



®

AXIOMTEK

MPC152-832

**All-in-One
15" XGA TFT Fanless Medical Touch
PanelComputer with Intel® Atom™
D2550 Processor Onboard**

User's Manual



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CAUTION

If you replace wrong batteries, it causes the danger of explosion. It is recommended by the manufacturer that you follow the manufacturer's instructions to only replace the same or equivalent type of battery, and dispose of used ones.

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Safety Precautions

Before getting started, read the following important cautions.

1. Be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and place all electronic components in any static-shielded devices. Most electronic components are sensitive to static electrical charge.
2. Disconnect the power cords from the MPC152-832 Series before making any installation. Be sure both the system and the external devices are turned OFF. Sudden surge of power could ruin sensitive components. Make sure the MPC152-832 Series is properly grounded.
3. Do not open the system's top cover. If opening the cover for maintenance is a must, only a trained technician is allowed to do so. Integrated circuits on computer boards are sensitive to static electricity. To avoid damaging chips from electrostatic discharge, observe the following precautions:
 - Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This will help to discharge any static electricity on your body.
 - When handling boards and components, wear a wrist-grounding strap, available from most electronic component stores.

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Chapter 1

Introduction

This chapter contains general information and detailed specifications of the MPC152-832. Chapter 1 includes the following sections:

- General Description
- Specifications
- Dimensions
- I/O Outlets
- Package List

1.1 General Description

The MPC152-832 is a fan-less and compact-size medical touch panel computer, equipped with a 15" TFT LCD display and low power consumption Intel® Atom™ D2550 1.86GHz processor. The MPC152-832 supports Windows® 7 32-bit and Windows® 7 embedded. The panel computer is able to install a CompactFlash™ card and provide a Mini card slot for wireless module. Its excellent ID and friendly user interface make it a professional yet easy-to-use panel computer. The MPC152-832 is an ideal for space-limited in medical application.

MPC152-832: 15" TFT XGA Fanless Medical Touch Panel Computer

- **Reliable and Stable Design**
The MPC152-832 adopts a fanless cooling system and a CompactFlash™ card, which makes it suitable for vibration environments.
- **Embedded O.S. Supported**
The MPC152-832 not only supports Windows 7 32-bit, but also supports embedded OS,. For storage device, the MPC152-832 supports CompactFlash™ card and 2.5" SATA device.
- **Medical-grade Product Design**
The MPC152-832 has an incredible design to be used in different medical environments.

The front bezel meets the IP65 and whole enclosure meets IPX1 standard.

For connecting other devices, the MPC152-832 also features several interfaces: USB, Ethernet, and RS-232/422/485.

1.2 Specifications

Main CPU Board

- **CPU**
 - Intel® Atom™ D2550 1.86GHz processor onboard.
- **System Chipset**
 - Intel® NM10 Express
- **System Memory**
 - One 204-pin DDR3 SO-DIMM socket
 - Maximum memory up to 4GB
- **BIOS**
 - America Megatrends BIOS

I/O System

- **Standard I/O**
 - One RS-232/422/485
 - One isolated RS-232 with 4KV
 - Four USB 2.0
 - One Audio Line-out
 - One Display Port
- **Ethernet**
 - 2 x 10/100/1000Mbps
- **Audio**
 - One Line out
- **Expansion**
 - One PCIe Mini card
- **Storage**
 - One slot for CF card
 - One 2.5" SATA HDD
- **Power connector**
 - MPC152-832-DC: 10VDC to 30VDC with phoenix power connector
 - MPC152-832-J: External 60W Medical AC Adapter with screw type connector

System Specification

- **15" XGA(1024x768) LCD with LED backlight**
- **5 wired Resistive Touch**
- **Fanless Heat Dispensing Design**
- **Disk drive housing:**
 - One 2.5" SATA drive
- **Net Weight**
 - 3.2 Kgs (7.05 lb)
- **Dimension (Main Body Size)**
 - 387.9 x 307.7 x 54.6mm
- **Operation Temperature**
 - 0°C to 40°C
- **Relative Humidity**
 - 10% to 90% @ 40°C, Non-Condensing
- **Vibration**
 - 2.0G, 5 to 500 Hz, 2.0 G random for CF card
- **Power input**
 - 10~30VDC with phoenix power connector*
 - External 60W Medical AC Adapter
 - Power Input: 90VAC to 264VAC
 - Power Output: 12VDC, Max. 5A



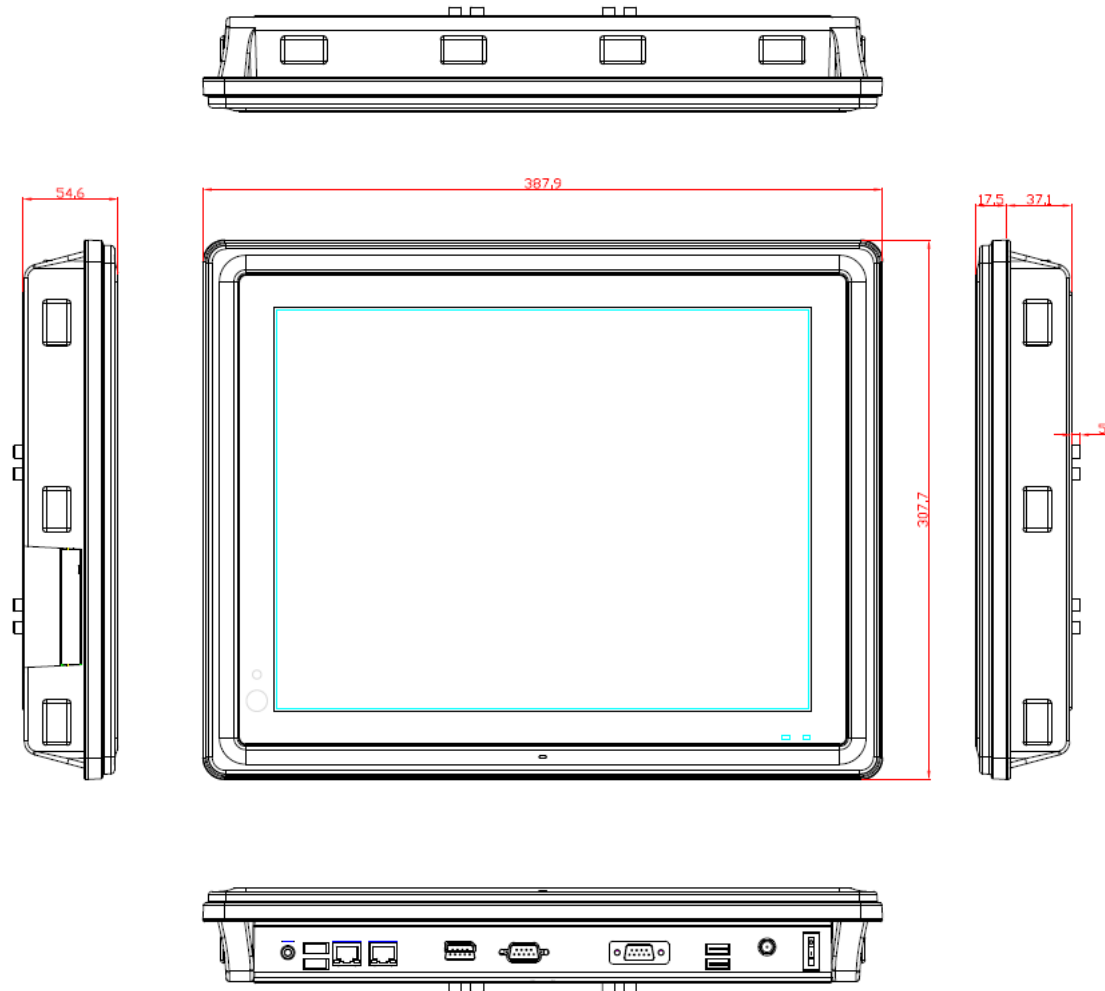
NOTE All specifications and images are subject to change without notice.

