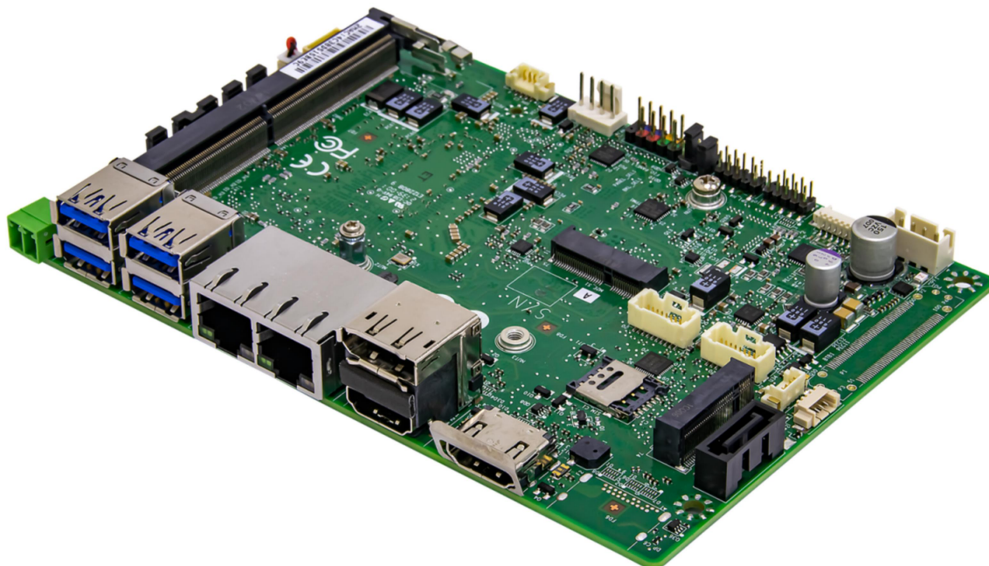


OXY5363A

3.5" SBC with Intel® Tiger Lake-UP3 SoC



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

Revision History

| Revision | Date (mm.dd.yyyy) | Changes |
|----------|-------------------|---------------|
| V1.0 | 12.22.2021 | First release |

Packing list

| Item | Description | Q'ty |
|------|----------------------------|------|
| 1 | OXY5363A 3.5" SBC | 1 |
| 2 | CD(Driver + User's manual) | 1 |



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

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 - Operation safety..... 1
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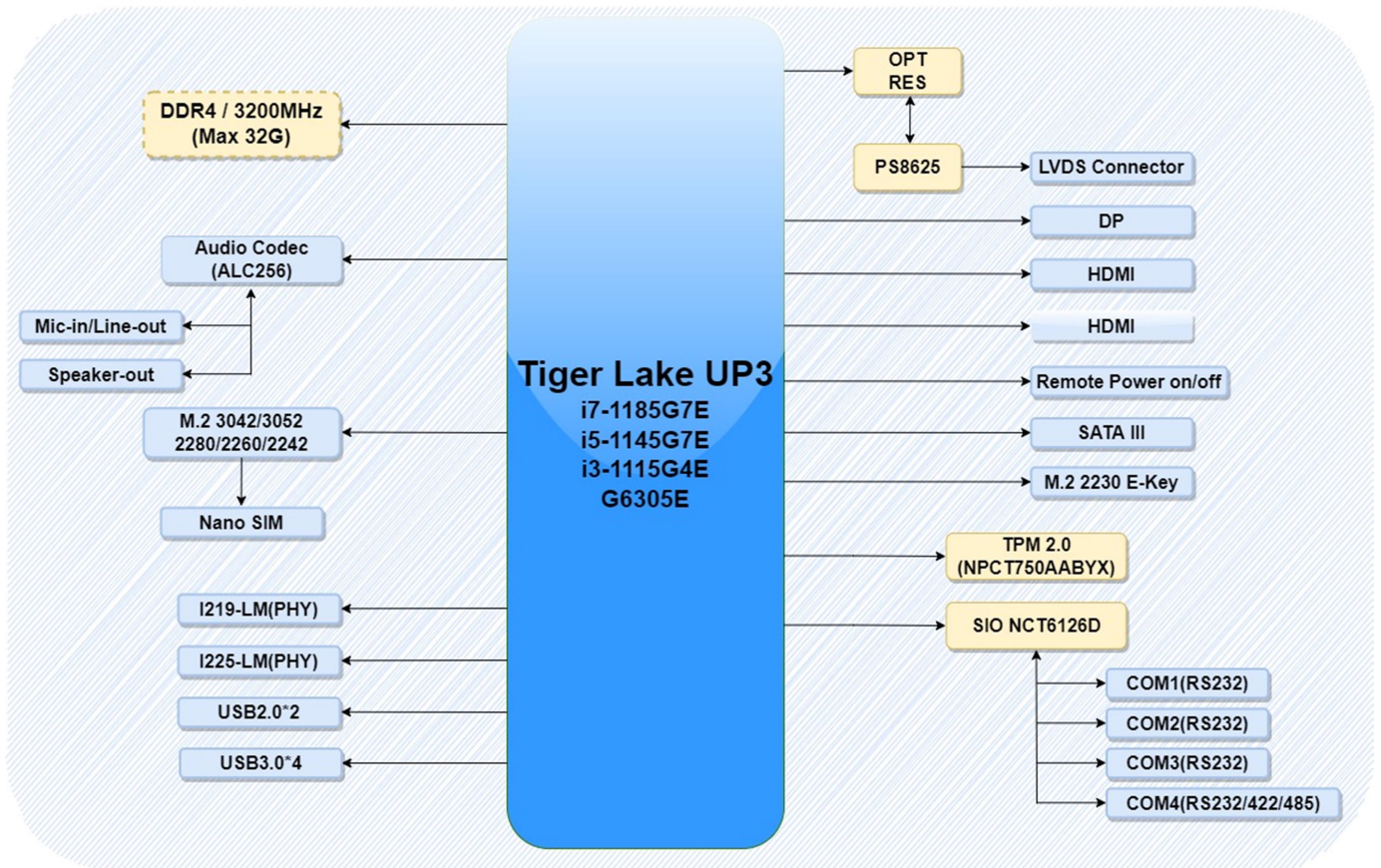
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Chapter 1: Product Information

1.1 Block Diagram



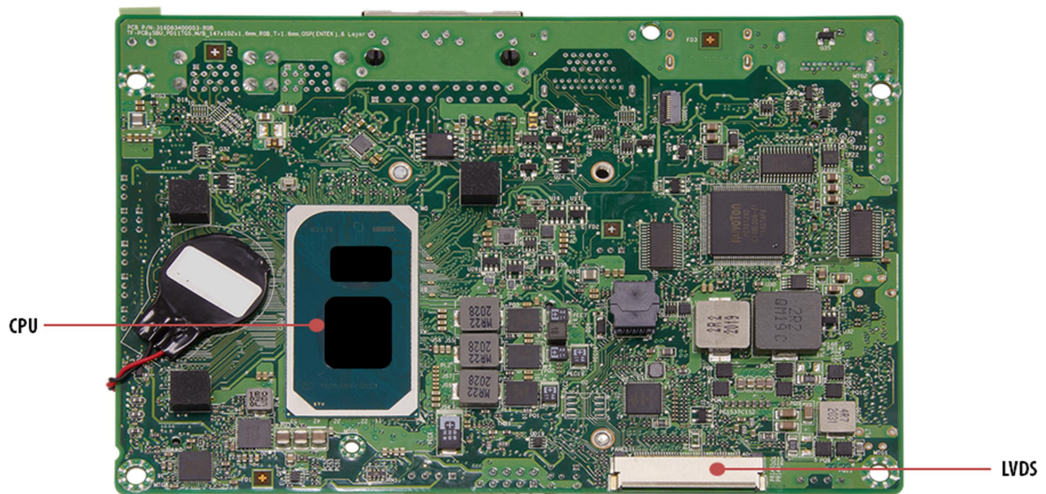
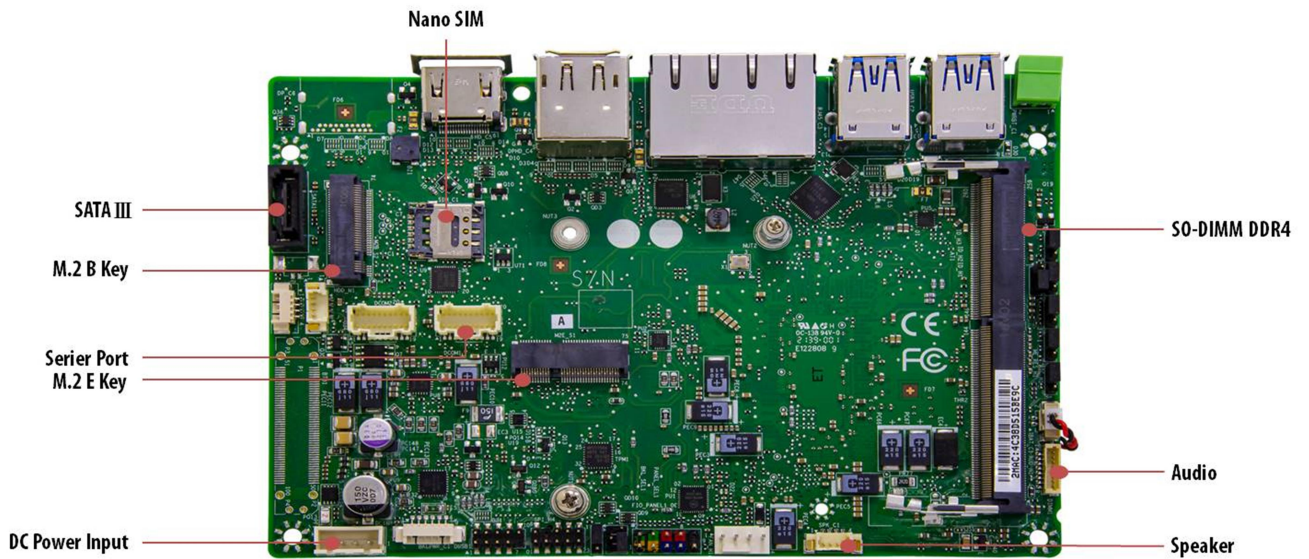
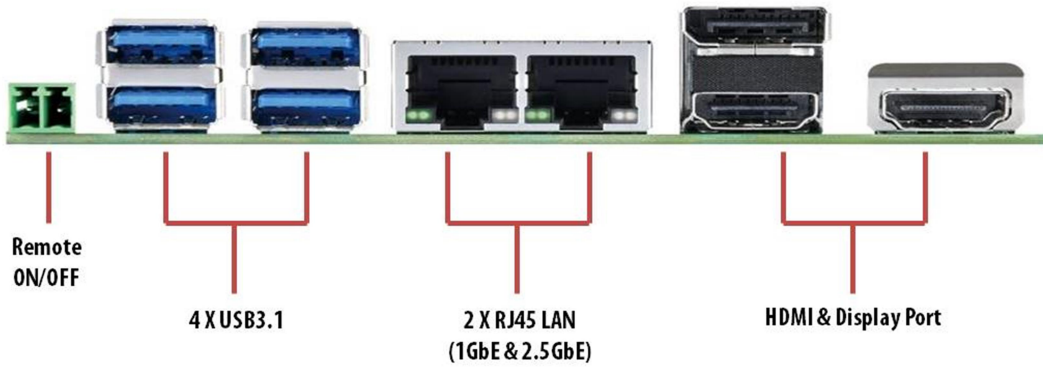
1.2 Key Feature

