

User Manual

BPC-3022

Fanless Embedded Box PC
with Intel Celeron N2930 Processor
and Multiple Video Outputs

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1. Collect all the information about the problem encountered. (For example, CPU speed, Arestech products used, other hardware and software used, etc.) Note anything abnormal and list any onscreen messages you get when the problem occurs.
2. Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.
3. If your product is diagnosed as defective, obtain an RMA (return merchandize

authorization) number from your dealer. This allows us to process your return more quickly.

4. Carefully pack the defective product, a fully-completed Repair and Replacement Order Card and a photocopy proof of purchase date (such as your sales receipt) in a shippable container. A product returned without proof of the purchase date is not eligible for warranty service.
5. Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

Safety Instructions

1. Read these safety instructions carefully.
2. Keep this User Manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never pour any liquid into an opening. This may cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
 - If one of the following situations arises, get the equipment checked by service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated into the equipment.
 - The equipment has been exposed to moisture.
 - The equipment does not work well, or you cannot get it to work according to the user's manual.
 - The equipment has been dropped and damaged.
 - The equipment has obvious signs of breakage.
14. **DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT**

SHOULD BE IN A CONTROLLED ENVIRONMENT.

15. CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

Safety Precaution - Static Electricity

Follow these simple precautions to protect yourself from harm and the products from damage.

- To avoid electrical shock, always disconnect the power from your PC chassis before you work on it. Don't touch any components on the CPU card or other cards while the PC is on.
- Disconnect power before making any configuration changes. The sudden rush of power as you connect a jumper or install a card may damage sensitive electronic components.

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Chapter1. General Introduction

1.1 Overview

The BPC-3022 fanless Box PC is designed with an Intel®Celeron®N2930 processor, the first Celeron processor to support DDR3L SDRAM that runs at 1.83 GHz while maintaining low power consumption and an attractive price point, making this embedded hardware platform ideal for embedded and automation applications. The BPC-3022's compact size and multiple display ports offer the highest degree of flexibility for many kinds of industrial solutions. Its rugged case is designed to protect against electromagnetic interference, extremes of cold and heat, and highlights a passive cooling design for quiet, fanless operation suitable for digital signage, or the medical and automation industries.



(Front Cover)



(Back Cover)

1.2 Key Features

- Intel Celeron Processor N2930 Quad-Core
- Compact Size and Light Weight
- 1 GbE, HD Audio, 5 USB, 1 COM, DVI-I, HDMI, 2 mini PCIe (for WLAN & 3G module)
- Support 1 SATA HDD/SSD (2.5"), 1 mSATA
- -20~60° C operating temperature

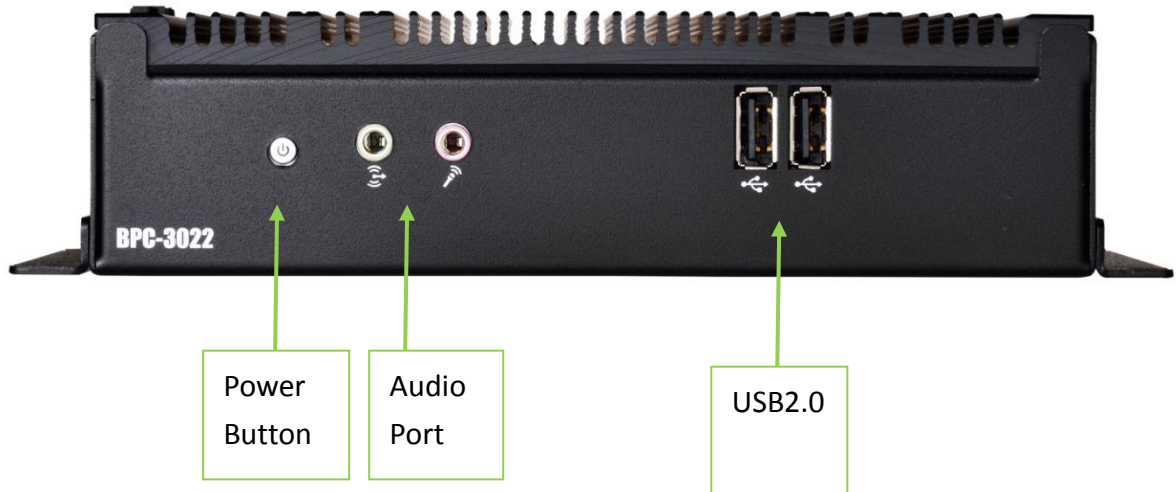
1.3 Hardware Specification

Model		BPC-3022
Processor System	CPU	Intel Celeron Processor N2930 Quad-Core
	Frequency	Quad-Core up to 1.83 GHz
	L2 Cache	2 MB
	System Chipset	N/A
	BIOS	UEFI
Memory	Technology	DDR3L 1333 MHz SDRAM (1.35 V only)
	Max. Capacity	8 GB
	Socket	1, 204-pin SO-DIMM
Display	Graphics Engine	Intel HD Graphics
	DVI-I	Up to 1920 x 1080
	HDMI	Supports 1920 x 1080, Max data rate: up to 1.65 Gb/s Supports HDMI v1.3 up to 1080p
	Dual Display	DVI-I + HDMI
I/O Interface	USB	1 USB 3.0, 4 USB 2.0
	Serial Port	1 COM (RS-232)
Ethernet	Controller	1 GbE LAN, Realtek RTL8111G, 10/100/1000 Mbps
Audio	Chipset	Realtek ALC662, High Definition Audio (HD)
	Connector	Line out, Mic in
Expansion	Mini PCIe	1 Half-size slot / WIFI module(optional) 1 Full-size slot(only USB and mSATA signal)/3G module(option)
	Storage	SATA II
	mSATA	1 (mSATA shared with full-size mini PCIe slot)
Power	Power Type	AT /ATX
	Power Connector	DC Jack

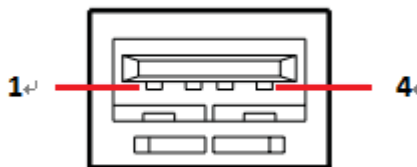
	Power Input	Single 12 V DC input
	Power	0.72 A @ 12 V (9.4 W) , Typical
	Consumption	1.38 A @ 12 V (15.8 W) ,MAX
Environment	Operational Temp	-20~60° C (-4~140° F) w/ 2.5" SSD (Humidity: 60° C @80% RH non-condensing)
	Non-Operational	-40~85° C (-40~185° F) w/ 2.5" SSD (Humidity: 60° C @ 80% RH non-condensing)
	Vibration	5 Grms, IEC 60068-2-64, random, 5~500 Hz, 1 Oct/min., 1hr/axis, x, y, z 3 axes (w/ SSD) 1 Grms, IEC 60068-2-64, random, 5~500 Hz, 1 Oct/min., 1hr/axis, x, y, z 3 axes (w/ 2.5" HDD)
Certificate	EMC	CE, FCC Class A
General	Dimensions	172.8 x 46.1 x 112.4 mm (6.80" x 1.81" x 4.43")
	Weight	0.91 kg (2.0 lb)
	OS	Windows 7/8/8.1, WS7P/E, WES8, Fedora 20, Ubuntu 14.04

1.4 I/O Arrangement

(Front Side)