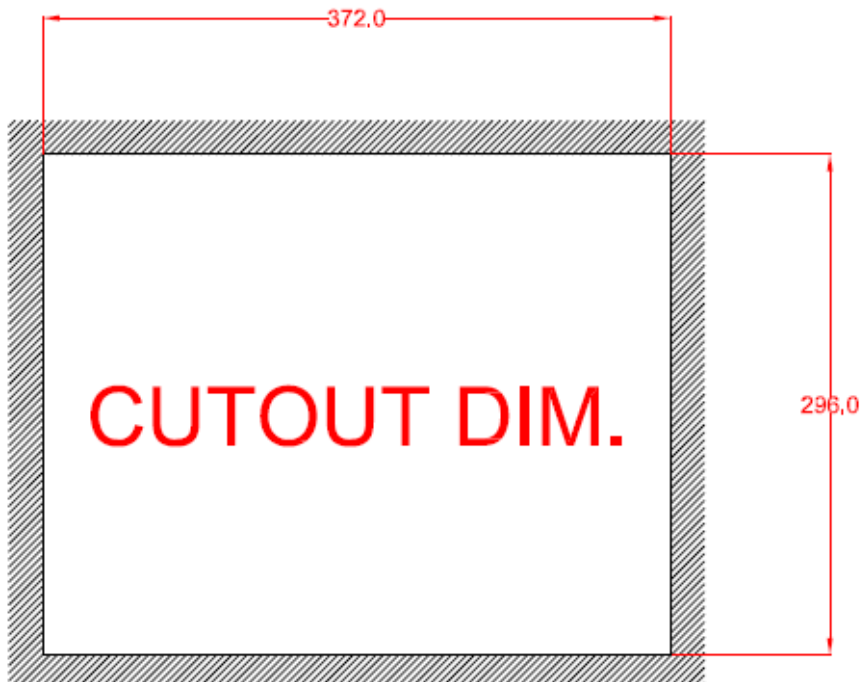
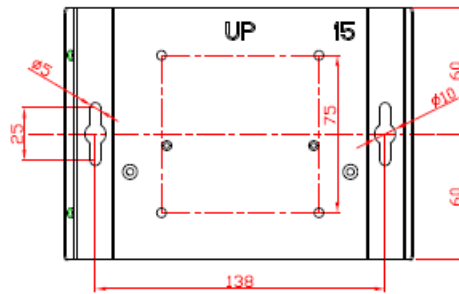
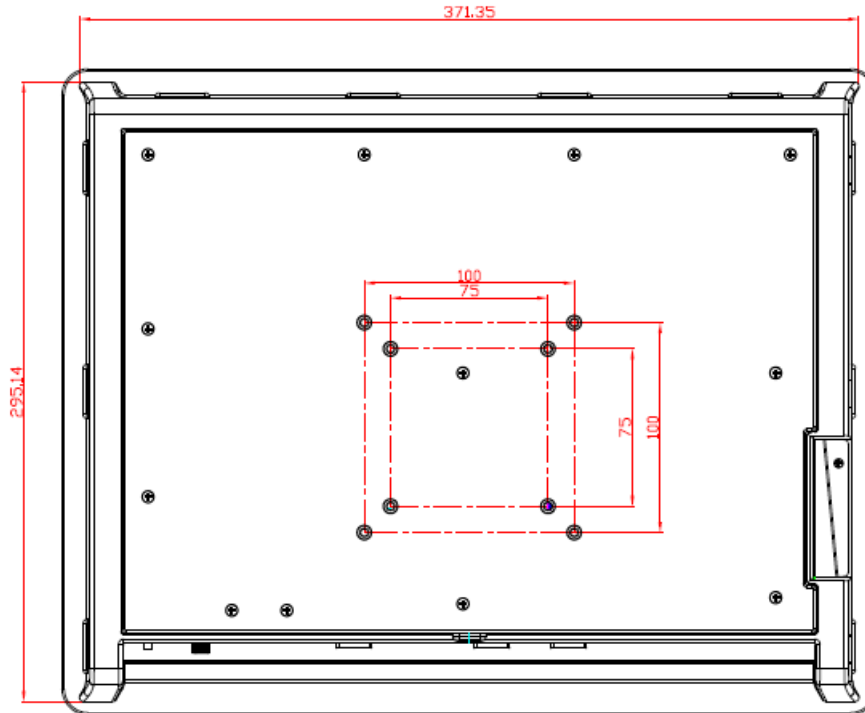


NOTE The DC power source to be used with MPC152-832 must be galvanically isolated according to IEC60601-1 safety of medical devices!

1.3 Dimensions

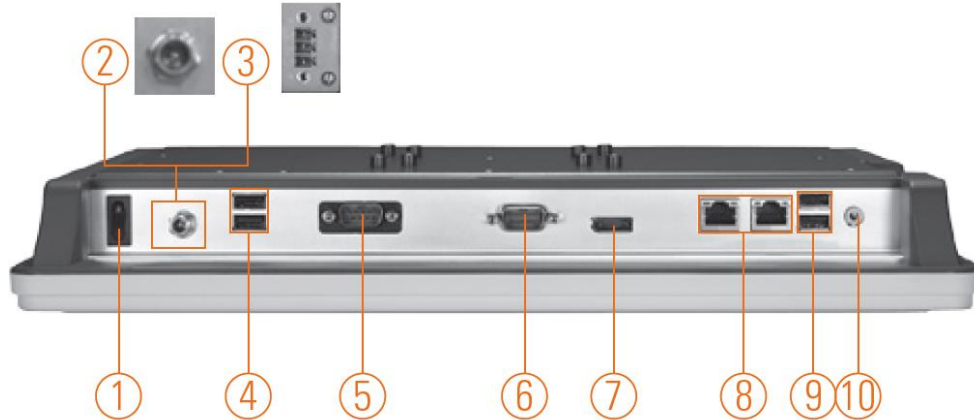
This diagram shows you dimensions and outlines of the MPC152-832.





1.4 I/O Outlets

Please refer to the following illustration for I/O locations of the MPC152-832.



No	Function	No	Function
1	POWER SWITCH (ATX)	6	COM 1 (RS-232/422/485)
2	Power Input connector (Screw)	7	Display Port
3	Power Input connector (Phoenix)	8	Ethernet (RJ-45)
4	Dual USB 2.0 ports	9	Dual USB 2.0 ports
5	Isolated COM 3(RS-232)	10	AUDIO (LINE-OUT)



No	Function	No	Function
11	Touch LED indicator	13	HDD & Power LED indicator
12	Touch on/off button		

1.5 Packing List

When you receive the MPC152-832, the bundled package should contain the following items:

- **MPC152-832 x 1**
- **Driver CD x1**
- **Wall-Mount Kit x1**
- **Screws for HDD x4**
- **Panel Mount Kit x 10 (optional)**
- **Phoenix connector x 1 (for MPC152-832-DC)**
- **Power Adapter & power cord (for MPC152-832-J)**

If you can not find the package or any items are missing, please contact Axiomtek distributors immediately.

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Chapter 2

Hardware and Installation

The MPC152-832 provides rich I/O ports and flexible expansions for you to meet different demand, for example, CF card. The chapter will show you how to install the hardware. It includes:

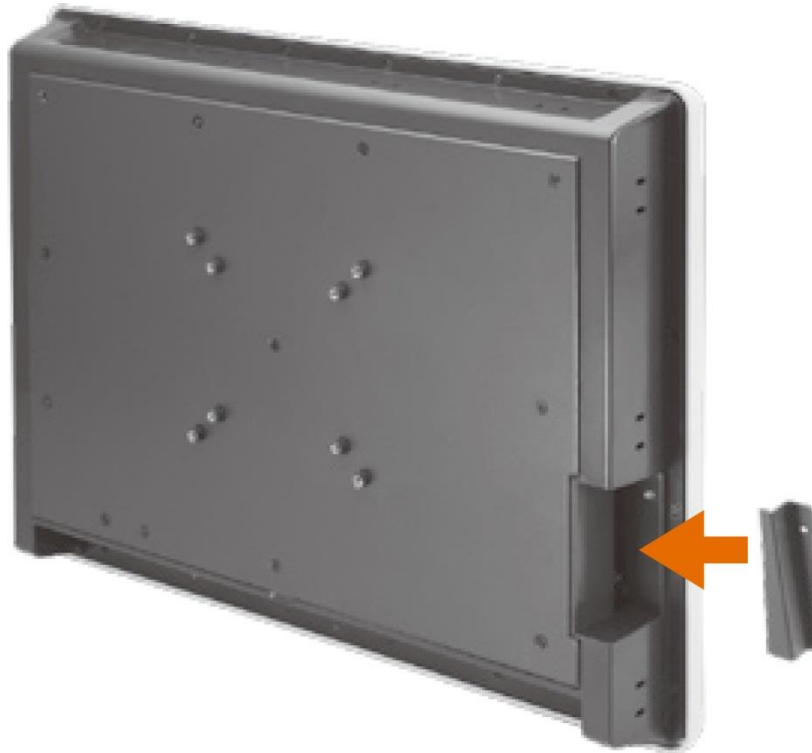
- **CompactFlash™ Card**
- **Jumper and Switch Setting & COM Port Connector**
- **Ethernet**
- **Mounting Way**
- **Hard disk**
- **DRAM**
- **Wireless LAN Card**
- **Power Input**

2.1 CF card Installation

The MPC152-832 provides one CF slot for users to install CompactFlash™ card. Please refer to the following instructions for installation:

Step 1 Turn off the system, and unplug the power cord.

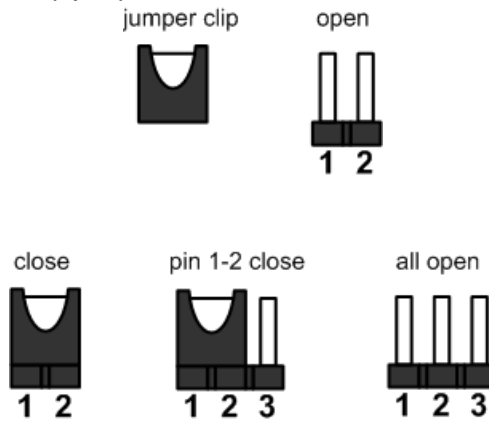
Step 2 Remove the cover of CF socket.



Step 3 Locate the CompactFlash™ socket, and insert the card into the socket.

2.2 Jumper and Switch Setting & COM port Connector

Jumper is a small component consisting of jumper clip and jumper pins. Install jumper clip on 2 jumper pins to close. And remove jumper clip from 2 jumper pins to open. The following illustration shows how to set up jumper.



Before applying power to MPC152-832, please make sure all of the jumpers and switch are in factory default position. Below you can find a summary table and onboard default settings.

Jumper	Description	Setting	
JP4	Auto Power On Default: Disable	2-3 close	
JP5	CF Voltage Selection Default: +3.3V	1-2 close	
JP6	Restore BIOS Optimal Defaults (Clear CMOS) Default: Normal Operation	1-2 close	
JP7	COM1 RS-232/422/485 Mode Setting Default: RS-232	3-5, 4-6 close	
JP8		3-5, 4-6 close	
JP9		1-2 close	
JP10	COM1 Data/Power Selection Default: RS-232 Data	Pin 1: DCD	3-5 close
		Pin 9: RI	4-6 close
JP11	COM2 Data/Power Selection Default: RS-232 Data	Pin 1: DCD	3-5 close
		Pin 9: RI	4-6 close
JP12	COM3 Data/Power Selection Default: RS-232 Data	Pin 1: DCD	3-5 close
		Pin 9: RI	4-6 close

2.2.1 COM1 Configuration(JP7, JP8, JP9)

The COM1~3 are a standard DB-9 connector. Those connectors are equipped with The MPC152-832 has three serial ports. COM1 is RS-232/422/485, while COM2 and COM3 are RS-232. The following table shows you set COM1 port mode:

Description	Jumper Setting		
RS-232 (Default)	<p>JP7</p>	<p>JP8</p>	<p>JP9</p>
RS-422	<p>JP7</p>	<p>JP8</p>	<p>JP9</p>
RS-485	<p>JP7</p>	<p>JP8</p>	<p>JP9</p>

2.2.2 COM port Power Configuration(JP10~JP12)

All of the serial ports can output data or power through jumper setting. The following table shows you how to do that.

