

Alderamin Pico Mk4 Series

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1 Copyright

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Applications described in this manual are for illustration purposes only. We make no representation or guarantee that such applications will be suitable for the specified use without further testing or modification.

2 Regulatory Compliances

2.1 CE and UKCA Notice

This device complies with the requirements of the CE directive and UKCA regulations.

Low Voltage Directive 2014/35/EU + Electrical Equipment Safety Regulations 2016 (SI 2016 No 1101)

- EN IEC 62368-1:2020+A11:2020
- BS EN IEC 62368-1:2020+A11:2020

EMC Directive 2014/30/EU + Electromagnetic Compatibility Regulations 2016

- EN 55032:2015+A11:2020
- BS EN 55032:2015+A11:2020
- EN 55032:2015+A11:2020
- BS EN 55032:2015+A11:2020
- EN IEC 61000-3-2:2019
- BS EN IEC 61000-3-2:2019+A1:2021
- EN 61000-3-3:2013+A1:2019
- BS EN 61000-3-3:2013+A1:2019+A2:2021
- EN 55035:2017+A11:2020
- BS EN 55035:2017+A11:2020
- EN 61000-4-2:2009
- BS EN 61000-4-2:2009
- EN 55035:2017+A11:2020
- BS EN 55035:2017+A11:2020
- EN 61000-4-3:2009
- BS EN 61000-4-3:2009
- EN 61000-4-3:2006+A1:2008+A2:2010
- BS EN IEC 61000-4-3:2020
- EN 61000-4-4:2012
- BS EN 61000-4-4:2012
- EN 61000-4-5:2014+A1:2017
- BS EN 61000-4-5:2014+A1:2017
- EN 61000-4-6:2014
- BS EN 61000-4-6:2014
- EN 61000-4-8:2010
- BS EN 61000-4-8:2010
- EN 61000-4-11:2004

- BS EN 61000-4-11:2004

RoHS 2 Directive 2011/65/EU & 2015/863/EU + RoHS 2 Directive 2020 No. 1647

- Exemption(s) used:
- 6c,7a,7c-I



2.2 FCC PART 15 VERIFICATION STATEMENT

WARNING

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

2.3 ICED-003 ISSUE 7 VERIFICATION STATEMENT

CAN ICES3(B)/NMB3(B)

This device complies with CAN ICES-003 Issue 7 Class B. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

3 Safety Instructions

Please read these instructions carefully and retain them for future reference.

1. Disconnect this equipment from the power outlet before cleaning. Do not use liquid or sprayed detergent for cleaning. Use a moist cloth or sheet.
2. Keep this equipment away from humidity.
3. Ensure the power cord is positioned to prevent tripping hazards and do not place anything on top of it.
4. Pay attention to all cautions and warnings on the equipment.
5. If the equipment is not used for an extended period, disconnect it from the main power to avoid damage from transient over-voltage.
6. **Prolonged usage with less than 8V may damage the PSU or destroy the mainboard.**
7. Never pour any liquid into openings as this could cause fire or electrical shock.
8. Have the equipment checked by service personnel if:
 - The power cord or plug is damaged.
 - Liquid has penetrated the equipment.
 - The equipment has been exposed to moisture in a condensation environment.
 - The equipment does not function properly, or you cannot get it to work by following the user manual.
 - The equipment has been dropped and damaged.
9. Do not leave this equipment in an unconditioned environment, with storage temperatures below -20 degrees or above 60 degrees Celsius for extended periods, as this may damage the equipment.
10. Unplug the power cord when performing any service or adding optional kits.
11. Lithium Battery Caution:
 - Risk of explosion if the battery is replaced incorrectly. Replace only with the original or an equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.
 - Do not remove the cover, and ensure no user-serviceable components are inside. Take the unit to a service center for service and repair.

⚠ Warning!

Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

⚠ Caution!

Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

4 Product Specifications

4.1 Features

The Alderamin Pico Mk4 Embedded System delivers robust performance and versatile connectivity with the following key features:

- **Powerful Processing:** Supports 11th Generation Intel® Tiger Lake-UP3 Core™ i7 / i5 / i3 / Celeron processors.
- **Integrated Graphics:** Equipped with the Intel® Iris Xe Graphics Engine.
- **Enhanced Display Support:** Enables **quad display** connectivity via **HDMI** and **DisplayPort** interfaces.
- **Efficient Cooling:** Fanless chassis design with an expandable module layout.
- **Wide Voltage Range:** Operates on **8–24V** for Pico Mk4 and **12–36V** for Pico Mk4-D.
- **Thermal Performance Options:**
 - **15W TDP:** Operating range of **–40°C to 70°C**
 - **28W TDP:** Operating range of **–40°C to 60°C**

Operating conditions assume 0.7 m/s airflow with extended temperature SSD/mSATA/RAM configurations.

4.2 Packing List

Item	Description	Q'ty
1	Alderamin Pico Mk4 Embedded System	1
2	Wall Mount Brackets (2 pcs in 1 set)	2
3	Screw Pack (For HDD and Wall Mount Bracket)	1
4	3-pin Terminal Block Power Connector (DC Input)	1
5	2-pin Terminal Block Power Connector (Remote Power)	1

4.3 Technical Details

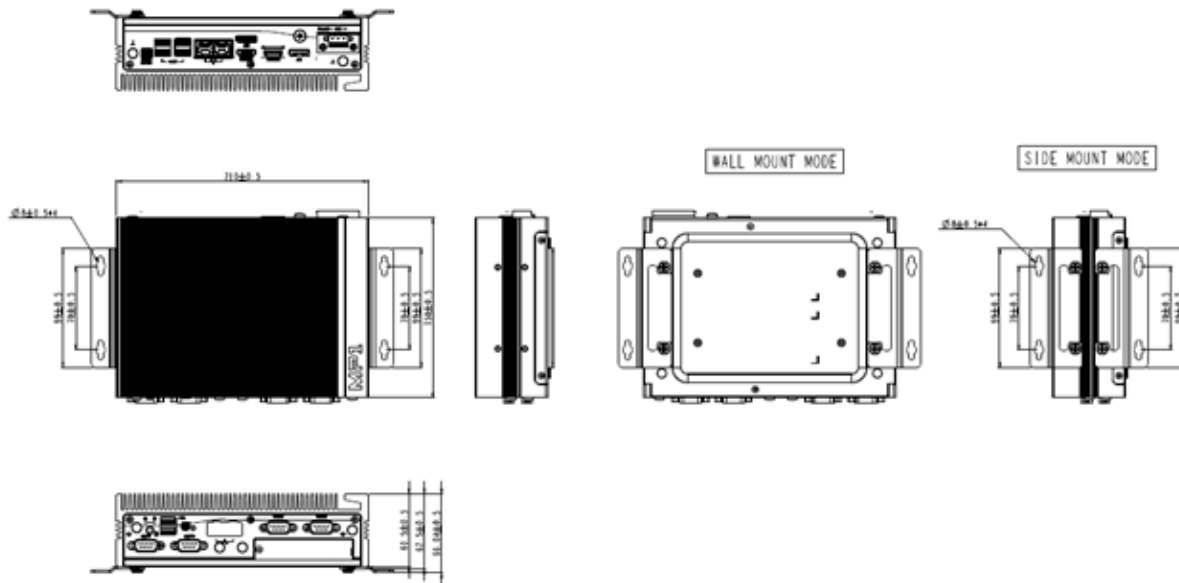
Feature	Specification	Details
Processor	CPU	11th Gen Intel® Tiger Lake-UP3 Core™ i ULV Processor:• i3-1115G4E – Dual Core, 6MB Cache, up to 3.90 GHz• i5-1145G7E – Quad Core, 8MB Cache, up to 4.10 GHz• i7-1185G7E – Quad Core, 12MB Cache, up to 4.40 GHz
Security	I/O Chipset	Nuvoton NCT6126D
	TPM	Nuvoton NPCT750AABYX TPM 2.0
Memory	System Memory	DDR4 3200 MHz, 1 × 260-pin SO-DIMM, up to 32GB (Non-ECC)
Graphics	GPU	Intel® Iris Xe Graphics
Display	Display Interfaces	HDMI, DisplayPort
Storage	Storage Slots	1 × Hot Swappable 2.5" HDD/SSD (max 9.5 mm height); 1 × M.2 B Key (2280/2260/2242)
Networking	Ethernet	Intel® I225-LM 2.5GbE LAN, Intel® I219-LM Giga LAN(<i>Optional: 2 × Intel® I210-IT Giga LAN</i>)
Audio	Audio	Realtek® ALC256
Expansion	Expansion Slots	Wireless: M.2 2230 E Key (PCIe, USB)Storage/LTE/5G: M.2 B Key (USB 2.0 / PCIe x1 / SATA III) <i>Note: Does not support M.2 M Key NVMe SSD. 5G card support available as a BOM option.</i>
Indicators	LED Indicators	Power LED, HDD LED
I/O Ports	Front I/O	3 × RS2321 × RS232/422/4851 × Audio Combo Jack (Mic-in/Line-out)1 × Hot Swappable 2.5" HDD/SSD slot2 × USB 2.02 × SMA Antenna (<i>Optional</i>)
	Rear I/O	2 × DisplayPort 1.22 × HDMI 1.42 × RJ-454 × USB 3.1 Gen 2 (10 Gbps)1 × 3-pin Terminal Block Power Input1 × 2-pin Terminal Block Remote Power On/Off2 × SMA Antenna (<i>Optional</i>)
Watch-dog Timer	Software Programmable	1–255 Steps
Power	Power Input	Alderamin Pico Mk4: 8–24V DC Input with Terminal Block Connectivity <i>Note: Power Ignition Expansion Module is optional for Pico Mk4-D.</i>
Cooling	Thermal Design	Fanless
Mechanical	Mounting	Wall Mount / Side Mount; Optional VESA Holes (75 mm × 75 mm) & DIN Rail Mount Kit
	Dimensions	8.3" × 5.9" × 2.5" (210 mm × 150 mm × 63 mm)
	Material	Top Cover: Aluminum Alloy; Bezel & Chassis: Steel
Environmental	Operating Temperature	15W TDP: –40°C to 70°C; 28W TDP: –40°C to 60°C (<i>0.7 m/s airflow assumed</i>)
	Operating Humidity	10% to 95% R/H (Non-condensing)

