

# HORUS422A

Embedded Server



User's Manual Revision Date: Dec.12.2022

### **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

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### **Specifications**

#### SYSTEM

CPU	Intel <sup>®</sup> Core i7-6700TE Processor
Memory type	4 x DDR4 XR-DIMM up to 64GB
Expansion slot	4 x mPCIe slot (two supported with mSATA) 1 x PCIe x4 slot
RAID Function	RocketRAID 840C RAID Card, support RAID 0,1,5,6,10,50,JBOD
Storage Device	12 x 2.5" SAS HDD/SSD Tray (Height up to 15mm)
FRONT I/O	
USB	2 x USB 2.0
2.5" SSD/HDD Tray	12 (Height up to 15mm)
Power button	1 x Push Button ON/OFF switch with LED indicator
Indicator LED	1 x HDD LED
REAR I/D	
USB	4 x USB 3.0
Gigabit Ethernet	4 x RJ45
FAN	2 x Exhaust FAN
Display	1 x DisplayPort
	1 x HDMI
AC inlet	1 x IEC C14 Plug
MECHANICAL AND	ENVIRONMENT
Power Requirement	AC to DC 100 -240V 400W FLEX ATX Switch Power Supply with internal fan
Weight	13.12kg(28.92lbs)
Dimension	430 x 88 x 396mm
Operating Temperature	5 to 50°C
Storage Temperature	-20 to 70°C
Relative Humidity	5% to 95%, non-condensing

### **Revision History**

Revision	Date (yyyy/mm/dd)	Changes
V0.1	2019/03/27	Initial Release
V0.2	2022/12/12	Update CMOS data and ID
		picture

### **Packing list**

- HORUS422A Rugged System
- CD (Driver + Quick Installation Guide)
- Screw for fixing Bracket Ear



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

### **Ordering information**

Model Number	Description		
HORUS422A	Intel Q170 Sky-lake Rugged Server, 12x 2.5" easy swap Trays ,220V AC-IN,		
	Operating Temperature 5~+50°C		



