Veriton S480G/S488G/S480

Service Guide

Service guide files and updates are available on the AIPG/CSD web; for more information please refer to http://csd.acer.com.tw

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Revision History

Please refer to the table below for the updates made on Veriton S480G/S488G/S480 Service Guide.

Date	Chapter	Updates

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Conventions

The following conventions are used in this manual:

SCREEN MESSAGES	Denotes actual messages that appear on screen.
NOTE	Gives bits and pieces of additional information related to the current topic.
WARNING	Alerts you to any damage that might result from doing or not doing specific actions.
CAUTION	Gives precautionary measures to avoid possible hardware or software problems.
IMPORTANT	Remind you to do specific actions relevant to the accomplishment of procedures.

Preface

Before using this information and the product it supports, please read the following general information.

1. This Service Guide provides you with all technical information relating to the BASIC CONFIGURATION decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office MAY have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These LOCALIZED FEATURES will NOT be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.
2. Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

System Specifications

Features

Operating System

- Microsoft Windows Vista Home Basic SP1
- Microsoft Windows Vista Business SP1(32bit)
- Microsoft Windows Vista Business SP1(64bit)
- Microsoft Windows XP Professional SP3
- Linpus Linux X Window mode
- FreeDOS
- Microsoft Windows Vista Home Premium SP1(32bit)(Only for Extensa)

Processor

- Socket Type: Intel® Socket T LGA 775 pin
- Processor Type:
  - CPUs which compliant with Intel FSB 800/1066/1333 MHz CPUs

Chipset

- Intel G43 + ICH10R

PCB

- Form Factor: Micro ATX
- Dimension/Layer: 244mm x244mm

Memory

- Memory Type: DDR3 1066/800
- Support single channel 64 bit mode with maximum memory size up to 8GB
- Support un-buffered DIMM (ICH10R)
- DIMM Slot: 6
- Memory Max: 1GB to8GB DDR3 memory technologies
- Capacity: Up to 2GB per DIMM with maximum memory size up to 8GB

PCI

- PCI Express Slot Type: x16
  - PCI Express x16 Slot Quantity: 1
- PCI Express Slot Type: x1
  - PCI Express x1 Slot Quantity: 1
- PCI Slot Type: PCI 2.25V
  - Quantity: 2

FDD

- Slot Quantity: 1
- Design Criteria:
  - Should support 1.44MB/3 mode 3.5” Devices

SATA

- Slot Type: SATA slot
- Slot Quantity: 6
- Storage Type support:
  - HDD/CD-ROM/CD-RW/DVD-ROM/DVD-RW/DVD+RW/DVD Dual/DVD SuperMultiPlus/Blu-Ray ODD

Audio

- Audio Type: HD audio codec
- Audio Channel: 5.1 channel
- Audio Controller /Codec: ALC662-VC 5.1CH
- Connectors support:
  - Rear 3 jack follow HD audio definition,
  - Audio jacks color coding: should meet Microsoft Windows Logo Program Device Requirements: Audio-0002
  - 1 S/PDIF-out header (1*4)
  - 1 front panel audio header (2*5)
  - S/N ratio: 90 dB at rear output jack

LAN

- MAC Controller: ICH10R
- Should be worked under 10M/100M/1000Mbs environment
- PHY: Proposed by ODM (Marvel 88E8071)

USB

- Controller Type: ICH10R
- Ports Quantity: 12
  - 6 port for real panel
  - On-board: 3 2*5 headers
    - 4 ports for front daughter board(2ports for Extensa)
    - 2 ports for internal card reader
  - Connector Pin: standard Intel FPIO pin definition
- Data transfer rate support:
  - USB 2.0/1.1
- Design Criteria:
  - Should meet Acer USB drop criteria

BIOS

- BIOS Type: AMI Kernel with Gateway skin
- Size: 4Mb/8MB
- Note:
  - Boot ROM should be included (PXE function should be built in with default and RPL function is optional by service BIOS)
  - BIOS shall auto detect FDD to avoid checksum error when boot

I/O Connector

- Controller: Super I/O ITE8720

Rear I/O Connector

- 1 PS/2 Keyboard port,
- 1 PS/2 Mouse port,

- 1 Serial port
- 1 D-Sub VGA port
- 1 DVI-D port
- 1 RJ45 LAN port,
- 6 USB ports
- 1 1394 port
- 5.1 channel phone jack (3 audio jacks)

On-board connectors

- 1 CPU socket
- 4 DDR-3 memory sockets
- 1 PCI Express x16 slot
- 1 PCI Express x 1 slots
- 2 PCI slots
- 6 SATAII connectors(Need to confirm no interfere with gfx card)
- 3 2*5 pin Intel FPIO specification USB pin connectors (follow Intel FPIO standard Specification)
- 1 2*5 pin Intel FPIO spec. Microphone In/ Headphone Out pin connectors
- 1 SPDIF out header x2
- 1 4 pin CPU/SYS Fan connector
- 1 3 pin System FAN connector with linear circuit
- 1 24pin + 4pin ATX interface PS3/PS2 SPS connector
- 1 2*7 pin front panel I/O header
- 1 Jumper for clear CMOS
- 1 2pin OBR header
- 1 on board buzzer
- 2 reserved 2pin GPIO connector
- 1 2*10pin TPM header
- 1 Serial port header (COM2)

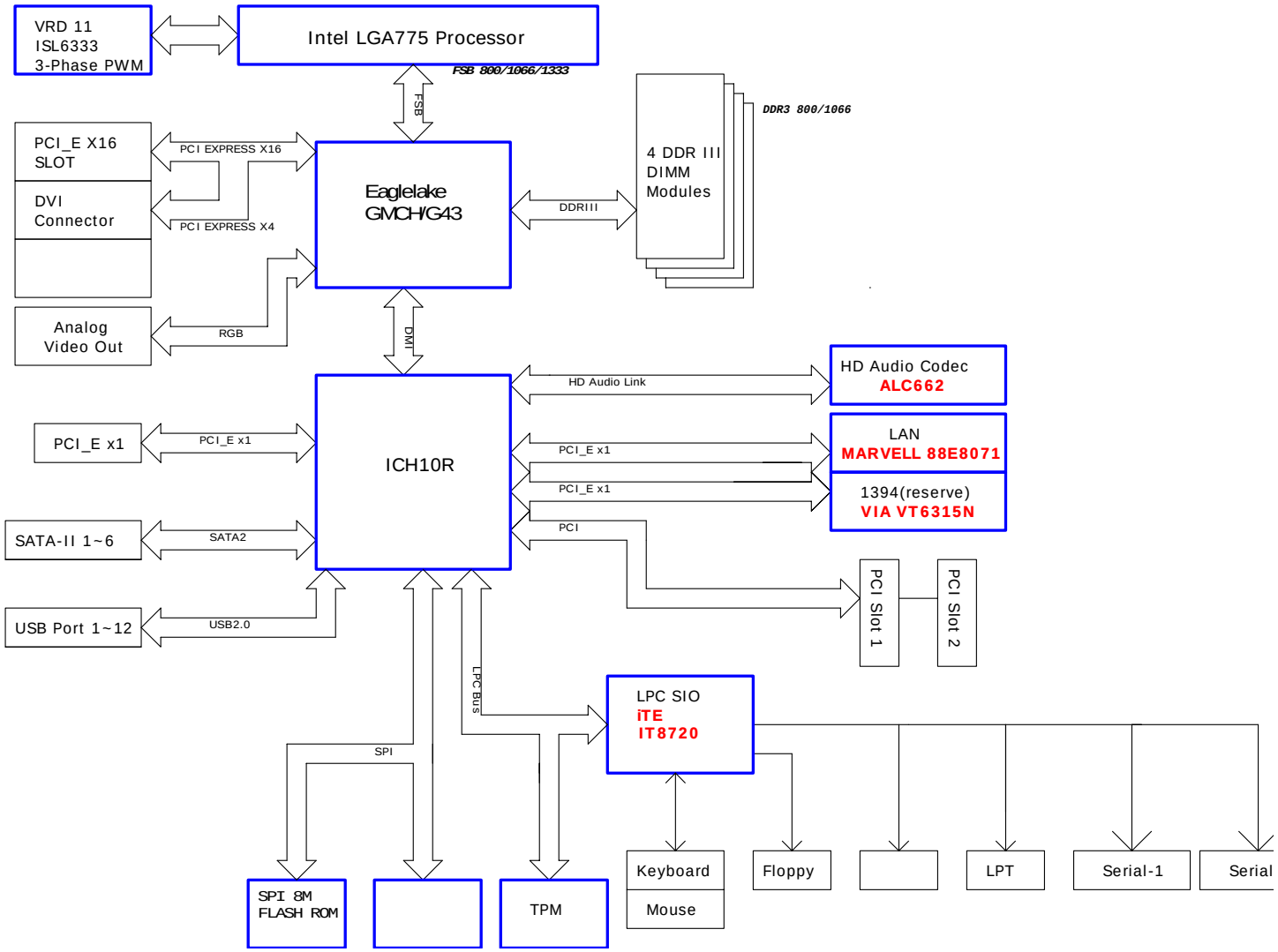
- 1 2pin Intrusion Alarm connector
- 1 LPT 2*13pin header
- 1 2*4 pin internal speaker header
- Color management for on board connecter