4.4 ☒ Important Notes

- **PXE Application:** Ensure the i219-LM driver is pre-installed in the OS image prior to PXE-based OS installation.
- **Lithium Battery Warning:** This system contains a lithium battery. **Do NOT** puncture, mutilate, or dispose of it in fire. Replace only with the manufacturer-recommended type and dispose of used batteries in accordance with local regulations.

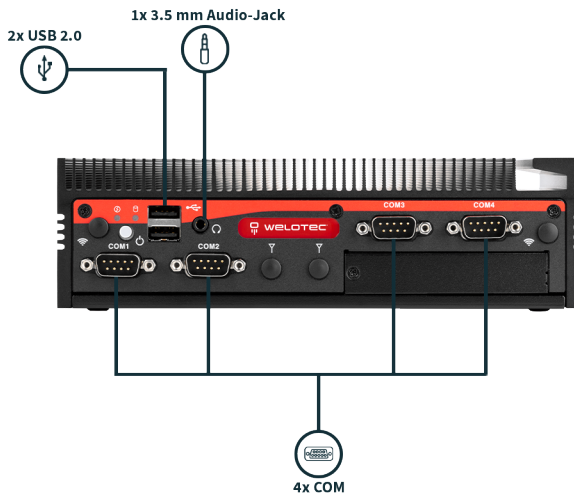
4.5 Mechanical Specification

Mechanical Dimension: 210 mm x 150 mm x 63 mm

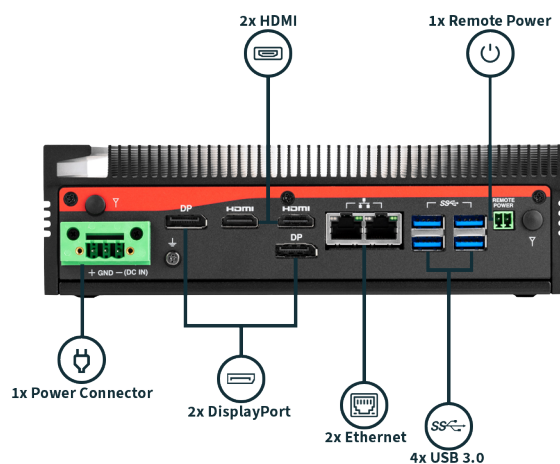


5 Interfaces and Connections

5.1 Front I/O



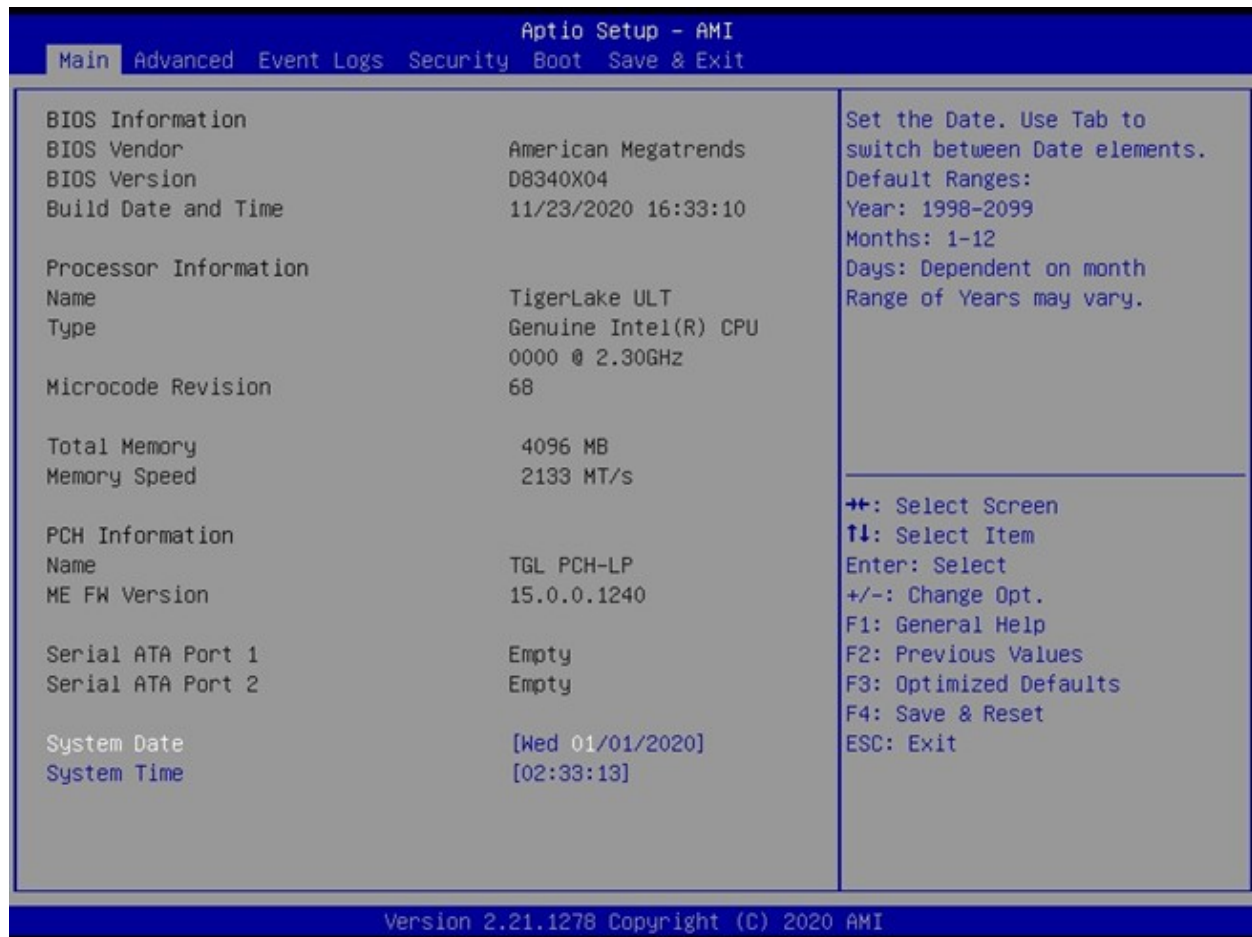
5.2 Rear I/O



6 BIOS

This chapter provides information on setting up the BIOS and using its menu items to adjust basic function settings.

6.1 Main Page



6.1.1 System Information

The Main Page displays essential system information. None of these fields are user-configurable:

- **BIOS Vendor:** American Megatrends
- **BIOS Version:** Displays the current BIOS version
- **Build Date and Time:** Shows the BIOS build date
- **Processor Information:** Displays the installed CPU brand
- **Microcode Version:** Displays the CPU microcode revision
- **Total Memory:** Shows the installed memory size
- **Memory Speed:** Displays the installed memory frequency

- **PCH Information:** Shows the PCH family
- **ME FW Version:** Displays the ME Firmware version
- **Serial ATA Port 1 & 2:** Show the installed SATA device models and sizes