| System | |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU | Intel® Core™ i7-1185G7E Processor (4 Cores / 8 Threads, 12M Cache, up to 4.40 GHz),15W/28W Intel® Core™ i5-1145G7E Processor (4 Cores / 8 Threads, 8M Cache, up to 4.10 GHz),15W/28W Intel® Core™ i3-1115G4E Processor (2 Cores / 4 Threads, 6M Cache, up to 3.90 GHz),15W/28W Intel® Celeron® 6305E (2 Cores / 2 Threads, 4M Cache, up to 1.80 GHz),15W |
| Memory Type | DDR4 3200 MHz / 1 x 260-pin SO-DIMM / Max. 32GB (Non-ECC) |
| BIOS | AMI® UEFI BIOS |
| I/O CHIPSET | Nuvoton NCT6126D |
| TPM | Nuvoton NPCT750AABYXTPM2.0 |
| Watchdog | 1-255 sec. or 1-255 min. software programmable and can be generate system reset |
| Smart Fan Control | CPU Fan |
| BIOS | AMI BIOS |
| Expansion Slot | |
| M.2 | 1 x M.2 2230 E-key (Wifi & BT , (PCIe / USB) 1 x M.2 2242/2260/2280/3042/3052 B-key (Storage/5G/LTE, (USB2.0/PCIe x 1/SATAIII) |
| Display | |
| Chipset | Intel® Iris Xe Graphics |
| HDMI 2.0b | Up to 4K (4096 x 2160) @ 60 Hz |
| Display Port 1.4 | Up to 5120 x 3200 @ 60 Hz |
| LVDS | Up to 1920 x 1200 @ 60 Hz |
| Ethernet | |
| Chipset | Intel® I219-LM Giga LAN / Intel® I225-LM 2.5GbE LAN |
| Audio | |
| Chipset | Intel® I219-LM Giga LAN / Intel® I225-LM 2.5GbE LAN |
| Rear I/O | |
| USB | 4 x USB 3.1 |
| DisplayPort | 1 x DP ; 2 x HDMI |
| LAN | 2(1 x GbE ; 1 x 2.5GbE) |
| Internal I/O | |
| SATAIII | 1 |
| USB2.0 | 2 |
| Display I/O | 1 x LVDS 1 x Backlight connector |
| Audio | 1 x Speaker connector 1 x Mic-in & Line-out |
| Serial | 4 (1 x Support RS232/422/485) |
| CPU Fan | 1 |
| Power | 1 x 8~24V 4-pin Power Connector, 1 x AT / ATX Mode Select Jumper |
| Front Panel Control | 1 x Front IO Header (PWR ON/RESET/PWR LED/HDD LED) |

| Mechanical and Environment | |
|-----------------------------------|------------------------------------------------|
| Form Factor | 3.5" |
| Power Type | DC-IN 8~24V |
| Dimension | 102mm x 147mm |
| Operating Temp. | ET : -20 to 70°C UT : -40 to 85°C |
| Storage Temp | -40 to 85°C |
| Relative Humidity | 10% to 90%, non-condensing |
| Standard Compliance | |
| Standard Compliance | CE/FCC |
| OS | |
| OS Support | Windows®10 64-bit Linux(Support by request) |

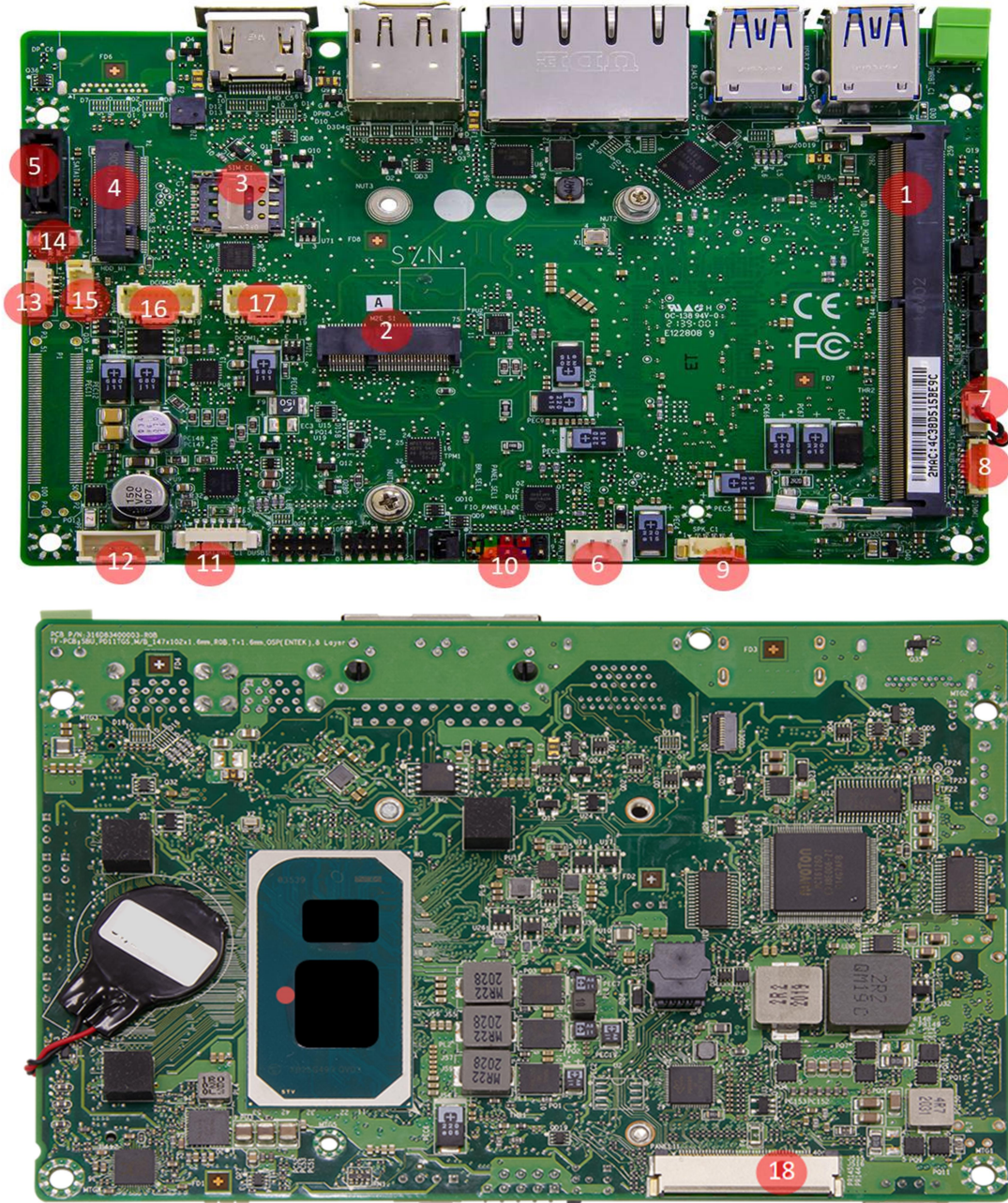
***All specifications and photos are subject to change without notice.**

1.3 I/O Placement



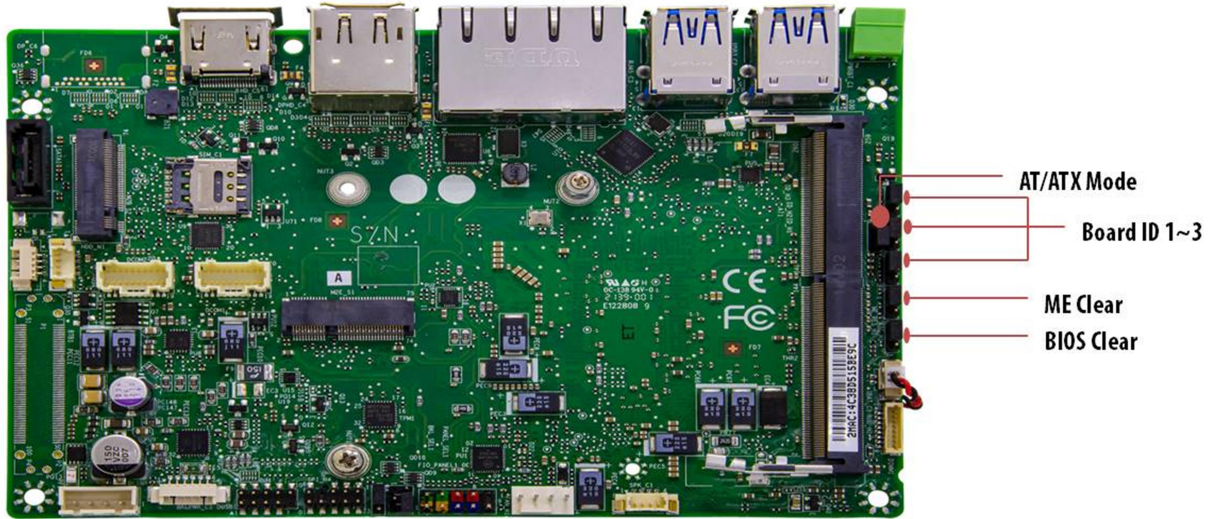
Chapter 2: JUMPER SETTING AND PIN DEFINITION

2.1 Jumper and Internal Connector List



| Label | Function |
|-------|--------------------------------------------------|
| 1 | DDR4 SO-DIMM Slot |
| 2 | M.2 E-Key Slot |
| 3 | Nano SIM Socket |
| 4 | M.2 B-Key Slot |
| 5 | SATA 7P Connector |
| 6 | FAN Header |
| 7 | RTC Battery Socket |
| 8 | Audio Socket |
| 9 | Speaker Socket |
| 10 | Front I/O Header |
| 11 | Panel Backlight Power Socket |
| 12 | DC Input Socket |
| 13 | Output Power Connector |
| 14 | SATA SSD Detection Connector |
| 15 | SATA SSD Power Connector |
| 16 | Dual COM Port connector(COM3 & COM4 RS232) |
| 17 | Dual COM Port connector(COM1 RS232 & COM2 RS232) |
| 18 | LVDS connector |

2.2 Jumper Setting



AT/ATX Mode

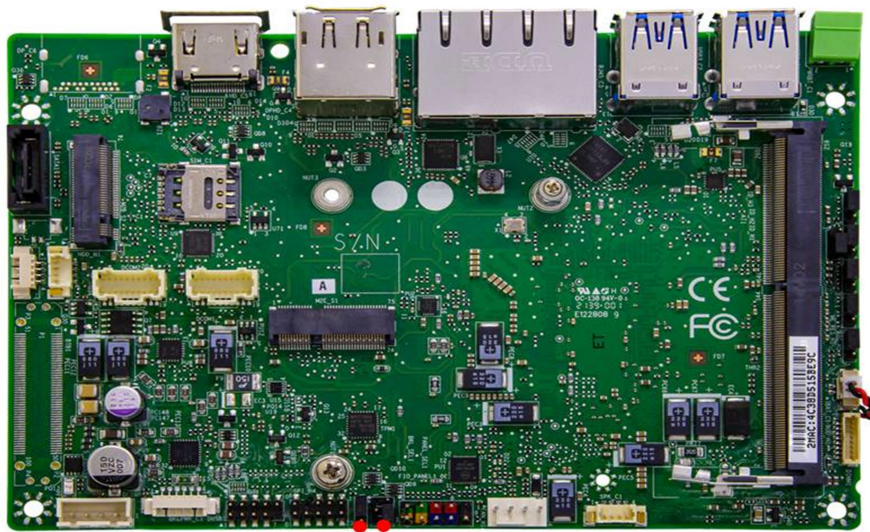
| PIN | DEFINITION |
|-----------------------------------|------------|
| Pin1/Pin2 (default) : ATX Mode | |
| Pin2/Pin3 : AT Mode | |

BIOS Clear

| PIN | DEFINITION |
|---------------------------------------------------------------|------------|
| Pin1/Pin2 (default) : Keep current BIOS setting | |
| Pin2/Pin3 : BIOS will be cleared to the default setting | |

ME Clear

| PIN | DEFINITION |
|----------------------------------------------------------------|------------|
| Pin1/Pin2 (default) : Keep current ME setting | |
| Pin2/Pin3 : Intel ME will be cleared to the default setting | |



LVDS Backlight Power Selection (PIN 1~PIN3)

LVDS Panel Power Selection (PIN1~PIN6)

LVDS Backlight Power Selection Header

| PIN | DEFINITION |
|----------------------------------------------------|------------|
| Pin1-Pin2(default) : Backlight power 5V support | |
| Pin2-Pin3 : Backlight power 12V support | |

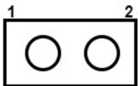
LVDS Panel Power Selection Header

| PIN | DEFINITION |
|----------------------------------------------|------------|
| Pin4-Pin6(default) Panel power 5V support | |
| Pin2-Pin4 Panel power 3.3V support | |
| Pin3-Pin4 Panel power 12V support | |

2.3 Internal Connector Pin Define


RTC Battery Socket

| PIN | DEFINITION |
|-----|------------|
| 1 | VBAT |
| 2 | GND |




Audio Socket

| PIN | DEFINITION |
|-----|------------|
| 1 | HPOUT_JD |
| 2 | HP_LOUT_R |
| 3 | HP_LOUT_L |
| 4 | RING2 |
| 5 | N/A |
| 6 | SLEEVE |
| 7 | AGND |
| 8 | AGND |



Speaker Socket

| PIN | DEFINITION |
|-----|-------------|
| 1 | LINE OUT L- |
| 2 | LINE OUT L+ |
| 3 | LINE OUT R- |
| 4 | LINE OUT R+ |



Front I/O Header

| PIN | DEFINITION |
|-----|----------------|
| 1 | HDD LED+ |
| 2 | Power LED+(S0) |
| 3 | HDD LED- |
| 4 | Power LED-(S3) |
| 5 | GND |
| 6 | PWRBT_N |
| 7 | PWSET_N |
| 8 | GND |
| 9 | VCC(5V) |

