



# **THOR200**

MIL-STD Rugged Computer



## 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

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- All product specifications are subject to change without prior notice

## Revision History

Revision	Date (yyyy/mm/dd)	Changes
V1.0	2017/07/05	Initial release

## Packing list

- THOR200 MIL-STD Rugged Computer
- XR-DIMM up to 16 GB RAM *optional*

## Accessories Kit

- Cable Kits *optional*
- CD (Driver + User's Manual)



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

## Ordering information

Model Number	Description
THOR200	Intel® Broadwell MILSTD IP65 Rugged System with Core™ i7-5650U Processor, NVIDIA GT730M GPU, Amphenol M12 Connectors, 9V to 36V DC-in, Wide Temp. -40 to 70°C

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## Chapter 1: Product Introduction

### 1.1 Key Features

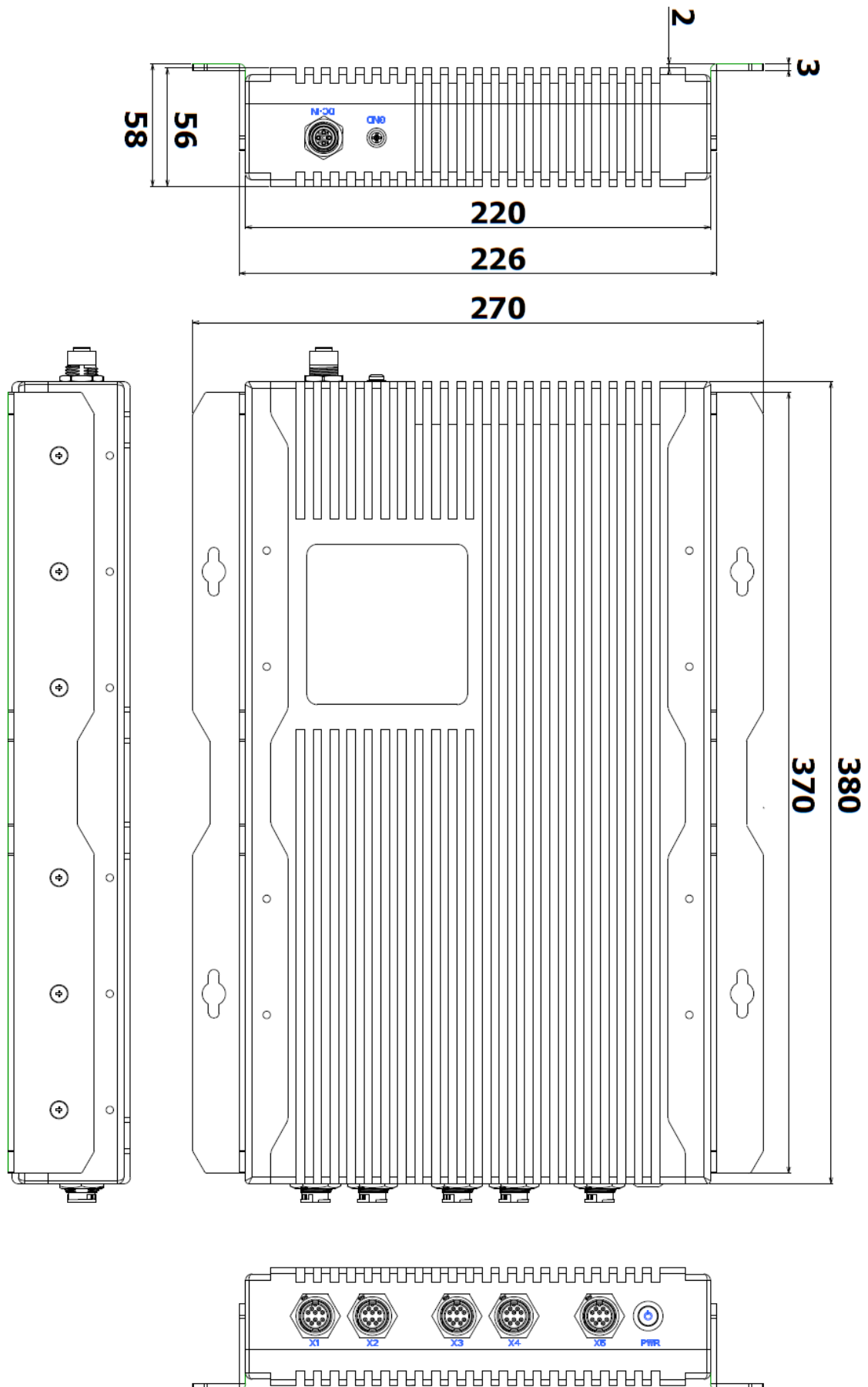
System	
CPU	Intel® Core™ i7 Broadwell , BGA type Core i7-5650U (2C x 2.2/3.1 GHz), 4M Cache (15W)
Ethernet Chipset	Intel® I210-IT & I218-LM GbE <b>NOTICE:</b> If you need hot plug function, please disable ULP function of I218-LM. "ULP Disable.pdf" file could be found in LAN folder of Driver CD.
Memory	2 x DDR3L 1600 XR-DIMM up to 16 GB
Expansion Slot	2 x mPCIe (1 with mSATA supported)
Storage Device	Onboard uSSD SATAIII 64 GB 1 x 2.5" HDD/SSD Slot 1 x mSATA
Front I/O	
Power Button	Power Button with LED backlight
X1 (M12 12 pin A-code)	RS232/422/485 COM port
X2 (M12 12 pin A-code)	VGA
X3 (M12 8 pin A-code)	Intel I218-LM GbE LAN
X4 (M12 8 pin A-code)	Intel I210-IT GbE LAN
X5 (M12 8 pin A-code)	2 x USB2.0
Rear I/O	
DC-IN (M12 4 pin S-code)	1
Ground Screw	1
Display	
GPU	NVIDIA GT730M
Display Interface	VGA
Mechanical & Environment	
Power Requirements	9V to 36V DC-in, AT/ATX mode supports with power delay on/off Power consumption : Under 60 Watt while system fully loading
Dimension (W x H x D)	220 x 56 x 380 mm (8.66" x 2.20" x 14.96")
Weight	7.5 kgs
Operating Temp.	-40 to 70°C (ambient with air flow)
Storage Temp.	-40 to 85°C
Relative Humidity	5% to 95%, non-condensing
Serial Interface & Signals	
Serial Standards	1x RS-232/422/485 port, mode could be selected in BIOS
RS-232	TxD, RxD, DTR, DSR, RTS, CTS, DCD, GND
RS-422	TxD+, TxD-, RxD+, RxD-, GND
RS-485-4w	TxD+, TxD-, RxD+, RxD-, GND
RS-485-2w	Data+, Data-, GND
Standards and Certifications	
MIL-STD-810G Test Method 507.5, Procedure II (Temperature & Humidity)	