Description	Jumper Setting
Pin1: DCD Pin9: RI (Default)	
Pin1: +5V Pin9: +12V	
Pin1: +5V Pin9: RI	
Pin1: DCD Pin9: +12V	



NOTE: Each port +5V Maximum: 2A, +12V Maximum: 1A.

2.2.3 Auto Power On (JP4)

If JP4 is enabled for power input, the system will be automatically power on without pressing soft power button. If JP4 is disabled for power input, it is necessary to manually press soft power button to power on the system.

Function	Setting
Enable auto power on	1-2 close
Disable auto power on (Default)	2-3 close



2.2.4 Restore BIOS Optimal Defaults (JP6)

Put jumper clip to pin 2-3 for a few seconds then move it back to pin 1-2. Doing this procedure can restore BIOS optimal defaults.

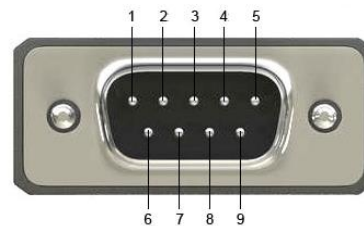
Function	Setting
Normal operation (Default)	1-2 close
Restore BIOS optimal defaults	2-3 close



2.2.5 COM port Connector

The pin assignment of RS-232/RS-422/RS-485 is listed on the following table. If you need COM1 port to support RS-422 or RS-485 mode, please refer to Jumper Settings

Pin	RS-232	RS-422	RS-485
1	DCD	TX-	Data-
2	RXD	TX+	Data+
3	TXD	RX+	No use
4	DTR	RX-	No use
5	GND	GND	GND
6	DSR	No use	No use
7	RTS	No use	No use
8	CTS	No use	No use
9	RI	No use	No use

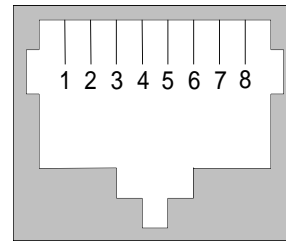


2.3 Ethernet

The **MPC152-832** is equipped with two high performance Plug and Play Ethernet interfaces, full compliant with IEEE 802.3 standard, and can be connected with a RJ-45 LAN connector.

Please refer to detailed pin assignment list below:

Pin	Signal
1	TX+ (Data transmission positive)
2	TX- (Data transmission negative)
3	Rx+(Data reception positive)
4	RJ45 termination
5	RJ45 termination
6	Rx- (Data reception negative)
7	RJ45 termination
8	RJ45 termination



RJ45

2.4 Mountings – Panel/Wall/Desktop/VESA

There are several mounting ways for the MPC152-832, Panel, Wall, Desktop and VESA mountings.

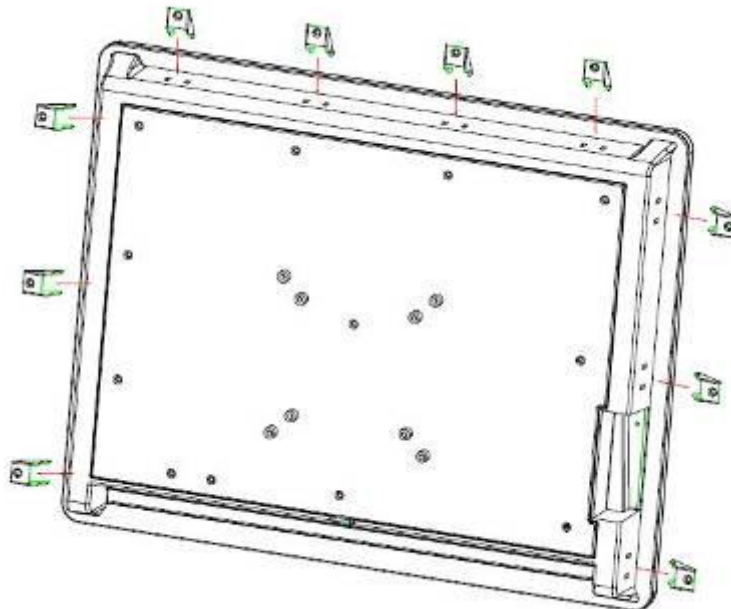
2.4.1 Panel Mounting (Optional)

The MPC152-832 is designed for panel mount application. A set of standard mounting kit are bundled with the system package that you can use it to mount the MPC152-832.

Step 1 Remove rubbers on panel mount holes.



Step 2 Use the panel mount kit to mount.

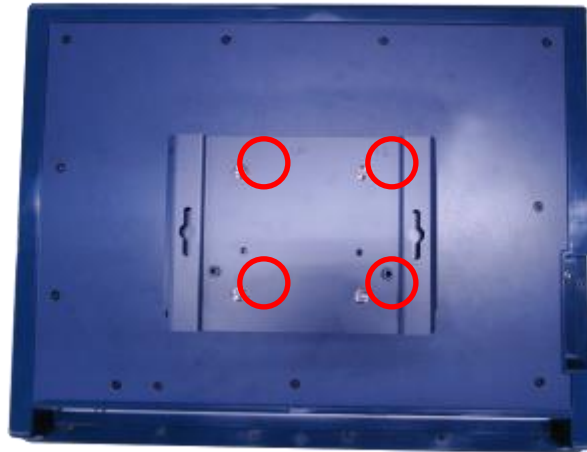


NOTE: If using panel mount, there is no IPX1 features for whole enclosure.

2.4.2 Wall-Mounting

The MPC152-832 is designed for Wall mounting application. Please refer to the following steps:

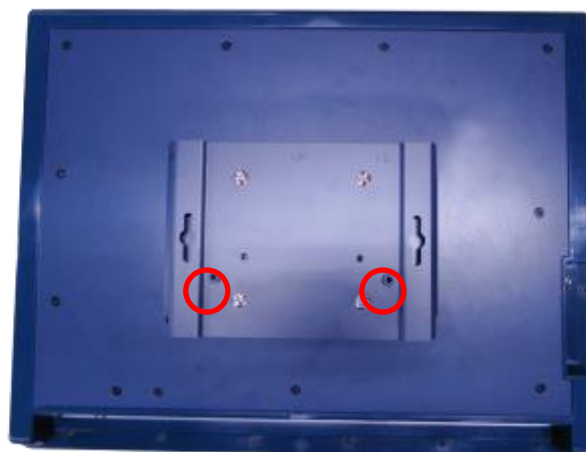
Fix wall mount bracket on the back of the unit.



2.4.3 Desktop-Mounting

The MPC152-832 is designed for desktop mounting application. Please refer to the following steps:

Step 1 Find out the screws as marked on the back side of chassis.



Step 2 Assemble the desktop stand to the chassis, and fix the screws.

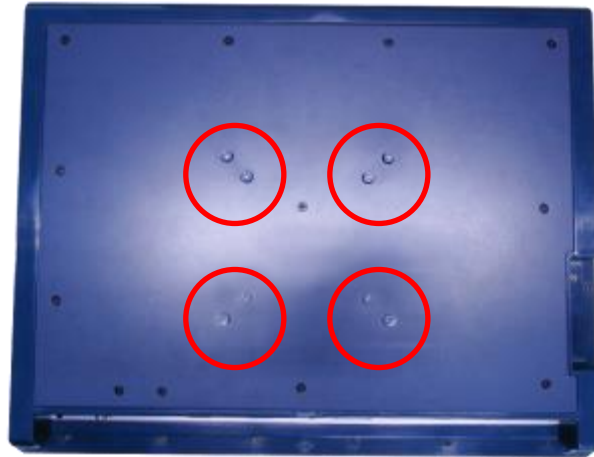


CAUTION : USE RECOMMENDED/SUITABLE MOUNTING APPARATUS TO AVOID RISK OF INJURY.

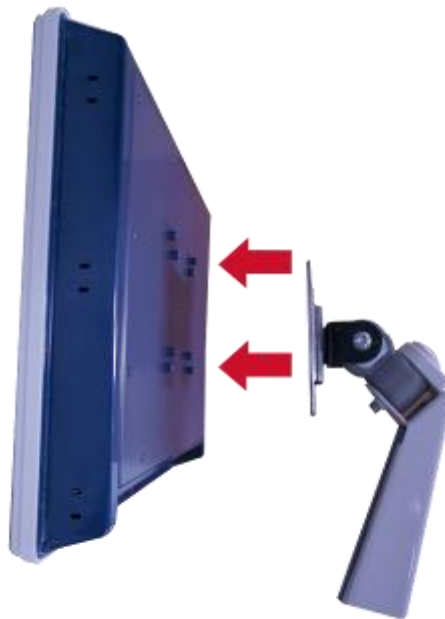
2.4.4 VESA-ARM Mounting

CAUTION : USE RECOMMENDED/SUITABLE MOUNTING APPARATUS TO AVOID RISK OF INJURY.

Step 1 Find out the screws as marked on the back side of chassis.



Step 2 Assemble the VESA-ARM to the back side of the chassis, and fix the screws.

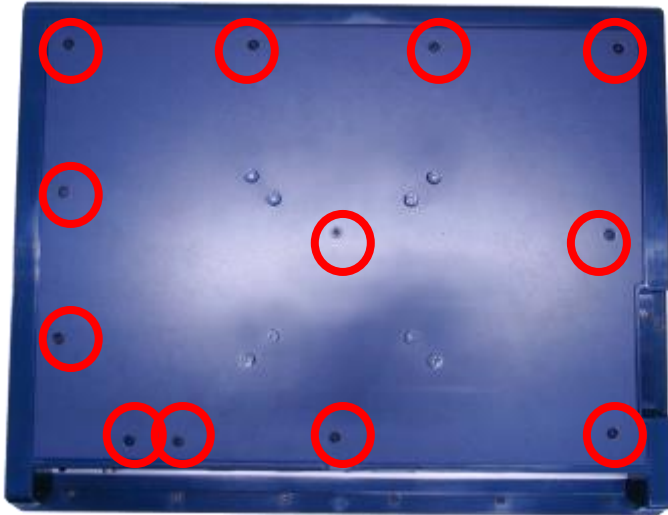


Step 3 VESA mounting Installation completed.