Panel Backlight Power Socket (Support 5V)

| PIN | DEFINITION |
|-----|---------------------|
| 1 | LVDS_BKTEN |
| 2 | BKLT_CTRL |
| 3 | BKLT_PWR(5V or 12V) |
| 4 | BKLT_PWR(5V or 12V) |
| 5 | GND |
| 6 | GND |

DC Input Socket

| PIN | DEFINITION |
|-----|--------------|
| 1 | GND |
| 2 | DC_IN(8-24V) |
| 3 | DC_IN(8-24V) |
| 4 | GND |

Output Power Connector

| PIN | DEFINITION |
|-----|------------|
| 1 | N/A |
| 2 | GND |
| 3 | 5V/1A |
| 4 | 12V/1A |

SATA SSD Power Connector

| PIN | DEFINITION |
|-----|-------------|
| 1 | V_3P3_SATA |
| 2 | GND |
| 3 | V_5P0_SATA |
| 4 | V_12P0_SATA |

Dual COM Port Connector DCOM1

| PIN | DEFINITION | | |
|-----|----------------|-------|-------|
| | RS232 | RS422 | RS485 |
| 1 | NDCD1(TX-)(D-) | TX- | D- |
| 2 | NRX1(TX+)(D+) | TX+ | D+ |
| 3 | NTX1(RX+) | RX+ | N/A |
| 4 | NDTR1(RX-) | RX- | N/A |
| 5 | GND | GND | GND |
| 6 | NDSR1 | N/A | N/A |
| 7 | NRTS1 | N/A | N/A |
| 8 | NCTS1 | N/A | N/A |
| 9 | NRI1 | N/A | N/A |
| 10 | N/A | N/A | N/A |
| 11 | NDCD2 | N/A | N/A |
| 12 | NRX2 | N/A | N/A |
| 13 | NTX2 | N/A | N/A |
| 14 | NDTR2 | N/A | N/A |
| 15 | GND | N/A | N/A |
| 16 | NDSR2 | N/A | N/A |
| 17 | NRTS2 | N/A | N/A |
| 18 | NCTS2 | N/A | N/A |
| 19 | NRI2 | N/A | N/A |
| 20 | N/A | N/A | N/A |

Dual COM Port Connector DCOM2

| PIN | DEFINITION |
|-----|------------|
| | RS232 |
| 1 | NDCD3 |
| 2 | NRX3 |
| 3 | NTX3 |
| 4 | NDTR3 |
| 5 | GND |
| 6 | NDSR3 |
| 7 | NRTS3 |
| 8 | NCTS3 |
| 9 | NRI3 |
| 10 | N/A |
| 11 | NDCD4 |
| 12 | NRX4 |
| 13 | NTX4 |
| 14 | NDTR4 |
| 15 | GND |
| 16 | NDSR4 |
| 17 | NRTS4 |
| 18 | NCTS4 |
| 19 | NRI4 |
| 20 | N/A |

2.4 External Connector Pin Define

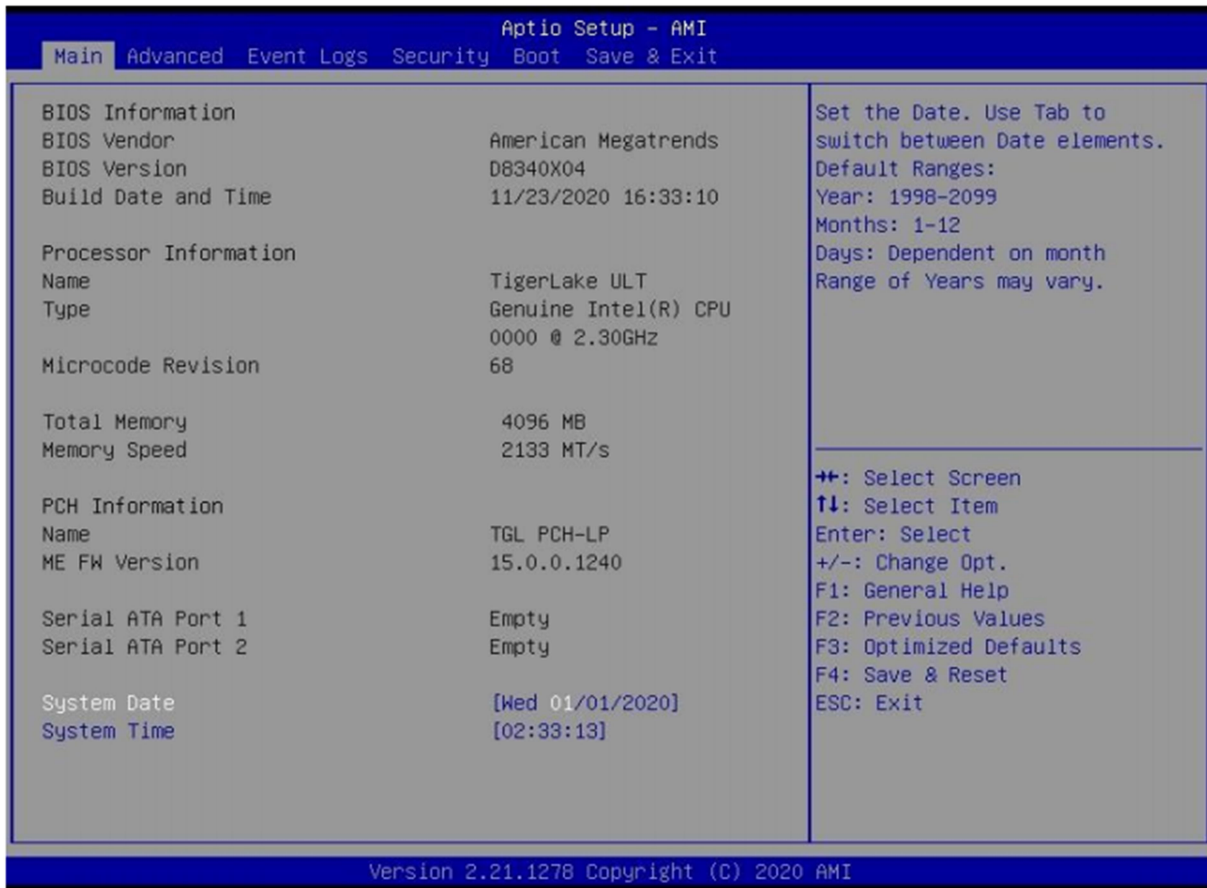
Dual COM Port Connector DCOM2

| PIN | DEFINITION | |
|-----|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | GND | <p>The diagram shows a rectangular connector housing with two vertical slots representing pins. The left slot is labeled '1' and the right slot is labeled '2'.</p> |
| 2 | PWRBT_N | |

Chapter 3: BIOS SETUP

This chapter provides information about how to set up BIOS and use BIOS menu items to adjust basic function settings.

3.1 Main Page



| | |
|-------------------|-------------------------------------------------------------------------|
| Field Name | BIOS Vendr |
| Default Value | American Megatrends |
| 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 and Time |
| 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 |
| 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 |
| Default Value | Display the installed CPU brand. |
| Comment | This field is not selectable. There is no help text associated with it. |

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

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

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

| | |
|-------------------|-------------------------------------------------------------------------|
| Field Name | PCH Information |
| Default Value | Display PCH family |
| Comment | This field is not selectable. There is no help text associated with it. |

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

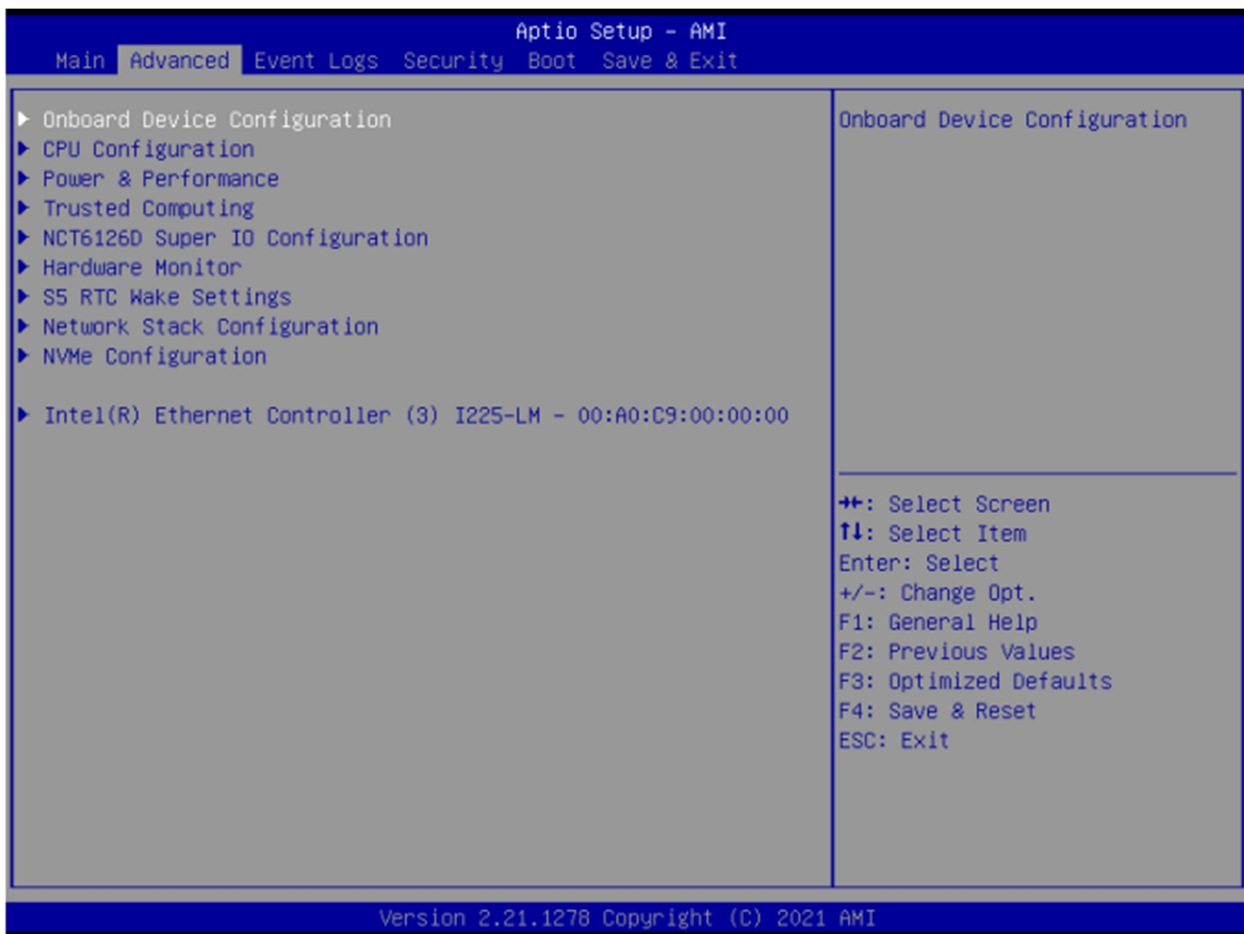
| | |
|-------------------|-------------------------------------------------------------------------|
| Field Name | Serial ATA Port 1 |
| Default Value | Display the installed SATA device model/size of port 1 |
| Comment | This field is not selectable. There is no help text associated with it. |

| | |
|-------------------|-------------------------------------------------------------------------|
| Field Name | Serial ATA Port 2 |
| Default Value | Display the installed SATA device model/size of port 2 |
| Comment | This field is not selectable. There is no help text associated with it. |

| | |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field Name | System Date |
| Default Value | [Wwww mm/dd/yyyy] |
| Possible Value | Www : Mon/Tue/Wed/Thu/Fri/Sat/Sun mm : 1-12 dd : 1-31 yyyy : 1998-2099 |
| Help | Set the Date. Use Tab to switch between Date elements. Default Rangers Year : 1998-2099 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. |

3.2 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 | Power & Performance |
| Help | Power & Performance Options. |
| 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. |