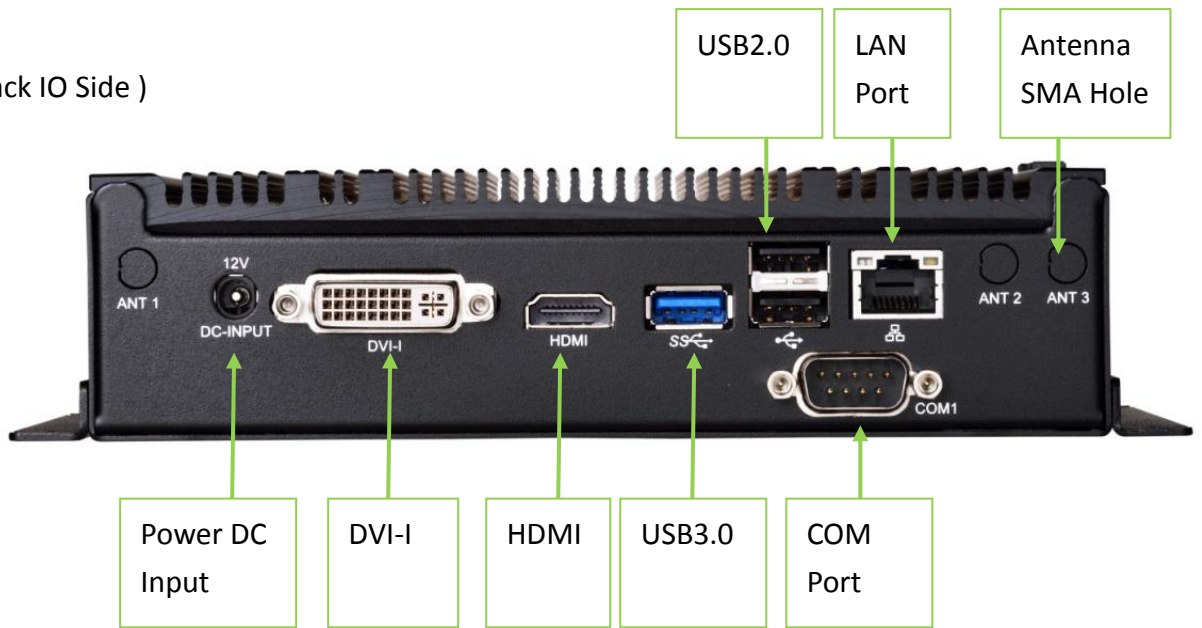
- **Power Button**
Press this button to turn on the system.
- **Audio Port**
Green connector means **LINE OUT** / Pink connector **MIC IN** .
- **USB 2.0 Port**



Pin	Definition
1	+5
2	USB-
3	USB+
4	GND

Basically, USB2.0 supports 0.5A @ 5 V

(Back IO Side)



■ **DC 12 V Power Input Connector**

This connector must be connected to DC 12 V power adaptor.

■ **DVI-I Port**

This port can be connected to the DVI monitor via the external DVI-I connector.

When connecting VGA monitor, you need an exclusive special DVI to VGA adapter (*only offered by Arestech*).

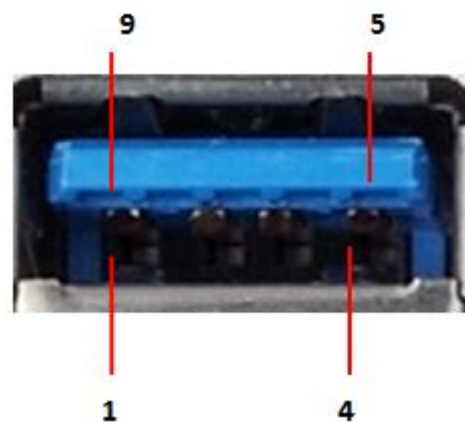
■ **HDMI Port**

This port can be connected to the HDMI monitor. (HDMI v1.3)

Users can connect DVI-I and HDMI in the same time (Dual Display), but cannot support 3-display because of Intel chipset's constraint.

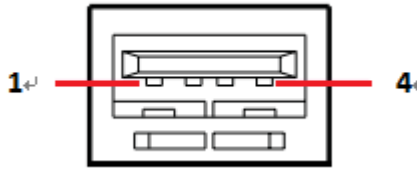
■ **USB 3.0 Port**

Pin	Definition
1	+5
2	USB-
3	USB+
4	GND
5	StdA_SSRX-
6	StdA_SSRX+
7	GND_DRAIN
8	StdA_SSTX-
9	StdA_SSTX+



Basically, USB2.0 supports 0.5A @ 5 V

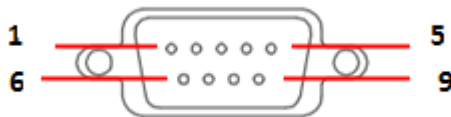
■ USB 2.0 Port



Pin	Definition
1	+5
2	USB-
3	USB+
4	GND

Basically, USB2.0 supports 0.5A @ 5 V

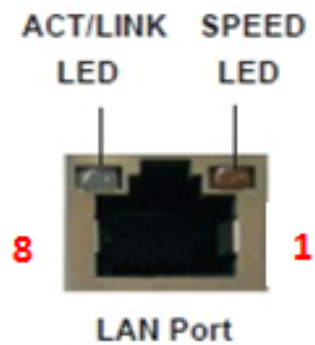
■ COM Port (RS-232 only)



Pin	Definition	Pin	Definition
1	DCD	6	DSR
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR	9	N/A
5	GND		

■ LAN Port

This port can be connected to the Ethernet via RJ-45 connector .



10/100BASE-T:

Pin	Definition	Pin	Definition
1	TX_D0+	5	NC
2	TX_D0-	6	RX_D1-
3	RX_D1+	7	NC
4	NC	8	NC

1000BASE-T:

Pin	Definition	Pin	Definition
1	TX_D0+	5	BI_D2-
2	TX_D0-	6	RX_D1-
3	RX_D1+	7	BI_D3+
4	BI_D2+	8	BI_D3-

Activity/Link LED	
Status	Description
Off	No Link
Blinking	Data Activity
On	Link

SPEED LED	
Status	Description
Off	10Mbps connection
Off	100Mbps connection
Green	1Gbps connection

- **Antenna SMA Hole**

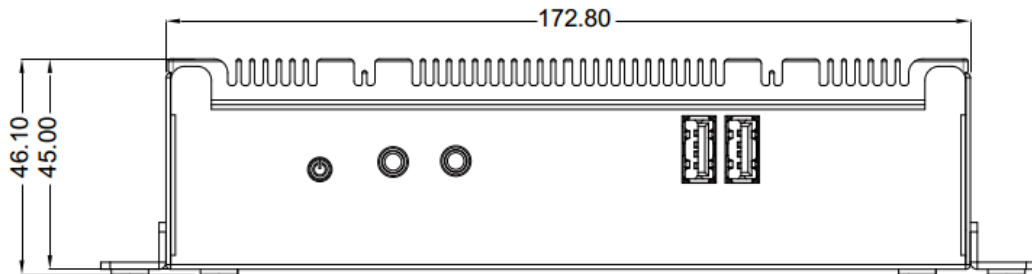
This hole is reserved for antenna SMA connector .

If customer select a 3G or a WIFI module , there will be SMA connectors.

