channel audio signal to front panel (headphone drive capable)
10	AUD_GND	Ground used by analog audio circuits

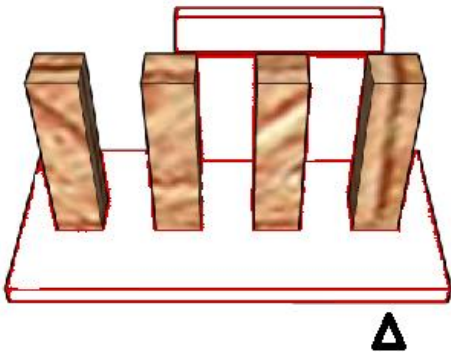
10. FIO1

Front I/O Header



11. J_CPUFAN1

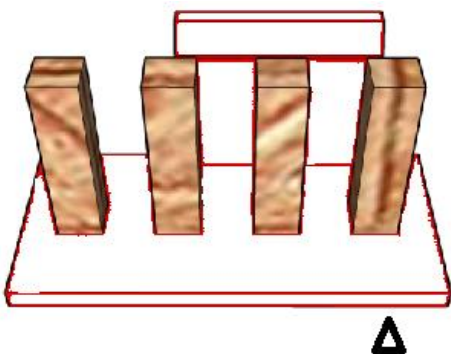
CPU FAN Header



Pin	Signal
1	GND
2	+12V DC
3	FAN TACH
4	FAN CTRL

12. J_SYSFAN1

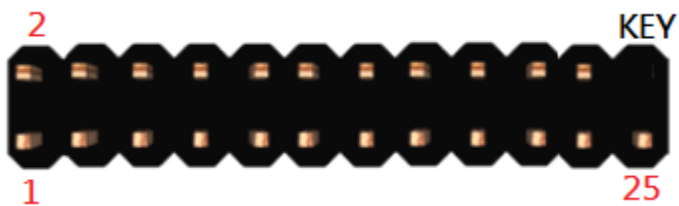
System FAN Header



Pin	Signal
1	GND
2	+12V DC
3	FAN TACH
4	FAN CTRL

13. J_MAPI_1

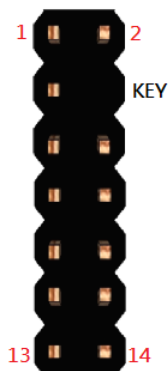
MiAPI Digital I/O Header



1		2	MiAPI_VCC
3	DIO0	4	Power Button Even
5	DIO1	6	UART-TX
7	DIO2	8	UART-RX
9	DIO3	10	MiAPI_5VSB
11	DIO4	12	WDT
13	DIO5	14	GND
15	DIO6	16	I2C_SDA
17	DIO7	18	I2C_CLK
19		20	I2C_INT
21		22	I2C_RST
23	SMB_DAT	24	GND
25	SMB_CLK		

14. J_TPM1

For eSPI TPM Module



1	3VSB	2	CS1
3	MISO	KEY	
5	MOSI	6	RST_N
7	IRQ	8	GND
9	CS0	10	CLK
11		12	DET_N
13	WP	14	3VSB

PD11EHI

BIOS SETUP

SPEC

1 Main Page

Aptio Setup - AMI

Main | **Advanced** | Event Logs | Security | Boot | Save & Exit

<p>BIOS Information</p> <p>BIOS Vendor American Megatrends</p> <p>Core Version 5.19</p> <p>Compliancy UEFI 2.7; PI 1.6</p> <p>BIOS Version D8690X03</p> <p>Build Date 10/20/2022</p> <p>Compute Die Information</p> <p>Name ElkhartLake ULX</p> <p>Type Intel(R) Celeron(R)</p> <p> N6210 @ 1.20GHz</p> <p>Microcode Revision 16</p> <p>Total Memory 4096 MB</p> <p>Memory Data Rate 2400 MHz</p> <p>ME FW Version 15.40.16.2485</p> <p>System Date [Sun 03/31/2024]</p> <p>System Time [08:55:37]</p>	<p>Set the Date. Use Tab to switch between Date elements. Default Ranges: Year: 2005-2099 Months: 1-12 Days: Dependent on month Range of Years may vary.</p> <hr/> <p>↔: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit</p>
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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	5.19
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Compliancy
Default Value	UEFI 2.7 ; PI 1.6
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	Build Date
Default Value	Display build date of the BIOS
Comment	This field is not selectable. There is no help text associated with it.