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# 7STARLAKE

### **Chapter 1: Product Introduction**

#### 1.1 Key Features

System					
CDU	Intel <sup>®</sup> 14 nm Skylake-S				
CPU	Intel <sup>®</sup> Core™ i7-6700TE Processor (8M Cache, 2.40/3.40 GHz)				
Chipset	Intel® Q170				
Memory Type	4 x XR-DIMM DDR4 up to 64GB				
BIOS	AMI <sup>®</sup> BIOS				
Expansion Slot	1 x PCIe x4 single slot				
	4 x mPCle, 2 with mSATA support				
	2 x mSATA (mPCle3, mPCle4)				
Storage Device	RocketRAID 840C RAID Card				
	12 x 7mm SATA III 2.5" SSD/HDD				
Front I/O					
Power Switch	1				
System FAN Switch	1				
HDD LED/Power LED	1				
Console	1				
USB 2.0	2				
2.5" Disk Tray	12 x 2.5" (7mm) Easy swap HDD/SSD Trays				
Handle	2				
Rear I/O					
Rear I/O PSU Switch	1				
Rear I/O PSU Switch	1 Notice: Please turn this switch on before turn system on				
Rear I/O PSU Switch Exhaust FAN	1 Notice: Please turn this switch on before turn system on 2				
Rear I/O PSU Switch Exhaust FAN	<ol> <li>Notice: Please turn this switch on before turn system on</li> <li>2</li> <li>Notice: Smart FANs running when ambient temperature is over 50°C.</li> </ol>				
Rear I/O PSU Switch Exhaust FAN USB	1 Notice: Please turn this switch on before turn system on 2 Notice: Smart FANs running when ambient temperature is over 50°C. 4 x USB3.0				
Rear I/O PSU Switch Exhaust FAN USB Ethernet	1Notice: Please turn this switch on before turn system on2Notice: Smart FANs running when ambient temperature is over 50°C.4 x USB3.04 x RJ45 GbE LAN				
Rear I/O PSU Switch Exhaust FAN USB Ethernet DisplayPort	1Notice: Please turn this switch on before turn system on2Notice: Smart FANs running when ambient temperature is over 50°C.4 x USB3.04 x RJ45 GbE LAN1				
Rear I/O PSU Switch Exhaust FAN USB Ethernet DisplayPort HDMI	1         Notice: Please turn this switch on before turn system on         2         Notice: Smart FANs running when ambient temperature is over 50°C.         4 x USB3.0         4 x RJ45 GbE LAN         1         1				
Rear I/O PSU Switch Exhaust FAN USB Ethernet DisplayPort HDMI Ground Screw	1         Notice: Please turn this switch on before turn system on         2         Notice: Smart FANs running when ambient temperature is over 50°C.         4 x USB3.0         4 x RJ45 GbE LAN         1         1         1         1         1				
Rear I/O PSU Switch Exhaust FAN USB Ethernet DisplayPort HDMI Ground Screw Power Input	1Notice: Please turn this switch on before turn system on2Notice: Smart FANs running when ambient temperature is over 50°C.4 x USB3.04 x RJ45 GbE LAN111111111111 x AC Inlet, 100-240 VAC				
Rear I/O PSU Switch Exhaust FAN USB Ethernet DisplayPort HDMI Ground Screw Power Input Mechanical & Environ	1         Notice: Please turn this switch on before turn system on         2         Notice: Smart FANs running when ambient temperature is over 50°C.         4 x USB3.0         4 x RJ45 GbE LAN         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1 x AC Inlet, 100-240 VAC         ment				
Rear I/O PSU Switch Exhaust FAN USB Ethernet DisplayPort HDMI Ground Screw Power Input Mechanical & Environ Construction	1         Notice: Please turn this switch on before turn system on         2         Notice: Smart FANs running when ambient temperature is over 50°C.         4 x USB3.0         4 x RJ45 GbE LAN         1         1         1         1         1         1         1 x AC Inlet, 100-240 VAC         ment         Aluminum chassis with fanless design				
Rear I/O PSU Switch Exhaust FAN USB Ethernet DisplayPort HDMI Ground Screw Power Input Mechanical & Environ Construction Power	1         Notice: Please turn this switch on before turn system on         2         Notice: Smart FANs running when ambient temperature is over 50°C.         4 x USB3.0         4 x RJ45 GbE LAN         1         1         1         1         1         1 x AC Inlet, 100-240 VAC         ment         Aluminum chassis with fanless design         100-240 VAC				
Rear I/O PSU Switch Exhaust FAN USB Ethernet DisplayPort HDMI Ground Screw Power Input Mechanical & Environ Construction Power Requirements	1Notice: Please turn this switch on before turn system on2Notice: Smart FANs running when ambient temperature is over 50°C.4 x USB3.04 x RJ45 GbE LAN1111111111111110-240 VACmentAluminum chassis with fanless design100-240 VAC				
Rear I/OPSU SwitchExhaust FANUSBEthernetDisplayPortHDMIGround ScrewPower InputMechanical & EnvironConstructionPowerRequirementsDimension	1         Notice: Please turn this switch on before turn system on         2         Notice: Smart FANs running when ambient temperature is over 50°C.         4 x USB3.0         4 x RJ45 GbE LAN         1         1         1         1         1         1         1 x AC Inlet, 100-240 VAC         ment         Aluminum chassis with fanless design         100-240 VAC         430 x 88 x 396mm				
Rear I/OPSU SwitchExhaust FANUSBEthernetDisplayPortHDMIGround ScrewPower InputMechanical & EnvironConstructionPowerRequirementsDimension(W x H x D)	1Notice: Please turn this switch on before turn system on2Notice: Smart FANs running when ambient temperature is over 50°C.4 x USB3.04 x RJ45 GbE LAN1111111 x AC Inlet, 100-240 VACmentAluminum chassis with fanless design100-240 VAC430 x 88 x 396mm(16.93" x 3.46" x 15.59")				
Rear I/OPSU SwitchExhaust FANUSBEthernetDisplayPortHDMIGround ScrewPower InputMechanical & EnvironConstructionPowerRequirementsDimension(W x H x D)Operating Temp.	1         Notice: Please turn this switch on before turn system on         2         Notice: Smart FANs running when ambient temperature is over 50°C.         4 x USB3.0         4 x RJ45 GbE LAN         1         4 x C Inlet, 100-240 VAC         ment         Aluminum chassis with fanless design         100-240 VAC         430 x 88 x 396mm         (16.93" x 3.46" x 15.59")         5 to 50°C (ambient with air flow)				
Rear I/OPSU SwitchExhaust FANUSBEthernetDisplayPortHDMIGround ScrewPower InputMechanical & EnvironConstructionPowerRequirementsDimension(W x H x D)Operating Temp.Storage Temp.	1 Notice: Please turn this switch on before turn system on2 Notice: Smart FANs running when ambient temperature is over 50°C.4 x USB3.0 4 x RJ45 GbE LAN1 1 11 1 11 1 1 x AC Inlet, 100-240 VAC ment Aluminum chassis with fanless design 100-240 VAC430 x 88 x 396mm (16.93" x 3.46" x 15.59") 5 to 50°C (ambient with air flow) -20 to 70°C				