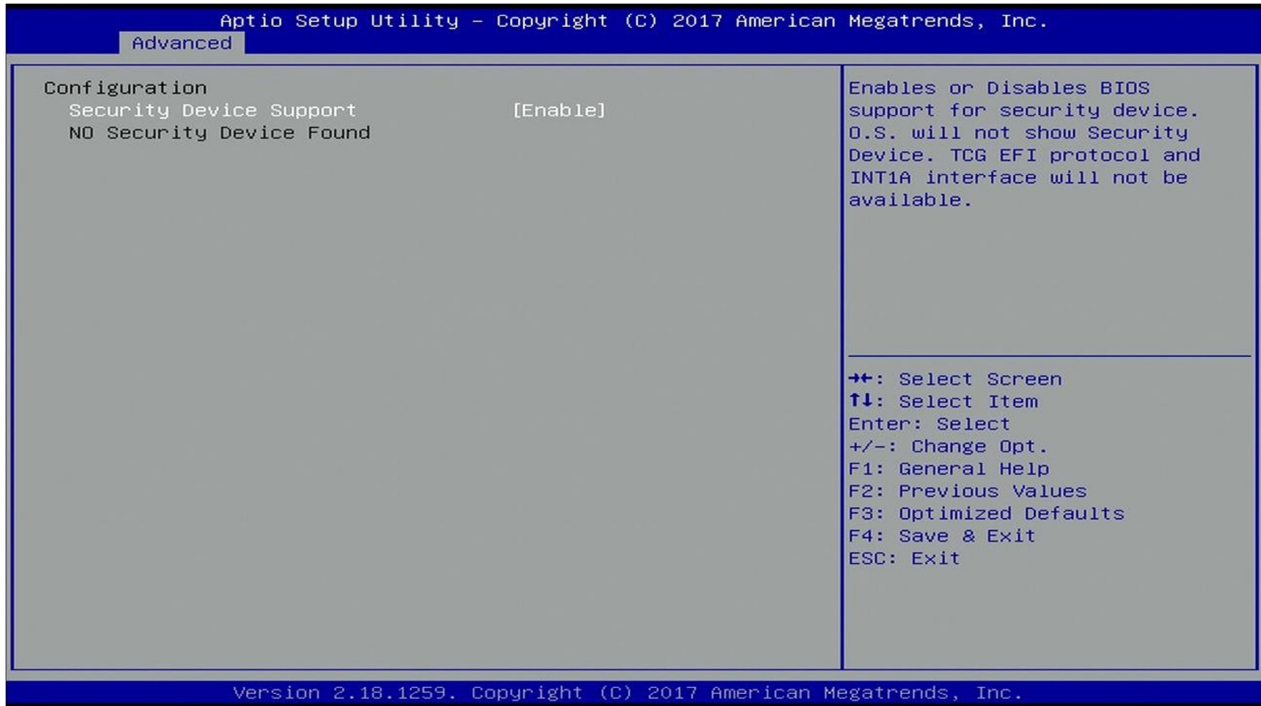
| | |
|-------------------|---------------------------------------------------------------|
| Field Name | HW Monitor |
| Help | Monitor hardware status |
| Comment | Press Enter when selected to go into the associated Sub-Menu. |

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

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

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

3.2.1 Onboard Device



| | |
|-------------------|------------------------------------------------------------------|
| Field Name | Turbo Mode |
| Default Value | [Enabled] |
| Possible Value | Enabled Disabled |
| Help | Enable/Disable processor Turbo Mode (requires EMTTM enabled too) |

| | |
|-------------------|----------------------------------------------------------------------------------------|
| 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 |

Note: Visible in LVDS SKU.

| | |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field Name | LVDS Interface Type |
| Default Value | [Disabled] |
| Possible Value | 8 bit-VESA Single Channel 8 bit-VESA Dual Channel 6 bit-VESA Single Channel 6 bit-VESA Dual Channel 8 bit-JEIDA Single Channel 8 bit-JEIDA Dual Channel |
| Help | Sets LVDS connectivity. |

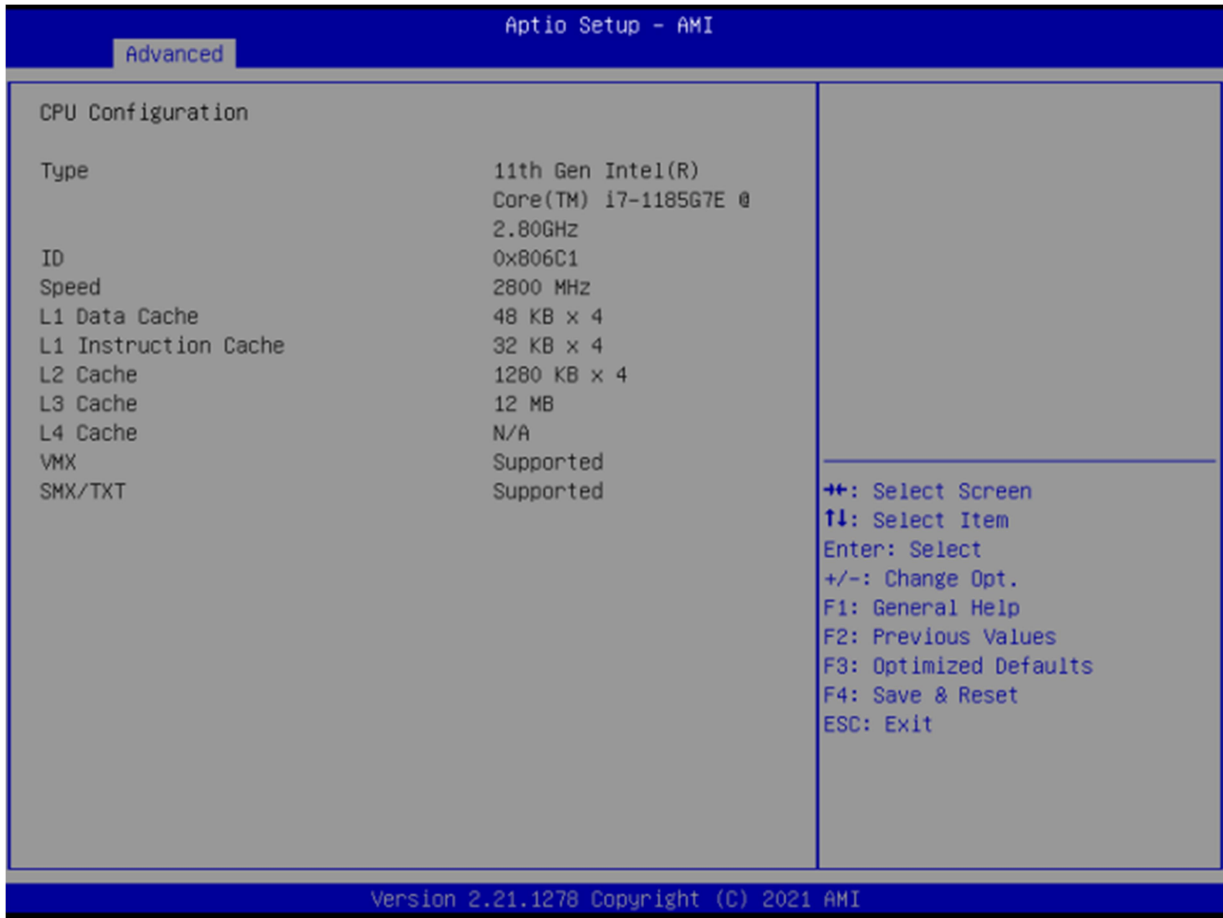
Note: Visible when LVDS Interface Type not set to disable

| Field Name | LVDS Interface Type |
|----------------|---------------------------------------------------------------------------------------------|
| Default Value | [1920x1080 LVDS] |
| Possible Value | 1024x768 LVDS 1366x768 LVDS 1920x1080 LVDS |
| Help | Select LVDS panel used by Internal Graphics Device by selecting the appropriate setup item. |

| Field Name | TPM Device Selection |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Default Value | [dTPM] |
| 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 |

| Field Name | G-Sensor Enable/Disable |
|----------------|--------------------------------------------------------------------------------------|
| Default Value | [Disabled] |
| Possible Value | Enabled Disabled |
| Help | MS-26CAD-T10 G sensor on/off Notice : If Gsensor enabled will reserve 2 pin from DIO |

3.2.2 CPU Configuration



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

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

3.2.3 Trusted Computing



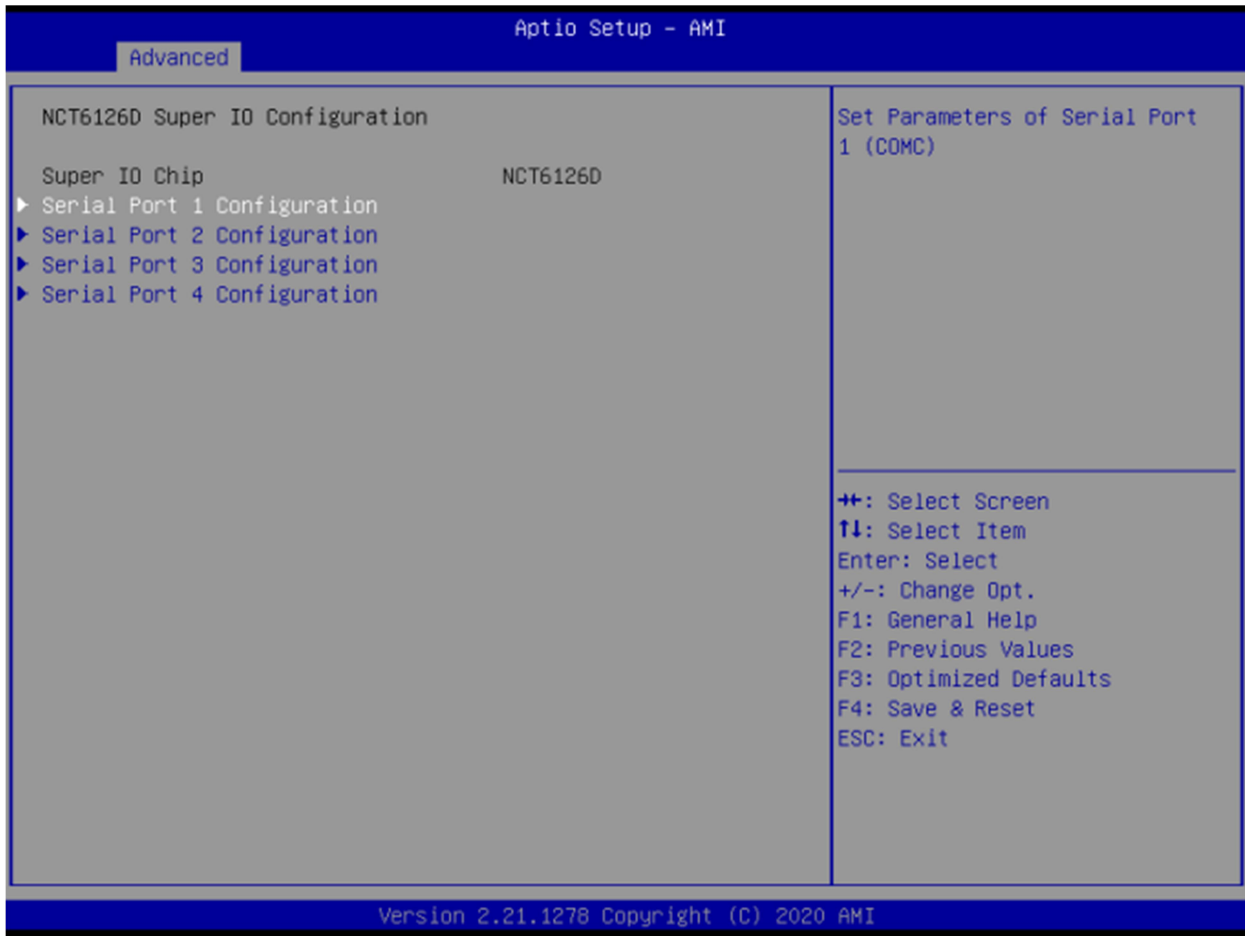
| | |
|-------------------|-------------------------------------------------------------------------|
| Field Name | Firmware Version |
| Default Value | TPM module version. |
| Comment | This field is not selectable. There is no help text associated with it. |

| | |
|-------------------|-------------------------------------------------------------------------|
| Field Name | Vendor |
| Default Value | TPM module vendor 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. |

3.2.4 NCT6126D Super IO Configuration



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

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

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

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

3.2.5 Serial Port 1 Configuration



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

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

| Field Name | Serial Port |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Default Value | [3T/5R RS232] |
| Possible Value | 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 |
| Help | Configure serial port as RS232/RS422/RS485. |