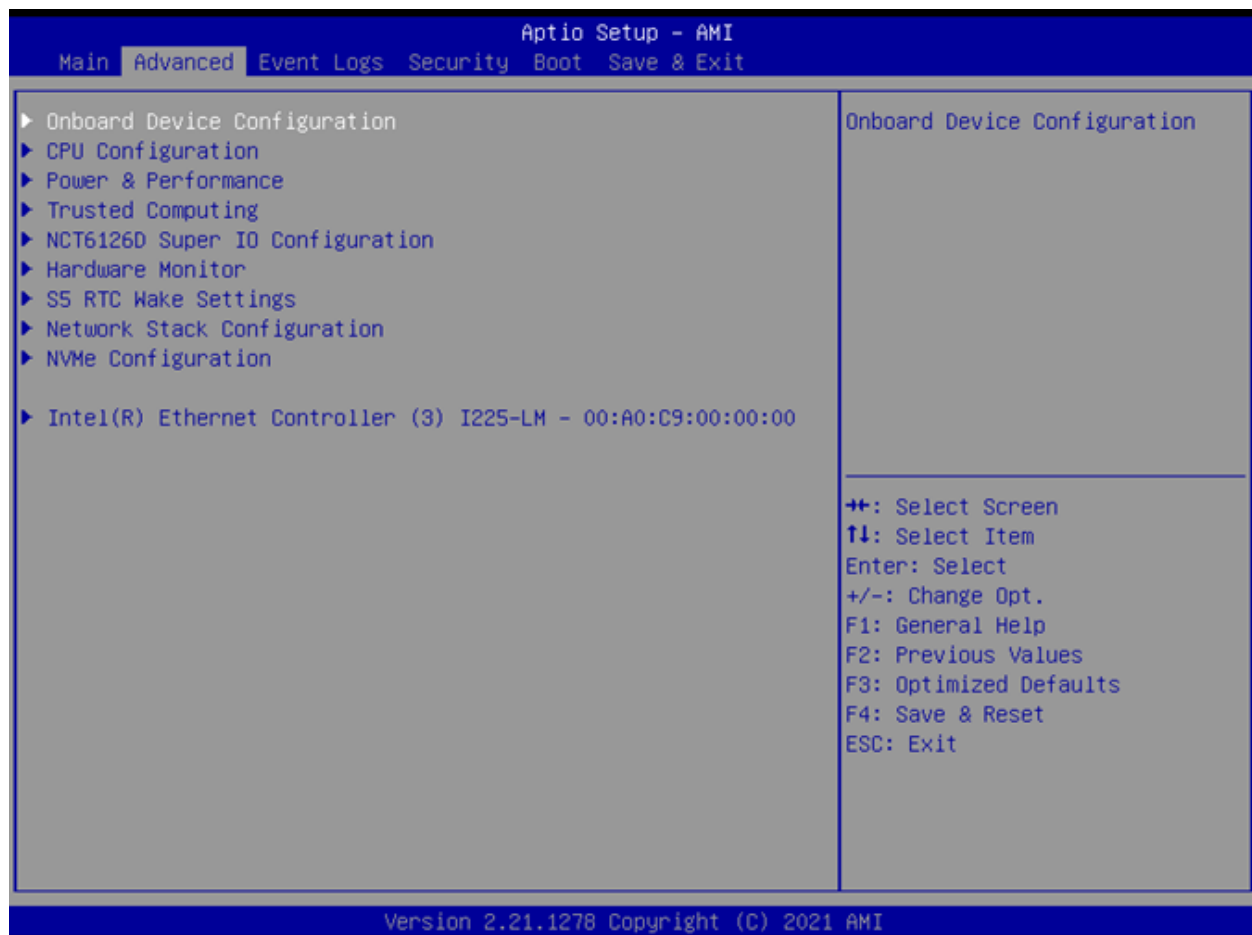
6.1.2 System Date & Time

Set the system's real-time clock using the following formats:

- **System Date:** [Www mm/dd/yyyy]
 - *Www*: Day of the week (Mon–Sun)
 - *mm*: Month (1–12)
 - *dd*: Day (1–31)
 - *yyyy*: Year (1998–2099)
- **System Time:** [hh:mm:ss]
 - *hh*: Hours (0–23)
 - *mm*: Minutes (0–59)
 - *ss*: Seconds (0–59)

Use the **Tab** key to navigate between date and time fields.

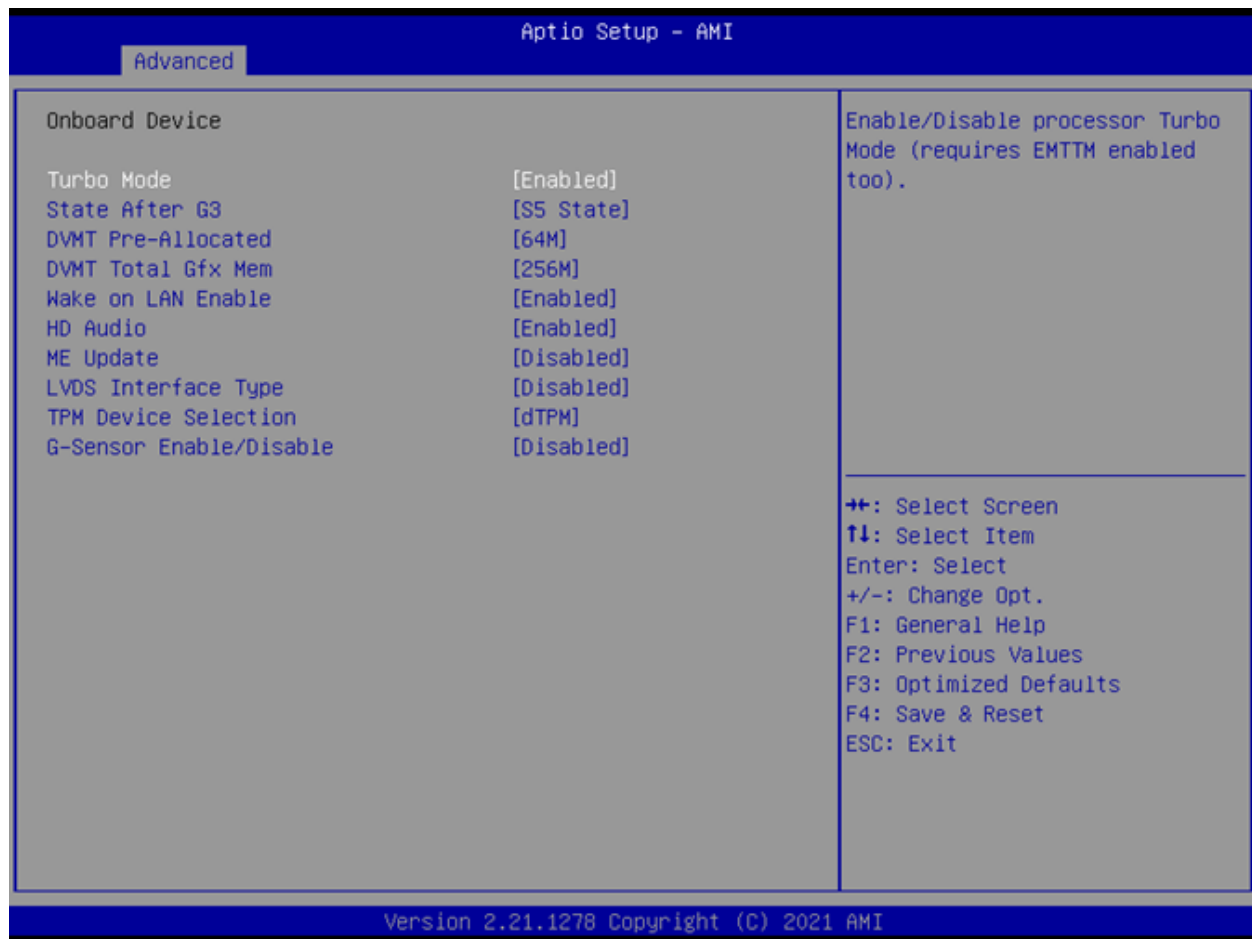
6.2 Advanced Page



The Advanced Page provides additional configuration options to fine-tune system behavior:

- **Onboard Device:** Configure integrated device settings (Press Enter to access the sub-menu).
- **CPU Configuration:** View and adjust processor parameters (Press Enter for details).
- **Power & Performance:** Modify power options and performance tuning (Press Enter to enter its sub-menu).
- **Trusted Computing:** Manage TPM and security features (Press Enter to access its sub-menu).
- **NCT6126D Super IO Configuration:** Set Super IO chip parameters (Press Enter for the sub-menu).
- **HW Monitor:** Monitor hardware status such as temperature and voltage (Press Enter for details).
- **S5 RTC Wake Settings:** Enable wake-up from S5 via RTC alarm (Press Enter to configure).
- **Network Stack Configuration:** Enable or disable UEFI network boot (Press Enter to access the sub-menu).
- **NVMe Configuration:** Configure NVMe device options (Press Enter to access further settings).