2 \* Specifications are subject to change without notice\*

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#### 1.2 Dimensions





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#### **1.3 Front Panel Component**



1	Power LED
2	HDD LED
3	2 x USB2.0
4	1 x Console Port
5	12 x 2.5" (7mm) Easy swap HDD/SSD Trays
6	Power On/Off Switch
7	System FAN On/Off Switch

#### 1.4 Rear Panel Component



1	AC-IN
2	4 x RJ45 GbE LAN
3	4 x USB3.0
4	HDMI
5	2 x System FAN
6	DispalyPort

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### **Chapter 2: Jumpers and Connectors**

### 2.1 Connector & LED Pin Definitions LAN : LAN1- LAN4 and LAN LED

#### LAN Port LED Indications

Activity/Link LED

Blinking Data Activity

Link

Description No Link

Status	Description
Off	10Mbps connection
Yellow	100Mbps connection
Green	1Gbps connection



LAN Port

#### **DP : DISPLAY PORT**

Status

Off

On

PIN	DEFINITION	PIN	DEFINITION	
1	DPC_LANEP0	2	GND	
3	DPC_LANEN0	4	DPC_LANEP1	₋₅, , , , , , , , , , , , , , , , , , ,
5	GND	6	DPC_LANEN1	▕▕▖▓▓▁▎▎
7	DPC_LANEP2	8	GND	11238541
9	DPC_LANEN2	10	DPC_LANEP3	
11	GND	12	DPC_LANEN3	
13	DDIC DDC AUX SEL	14	GND	
15	DPC_AUXP	16	GND	
17	DPC_AUXN	18	DPC_DET	
19	GND	20	DPC_PWR	

#### USB3.0:1-4

	LOWER USB		UPPER USB	
PIN	DEFINITION	PIN	DEFINITION	
1	USB_VCC2	10	USB_VCC3	18 17 16 15 14
2	USBD0-	11	USBD1-	
3	USBD0+	12	USBD1+	
4	GND	13	GND	
5	USB_SSRX3N_C	14	USB_SSRX4N_C	
6	USB_SSRX3P_C	15	USB_SSRX4P_C	98765
7	GND	16	GND	
8	USB3TN3	17	USB3TN4	
9	USB3TP3	18	USB3TP4	

#### USB 2.0 : 1-2

Pin	Definition	Pin	Definition	
1	+5V	5	+5V	
2	USBD-	6	USBD-	
3	USBD+	7	USBD+	
4	GND	8	GND	

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### HDMI:

PIN	DEFINITION	PIN	DEFINITION				
1	HDMI_2P	11	GND				
2	GND	12	HDMI_CLKN				
3	HDMI_2N	13	NC				
4	HDMI_1P	14	NC	19 1			
5	GND	15	DDC CLOCK				
6	HDMI_1N	16	DDC DATA	18 2			
7	HDMI_0P	17	GND				
8	GND	18	+5V				
9	HDMI_0N	19	HOTPLUG_DETECT				
10	HDMI_CLKP						



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### **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</arrow>
	select a menu.
Up/Down	The Up and Down <arrow> keys moves the cursor to</arrow>
	select a setup screen or sub-screen.
+-	The Plus and Minus < Arrow > keys changes the field value
Plus/Minus	of a particular setup setting.
Tab	The <tab> key selects the setup fields.</tab>
F1	The <f1> key displays the General Help screen.</f1>
F10	The <f10> key saves any changes made and exits the BIOS</f10>
	setup utility.
Esc	The <esc> key discards any changes made and exits the</esc>
	BIOS setup utility.
Enter	The <enter> key displays a sub-screen or changes a</enter>
	selected or highlighted option in each menu.

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#### 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. <u>Setting incorrect field values may cause the system to malfunction</u>.