Power Supply

- Power Supply Mounting Features
  - Chassis accepts ATX-style power supply
  - Chasses accepts PS2, PS3 style power supply
  - Features for internal mounting tab
  - Location of 4 external mounting holes
- Power Supply Electrical Design Feature
  - 300W/250W in stable mode (Acer Assign System Power Unit)
  - Voltage design should be covered +5V, +3.3V, +12V, +5VSB, -12V (attention to 12V output capability)
  - Demand for both PFC/Non-PFC solutions (two different quotations are needed)
  - Minimum 4 Serial ATA power connector solution should be included (by default)
  - Minimum 1 big4-pin power connector included
  - Minimum 1 small 4-pin power connector included
  - Full Range PSU
  - PS2 style

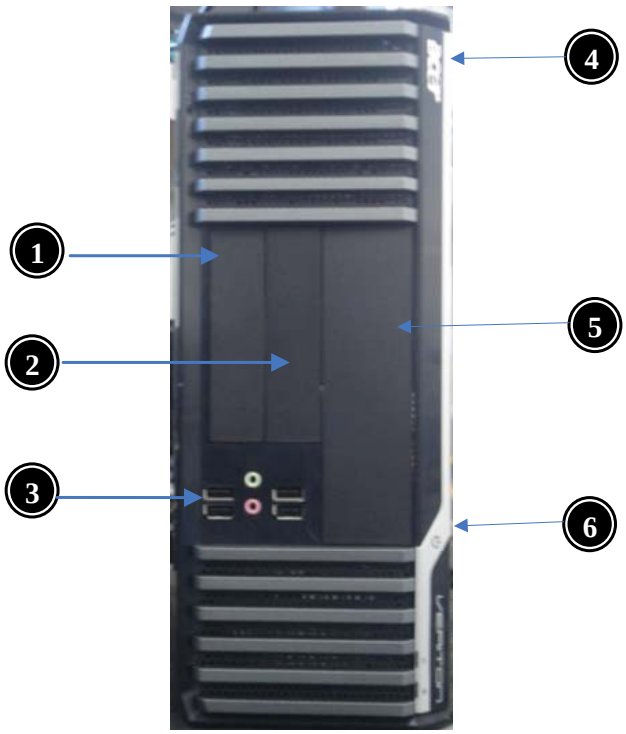
Block Diagram

Block Diagram



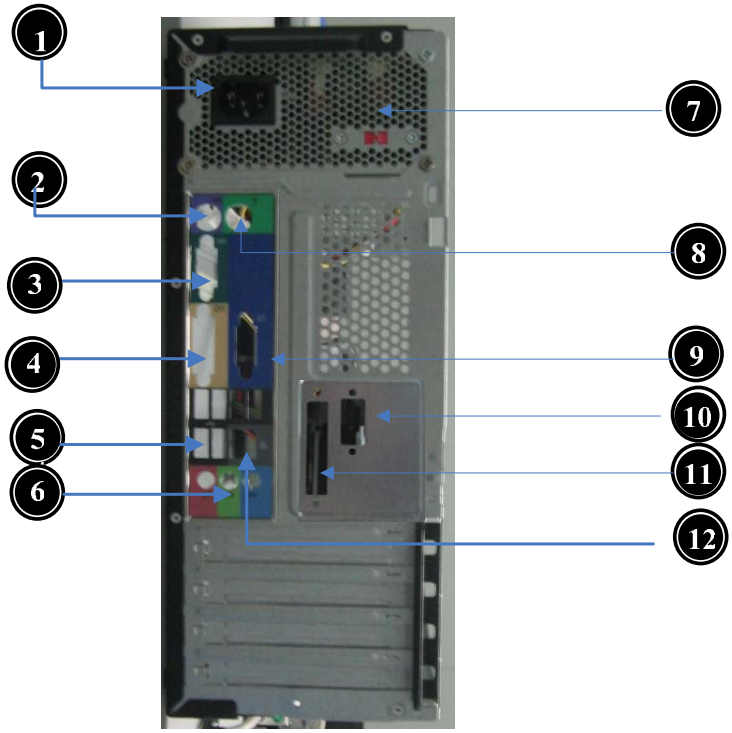
Veriton S480G/S488G/S480 Front Panel

The computer's front panel consists of the following:



Label	Description
1	Card reader
2	FDD
3	USB and audio jack ports
4	Acer Logo
5	Optical drive
6	Power Button

Veriton S480G/S488G/S480 Rear Panel



Label	Description	Label	Description
1	Power card socket	7	Fan aperture
2	PS/2 keyboard connecter	8	PS/2 mouse connecter
3	Serial port	9	D-Sub port
4	DVI-D port	10	COM2 port
5	USB 2.0 connector	11	Print port
6	Audio connector	12	LAN connector

Hardware Specifications and Configurations

Processor

Item	Specification
Type	Intel Socket T LGA 775 pin
Socket	LGA 775 pin
FSB	800/1066/1333 MHz
Minimum operating speed	0 MHz (If Stop CPU Clock in Sleep State in BIOS Setup is set to Enabled.)

BIOS

Item	Specification
BIOS code programmer	AMI Kernel with Gateway skin
BIOS version	P01-A0
BIOS ROM type	SPI Flash
BIOS ROM size	4Mb/8MB
Support protocol	SMBIOS(DMI)2.4/DMI2.0
Device Boot Support	- 1st priority: SATA HDD - 2nd priority: CD-ROM - 3rd priority: FDD - 4th priority: LAN - 5th priority: USB device
Support to LS-120 drive	YES
Support to BIOS boot block feature	YES

BIOS Hotkey List

Hotkey	Function	Description
Del	Enter BIOS Setup Utility	Press while the system is booting to enter BIOS Setup Utility.

Main Board Major Chips

Item	Specification
North Bridge	Intel G43
South Bridge	ICH 10R
APG controller	Intel G43
Super I/O controller	ITE 8720
Audio controller	Realtek HD audio codec ALC662-VC HD codec 5.1
LAN controller	Marvel 88E8071
HDD controller	ICH 10R
Keyboard controller	ITE 8720

Memory Combinations

Slot	Memory	Total Memory
Slot 1	1GB, 2GB	1GB ~2GB
Slot 2	1GB, 2GB	1GB ~2GB
Slot 3	1GB, 2GB	1GB ~2GB
Slot 4	1GB, 2GB	1GB ~2GB
Maximum System Memory Supported		1GB ~8GB

System Memory

Item	Specification
Memory slot number	4slot
Support Memory size per socket	1GB/2GB
Support memory type	DDR3
Support memory interface	DDR3 1066/800MHz
Support memory voltage	1.5V
Support memory module package	240-pin DDR3
Support to parity check feature	Yes
Support to error correction code (ECC) feature	No
Memory module combinations	You can install memory modules in any combination as long as they match the above specifications.

Audio Interface

Item	Specification
Audio controller	Intel ICH 10R
Audio controller type	ALC662-VC HD
Audio channel	codec 5.1
Audio function control	Enable/disable by BIOS Setup
Mono or stereo	Stereo
Compatibility	Sound Blaster Pro/16 compatible Mixed digital and analog high performance chip Enhanced stereo full duplex operation High performance audio accelerator and AC'97 support Full native DOS games compatibility Virtual FM enhances audio experience through real-time FM-to-Wavetable conversionMPU-401 (UART mode) interface for Wavetable synthesizers and MIDI devices Integrated dual game port Meets AC'97and WHQL specifications
Music synthesizer	Yes, internal FM synthesizer
Sampling rate	48 KHz (max.)
MPU-401 UART support	Yes
Microphone jack	Supported
Headphone jack	Supported

SATA Interface

Item	Specification
SATA controller	Intel ICH 10R
SATA controller resident bus	PCI bus
Number of SATA channel	SATA X 6
Support bootable CD-ROM	YES

USB Port

Item	Specification
Universal HCI	USB 2.0/1.1
USB Class	Support legacy keyboard for legacy mode
USB Connectors Quantity	6 back panel ports 4 ports for front daughter board 2 ports for 3.5” card reader module

Environmental Requirements

Item	Specification
Temperature	
Operating	+5°C ~ +35°C
Non-operating	-20 ~ +60°C (Storage package)
Humidity	
Operating	15% to 80% RH
Non-operating	10% to 90% RH
Vibration	
Operating (unpacked)	5 ~ 500 Hz: 2.20g RMS random, 10 minutes per axis in all 3 axes 5 ~500 Hz: 1.09g RMS random, 1 hour per axis in all 3 axes

Power Management

Devices	S1	S3	S4	S5
Power Button	V	V	V	V
USB Keyboard/Mouse	V	V	N/A	N/A
PME	Disabled	Disabled	Disabled	Disabled
RCT	Disabled	Disabled	Disabled	Disabled
WOR	Disabled	Disabled	Disabled	Disabled

- Devices wake up from S3 should be less than
- Devices wake up from S5 should be less than 10 seconds

Power Management Function(ACPI support function)

Device Standby Mode

- Independent power management timer for hard disk drive devices(0-15 minutes,time step=1minute).
- Hard Disk drive goes into Standby mode(for ATA standard interface).
- Disable V-sync to control the VESA DPMS monitor.
- Resume method:device activated (keyboard for DOS, keyboard &mouse for Windows.
- Resume recovery time 3-5sec.