Method 514.6, Procedure I (Category 20 & 24, Vibration)
Method 516.6, Procedure I (Mechanical Shock)
Method 501.5, Procedure I (Storage/High Temperature)
Method 501.5, Procedure II (Operation/High Temperature)
Method 502.5, Procedure I (Storage/Low Temperature)
Method 502.5, Procedure II (Operation/Low Temperature)
Method 503.5, Procedure I (Temperature shock)

EMC	CE and FCC compliance
Green Product	RoHS, WEEE compliance

\*Specifications are subject to change without notice\*

### 1.2 Mechanical Dimensions





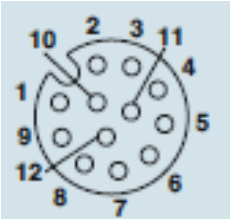
## Chapter 2: Jumpers and Connectors

### 2.1 Connector Pin Definitions

X1: COM1: RS232/422/485 with 5V/12V selectable

RS232/422/485 mode could be changed in BIOS setting.

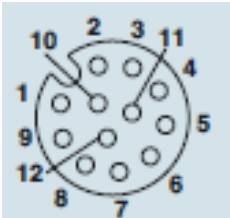
Pin	RS-232 (Default)	RS-422	RS-485
1	DCD	TX-	D-
2	RXD	TX+	D+
3	TXD	RX+	
4	DTR	RX-	
5	GND		
6	DSR		
7	RTS		
8	CTS		
9	RI (Default)		
10			
11			
12			



Socket, 12-pos.

### X2: VGA

LAN	
PIN	DEFINITION
1	RED
2	R Ground
3	GREEN
4	G Ground
5	BLUE
6	B Ground
7	H-Sync
8	Ground
9	V-Sync
10	Ground
11	DDC DATA
12	DDC LOCK

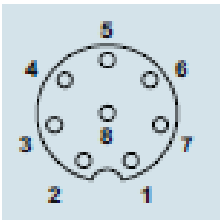


Socket, 12-pos.

### X3: Intel I218-LM

### X4: Intel I210-IT

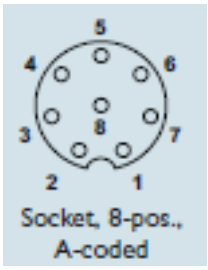
LAN	
PIN	DEFINITION
1	D1+
2	D1-
3	D2+
4	D2-
5	D3+
6	D3-
7	D4+
8	D4-



Socket, 8-pos.,  
A-coded

**X5: 2 x USB2.0**


USB2.0		
PIN	DEFINITION	
1	USB1	VCC
2		D-
3		D+
4		Gound
5	USB2	VCC
6		D-
7		D+
8		Gound



Socket, 8-pos.,  
A-coded

**DC IN: DC Input**

PIN	DEFINITION
1	+
2	NA
3	-
4	Ground



## Chapter 3: AMI BIOS UTILITY

This chapter provides users with detailed descriptions on how to set up a basic system configuration through the AMI BIOS setup utility.

