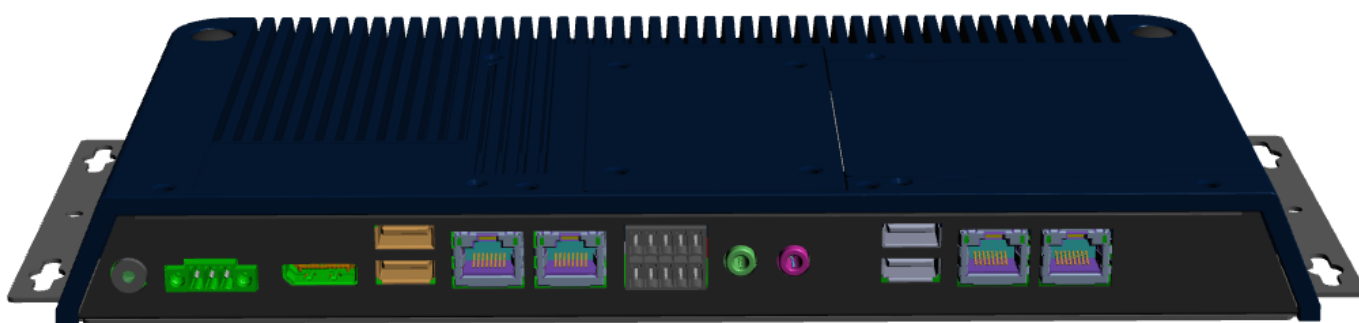
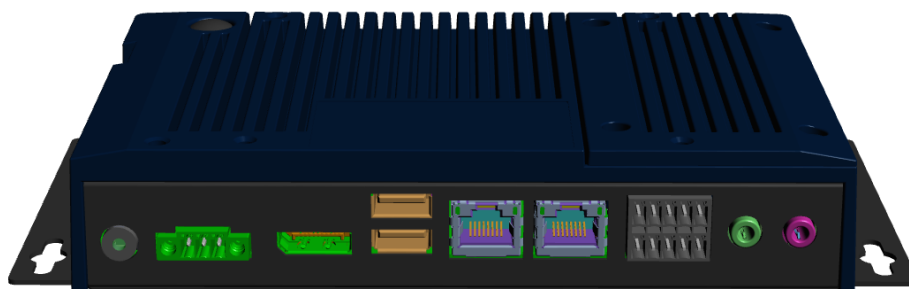


RXi2 – LP Industrial PC



Contents

Section 1:	Getting Started	7
1.1	Features	7
1.2	Specifications	7
1.3	Technical Drawings & Dimensions	9
1.4	Brief Description of RXi2 – LP Industrial PC	11
Section 2:	Hardware.....	13
2.1	Key Features	13
2.2	Motherboard Specifications	14
2.2.1	Specifications.....	14
2.3	I/O and Connectors.....	15
2.3.1	Outside I/O	15
2.3.2	Connecting Input Power (24V DC-in).....	15
2.3.3	Graphics Interface	16
2.3.3.1	DP++ Port.....	16
2.3.3.2	BIOS Setting	16
2.3.4	RJ45 LAN Ports.....	17
2.3.4.1	Features	17
2.3.4.2	BIOS Setting	17
2.3.5	USB Ports	17
2.3.5.1	BIOS Setting	17
2.3.5.2	Wake-On-USB Keyboard/Mouse	17
2.3.5.3	Jumper Setting	17
2.3.6	Serial Ports (UART)	18
2.3.7	Audio	18
2.3.7.1	Rear Audio	18
2.3.7.2	BIOS Setting	18
2.3.8	I/O Connectors	18
2.3.8.1	Serial ATA Connector.....	18
2.3.8.1.1	Features	18
2.3.8.1.2	BIOS Setting.....	19
2.3.9	Expansion Slots.....	19
2.3.9.1.1	Micro SD Socket	19

2.3.10	LVDS LCD Panel Connector	19
2.3.10.1.1	BIOS Setting	19
2.3.11	AIO/DIO Connector.....	19
2.3.12	Battery	19
2.4	LED Indicators	20
2.4.1	Ethernet Port Operation LEDs	20
Section 3:	BIOS Setup.....	21
3.1	BIOS Setup	21
3.1.1	Submenu	21
3.2	AMI BIOS Setup Utility	22
3.2.1	Accessing the BIOS	22
3.2.2	Main Menu	22
3.2.3	System Language	22
3.2.4	System Date.....	22
3.2.5	System Language	23
3.2.6	Advanced	23
3.2.7	ACPI Settings.....	24
3.2.7.1	Enable ACPI Auto Configuration	24
3.2.7.2	Enable Hibernation	24
3.2.7.3	ACPI Sleep State	24
3.2.8	Trusted Computing.....	24
3.2.8.1	Security Device Support.....	25
3.2.8.2	Pending Operation	25
3.2.9	Wakeup Configuration	26
3.2.9.1	Resume by PME.....	26
3.2.9.2	Resume by USB	26
3.2.10	CPU Configuration	27
3.2.10.1	SVM Mode	27
3.2.10.2	Core Leveling Mode	27
3.2.10.3	Node 0 Information	28
3.2.11	IDE Configuration	29
3.2.12	USB Configuration	29
3.2.13	Legacy USB Support.....	29
3.2.13.1.1	Enabled.....	30

3.2.13.1.2	Disabled	30
3.2.13.1.3	Auto	30
3.2.14	USB Mass Storage Driver Support	30
3.2.15	NCT61120 Super IO Configuration	30
3.2.15.1	Serial Port	31
3.2.15.2	RS485 Auto Flow Support	31
3.2.16	NCT 6112D HW Monitor	32
3.2.17	NCT 6112D Super IO Features	32
3.2.17.1	WatchDog Count Mode	33
3.2.17.2	WatchDog Timeout Value	33
3.2.18	Network Stack Configuration	33
3.2.18.1	Network Stack	34
3.2.18.2	Ipv4 PXE Support	35
3.2.18.3	Ipv6 PXE Support	35
3.2.18.4	PXE boot wait time	35
3.2.18.5	Media detect time	35
3.3	Chipset	35
3.3.1	OnChip SATA Channel	36
3.3.2	OnChip SATA Type	36
3.3.3	SD Mode	37
3.3.4	SD Host Controller Version	37
3.3.5	SD Host Controller Version	38
3.3.5.1	Auto	38
3.3.5.2	Disabled	38
3.3.5.3	Enabled	38
3.3.6	Restore on AC power loss	39
3.3.6.1	Power On	39
3.3.6.2	Power Off	39
3.3.6.3	Last State	39
3.3.7	GPP2 Hotplug Mode Control	39
3.3.8	GPP3 Hotplug Mode Control	39
3.3.9	DP0 Output Mode	40
3.3.10	DP1 Output Mode	40
3.3.11	Auto Backlight Dimming	41
3.3.12	Minimum Dimming Level	41

3.3.13	Boot	41
3.3.13.1	Setup Prompt Timeout.....	41
3.3.13.2	Bootup NumLock State	41
3.3.13.3	Quiet Boot	41
3.3.13.4	Boot Option #1/#2.....	41
3.3.14	Hard Drive BBS Priorities	42
3.3.14.1	Launch CSM	43
3.3.14.2	Boot option filter	43
3.3.14.3	Launch PXE OpROM policy	43
3.3.14.4	Launch Storage OpROM policy	43
3.3.14.5	Launch Video OpROM policy	43
3.4	Security	44
3.4.1	Administrator Password	44
3.4.2	User Password	44
3.4.3	Secure Boot Menu.....	44
3.4.3.1	Secure Boot	45
3.4.3.2	Secure Boot Mode	45
3.4.4	Key Management	45
3.4.4.1	Default Key Provision.....	45
3.4.4.2	Enroll All Factory Default Keys.....	45
3.4.4.3	Set new PK	45
3.4.4.4	Set new KEK	46
3.4.4.5	Append KEK	46
3.4.4.6	Set new DB.....	46
3.4.4.7	Append DB.....	46
3.4.4.8	Set new DBX	46
3.4.4.9	Append DBX.....	46
3.4.4.10	Set new DBT.....	46
3.4.4.11	Append DBT.....	46
3.5	Save & Exit	47
3.5.1	Menu Options.....	47
3.5.1.1	Save Changes and Reset	47
3.5.1.2	Discard Changes.....	47
3.5.1.3	Restore Defaults	47
3.5.2	Updating the BIOS	47

Section 4:	Installation of Drivers	48
4.1	Drivers Installation Instruction	48
Section 5:	Mounting Information	51
5.1	Wall Mount Dimensions (using included mounting bracket)	51
5.2	Baseplate Exchange	52

Section 1: Getting Started

1.1 Features

Primary technical features:

- AMD Embedded G-Series SOC Processor
- Onboard DDR3L, up to 8GB (Soldered with ECC)
- 1 x SSD Slot
- Fanless Design
- 24VDC Wide Range Power Input

1.2 Specifications

	Form Factor	Small (Dual Core)	Large (Quad Core)
Processor	Chipset	AMD Embedded G-Series SOC	
	Processor	GX-210HL	GX-412GC
	# of cores/TDP	2/7W	4/15W
	CPU frequency/L2 Cache	1.0Ghz/1MB	1.2Ghz/2MB
	GPU frequency	267Mhz	300Mhz
	Memory	Capacity	4GB or 8GB DDR3L (Soldered with ECC, -40°C ~ 85°C)
Storage	Internal	32 / 64 / 128GB MLCSSD (SATA Slim, -40°C ~ 85°C)	64 / 128GB MLC SSD (SATA Slim, -40°C ~ 85°C)
	External Slot	1 x External Micro SD/ SDHC Card Slot (up to 32GB)	
Watchdog Timer	Timer Levels	255 timer levels, set up by software	
Status Indicators	On-board Buzzer	Yes (85dB sound level with 80mA mean current)	
Power-Supply	Voltage [V]	+24VDC ±20% (19.2 V to 28.8 V, 3-Pin Connector, Isolated)	
Protection-Class	Computing Unit	IP20	

	Form Factor	Small (Dual Core)	Large (Quad Core)
Interfaces	Port 1	2 x 10/100/1000 Base T Ethernet RJ45	4 x 10/100/1000 Base T Ethernet RJ45
	Port 2	1 x RS-232 COM Port (5-Pin Connector, Isolated) 1 x RS-485 COM Port (5-Pin Connector, Isolated)	
	Port 3	2 x USB 3.0 (Type-A)	2 x USB 3.0 (Type-A) 2 x USB 2.0 (Type-A)
	Port 4	1 x DisplayPort	
	Port 5	1 x Mic In (Mono) (3.5mm Jack)	
	Port 6	1 x Line Out (Stereo) (3.5mm Jack)	
	Operating System	Installed Standard	Windows 10 IOT Enterprise LTSC
Software Tools	Tool 1	Secure & Trusted Boot Capability	
	Tool 2	DHCP-Client, Web Browser (IE or Firefox), Java JRE Capability	
Secure & Trusted Boot	Item 1	On-Board TPM2.0	
Design	Housing	Aluminum Die Casting (Front)	
	Construction Type	Modular (Detachable Modules; Computer, Monitor, Touch Display, DIO)	
	Cooling	Natural Convection (Fanless Passive Cooling)	
Environment	Operating Temperature	-20°C to +65°C	
	Storage Temperature	-30°C to +70°C	
	Operating Humidity	85% RH (non- condensing) @ 30°C	
	Operating Altitude	10000 ft. (3.000 m)	
	Vibration	1Grms / 5 ~ 500Hz (Random) / Operation IEC 60068-2-64 10G peak acceleration (11 msec. duration)/operation IEC 60068-2-27	
Compliance	Certifications Coming 2019	UL Listed US/CAN Hazardous Locations: Class 1 Division 2, Class 2 Division 2, Class 3 Division 1	
		ATEX Zone 2/22 & IECEX	
		Marine; DNV, ABS, BV	
	Certifications	UL and cUL 62368, UL and cUL 61010, IECEE CB Scheme	
		CE (EN 62368, EN 61000-6-4, 61000-6-2)	
		FCC Part15 Class A	
		RoHS	

Physical Specification	Form Factor	Small (Dual Core)	Large (Quad Core)
	Mounting Hole Dimensions (mm)	199.5 (L) x 70 (W)	313.8 (L) x 88 (W)
	Net Weight (kg)	1.7	2.4
	Dimensions (mm) (bracket included)	214 (L) x 119 (W) x 36.7 (H)	328.3 (L) x 160 (W) x 33.7 (H)

1.3 Technical Drawings & Dimensions

Figure 1.1 Dimensions of Small Box (Dual Core)

- NOTES:
 1. ALL DIMENSIONS ARE IN MILLIMETER (MM).
 2. DIMENSIONS SHOWN IN BOTTOM VIEW REPRESENT THE APPROXIMATE CENTER OF THE DESIGNATED CONNECTOR.