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

Field Name	Microcode Version
Value	Display the CPU microcode revision.

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

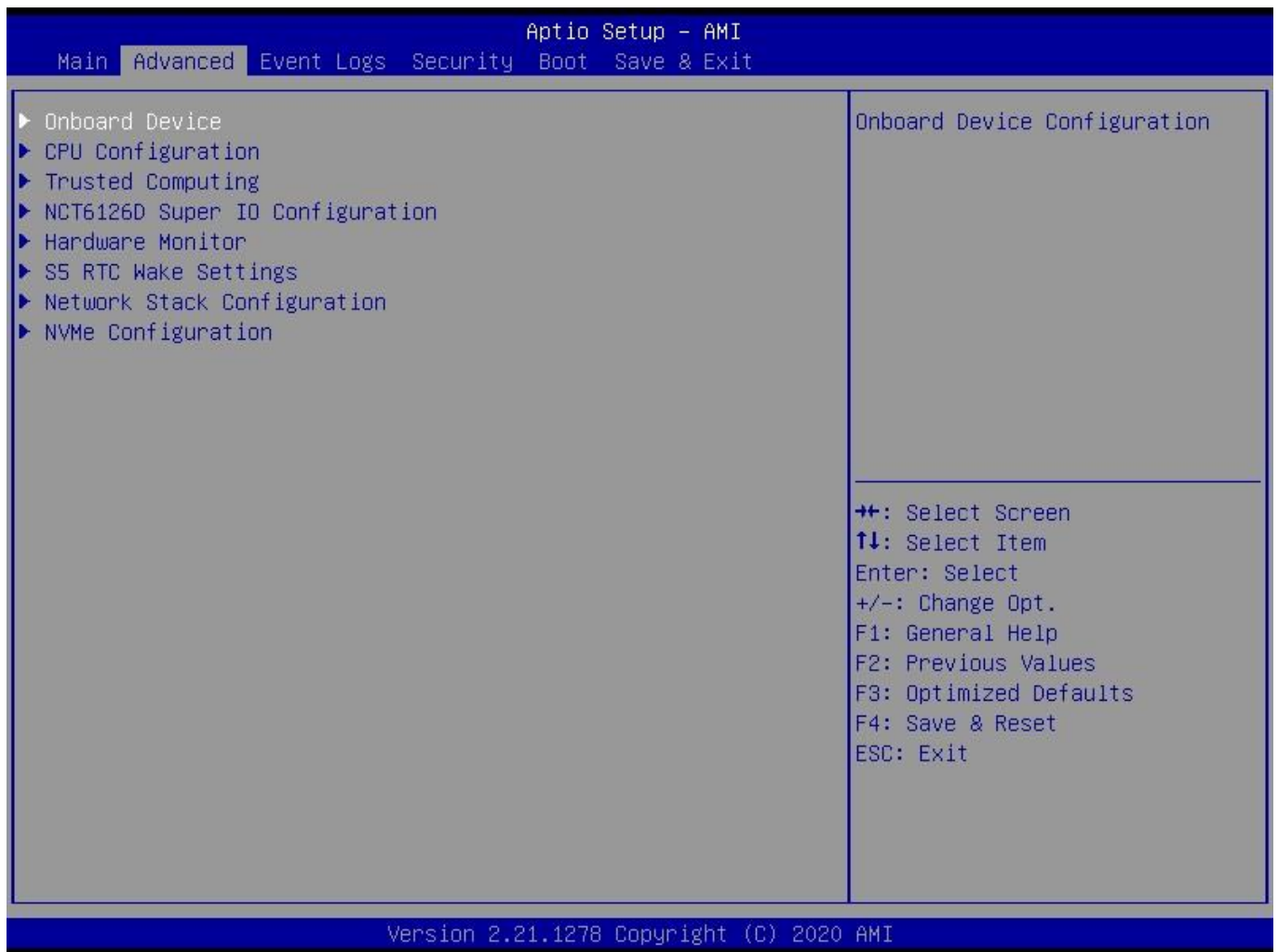
Field Name	Memory Frequency
Value	Display the installed memory frequency.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	ME FW Version
Value	ME Firmware Version.
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 : 2005-2099
Help	Set the Date. Use Tab to switch between Date elements. Default Ranges: Year: 2005-2099 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.

2 Advanced Page



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

Field Name	NCT6126D Super IO Configuration
Help	System Super IO Chip Parameters.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Hardware 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.