3.2.6 Serial Port 2 Configuration



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

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

3.2.7 Serial Port 3 Configuration



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

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

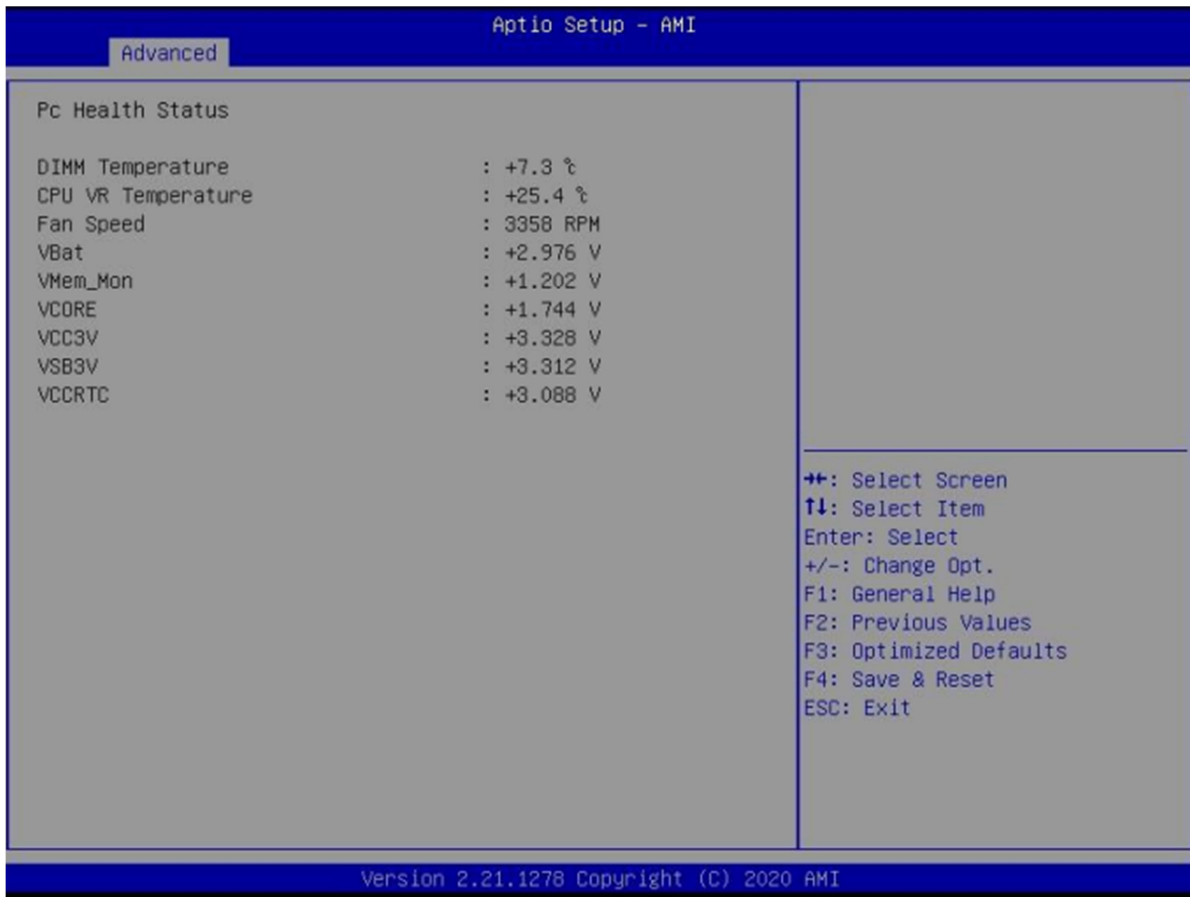
3.2.8 Serial Port 4 Configuration



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

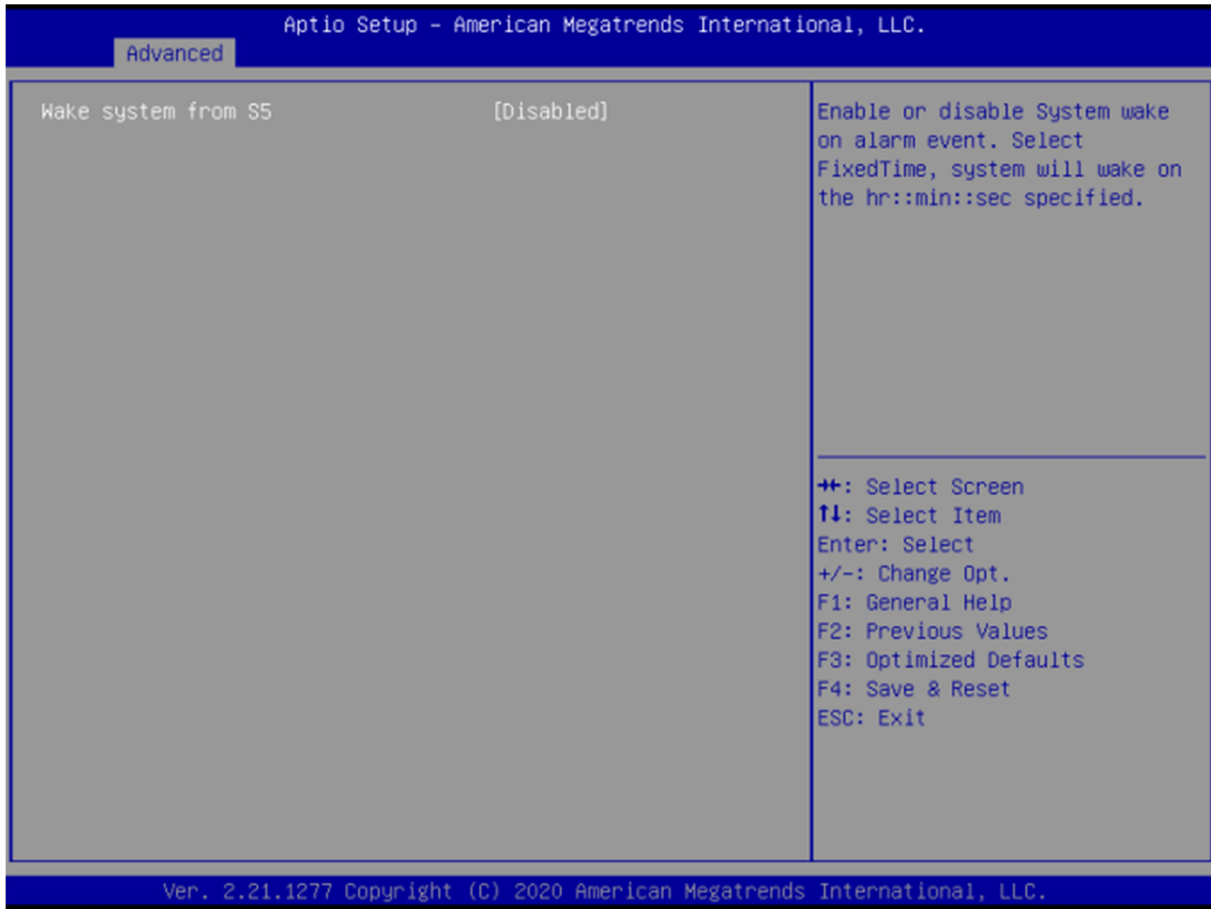
| | |
|-------------------|-------------------------------------------------------------------------|
| Field Name | Device Settings |
| Default Value | Device Super IO COM4 Address and IRQ. |
| Comment | This field is not selectable. There is no help text associated with it. |

3.2.9 Hardware Monitor



| Field Name | Serial Port |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DIMM Temperature | +70~-40°C |
| CPU VR Temperature | +70~-40°C |
| 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. |
| VBat | 2.0~ 3.65V |
| VMem_Mon | 1.15~ 1.25V |
| VCORE | 0 ~2V |
| VCC3V | 3.13 ~ 3.65V |
| VSB3V | 3.13 ~ 3.65V |
| VCCRTC | 2.0 ~ 3.2V |

3.2.10 RTC Wake Settings



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

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

| | |
|-------------------|----------------------------------------------------------------------|
| Field Name | Wake up hour(Show when Wake system from S5 set to Fixed Time) |
| Default Value | 0 |
| Possible Value | 0-9 |
| Help | Select 0-59 For Minute |

| | |
|-------------------|----------------------------------------------------------------------|
| Field Name | Wake up hour(Show when Wake system from S5 set to Fixed Time) |
| Default Value | 0 |
| Possible Value | 0-9 |
| Help | Select 0-59 For Second |

3.2.11 Network Stack Configuration

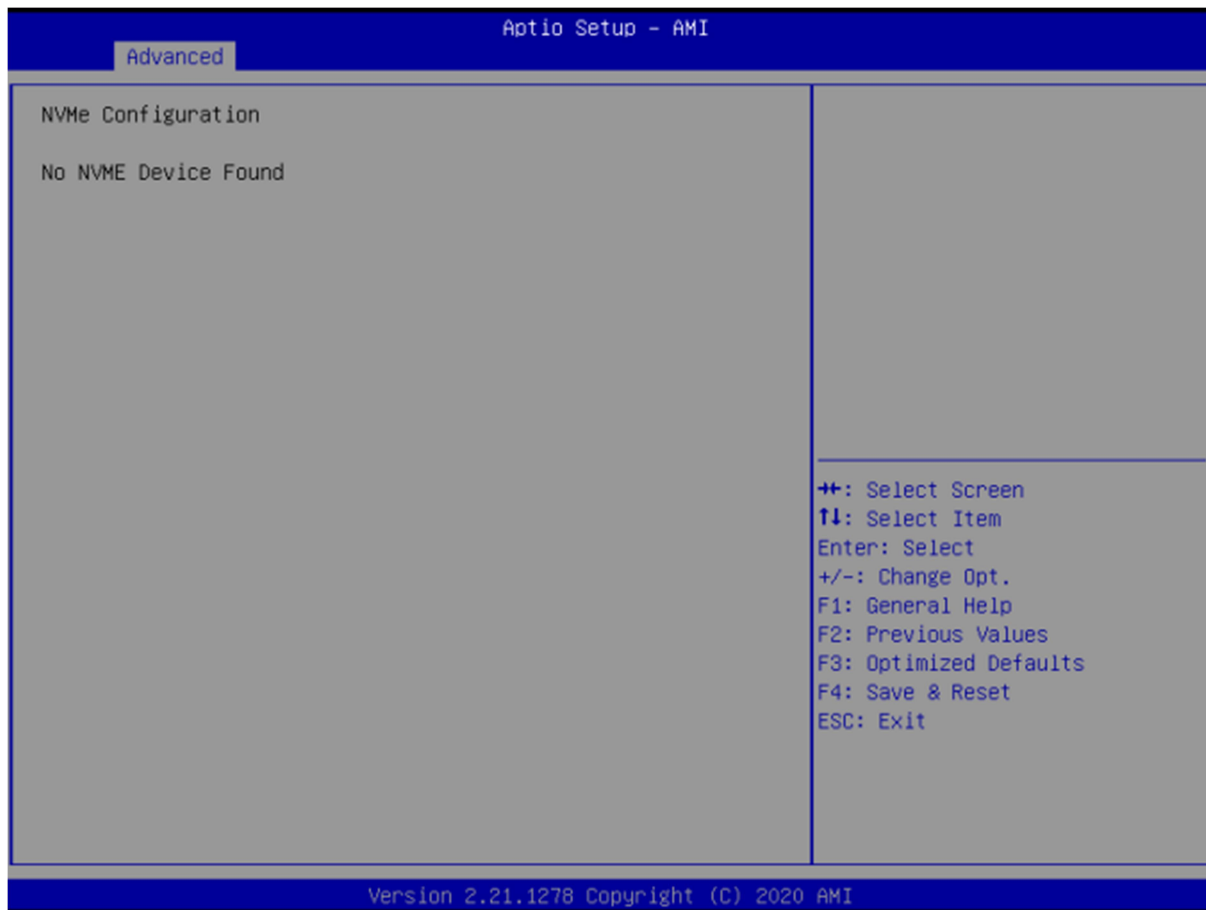


| | |
|-------------------|------------------------------------|
| Field Name | Network stack |
| Default Value | [Disabled] |
| Possible Value | Disabled Fixed Time |
| Help | Enable/Disable UEFI Network stack. |