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Aptio Setup Utility – Copyright (C) 2017 Americ Main Advanced Chipset Security Boot Save & Ex	c <mark>an Megatrends, Inc.</mark> Kit
<ul> <li>Trusted Computing</li> <li>ACPI Settings</li> <li>IT8786 Super IO Configuration</li> <li>Hardware Monitor</li> <li>Serial Port Console Redirection</li> <li>CPU Configuration</li> <li>SATA Configuration</li> <li>CSM Configuration</li> <li>USB Configuration</li> </ul>	Trusted Computing Settings →+: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.18.1259. Copyright (C) 2017 Americar	Megatrends, Inc.

### 3.4.1 Trust Computing

Aptio Setup Utilit Advanced	y – Copyright (C) 20	17 American Megatrends, Inc.
Configuration Security Device Support NO Security Device Found	[Enable]	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. ++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.18.1259	. Copyright (C) 2017	American Megatrends, Inc.



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### 3.4.2 ACPI Setting

Aptio Setup Utility – Copyright (C) 2017 American Megatrends, Inc. Advanced		
ACPI Settings Enable Hibernation ACPI Sleep State Pseudo Battery	[Enabled] [S3 (Suspend to RAM)] [Disable]	Enables or Disables System ability to Hibernate (OS/S4 Sleep State). This option may be not effective with some OS.
	Enable Hibernation — Disabled Enabled	: Select Screen : Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.18.1259. Copyright (C) 2017 American Megatrends, Inc.		

### 3.4.2.1 ACPI Sleep State

Aptio Setup Utilit Advanced	y – Copyright (C) 2017 Amer	rican Megatrends, Inc.
ACPI Settings Enable Hibernation ACPI Sleep State Pseudo Battery	[Enabled] [S3 (Suspend to RAM)] [Disable]	Select the highest ACPI sleep state the system will enter when the SUSPEND button is pressed.
	ACPI Sleep State Suspend Disabled S3 (Suspend to RAM)	+: Select Screen 4: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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### 3.4.2.2 Pseudo Battery

Aptio Setup Utility Advanced	– Copyright (C) 2017	7 American Megatrends, Inc.
ACPI Settings		Pseudo Battery for MXM
Enable Hibernation ACPI Sleep State Pseudo Battery	[Enabled] [S3 (Suspend to RAM) [Disable]	)]
	Pseudo Battery Enable Disable	<pre>&gt;++: Select Screen ++: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save &amp; Exit</pre>
Version 2.18.1259.	Copyright (C) 2017 A	American Megatrends, Inc.

### 3.4.3 IT8786 Super IO Configuration

Aptio Setup Utility Advanced	– Copyright (C) 2017 Ameri	can Megatrends, Inc.
Serial Port 1 Configura	tion	Enable or Disable Serial Port (COM)
Serial Port Device Settings	[Enabled] IO=3F8h; IRQ=4;	
Change Settings	[Auto]	
		↔+: Select Screen †∔: Select Item
		Enter: Select +/-: Change Opt. E1: Cenenal Halm
		F2: Previous Values F3: Optimized Defaults
		F4: Save & Exit ESC: Exit
Version 2.18.1259.	Copyright (C) 2017 America	n Megatrends, Inc. AB



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#### 3.4.4 Hardware Monitor

Aptio Setup Utility Advanced	– Copyright (C) 2017 Americ	can Megatrends, Inc.
Advanced Pc Health Status CPU temperature PCH temperature System temperature CPU FAN SYSTEM FAN MXM FAN VCORE VDDQ +12V +5V VSB3V VBAT	: +31 C : +34 C : +27 C : N/A : N/A : N/A : +0.936 V : +1.200 V : +12.168 V : +5.220 V : +3.312 V : +3.000 V	<pre> ++: Select Screen  f↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save &amp; Exit ESC: Exit</pre>
Version 2.18.1259.	Copyright (C) 2017 Americar	n Megatrends, Inc.

### 3.4.5 Serial Port Console Redirection

Aptio Setup Utility – Copyright (C) 2017 Amer Advanced	rican Megatrends, Inc.
COM1 Console Redirection [Enabled] ▶ Console Redirection Settings	Console Redirection Enable or Disable.
COM2 Console Redirection [Disabled] ▶ Console Redirection Settings	
	<pre>++: Select Screen  f↓: Select Item Enter: Select</pre>
	+/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.18.1259. Copyright (C) 2017 Americ	an Mégatrends, Inc.