Onboard Device

Aptio Setup - AMI

Advanced

State After G3 DVMT Pre-Allocated DVMT Total Gfx Mem Wake on LAN Enable HD Audio ME Update TPM Device Selection	[S5 State] [64M] [256M] [Enabled] [Enabled] [Disabled] [PTT]	Specify what state to go to when power is re-applied after a power failure (G3 state).
		⇐: Select Screen ⇕: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit

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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	[64M]
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	DVMT 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	Wake on LAN Enable
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enable/Disable integrated LAN to wake the system.

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	ME Update
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Temporary disable Intel CSME for ME FW Update. Enabled = Intel CSME disabled after first time reboot only.

Field Name	TPM Device Selection
Default Value	[PTT]
Possible Value	PTT dTPM
Help	Selects TPM device: PTT or dTPM. PTT - Enables PTT in SkuMgr dTPM 1.2 - Disables PTT in SkuMgr Warning ! PTT/dTPM will be disabled and all data saved on it will be lost.

CPU Configuration

Aptio Setup - AMI

Advanced

CPU Configuration		When enabled, a VMM can utilize the additional hardware capabilities provided by Vanderpool Technology.
Type	Genuine Intel(R) CPU 0000 @ 1.80GHz	
ID	0x90661	
Speed	1800 MHz	
L1 Data Cache	32 KB x 4	
L1 Instruction Cache	32 KB x 4	
L2 Cache	1536 KB x 4	
L3 Cache	4 MB	
L4 Cache	N/A	
VMX	Supported	
SMX/TXT	Not Supported	
Intel (VMX) Virtualization Technology	[Enabled]	++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit

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Field Name	Type
Default Value	[Intel CPU Brand String]
Comment	This field is not selectable. There is no help text associated with it.

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

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

Field Name	L1 Data Cache
Default Value	L1 Data Cache Size
Comment	This field is not selectable. There is no help text associated with it.

Field Name	L1 Instruction Cache
Default Value	L1 Instruction Cache Size
Comment	This field is not selectable. There is no help text associated with it.

Field Name	L2 Cache
Default Value	L2 Cache Size
Comment	This field is not selectable. There is no help text associated with it.

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

Field Name	L4 Cache
Default Value	L4 Cache Size
Comment	This field is not selectable. There is no help text associated with it.

Field Name	VMX
Default Value	VMX Supported or Not
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.

Field Name	Intel (VMX) Virtualization Technology
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	When enabled, a VMM can utilize the additional hardware capabilities provided by Vanderpool Technology.

2.3 Trusted Computing



Field Name	Firmware 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 vender name.
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.

Serial Port 1 Configuration(option)

Aptio Setup - AMI

Advanced

<p>Serial Port 1 Configuration</p> <p>Serial Port [Enabled]</p> <p>Device Settings IO=3F8h; IRQ=4;</p>	<p>Enable or Disable Serial Port (COM)</p> <hr/> <p> ⇐⇐: Select Screen ⇕⇓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit </p>
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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.

Serial Port 2 Configuration(option)



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.

Hardware Monitor

Aptio Setup - AMI
Advanced

<p>PC Health Status</p> <p>Hardware Monitor Alert Enable [Disabled]</p> <p>CPU temperature : +44 ℃</p> <p>VR Temperature : +33 ℃</p> <p>System Temperature : +29 ℃</p> <p>System Fan Speed : N/A</p> <p>CPU Fan Speed : N/A</p> <p>5VSB : +5.088 V</p> <p>VCC : +5.048 V</p> <p>12V : +12.384 V</p> <p>CPUV CORE : +1.624 V</p> <p>VCCRTC : +3.120 V</p> <p>3VSB : +3.296 V</p> <p>VCC3 : +3.360 V</p>	<p>If Enabled, POST monitors voltage, temperature, and fan status. If these values are out of range, BIOS display warning message.</p> <hr/> <p> ←→: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit </p>
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Type	Range
CPU Temperature	Depend on CPU
VR Temperature	-20 ~ 120 °C
System Temperature	-20 ~ 120 °C
System 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.
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.
5VSB	4.75V~5.25V (Pin 100 VIN0 => Vref = 1V)
VCC	4.75V~5.25V (Pin 99 VIN1 => Vref = 1V)
12V	11.4V~12.6V (Pin 98 VIN2 => Vref = 1V)
CPUV CORE	0V~2V (Pin 101 CPUCORE)
VCCRTC	2V~3.465V (Pin 74 VBAT)
3VSB	3.135V~3.465V (Pin 97 AVSB)
VCC3	3.135V~3.465V(Pin 12 3VCC)

Field Name	Hardware Monitor Alert Enable(Hide when Smbios Event Log disable)
Default Value	[Disabled]
Possible Value	Enabled

	Disabled
Help	If Enabled, POST monitors voltage, temperature, and fan status. If these values are out of range, BIOS display warning message.