### 3.1 Starting

To enter the setup screens, perform the following steps:

- Turn on the computer and press the <Del> key immediately.
- After the <Del> key is pressed, the main BIOS setup menu displays. Other setup screens can be accessed from the main BIOS setup menu, such as the Chipset and Power menus.

### 3.2 Navigation Keys

The BIOS setup/utility uses a key-based navigation system called hot keys. Most of the BIOS setup utility hot keys can be used at any time during the setup navigation process.

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

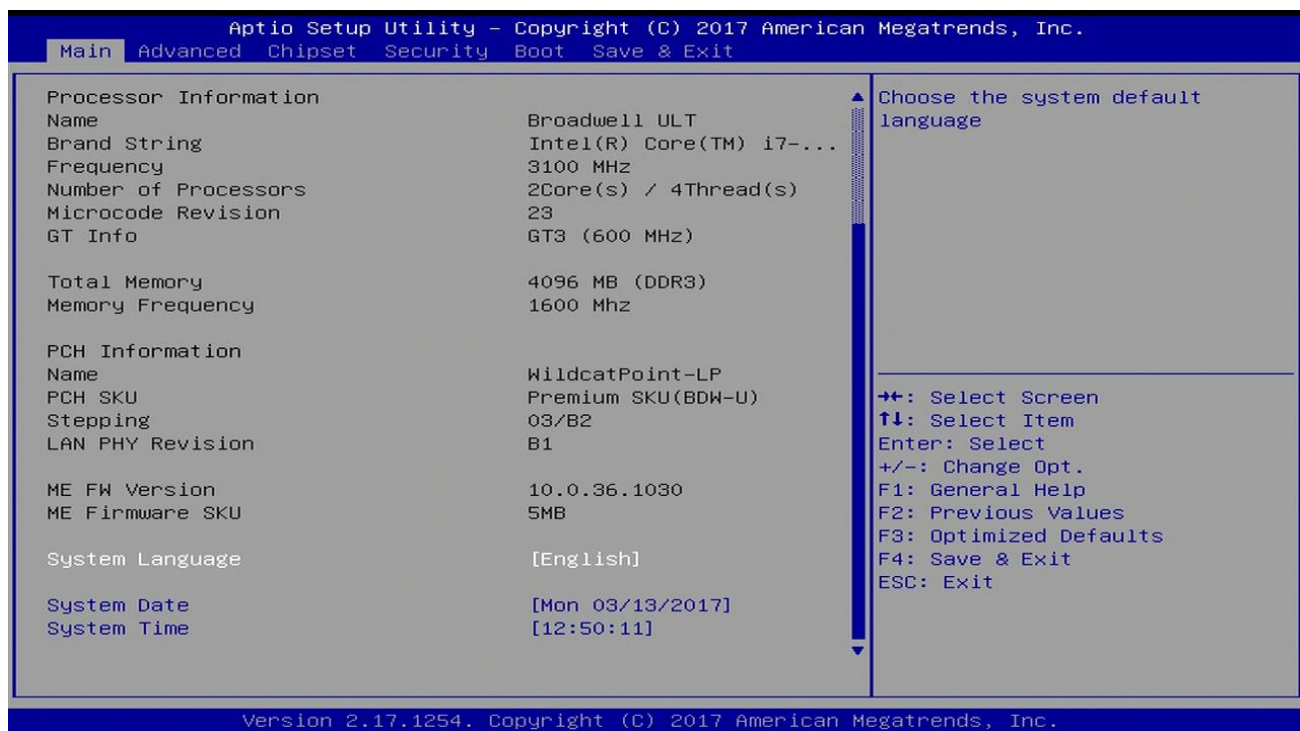
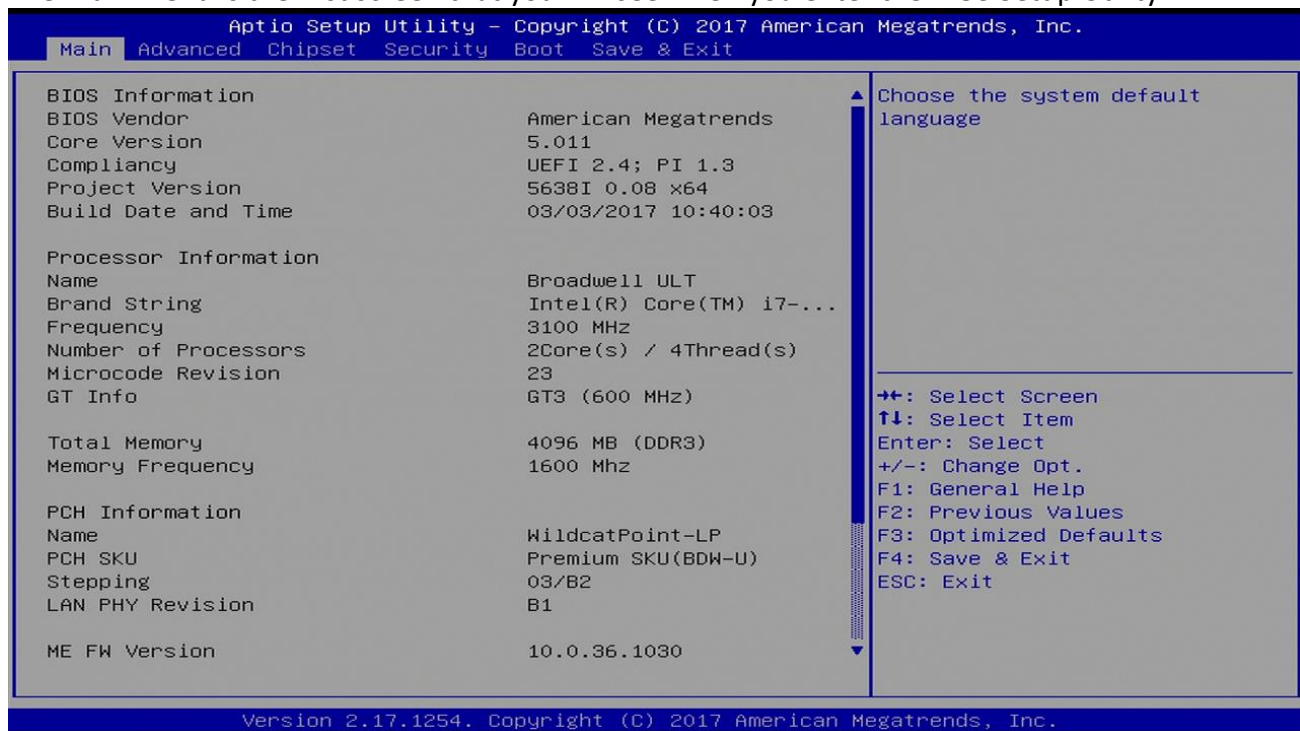