Global Standby Mode

- Global power management timer(2-120minutes,time step=10minute).
- Hard disk drive goes into Standby mode(for ATA standard interface).
- Disable H-sync and V-sync signals to control the VESA DPMS monitor.
- Resume method: Resume to original state by pushing external switch Button,modem ring in,keyboard an mouse for APM mode.
- Resume recovery time :7-10sec

Suspend Mode

- Independent power management timer(2-120minutes,time step=10minute)or pushing extern switch button.
- CPU goes into SMM
- CPU asserts STPCLK# and goes into the Stop Grant State.
- LED on panel turns amber colour.
- Hard disk drive goes into SLEEP mode (for ATA standard interface).
- Disable H-sync and V-sync signals to control the VESA DPMS monitor.
- Ultra I/O and VGA chip go into power saving mode.
- Resume method: Resume to original state by pushing external switch Button,modem ring in,keyboard an mouse for APM mode
- Return to original state by pushing external switch button,modem ring in and USB keyboard for ACPI mode.

ACPI

- ACPI specification 1.0b
- S0,S1,S2 and S5 sleep state support.
- On board device power management support.
- On board device configuration support.

System Utilities

The manufacturer or the dealer already configures most systems. There is no need to run Setup when starting the computer unless you get a Run Setup message.

The Setup program loads configuration values into the battery-backed nonvolatile memory called CMOS RAM.

This memory area is not part of the system RAM.

NOTE: If you repeatedly receive Run Setup messages, the battery may be bad/flat. In this case, the system cannot retain configuration values in CMOS.

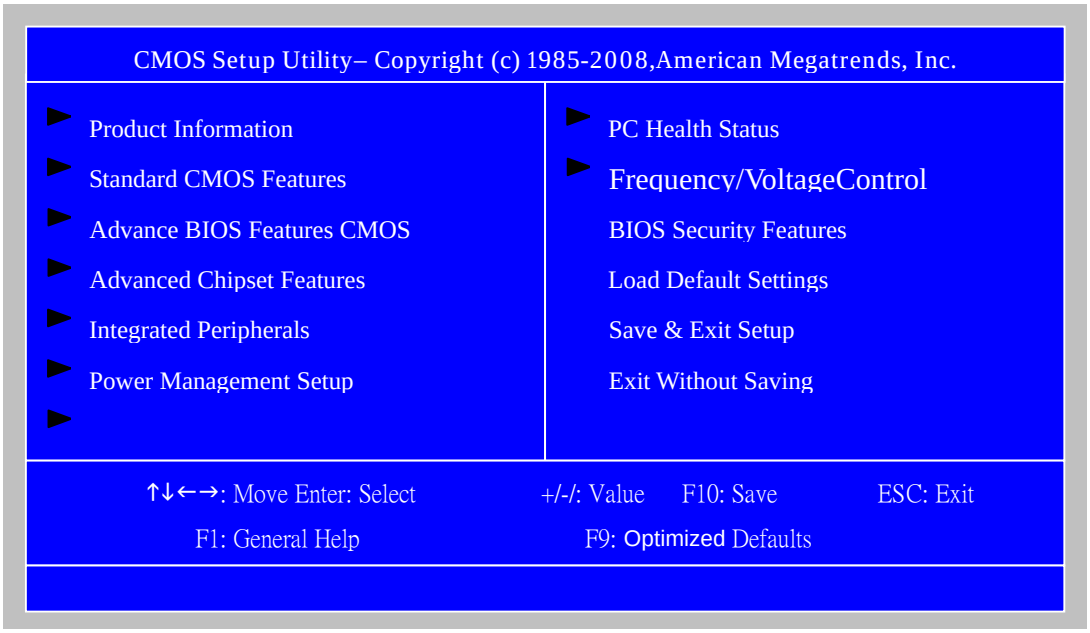
Before you run Setup, make sure that you have saved all open files. The system reboots immediately after you exit Setup.

Entering Setup

Power on the computer and the system will start POST (Power On Self Test) process. When the message of “Press DEL to enter SETUP” appears on the screen, press the key of [Delete] to enter the setup menu.

NOTE: If the message disappears before you respond and you still wish to enter Setup, restart the system by turning it OFF and On. You may also restart the system by simultaneously pressing [Ctrl+ Alt+ Delete].

The Setup Utility main menu then appears:

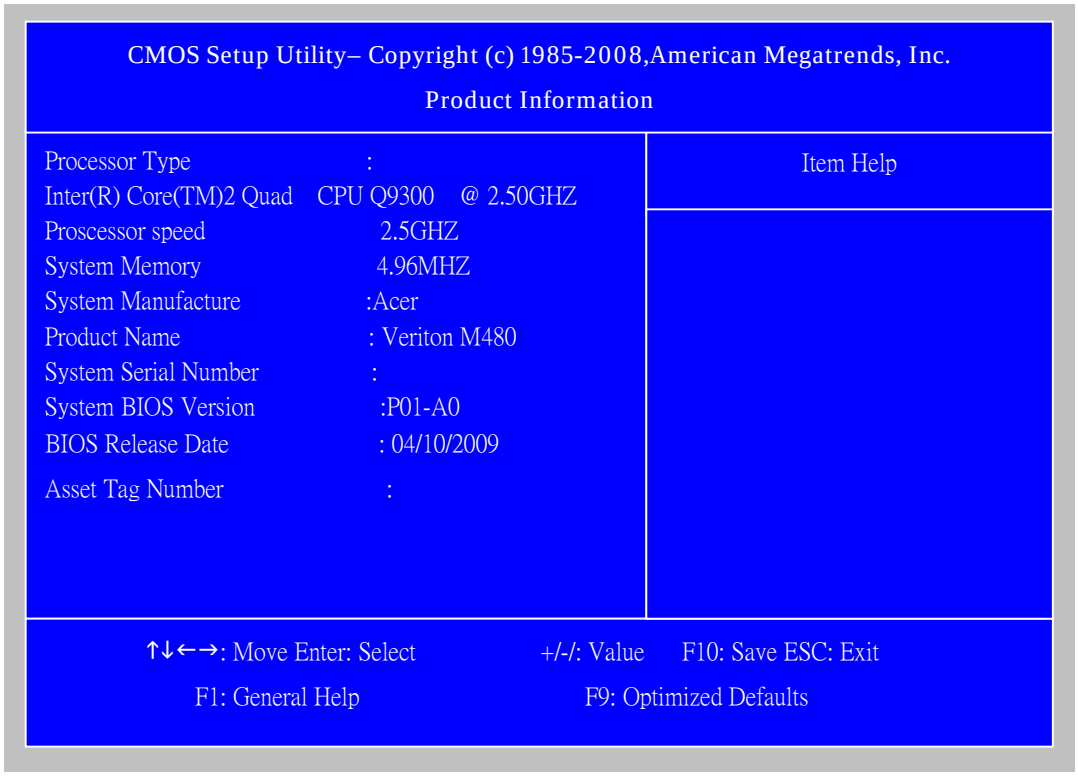


The items in the main menu are explained below:

Parameter	Description
Production Information	This page shows the relevant information of the main board
Standard CMOS Features	This setup page includes all the items in standard compatible BIOS
Advance BIOS Features	This setup page includes all the items of Award special enhanced features
Advance Chipset Features	This setup page includes all advanced chipset features
Integrated Peripherals	This setup page includes all onboard peripherals
Power Management Setup	This setup page includes all the items of Green function features
PC Health Status	This setup page is the System auto detect Temperature, voltage, and fan speed
Frequency/Voltage Control	This setup page is the System Frequency/Voltage setup
BIOS Security Features	Change, set or disable password. It allows you to limit access to the System
Load Optimized Defaults	Load Optimized Settings Default Settings indicates the value of the system parameters which the system would be in best performance configuration
Save & Exit Setup	Save CMOS value settings to CMOS and exit setup
Exit Without Saving	Abandon all CMOS value changes and exit setup

Product Information

The screen below appears if you select Product Information from the main menu: The Product Information menu contains general data about the system, such as the product name, serial number, BIOS version, etc. This information is necessary for troubleshooting (maybe required when asking for technical support).