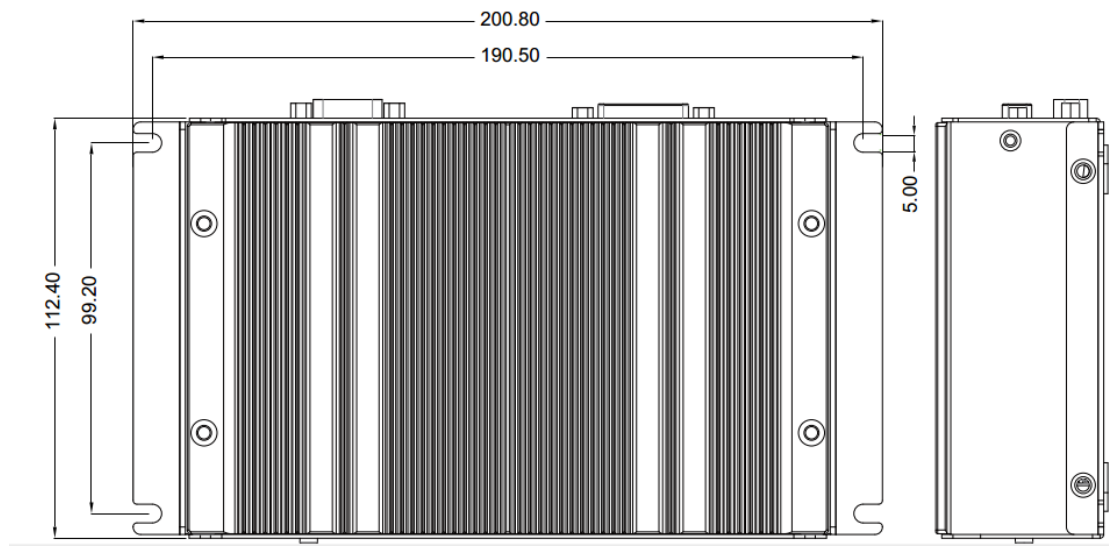
If customer doesn't select any wireless module, this hole will be reserved.

1.5 Mechanical Dimension

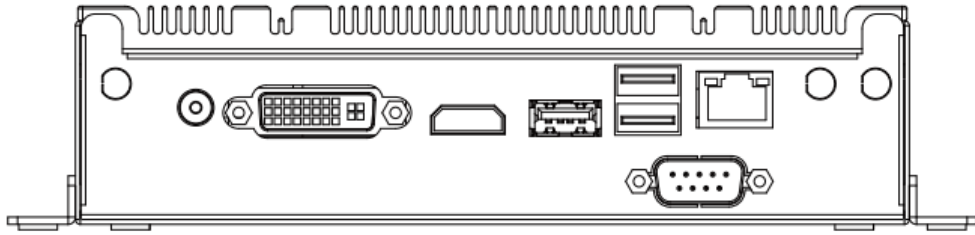
■ Front Side Dimension



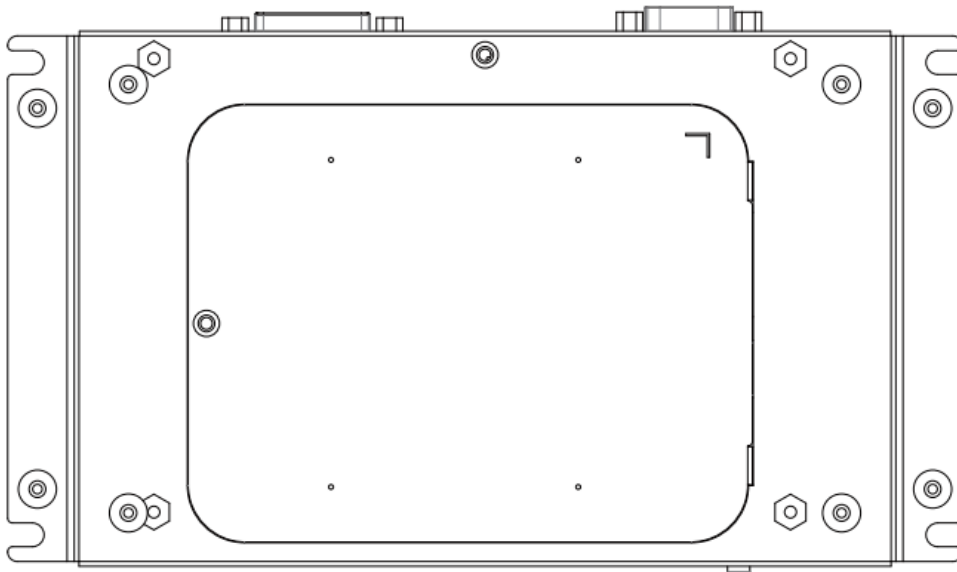
■ Top Side Dimension



■ **Back Side Dimension**



■ **Bottom Side Dimension**



Chapter2. System Setup

2.1 Installation Procedure

1. Connecting Power Cord

The BOX PC can only be powered through an DC electrical outlet (12 V).

Be sure to handle the power cord by holding the plug end only.

Follow these procedures to connect the power cord:

- (1) Connect the male end of the power cord to the DC-In connector of BOX PC.
- (2) Connect another male plug of the power cord to an electrical outlet.



2. Connecting Keyboard and Mouse and Monitor

Connect the mouse and keyboard to the USB connector of BOX PC.

Connect the Monitor to the HDMI or DVI-I port.

3. Switching on Power

The power button is located at the left side on the front cover of BO PC.

2.2 Installing Change 2.5" HDD/SSD



Step 1. Unfasten the screw on the bottom of the BOX PC



Step 2. Open the bottom cover of the BOX PC.

Step 3. Unplug the SATA and SATA power cable.

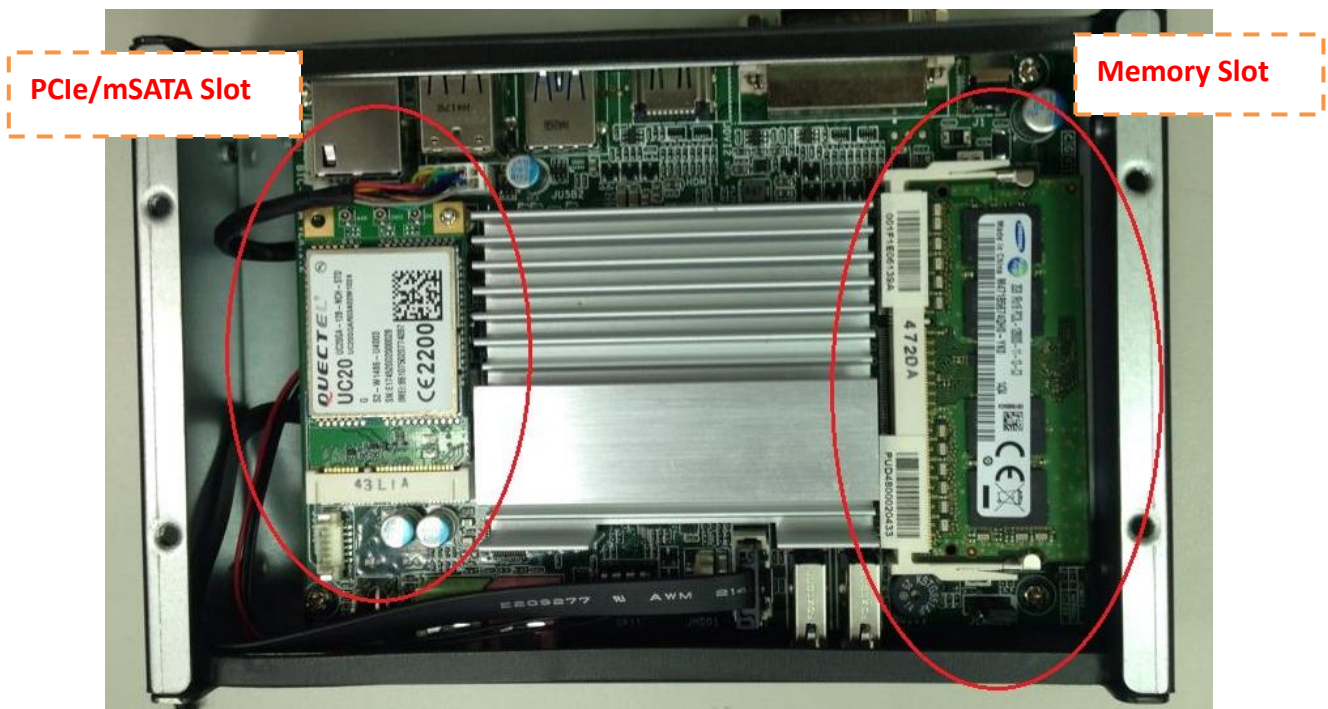


Step 4 . Unfasten the 4 screws on the HDD bracket and install a new one.