2.5 HDD Installation

The MPC152-832 provides a convenient Hard Disk Drive (HDD) bracket for users to install 2.5" SATA HDD. Please follow the steps:

Step 1 Unscrew eight screws to remove the back cover.



Step 2 Screw the 2.5" HDD to the HDD bracket.



Step 3 Fix the HDD bracket into the system, and plug the data and power cable to HDD. Installation complete.



2.6 DRAM Installation

The MPC152-832 provides one 204-pin DDR3 SODIMM socket that support system memory up to 4GB. Please follow steps below to install the memory modules:

Step 1 Open the back cover and find out the DIMM socket on main board(SBC87832).



Step 2 Insert the DRAM to the DIMM socket, and then push it down firmly until it is clipped by the socket.



- Step 3** Install the memory module into the socket and push it firmly down until it is fully seated. The socket latches are levered upwards and clipped on to the edges of the DIMM.



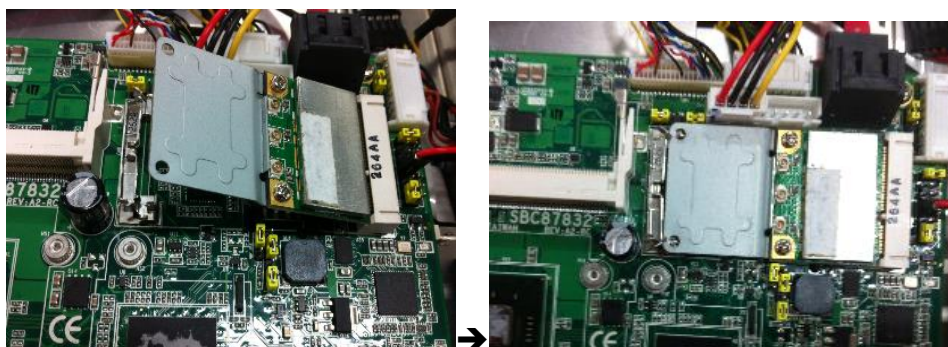
2.7 Wireless LAN Card Installation

The MPC152-832 provides one Mini card slot for user to install one wireless LAN card. When installing the wireless LAN card, refer to the following instructions and illustration:

Step 1 Open the back cover and find out the mini-card slot on main board.



Step 2 Insert the wireless LAN card to the slot. Push it down firmly until it is clipped by the slot.



Step 3 Find the built-in Antenna cable.



Step 4 There are two connectors on wireless LAN card. One is MAIN, and the other is auxiliary. Connect antenna cable to MAIN connector on wireless LAN card.



2.8 Power Input (Phoenix type)

MPC152-832 equips with a phoenix type power connector. It adopts 10VDC to 30VDC. Please follow the signs on power connector to connect DC power source.

+: Power positive

G: Safety ground

—: Power negative



NOTE: The safety ground must be connected to ensure the unit working appropriately.



NOTE: The DC power source to be used with MPC152-832 must be galvanically isolated according to IEC60601-1 safety of medical devices!

Chapter 3

AMI BIOS Setup Utility

This chapter provides users with detailed description how to set up basic system configuration through the AMIBIOS8 BIOS setup utility.

3.1 Starting

To enter the setup screens, follow the steps below:

Turn on the computer and press the key immediately.

After you press the <Delete> key, the main BIOS setup menu displays. You can access the other setup screens 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. These keys include <F1>, <F2>, <Enter>, <ESC>, <Arrow> keys, and so on.



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

Hot Keys	Description
→← Left/Right	The Left and Right <Arrow> keys allow you to select a setup screen.
↑↓ Up/Down	The Up and Down <Arrow> keys allow you to select a setup screen or sub-screen.
+– Plus/Minus	The Plus and Minus <Arrow> keys allow you to change the field value of a particular setup item.
Tab	The <Tab> key allows you to select setup fields.
F1	The <F1> key allows you to display the general help screen.
F2	The <F2> key allows you to load previous values.
F3	The <F3> key allows you to load optimized defaults.
F4	The <F4> key allows you to save any changes you have made and exit setup. Press the <F4> key to save your changes.
Esc	The <Esc> key allows you to discard any changes you have made and exit the setup. Press the <Esc> key to exit the setup without saving your changes.
Enter	The <Enter> key allows you to display or change the setup option listed for a particular setup item. The <Enter> key can also allow you to display the setup sub- screens.

3.3 Main Menu

When you first enter the Setup Utility, you will enter the Main setup screen. You can always return to the Main setup screen by selecting the Main tab. There are two Main Setup options. They are described in this section. The Main BIOS Setup screen is shown below.



- **System Date/Time**

Use this option to change the system time and date. Highlight System Time or System Date using the <Arrow> keys. Enter new values through the keyboard. Press the <Tab> key or the <Arrow> keys to move between fields. The date must be entered in MM/DD/YY format. The time is entered in HH:MM:SS format.

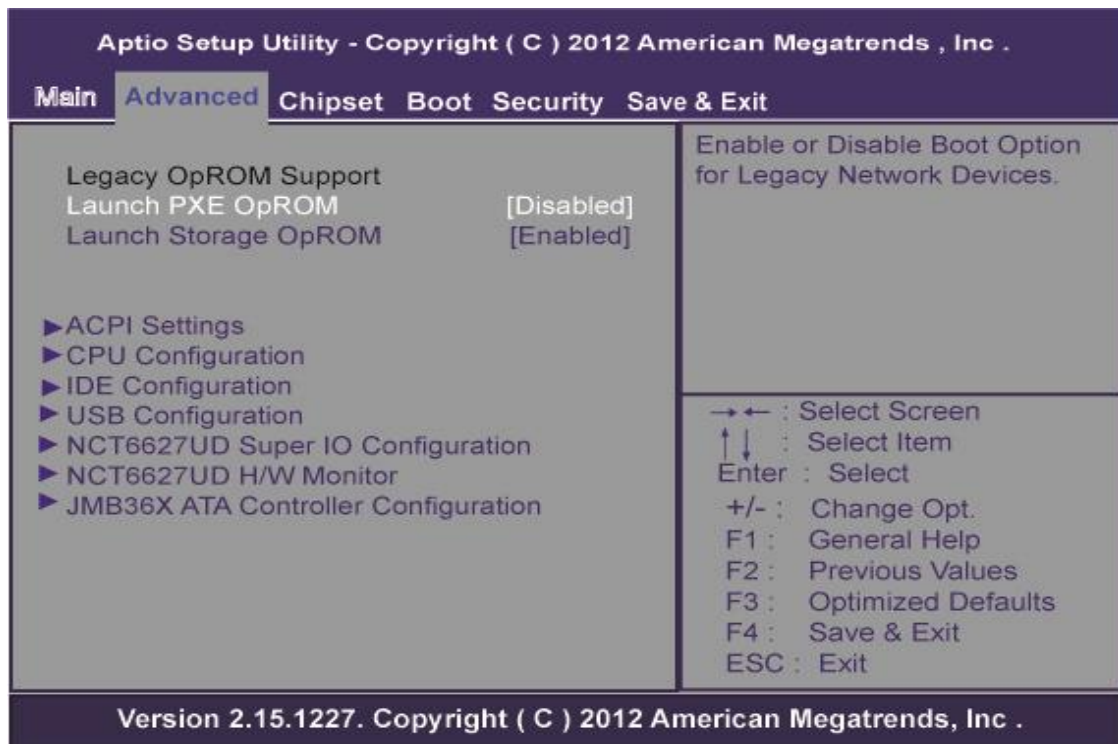
3.4 Advanced Menu

- **Launch PXE OpROM**
Use this item to enable or disable the boot ROM function of the onboard LAN chip when the system boots up.
- **Launch Storage OpROM**
This item can enable or disable boot option for legacy mass storage devices with option ROM.

The Advanced menu also allows users to set configuration of the CPU and other system devices. You can select any of the items in the left frame of the screen to go to the sub menus:

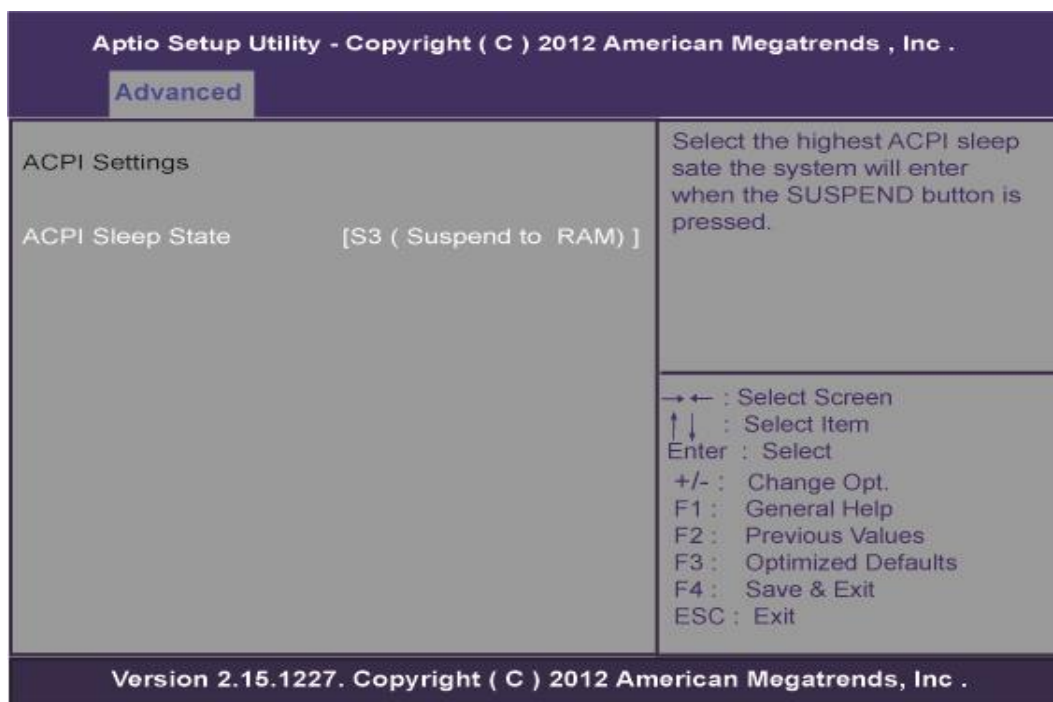
- ▶ ACPI Settings
- ▶ CPU Configuration
- ▶ IDE Configuration
- ▶ USB Configuration
- ▶ NCT6627UD Superior IO Configuration
- ▶ NCT6627UD HW Monitor
- ▶ JMB36X ATA Controller Configuration

For items marked with “▶”, please press <Enter> for more options.