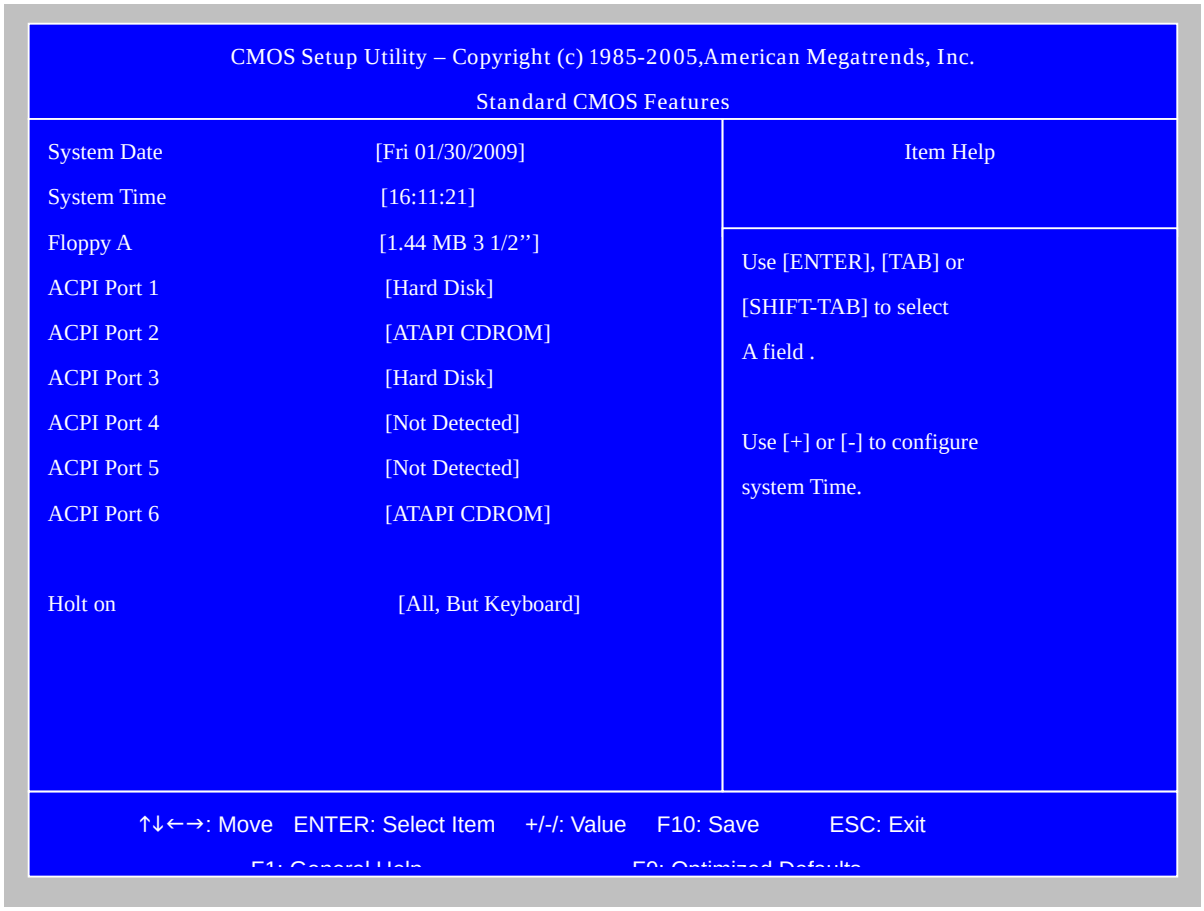


The following table describes the parameters found in this menu:

Parameter	Description
Processor Type	This item lists the Processor Type
Processor speed	This item lists the Processor speed
System Memory	This item lists the System Memory
System Manufacturer	This item lists the System Manufacturer
Product Name	This item lists the system BIOS version
System Serial Number	This item lists the system serial number
System BIOS Version	This item lists the system BIOS version
BIOS Release Date	This item lists the BIOS release date

Standard CMOS Setup

Select standard CMOS features from the main menu to configure some basic parameters in your system the following screen shows the standard CMOS features menu:

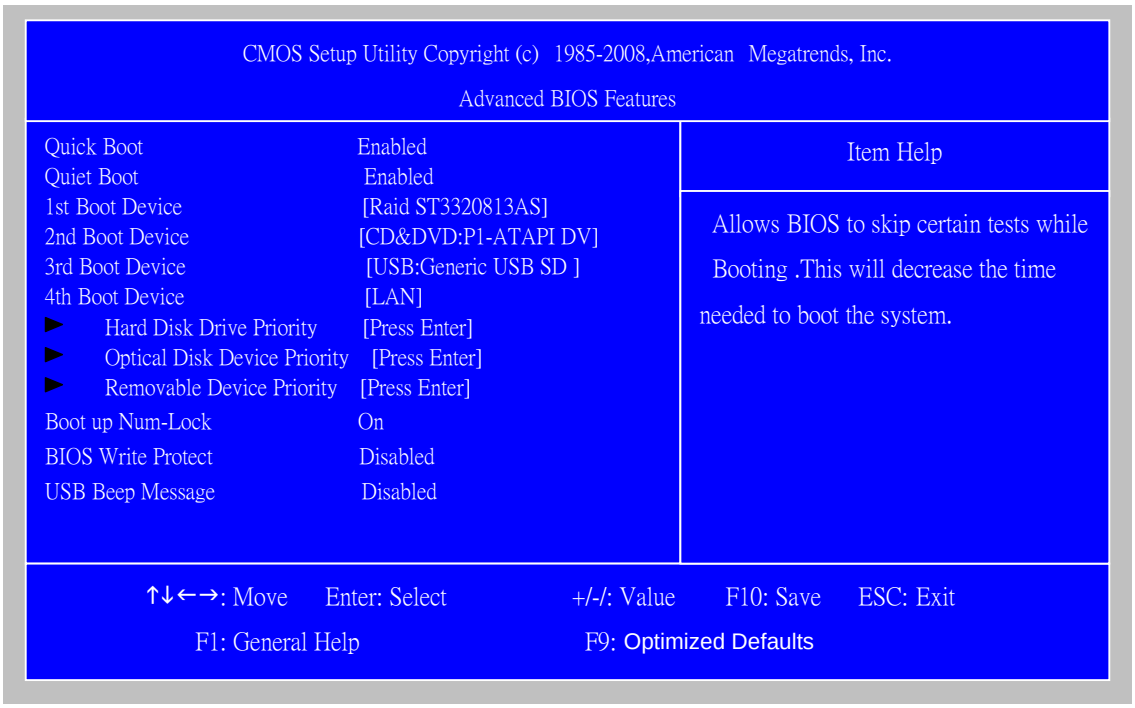


The following table describes the parameters found in this menu.

Parameter	Description	Options
System Date	To set the date following the weekday-month-date-year format	Week: From [Sun.] to [Sat.]. determined by BIOS and is display only Day: from [1] to [31] (or the maximum allowed in the month. Year: from 1999 to 2099
System Time	To set the time following the hour-minute-second format	The items format is [hour] [minute][second]. The time is calculated base on the 24-hour timer clock.
Halt On	This item enables use to select the situation if the BIOS stops the POST process and the notification	All Errors No Errors All, But Keyboard All, But Diskette All, But Disk/Key

Advanced Setup

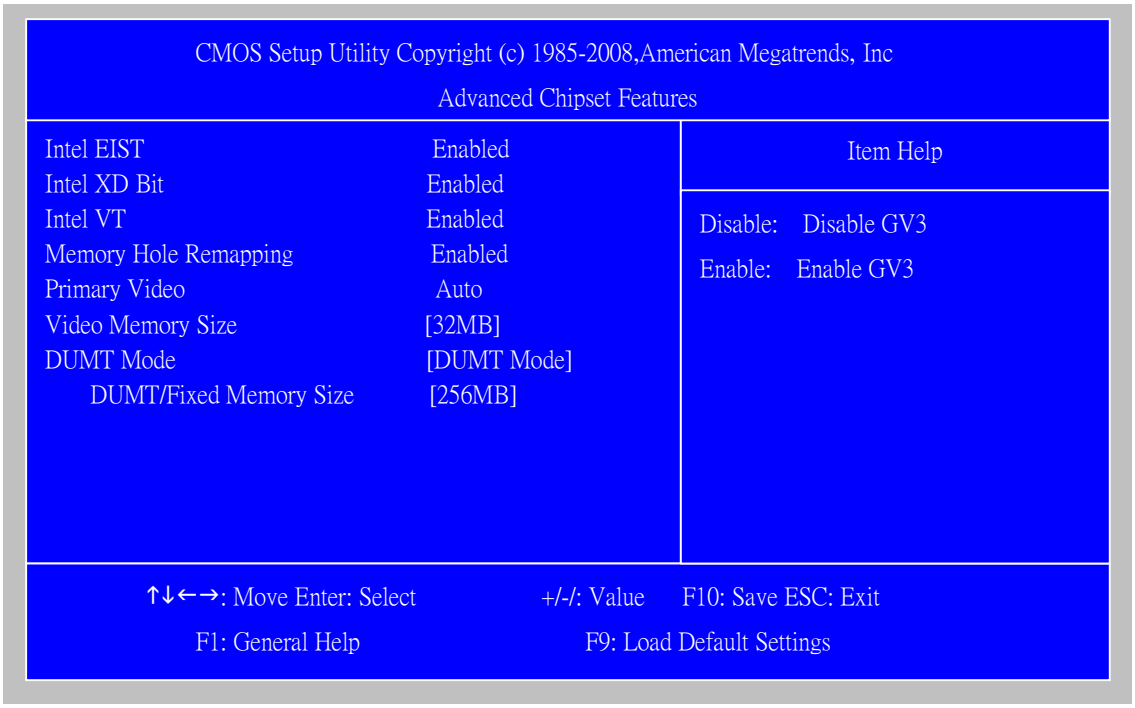
The following screen shows the Advanced Setup:



The following table describes the parameters found in this menu.

Parameter	Description	Options
Quick Boot	Allows BIOS to skip certain tests while booting. This will decrease the time needed to boot the system	[Enabled], [Disabled]
1 st Boot Device	The item allows you to see the sequence of boot device where BIOS attempts to load the disk operation system.	
2 nd Boot Device		
3 rd Boot Device		
4 th Boot Device		
Hard Disk Drive Priority	Specifies the boot device. Priority sequence from available Hard Drives	
Removable Device Priority		
Boot up Num-Lock On	Select Power-on state for Numlock	On,Off
USB Beep Message	Enables the beep during USB device enumeration	[Enabled], [Disabled]

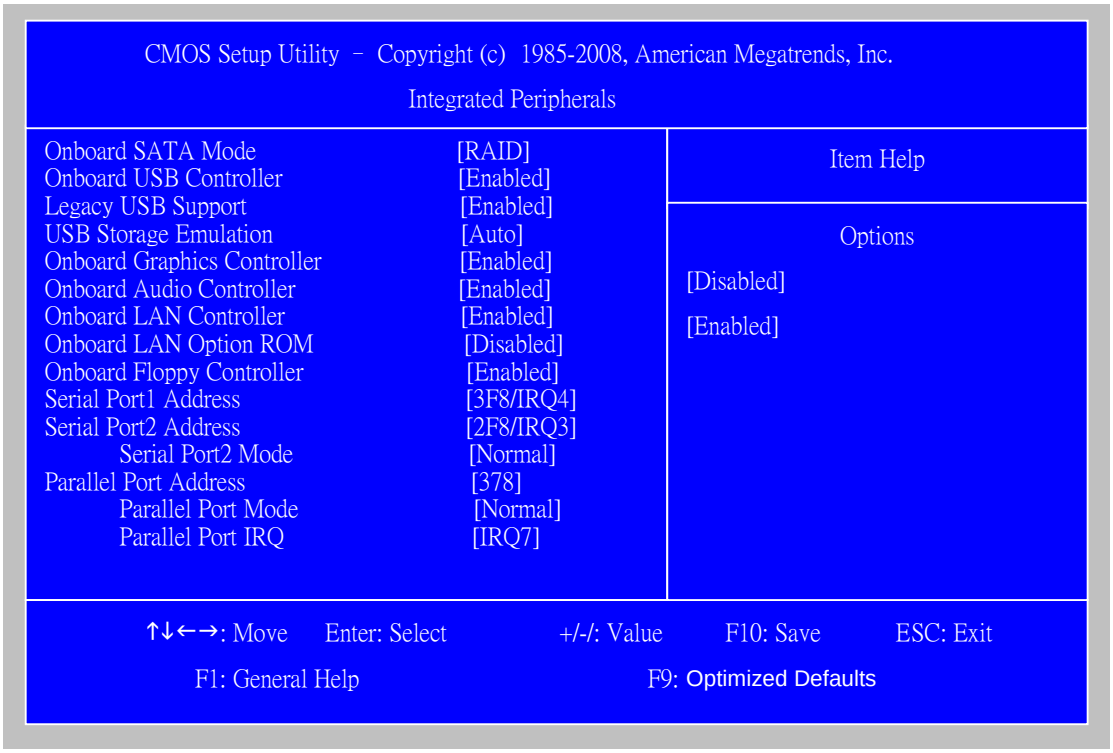
Advanced Chipset Setup



The following table describes the parameters found in this menu.

Parameter	Description	Options
Intel EIST	For Intel platform	Disabled/Enabled
Intel XD Bit	For Intel platform	Disabled/Enabled
Intel VT	For Intel platform	Disabled/Enabled
Memory Hole Remapping	You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. The user information of peripherals that need to use this area of system memory usually discuss their memory requirements.	Disabled/Enabled
Primary Video	Priority for Auto : PCIE -> Onboard -> PCI	Auto/PCIE/Onboard/PCI
Video Memory Size	This item lists the system Video Memory Size	
DUMT/Fixed Memory Size	This item lists the system DUMT/Fixed Memory Size	

Integrated Peripherals

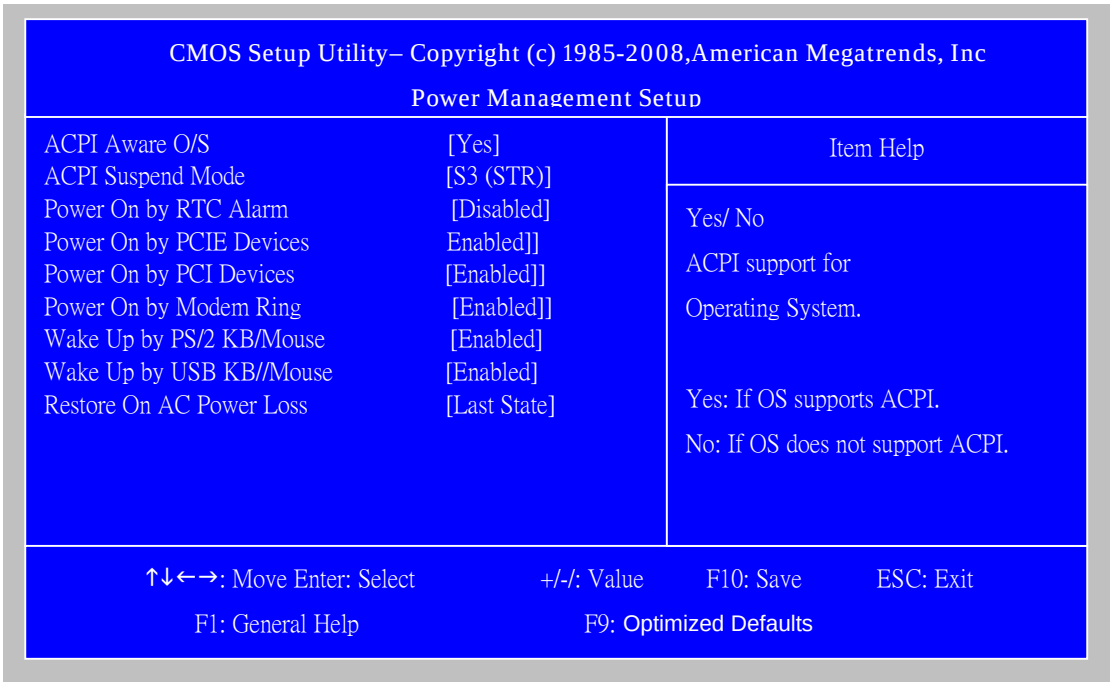


The following table describes the parameters found in this menu.