2.3 Installing Memory / mSATA SSD/ PCIe Module



Step 1. Unfasten the 4 screws on the top of the BOX PC.



Step 2. You will see a **Memory (slot)** and a **PCIe (card/slot)** .

Step 3. **PCIe slot:** It allows user to install either mSATA SSD or PCIe card(USB signal).

Memory slot: It allows users to install SO-DIMM SDRAM DDR3L only.

2.4 Installing Mounting Bracket



Install the mounting bracket on the left side and right side of the BOX PC.



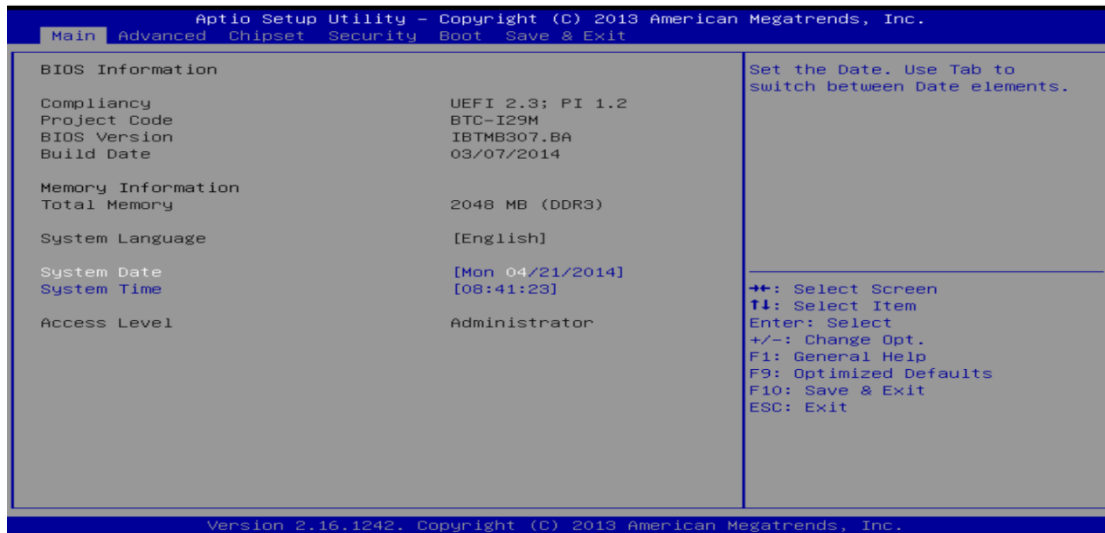
Warning !

Be sure to tighten the total 4 screws on the bracket.

Chapter 3. BIOS Setting

3.1 Main Menu

Once you enter AMI UEFI BIOS Setup Utility, the Main Menu will appear on the screen providing an overview of the basic system information.



BIOS Information

Shows system information including UEFI BIOS version, model name, marketing name, built date, etc.

Total Memory

Shows system memory size, VGA shard memory will be excluded.

System Date

Set the system date. Note that the 'Day' automatically changes when you set the date.

System Time

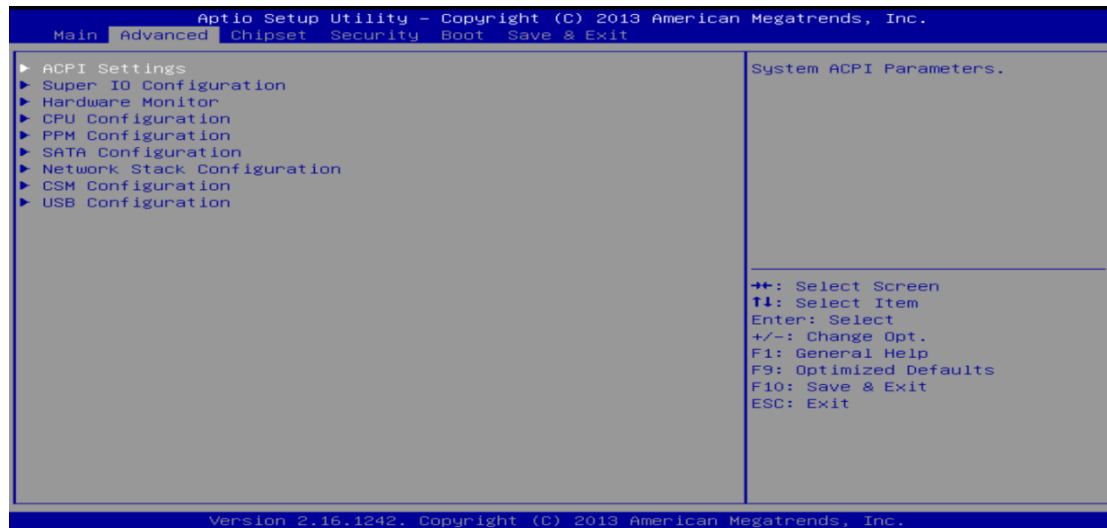
Set the system internal clock.

Access Level

Shows the access level of current user.

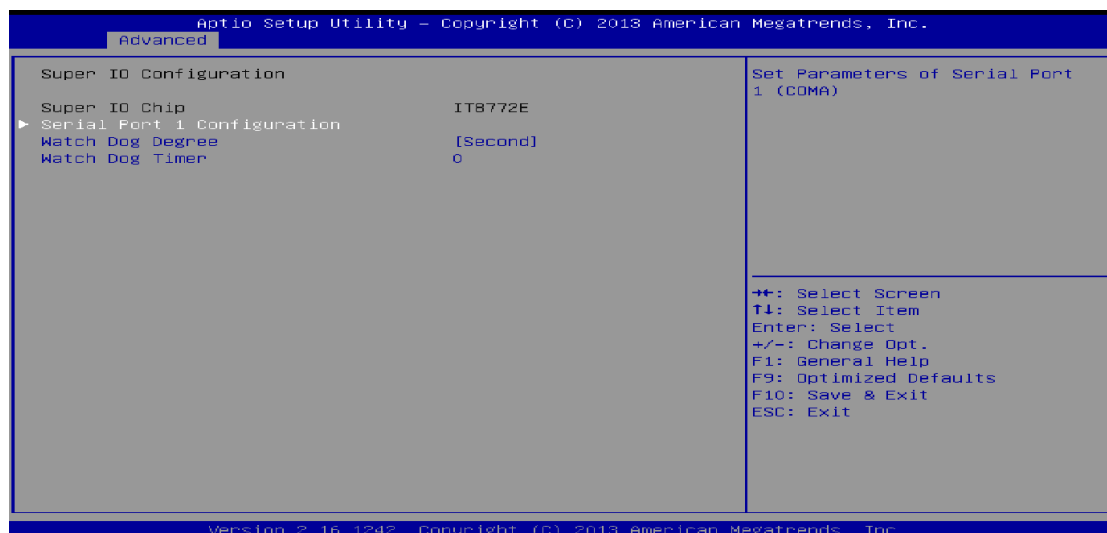
3.2 Advanced Menu

The Advanced Menu allows you to configure the settings of CPU, Super I/O, Power Management, and other system devices.



1. Beware of that setting inappropriate values in items of this menu may cause system to malfunction.
2. The options and default settings might be different by RAM or CPU models.

3.2.1 Super IO Configuration



Serial Port 1 Configuration

Serial Port

This item enables or disables Serial Port (COM).

Options: Enabled (Default) / Disabled

Change Settings

This item allows you to select an optimal setting for Super IO device.