6.2.1 Onboard Service



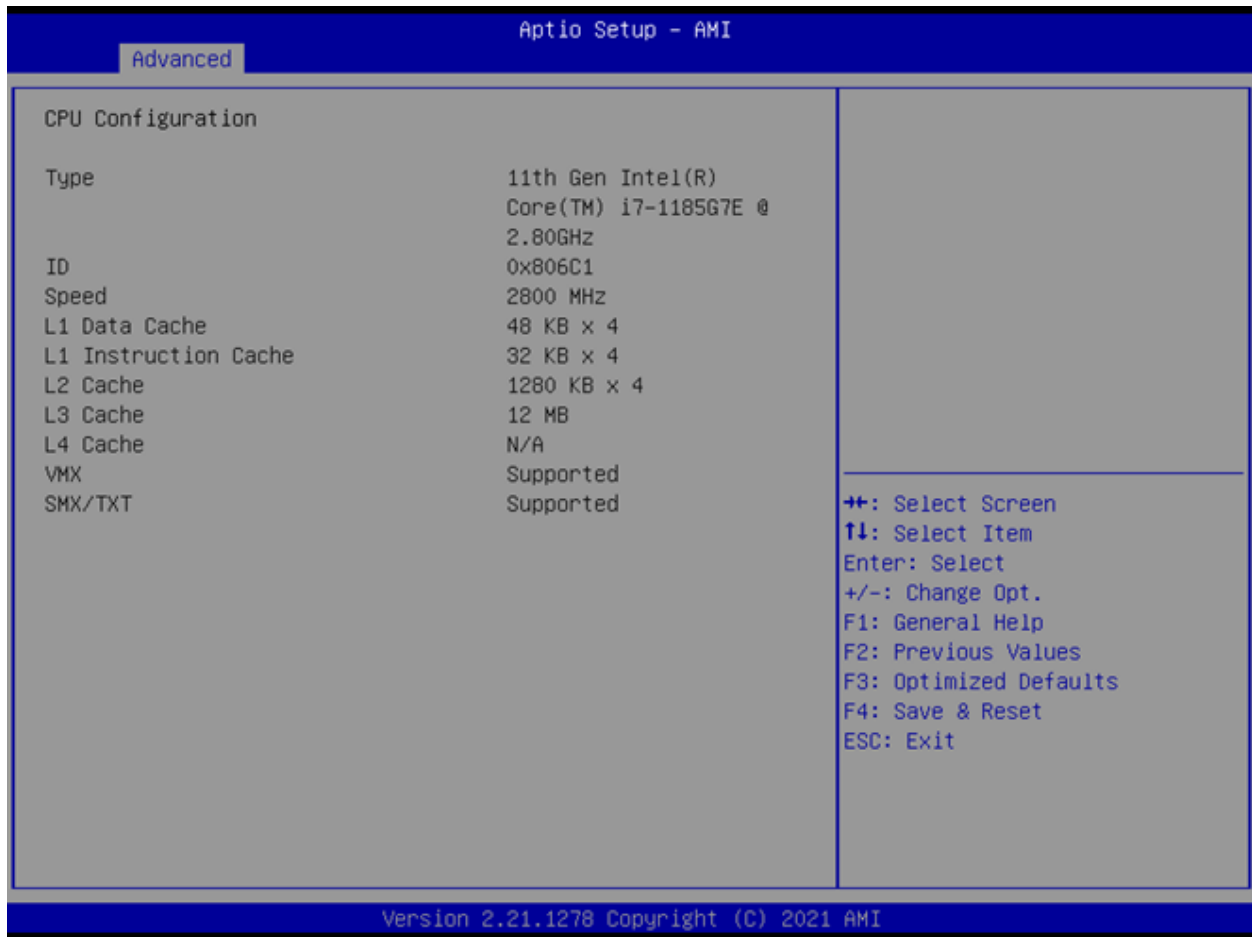
Onboard Service settings include:

- **Turbo Mode:**
 - *Default:* Enabled
 - *Options:* Enabled, Disabled
 - *Function:* Enables/disables processor Turbo Mode (requires EMTTM enabled).
- **State After G3:**

- *Default:* S5 State
- *Options:* S0 State, S5 State
- *Function:* Determines the state when power is re-applied after a power failure.
- **DVMT Pre-Allocated:**
 - *Default:* 64M
 - *Options:* 64M, 32M/F7, 36M, 40M, etc.
 - *Function:* Sets the fixed graphics memory size for the internal graphics device.
- **DVMT Total Gfx Mem:**
 - *Default:* 256M
 - *Options:* 128M, 256M, MAX
 - *Function:* Sets the total graphics memory allocation.
- **Wake on LAN Enable:**
 - *Default:* Enabled
 - *Options:* Enabled, Disabled
 - *Function:* Enables/disables LAN wake-up.
- **HD Audio:**
 - *Default:* Enabled
 - *Options:* Enabled, Disabled
 - *Function:* Controls detection of the HD-Audio device.
- **Intel CSME Temporary Disable:**
 - *Default:* Disabled
 - *Options:* Enabled, Disabled
 - *Function:* Temporarily disables Intel CSME for ME firmware updates (disabled after the first reboot).
- **LVDS Interface Type:**
 - *Default:* Disabled
 - *Options:* 8 bit-VESA Single Channel, Dual Channel, etc.
 - *Function:* Sets the LVDS connectivity type.
- **LVDS Panel Type:**
 - *Default:* 1920x1080 LVDS
 - *Options:* 1024x768 LVDS, 1366x768 LVDS, etc.
 - *Function:* Selects the LVDS panel for the internal graphics device.
- **TPM Device Selection:**
 - *Default:* dTPM
 - *Options:* PTT, dTPM
 - *Function:* Selects the TPM device (switching will clear existing data).
- **G-Sensor Enable/Disable:**
 - *Default:* Disabled
 - *Options:* Enabled, Disabled

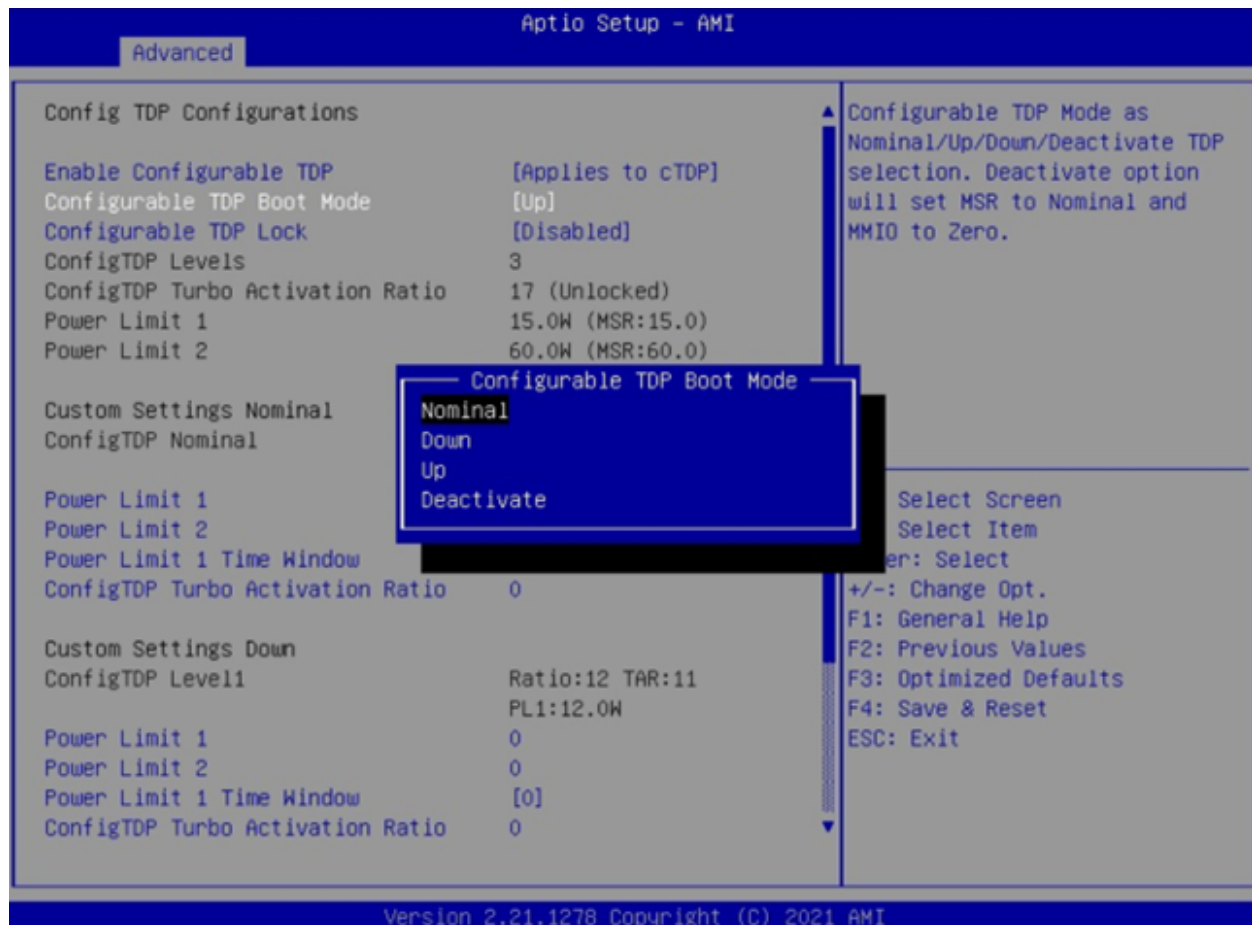
- *Function:* Controls the MS-26CAD-T10 G-Sensor (enabling reserves 2 DIO pins).

6.3 CPU Configuration



This section displays processor details and settings:

- **Processor Type:** Displays the installed CPU brand string.
- **Processor ID:** Shows the CPU signature.
- **Clock Speed:** Indicates the current CPU speed.
- **L1 Data Cache:** Displays L1 data cache size.
- **L1 Instruction Cache:** Displays L1 instruction cache size.
- **L2 Cache:** Displays L2 cache size.
- **L3 Cache:** Displays L3 cache size.
- **L4 Cache:** Displays L4 cache size.
- **VMX:** Indicates if Virtual Machine Extensions are supported.
- **SMX/TXT:** Indicates if SMX/TXT is supported.