Parameter	Description	Options
Onboard SATA Mode	This item is only available when onboard SATA controller is enabled	Disabled/Enabled
Onboard USB Controller	Always enabled USB keyboard during POST no matter what option is set	Disabled/Enabled
Legacy USB Support	This item is only available when on board USB controller is enabled	Disabled/Enabled
Onboard Audio Controller	Always enabled Audio POST no matter what option is set	Disabled/Enabled
Onboard LAN Controller	Always enabled Audio POST no matter what option is set	Disabled/Enabled
Onboard LAN Option ROM	This item is only available when onboard LAN controller is enabled	Disabled/Enabled
Onboard Floppy Controller	Always enabled FloppyOST no matter what option is set	Disabled/Enabled
Serial Port1 Address	Allows BIOS to select serial port1 base addresses	Disabled / 3F8/IRQ4 / 2F8/IRQ3 / 3E8/IRQ4 / 2E8/IRQ3
Serial Port2 Address	Allows BIOS to select serial port1 base addresses	Disabled / 3F8/IRQ4 / 2F8/IRQ3 / 3E8/IRQ4 / 2E8/IRQ3
Serial Port2 Mode	Allows BIOS to select serial port1 base Mode	Normal/IrDA/ASK IR

Power Management

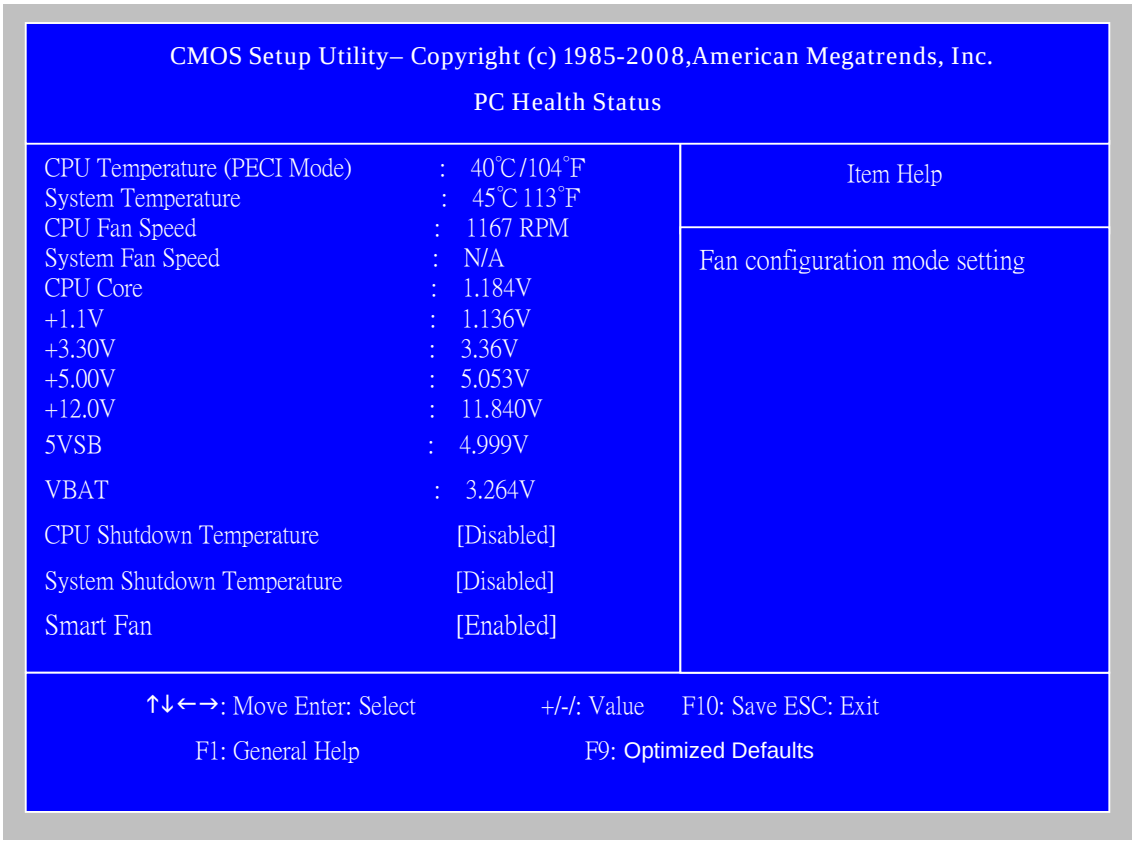
The Power Management menu lets you configure your system to most effectively save energy while operating in a manner consistent with your own style of computer use. The following screen shows the Power Management parameters and their default settings:



The following table describes the parameters found in this menu.

Parameter	Description	Options
ACPI Aware O/S	Control wake up event for S1/S3/S4/S5	No/Yes
ACPI Suspend Mode		S1(POS)/S3 (STR)
Power On by RTC Alarm		Disabled/Enabled
Power On by Modem Ring		Disabled/Enabled
Power On by PCIE Devices		Disabled/Enabled
Power On by PCI Devices		Disabled/Enabled
Wake Up by PS/2 KB/Mouse	Control wake up event for S1/S3	Disabled/Enabled
Wake Up by USB KB//Mouse		Disabled/Enabled

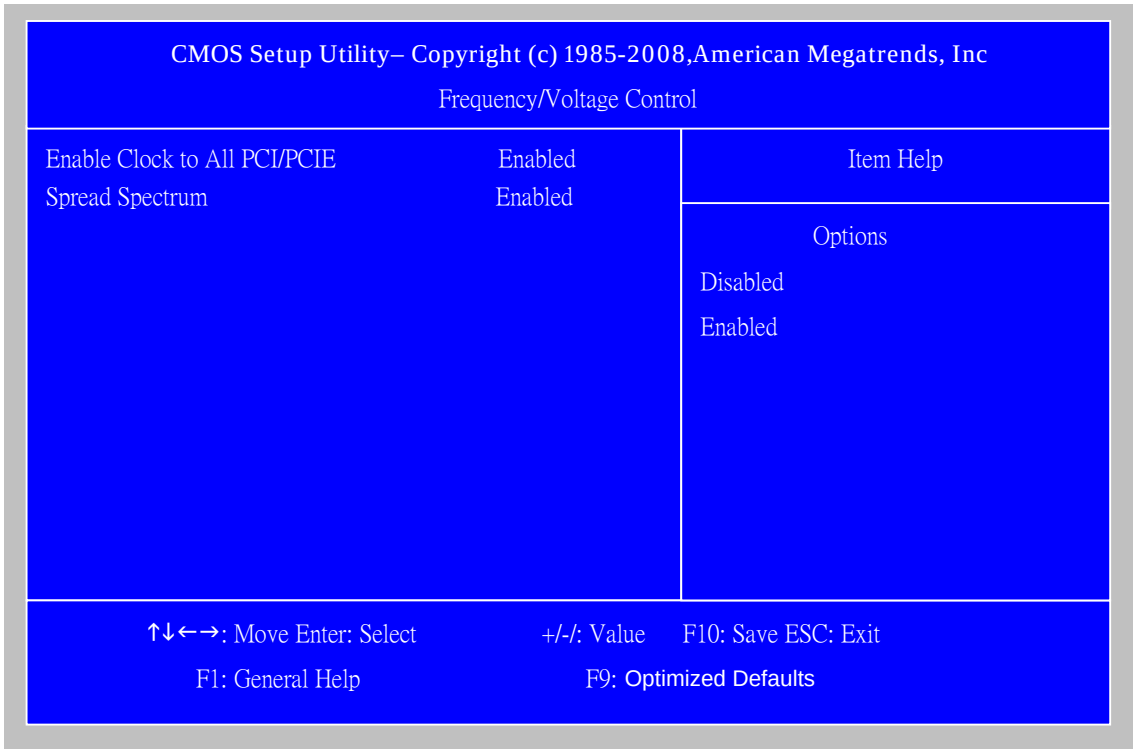
PC Health Status



The following table describes the parameters found in this menu:

Parameter	Description	Options
CPU/System Temperature	Detect CPU Temperature automatically	
CPU/SYSTEM FAN Speed (RPM)	Detect CPU/SYSTEM Fan Speed Status automatically	
CPU Smart FAN Control	The item displays the system Smart Fan Function status. It is always enabled by system.	