Options: Auto (Default) / IO=3F8h; IRQ=4 / IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12 / IO=2F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12 / IO=3E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12 / IO=2E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12

Watch Dog Degree

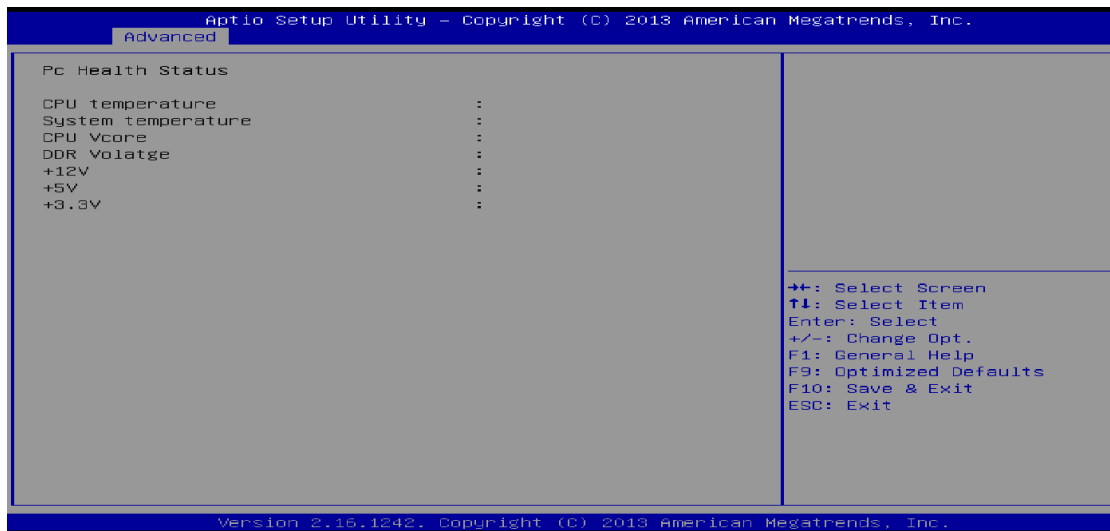
This item allows you to determine the functional degree of Watch Dog.

Options: Second (Default) / Minute

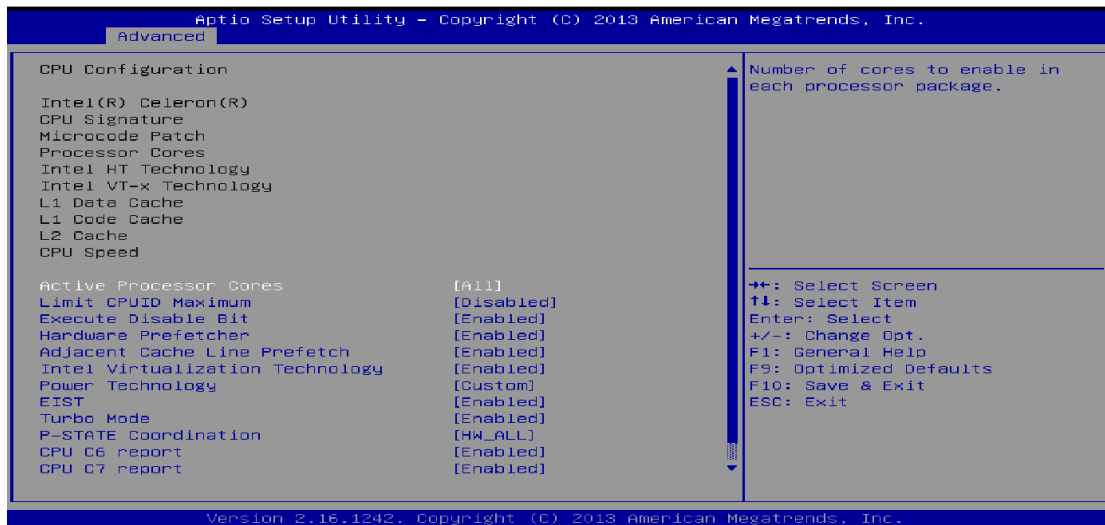
Watch Dog Timer

Options: 0 for disabled (Default) / Min=1, Max=65535

3.2.2 HW monitor



3.2.3 CPU Configuration



Active Processor Cores

This item sets number of cores to enable in each processor package

Options: All (Default) / 1

Limit CPUID Maximum

When the computer is booted up, the operating system executes the CPUID instruction to identify the processor and its capabilities. Before it can do so, it must first query the processor to find out the highest input value CPUID recognizes. This determines the kind of basic information CPUID can provide the operating system.

Options: Disabled (Default) / Enabled

Execute-Disable Bit

XD can prevent certain classes of malicious buffer overflow attacks when combined with a supporting OS (Windows Server 2003 SP1, Windows XP SP2, SuSE Linux 9.2, RedHat Enterprise 3 Update 3.).

Options: Enabled (Default) / Disabled

Hardware Prefetcher

The processor has a hardware prefetcher that automatically analyzes its requirements and prefetches data and instructions from the memory into the Level 2 cache that are likely to be required in the near future. This reduces the latency associated with memory reads.

Options: Enabled (Default) / Disabled

Adjacent Cache Line Prefetch

The processor has a hardware adjacent cache line prefetch mechanism that automatically fetches an extra 64-byte cache line whenever the processor requests for a 64-byte cache line. This reduces cache latency by making the next

cache line immediately available if the processor requires it as well.

Options: Enabled (Default) / Disabled

Intel Virtualization Technology

Virtualization Technology can virtually separate your system resource into several parts, thus enhance the performance when running virtual machines or multi interface systems.

Options: Enabled (Default) / Disabled

Power Technology

This item enables or disables the power management features.

Options: Custom (Default) / Disable / Energy Efficient

EIST

This item enables or disables Intel SpeedSteps.

Options: Enabled (Default) / Disabled

Turbo Mode

This item enables or disables Turbo Mode

Options: Enabled (Default) / Disabled

P-STATE Coordination

This item changes P-STATE Coordination.

Options: HW_ALL (Default) / SW_ALL / SW_ANY

CPU C6 Report

This item enables or disables CPU C6 (ACPI C3) report to OS.

Options: Enabled (Default) / Disabled

CPU C7 Report

This item enables or disables CPU C7 (ACPI C3) report to OS.

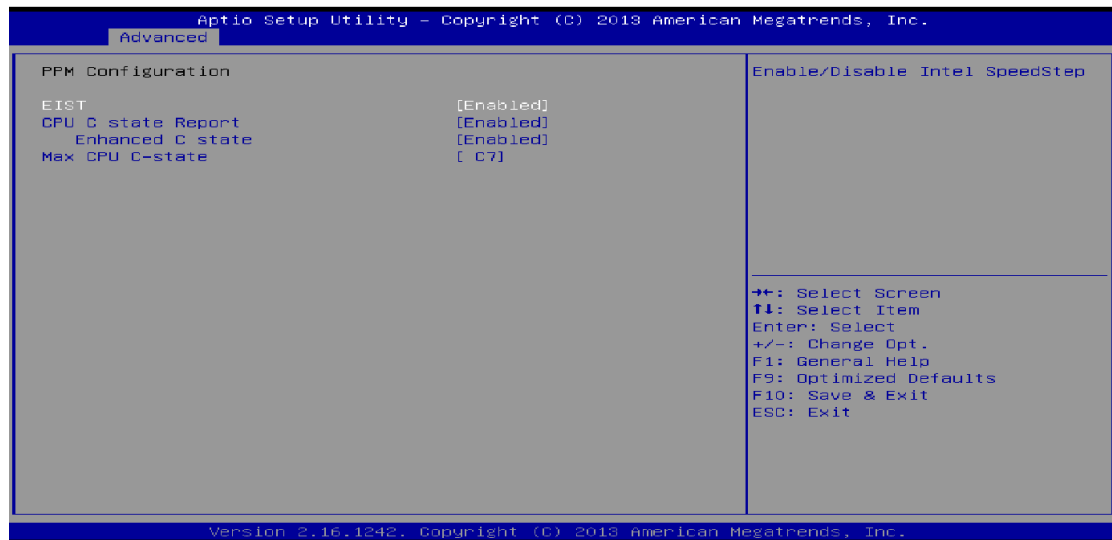
Options: Enabled (Default) / Disabled

Package C state limit

This item enables or disables package C state limit

Options: No Limit (Default) / C0 / C1 / C3 / C6 / C7

3.2.4 PPM Configuration



EIST

This item enables or disables Intel SpeedSteps.