Field Name	System Fan Enable (Hide when Hardware Monitor Alert Enable disable)
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	If Enabled, POST monitors system fan status. If this value is out of range, BIOS display warning message.

S5 RTC Wake Settings

Aptio Setup - AMI

Advanced

Wake system from S5	[Disabled]	<p>Enable or disable System wake on alarm event. Select FixedTime, system will wake on the hr::min::sec specified.</p> <hr/> <p> ⇐⇐: Select Screen ⇕⇕: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit </p>
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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 minute(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 second(Show when Wake system from S5 set to Fixed Time)
Default Value	0

Possible Value	0 - 59
Help	Select 0 – 59 for Second

Network Stack Configuration

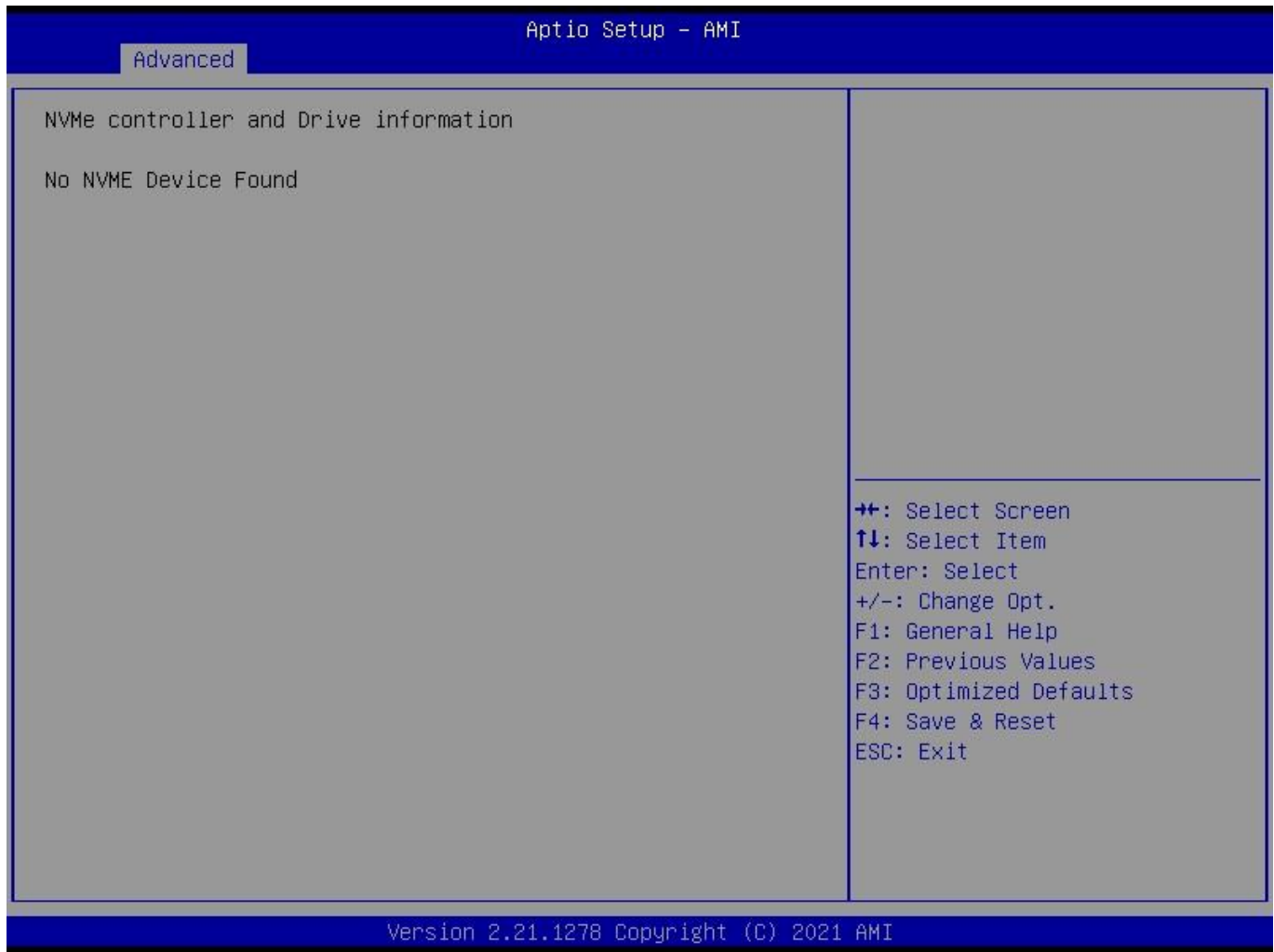


Field Name	Network stack
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enable/Disable UEFI Network stack.

Field Name	Ipv4 PXE Support (Available when Network stack Enabled)
Default Value	[Disabled]
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	[Disabled]
Possible Value	Disabled Enabled
Help	Enable/Disable Ipv6 PXE Boot Support. If disabled IPV6 PXE boot support will not be available.

NVMe Configuration



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

3 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 view the Smbios Event Log records.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Change Smbios Event Log Settings

Aptio Setup - AMI

Event Logs

<p>Enabling/Disabling Options Smbios Event Log [Enabled]</p> <p>Erasing Settings Erase Event Log [No] When Log is Full [Do Nothing]</p>	<p>Choose options for erasing Smbios Event Log. Erasing is done prior to any logging activation during reset.</p> <hr/> <p> ⇧⇧: Select Screen ⇩⇩: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit </p>
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Field Name	Smbios Event Log
Default Value	[Enabled]
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.

View Smbios 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

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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.

4 Security Page

Aptio Setup - AMI

Main Advanced Event Logs **Security** Boot Save & Exit

Password Description

If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup.

If ONLY the User's password is set, then this is a power on password and must be entered to boot or enter Setup. In Setup the User will have Administrator rights.

The password length must be in the following range:

Minimum length	3
Maximum length	20

Administrator Password

User Password

HDD Security Configuration:
P0:ST2000NM0008-2F3100

▶ Secure Boot

▶ BIOS Update

Set Administrator Password

←→: Select Screen
 ↑↓: Select Item
 Enter: Select
 +/-: Change Opt.
 F1: General Help
 F2: Previous Values
 F3: Optimized Defaults
 F4: Save & Reset