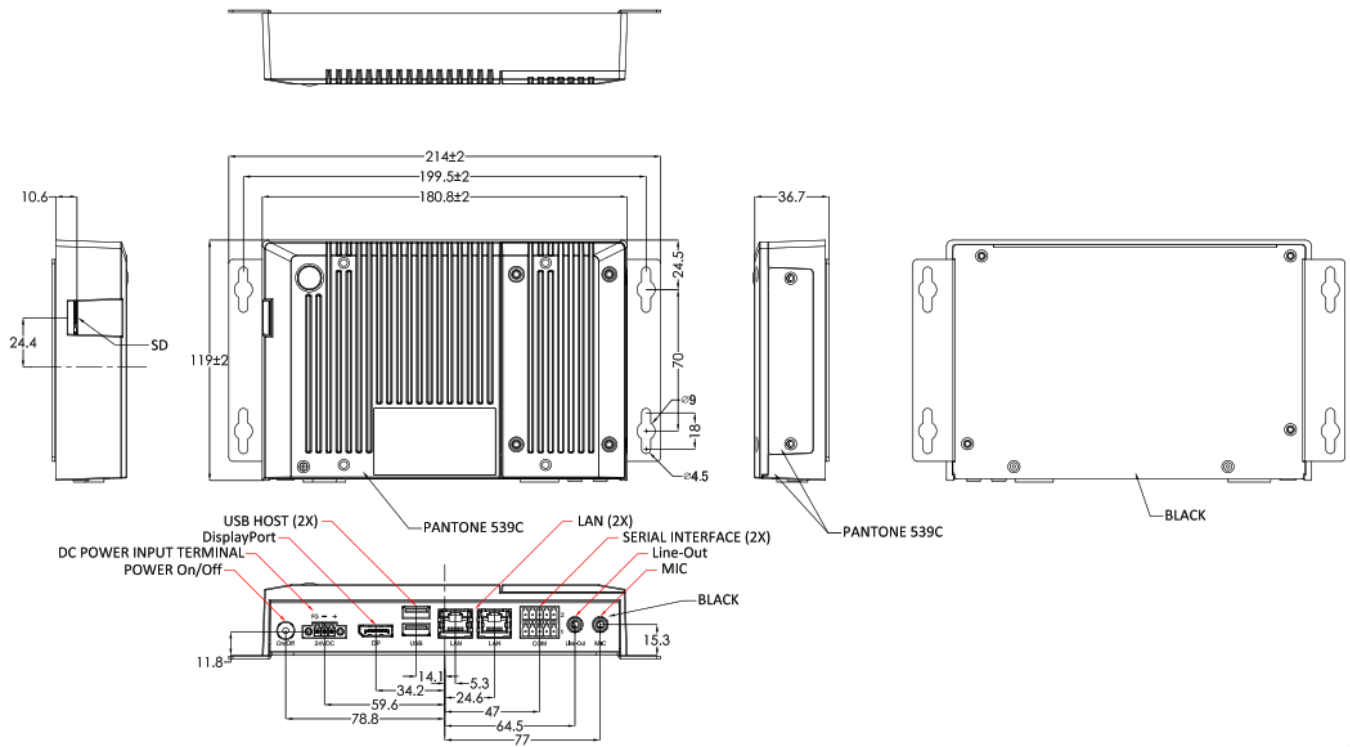
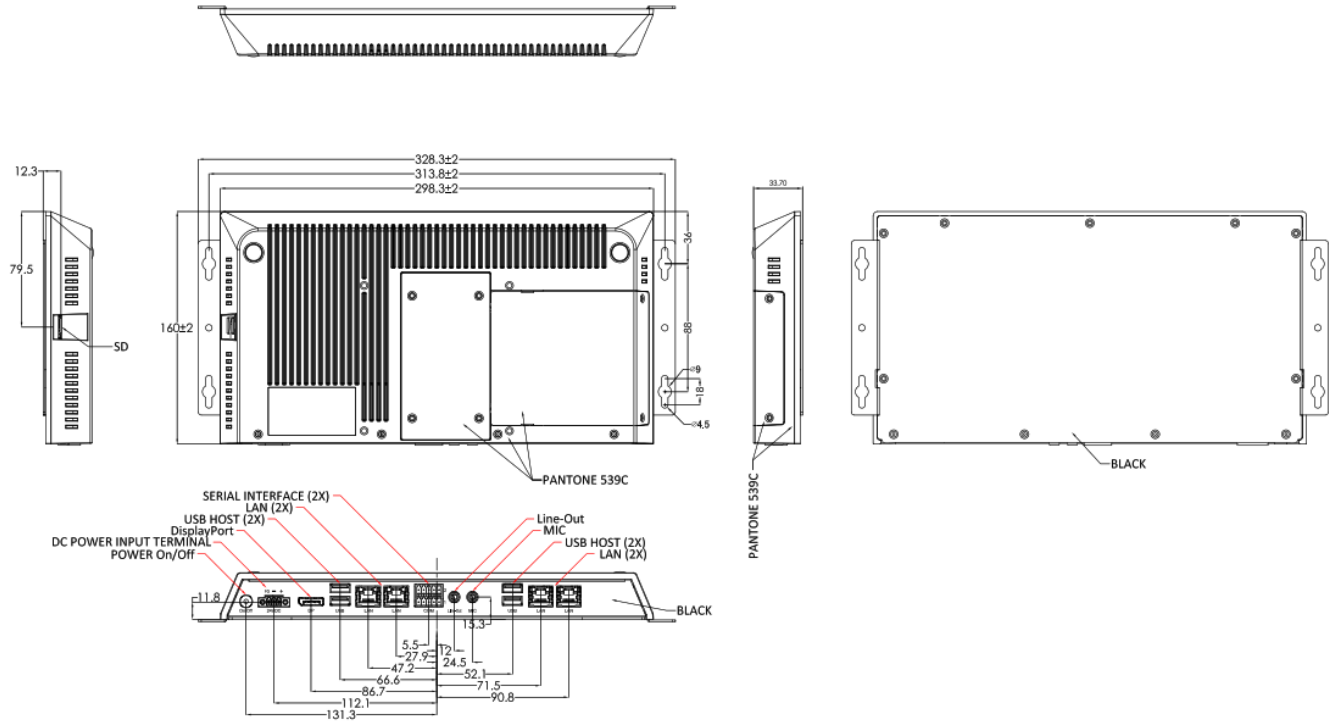


Figure 1.2 Dimensions of Large Box (Quad Core)

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETER (MM).
2. DIMENSIONS SHOWN IN BOTTOM VIEW REPRESENT THE APPROXIMATE CENTER OF THE DESIGNATED CONNECTOR.



1.4 Brief Description of RXi2 – LP Industrial PC

The RXi2 – LP Industrial PC comes with either a Dual Core 1.0 GHz processor or a Quad Core 1.2GHz Processor with 4GB or 8GB of available DDR3 RAM with Windows 10 IOT Enterprise LTSC OS installed standard. The RXi2 – LP Industrial PC can run up to two displays simultaneously through the following options:

- (1) Two external displays (RXi – Industrial Monitor) through included Display Port
- (2) One external display (RXi – Industrial Monitor) through included Display Port & one native display (screen) through included display connector baseplate

See **Section 5.2: Baseplate Exchange** for more details

The effective operating temperatures range as high as 65°C and as low as -20°C. With Marine, ATEX/IECEX, and HazLoc certifications, the RXi2 – LP Industrial PC provides you with a solution that is designed to go where you need it to.

Figure 1.3 Rear View of Small Box (Dual Core)

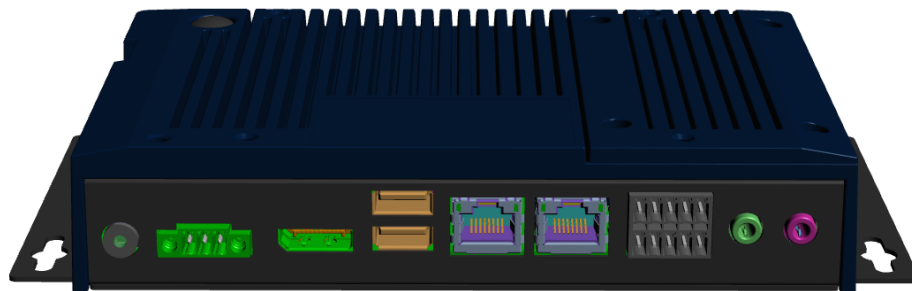


Figure 1.4 Rear View of Large Box (Quad Core)



Section 2: Hardware

2.1 Key Features

- Watchdog Timer
- DDR3
- Graphics
- Serial ATA
- Gigabit LAN
- Power Failure Recovery
- USB
- Wake-On-LAN
- Wake-On-USB
- ACPI-STR
- RTC Timer

2.2 Motherboard Specifications

2.2.1 Specifications

Board Size	170mm x 113mm
CPU Support	AMD® Embedded G-Series AMD® GX-210HL, Dual Core, 1M Cache, 1.0GHz, 7W AMD® GX-412GC, Quad Core, 2M Cache, 1.2GHz, 15W
Memory Support	On board 4GB/8GB DDR3L Memory with ECC Supports Single Channel DDR3 1066/1333MHz
Graphics	AMD Radeon™ R3E GPU DirectX® 11.2, OpenGL 4.3, OpenCL™ 1.2 graphics support 1 x DP++ 1 x LVDS DP++: resolution up to 4096x2160 @ 30Hz LVDS: dual channel 24-bit, resolution up to 1920x1200 @ 60Hz
BIOS	AMI SPI 64Mbit
Storage	1 x Micro SD 1 x SATA 3.0 (7+15pin)
Ethernet	2 x Intel® I210IT, -40 to 105°C PCIe (10/100/1000Mbps)
Outside I/O	2 x USB 3.0 1 x RS-232 1 x RS-485 1 x Line-out 1 x Mic-in 2 x GbE (RJ-45) 1 x DP++ 1 x Power Button
Internal I/O	1 x LVDS LCD Panel Connector 1 x AIO/DIO 1x30pin Connector (JAE TX24-30R-10ST-H1E)
Battery	CR2032 Coin Cell
Audio	Codec:92HD73C
Expansion	1 x Mini PCIe (PCIe/USB 2.0) 1 x M.2 E key 2230 (PCIe/USB 2.0)
Security	TPM2.0
Watchdog Timer	System Reset Programmable via Software from 1 to 255 Seconds/Minutes
Temperature	Operating: -30 to 85°C Storage: -30 to 85°C
Humidity	Operating: 10 to 90% RH Storage: 10 to 90% RH
OS Support	Windows 10 IoT Enterprise (64-bit)

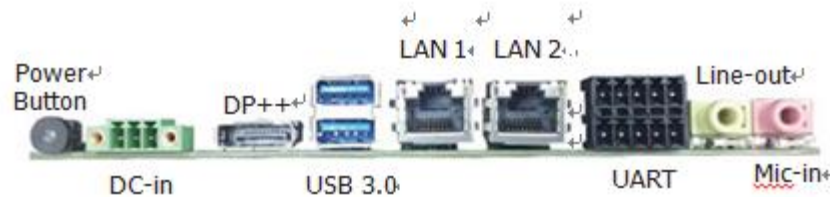
2.3 I/O and Connectors

2.3.1 Outside I/O

The rear panel I/O port arrangement consists of the following:

- 1 power button
- 1 24V DC-in 3-pin power connector
- 1 DP++
- 2 USB 3.0 ports
- 2 RJ45 LAN ports
- 1 UART terminal-block
- 1 Line-out jack
- 1 Mic-in jack

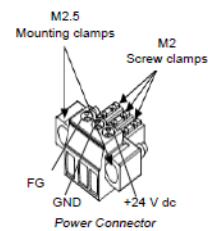
Figure 2.1 Rear Panel Arrangement



2.3.2 Connecting Input Power (24V DC-in)

To connect to power, follow these steps:

1. Verify that the power cable is not energized.
2. Loosen the screw clamps on the mating power connector.
3. Strip the insulation from the power cables.
4. Secure the power cable to the mating connector, noting polarity, and tighten the screw clamps. The torque for the attaching screws is 0.3 Nm (2.26 in-lb).
5. Apply dc power to the unit. During normal startup and operation, the LED status indicator displays as follows:
 - Solid amber while the RXi - Industrial Display unit is starting up



- Solid green during normal operation
6. Once power is applied, the unit begins initializing. The first thing to display is the splash screen.

Be sure to connect a DC power cord to this 3-pin power connector. Using a voltage out of the range may fail to boot the system or cause damage to the system board.

2.3.3 Graphics Interface

Graphics Interface

The display port consists of the following:

- 1 DP++ port

2.3.3.1 DP++ Port

The DP++ is a digital display interface used to connect a display device such as a computer monitor. It is used to transmit audio and video simultaneously. The interface, which is developed by VESA, delivers higher performance features than any other digital interface.

2.3.3.2 BIOS Setting

Configure the display device in the Chipset menu (“DISPLAY control” submenu) of the BIOS. Refer to the chapter 3 for more information.

2.3.4 RJ45 LAN Ports

2.3.4.1 Features

2 Intel® I210IT PCI Express Gigabit Ethernet controllers (4 on larger box module)

The LAN ports allow the system board to connect to a local area network by means of a network hub or router.

2.3.4.2 BIOS Setting

Configure the onboard LAN in the Advanced menu (“Wakeup Configuration” submenu of the BIOS. Refer to chapter 3 for more information.

2.3.5 USB Ports

The USB ports allow for data exchange between your computer and a wide range of simultaneously accessible external Plug and Play peripherals. The RXi2 – LP IPC is equipped with 2 onboard USB 3.0 ports (USB 0-1) in the small configuration with an additional 2 USB 2.0 ports (USB 4-5) in the large box configuration.

2.3.5.1 BIOS Setting

Configure the onboard USB in the Advanced menu (“Wakeup Configuration” submenu) of the BIOS. Refer to chapter 3 for more information.

2.3.5.2 Wake-On-USB Keyboard/Mouse

The Wake-On-USB Keyboard/Mouse function allows you to use a USB keyboard or USB mouse to wake up a system from the S3 (STR - Suspend To RAM) state.

2.3.5.3 Jumper Setting

JP4 must be set to “1-2 On: +5V_standby”. Refer to “USB Power Select” in this chapter for more information.

2.3.6 Serial Ports (UART)

Serial Connection	Pin	Function
RS232	1	TXD
	2	RXD
	3	RTS
	4	CTS
	5	GND
RS485	6	TX+
	7	TX-
	8	RX+
	9	RX-
	10	GND

2.3.7 Audio

2.3.7.1 Rear Audio

The system board is equipped with 2 audio jacks (Line-out and Mic-in). A jack is a one-hole connecting interface for inserting a plug.

- Line-out Jack (Lime)

This jack is used to connect a headphone or external speakers.

- Mic-in Jack (Pink)

This jack is used to connect an external microphone.

2.3.7.2 BIOS Setting

Configure the onboard Audio device in the Chipset menu (“SB HD Azalia Configuration” submenu) of the BIOS. Refer to the chapter 3 for more information.

2.3.8 I/O Connectors

2.3.8.1 Serial ATA Connector

2.3.8.1.1 Features

- 1 Serial ATA 3.0 port with data transfer rate up to 6Gb/s
- Integrated Advanced Host Controller Interface (AHCI) controller

The Serial ATA connector is used to connect the Serial ATA device. Connect one end of the Serial ATA data connector to a SATA connector on the other end to your Serial ATA device.