Some of the navigation keys may differ from one screen to another.

Left/Right	The Left and Right <Arrow> keys moves the cursor to select a menu.
Up/Down	The Up and Down <Arrow> keys moves the cursor to select a setup screen or sub-screen.
+– Plus/Minus	The Plus and Minus <Arrow> keys changes the field value of a particular setup setting.
Tab	The <Tab> key selects the setup fields.
F3	The <F3> key load optimized defaults.
F4	The <F4> key saves any changes made and exits the BIOS setup utility.
Esc	The <Esc> key discards any changes made and exits the BIOS setup utility.
Enter	The <Enter> key displays a sub-screen or changes a selected or highlighted option in each menu.

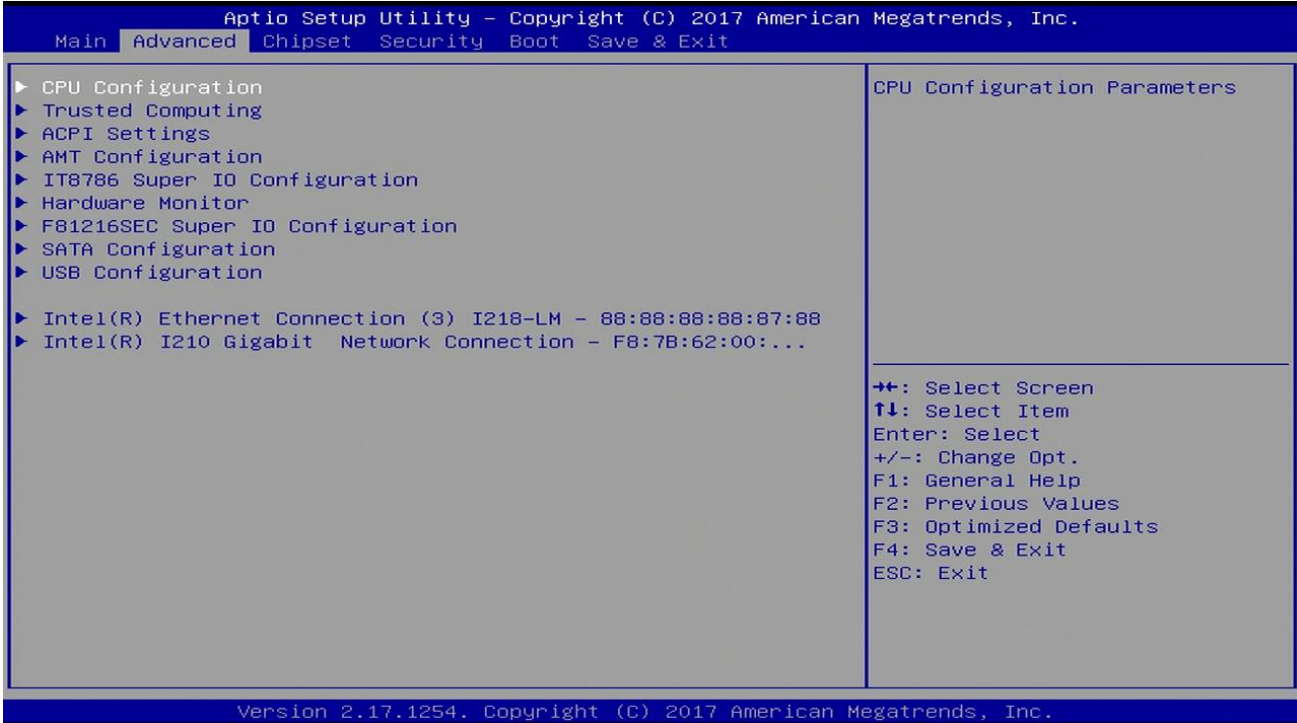
### 3.3 Main Menu

The Main menu is the first screen that you will see when you enter the BIOS Setup Utility.



### 3.4 Advanced Menu

The Advanced Menu allows you to configure your system for basic operation. Some entries are defaults required by the system board, while others, if enabled, will improve the performance of your system or let you set some features according to your preference. **Setting incorrect field values may cause the system to malfunction.**



### 3.4.1 CPU Configuration

This page allows you to configure CPU menu.

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Advanced

CPU Configuration		Enabled for Windows XP and Linux (OS optimized for Hyper-Threading Technology) and Disabled for other OS (OS not optimized for Hyper-Threading Technology). When Disabled only one thread per enabled core is enabled.
Intel(R) Core(TM) i7-5650U CPU @ 2.20GHz		
CPU Signature	306d4	++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Microcode Patch	23	
Max CPU Speed	2200 MHz	
Min CPU Speed	500 MHz	
CPU Speed	3100 MHz	
Processor Cores	2	
Intel HT Technology	Supported	
Intel VT-x Technology	Supported	
Intel SMX Technology	Supported	
64-bit	Supported	
EIST Technology	Supported	
CPU C3 state	Supported	
CPU C6 state	Supported	
CPU C7 state	Supported	
L1 Data Cache	32 kB x 2	
L1 Code Cache	32 kB x 2	
L2 Cache	256 kB x 2	
L3 Cache	4 MB	
L4 Cache	Not Present	
Hyper-threading	[Enabled]	

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Advanced

Microcode Patch		Enabled for Windows XP and Linux (OS optimized for Hyper-Threading Technology) and Disabled for other OS (OS not optimized for Hyper-Threading Technology). When Disabled only one thread per enabled core is enabled.