6.4 Power & Performance

Adjust power settings:

- **Configurable TDP Boot Mode:**
 - *Default:* Nominal
 - *Options:* Nominal, Down, Up, Deactive
 - *Function:*
 - * **Nominal:** Sets TDP to 28W
 - * **Down:** Sets TDP to 12W
 - * **Up:** Sets TDP to 15W

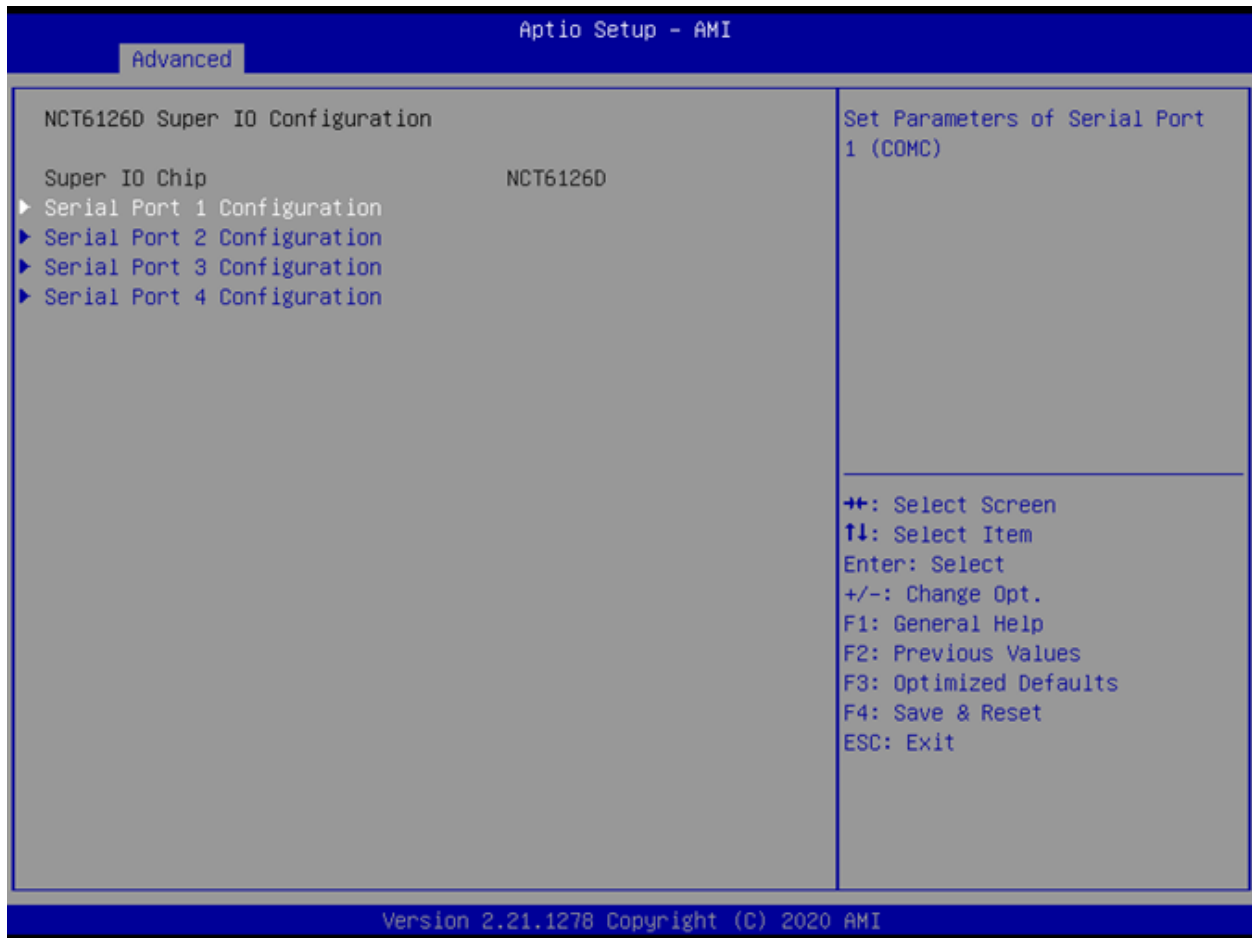
6.5 Trusted Computing



Manage security features:

- **Firmware Version:** Displays the TPM module version.
- **Vendor:** Displays the TPM module vendor name.
- **Security Device Support:**
 - *Default:* Enabled
 - *Options:* Enabled, Disabled
 - *Function:* Enables/disables BIOS support for the security device.
- **Pending Operation:**
 - *Default:* None
 - *Options:* None, TPM Clear
 - *Function:* Schedules an operation for the security device (system will reboot to apply changes).

6.6 NCT6126D Super IO Configuration



Access configuration for system I/O controllers via the following sub-menus:

- Serial Port 1 Configuration (COMC)
- Serial Port 2 Configuration (COMD)
- Serial Port 3 Configuration (COME)
- Serial Port 4 Configuration (COMA)

6.6.2 Serial Port 2, 3, & 4 Configuration

Aptio Setup - AMI	
Advanced	
Serial Port 2 Configuration	
Serial Port	[Enabled]
Device Settings	IO=3E8h; IRQ=11;
Enable or Disable Serial Port (COM)	
 ++: 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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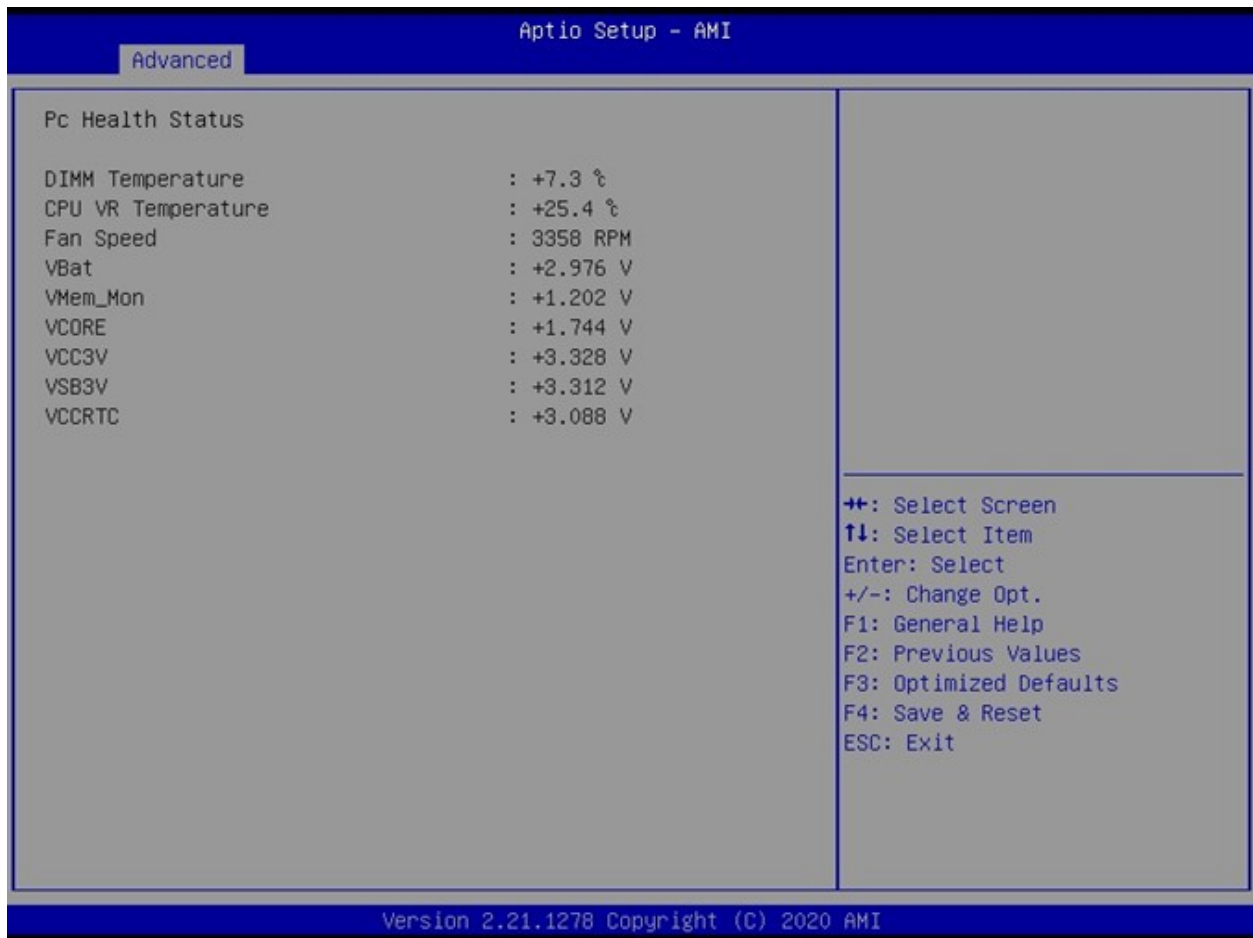
Aptio Setup - AMI	
Advanced	
Serial Port 3 Configuration	
Serial Port	[Enabled]
Device Settings	IO=2E0h; IRQ=5;
Enable or Disable Serial Port (COM)	
++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit	
Version 2.21.1278 Copyright (C) 2020 AMI	



For each Serial Port (COM2, COM3, COM4):

- **Serial Port:**
 - *Default:* Enabled
 - *Options:* Enabled, Disabled
 - *Function:* Enables/disables the respective Serial Port.
- **Device Settings:** Displays the Super IO address and IRQ (non-selectable).