2.3.8.1.2 BIOS Setting

Configure the Serial ATA drive in the Chipset menu ("SB SATA Configuration" submenu) of the BIOS. Refer to chapter 3 for more information.

2.3.9 Expansion Slots

2.3.9.1.1 Micro SD Socket

The micro SD socket allows you to install a micro SD card for the expansion of available storage.

2.3.10 LVDS LCD Panel Connector

The system board allows you to connect a LCD Display Panel with the LVDS LCD panel connector. This connector transmits video signals and power from the system board to the LCD Display Panel. Refer to the right side for the pin functions of LVDS connector.

2.3.10.1.1 BIOS Setting

Configure the LCD panel in the Chipset menu ("DISPLAY control" submenu) of the BIOS. Refer to Chapter 3 for more information.

2.3.11 AIO/DIO Connector

AIO/DIO connector provides functionality to external devices that are connected to the connector.

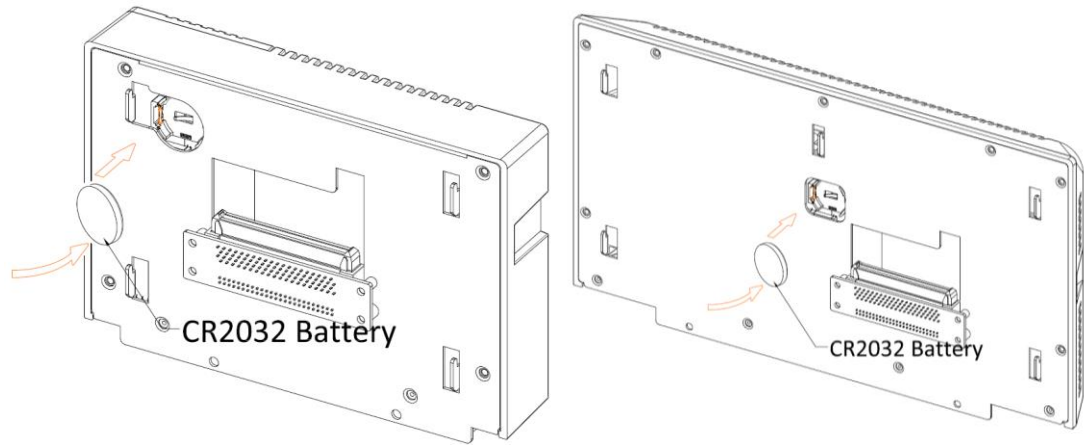
2.3.12 Battery

The lithium ion battery powers the real-time clock and CMOS memory. It is an auxiliary source of power when the main power is shut off or disconnected.

Safety Measures

- Danger of explosion if battery incorrectly replaced.
- Replace only with the same or equivalent type recommend by the manufacturer.
- Dispose of used batteries according to local ordinances.

Figure 2.2 Battery Location



2.4 LED Indicators

2.4.1 Ethernet Port Operation LEDs

	LED	LED State	Operating State
	Speed	Yellow, ON	10/100/1000
	Link Activity	Green, ON	Link Status

Section 3: BIOS Setup

3.1 BIOS Setup

The BIOS is a program that handles of the basic levels of communication between the CPU and peripherals. It contains codes for various advanced features found in this system board. The BIOS allows you to configure the system and save the configuration in a battery-backed CMOS so that the data is retained even when the power is off. In general, the information stored in the CMOS RAM of the EEPROM will stay unchanged unless a configuration change has been made such as a hard drive replaced or a device added.

It is possible for the CMOS battery to fail over time, causing CMOS data loss. If this happens, you need to install a new CMOS battery and reconfigure the BIOS settings.

Keys	Function
Right and Left arrows	Moves the highlight left or right to select a menu.
Up and Down arrows	Moves the highlight up or down between submenu or fields.
<Enter>	Press <Enter> to enter the highlighted submenu or item.
+ (plus key)	Scrolls forward through the values or options of the highlighted field.
- (minus key)	Scrolls backward through the values or options of the highlighted field.
<F1>	Displays general help
<F2>	Pervious values
<F3>	Load Optimized Defaults
<F4>	Saves and resets the setup program.
<Esc>	Exit to the BIOS Setup Utility.

3.1.1 Submenu

When “▶” appears on the left of a particular field, it indicates that a submenu which contains additional options are available for that field. To display the submenu, move the highlight to that field and press <Enter>.

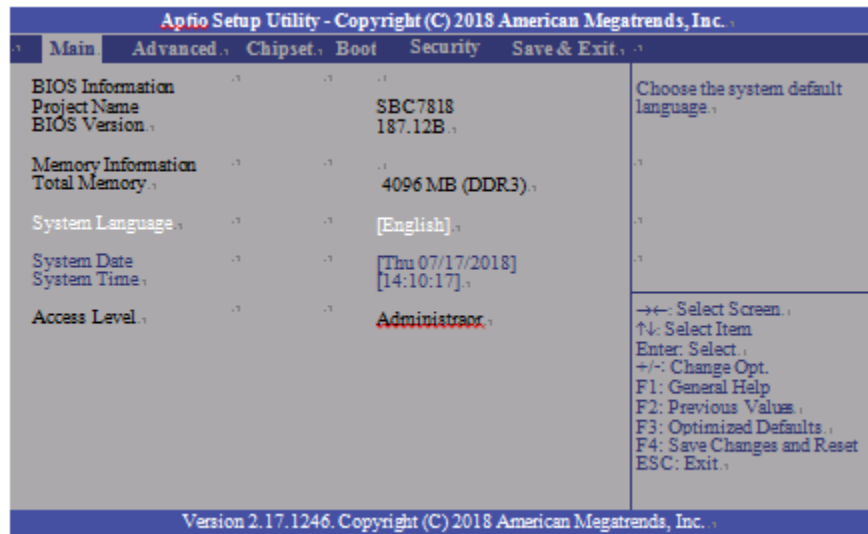
3.2 AMI BIOS Setup Utility

3.2.1 Accessing the BIOS

To access the BIOS, you must attach a USB keyboard to the computing unit and repeatedly press F2 during the start up sequence until it brings you to the Main Menu

3.2.2 Main Menu

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



3.2.3 System Language

Choose the system default language.

3.2.4 System Date

The date format is <day>, <month>, <date>, <year>. Day displays a day, from Sunday to Saturday. Month displays the month, from 01 to 12. Date displays the date, from 01 to 31. Year displays the year, from 1980 to 2099.

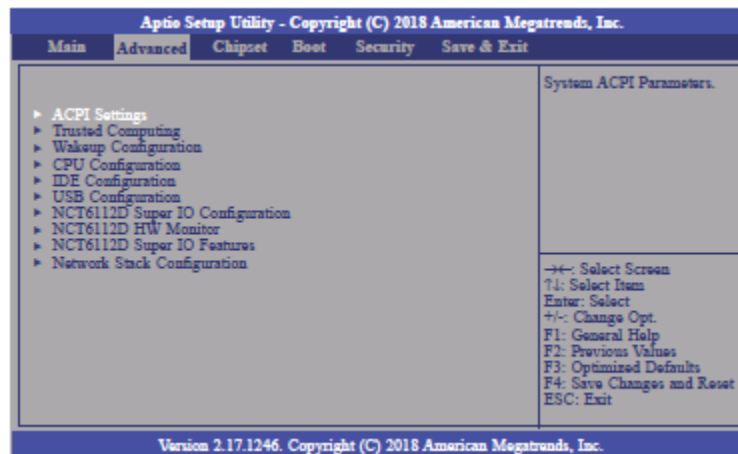
3.2.5 System Language

The time format is <hour>, <minute>, <second>. The time is based on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00. Hour displays hours from 00 to

23. Minute displays minutes from 00 to 59. Second displays seconds from 00 to 59.

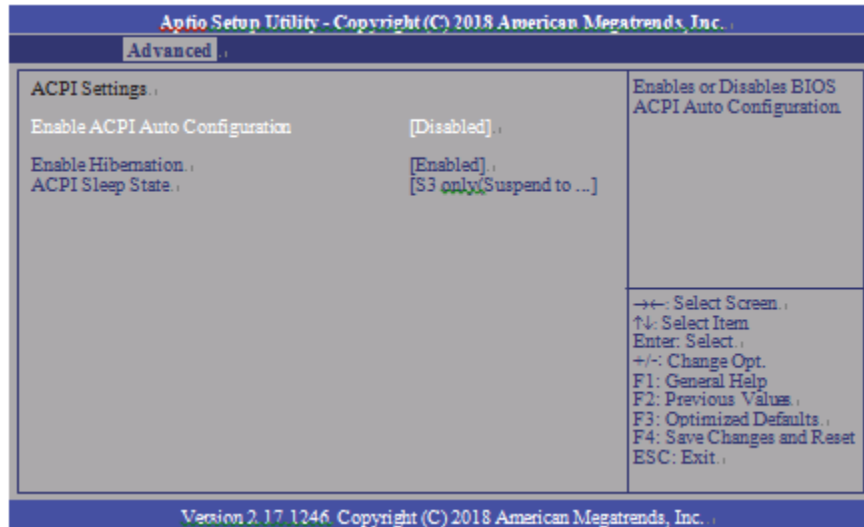
3.2.6 Advanced

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 allow the user to set some features according to their preference.



3.2.7 ACPI Settings

This section configures system ACPI parameters.



3.2.7.1 Enable ACPI Auto Configuration

This field is used to enable or disable BIOS ACPI auto configuration.

3.2.7.2 Enable Hibernation

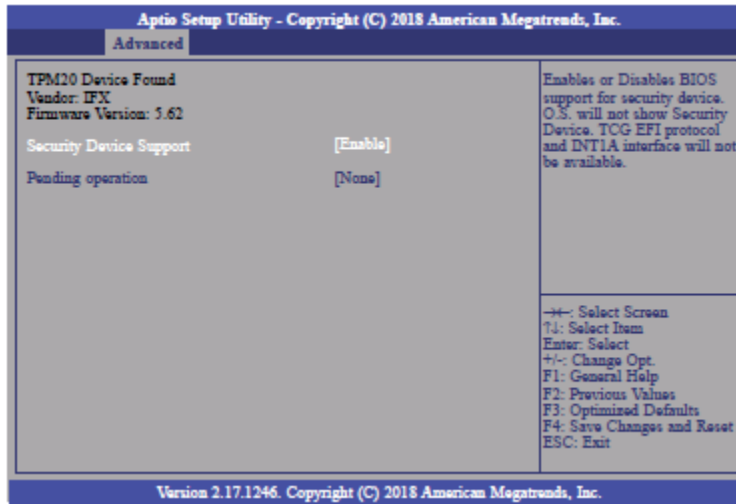
This field is used to enable or disable the system's ability to hibernate (OS/S4 Sleep State). This option may not be functional with all operating systems.

3.2.7.3 ACPI Sleep State

This field is used to select ACPI sleep state the system will enter when the SUSPEND button is pressed.

3.2.8 Trusted Computing

This section is used to configure the Trusted Computing settings.



3.2.8.1 Security Device Support

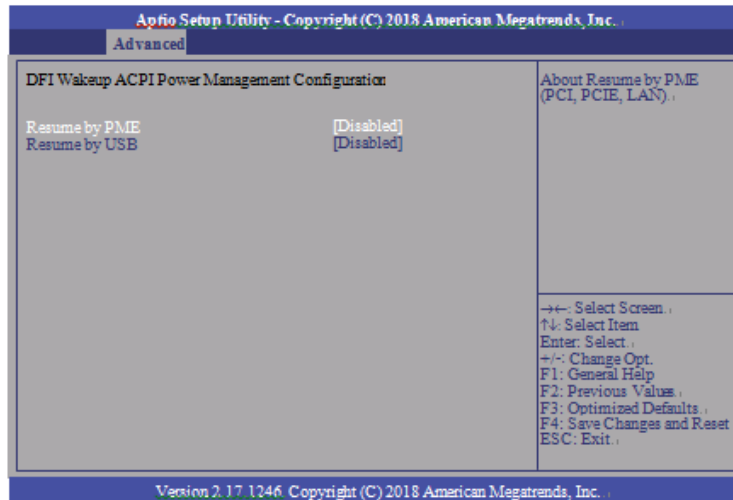
Enable or disable BIOS support for security device. The Operating System will not show security device. TCG EFI protocol and INT1A interface will not be available.

3.2.8.2 Pending Operation

Schedule an operation for the security device. Your computer will reboot during restart in order to change state of security device.

3.2.9 Wakeup Configuration

This section is used to configure the Wakeup ACPI Power Management.



3.2.9.1 Resume by PME

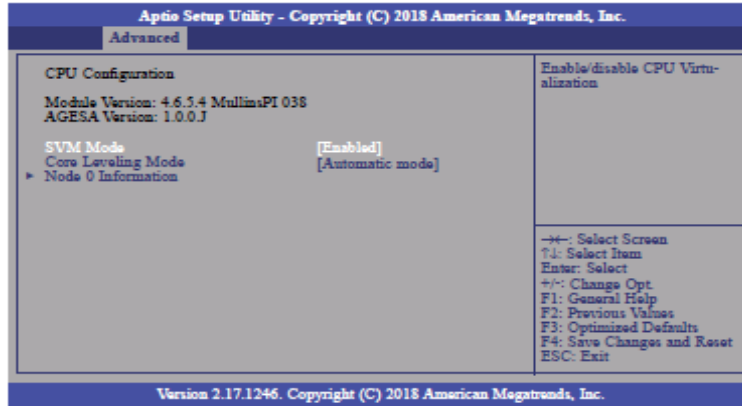
Enable or disable to resume by PME (PCI, PCIe, LAN, etc.)

3.2.9.2 Resume by USB

Enable or disable to resume by USB.

3.2.10 CPU Configuration

This section is used to configure the CPU. It will also display the detected CPU information.