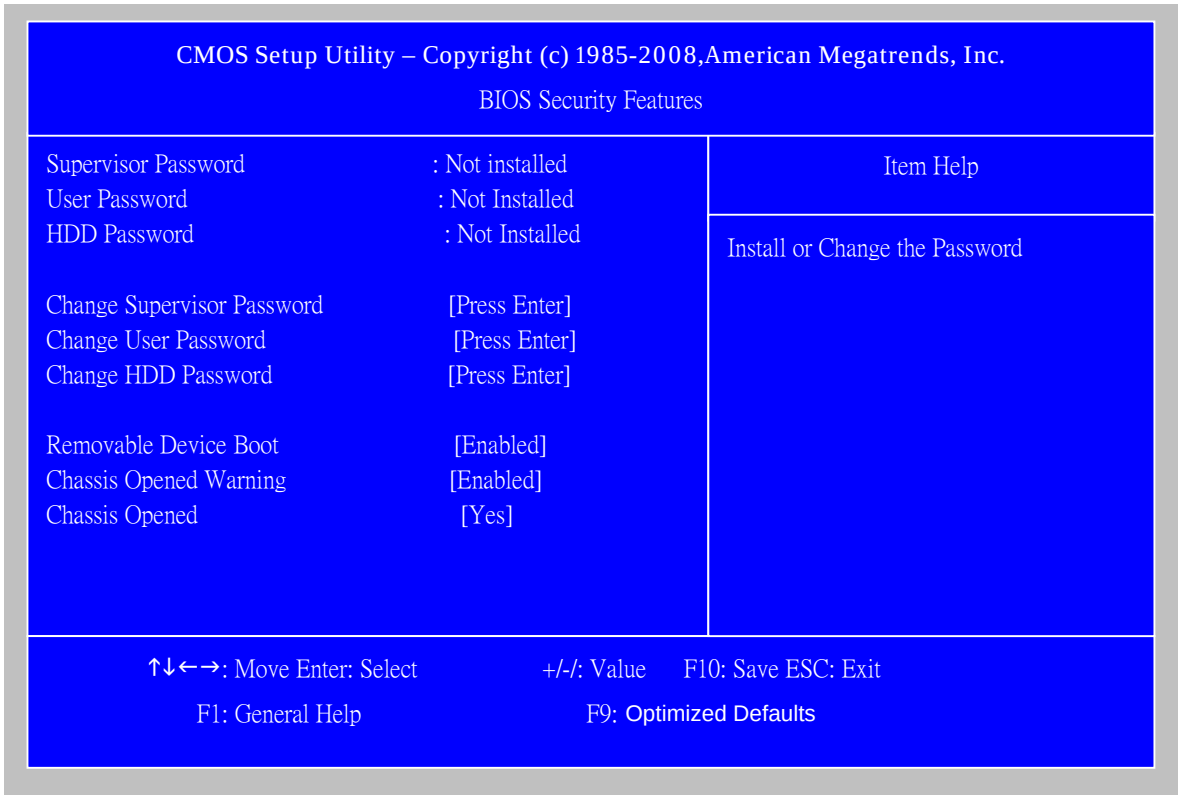
Frequency/Voltage Control



The following table describes the parameters found in this menu:

Parameter	Description	Options
Spread Spectrum	Always auto detect Spread Spectrum	Disabled/Enabled

BIOS Security Features

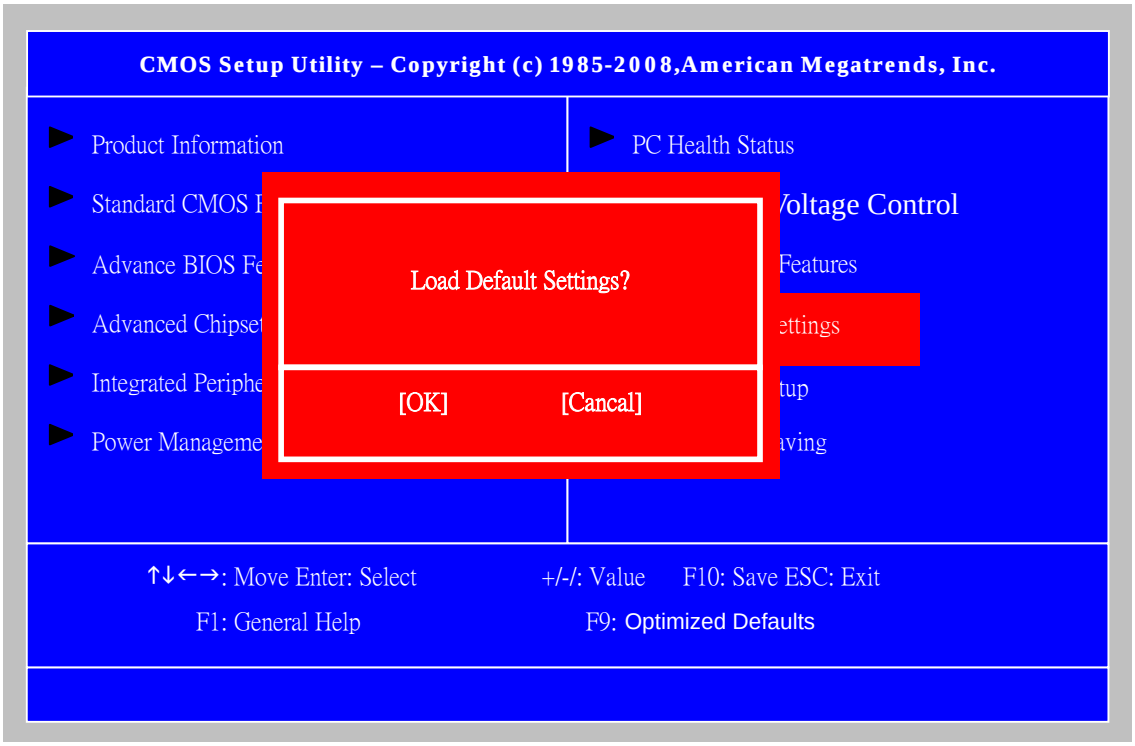


The following table describes the parameters found in this menu:

Parameter	Description	Options
Change Supervisor Password	This item is only available when supervisor password is installed, If clear supervisor password, user password should also be cleared. All setup items will be view-only except user password item when login with user password	Press Enter

Load Default Settings

This option opens a dialog box that lets you install defaults for all appropriate items in the Setup Utility.

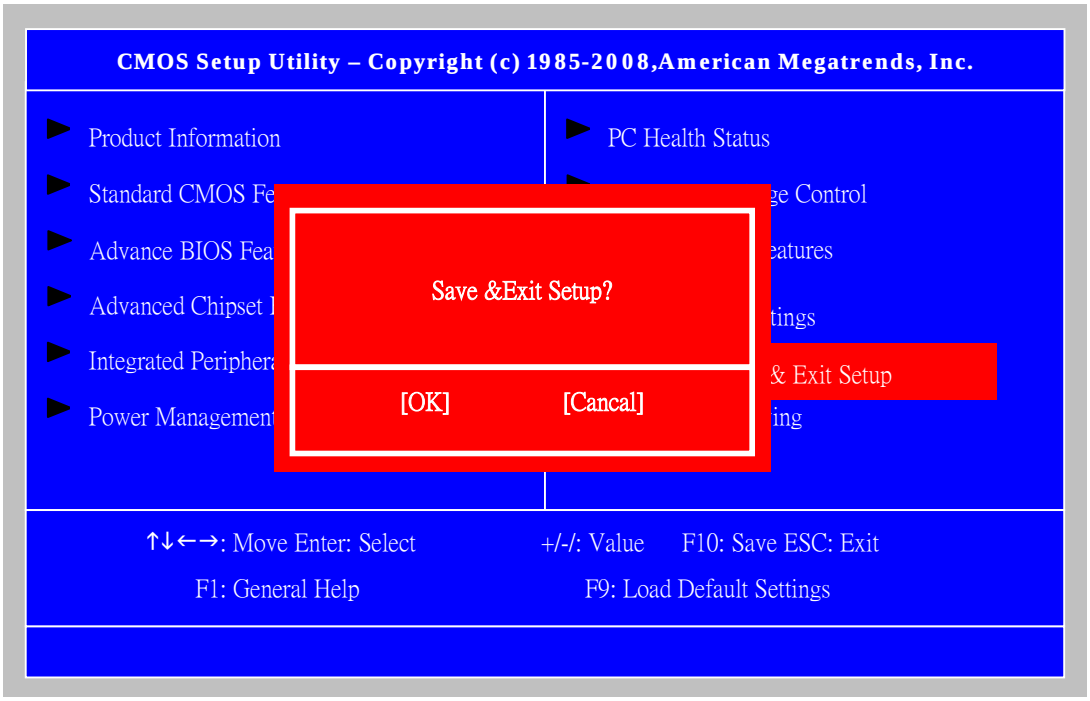


The following table describes the parameters found in this menu:

Parameter	Description	Options
Load Default Settings	Select the field loads the factory defaults for BIOS and Chipset Features, which the system automatically detects. This option opens a dialog box that lets you install optimized defaults for all appropriate items in the Setup Utility.	

Save & Exit Setup

Highlight this item and press <Enter> to save the changes that you have made in the Setup Utility and exit the Setup Utility.