- **ACPI Settings**

You can use this screen to select options for the ACPI Configuration, and change the value of the selected option. A description of the selected item appears on the right side of the screen.

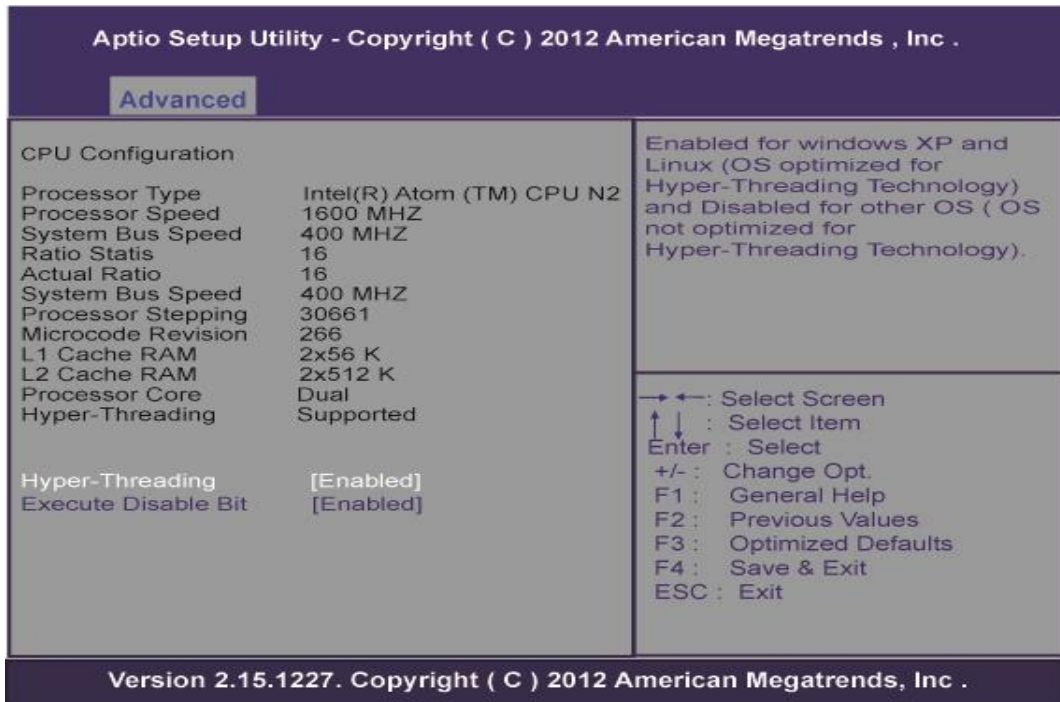


ACPI Sleep State

Use this item to select the highest ACPI sleep state the system will enter.

- **CPU Configuration**

This screen shows the CPU Configuration, and you can change the value of the selected option.



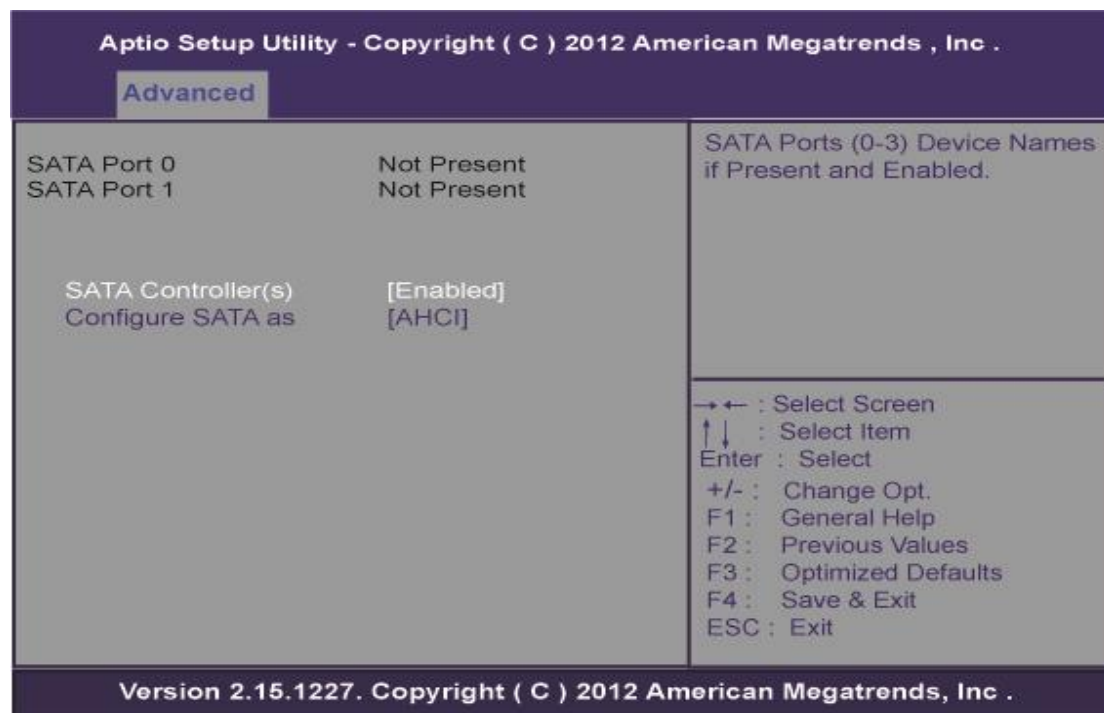
Hyper-Threading

Use this item to enable or disable Hyper-Threading Technology, which makes a single physical processor perform multi-tasking function as two logical ones.

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).

- **IDE Configuration**



SATA Controller(s)

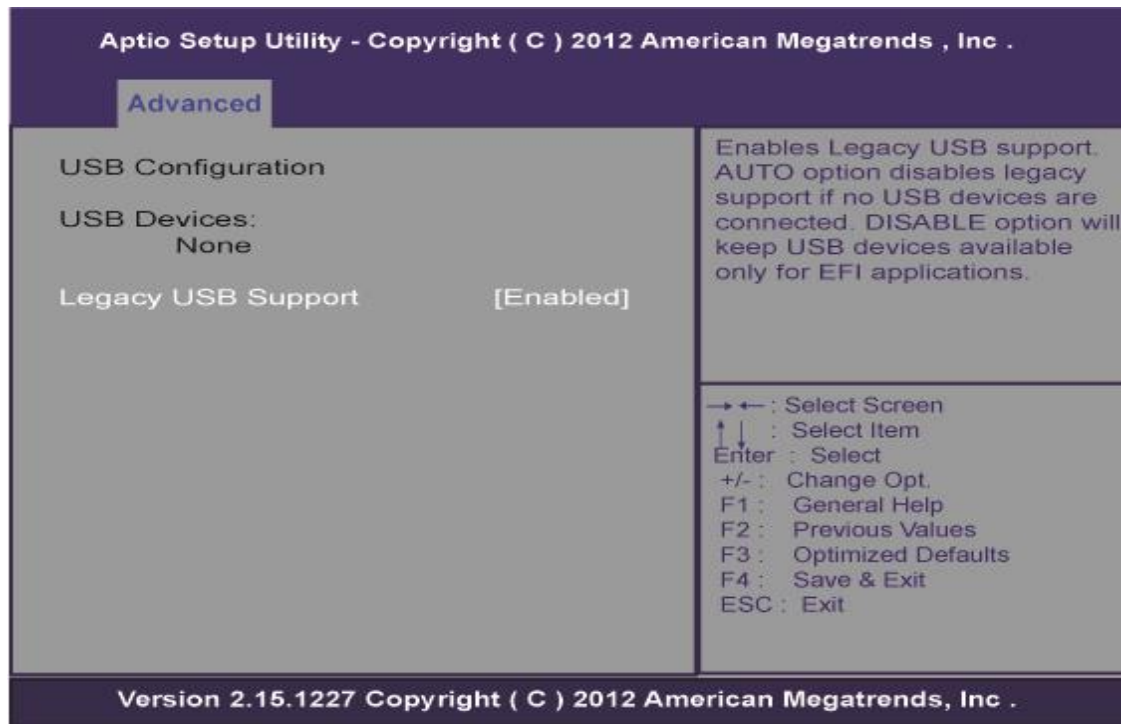
The optional settings are: [Disabled]; [Enabled].

Configure SATA as

The optional settings are: [IDE]; [AHCI].

- **USB Configuration**

You can use this screen to select options for the USB Configuration, and change the value of the selected option. A description of the selected item appears on the right side of the screen.