3.2.10.1 SVM Mode

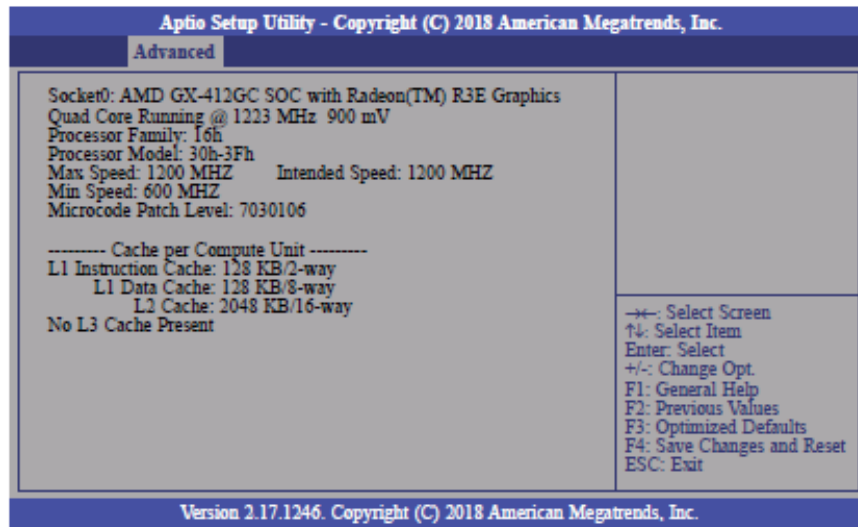
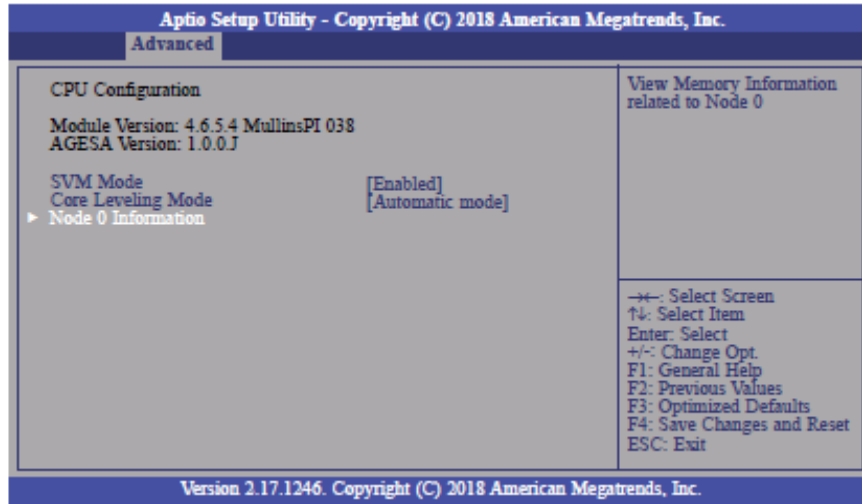
Enable or disable CPU Virtualization.

3.2.10.2 Core Leveling Mode

Select the number of cores in the system: Automatic mode, Three cores per processor, Two cores per processor or One core per processor.

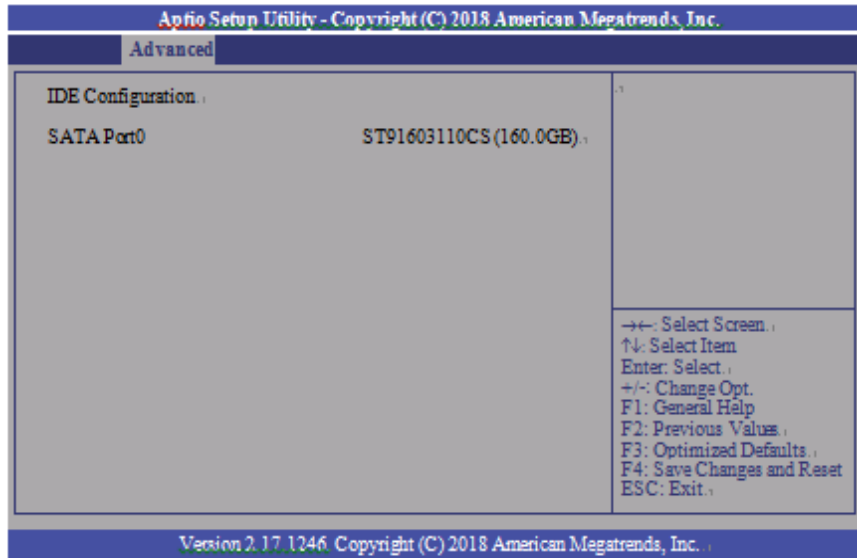
3.2.10.3 Node 0 Information

View Memory Information related to Node 0.



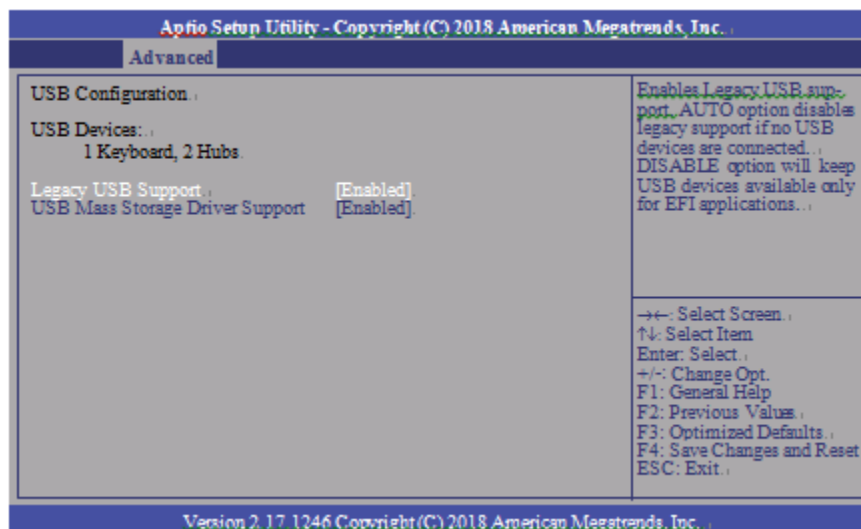
3.2.11 IDE Configuration

This section is used to configure the IDE Devices. It will also display the detected information.



3.2.12 USB Configuration

This section is used to configure the parameters of USB Device.



3.2.13 Legacy USB Support

3.2.13.1.1 Enabled

Enable Legacy USB

3.2.13.1.2 Disabled

Keep USB devices available only for EFI applications.

3.2.13.1.3 Auto

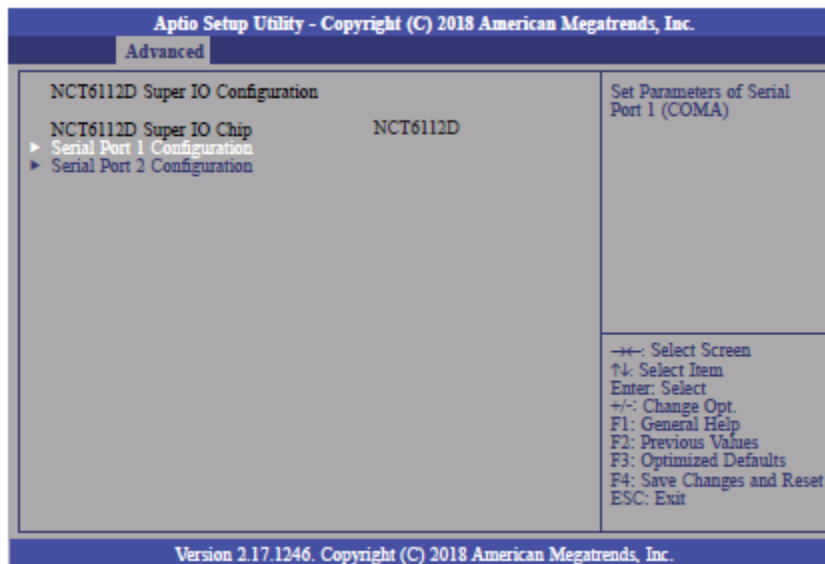
Disable support for legacy when no USB devices are connected.

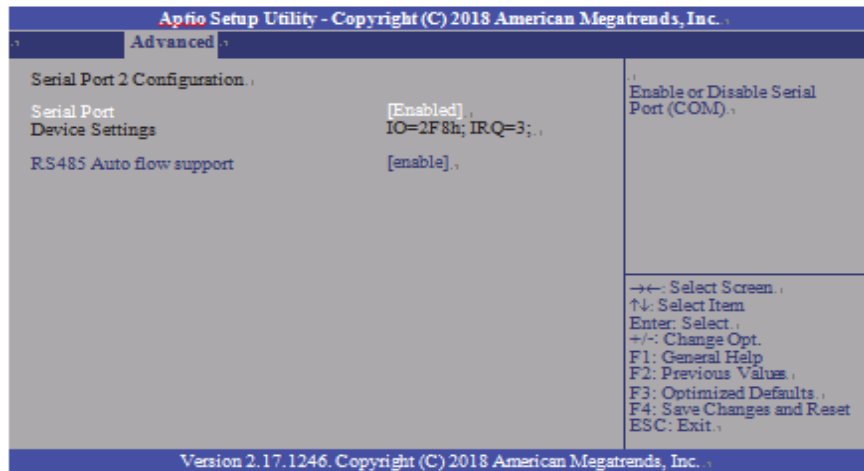
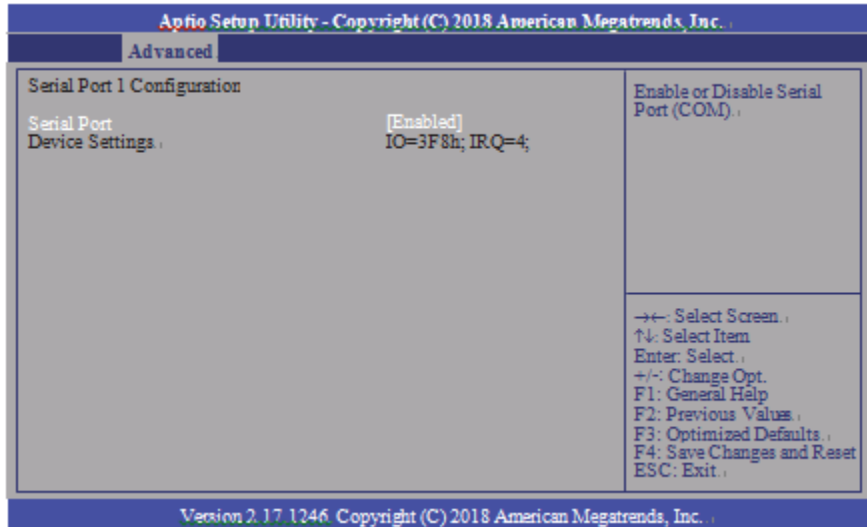
3.2.14 USB Mass Storage Driver Support

Enable or disable the support of the USB Mass Storage Driver.

3.2.15 NCT6112D Super IO Configuration

This section is used to configure the parameters of the system super IO chip.





3.2.15.1 Serial Port

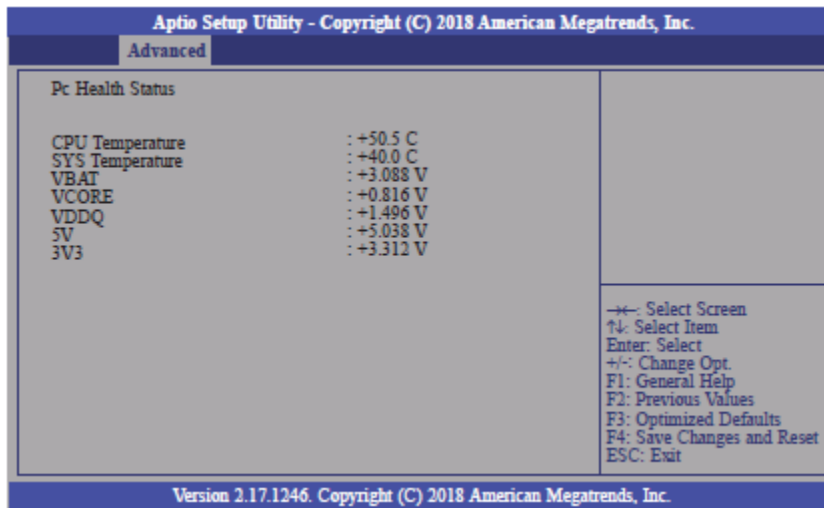
Enable or disable the serial COM port.

3.2.15.2 RS485 Auto Flow Support

Enable or disable the RS485 auto flow support.

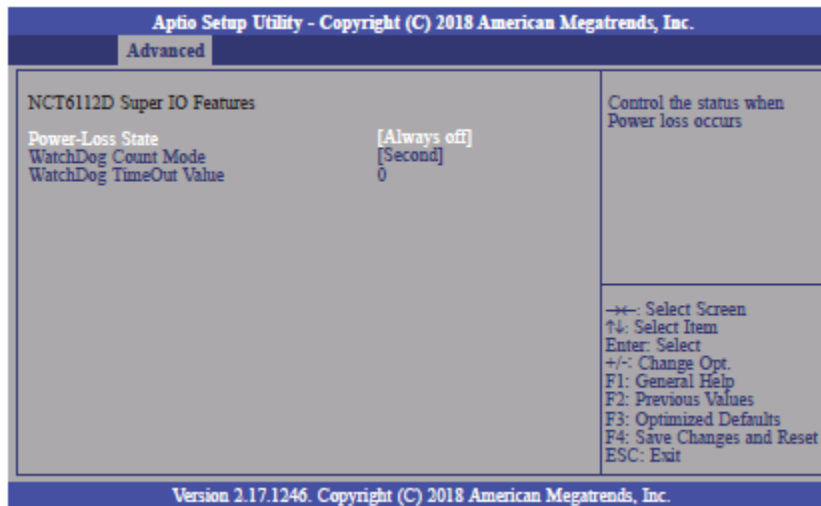
3.2.16 NCT 6112D HW Monitor

This section is used to monitor the hardware status.



3.2.17 NCT 6112D Super IO Features

This section is used to configure some control functions of the system super IO chip.