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

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

3.2.12 NVMe Configuration



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

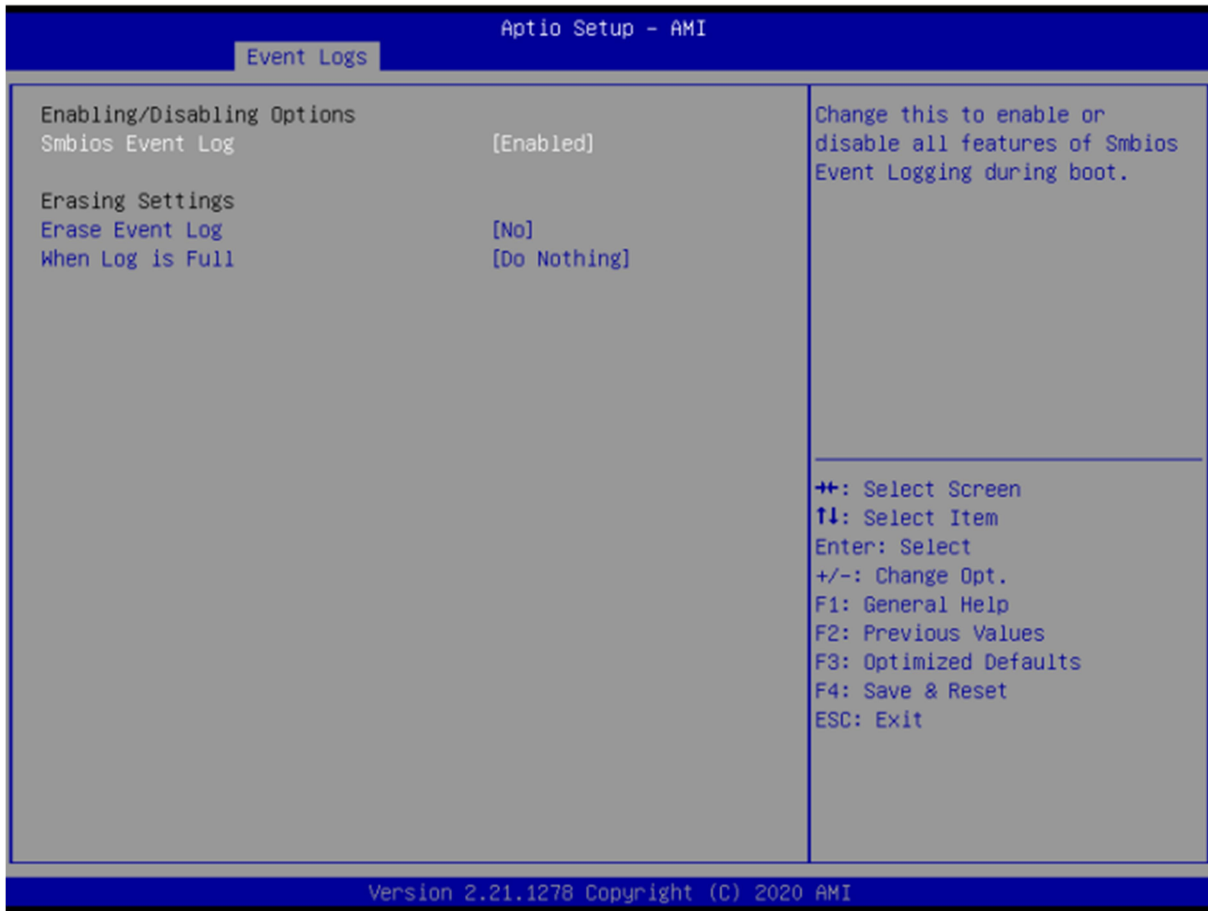
3.3 Event Logs



| | |
|-------------------|---------------------------------------------------------------|
| Field Name | Change Smbios Event Log Settings |
| Help | Press 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 to view the Smbios Event Log records. |
| Comment | Press Enter when selected to go into the associated Sub-Menu. |

3.3.1 Enabling/Disabling Options

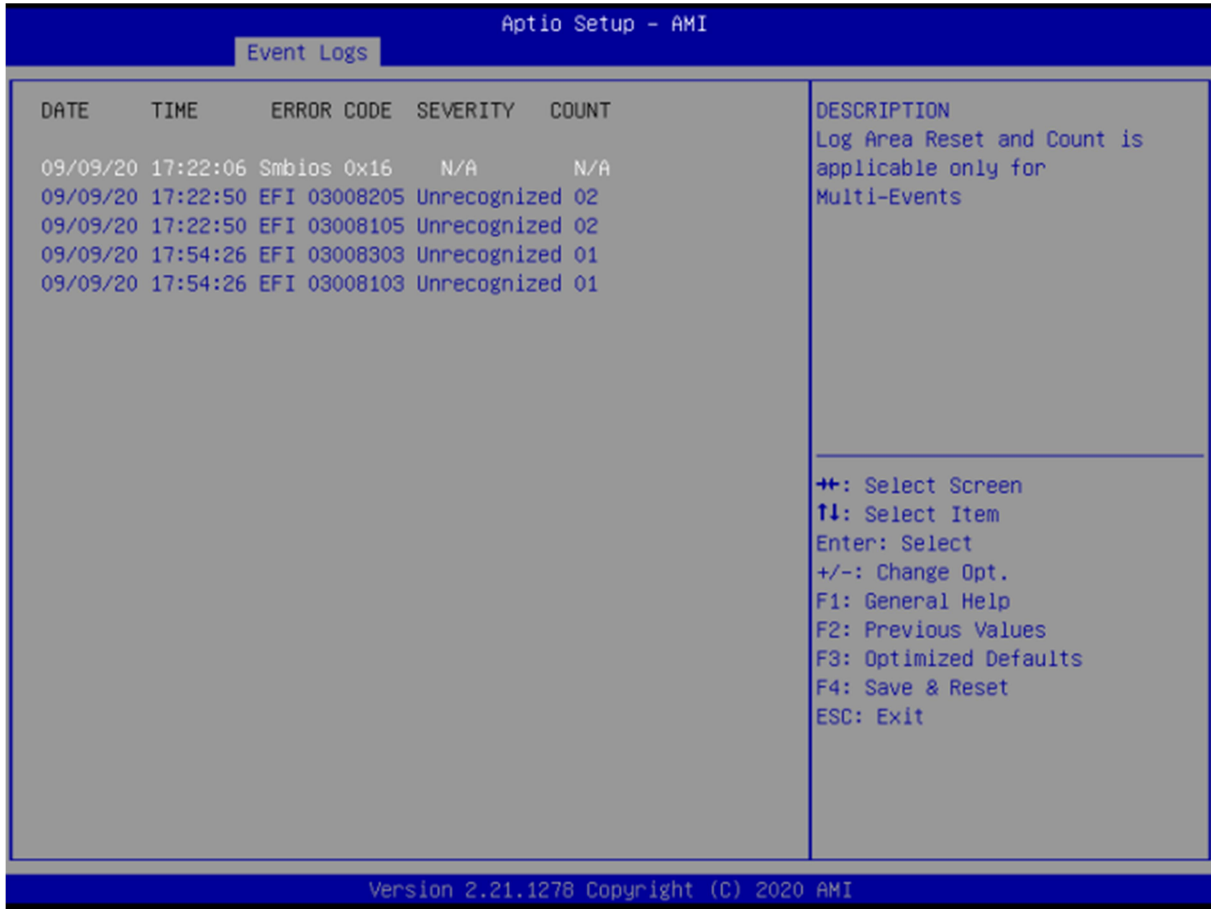


| | |
|-------------------|------------------------------------------------------------------------------------|
| Field Name | Ipv6 PXE Support (Available when Network stack Enabled) |
| Default Value | [Enabled] |
| Possible Value | Disabled Fixed Time |
| Help | Change this to enable or disable all features 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. |

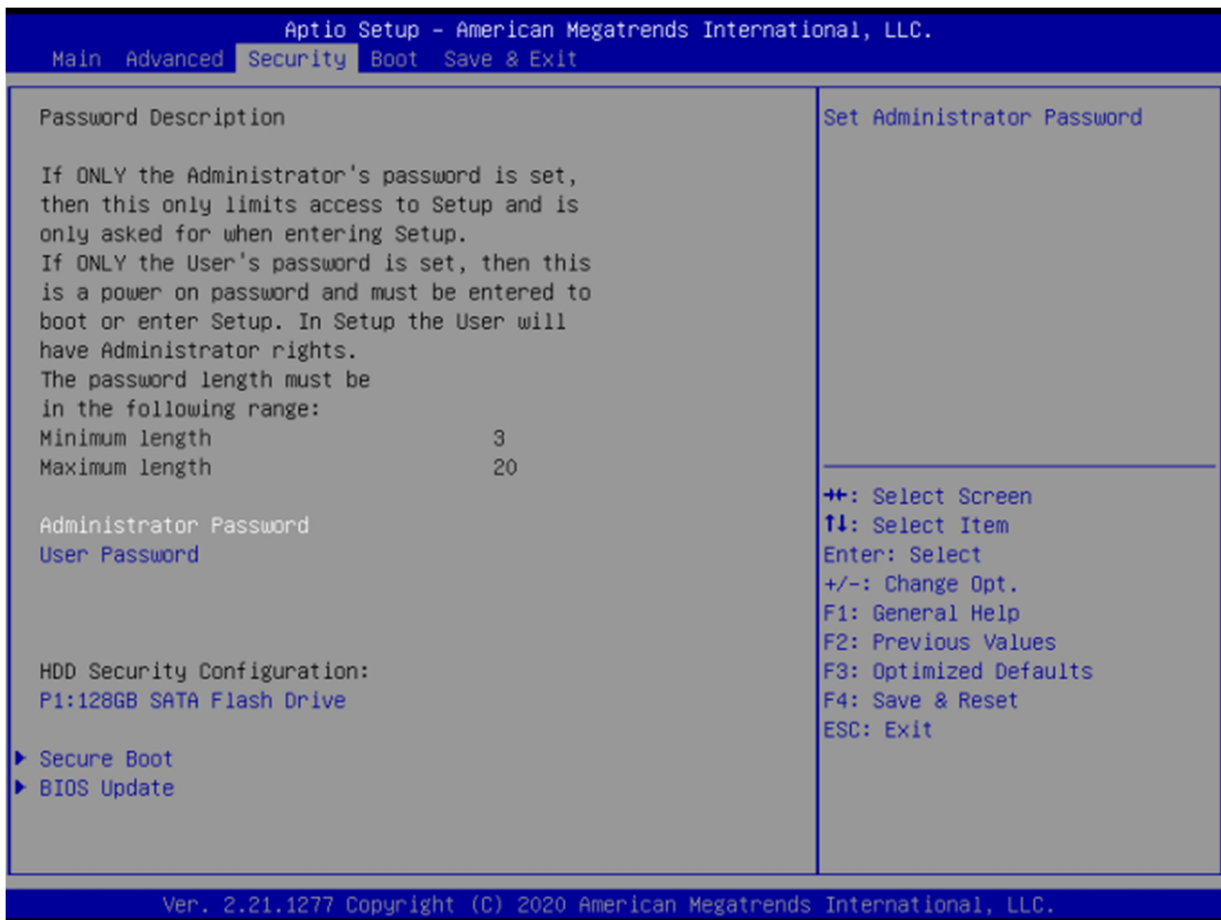
| | |
|-------------------|---------------------------------------------------------|
| Field Name | When Log is Full |
| Default Value | [Do Nothing] |
| Possible Value | Do Nothing Erase Immediately |
| Help | Choose options for reactions to a full Smbios Event Log |

3.3.2 View Smbios Event logs



| 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. |

3.4 Security Page



| | |
|-------------------|-------------------------------|
| Field Name | Administrator Password |
| Help | Set Administrator Password |

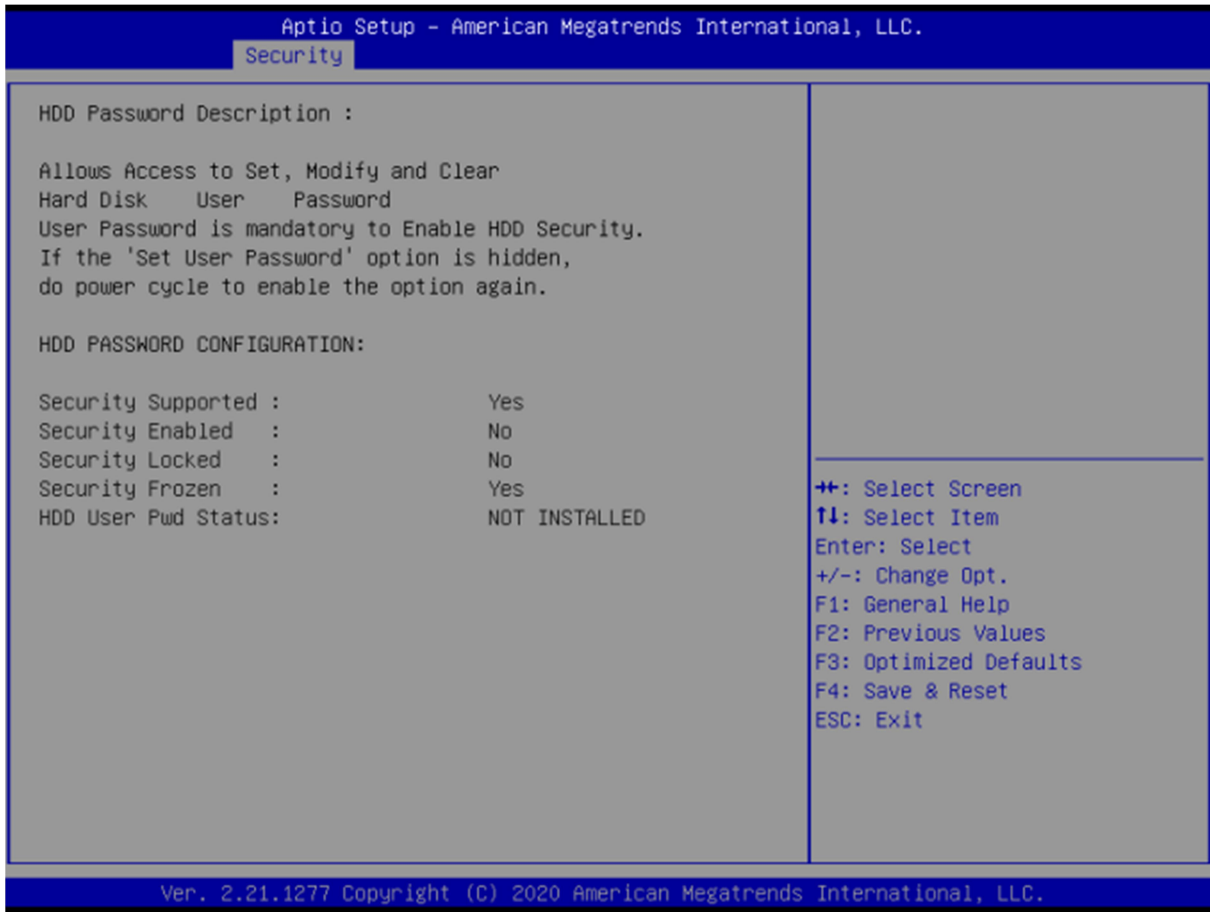
| | |
|-------------------|----------------------|
| Field Name | User Password |
| Help | Set User Password. |