Options: Enabled (Default) / Disabled

CPU C state Report

This item enables or disables CPU C state report to OS.

Options: Enabled (Default) / Disabled

Enhanced C state

This item enables or disables Enhanced CPU C state

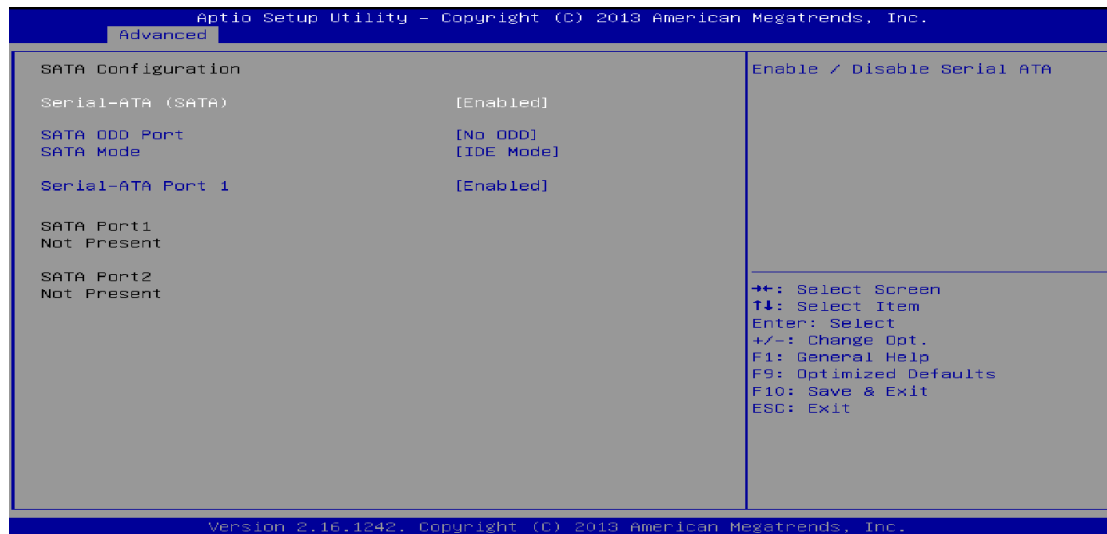
Options: Enabled (Default) / Disabled

Max CPU C-state

This option controls Max C state that the processor will support.

Options: C7 (Default) / C6 / C1

3.2.5 SATA Configuration



Serial-ATA (SATA)

This item enables/disables Serial ATA Device.

Options: Enabled (Default) / Disabled

SATA ODD Port

This item selects SATA ODD Port

Options: No ODD (Default) / Port0 ODD / Port1 ODD

SATA Mode

This item determines how SATA controller(s) operate.

Options: IDE (Default) / AHCI

Serial-ATA Port 1

This item enables/disables Serial ATA Port 1

Options: Enabled (Default) / Disabled

3.2.6 Network Stack Configuration



Network Stack

This item enables or disables UEFI network stack

Options: Disabled (Default) / Enabled

Note: The following items appear only when you set the Network Stack function to [Enabled]

IPv4 PXE Support

This item enables or disables IPv4 PXE Boot Support. If disabled IPv4 boot option will not be created.

Options: Enabled (Default) / Disabled

IPv6 PXE Support

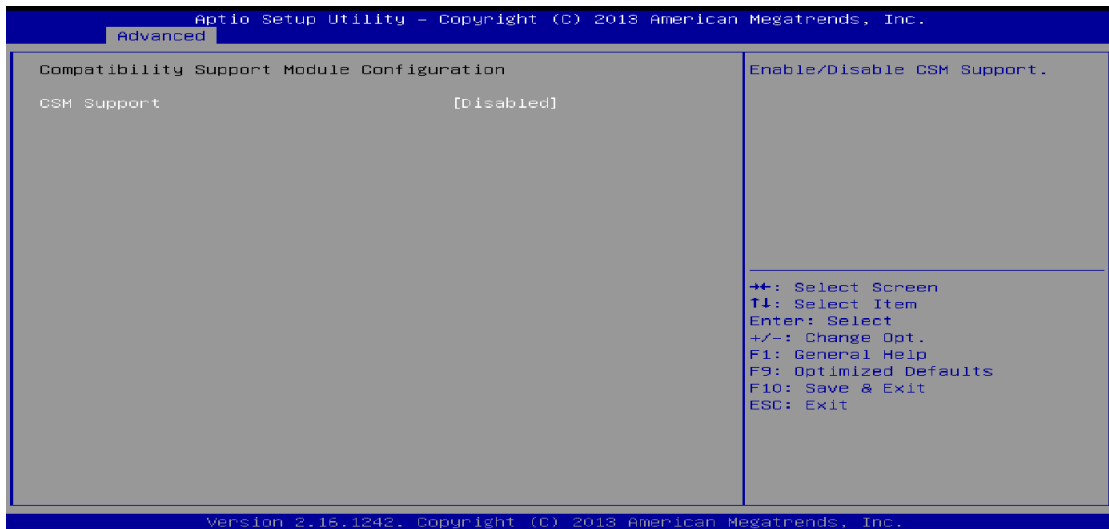
This item enables or disables IPv6 PXE Boot Support. If disabled IPv6 boot option will not be created.

Options: Enabled (Default) / Disabled

PXE boot wait time

Wait time to press ESC key to abort the PXE boot.

3.2.7 CSM Configuration



CSM Support

This item enables or disables CSM Support

Options: Disabled (Default) / Enabled

Note: The following items appear only when you set the CSM Support to [Enabled]

GateA20 Active

Upon Request – FA20 can be disabled using BIOS services. Always – do not allow disabling GA20; this option is useful when any RT code is executed above 1MB

Options: Upon Request (Default) / Always

Option ROM Messages

This item sets the display mode for option ROM.

Options: Force BIOS (Default) / Keep Current

INT19 Trap Response

BIOS reaction on INT19 trapping by Option ROM: IMMEDIATE – execute the trap right away; POSTPONED – execute the trap during legacy boot.

Options: Immediate (Default) / Postponed

Boot option filter

This option controls what devices system can boot to.