3.2.17.1 WatchDog Count Mode

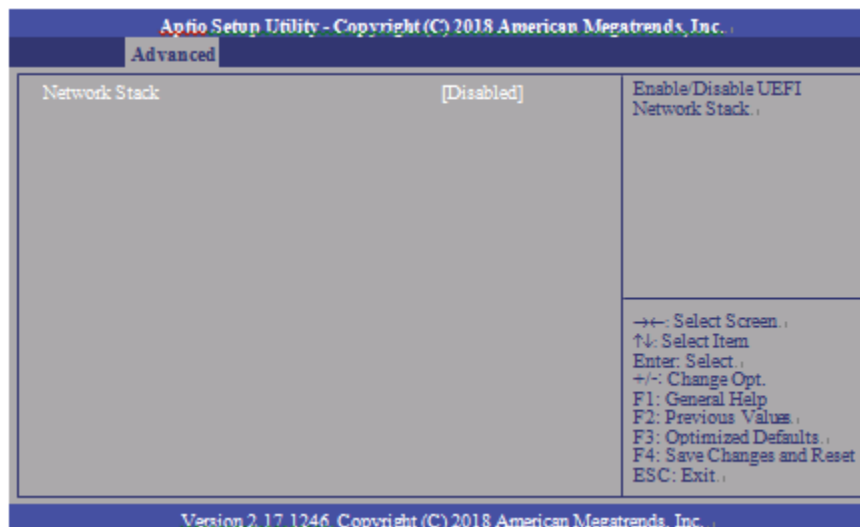
Select the WatchDog Timer Unit: second or minute.

3.2.17.2 WatchDog Timeout Value

Enter the value to set the Super IO WatchDog timer. 0 means disabled.

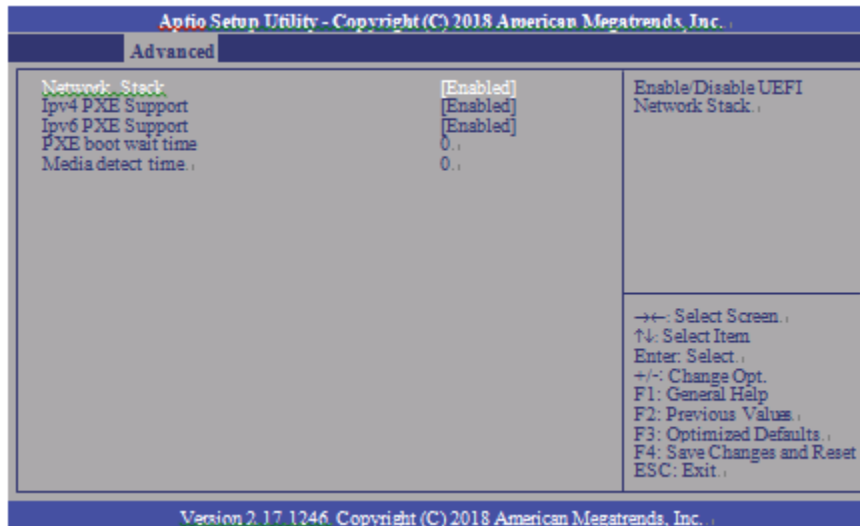
3.2.18 Network Stack Configuration

This section is used to enable or disable network stack settings.



3.2.18.1 Network Stack

Enable or disable UEFI network stack. When Network Stack is set to enabled, the screen will be displayed as below.



3.2.18.2 Ipv4 PXE Support

When enabled, Ipv4 PXE boot supports. When disabled, Ipv4 PXE boot option will not be available.

3.2.18.3 Ipv6 PXE Support

When enabled, Ipv6 PXE boot supports. When disabled, Ipv6 PXE boot option will not be available.

3.2.18.4 PXE boot wait time

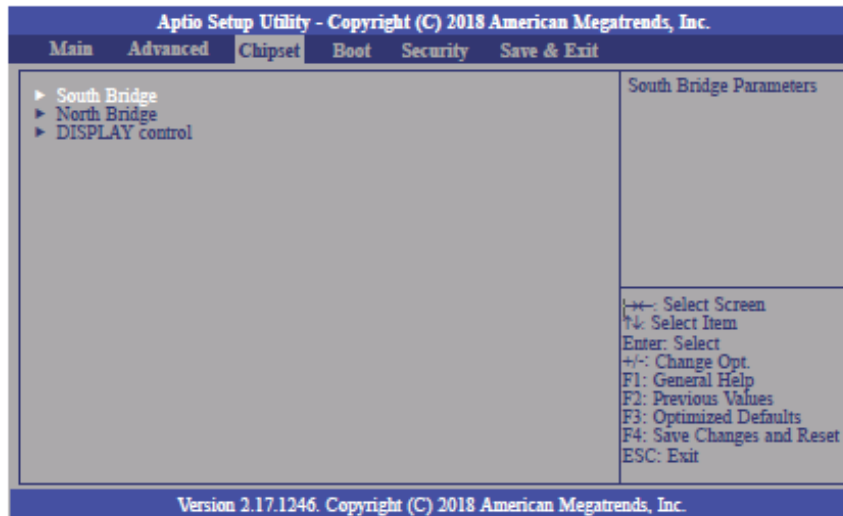
Enter the wait time value to abort the PXE boot.

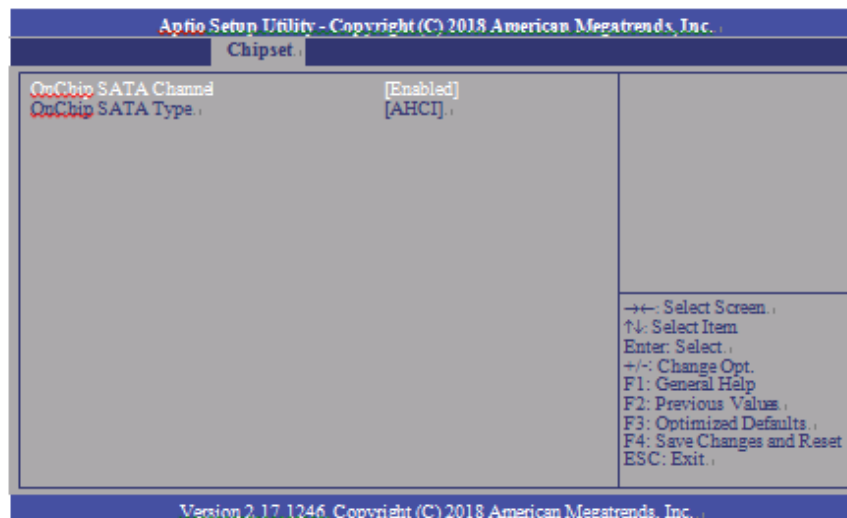
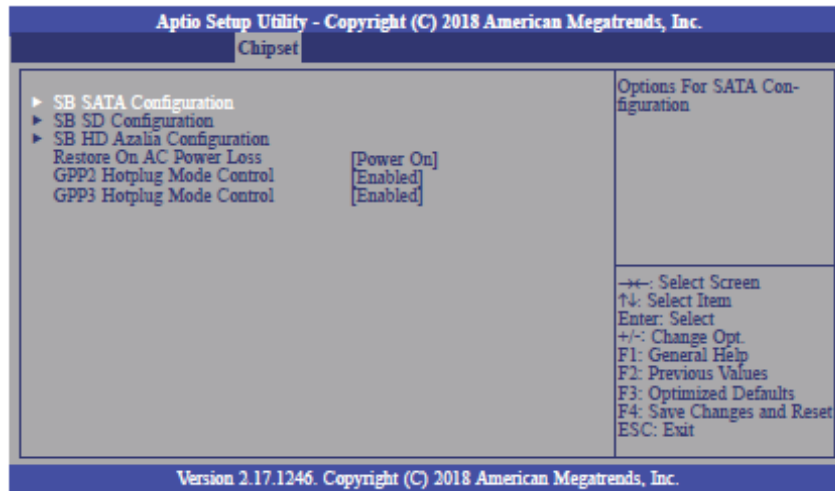
3.2.18.5 Media detect time

Enter the wait time in seconds to detect media.

3.3 Chipset

This section configures relevant chipset functions.



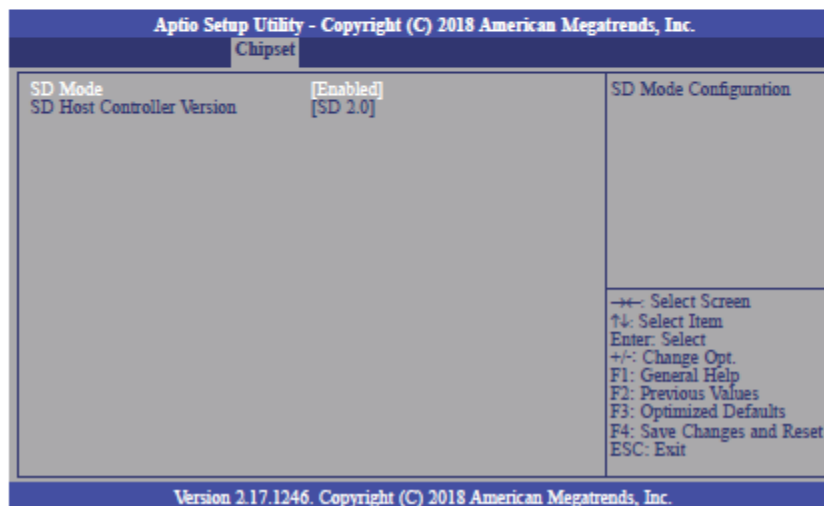
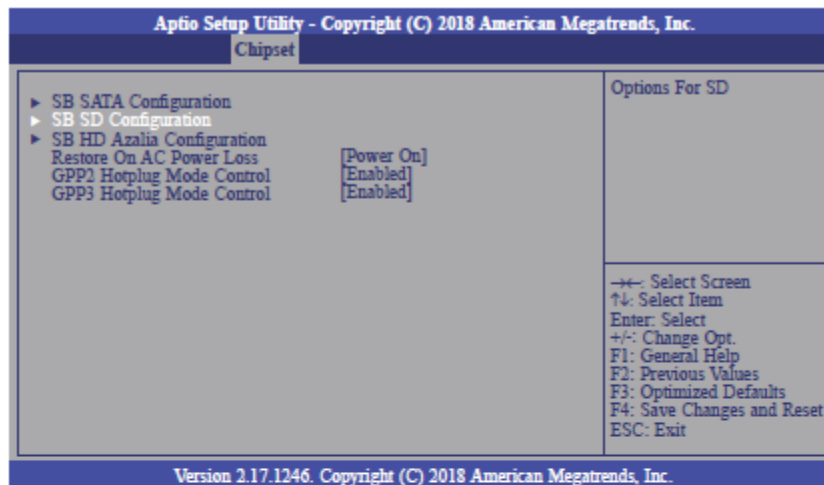


3.3.1 OnChip SATA Channel

Enable or disable Serial ATA.

3.3.2 OnChip SATA Type

Select OnChip SATA Type: Native IDE, AHCI, or Legacy IDE.

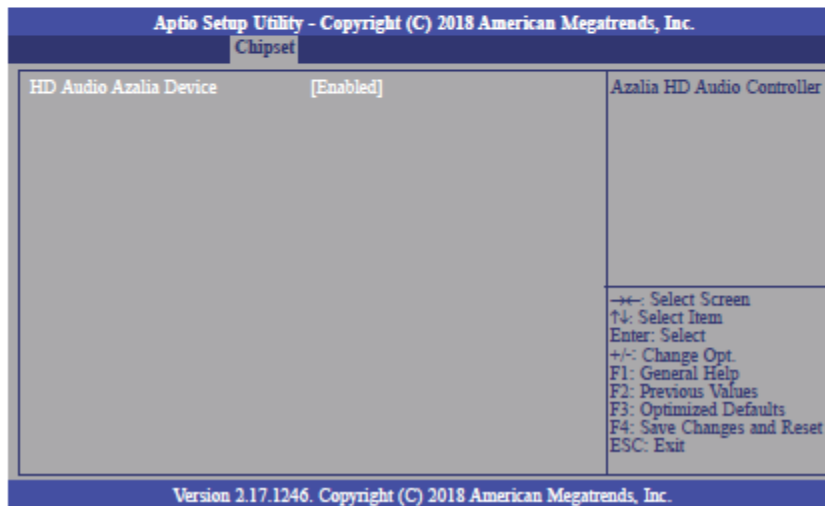
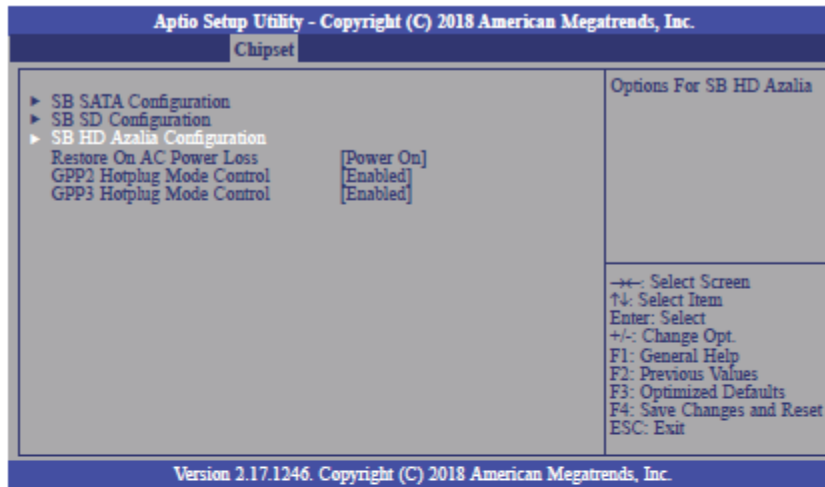


3.3.3 SD Mode

Enable or disable Secure Digital (SD) Mode configuration.

3.3.4 SD Host Controller Version

Select Secure Digital (SD) host controller version: SD2.0 or SD3.0.



3.3.5 SD Host Controller Version

Control the detection of the Azalia device.

3.3.5.1 Auto

HD Audio will be enabled if present, disabled otherwise.

3.3.5.2 Disabled

HD Audio will be fully disabled.

3.3.5.3 Enabled

HD Audio will be fully enabled.

3.3.6 Restore on AC power loss

3.3.6.1 Power On

When power returns after an AC power failure, the system will automatically power-on.

3.3.6.2 Power Off

When power returns after an AC power failure, the system will remain off. You must press the Power button to power on the system.