 ESC: Exit

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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	Secure Boot Configuration
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.

HDD Security

Aptio Setup - AMI

Security

HDD Password Description :

Allows Access to Set, Modify and Clear
 Hard Disk User Password
 User Password is mandatory to Enable HDD Security.
 If the 'Set User Password' option is hidden,
 do power cycle to enable the option again.

HDD PASSWORD CONFIGURATION:

Security Supported :	Yes
Security Enabled :	No
Security Locked :	No
Security Frozen :	Yes
HDD User Pwd Status:	NOT INSTALLED

⇐⇐: Select Screen
 ↑↓: Select Item
 Enter: Select
 +/-: Change Opt.
 F1: General Help
 F2: Previous Values
 F3: Optimized Defaults
 F4: Save & Reset
 ESC: Exit

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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

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

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

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

Key Management

Aptio Setup - AMI

Security

<p>Vendor Keys Valid</p> <p>Factory Key Provision [Disabled]</p> <ul style="list-style-type: none"> ▶ Restore Factory Keys ▶ Reset To Setup Mode ▶ Export Secure Boot variables ▶ Enroll Efi Image <p>Device Guard Ready</p> <ul style="list-style-type: none"> ▶ Remove 'UEFI CA' from DB ▶ Restore DB defaults <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Secure Boot variable</th> <th style="text-align: center;">Size</th> <th style="text-align: center;">Keys</th> <th style="text-align: left;">Key Source</th> </tr> </thead> <tbody> <tr> <td>▶ Platform Key(PK)</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td>No Keys</td> </tr> <tr> <td>▶ Key Exchange Keys</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td>No Keys</td> </tr> <tr> <td>▶ Authorized Signatures</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td>No Keys</td> </tr> <tr> <td>▶ Forbidden Signatures</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td>No Keys</td> </tr> <tr> <td>▶ Authorized TimeStamps</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td>No Keys</td> </tr> <tr> <td>▶ OsRecovery Signatures</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td>No Keys</td> </tr> </tbody> </table>	Secure Boot variable	Size	Keys	Key Source	▶ Platform Key(PK)	0	0	No Keys	▶ Key Exchange Keys	0	0	No Keys	▶ Authorized Signatures	0	0	No Keys	▶ Forbidden Signatures	0	0	No Keys	▶ Authorized TimeStamps	0	0	No Keys	▶ OsRecovery Signatures	0	0	No Keys	<p>Install factory default Secure Boot keys after the platform reset and while the System is in Setup mode</p> <hr/> <p> ⇐⇐: Select Screen ⇕: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit </p>
Secure Boot variable	Size	Keys	Key Source																										
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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	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)