6.7 Hardware Monitor



Monitor system parameters:

- **DIMM Temperature:** 70°C to -40°C
- **CPU VR Temperature:** 70°C to -40°C
- **Fan Speed:** Variable; failed fan speed = 0 RPM (no high RPM limit)
- **VBat:** 2.0 to 3.65V
- **VMem_Mon:** 1.15 to 1.25V
- **VCORE:** 0 to 2V
- **VCC3V:** 3.13 to 3.65V
- **VSB3V:** 3.13 to 3.65V
- **VCCRTC:** 2.0 to 3.2V

6.8 RTC Wake Settings



Configure the RTC wake-up feature:

- **Wake system from S5:**
 - *Default:* Disabled
 - *Options:* Disabled, Fixed Time
 - *Function:* Enables system wake-up via RTC alarm; select Fixed Time to schedule wake-up.
- **Wake up Hour:**
 - *Default:* 0
 - *Range:* 0–23 (e.g., 3 for 3 AM, 15 for 3 PM)
- **Wake up Minute:**
 - *Default:* 0
 - *Range:* 0–59
- **Wake up Second:**
 - *Default:* 0
 - *Range:* 0–59

6.9 Network Stack Configuration



Configure network boot settings:

- **Network Stack:**
 - *Default:* Disabled
 - *Options:* Disabled, Enabled
- **IPv4 PXE Support:**
 - *Default:* Enabled
 - *Options:* Enabled, Disabled
- **IPv6 PXE Support:**
 - *Default:* Enabled
 - *Options:* Enabled, Disabled

6.10 NVMe Configuration



Press Enter to access NVMe device options and configure settings.

6.11 Event Logs



Manage SMBIOS event logs:

- **Change SMBIOS Event Log Settings:** Press Enter to modify settings.
- **View SMBIOS Event Log:** Press Enter to view log entries.

6.11.1 Enabling/Disabling Options

Aptio Setup - AMI		
Event Logs		
Enabling/Disabling Options		Change this to enable or disable all features of Smbios Event Logging during boot.
Smbios Event Log	[Enabled]	
Erasing Settings		
Erase Event Log	[No]	
When Log is Full	[Do Nothing]	
		++: 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		

- **SMBIOS Event Log:**
 - *Default:* Enabled
 - *Options:* Enabled, Disabled
- **Erase Event Log:**
 - *Default:* No
 - *Options:* No, Yes (Next Reset), Yes (Every Reset)
- **When Log is Full:**
 - *Default:* Do Nothing
 - *Options:* Do Nothing, Erase Immediately

6.11.2 View SMBIOS Event Log

Aptio Setup - AMI					
Event Logs					
DATE	TIME	ERROR CODE	SEVERITY	COUNT	DESCRIPTION
09/09/20	17:22:06	Smbios 0x16	N/A	N/A	Log Area Reset and Count is applicable only for Multi-Events
09/09/20	17:22:50	EFI 03008205	Unrecognized	02	
09/09/20	17:22:50	EFI 03008105	Unrecognized	02	
09/09/20	17:54:26	EFI 03008303	Unrecognized	01	
09/09/20	17:54:26	EFI 03008103	Unrecognized	01	
					++: 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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Displays entries with Date, Time, Error Code, Severity, and Count (formatted as MM/DD/YY HH:MM:SS).

6.12 Security Page

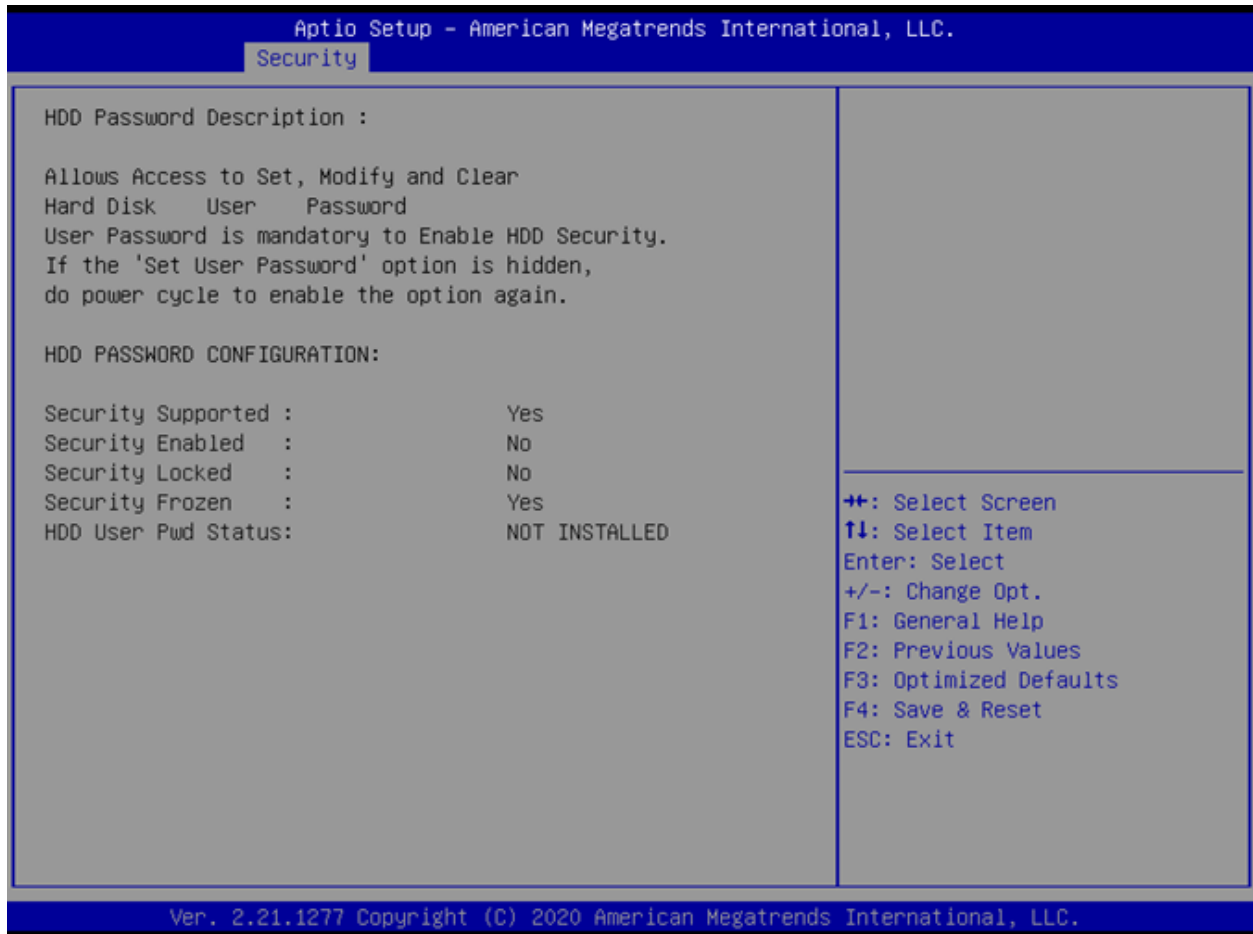
Aptio Setup - American Megatrends International, LLC.					
Main Advanced Security Boot Save & Exit					
Password Description If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup. If ONLY the User's password is set, then this is a 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: <table> <tr> <td>Minimum length</td> <td>3</td> </tr> <tr> <td>Maximum length</td> <td>20</td> </tr> </table> Administrator Password User Password HDD Security Configuration: P1:128GB SATA Flash Drive ► Secure Boot ► BIOS Update	Minimum length	3	Maximum length	20	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
Minimum length	3				
Maximum length	20				

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The Security Page allows you to configure password protection and other security features:

- **Administrator Password:** Set or modify the administrator password.
- **User Password:** Set or modify the user password.
- **HDD Security Drive:** Configure security settings for the selected hard drive.
- **Secure Boot:** Configure Secure Boot options.
- **BIOS Update:** Enable BIOS update support.