Max CPU Speed	2200 MHz	
Min CPU Speed	500 MHz	
CPU Speed	3100 MHz	
Processor Cores	2	
Intel HT Technology	Supported	
Intel VT-x Technology	Supported	
Intel SMX Technology	Supported	
64-bit	Supported	
EIST Technology	Supported	
CPU C3 state	Supported	
CPU C6 state	Supported	
CPU C7 state	Supported	
L1 Data Cache	32 kB x 2	
L1 Code Cache	32 kB x 2	
L2 Cache	256 kB x 2	
L3 Cache	4 MB	
L4 Cache	Not Present	
Hyper-threading	[Enabled]	
Active Processor Cores	[All]	
Limit CPUID Maximum	[Disabled]	
EIST	[Enabled]	
Turbo Mode	[Enabled]	

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**3.4.2 Trust Computing**

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Advanced

<pre>Configuration Security Device Support      [Enable] NO Security Device Found</pre>	<p>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.</p> <hr/> <pre> --+: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save &amp; Exit ESC: Exit</pre>
---	--

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**3.4.3 ACPI Setting**

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Advanced

<pre>ACPI Settings Enable ACPI Auto Configuration [Disabled] Enable Hibernation            [Enabled] ACPI Sleep State              [S3 (Suspend to RAM)]</pre>	<p>Enables or Disables BIOS ACPI Auto Configuration.</p> <hr/> <pre> --+: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save &amp; Exit ESC: Exit</pre>
--	--

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**3.4.4 AMT Setting**

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Advanced			
Intel AMT	[Enabled]	Enable/Disable Intel (R) Active Management Technology BIOS Extension. Note : iAMT H/W is always enabled. This option just controls the BIOS extension execution. If enabled, this requires additional firmware in the SPI device	
BIOS Hotkey Pressed	[Disabled]		
MEBx Selection Screen	[Disabled]		
Hide Un-Configure ME Confirmation	[Disabled]		
MEBx Debug Message Output	[Disabled]		
Un-Configure ME	[Disabled]		
Amt Wait Timer	0		
Disable ME	[Disabled]		
ASF	[Enabled]		
Activate Remote Assistance Process	[Disabled]		
USB Configure	[Enabled]		
PET Progress	[Enabled]		
AMT CIRA Timeout	0		
WatchDog	[Disabled]		
OS Timer	0		
BIOS Timer	0		
			++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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**3.4.5 IT8786 Super IO Configuration**