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

| | |
|-------------------|---------------------------------------------------------------|
| Field Name | Secure Boot |
| Help | Secure Boot Configuration |
| Comment | Press Enter when selected to go into the associated Sub-Menu. |

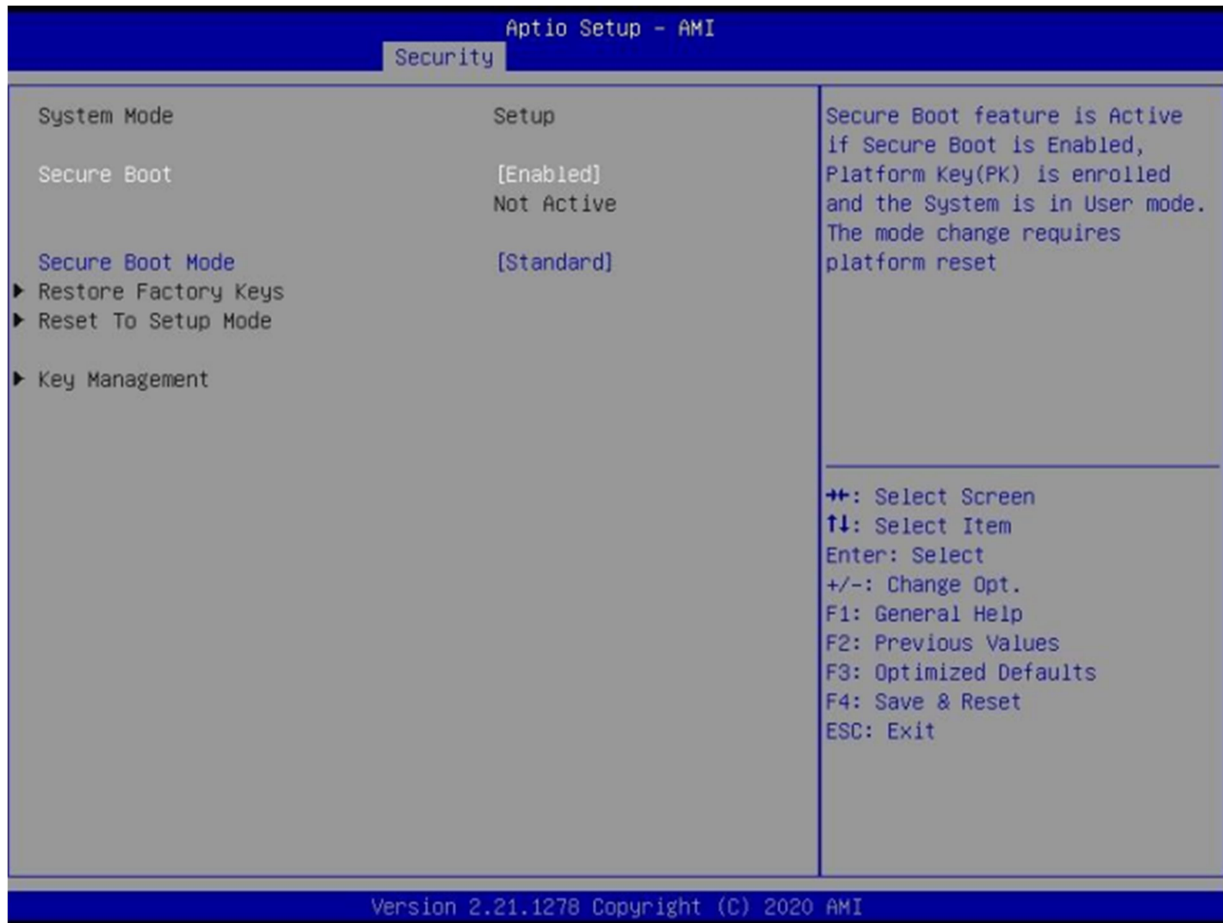
| | |
|-------------------|---------------------------------------------------------------|
| Field Name | BIOS Update |
| Help | BIOS Update support |
| Comment | Press Enter when selected to go into the associated Sub-Menu. |

3.4.1 HDD Security



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

3.4.2 Secure Boot



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

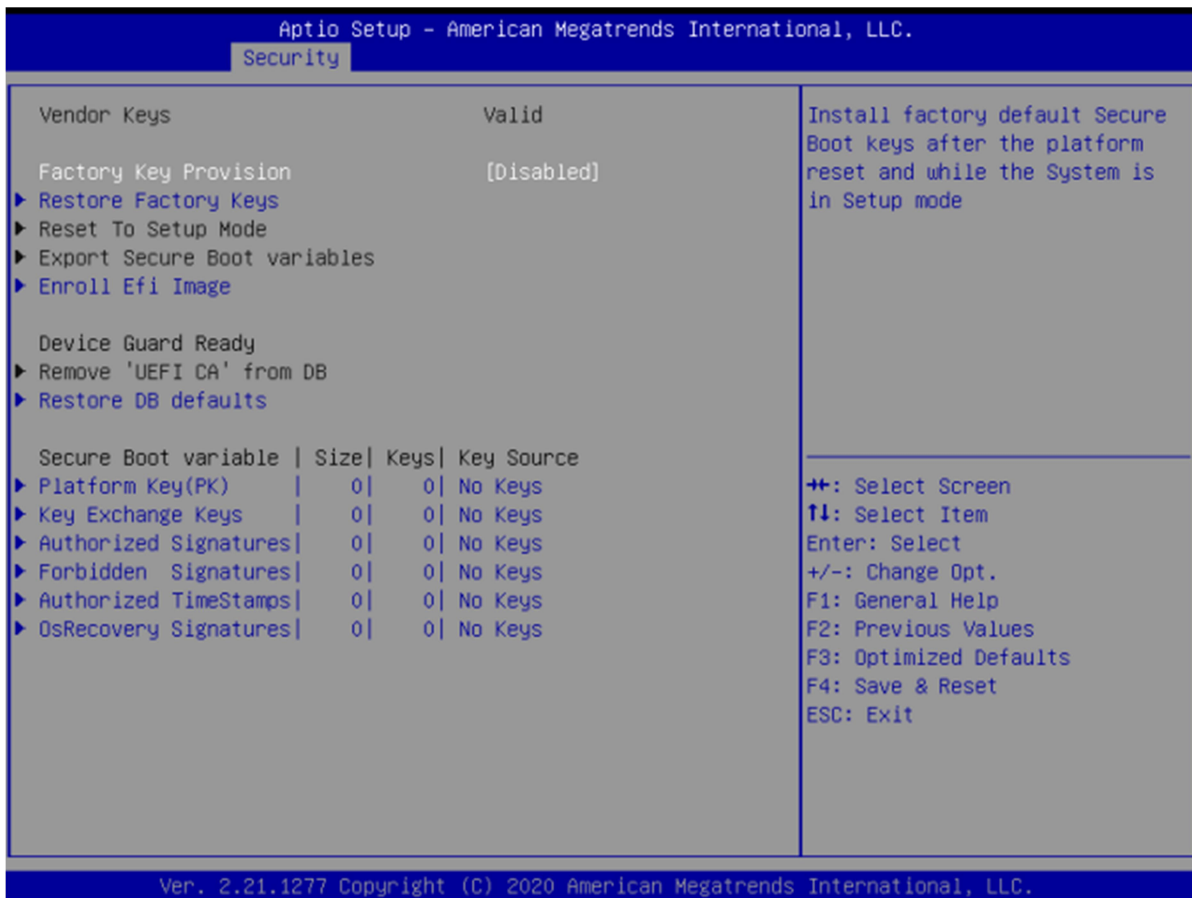
| Field Name | Secure Boot Mode |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Default Value | [Enabled] |
| Possible Value | Enabled Disabled |
| Help | Secure Boot 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 | Restore Factory Keys (Secure Boot Mode set to Custom) |
|------------|------------------------------------------------------------------------------|
| Help | Force System to User Mode. Install factory default Secure Boot key databases |

| | |
|-------------------|------------------------------------------------------------------|
| Field Name | Reset to Setup Mode(After Restore Factory keys Provision) |
| 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 |

3.4.3 Key Management (Secure Boot Mode set to Custom)



| | |
|-------------------|---------------------------------------------------------------------------------------------------------|
| 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 | <p>Enroll Factory Defaults or load certificates from a file:</p> <ol style="list-style-type: none"> 1.Public Key Certificate: <ol style="list-style-type: none"> 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) <p>Key Source: Factory,External,Mixed</p> |
| 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 | <p>Enroll Factory Defaults or load certificates from a file:</p> <ol style="list-style-type: none"> 1.Public Key Certificate: <ol style="list-style-type: none"> 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) <p>Key Source: Factory,External,Mixed</p> |
| Comment | Press Enter when selected to go into the associated Sub-Menu. |

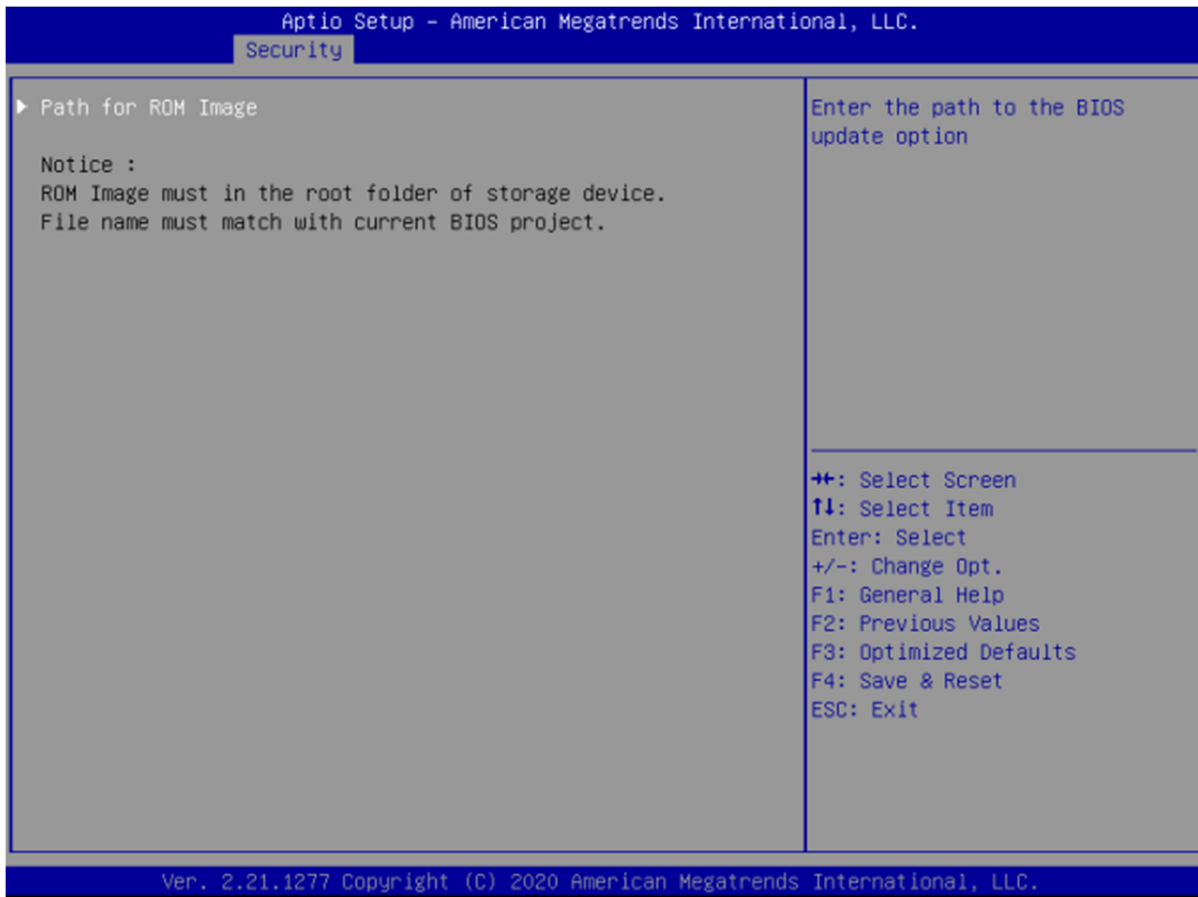
| Field Name | Authorized Signatures |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. |

