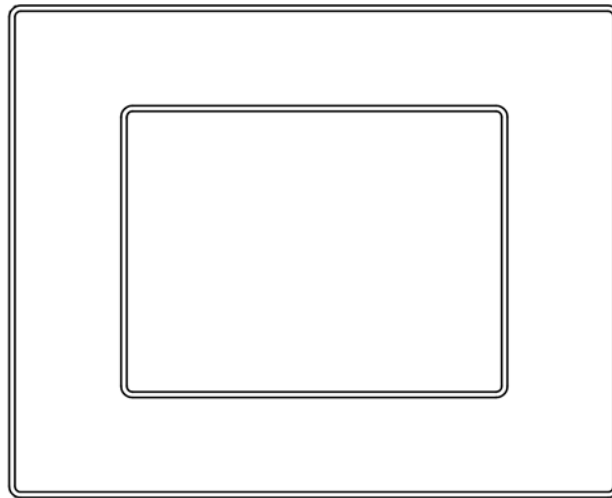




Solutions for Demanding Applications

VARTECH
SYSTEMS INC.



10.4" C1-D2 Certified Panel Mount PC

**Model VTPC100PS/VTPC100PS Video Monitor
VTPC100PSHB/VTPC100PSHB Video Monitor**

User's Guide

Read these instructions completely before attempting to operate your new Panel Mount PC

Revision History

Date	Rev No	Summary	Page
04/10/13	00	First Issue	
02/17/16	01	Updated NEC Article References	4
02/17/16	01	Updated Computers Technical Specifications	7
12/6/17	02	Added high bright LCD panel info & specs.	1, 6
12/6/17	02	Update computer system technical specs.	7

Safety Instructions

PLEASE NOTE - This equipment is suitable for use in Class I, Division 2 or non-hazardous locations only.

WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.

AVERTISSEMENT - RISQUE D'EXPLOSION - AVANT DE DECONNECTER L'EQUIPMENT, COUPER LE COURANT OU S'ASSURER QUE L'EMPLACEMENT EST DESIGNE NON DANGEREUX.

- Read the Safety Instructions carefully and keep it for use later.
- The chassis metalwork of the module must be installed properly to the main earthing termination for Class 1 equipment.
- Care must be exercised in the application of the system to prevent overheating. Ensure that the ambient temperature around the system does not exceed 60°C and provide adequate means of ventilation to achieve this.
- When cleaning cut off the electrical supply at all times. Never use liquid or aerosol detergent, use a soft damp cloth instead.
- Never insert anything metallic into the chassis openings. This may create an electric shock hazard or hazard from rotating fan blades.
- To avoid electric shock, never touch the inside of the system. There are no user adjustable components inside, only a qualified technician should open the system's case.
- Openings in the system enclosure are to allow for ventilation. To prevent overheating, these openings should not be blocked or covered.
- If the system does not operate normally – in particular, if there are any unusual sounds or smells coming from it – disconnect it immediately.
- Do not put pressure on the LCD panel screen because it is very fragile.
- Always handle the system with care when moving it.
- Take care that the system is disposed of correctly at the end of its life. If in doubt refer to your local ordinances or regulations for proper disposal.
- User to supply appropriate lockable type plug and power disconnecting switch.
- The end user must either supply a switch to their power outlet suitable for Class 1, Division 2 use (if adjacent to the power outlet), or locate the said switch outside the hazardous area.

- This equipment is suitable for use in a Class 1, Division 2, Groups A, B, C, and D or non-hazardous location only.
- Explosion Hazard - Substitution of components may impair suitability for hazardous locations.
- Any Equipment or associated cabling connected to this device must be non-incendive and/or suitable for the Class 1, Division 2 area in which it is to be installed.

Hazardous Locations:

This equipment is suitable only for the locations specified on the product nameplate, specifically:

- Class I, Division 2 Groups A, B, C, D
- Non-hazardous locations

The following statement applies to use in hazardous locations:



WARNING! Explosion Hazard

Substitution of components may impair suitability for hazardous locations.

Do not disconnect equipment unless power has been switched off and area is known to be non-hazardous.

Do not connect or disconnect components unless power has been switched off.

All wiring must comply with NEC 2014 articles are 501.10(B), 502.10(B), and 503.10(B) as appropriate.

Peripheral equipment must be suitable for the location in which it is used.

All hazardous-location equipment must be mounted in an enclosure that is suitably designed or rated for those specific environmental conditions that will be present, and designed to prevent personal injury resulting from accessibility to live parts.

This equipment has an operating temperature code of T4 when operating in a 60`C (140`F) ambient environment. Do not install this product in environments where atmospheric gases have an ignition temperature of less than 135`C (275`F).

Environment and Enclosure Information:

Review this information on enclosures before installing the product:



ATTENTION: Environment and Enclosure

This equipment is intended for use in a Pollution Class 2 industrial environment, in overvoltage Category II applications (as defined in IEC publication 60664-1), at altitudes up to 2000 meters (6561 feet).

This equipment is supplied as open-type equipment. UL recognized and hazardous location equipment must be mounted in an enclosure that is suitably designed or rated for those specific environmental conditions that will be present, and designed to prevent personal injury resulting from accessibility to live parts.

These units are shipped with a gasketed bezel to meet specified NEMA and IEC ratings if and only if mounted in a flat panel or enclosure with an equivalent rating. Peripheral equipment must be suitable for the location in which it is used.

See NEMA Standards publication 250 and IEC publication 60529, as applicable, for explanations of the degrees of protection provided by different types of enclosures. The user may also reference the Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1, for additional installation requirements pertaining to this equipment.

Cleaning the LCD monitor

To clean the LCD panel:

- Wipe the screen gently with a clean lens brush made of camel hair, or a soft, clean, lint free cloth. This is to remove dust and other particles without scratching the LCD panel.
- If it is still not clean, then wipe with a damp lint free cloth and blow on it to dry.

Do not clean the panel with a keton-type material (e.g. acetone), or ethyl toluene, ethyl acid, methyl or chloride. These may damage the LCD panel.

Do not apply pressure to the LCD panel.

Standard Technical Specifications:

LCD Monitor – Standard Brightness:

Size / Type	10.4" SVGA TFT LCD
Native Resolution	800 x 600
Contrast Ratio	600:1
Viewing Angles	Horizontal: 120° Vertical: 100°
Pixel Pitch	0.264mm
Brightness (typical)	400 cd/m ²
Response Time (typical)	25ms
Colors Supported	16.8 million

LCD Monitor – High Brightness:

Size / Type	10.4" SVGA TFT LCD
Native Resolution	800 x 600
Contrast Ratio	700:1
Viewing Angles	Horizontal: 120° Vertical: 100°
Pixel Pitch	0.264mm
Brightness (typical)	1200 cd/m ²
Response Time (typical)	4ms
Colors Supported	16.8 million

Computer System:

Processor	2.0GHz Quad Core Intel® Celeron® Processor J1900
System Memory	2GB DDR3L-1333 SO-DIMM x 1
BIOS	AMI
Hard Drive	500 GB SATA
Operating System	Windows 10 - 32 bit
Expansion Slots	Dual PCI
Back Panel I/O Ports	1 x PS/2 Keyboard 1 x PS/2 Mouse 2 x RS-232/422/485 (optional: Up to 4x additional RS-232 available) 3 x USB 2.0 1 x USB 3.0 2 x Ethernet HD Audio MIC-in & Line-out
Graphics	Intel® HD graphics
LAN	Realtek RTL8111E for Gigabit LAN support WoL & PXE (1 st port) Realtek RTL8111E for Gigabit LAN support WoL & PXE (2 nd port)
Touch Screen	Resistive Touch
Touch Screen Interface	USB