Options: Legacy only (Default) / UEFI and Legacy / UEFI only

Network

This option controls the execution of UEFI and Legacy PXE OpROM

Options: Legacy only (Default) / Do not launch / UEFI only / Legacy first / UEFI first

Storage

This option controls the execution of UEFI and Legacy Storage OpROM
Options: Legacy only (Default) / Do not launch / UEFI only / Legacy first / UEFI first

Video

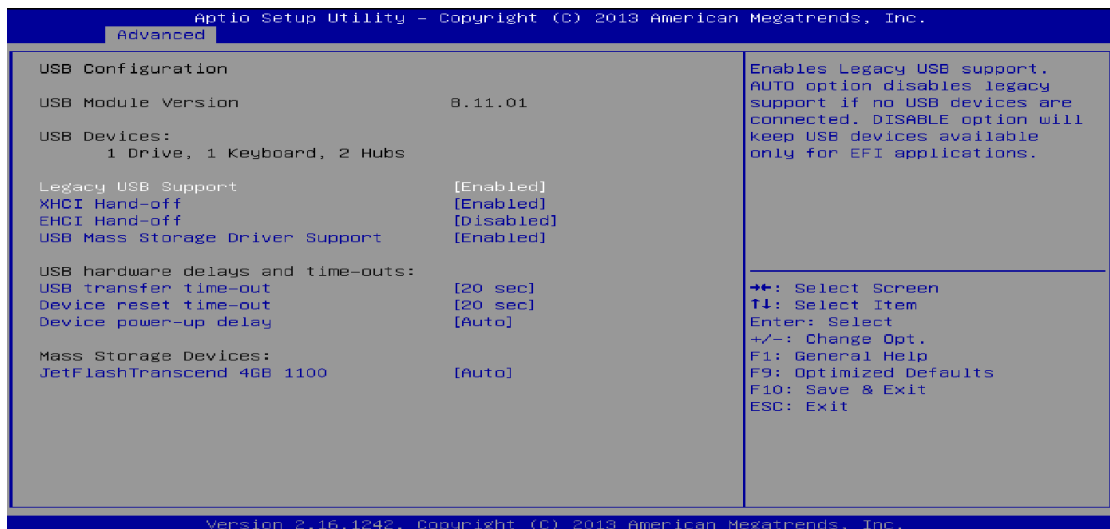
This option controls the execution of UEFI and Legacy Video OpROM
Options: Legacy only (Default) / Do not launch / UEFI only / Legacy first / UEFI first

Other PCI devices

For PCI devices other than Network, Mass storage or video defines which OpROM to launch.

Options: Legacy only (Default) / UEFI first

3.2.2 USB Configuration



Legacy USB Support

This item determines if the BIOS should provide legacy support for USB devices like the keyboard, mouse, and USB drive. This is a useful feature when using such USB devices with operating systems that do not natively support USB (e.g. Microsoft DOS or Windows NT).

Options: Enabled (Default) / Disabled / Auto

XHCI Hand-Off

This is a workaround for OSeS without XHCI hand-off support. The XHCI ownership change should be claimed by XHCI driver.

Options: Enabled (Default) / Disabled

EHCI Hand-Off

This is a workaround for OSeS without EHCI hand-off support. The EHCI ownership change should be claimed by EHCI driver.

Options: Disabled (Default) / Enabled

USB Mass Storage Driver Support

The item allows you to enable or disable USB Mass Storage Driver Support.

Options: Enabled (Default) / Disabled

USB transfer time-out

The time-out value for Control, Bulk, and Interrupt transfers.

Options: 20 sec (Default) / 1 sec / 5 sec / 10 sec

Device reset time-out

The item sets USB mass storage device Start Unit command time-out.

Options: 20 sec (Default) / 10 sec / 30 sec / 40 sec

Device power-up delay

“Auto” uses default value: for a Root port it is 100ms, for a Hub port the delay is taken from Hub descriptor.

Options: Auto (Default) / Manual

Device power-up delay in seconds

Delay range is 1 ~ 40 seconds, in one second increments.

Options: 5 (Default)

3.3 Chipset Menu

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own special components.



3.3.1 North Bridge

Intel IGD Configuration

Integrated Graphics Device

Enable: Enable Integrated Graphics Device (IGD) when selected as the Primary Video Apaptor.

Disable: Always disable IGD.

Options: Enabled (Default) / Disabled

IGD Turbo Enable

Enable: Enable IGD Turbo Enable. Disable: Enable IGD Turbo Disable.

Options: Enabled (Default) / Disabled

Primary Display

This item selects which of IGD/PCI Graphics device should be Primary Display.

Options: IGD (Default) / Auto / PCI / SG

GFX Boost

This item enables or disables GFX Boost.

Options: Disabled (Default) / Enabled

PAVC

This item enables or disables Protected Audio Video Control

Options: LITE Mode (Default) / Disabled / SERPENT Mode

DVMT Pre-Allocated

This item selects DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used

by the Internal Graphics Device

Options: 64M (Default) / 96M / 128M / 160M / 192M / 224M / 256M / 288M / 320M / 352M / 384M / 416M / 448M / 480M / 512M

DVMT Total Gfx Mem

This item selects DVMT5.0 Total Graphic Memory size used by the Internal Graphics Device.

Options: 256MB (Default) / 128MB / MAX

Aperture Size

This item selects the Aperture Size.

Options: 256MB (Default) / 128MB / 512MB

GTT Size

This item selects the GTT Size.

Options: 2MB (Default) / 1MB

VCC_Vnn Config for Power state2

This item enables or disables Vcc Vnn Config for power state2

Options: Disabled (Default) / Enabled

RC6 (Render Standby)

This item enables or disables render standby support.

Options: Enabled (Default) / Disabled

LCD Control

Boot Display Device

This item allows you to select the display device.

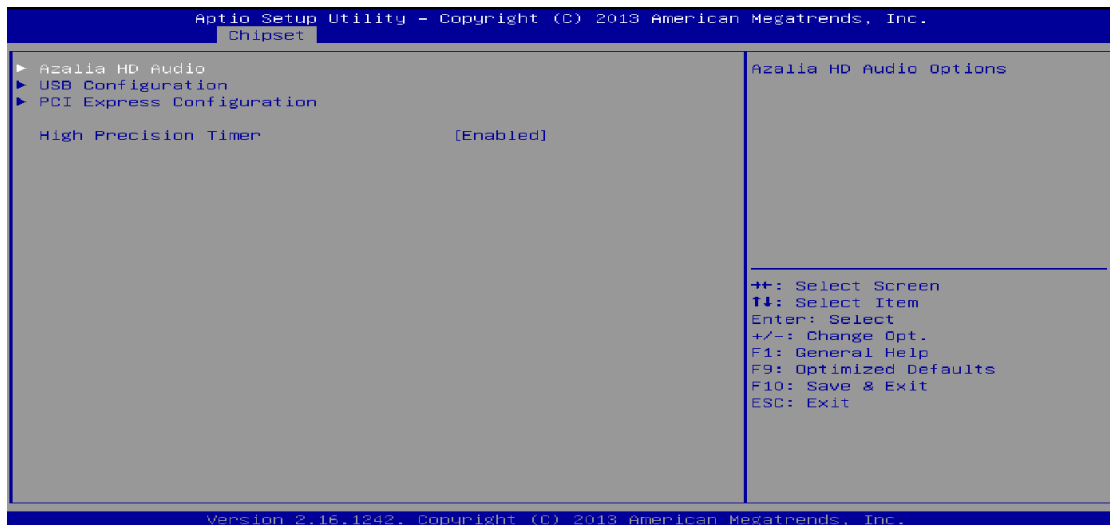
Options: Auto (Default)

Max TOLUD

This item sets maximum value of TOLUD.

Options: Dynamic (Default) / 1GB / 1.25GB / 1.5GB / 1.75GB / 2GB / 2.25GB / 2.5GB / 2.75GB / 3GB

3.3.2 South Bridge



Azalia HD Audio

Azalia Controller

This item controls 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.

Options: Enabled (Default) / Disabled

Azalia HDMI Codec

This item enables or disables internal HDMI codec for Azalia.

Options: Enabled (Default) / Disabled

HDMI Port B/C

This item enables or disables HDMI Port B/C.

Options: Enabled (Default) / Disabled

Audio AMP output

This item selects Audio AMP output dB value.

Options: 11dB (Default) / 14dB / 19dB / 25dB

USB Configuration

XHCI Mode

The item selects Mode of operation of xHCI controller.

Options: Smart Auto (Default) / Auto / Enabled / Disabled

USB 2.0(EHCI) Support

This item controls the USB EHCI (USB 2.0) functions. One EHCI controller must always be enabled.