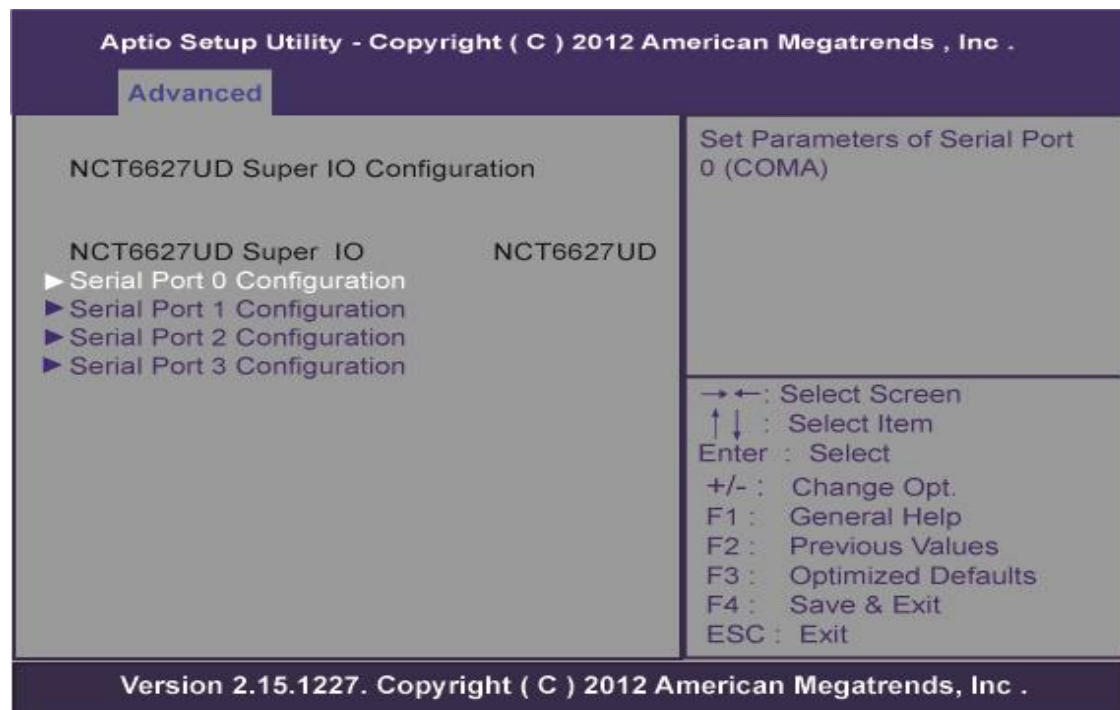


Legacy USB Support

The optional settings are: [Auto]; [Disabled]; [Enabled].

- **NCT6627UD Super IO Configuration**

You can use this screen to select options for the Super IO Configuration, and change the value of the selected option. A description of the selected item appears on the right side of the screen

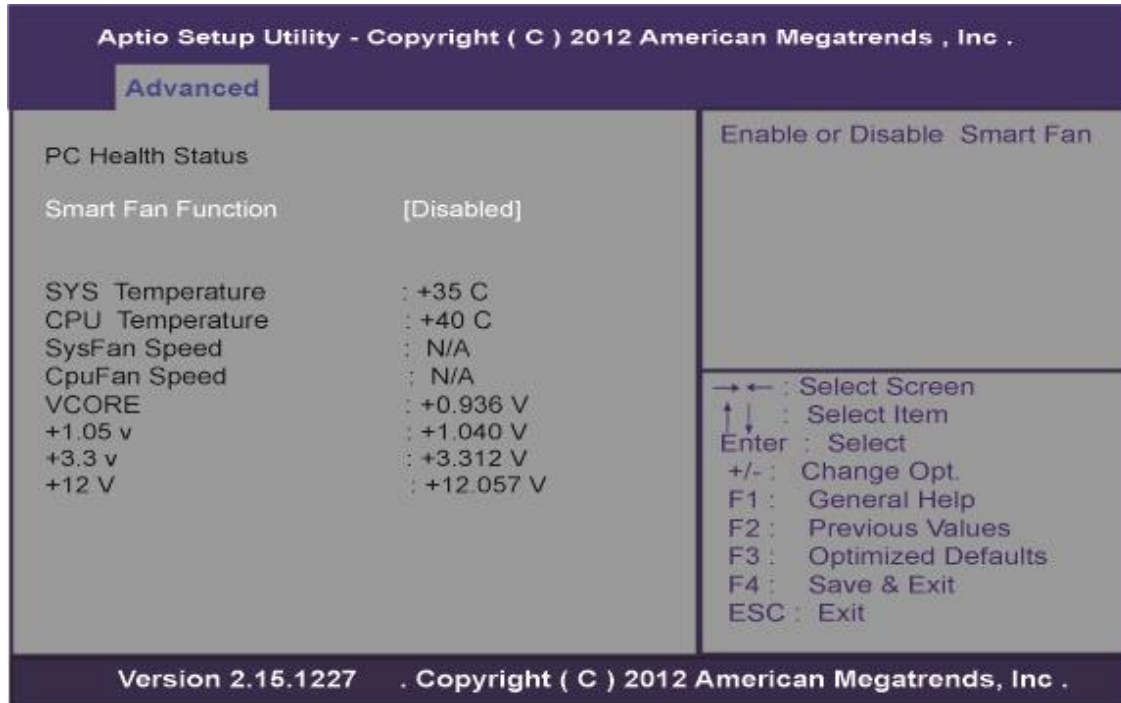


Serial Port Configuration

Use this item to set parameters of serial port 0~3

- **PC Health Status**

This screen shows the Hardware Health Configuration, and a description of the selected item appears on the right side of the screen.

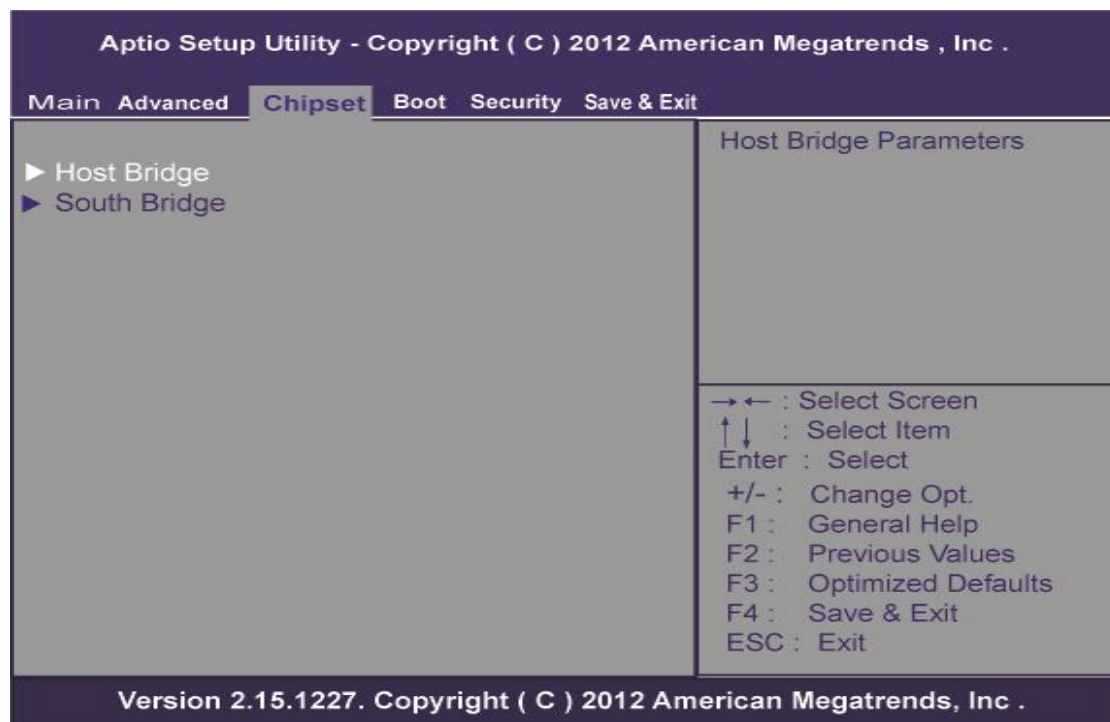


3.5 Chipset Menu

The Chipset menu allows users to change the advanced chipset settings. You can select any of the items in the left frame of the screen to go to the sub menus:

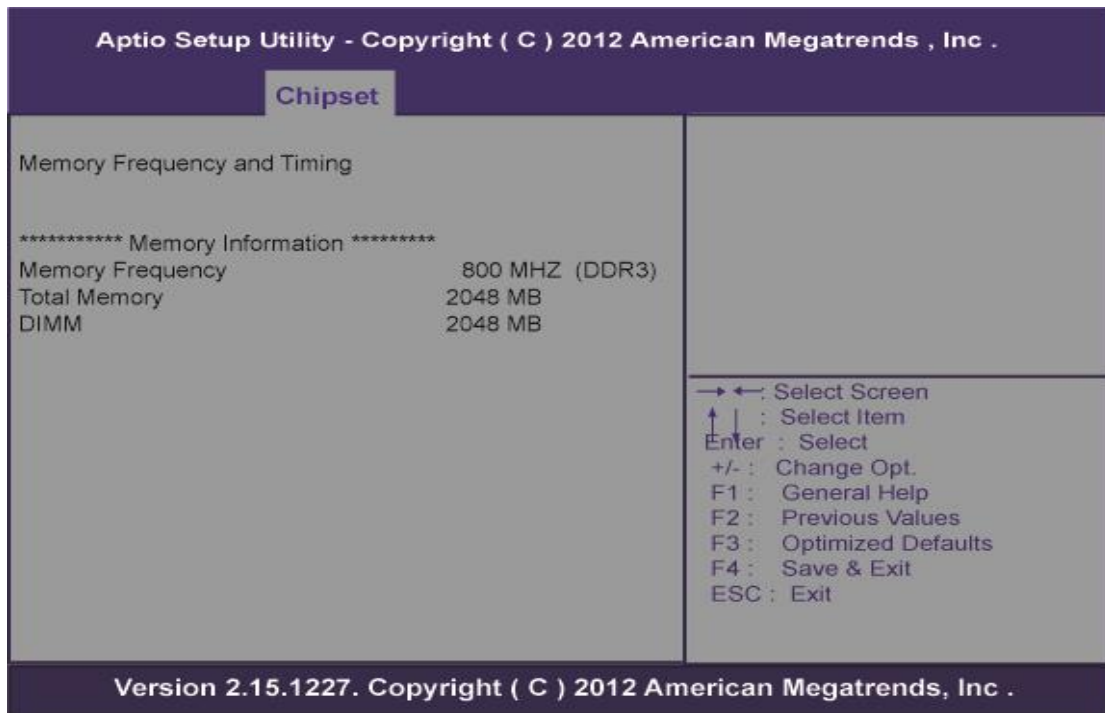
- ▶ **Host Bridge**
Host Bridge For items marked with “▶”, please press <Enter> for more options.