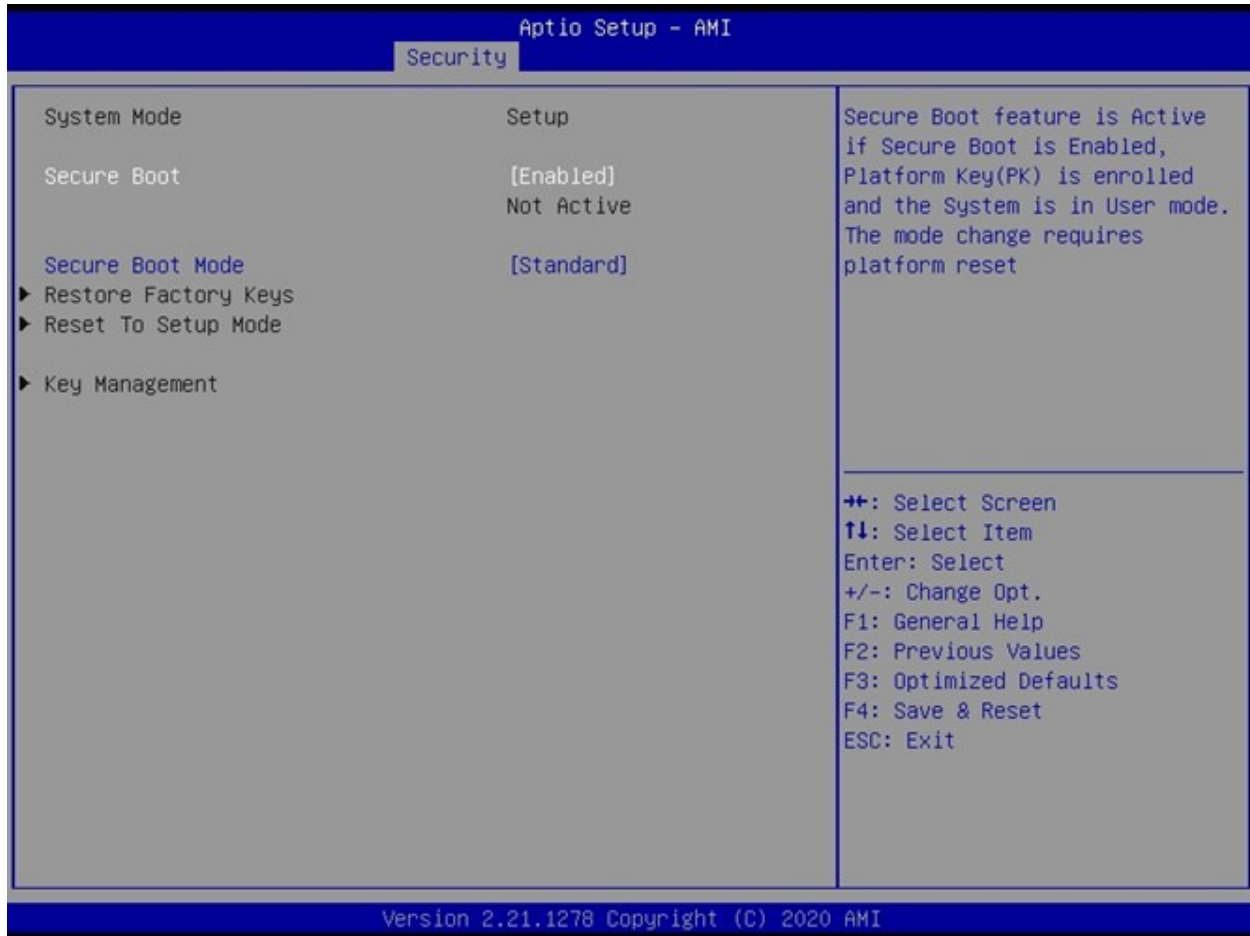
6.12.1 HDD Security



- **Set User Password:** Set the HDD user password.

Note: It is advisable to power cycle the system after setting or removing HDD passwords.

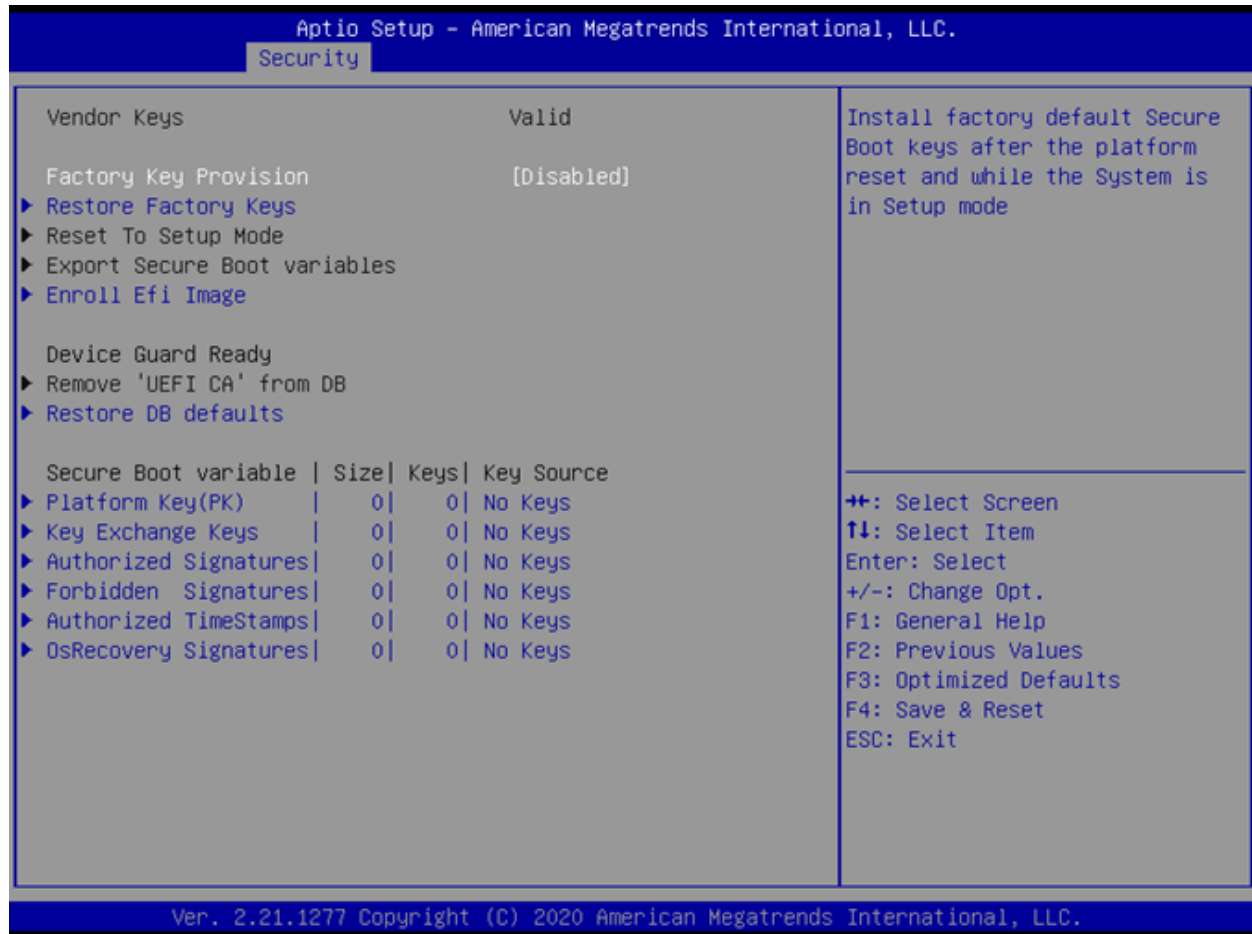
6.12.2 Secure Boot



Secure Boot options include:

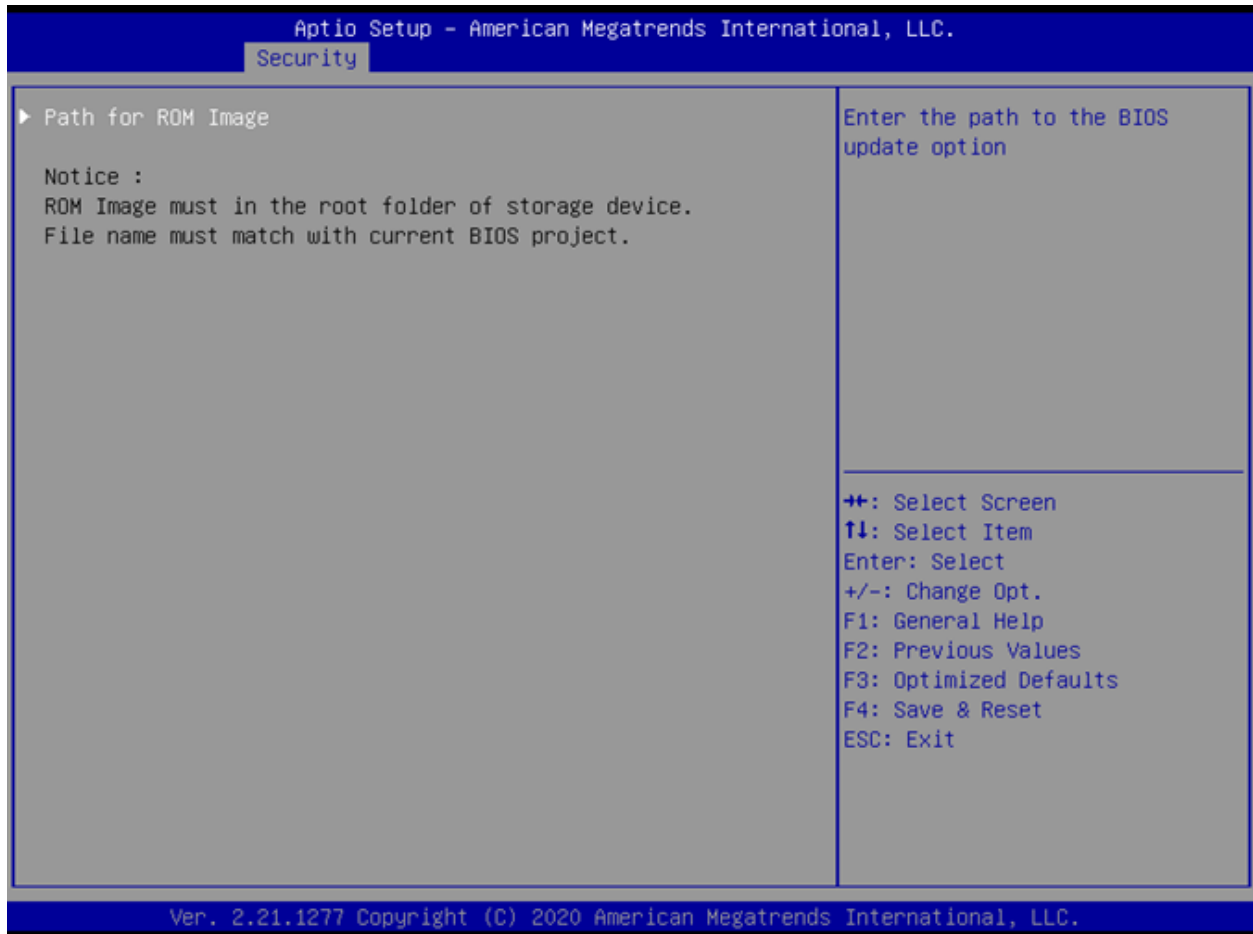
- **Secure Boot:**
 - *Default:* Enabled
 - *Options:* Enabled, Disabled
 - *Function:* Activates Secure Boot when enabled, provided the platform key is enrolled.
- **Secure Boot Mode:**
 - *Default:* Standard
 - *Options:* Standard, Custom
 - *Function:* In Custom mode, Secure Boot variables can be configured manually.
- **Restore Factory Keys:** Restores default Secure Boot keys.
- **Reset to Setup Mode:** Deletes all Secure Boot key databases from NVRAM.
- **Key Management:** Allows expert users to modify Secure Boot policy variables.