Power & Operational Specifications:

Power Input	100 - 264 VAC 1.5A 50/60 Hz		
Power Consumption	37W		
Temperature	Operational:	14°F to 140°F	-10°C to 60°C
	Storage:	-4°F to 149°F	-20°C to 65°C
Humidity	Operational:	20 to 40°C, 90% RH NC	
	Storage:	5 to 65°C, 28% RH NC	

Installation of Your Panel PC

Packaged with each carton will be:

- 1 - VTPC100PS/VTPC100PS Video Monitor/VTPC100PSHB/VTPC100PSHB Video Monitor
- 1 – AC Power Cable
- 1 - #10-32 Mounting Hardware
- 1 - Users Guide (Printed or on CD)

**BEFORE MAKING ANY CONNECTIONS OR APPLYING POWER,
FIRST READ THROUGH THE ENTIRE MANUAL**

Panel Mount Procedure

Panel Mounting Procedure:

- 1- Cut and drill the panel (refer to the panel mount drawing, Figure A). Measurements are provided in inches and millimeters.

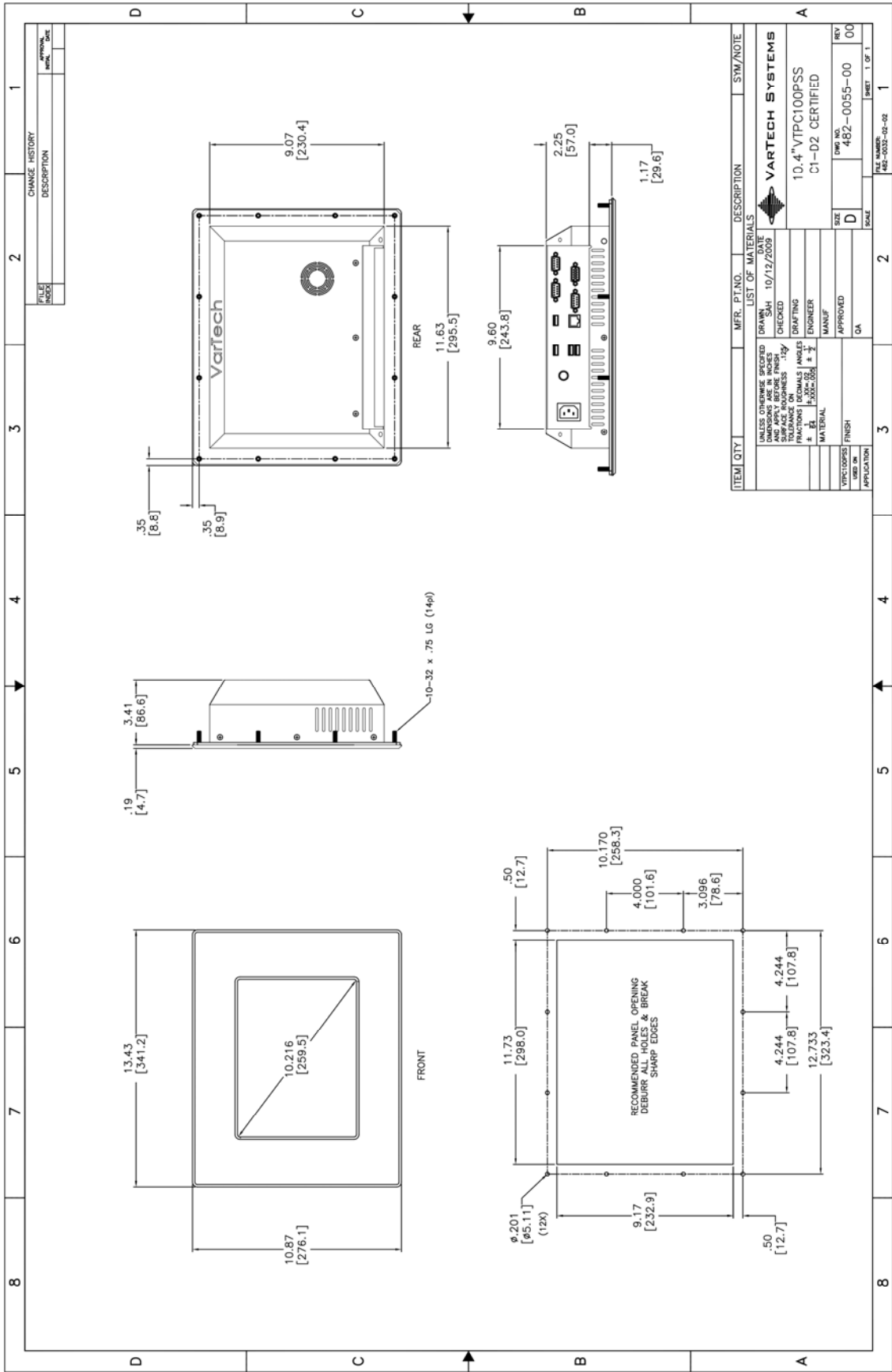
Panel Mounting Cutout:

- 1- If access to the bottom of the enclosure is not available following installation, attach the power and all necessary cables to the bottom side of the enclosure at this time.
- 2- Install the enclosure in the prepared cutout.
- 3- Secure the enclosure using the lock nuts and washers, supplied with the unit, behind the holes running along the sides and the top and bottom of the cutout in the panel. Extra lock nuts and washers are provided.
- 4- Tighten all mounting hardware to a torque of 12 inch-pounds.

ATTENTION: Mounting nuts must be tightened to a torque of 12 inch-pounds to provide a proper panel seal and avoid potential damage. Vartech Systems assumes no responsibility for water or chemical damage to the monitor or other equipment within the enclosure due to improper installation.

NOTE: An easily accessible 15A fused or breaker protected outlet must be provided for installation of the unit.

- 5- Attach the power, video and system cables to the bottom side of the enclosure if you have not already done so.



Connections to the Panel Mount PC

PLEASE NOTE – ANY EQUIPMENT OR ASSOCIATED CABLING CONNECTED TO THIS DEVICE MUST BE NON-INCENDIVE AND/OR SUITABLE FOR THE CLASS I DIVISION 2 AREA IN WHICH IT IS TO BE INSTALLED.

Power Connection (Power In)

AC models - The AC version of the Panel Mount PC includes an AC line cord which is 3ft long with stripped wires at the connection end. The user must supply a lockable industrial-type power supply plug to mate with their power outlet. *Also, the end user must either supply a switch to their power outlet suitable for Class I, Division 2 use (if adjacent to the power outlet), or locate the said switch outside the hazardous area.*

DC models - The DC version of the Panel Mount PC has a lockable DC plug and socket supplied to which the user's DC source must be connected. If the DC source (power brick or otherwise) is plugged into an AC socket within the hazardous area, the end user must supply a lockable industrial-type power supply plug to their power outlet. *Also, the end user must either supply a switch to their power outlet suitable for Class I, Division 2 use (if adjacent to the power outlet), or locate the said switch outside the hazardous area.*

Serial Connections (COM 1-4)

The Panel Mount PC is supplied with two serial connectors (optional up to four additional) configured for RS-232/422/485. The connector is a 9 pin female connectors and can be set up for any baud rate from 300 to 19.2 baud. The connector is located on the bottom panel of the system.