- ▶ **South Bridge**
South Bridge For items marked with “▶”, please press <Enter> for more options.



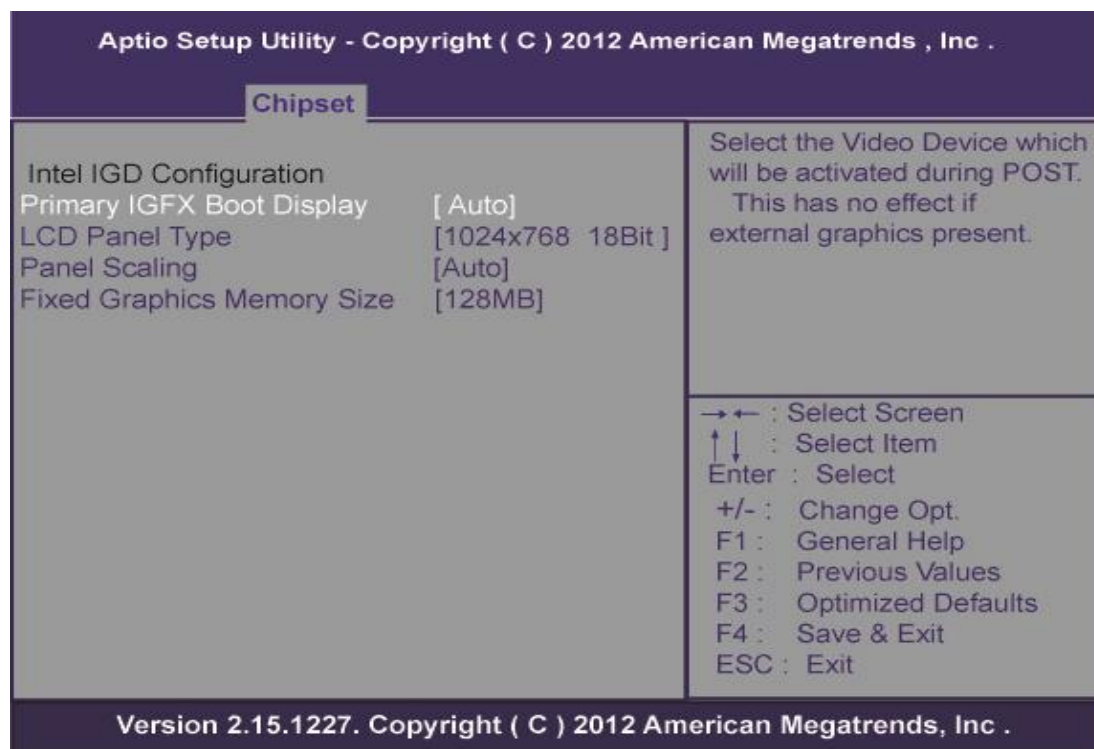
- **Memory Frequency and Timing**

This item is for memory frequency and timing settings. Press <Enter> to go to the sub menu.



● **Intel IGD Configuration**

You can use this screen to select options for the Intel IGD Configuration, and change the value of the selected option. A description of the selected item appears on the right side of the screen.



Press [Enter] to make settings for Intel IGD Configuration:

IGFX-Boot Type

Use this item to set the video device which will be activated during POST.

This has no effect if external graphics presents.

The optional settings are: [Auto]; [CRT]; [DP]; [INT-LVDS];

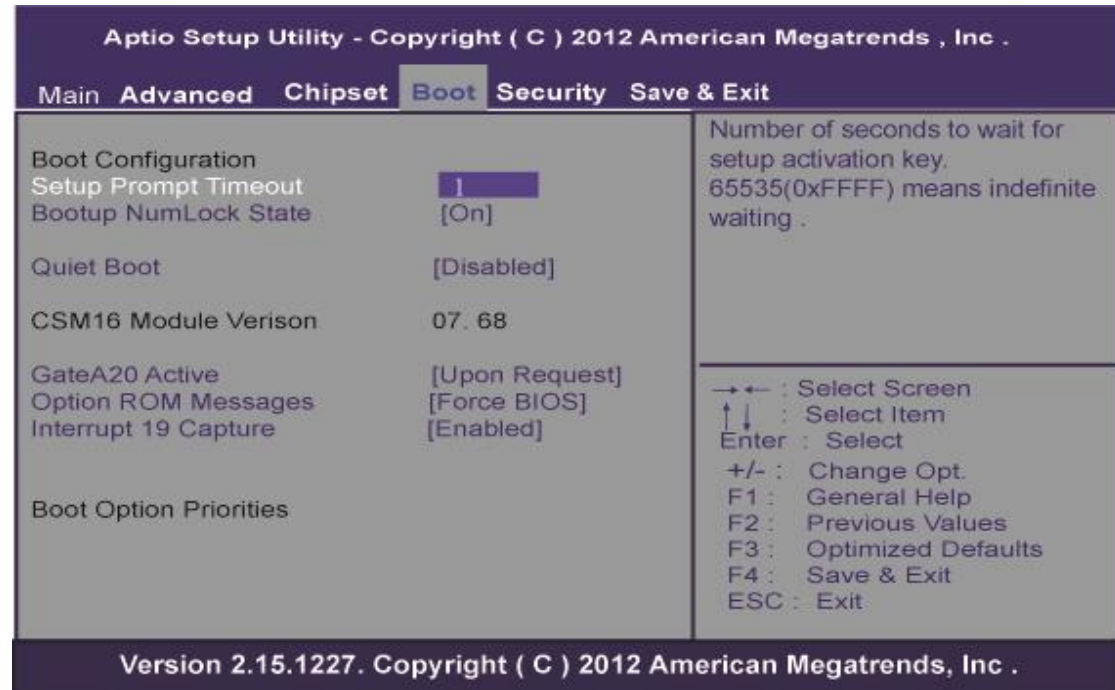
LCD Panel Type:

The optional settings are: [640 x 480 18bit]; [800 x 600 18bit]; [1024 x 768 18bit]; [1280 x 1024 18bit]; [1366x768 18bit]; [1224x600 18bit]; [1280 x 800 18bit]

3.6 Boot Menu

The Boot menu allows users to change boot options of the system.

- **Boot Settings Configuration**



Setup Prompt Timeout

Use this item to set number of seconds to wait for setup activation key.

Bootup NumLock State

Use this item to select the power-on state for the NumLock.. The optional settings are: [On]; [Off].

GateA20 Active

If Upon Request is selected, GA20 can be disabled using BIOS services. If Always is selected, disabling G20 is not allowed; this option is useful when any RT code is executed above 1MB.

Option ROM Messages

Set display mode for option ROM. Configuration options are Force BIOS and Keep Current.

Interrupt 19 Capture

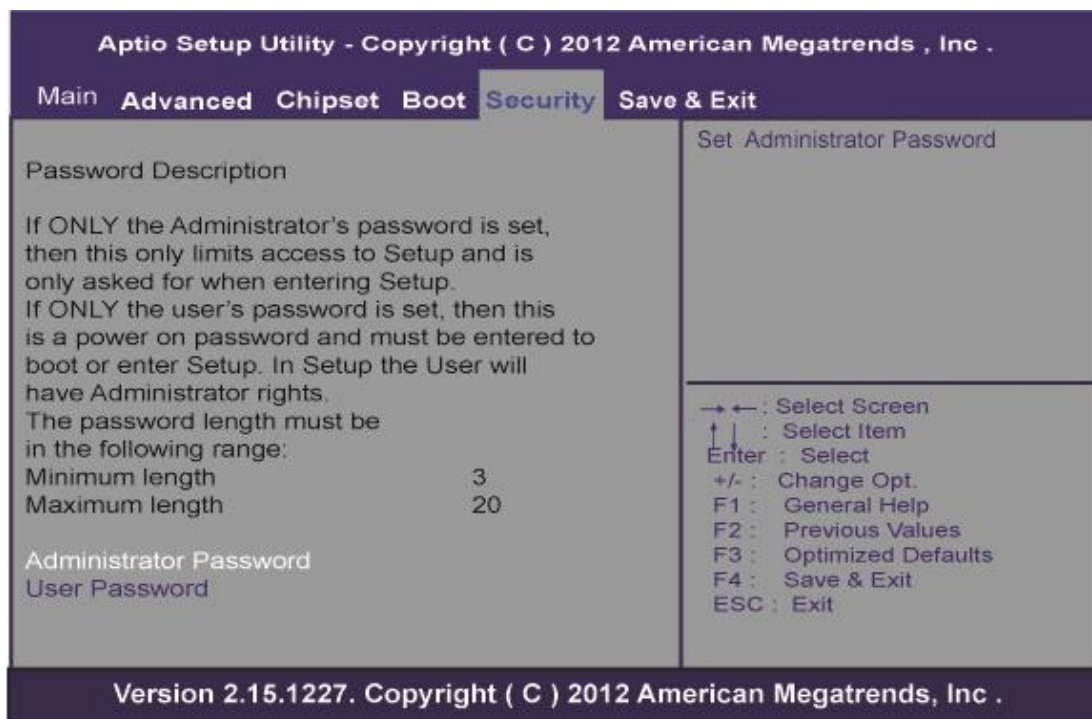
If this item is enabled, this function makes the option ROM to trap Interrupt 19.

Boot Option Priorities

These are settings for boot priority. Specify the boot device priority sequence from the available devices.

3.7 Security Menu

The Security menu allows users to change the security settings for the system.