Field Name	Remove 'UEFI CA' from DB
Help	Device Guard ready system must not list 'Microsoft UEFI CA' Certificate in Authorized Signature database (db)

Field Name	Restore DB defaults
Help	Restore DB variable to factory defaults

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.

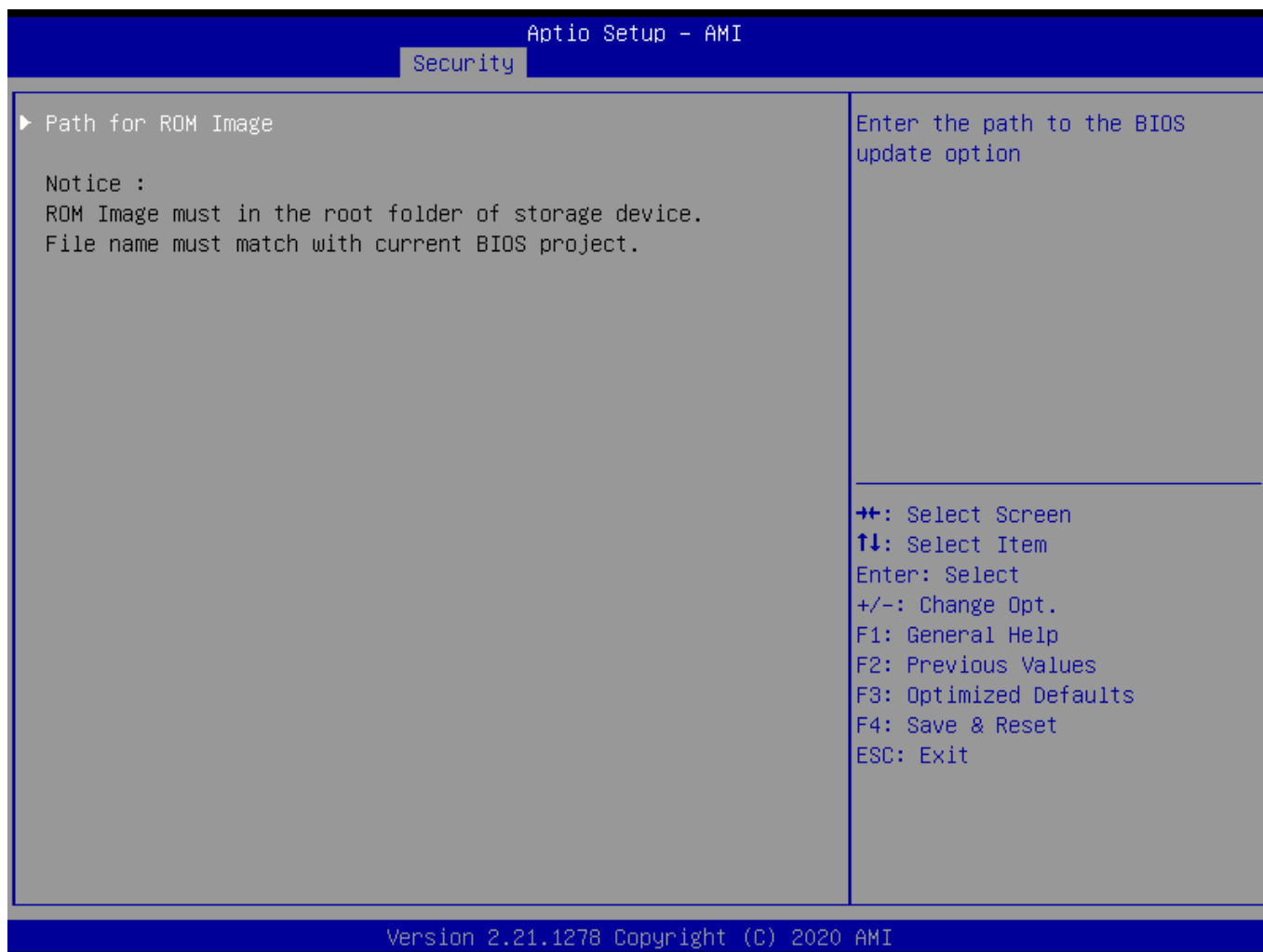
Field Name	Forbidden Signatures
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable

	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.