3.3.6.3 Last State

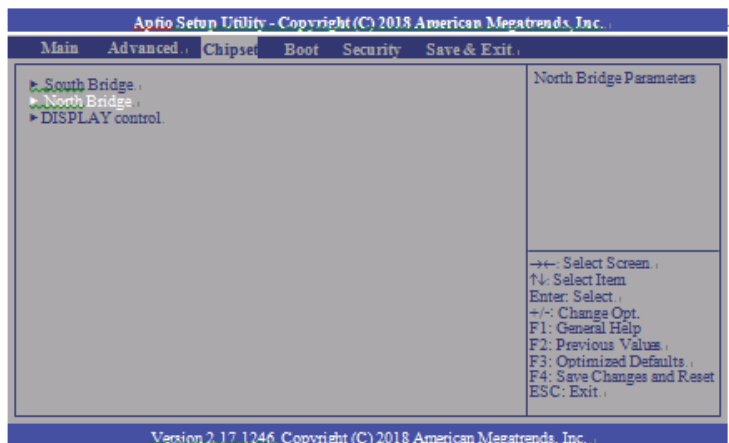
When power returns after an AC power failure, the system will return to the state where you left off before power failure occurs. If the system's power is off when AC power failure occurs, it will remain off when power returns. If the system's power is on when AC power failure occurs, the system will power-on when power returns.

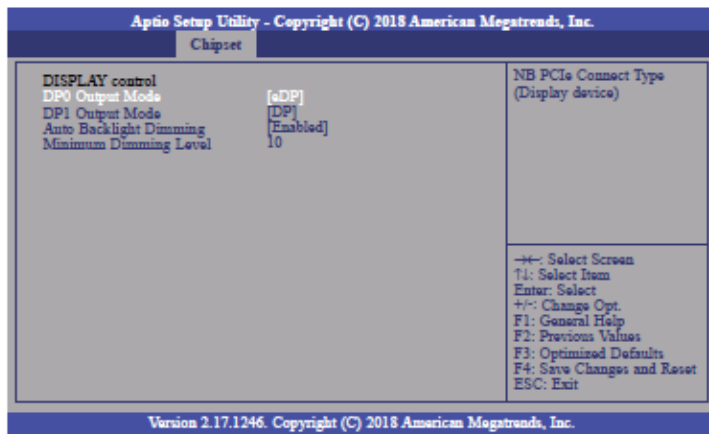
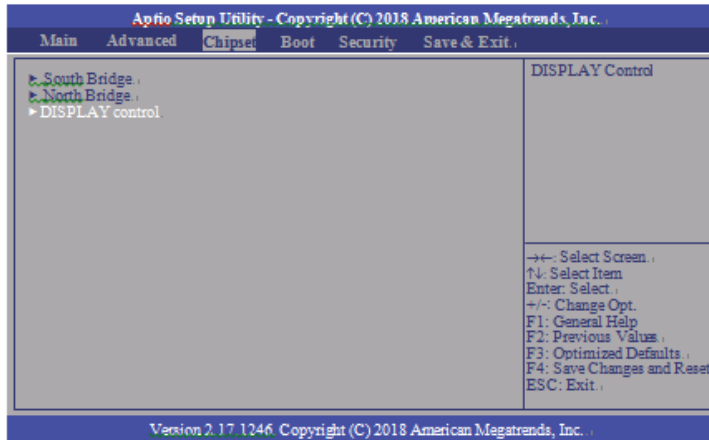
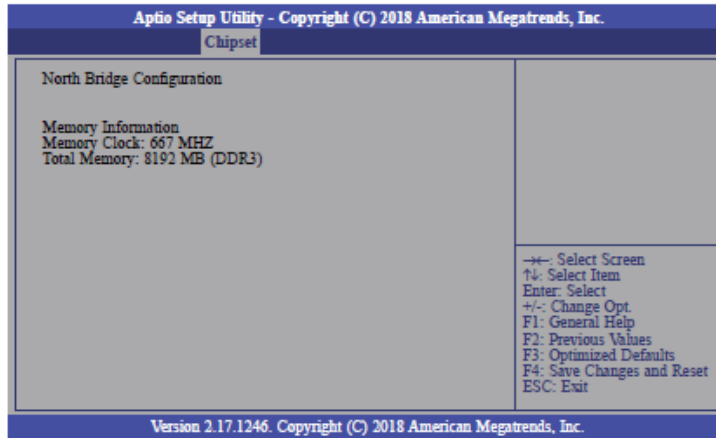
3.3.7 GPP2 Hotplug Mode Control

Enable or disable GPP2 hotplug mode control.

3.3.8 GPP3 Hotplug Mode Control

Enable or disable GPP3 hotplug mode control.





3.3.9 DPO Output Mode

Select NB PCIe connect type (display device): eDP or Disabled.

3.3.10 DP1 Output Mode

Select NB PCIe connect type (display device): DP or Disabled.

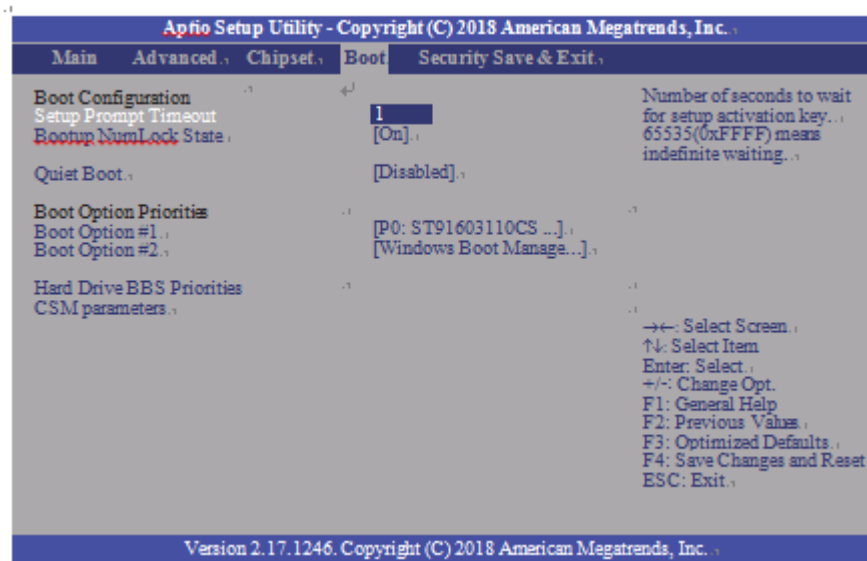
3.3.11 Auto Backlight Dimming

Enable or disable dimming backlight by TB573D.

3.3.12 Minimum Dimming Level

Set the minimum dimming level control. The range is 1~20%.

3.3.13 Boot



3.3.13.1 Setup Prompt Timeout

Select the number of seconds to wait for the setup activation key. 65535(0xFFFF) denotes indefinite waiting.

3.3.13.2 Bootup NumLock State

This allows you to determine the default state of the numeric keypad. By default, the system boots up with NumLock on wherein the function of the numeric keypad is the number keys. When set to Off, the function of the numeric keypad is the arrow keys.

3.3.13.3 Quiet Boot

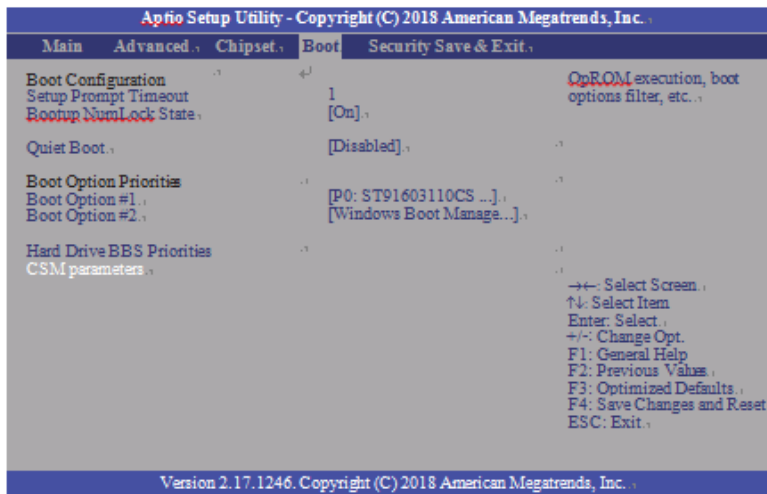
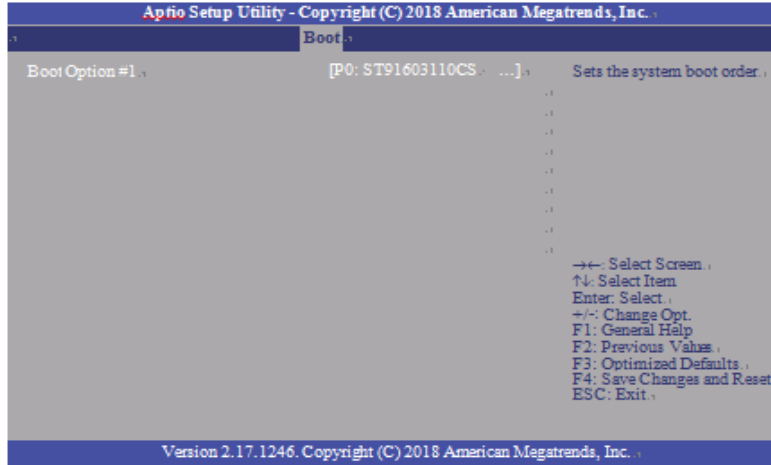
Enable or disable Quiet Boot option.

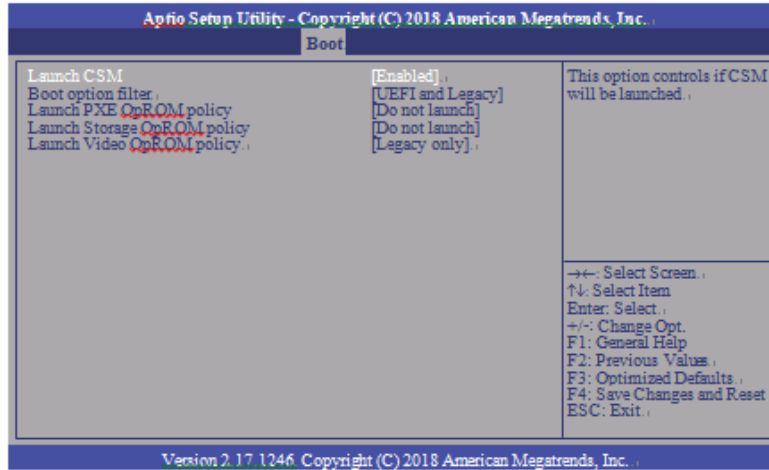
3.3.13.4 Boot Option #1/#2

Select the system boot order.

3.3.14 Hard Drive BBS Priorities

Set the order of the legacy devices in this group.





3.3.14.1 Launch CSM

This field is used to enable or disable to launch CSM.

3.3.14.2 Boot option filter

This option controls what device(s) the system will boot to.

3.3.14.3 Launch PXE OpROM policy

This field controls the execution of UEFI and Legacy PXE OpROM.

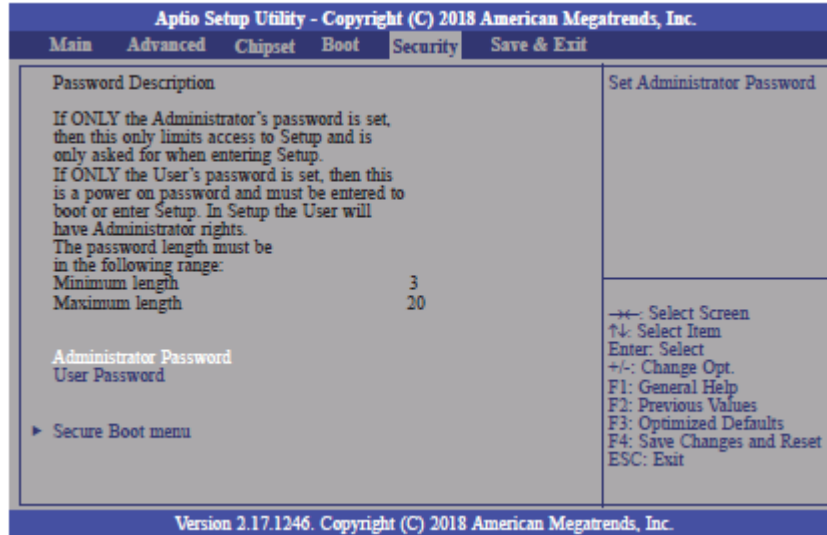
3.3.14.4 Launch Storage OpROM policy

This field controls the execution of UEFI and Legacy Storage OpROM.

3.3.14.5 Launch Video OpROM policy

This field controls the execution of UEFI and Legacy Video OpROM.

3.4 Security



3.4.1 Administrator Password

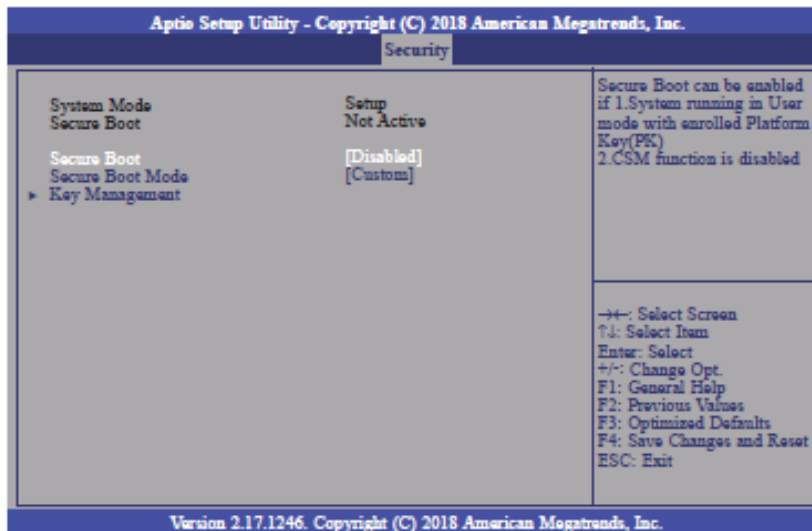
Set the administrator password.