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Advanced			
IT8786 Super IO Configuration		Set Parameters of Serial Port 1 (COMA)	
Super IO Chip	IT8786		
▶ Serial Port 1 Configuration			
▶ Serial Port 2 Configuration			
▶ Serial Port 3 Configuration			
▶ Serial Port 4 Configuration			
			++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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### 3.4.5.1 Serial Port 1 Configuration

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Advanced

Serial Port 1 Configuration		Enable or Disable Serial Port (COM)
Serial Port	[Enabled]	
Device Settings	I0=3F8h; IRQ=4;	
Change Settings	[I0=3F8h; IRQ=4;]	
Device Mode Select	[RS232]	
Termination Setting	[Disabled]	
UART SLEW RATE	[250Kbps]	

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

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### 3.4.5.2 Serial Port 2 Configuration

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Advanced

Serial Port 2 Configuration		Enable or Disable Serial Port (COM)
Serial Port	[Enabled]	
Device Settings	I0=2F8h; IRQ=3;	
Change Settings	[I0=2F8h; IRQ=3;]	

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

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### 3.4.5.3 Serial Port 3 Configuration

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Advanced

Serial Port 3 Configuration		Enable or Disable Serial Port (COM)
Serial Port	[Enabled]	
Device Settings	IO=3E8h; IRQ=6;	
Change Settings	[IO=3E8h; IRQ=6;]	

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

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### 3.4.5.4 Serial Port 4 Configuration

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Advanced

Serial Port 4 Configuration		Enable or Disable Serial Port (COM)
Serial Port	[Enabled]	
Device Settings	IO=2E8h; IRQ=7;	
Change Settings	[IO=2E8h; IRQ=7;]	

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

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### 3.4.6 Hardware Monitor

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Advanced

Pc Health Status

CPU temperature	:	+43 °C
System temperature	:	+33 °C
CPUFan Speed	:	N/A
Vcore	:	+1.824 V
DDR	:	+1.380 V
+12V	:	+11.880 V
+5V	:	+5.032 V
+3.3V	:	+3.336 V

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

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### 3.4.7 F81216SEC Super IO Configuration

**\* To use this function should stacked with SK303.**

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Advanced

F81216SEC Super IO Configuration

Super IO Chip F81216SEC

- ▶ Serial Port 1 Configuration
- ▶ Serial Port 2 Configuration
- ▶ Serial Port 3 Configuration
- ▶ Serial Port 4 Configuration

Set Parameters of Serial Port 1 (COMA)

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

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**3.4.8 SATA Configuration**

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Advanced

SATA Controller(s)	[Enabled]	Enable or disable SATA Device.
SATA Mode Selection	[AHCI]	
Port 0	[Enabled]	++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Serial ATA Port 0	64GB SATA Flas (64.0GB)	
Port 1	[Enabled]	
Serial ATA Port 1	Empty	
Port 2	[Enabled]	
Serial ATA Port 2	Empty	
Port 3	[Enabled]	
Serial ATA Port 3	Empty	

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**3.4.9 USB Configuration**

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Advanced

USB Configuration		Enables Legacy USB support. AUTO option disables legacy support if no USB devices are connected. DISABLE option will keep USB devices available only for EFI applications.
USB Module Version	11	
USB Controllers:	1 EHCI, 1 XHCI	++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
USB Devices:	1 Keyboard, 1 Hub	
Legacy USB Support	[Enabled]	
XHCI Hand-off	[Enabled]	
EHCI Hand-off	[Enabled]	
USB hardware delays and time-outs:		
Device reset time-out	[20 sec]	

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**3.4.10 Intel I218-LM Ethernet Controller**

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Advanced

PORT CONFIGURATION MENU ▶ NIC Configuration  Blink LEDs 0  PORT CONFIGURATION INFORMATION UEFI Driver: Intel(R) PRO/1000 6.1... Adapter PBA: FFFFFFF-OFF Chip Type Intel PCH LPT PCI Device ID 15A2 PCI Address 00:19:00 Link Status [Disconnected] MAC Address 88:88:88:88:87:88		Click to configure the network device port.          ⇐+: Select Screen ⇕: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
---	--	--

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**3.4.10.1 NIC Configuration**

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Advanced

PORT CONFIGURATION MENU ▶ NIC Configuration  Blink LEDs 0  PORT CONFIGURATION INFORMATION UEFI Driver: Intel(R) PRO/1000 6.1... Adapter PBA: 001300-000 Chip Type Intel i210 PCI Device ID 1533 PCI Address 08:00:00 Link Status [Disconnected] MAC Address F8:7B:62:00:3E:5F Virtual MAC Address F8:7B:62:00:3E:5F		Click to configure the network device port.          ⇐+: Select Screen ⇕: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
--	--	--

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**3.4.11 Intel I210-IT Ethernet Controller**