Ethernet Connections (LAN 1-2)

The Panel Mount PC is supplied with two integrated Ethernet connectors. The interface will support 10/100/1000 BaseT connection to a local area network (LAN). The Panel Mount PC is supplied with two RJ-45 female connectors located on the bottom panel of the system.

USB Connections (USB 1-4)

The Panel Mount PC is supplied with three USB 2.0 connectors and one USB 3.0 connector located on the bottom front panel of the system.

VGA Port

The 15-pin female VGA connector can be used to connect to any analog VGA monitor.

HDMI Port

The Panel PC is supplied with one HDMI connector which can be used to connect to any HD monitor.

Turning the system On and Off

Before connecting the Panel Mount PC to power, connect any peripheral devices. As a general rule, any peripheral device should only be connected or disconnected when the Panel Mount PC is off with the exception of any USB or 1394 peripheral.

The Panel Mount PC may be turned on using the main On-Off switch which controls the power outlet to which the unit is plugged in. Once the Panel Mount PC is turned on, the computer power reset switch must be depressed for Windows to start. Windows must be properly shut down before the main power switch is turned off to prevent the chance of corrupting files in the operating system.

The Panel Mount PC is rated for continuous duty. However, to extend the life of the various components and conserve power, it is highly recommended that the system be properly shut down and power turned off when the Panel Mount PC is not in use.

LCD Monitor Warm-up Time

All LCD monitors need time to become thermally stable the first time you turn them on. Therefore, to achieve more accurate adjustments for parameters, allow the LCD monitor to warm (be on) for at least 20 minutes before making any screen adjustments.

Maintenance

The Panel Mount PC is designed to provide optimum service and performance with minimal maintenance including the occasional external cleaning. For cleaning the Panel Mount PC enclosure follow the suggested guidelines.

General – NEVER use abrasive cleaners or solvent-based cleaners. Use a clean soft cloth. The Panel Mount PC should only be opened and serviced by a qualified technician. Keep the area around the Panel Mount PC clear and free of excessive dirt or other contaminants. Do not use water or any liquids on the Panel Mount PC.

AMI BIOS SETUP UTILITY

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

1.1 Starting

To enter the setup screens, follow the steps below:




1. Turn on the computer and press the key immediately.
2. 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.

1.2 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>, <F10>, <Enter>, <ESC>, <Arrow> keys, and so on.

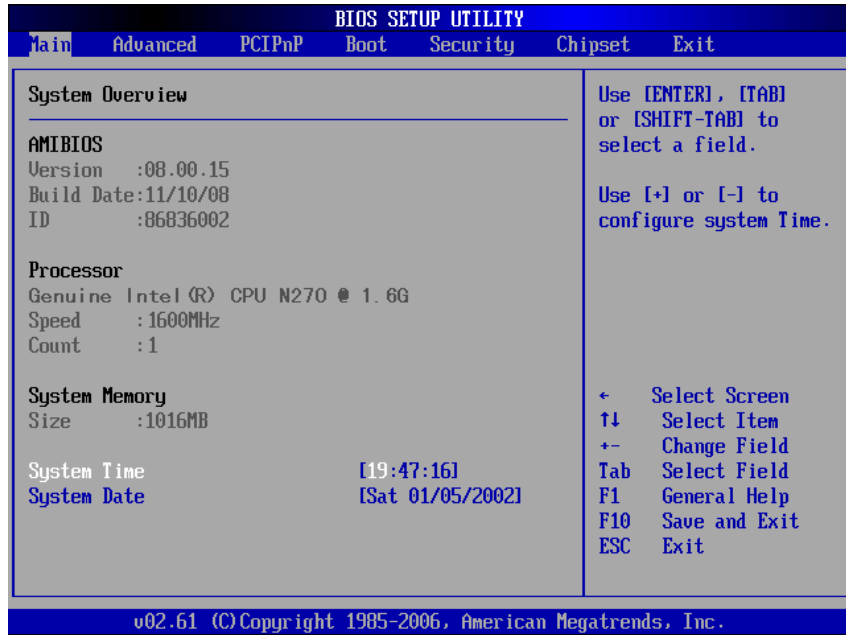
 **Note** Some of navigation keys differ from one screen to another.

 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.
F10	The <F10> key allows you to save any changes you have made and exit Setup. Press the <F10> 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.

1.3 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 Time/Date

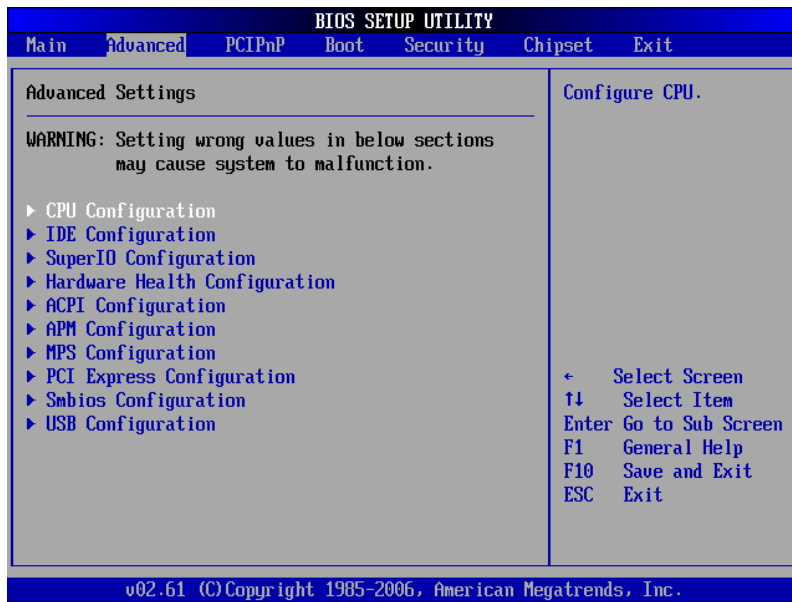
Use this option to change the system time and date. Highlight *System Time* or *System Date* using the <Arrow> keys. Enter new values through the keyboard. Press the <Tab> key or the <Arrow> keys to move between fields. The date must be entered in MM/DD/YY format. The time is entered in HH:MM:SS format.

1.4 Advanced Menu

The Advanced menu 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:

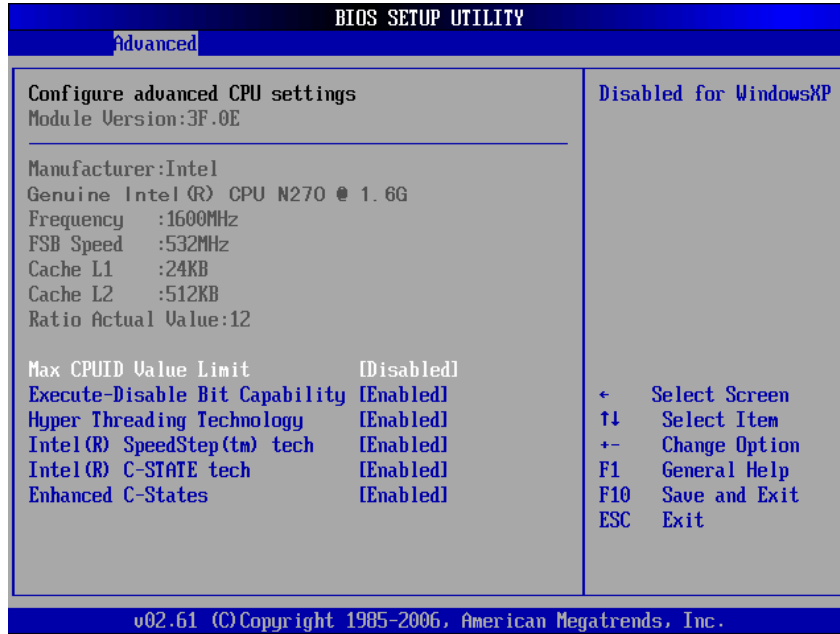
- CPU Configuration
- IDE Configuration
- SuperIO Configuration
- Hardware Health Configuration
- ACPI Configuration
- APM Configuration
- MPS Configuration
- PCI Express Configuration
- Smbios Configuration
- USB Configuration

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



➤ **CPU Configuration**

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



➤ **Max CPUID Value Limit**

You can enable this item to let legacy operating systems boot even without support for CPUs with extended CPU ID functions.