Options: Disabled (Default) / Enabled

USB Per Port Control

Control each of the USB ports (0-3). Enable: Enable USB per port; Disable: Use

USB port X settings.

Options: Enabled (Default) / Disabled

USB Port 0/1/2/3

This item enables or disables USB Port 0.

Options: Enabled (Default) / Disabled

PCI Express Configuration

Onboard LAN

This item enables or disables Onboard PCIE LAN.

Options: Enabled (Default) / Disabled

Onboard LAN Option ROM

This item enables or disables the Boot Option for Legacy Network Devices.

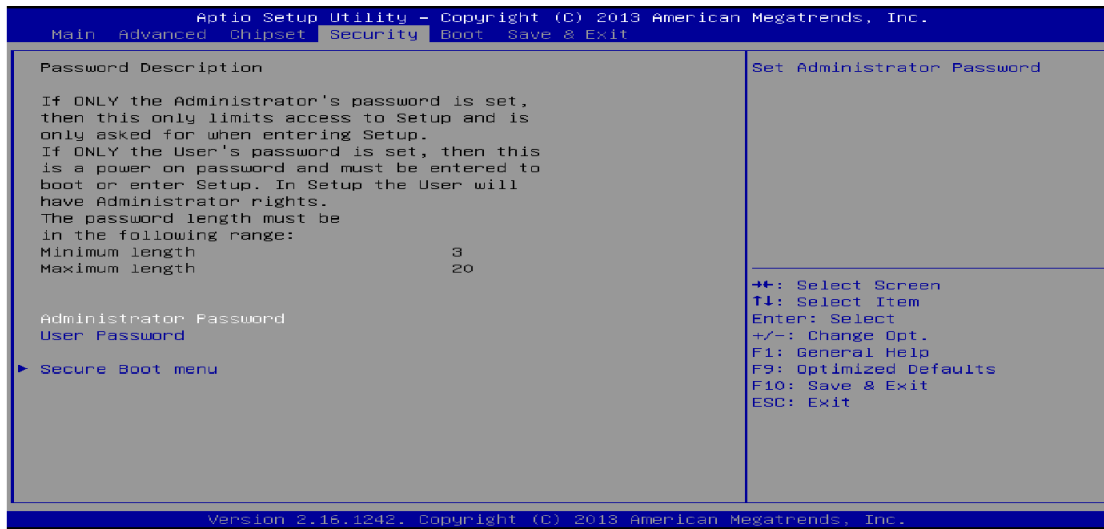
Options: Disabled (Default) / Enabled

High Precision Timer

This item enables or disables the High Precision Event Timer.

Options: Enabled (Default) / Disabled

3.4 Security Menu



Administrator Password

This item sets Administrator Password.

User Password

This item sets User Password.

Secure Boot

Secure Boot can be enabled if 1. System running in user mode with enrolled Platform Key(PK) 2.CSM function is disabled.

Options: Disable (Default) / Enabled

Key Management

Enroll All Factory Default Keys

It allows you to immediately load/clear the default Security Boot keys, Platform key (PK), Key-exchange Key (KEK), Signature database (db), and Revoked Signatures (dbx). The Platform Key (PK) state will change from Unloaded mode to Loaded mode. The settings are applied after reboot or at the next reboot.

Platform Key (PK)

Delete PK – Allows you to delete the PK file from your system.

Set new PK – Allows you set new PK file.

Key Exchange Key Database (KEK)

Delete KEK – Allows you to delete the KEK file from your system.

Set new KEK – Allows you set new KEK file.

Append Var to KEK – Allows you append Var to KEK.

Authorized Signature Database (DB)

Delete DB – Allows you to delete the DB file from your system.

Set new DB – Allows you set new DB file.

Append Var to DB – Allows you append Var to DB.

Authorized Timestamps Database (DBT)

Delete DBT – Allows you to delete the DBT file from your system.

Set new DBT – Allows you set new DBT file.

Append Var to DBT – Allows you append Var to DBT.

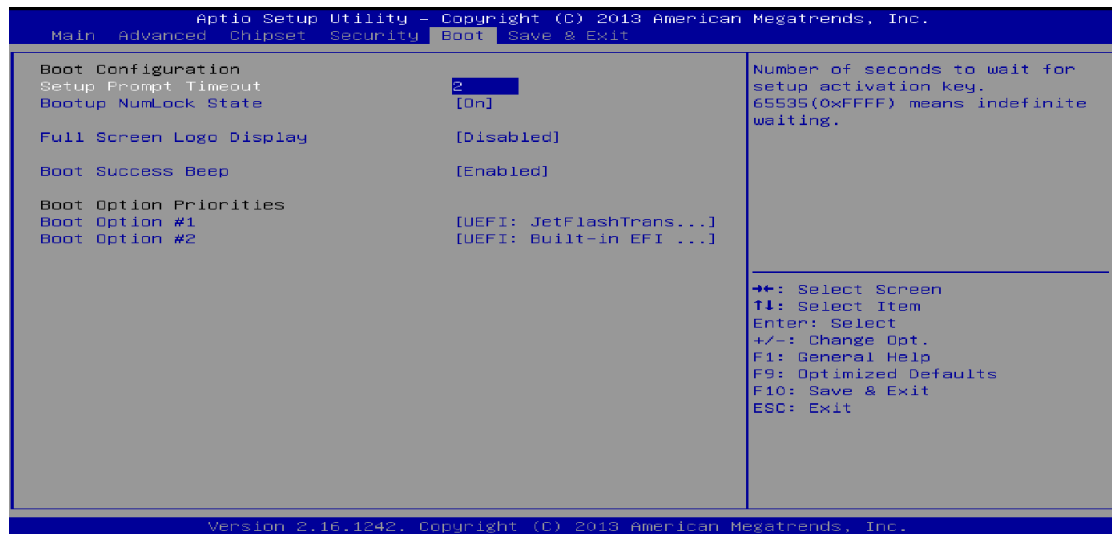
Forbidden Signature Database (DBX)

Delete DBX – Allows you to delete the DBX file from your system.

Set new DBX – Allows you set new DBK file.

Append Var to DBX – Allows you append Var to DBX.

3.5 Boot Menu



Setup Prompt Timeout

This item sets number of seconds to wait for setup activation key.

Options: 2 (Default)

Bootup NumLock State

This item selects the keyboard NumLock state.

Options: On (Default) / Off

Full Screen Logo Display

This item allows you to enable/disable Full Screen Logo Show function.

Options: Disabled (Default) / Enabled

Boot Success Beep

When this item is set to Enabled, BIOS will let user know boot success with beep.

Options: Enabled (Default) / Disabled

Boot Option

The items specify the boot device priority sequence from the available devices.

The number of device items that appears on the screen depends on the number of devices installed in the system.

3.6 Exit Menu

This menu allows you to load the optimal default settings, and save or discard the changes to the BIOS items



Discard Changes and Exit

Abandon all changes made during the current session and exit setup.

Save Changes and Reset

Reset the system after saving the changes.

Restore Defaults

This selection allows you to reload the BIOS when problem occurs during system booting sequence. These configurations are factory settings optimized for this system.

About Arestech

Arestech, founded in 2010, employs a highly talented R&D team with over a decade of product development experience in intelligent embedded computing.

With our dynamic expertise in the embedded market, Arestech offers a full range of intelligent systems, including embedded Box PCs, industrial multi-touch displays and multi-touch Panel PCs.

Arestech's dedication to product development is matched by its commitment to world class customer support with a minimum 5-year product lifecycle plan, product longevity, and added value for our partners.

Additionally, Arestech strategically aligns itself with key industry software and system integration partners to deliver top-notch design services and turnkey solutions, enabling our partners to better build and grow their businesses.

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