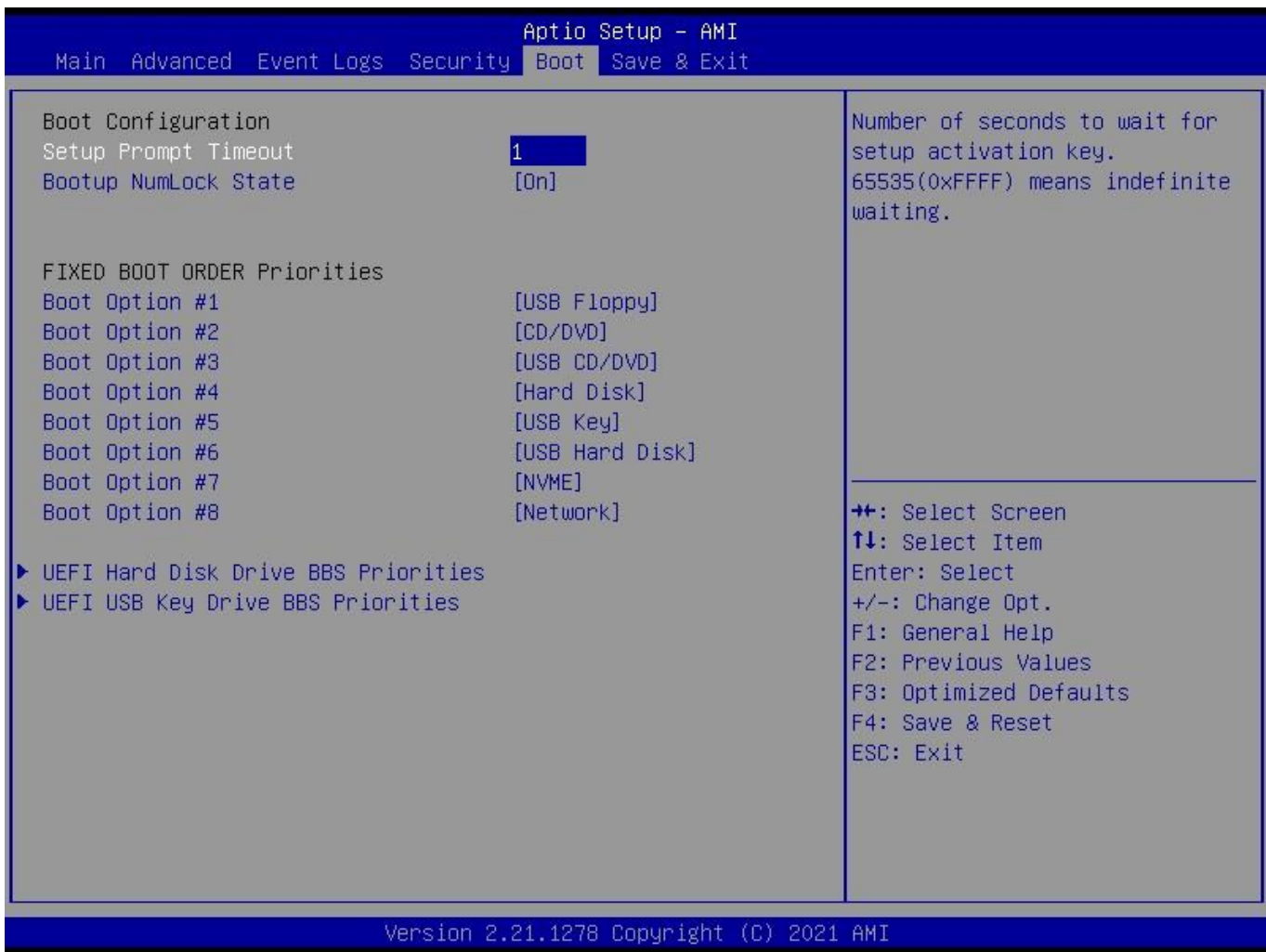
Field Name	OsRecovery Signatures
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF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