➤ **Execute-Disable Bit Capability**

This item helps you enable or disable the No-Execution Page Protection Technology.

➤ **Hyper Threading Technology**

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

➤ **Intel (R) SpeedStep (tm) tech**

This item helps you enable or disable the Intel SpeedStep Technology.

➤ **Intel (R) C-STATE tech**

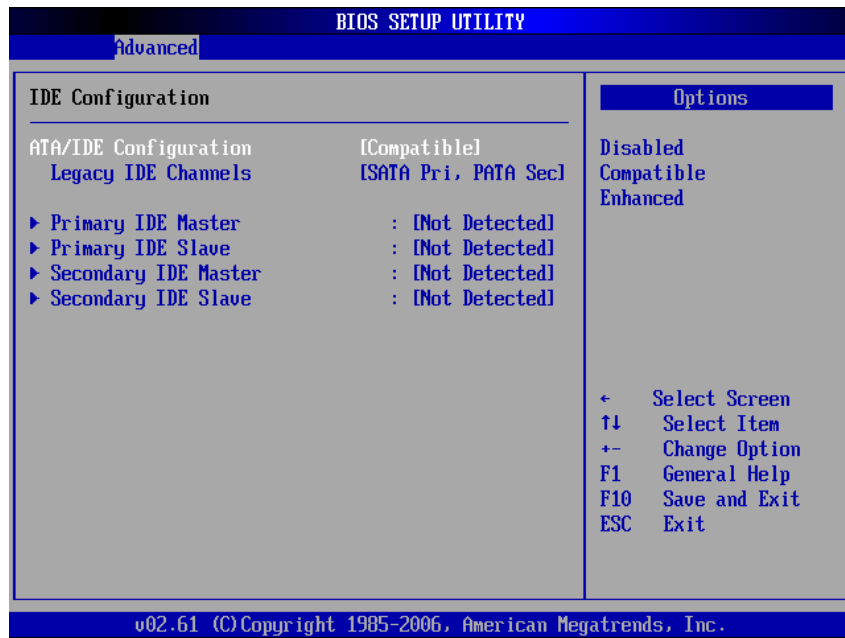
Use this item to enable or disable the C-State technology.

➤ **Enhanced C-States**

This item allows you to enable or disable any available enhanced C-states (C1E, C2E, C3E, C4E and Hard C4E).

IDE Configuration

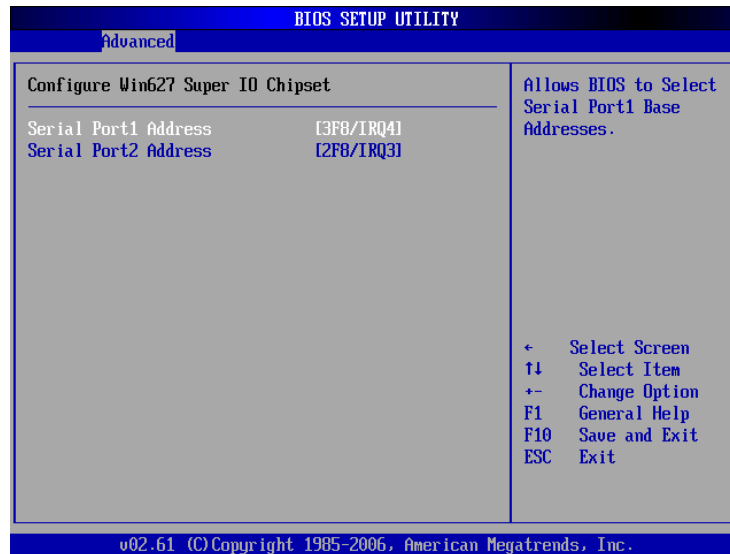
You can use this screen to select options for the IDE Configuration, and change the value of the selected option. A description of the selected item appears on the right side of the screen. For items marked with “▶”, please press <Enter> for more options.



- **ATA/IDE Configuration**
Use this item to specify the integrated IDE controller. There are three options for your selection: *Disabled*, *Compatible* and *Enhanced*.
- **Legacy IDE Channels**
When the ATA/IDE Configuration is set to *Compatible*, this item will be displayed.
- **Primary/Secondary/Third IDE Master/Slave**
Select one of the hard disk drives to configure IDE devices installed in the system by pressing <Enter> for more options.

SuperIO Configuration

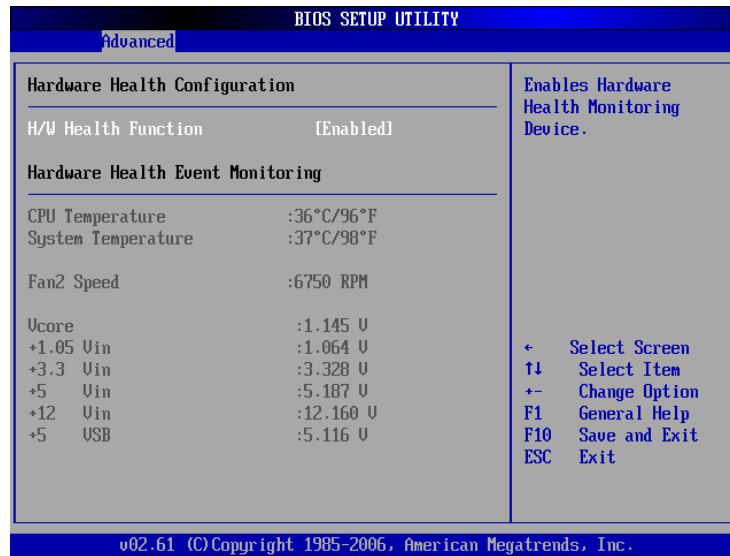
You can use this screen to select options for the SuperIO Configuration, and change the value of the selected option. A description of the selected item appears on the right side of the screen.



- **Serial Port1 Address**
This option specifies the base I/O port address and Interrupt Request address of serial port 1. The Optimal setting is *3F8/IRQ4*. The Fail-Safe default setting is *Disabled*.
- **Serial Port2 Address**
This option specifies the base I/O port address and Interrupt Request address of serial port 2. The Optimal setting is *2F8/IRQ3*. The Fail-Safe setting is *Disabled*.