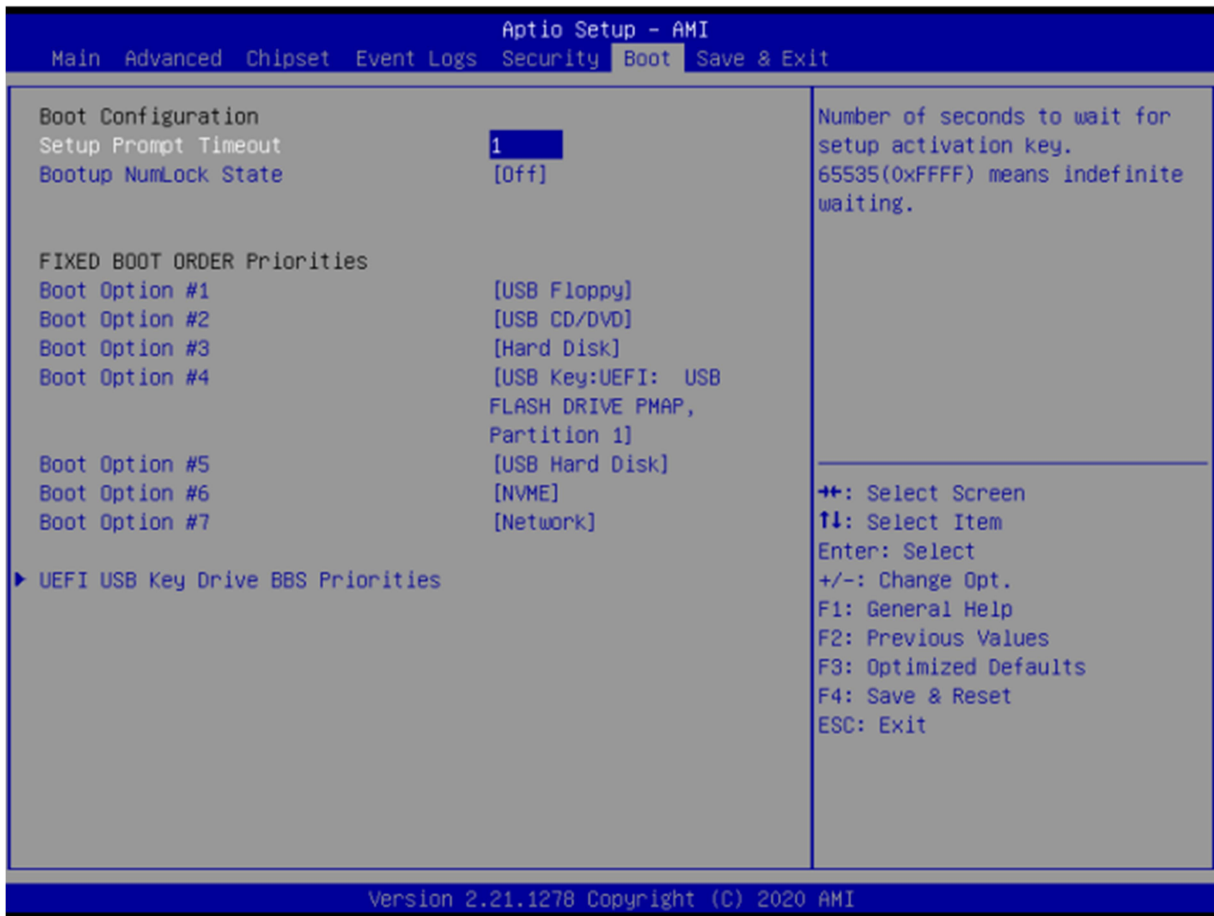
| | |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. |

3.4.4 BIOS Update



| | |
|-------------------|-------------------------------------------|
| Field Name | Path for ROM Image |
| Help | Enter the path to the Secure flash option |

3.5 Boot Page



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

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

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

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

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

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

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

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

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

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

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

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

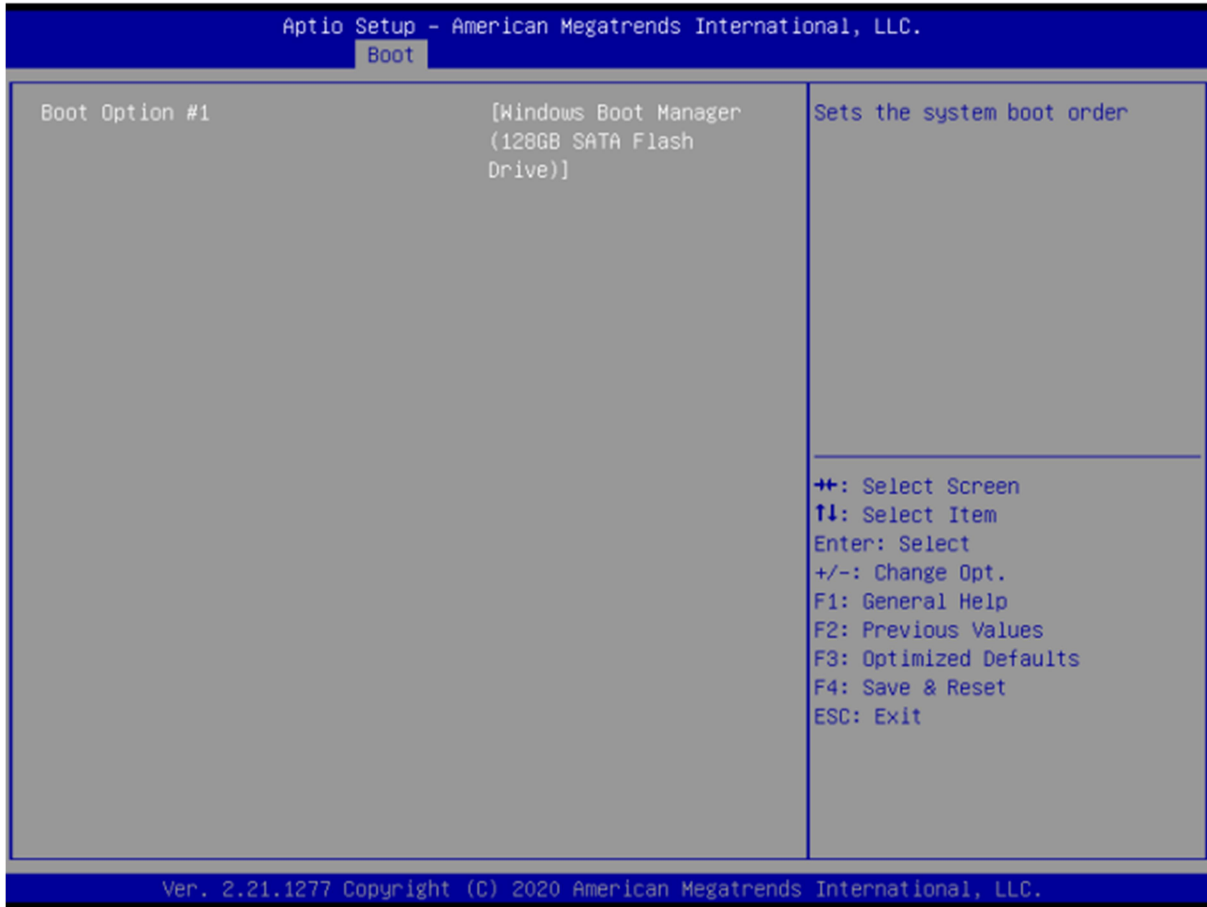
| | |
|-------------------|------------------------------------------------------------------------------|
| Field Name | (UEFI) USB KEY Drive BBS Priorities |
| Help | Specifies the Boot Device Priority sequence from available Hard Disk Drives. |
| Comment | Press Enter when selected to go into the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

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

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

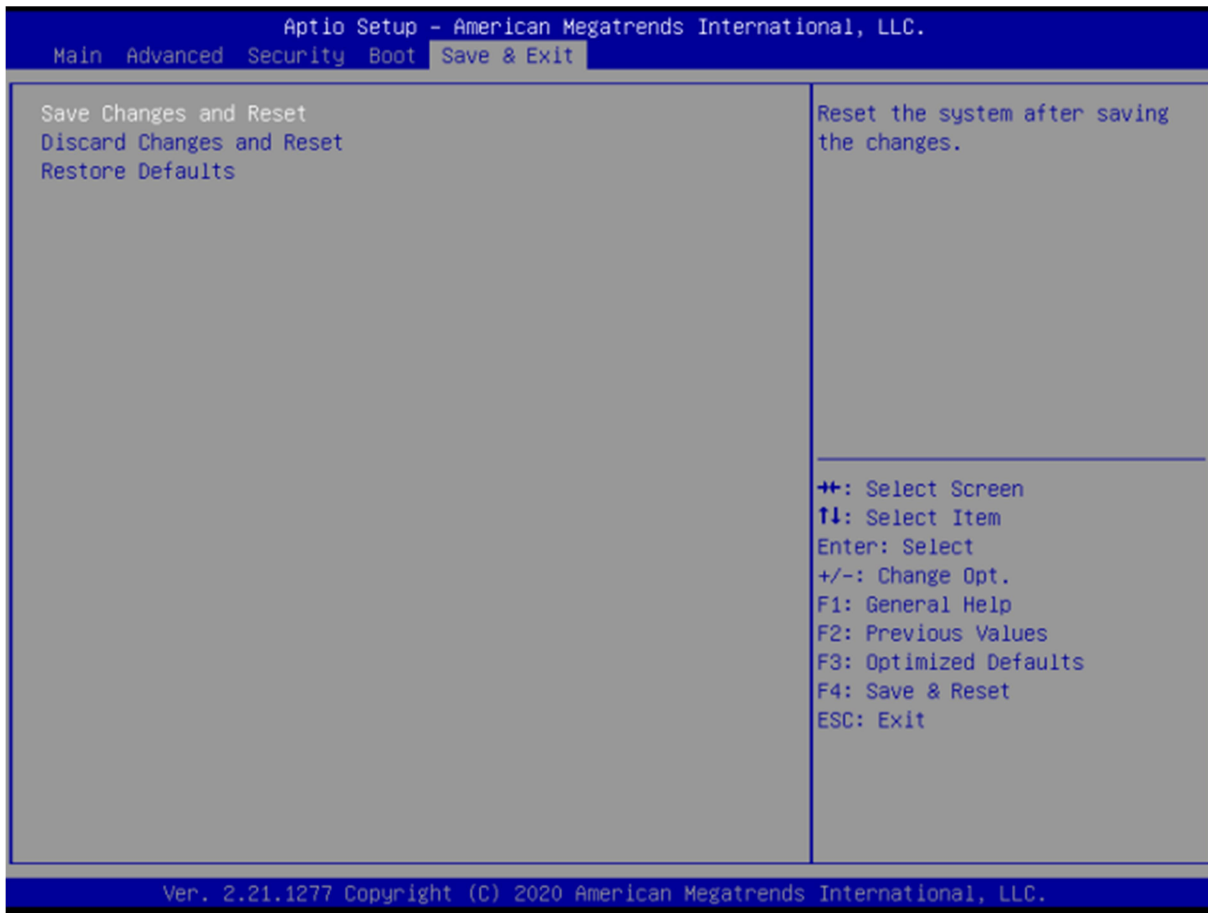
| | |
|-------------------|------------------------------------------------------------------------------|
| Field Name | (UEFI) NETWORK Drive BBS Priorities |
| Help | Specifies the Boot Device Priority sequence from available Hard Disk Drives. |
| Comment | Press Enter when selected to go into the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

3.5.1 (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 |

3.6 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. |