BIOS Update



Field Name	Path for ROM Image
Help	Enter the path to the BIOS update option

5 Boot Page



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

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

Help	Sets the system boot order
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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
Help	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
Help	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
Help	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
Help	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
Help	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
Help	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
Help	Sets the system boot order

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

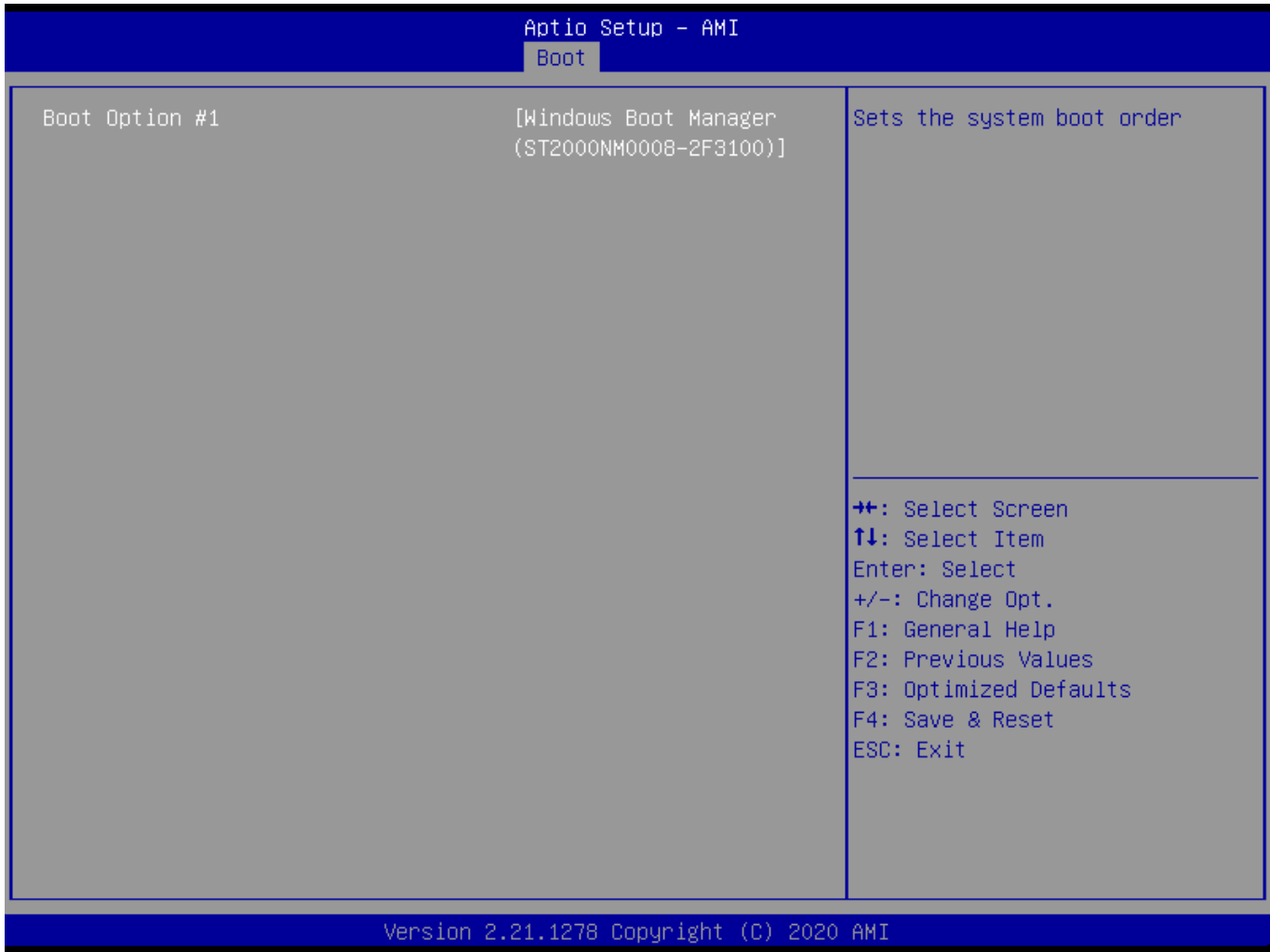
Field Name	UEFI USB KEY Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available UEFI USB Key Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

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

(List Boot Device Type) Drive BBS Priorities



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

6 Save & Exit Page



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

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

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