Hardware Health Configuration

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

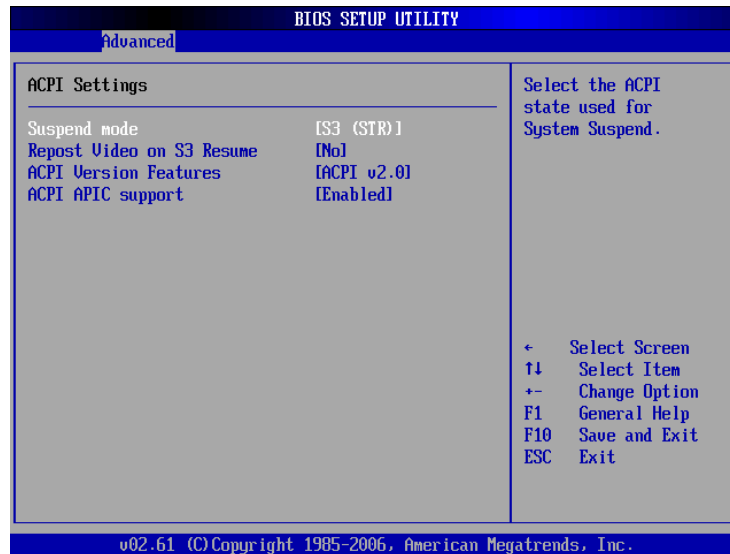


➤ H/W Health Function

You can select this item *Enabled* for the Hardware Health Monitoring Device. The Hardware Health Event Monitoring displays the temperature of CPU and System, Fan Speed, Vcore, etc.

ACPI Configuration

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.



- **Suspend Mode**
This item selects the Advanced Configuration and Power Interface (ACPI) state for system suspend.
- **Repost Video on S3 Resume**
Set this value to allow video repost support. The default setting is Yes.
- **ACPI Version Features**
Use this item to set the system to be complaint with the ACPI 2.0 specification.
- **ACPI APIC support**
This item allows you to enable or disable the Advanced Configuration and Power Interface (ACPI) support in the Application-Specific Integrated Circuit (APIC). Enabling this item makes the RSDT pointer list include the ACPI APIC table pointer.

APM Configuration

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



➤ Power Management/APM

Set this value to allow Power Management/APM support. The default setting is *Enabled*.

Disabled	Set this value to prevent the chipset power management and APM (Advanced Power Management) features.
Enabled	Set this value to allow the chipset power management and APM (Advanced Power Management) features. This is the default setting.

➤ **Power Button Mode**

This option specifies how the externally mounted power button on the front of the computer chassis is used. The default setting is *On/Off*.

On/Off	Pushing the power button turns the computer on or off. This is the default setting. This is the default setting.
Standby	Pushing the power button places the computer in Standby mode.
Suspend	Pushing the power button places the computer in Suspend mode or Full On power mode.

➤ **Restore on AC Power Loss**

There are three selections available: *Power Off*, *Power On* and *Last State*. When the setting is *Power Off*, the system goes into off state after an AC power loss; when *Power On*, the system goes on after an AC power loss. When the setting is *Last State*, the system goes into either off or on state, whatever the system state was before the AC power loss.

➤ **Video Power Down Mode**

This option specifies the Power State that the video subsystem enters when the BIOS places it in a power saving state after the specified period of display inactivity has expired. The default setting is *Suspend*.

Disabled	This setting prevents the BIOS from initiating any power saving modes concerned with the video display or monitor.
Standby	This option places the monitor into standby mode after the specified period of display inactivity has expired. This means the monitor is not off. The screen will appear blacked out. The standards do not cite specific power ratings because they vary from monitor to monitor.
Suspend	This option places the monitor into suspend mode after the specified period of display inactivity has expired. This means the monitor is not off. The screen will appear blacked out. The standards do not cite specific power ratings because they vary from monitor to monitor, but this setting use less power than Standby mode. This is the default setting.

➤ **Hard Disk Drive Power Down Mode**

This option specifies the power conserving state that the hard disk drive enters after the specified period of hard drive inactivity has expired. The default setting is *Suspend*.

Disabled	This setting prevents hard disk drive power down mode.
Standby	This option stops the hard disk drives from spinning during a system standby.
Suspend	This option cuts the power to the hard disk drives during a system suspend. This is the default setting.

➤ **Standby Time Out**

This option specifies the length of time the system waits before it enters standby mode. The default setting is *Disabled*.

Disabled	Set this value to prevent the computer system from entering standby mode. This is the default setting.
1 Min	Set this value to allow the computer system to enter standby mode after being inactive for 1 minute.
5 Min	Set this value to allow the computer system to enter standby mode after being inactive for 5 minutes.
10 Min	Set this value to allow the computer system to enter standby mode after being inactive for 10 minutes.

➤ **Suspend Time Out (Minute)**

This option specifies the length of time the system waits before it enters suspend mode. The default setting is *Disabled*.

Disabled	This setting prevents the system from entering suspend mode. This is the default setting.
1 Min	Set this value to allow the computer system to enter suspend mode after being inactive for 1 minute.
5 Min	Set this value to allow the computer system to enter suspend mode after being inactive for 5 minutes.
10 Min	Set this value to allow the computer system to enter suspend mode after being inactive for 10 minutes.

➤ **Resume On Ring**

This item enables or disables the function of Resume On Ring that resume the system through incoming calls.

➤ **Resume On LAN**

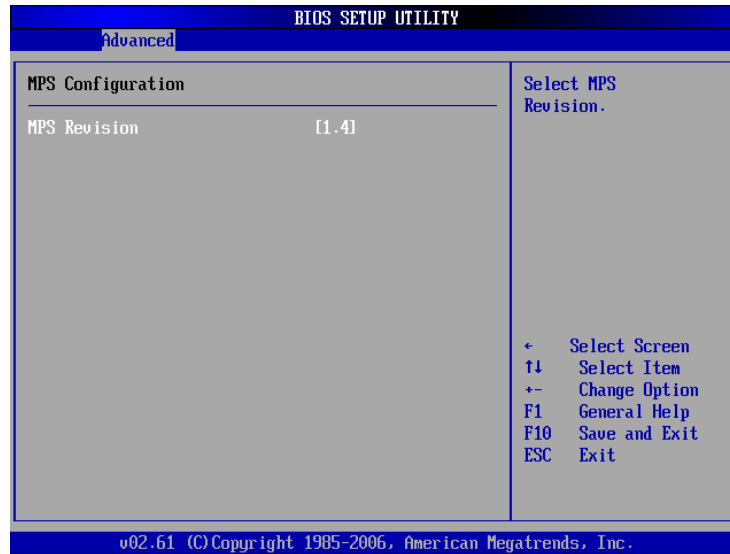
This item enables or disables the function of Resume On LAN that resume the system through the network.

➤ **Resume On PME#**

This item enables or disables the function of Resume On PME# (Power Management Event). Enabling this item allows the system to resume from standby mode.

MPS Configuration

This screen shows the MPS (Multi Processor Specification) Configuration, and you can change its value. A description of the selected item appears on the right side of the screen.

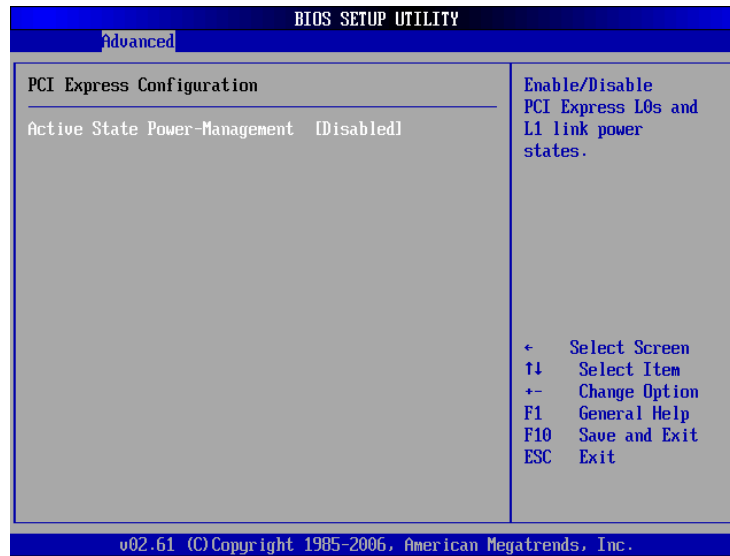


➤ **MPS Revision**

Use this item to select MPS (Multi Processor Specification) Revision 1.1 or 1.4. The default setting is 1.4.