Administrator Password

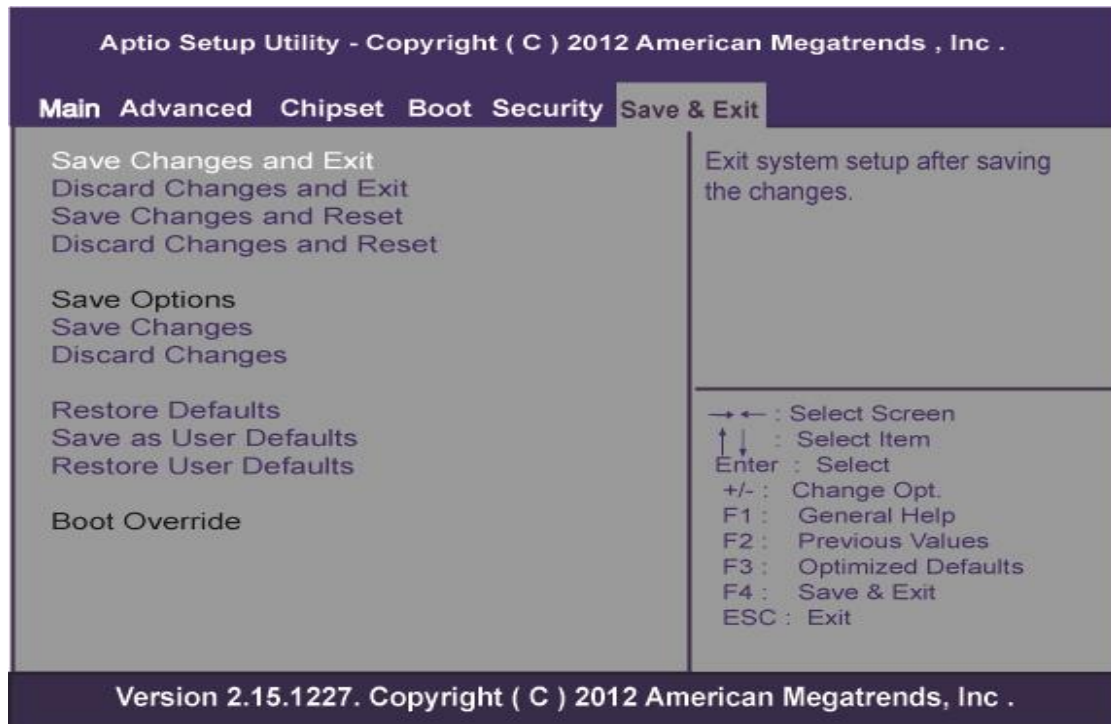
This item indicates whether an administrator password has been set. If the password has been installed, Installed displays. If not, Not Installed displays.

User Password

This item indicates whether an user password has been set. If the password has been installed, Installed displays. If not, Not Installed displays.

3.8 Save & Exit Menu

The Save & Exit menu allows users to load your system configuration with optimal or fail-safe default values.



Save Changes and Exit

When you have completed the system configuration changes, select this option to leave Setup and reboot the computer so the new system configuration parameters can take effect. Select Save Changes and Exit from the Exit menu and press <Enter>. Select Ok to save changes and exit.

Discard Changes and Exit

Select this option to quit Setup without making any permanent changes to the system configuration. Select Discard Changes and Exit from the Exit menu and press <Enter>. Select Ok to discard changes and exit.

Save Changes and Reset

When you have completed the system configuration changes, select this option to leave Setup and reboot the computer so the new system configuration parameters can take effect. Select Save Changes and Reset from the Save & Exit menu and press <Enter>. Select Yes to save changes and reset.

Discard Changes and Reset

Select this option to quit Setup without making any permanent changes to the system configuration and reboot the computer. Select Discard Changes and Reset from the Save & Exit menu and press <Enter>. Select Yes to discard changes and reset.

Save Changes

When you have completed the system configuration changes, select this option to save changes. Select Save Changes from the Save & Exit menu and press <Enter>. Select yes to save changes.

Discard Changes

Select this option to quit Setup without making any permanent changes to the system configuration. Select Discard Changes from the Save & Exit menu and press <Enter>. Select Yes to discard changes.

Restore Defaults

It automatically sets all Setup options to a complete set of default settings when you select this option. Select Restore Defaults from the Save & Exit menu and press <Enter>.

Save as User Defaults

Select this option to save system configuration changes done so far as User Defaults. Select Save as User Defaults from the Save & Exit menu and press <Enter>.

Restore User Defaults

It automatically sets all Setup options to a complete set of User Defaults when you select this option. Select Restore User Defaults from the Save & Exit menu and press <Enter>.

Boot Override

Select a drive to immediately boot that device regardless of the current boot order.



NOTE: *If you want to use a CF card that capacity is less than 2GB (such as 1GB, 512MB), we recommend you may switch "AHCI mode" to "IDE mode" with "Configure SATA as" of the BIOS setting. And please make sure that users of Windows embedded OS need to install with "IDE" driver.*

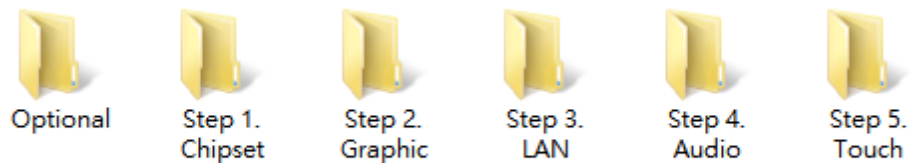
Chapter 4

Drivers Installation

4.1 System

MPC152-832 supports Windows 7 32-bit, WES and WES 7 32-bit. To facilitate the installation of system driver, please carefully read the instructions in this chapter before start installing.

Step 1 Insert Driver CD and select the “\Drivers”.



Step 2 Select all files and follow the installing procedure.

4.2 Touch Screen

The MPC152-832 uses the 5-wire analog resistive touch panel. There are the specification and driver installation which are listed below.

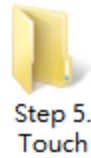
- **Specification**

Touch Screen	5-wire Analog Resistive type
Touch Screen Controller	PenMount 6000 USB Touch Screen Controller IC
Communications	USB Interface
Baud Rate	19200 baud rate fixed
Resolution	1024 x 1024 (10 bit A/D converter inside)
Power Input	5V
Power Consumption	Active: 24.6mA / Idle Mode: 13.4mA

- **Driver Installation- Windows 7**

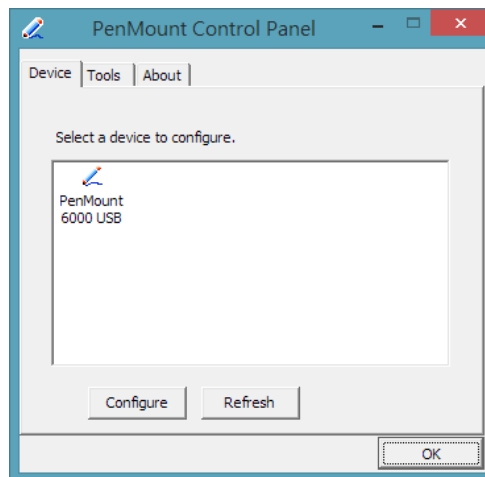
The MPC152-832 provides a touch screen driver that users can install it under the operating system Windows 7. To facilitate installation of the touch screen driver, you should read the instructions in this chapter carefully before you attempt installation.

Step 1 Insert Driver CD and follow the path to select the “\Drivers\Step 5 - Touch”.

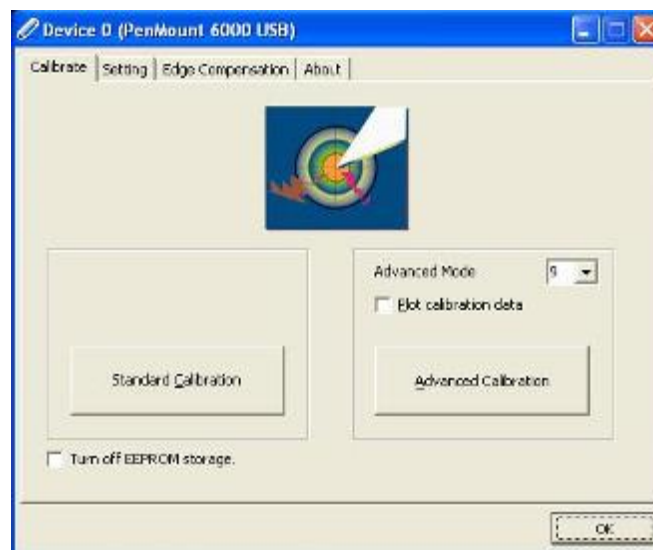


Step 2 Follow the installing procedure and press OK.

Step 3 Click Start menu and select “PenMount Utilities”; and then, a “PenMount Control Panel” pops out.



Step 4 Select the “Standard Calibrate”



Step 5 Calibration:

To adjust the display with touch panel, click "Calibration" and follow the calibrate point to do calibration; there are five points on screen for calibration.

**Step 6 Press OK.**

NOTE: *The windows may be out of rang, because the resolution requests 1024x768 or above when using WIN 7.*



NOTE: *For the better system performance, please close the Windows AERO or change to Windows Basic mode.*

4.3 Embedded O.S.

The MPC152-832 provides the Windows 7 Embedded. The O.S. is supported devices which are listed below.

- **WES/WES 7**

Here are supported onboard devices:

- Onboard Multi I/O
- SATA HDD
- USB
- CRT/LCD display10/100/1000 base-T Ethernet
- Compact Flash
- Onboard Audio
- Touch Screen

PenMount Touch screen

Before you can use and calibrate it, here is what you should do:

1. Set up Penmount touch device driver by executing C:\Penmount\ Windows 2000-XP V5.0\setup.exe. When the installation is finished, an icon "PM" appears on the Taskbar.
2. Calibrate Penmount touch by clicking on the "PM" icon, and then go on the calibration.
3. Restart the computer.

Please be informed if you use the Windows XP OS, the graphic driver supported by Intel is EMGD, there are three known issues as below:



NOTE: *The Intel EMGD package does not include an HDMI audio driver, there will be an unknown device under device manager.*



NOTE: *3D function is not supported.*



NOTE: *LVDS and CRT can't be disabled at the same time.*