3.4.2 User Password

Set the user password.

3.4.3 Secure Boot Menu

This section is used to configure customizable secure boot settings.



3.4.3.1 Secure Boot

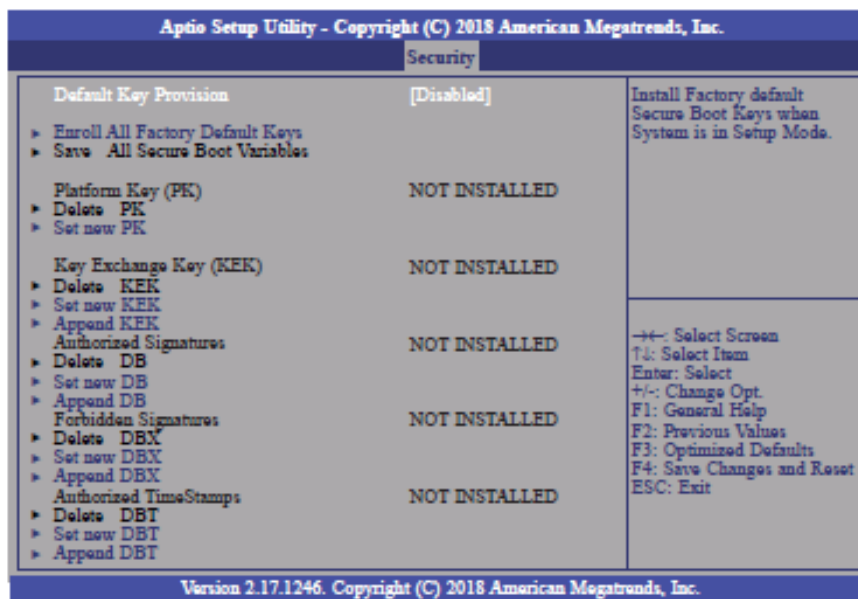
Enable or disable secure boot. Secure Boot can be enabled if: 1. System running in user mode with enrolled platform key (PK); 2. CSM function is disabled.

3.4.3.2 Secure Boot Mode

Select secure boot mode: standard or custom. Custom mode enables users to change image execution policy and manage secure boot keys.

3.4.4 Key Management

This section enables experienced users to modify secure boot variables.



3.4.4.1 Default Key Provision

Enable or disable to install factory default secure boot keys when system is in setup mode. When enabled, a pop-up window will display. Select “Yes” and press <Enter> to install factory default keys.

3.4.4.2 Enroll All Factory Default Keys

Select “Yes” and press <Enter> to install ALL factory default keys, including PK, KEK, DB, DBX and DBT. Change takes effect after reboot.

3.4.4.3 Set new PK

Select “Yes” and press <Enter> to set a new PK or select “No” and press <Enter> to load it from a file on external media.

3.4.4.4 Set new KEK

Select “Yes” and press <Enter> to set a new KEK or select “No” and press <Enter> to load it from a file on external media.

3.4.4.5 Append KEK

Select “Yes” and press <Enter> to set a new KEK or select “No” and press <Enter> to load it from a file on external media.

3.4.4.6 Set new DB

Select “Yes” and press <Enter> to set a new DB or select “No” and press <Enter> to load it from a file on external media.

3.4.4.7 Append DB

Select “Yes” and press <Enter> to set a new DB or select “No” and press <Enter> to load it from a file on external media.

3.4.4.8 Set new DBX

Select “Yes” and press <Enter> to set a new DBX or select “No” and press <Enter> to load it from a file on external media.

3.4.4.9 Append DBX

Select “Yes” and press <Enter> to set a new DBX or select “No” and press <Enter> to load it from a file on external media.

3.4.4.10 Set new DBT

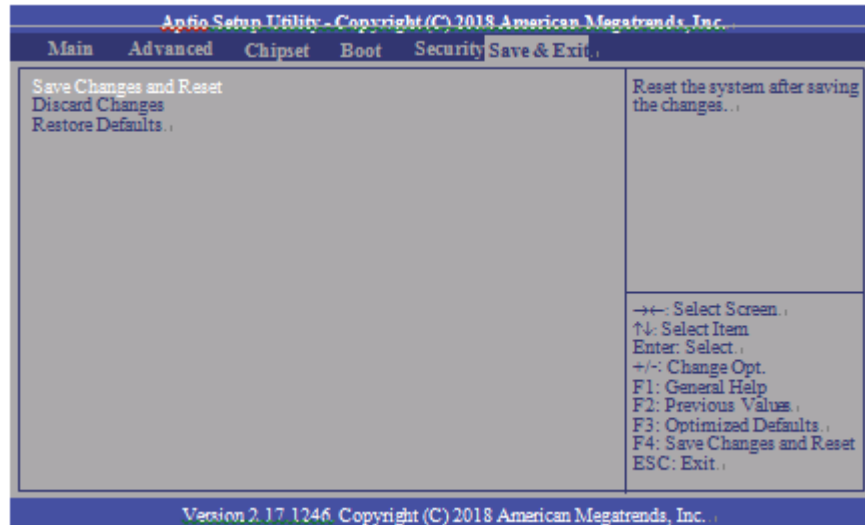
Select “Yes” and press <Enter> to set a new DBT or select “No” and press <Enter> to load it from a file on external media.

3.4.4.11 Append DBT

Select “Yes” and press <Enter> to set a new DBT or select “No” and press <Enter> to load it from a file on external media.

3.5 Save & Exit

3.5.1 Menu Options



3.5.1.1 Save Changes and Reset

To save the changes, select this field and then press <Enter>. A dialog box will appear. Select Yes to reset the system after saving all changes made.

3.5.1.2 Discard Changes

To discard the changes, select this field and then press <Enter>. A dialog box will appear. Select Yes to reset the system setup without saving any changes.

3.5.1.3 Restore Defaults

To restore and load the optimized default values, select this field and then press <Enter>. A dialog box will appear. Select Yes to restore the default values of all the setup options.

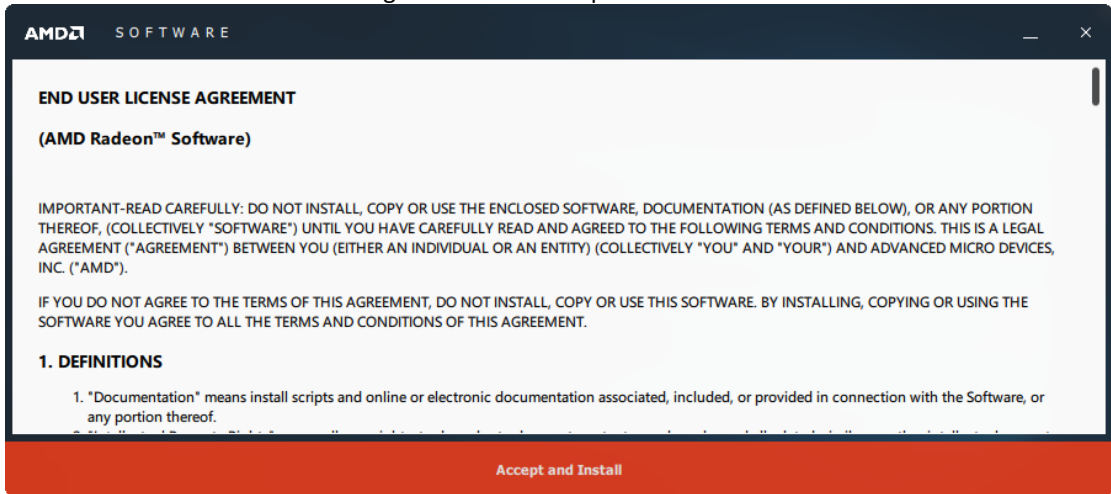
3.5.2 Updating the BIOS

To update the BIOS, you will need the BIOS file and a flash utility. Please contact technical support or your sales representative for the files.

Section 4: Installation of Drivers

4.1 Drivers Installation Instruction

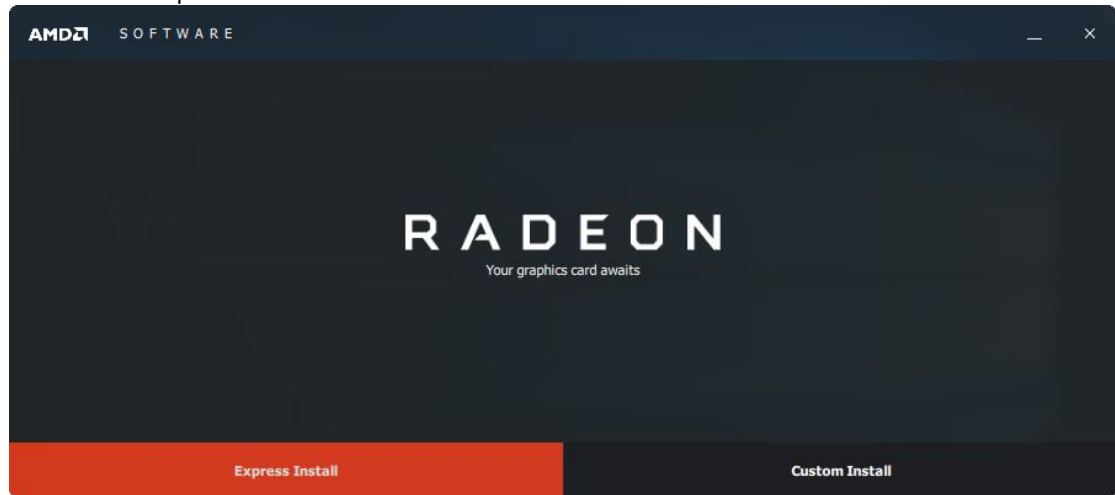
1. Read the End User License Agreement and accept to start installation



2. Detecting hardware



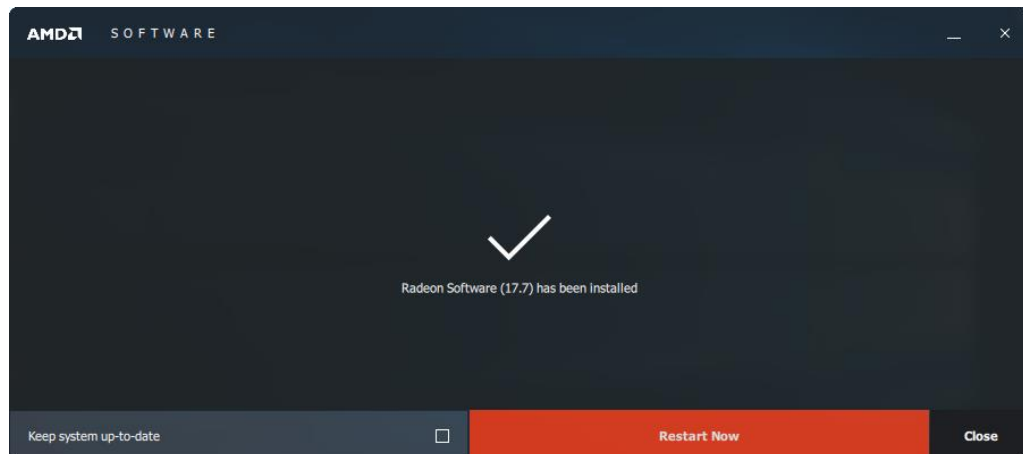
3. Select Express Installation



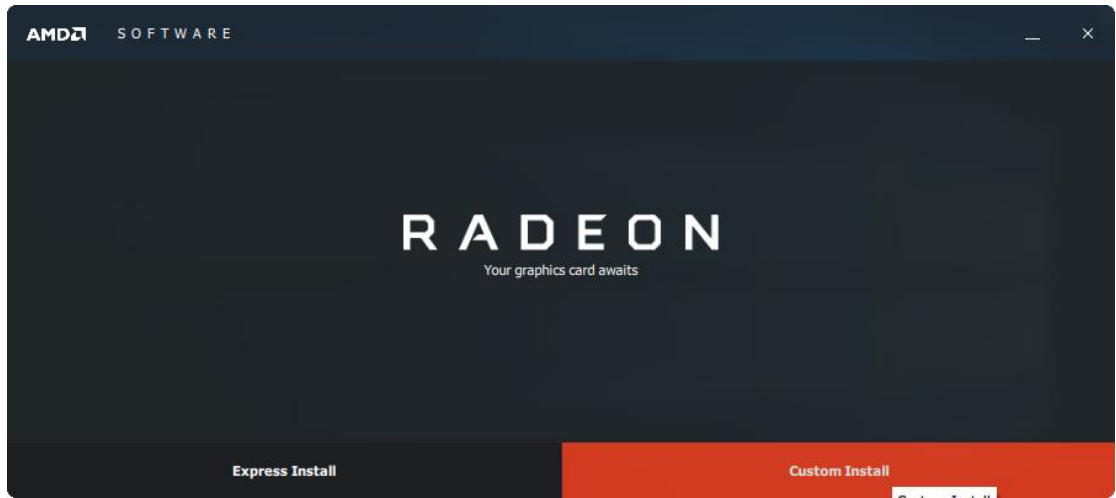
4. Installing now



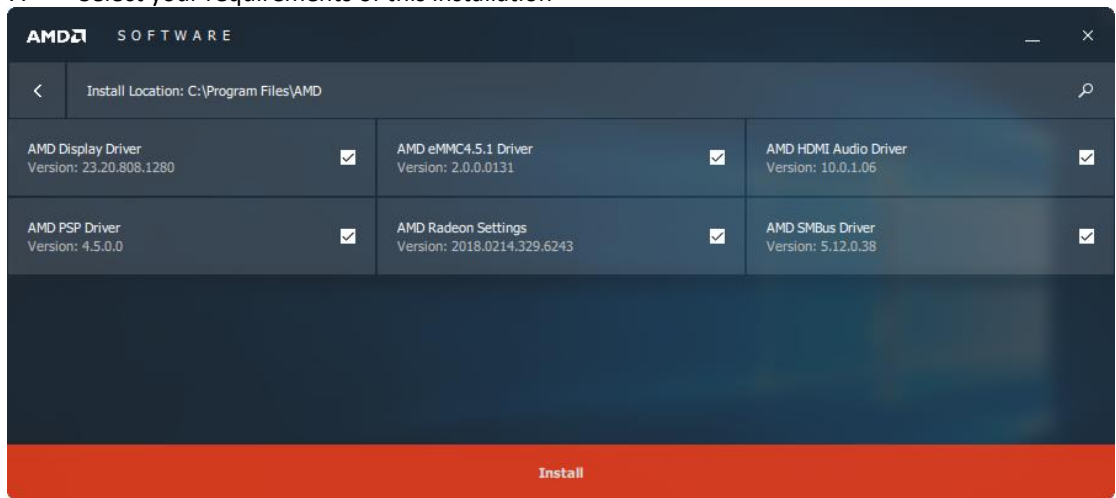
5. Radeon Software (17.7) has been installed and restarts the computer now