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Advanced

<p>PORT CONFIGURATION MENU</p> <p>▶ NIC Configuration</p> <p>Blink LEDs 0</p> <p>PORT CONFIGURATION INFORMATION</p> <p>UEFI Driver: Intel(R) PRO/1000 6.1...</p> <p>Adapter PBA: 001300-000</p> <p>Chip Type Intel i210</p> <p>PCI Device ID 1533</p> <p>PCI Address 08:00:00</p> <p>Link Status [Disconnected]</p> <p>MAC Address F8:7B:62:00:3E:5F</p> <p>Virtual MAC Address F8:7B:62:00:3E:5F</p>	<p>Click to configure the network device port.</p> <hr/> <p>↔: Select Screen          ↑↓: Select Item          Enter: Select          +/-: Change Opt.          F1: General Help          F2: Previous Values          F3: Optimized Defaults          F4: Save &amp; Exit          ESC: Exit</p>
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**3.4.11.1 NIC Configuration**

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Advanced

<p>Link Speed [Auto Negotiated]</p> <p>Wake On LAN [Enabled]</p>	<p>Specifies the port speed used for the selected boot protocol.</p> <hr/> <p>↔: Select Screen          ↑↓: Select Item          Enter: Select          +/-: Change Opt.          F1: General Help          F2: Previous Values          F3: Optimized Defaults          F4: Save &amp; Exit          ESC: Exit</p>
--	---

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### 3.5 Chipset Menu

Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.	
Main Advanced <b>Chipset</b> Security Boot Save & Exit	
▶ System Agent (SA) Configuration ▶ PCH-IO Configuration	System Agent (SA) Parameters
	⇨⇨: Select Screen ⇧⇩: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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#### 3.5.1 System Agent (SA) Configuration

Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.	
Chipset	
System Agent Bridge Name System Agent RC Version VT-d Capability	Broadwell 2.9.1.0 Supported
VT-d	[Enabled]
▶ Graphics Configuration ▶ Memory Configuration	Check to enable VT-d function on MCH.
	⇨⇨: Select Screen ⇧⇩: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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**3.5.1.1 Graphics Configuration**

Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.		
Chipset		
Graphics Configuration		Select which of IGFX/PEG/PCI Graphics device should be Primary Display Or select SG for Switchable Gfx.
IGFX VBIOS Version	1099	
IGfx Frequency	600 MHz	
Primary Display	[Auto]	
Internal Graphics	[Auto]	
DVMT Total Gfx Mem	[256M]	
▶ LCD Control		
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">                     Primary Display                      Auto                      IGFX                      PCIE                 </div>		
		++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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**3.5.1.1.1 LCD Control**

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Chipset		
LCD Control		Select the Video Device which will be activated during POST. This has no effect if external graphics present. Secondary boot display selection will appear based on your selection. VGA modes will be supported only on primary display
Primary IGFX Boot Display	[DP1+DP2]	
Backlight Control	[PWM Normal]	
		++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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**3.5.1.2 Memory Configuration**

```

Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.
  Chipset

Memory Information
Memory RC Version          2.9.1.0
Memory Frequency          1600 Mhz
Total Memory              4096 MB (DDR3)
Memory Voltage            1.35v
DIMM#0                   4096 MB (DDR3)
DIMM#2                   Not Present

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

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```

**3.5.2 PCH-IO Configuration**

```

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  Chipset

Intel PCH RC Version      2.9.1.0
Intel PCH SKU Name       Premium SKU(BDW-U)
Intel PCH Rev ID         03/B2

▶ PCH Azalia Configuration
▶ BIOS Security Configuration

Restore AC Power Loss    [Power On]
Wake on LAN(i218)       [Enabled]

PCH Azalia Configuration
settings.

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

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```

### 3.5.2.1 PCH Azalia Configuration

Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.

Chipset

PCH Azalia Configuration		Control Detection of the Azalia device. Disabled = Azalia will be unconditionally disabled Enabled = Azalia will be unconditionally Enabled Auto = Azalia will be enabled if present, disabled otherwise.
Azalia	[Enabled]	

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

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### 3.5.2.2 BIOS Security Configuration

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Chipset

BIOS Security Configuration		Enable or disable bytes 38h-3Fh in the upper and lower 128-byte bank of RTC RAM lockdown.
RTC Lock	[Enabled]	

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

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### 3.5.2.3 Restore AC Power Loss

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Chipset

Intel PCH RC Version	2.9.1.0	Enable or disable integrated LAN to wake the system. (The Wake On LAN cannot be disabled if ME is on at Sx state.)
Intel PCH SKU Name	Premium SKU(BDW-U)	
Intel PCH Rev ID	03/B2	

▶ PCH Azalia Configuration  
▶ BIOS Security Configuration

Restore AC Power Loss [Power On]  
Wake on LAN(i218) [Enabled]

Wake on LAN(i218)  
Enabled  
Disabled

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

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### 3.5.2.4 Wake on LAN (I218)

Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.  
Chipset

Intel PCH RC Version	2.9.1.0	Select AC power state when power is re-applied after a power failure.
Intel PCH SKU Name	Premium SKU(BDW-U)	
Intel PCH Rev ID	03/B2	

▶ PCH Azalia Configuration  
▶ BIOS Security Configuration

Restore AC Power Loss [Power On]  
Wake on LAN(i218) [Enabled]