Key Management (Secure Boot Mode set to Custom)



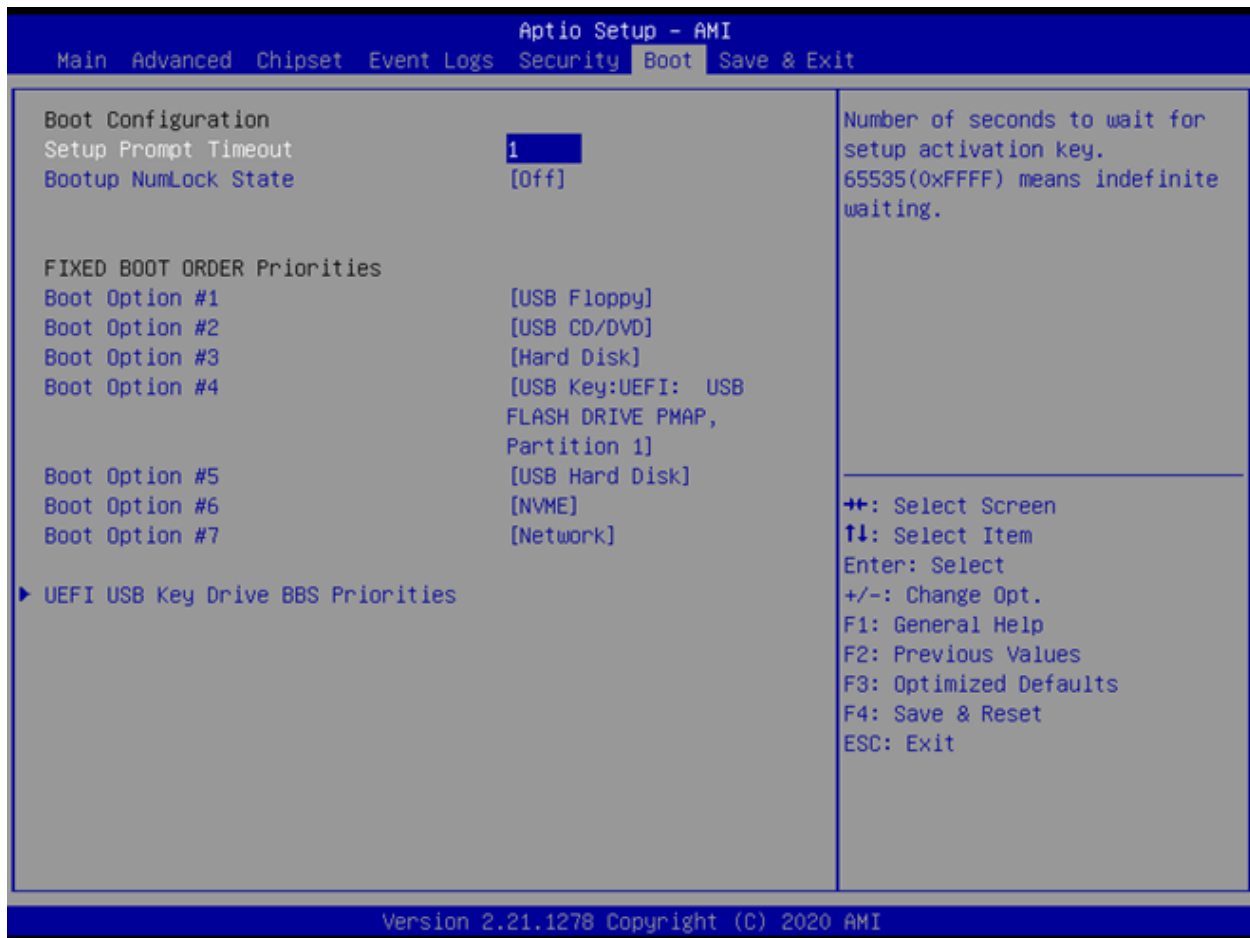
- **Factory Key Provision:**
 - *Default:* Disabled
 - *Options:* Enabled, Disabled
 - *Function:* Installs factory default keys after a platform reset when in Setup mode.
- **Restore Factory Keys:** Forces system into User Mode to install factory keys.
- **Reset to Setup Mode:** Deletes all Secure Boot key databases from NVRAM.
- **Export Secure Boot Variables:** Exports Secure Boot variables to a file.
- **Enroll EFI Image:** Enrolls a PE image's SHA256 hash certificate into the Authorized Signature Database.
- **Remove 'UEFI CA' from DB:** Removes the Microsoft UEFI CA certificate from the Authorized Signature database.
- **Restore DB Defaults:** Restores the Secure Boot database to its factory defaults.
- **Platform Key (PK):** Allows certificate enrollment for the Platform Key.
- **Key Exchange Keys:** Enables certificate enrollment for Key Exchange Keys.
- **Authorized Signatures:** Manage authorized public key certificates.
- **Forbidden Signatures:** Manage forbidden signatures for Secure Boot.
- **Authorized TimeStamps:** Manage timestamps for authorized signatures.
- **OS Recovery Signatures:** Manage recovery signatures for the operating system.

6.12.3 BIOS Update



- **BIOS Update:**
 - *Default:* N/A
 - *Options:* N/A
 - *Function:* Enter the path for the Secure flash option to update BIOS.

6.13 Boot Page



Configure boot settings:

- **Setup Prompt Timeout:**
 - Default: 1 second
 - Range: 1–65535 (65535 indicates indefinite waiting)
- **Bootup NumLock State:**
 - Default: Off
 - Options: On, Off
- **Boot Options:**
 - **Boot Option #1:** Default is USB Floppy
 - **Boot Option #2:** Default is USB CD/DVD
 - **Boot Option #3:** Default is Hard Disk
 - **Boot Option #4:** Default is USB Key
 - **Boot Option #5:** Default is USB Hard Disk
 - **Boot Option #6:** Default is NVME
 - **Boot Option #7:** Default is Network

- *Options for each:* USB Floppy, CD/DVD, USB CD/DVD, Hard Disk, USB Key, USB Hard Disk, NVME, Network, Disabled

For UEFI boot device priorities:

- (UEFI) USB Floppy Drive BBS Priorities: Default is N/A
- (UEFI) USB CDROM/DVD Drive BBS Priorities: Default is N/A
- (UEFI) Hard Disk Drive BBS Priorities: Default is N/A
- (UEFI) USB KEY Drive BBS Priorities: Default is N/A
- (UEFI) USB Hard Disk Drive BBS Priorities: Default is N/A
- (UEFI) NVME Drive BBS Priorities: Default is N/A
- (UEFI) NETWORK Drive BBS Priorities: Default is N/A

Additionally, for a specific boot device type:



- **Boot Option #1 (of a listed type):**
 - *Default:* N/A
 - *Options:* Boot Device Name 1 of this type, or Disabled

6.14 Save & Exit Page



Finalize your BIOS configuration:

- **Save Changes and Reset:** Saves changes and restarts the system.
- **Discard Changes and Reset:** Restarts without saving modifications.
- **Restore Defaults:** Loads factory default settings for all BIOS options.