PCI Express Configuration

This screen shows the PCI Express Configuration, and you can change its value. A description of the selected item appears on the right side of the screen.

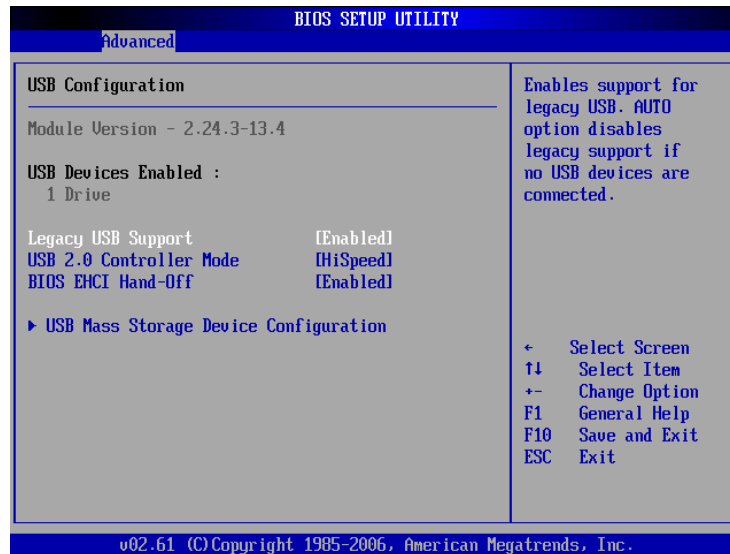


➤ Active State Power-Management

Use this item to enable or disable the function of Active State Power-Management to provide you with lower power consumption. The default setting is *Disabled*.

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**
Use this item to enable or disable support for USB device on legacy operating system. The default setting is *Enabled*.
- **USB 2.0 Controller Mode**
Use this item to configure the USB 2.0 controller. The default setting is *HiSpeed*.
- **BIOS EHCI Hand-Off**
Enabling this item provide the support for operating systems without an EHCI hand-off feature. The default setting is *Enabled*.

PCI PnP Menu

The PCI PnP menu allows users to change the advanced settings for PCI/PnP devices.



➤ Plug & Play O/S

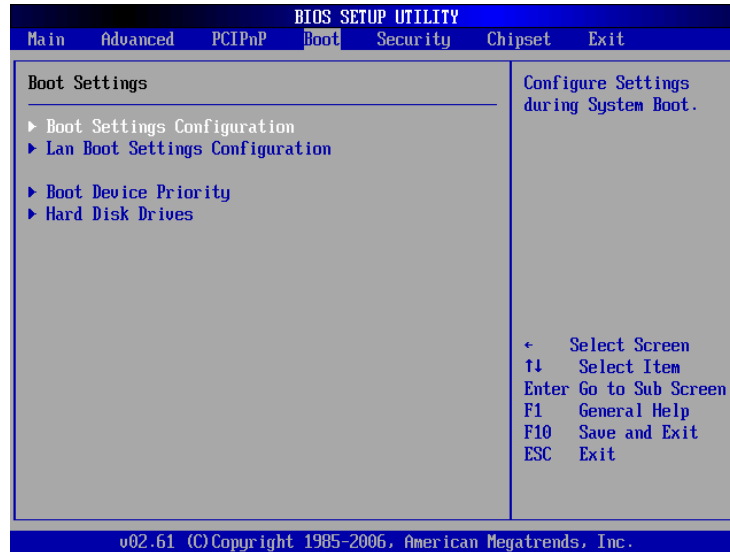
When the setting is No, Use this item to configure all the devices in the system. When the setting is Yes and if you install a Plug and Play operating system, the operating system configures the Plug and Play devices not required for boot. The default setting is *No*.

Boot Menu

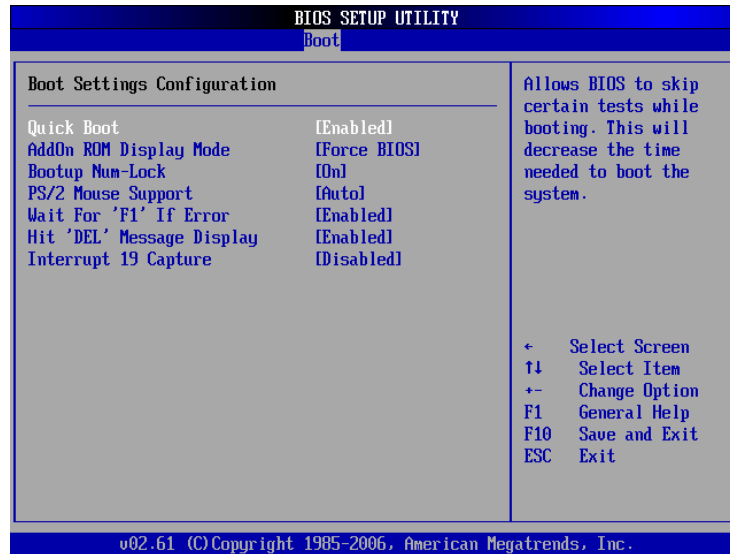
The Boot menu allows users to change boot options of the system. You can select any of the items in the left frame of the screen to go to the sub menus:

- Boot Settings Configuration
- Lan Boot Settings Configuration
- Boot Device Priority
- Hard Disk Drives

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



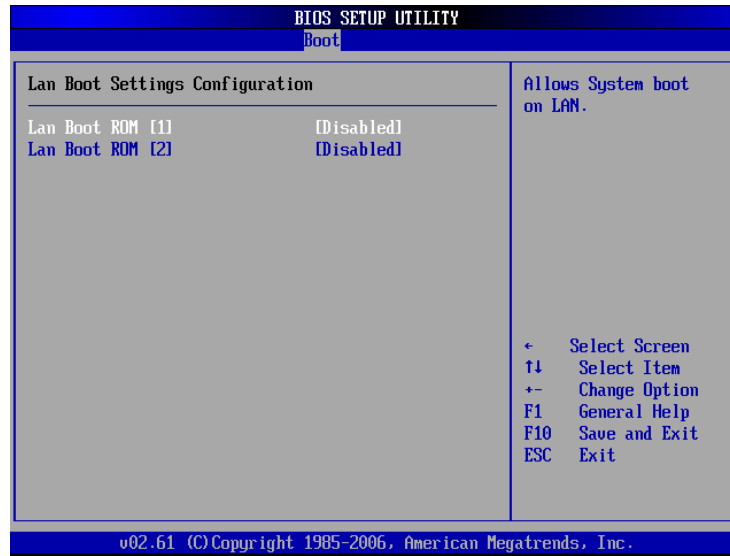
Boot Settings Configuration



- **Quick Boot**
Enabling this item lets the BIOS skip some power on self tests (POST). The default setting is *Enabled*.
- **AddOn ROM Display Mode**
This item selects the display mode for option ROM. The default setting is *Force BIOS*.
- **Boot Num-Lock**
Use this item to select the power-on state for the NumLock. The default setting is *On*.
- **Wait For 'F1' Of Error**
If this item is enabled, the system waits for the F1 key to be pressed when error occurs. The default setting is *Enabled*.
- **Hit 'DEL' Message Display**
If this item is enabled, the system displays the message "Press DEL to run Setup" during POST. The default setting is *Enabled*.
- **Interrupt 19 Capture**
If this item is enabled, this function makes the option ROMs to trap Interrupt 19. The default setting is *Disabled*.