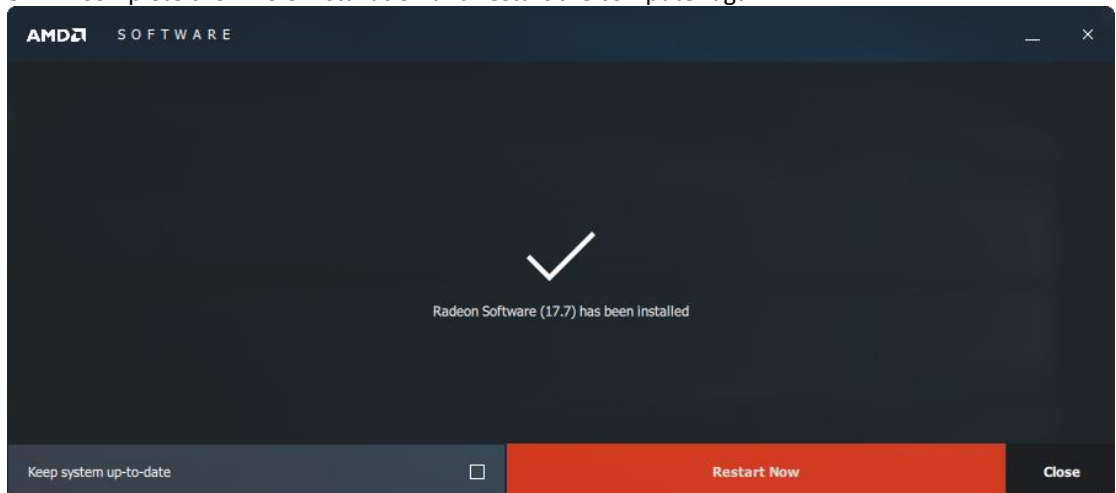
6. Select Custom Installation



7. Select your requirements of this installation



8. Complete the whole installation and restart the computer again



Section 5: Mounting Information

5.1 Wall Mount Dimensions (using included mounting bracket)

All RXi2 – LP Industrial PC units ship with the wall mount bracket attached to the CPU base.

Figure 5.1 Wall Mount Dimensions (Small Box / Dual Core)

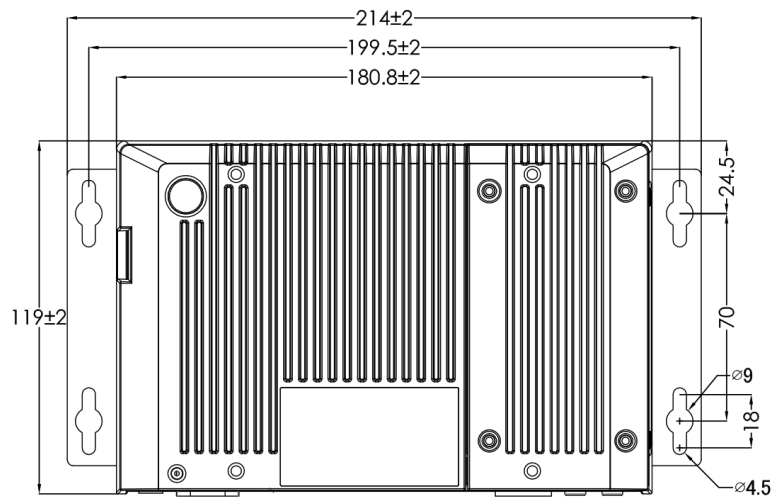
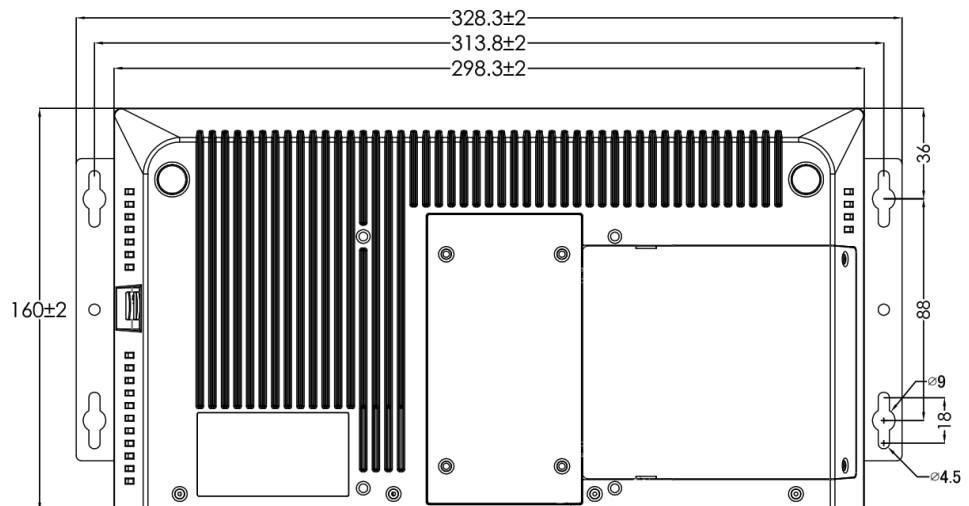


Figure 5.2 Wall Mount Dimensions (Large Box / Quad Core)



5.2 Baseplate Exchange

All RXi2 – LP Industrial PC units ship with the wall mount bracket attached to the CPU base. In addition, the screen connector baseplate comes in the packaging. To connect the RXi2 – LP Industrial PC to a native screen, the screen connector baseplate needs to be exchanged for the wall mount baseplate.

Baseplate exchange instructions (as shown in Figures 5.3 and 5.4):

1. Remove screws on bottom of the wall mount baseplate
2. Remove wall mount baseplate
3. Align screen connector baseplate
4. Refasten screws to firmly attach baseplate.

Figure 5.3 Baseplate Exchange Diagram (Small Box / Dual Core)

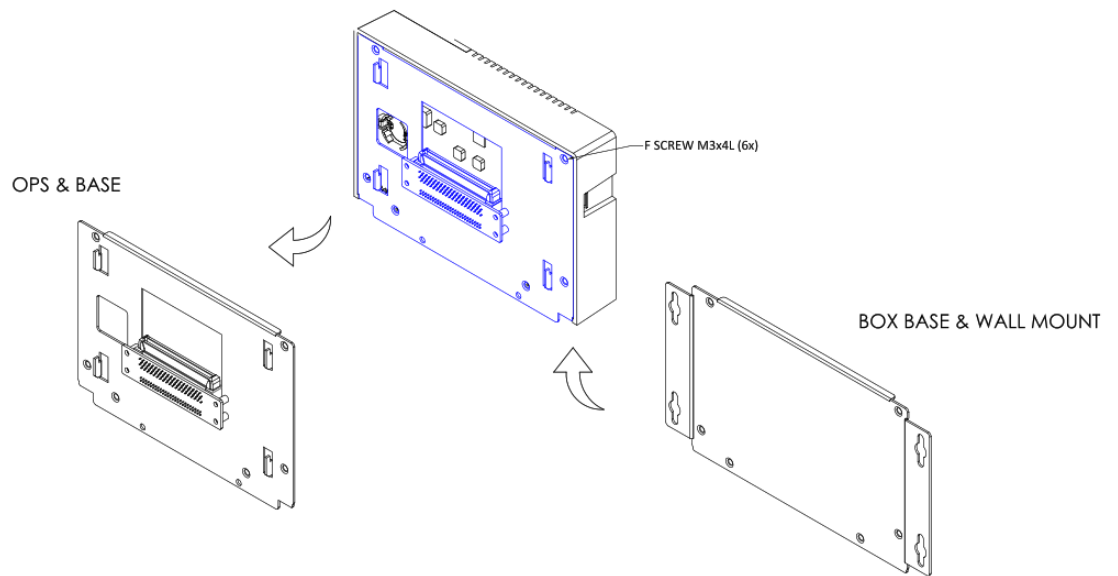
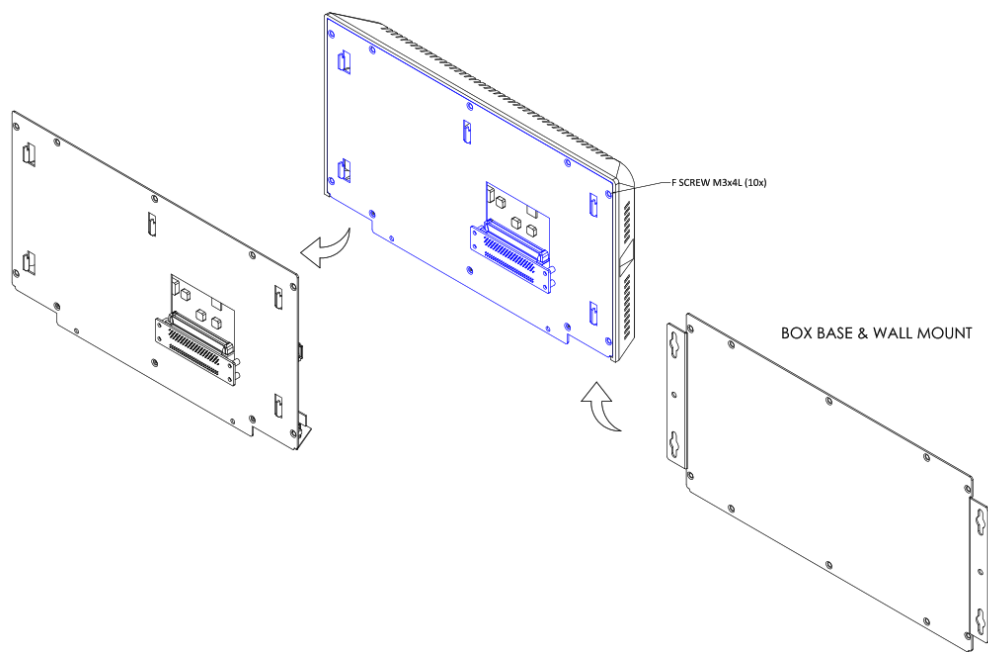


Figure 5.4 Baseplate Exchange Diagram (Large Box / Quad Core)



Contact Us:

North & South America

18703 GH Circle
PO Box 508
Waller, Texas 77484
USA
T +1 281 727 5300

2500 Park Avenue West
Mansfield, Ohio 44906
USA
T +1 419 529 4311

9009 King Palm Drive
Tampa, Florida 33619
USA
T +1 813 630 2255

4112-91A Street
Edmonton, Alberta T6E5V2
Canada
T +1 780 450 3600

Av. Hollingsworth,325
Iporanga
Sorocaba, SP 18087-105
Brazil
T +55 15 3238 3788

Europe

Asveldweg 11
7556 BT Hengelo(O)
The Netherlands
T +31 74 256 1010

Siemensring 112
D-47877 Willich
Germany
T +49 2154 499 660

30/36 Allee du Plateau
93250 Villemomble
France
T +331 48 122610

6 Bracken Hill
South West Industrial Estate
Peterlee, Co Durham
SR82LS, United Kingdom
T +44 191 518 0020

3 Furze Court
114 Wickham Road
Fareham, Hampshire
PO167SH, United Kingdom
T +44 132 984 8900

Via Montello 71/73
20038 Seregno
Italy
T +39 0362 2285207

Selska cesta 93
10000 Zagreb
Croatia
T +385 913654292

ul. Konstruktorska str 11A
02-673 Warsaw
Poland
T +48 22 4589237

Hungári körút 166-168
H-1146 Budapest
Hungary
T +36 14624034

Hajkova 2747/22
130 00 Praha 3
Czech Republic
T +42 2 81002666

Zeleznicarska 13
811 04 Bratislava
Slovakia
T +42 1252442071

Blegistrasse 21,
P.O. Box 1046
CH 6341 Baar
Switzerland
T +41 (41) 7686215

2-4, Gara Herastrau St.
District 2, Nova Building,
5th floor 020334 Bucharest
Romania
T +40 212062506

Icerenkoy MAh. Topcu Ibrahim Sk.
No:13 K:4 Icerenkoy
Istanbul, Turkey
T +90 2165739848408

Middle East & Africa

2 Monteer Road, Isando
Kempton Park, 1600
South Africa
T +27 11 974 3336

PO Box 17033
Jebel Ali Free Zone
Dubai,
United Arab Emirates
T +971 4883 5235

Asia Pacific

19, Kian Teck Crescent,
Singapore 628885
T +65 6501 4600

471 Mountain Highway
Bayswater, Victoria 3153
Australia
T +61 3 9721 0200

9/F Gateway Building
No.10 Ya Bao Road
Chaoyang District
Beijing, P.R. China
T +86 10 5821 1188

No 15 Xing Wang Road
Wuqing Development Area
Tianjin 301700
P.R. China
T +86 22 8212 3300

Lot 13112, Mukim Labu,
Kawasan Perindustrian Nilai
71807 Nilai, Negeri Sembilan
Malaysia
T +60 6 799 2323

Delphi B Wing, 601 & 602
6th Floor, Central Avenue
Powai, Mumbai 400076
India
T +91 22 6662 0566

NOF Shinagawa Konan Building
1-2-5, Higashi-shinagawa
Shinagawa-Ku, Tokyo
140-0002 Japan
T +81 3 5769 6873

Please visit our website for up to date product data.

www.Emerson.com

All Rights Reserved.

We reserve the right to modify or improve the designs or specifications of the products mentioned in this manual at any time without notice. Emerson does not assume responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use and maintenance of any Emerson product remains solely with the purchaser.

©2017 Emerson Electric Co.