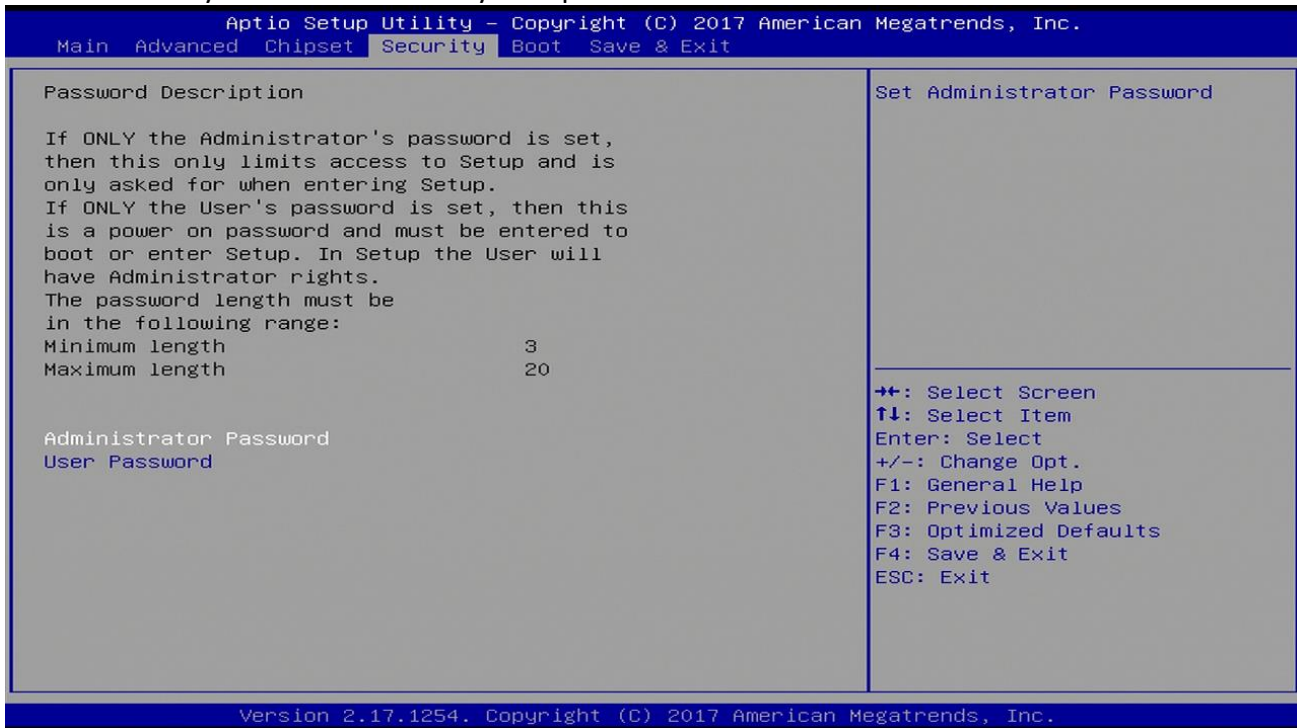
Restore AC Power Loss  
Power Off  
Power On  
Last State

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

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### 3.6 Security Menu

Use the Security Menu to establish system passwords



#### Administrator Password

Set administrator password.

#### User Password

Set user Password.

### 3.7 Boot Menu

This section is used to configure the boot features.

Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.		
Main Advanced Chipset Security <b>Boot</b> Save & Exit		
Boot Configuration		Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.
Setup Prompt Timeout	<b>1</b>	
Bootup NumLock State	[On]	
Quiet Boot	[Disabled]	
Fast Boot	[Disabled]	
Network	[Disabled]	
Boot Option Priorities		
Boot Option #1	[P0: 64GB SATA Flash...]	
Hard Drive BBS Priorities		
		++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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#### 3.7.1 Boot Option

Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.		
Boot		
Boot Option #1	[P0: 64GB SATA Flash...]	Sets the system boot order
		++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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### 3.8 Save & Exit

```
Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.
Main Advanced Chipset Security Boot Save & Exit

Save Changes and Exit
Discard Changes and Exit
Save Changes and Reset
Discard Changes and Reset

Save Options
Save Changes
Discard Changes

Restore Defaults
Save as User Defaults
Restore User Defaults

Boot Override
P0: 64GB SATA Flash Drive

Launch EFI Shell from filesystem device

Exit system setup after saving
the changes.

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

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```

```
Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.
Main Advanced Chipset Security Boot Save & Exit

Save Changes and Exit
Discard Changes and Exit
Save Changes and Reset
Discard Changes and Reset

Save Options
Save Changes
Discard Changes

Restore Defaults
Save as User Defaults
Restore User Defaults

Boot Override
P0: 64GB SATA Flash Drive

Launch EFI Shell from filesystem device

Attempts to Launch EFI Shell
application (Shell.efi) from
one of the available
filesystem devices

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

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```