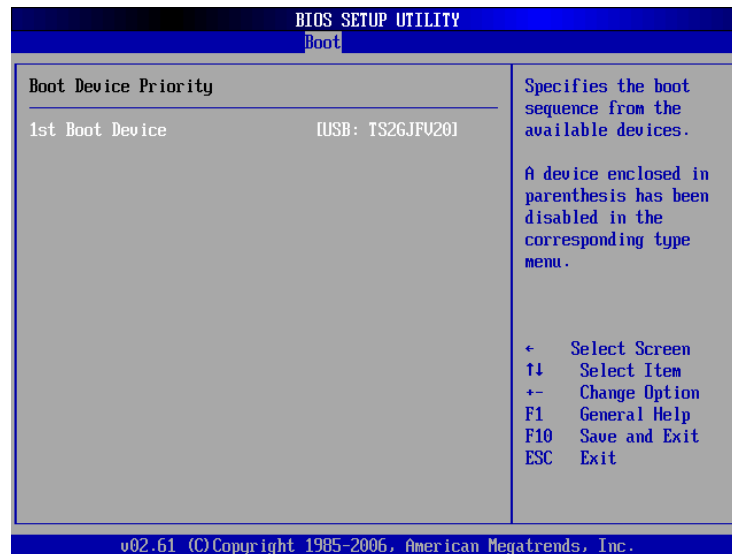
Lan Boot Settings Configuration

The Lan Boot Settings Configuration can enable or disable Lan Boot ROM [1] or ROM [2] to allow the system boot on LAN.



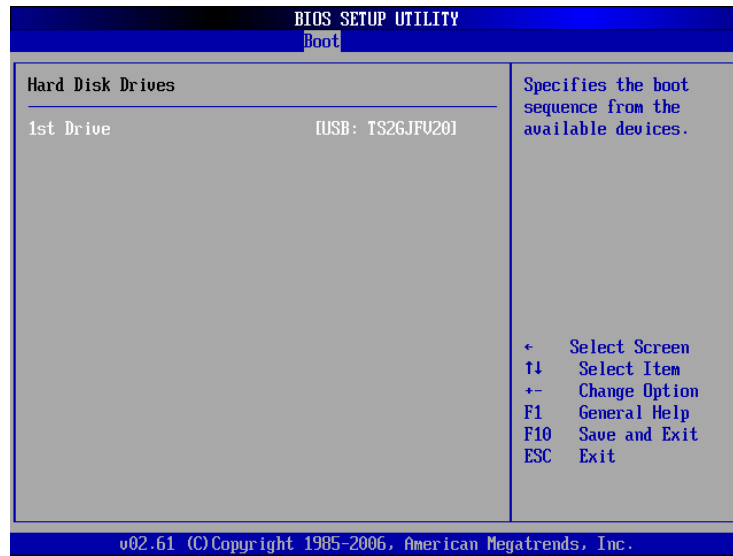
Boot Device Priority

The Boot Device Priority screen specifies the order in which the system checks for the device to boot from the available devices.



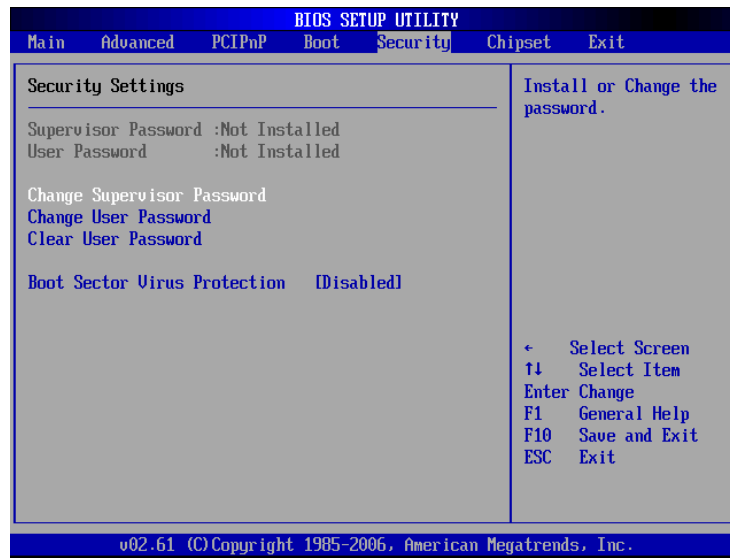
Hard Disk Drives

Use this screen to view the hard disk drives in the system.



Security Menu

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



- **Supervisor Password**
This item indicates whether a supervisor password has been set. If the password has been installed, Installed displays. If not, Not Installed displays.
- **User Password**
This item indicates whether a user password has been set. If the password has been installed, Installed displays. If not, Not Installed displays.
- **Change Supervisor Password**
Select this option and press <Enter> to access the sub menu. You can use the sub menu to change the supervisor password.
- **Change User Password**
Select this option and press <Enter> to access the sub menu. You can use the sub menu to change the user password.

➤ **Clear User Password**

Select this option and press <Enter> to access the sub menu. You can use the sub menu to clear the user password.

➤ **Boot Sector Virus Protection**

This option is near the bottom of the Security Setup screen. The default setting is *Disabled*

Disabled	Set this value to prevent the Boot Sector Virus Protection. This is the default setting.
Enabled	Select Enabled to enable boot sector protection. It displays a warning when any program (or virus) issues a Disk Format command or attempts to write to the boot sector of the hard disk drive. If enabled, the following appears when a write is attempted to the boot sector. You may have to type N several times to prevent the boot sector write. Boot Sector Write! Possible VIRUS: Continue (Y/N)? _ The following appears after any attempt to format any cylinder, head, or sector of any hard disk drive via the BIOS INT 13 Hard disk drive Service: Format!!! Possible VIRUS: Continue (Y/N)?

Chipset Menu

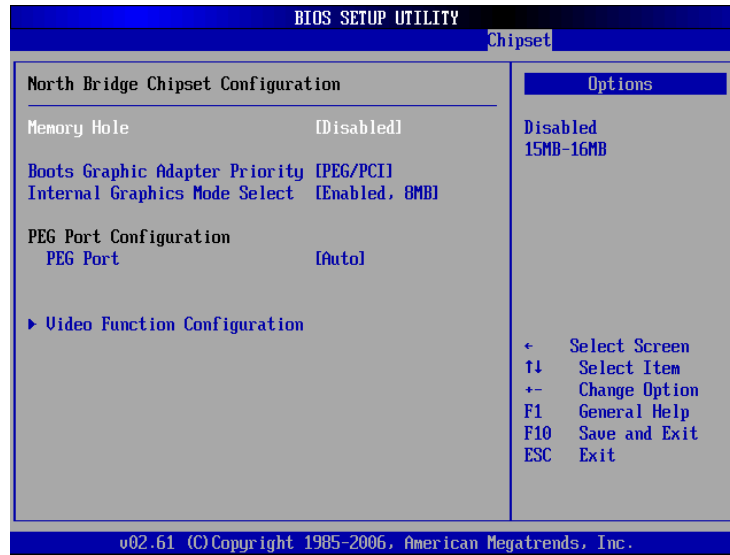
The Chipset menu allows users to change the advanced chipset settings. You can select any of the items in the left frame of the screen to go to the sub menus:

- North Bridge Configuration
- South Bridge Configuration

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

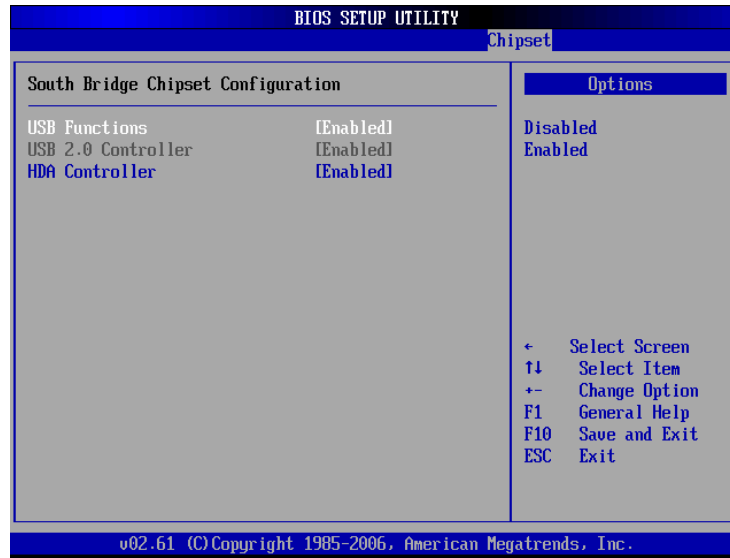


North Bridge Configuration



- **Boot Graphic Adapter Priority**
This item allows you to select the graphics controller as the primary boot device.
- **Internal Graphics Mode Select**
This item allows you to select the amount of system memory used by the internal graphics device.
- **PEG Port**
This item allows you to disable or enable PEG port control.

South Bridge Configuration

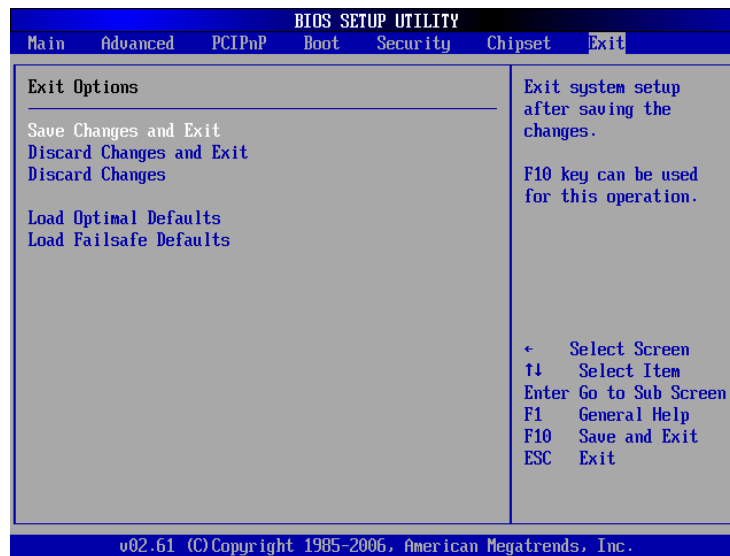


➤ **USB Function/USB 2.0 Controller/HAD Controller**

These items, respectively, allow you to enable or disable USB/USB 2.0/HAD function/controller.

Exit Menu

The Exit menu allows users to load your system configuration with optimal or failsafe default values.



- **Exit Saving Changes**

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 Exit Saving Changes from the Exit menu and press <Enter>. Select Ok to save changes and exit.
- **Exit Discarding Changes**

Select this option to quit Setup without making any permanent changes to the system configuration. Select Exit Discarding Changes from the Exit menu and press <Enter>. Select Ok to discard changes and exit.
- **Load Optimal Defaults**

It automatically sets all Setup options to a complete set of default settings when you Select this option. The optimal settings are designed for maximum system performance, but may not work best for all computer applications. In particular, do not use the Optimal Setup options if your computer is experiencing system configuration problems. Select Load Optimal Defaults from the Exit menu and press <Enter>. Select Load Optimal Defaults from the Exit menu and press <Enter>.
- **Load Fail-Safe Defaults**

It automatically sets all Setup options to a complete set of default settings when you Select this option. The Fail-Safe settings are designed for maximum system stability, but not maximum performance. Select the Fail-Safe Setup options if your computer is experiencing system configuration problems. Select Load Fail-Safe Defaults from the Exit menu and press <Enter>. Select Ok to load Fail-Safe defaults

APPENDIX A

WATCHDOG TIMER

Watchdog Timer Setting

After the system stops working for a while, it can be auto-reset by the Watchdog Timer. The integrated Watchdog Timer can be set up in the system reset mode by program.

Timeout Value Range

- 1 to 255
- Minute / Second

Program Sample

Watchdog Timer can be set to system reset after 5-second timeout.

2E, 87	
2E, 87	
2E, 07	
2F, 00	Logical Device 0
2E, 2B	Set WDT Funtion Enable
2F, 00	
2E, 07	
2F, 08	Logical Device 8
2E, 30	Activate
2F, 01	
2E, F3	Set Second
2F, N	N = 0 or 4
2E, F4	Set Value
2F, M	M = 00 ~ FF

Using the Watchdog Function

Start

↓

Un-Lock WDT: O 2E 87 ; Un-lock super I/O
 O 2E 87 ; Un-lock super I/O

↓

Select Logic device: O 2E 07
 O 2F 00

Set WDT Funtion : O 2E 2B
 O 2F C0

Select Logic device: O 2E 07
 O 2F 08

↓

Activate WDT: O 2E 30
 O 2F 01

↓ Set Second or Minute : O 2E F5
 O 2F N N=00 or 08(See below table)

↓

Set base timer : O 2E F6
 O 2F M=00,01,02,...FF(Hex) ,Value=0 to 255

↓

WDT counting

↓

re-set timer: O 2E F4
 O 2F M ; M=00,01,02,...FF(See below table)

↓

IF No re-set timer: WDT time-out, generate RESET

IF to disable WDT: O 2E 30
 O 2F 00 ; Can be disable at any time

M	N=0	M	N=0	M	N=0	M	N=8
02	1sec	33	50sec	B5	180sec	11	992sec
03	2sec	38	55sec	BF	190sec	22	2012sec
04	3sec	3D	60sec	C9	200sec	33	3032sec
05	4sec	42	65sec	D3	210sec	43	3992sec
06	5sec	47	70sec	DD	220sec	54	5012sec
07	6sec	4C	75sec	E7	230sec	65	6032sec
08	7sec	51	80sec	F1	240sec	75	6992sec
09	8sec	56	85sec	FB	250sec	86	8012sec
M	N=0	M	N=0	M	N=8	M	N=8
0B	10sec	65	100sec	05	272sec	97	9032sec
10	15sec	6F	110sec	06	332sec	A7	9992sec
15	20sec	79	120sec	07	392sec	B8	11012sec
1A	25sec	83	130sec	08	452sec	C9	12032sec
1F	30sec	8D	140sec	09	512sec	D9	12992sec
24	35sec	97	150sec	0A	572sec	EA	14012sec
29	40sec	A1	160sec	0B	632sec	FB	15032sec
2E	45sec	AB	170sec	0C	692sec		

For Additional Assistance
Contact Your VarTech Sales Representative

Vartech Systems, Inc.
11422 Industriplex Blvd.
Baton Rouge, LA 70809

800-223-8050
Fax: 225-297-2440

www.vartechsystems.com