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### 3.4.6 CPU Configuration

Aptio Setup Utility – Copyright (C) 2017 American Megatrends, Inc. Advanced		
CPU Configuration		Enabled for Windows XP and Linux (OS optimized
Intel(R) Core(TM) i7- CPU Signature	6700TE CPU @ 2.40GHz 506E3	for Hyper-Threading Technology) and
CPU Speed	2400 MHz	Disabled for other OS
Processor Cores	4 Suggested	(OS not optimized for
Technology	supported	Technology). When
L1 Data Cache	32 KB X 4	
L1 Code Cache L2 Cache	32 КВ X 4 256 КВ X 4	↑↓: Select Item
L3 Cache	8 MB	Enter: Select
Hyper-threading	[Enabled]	+/-: Change Opt. F1: General Help
Active Processor Cores	[A11]	F2: Previous Values F3: Optimized Defaults
		F4: Save & Exit
		ESC: Exit
Version 2.18.125	9. Copyright (C) 2017	American Megatrends, Inc.



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### 3.4.7 SATA Configuration

Aptio Setup Utility Advanced	– Copyright (C) 2017 Ameri	can Megatrends, Inc.
SATA Mode Selection	[AHCI]	Determines how SATA controller(s) operate.
Serial ATA Port O Port O	Empty [Enabled]	
Serial ATA Port 1 Port 1	128GB SATA Fla (128.0GB) [Enabled]	
Serial ATA Port 2 Port 2	Empty [Enabled]	
Serial ATA Port 3 Port 3	Empty [Enabled]	
Serial ATA Port 4	Empty [Enabled]	↔+: Select Screen
Serial ATA Port 5 Port 5	Empty [Enabled]	Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.18.1259.	Copyright (C) 2017 America	n Megatrends, Inc.

### 3.4.8 CMS Configuration

Aptio Setup Utility – Copyright (C) 2017 American Megatrends, Inc. Advanced		
Compatibility Support	Module Configuration	Enable/Disable CSM Support
CSM Support	[Enabled]	
CSM16 Module Version	07.79	
Boot option filter	[UEFI and Legacy]	
Option ROM execution		
Network Storage Video Other PCI devices	[Do not launch] [Legacy] [Legacy] [UEFI]	<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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### 3.4.9 USB Configuration

Aptio Setup Util Advanced	lity – Copyright (C) 2017 Am	merican Megatrends, Inc.
USB Configuration		Enables Legacy USB support.
USB Devices: 1 Keyboard		support if no USB devices are connected. DISABLE option will keen USB devices available
Legacy USB Support XHCI Hand-off	[Enabled] [Enabled]	only for EFI applications.
		++: Select Screen ↑↓: Select Item
		Enter: Select +/-: Change Opt.
		F1: General Help F2: Previous Values
		F3: Optimized Defaults F4: Save & Exit
		Loor Entr
Version 2.18.12	259. Convright (C) 2017 Amer	ican Megatrends. Inc.

### 3.5 Chipset

Aptio Setup Ut	ility – Copyright (C) hipset	2017 American Megatrends, Inc.
Memory Configurati	on	
Total Memory	16384 MB	
DIMM#O DIMM#1 DIMM#2 DIMM#3	Not Present 16384 MB Not Present Not Present	<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>
Version 2.18.	1259. Copyright (C) 20	17 American Megatrends, Inc.



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### 3.6 Security

Aptio Setup Utility – Copyright (C) 2017 American Main Advanced Chipset <mark>Security</mark> Boot Save & Exit	Megatrends, Inc.		
MainAdvancedChipsetSecurityBootSave & ExitPasswordDescriptionIfONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup.IfONLY the User's password is set, then this is a power on password and must be entered to 	Set Administrator Password ++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit		
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### 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 <mark>Boot</mark> Save & Exit		
Boot Option Priorities Boot Option #1 [P1: 128GB SATA Flash Drive ]	Sets the system boot order	
Hard Drive BBS Priorities		
	→+: Select Screen ↑↓: Select Item Enter: Select	
	+/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit	
Version 2.18.1259. Copyright (C) 2017 America	n Megatrends, Inc.	

#### 3.8 Save & Exit

Aptio Setup Utility – Copyright (C) 2017 American Megatrends, Inc. Main Advanced Chipset Security Boot <mark>Save &amp; Exit</mark>		
Save Options Save Changes and Exit Discard Changes and Exit Default Options Restore Defaults Boot Override P1: 128GB SATA Flash Drive Launch EFI Shell from filesystem device	<pre>##: Select Screen ##: 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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