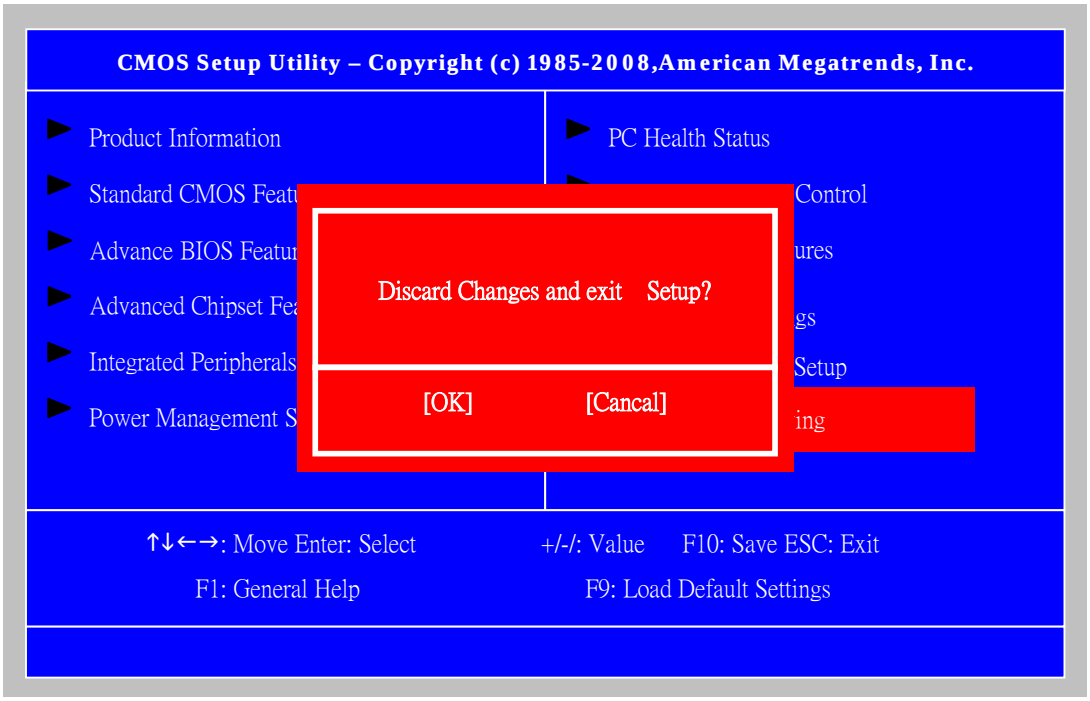


The following table describes the parameters found in this menu:

Parameter	Description	Options
Save &exit setup	Press <Enter> to save the changes that have made in the Setup Utility and exit the Setup Utility. Press<Y> to save and Exit or <N> to return to the main menu.	

Exit Without Saving

Highlight this item and press <Enter> to discard any changes that you have made in the Setup Utility and exit the Setup Utility.



Parameter	Description	Options
Discard changes and exit setup	Press<Enter> to discard any changes and exit the Setup Utility	

Machine Disassembly and Replacement

To disassemble the computer, you need the following tools:

Wrist grounding strap and conductive mat for preventing electrostatic discharge.
Wire cutter.
Phillips screwdriver (may require different size).

NOTE: The screws for the different components vary in size. During the disassembly process, group the screws with the corresponding components to avoid mismatches when putting back the components.

General Information

Before You Begin

Before proceeding with the disassembly procedure, make sure that you do the following:

1. Turn off the power to the system and all peripherals.

2. 2.Unplug the AC adapter and all power and signal cables from the system

Disassembly Procedure

This section tells you how to disassemble the system when you need to perform system service. Please also refer to the disassembly video, if available.

CAUTION: Before you proceed, make sure you have turned off the system and all peripherals connected to it.

Russian Blue Veriton S480G/S488G/S480 Standard Disassembly Process Bezel

Process:

1. According to the requirement, paste ATI, OS, CPU, HDMI and marketing label by SKU.

Remove side cover

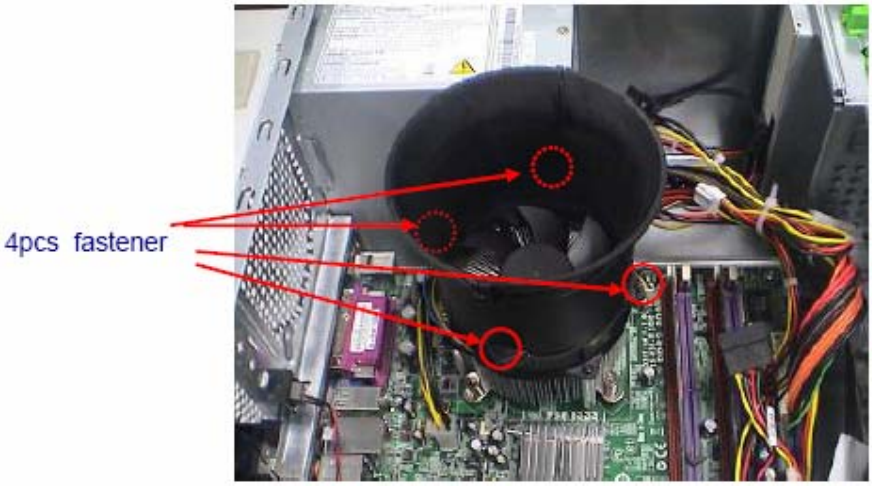
Process:

1. Put the Computer on the worktable lightly.
2. Release left side cover with 3 screws then remove left side cover.

Remove CPU fan pipe

Process:

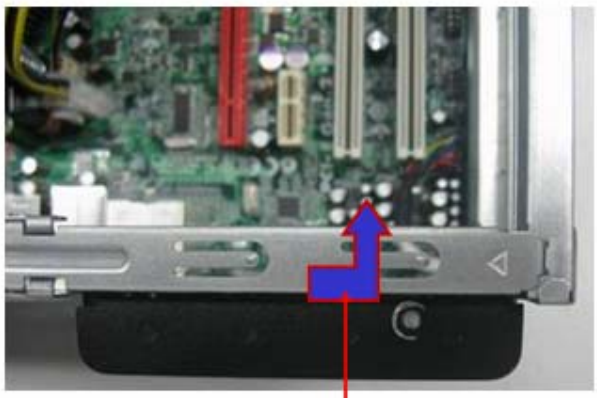
1. Release the CPU fan pipe.

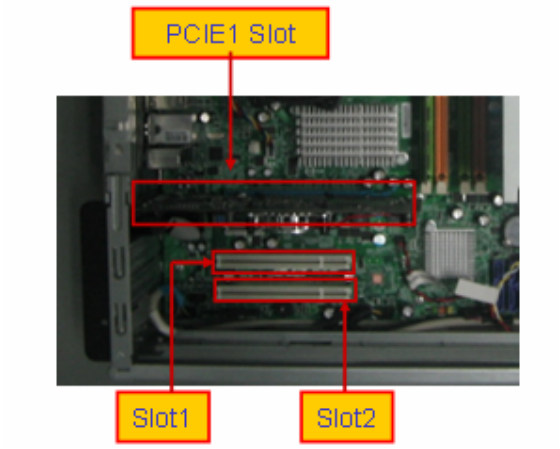


Remove Cards

Process:

1. Release the slot cover tooless
2. Remove VGA 、TV、Modem Card，the following list is for your reference about the mutual location relation (Optional by SKU).





Slot 1	Slot 2
TV 卡	N
N	Modem 卡
1394 卡	N
無線網卡	N
TV 卡	Modem 卡
TV 卡	1394 卡/無線網卡
1394 卡/無線網卡	Modem 卡
無線網卡	1394 卡
N	Recovery card
Recovery card	Modem 卡

Remove HDD Data Cables

Process:

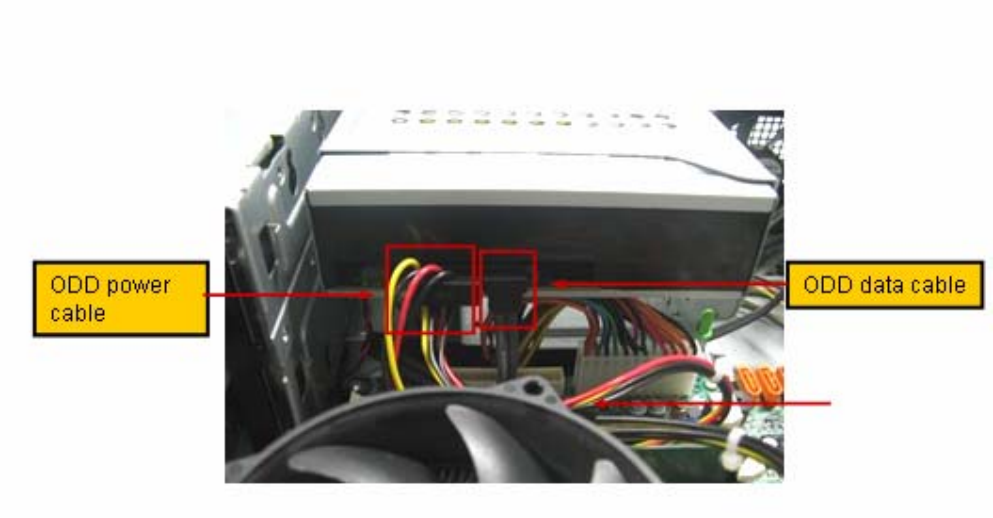
1. Remove master HDD data cable from M/B SATA1/SATA3.
2. Remove slave ODD data cable from M/B SATA2.

Port / Num	SATA1	SATA2	SATA 3	SATA 4	SATA 5	SATA 6
1HDD	V					
2HDDs	V(Master)		V(Slave)			
1ODD		V				
2ODDs		V(Master)		V		

Remove ODD DATA cable

Process:

1. Remove master ODD data/power cable from Master ODD.



Remove HDD power cable

Process:

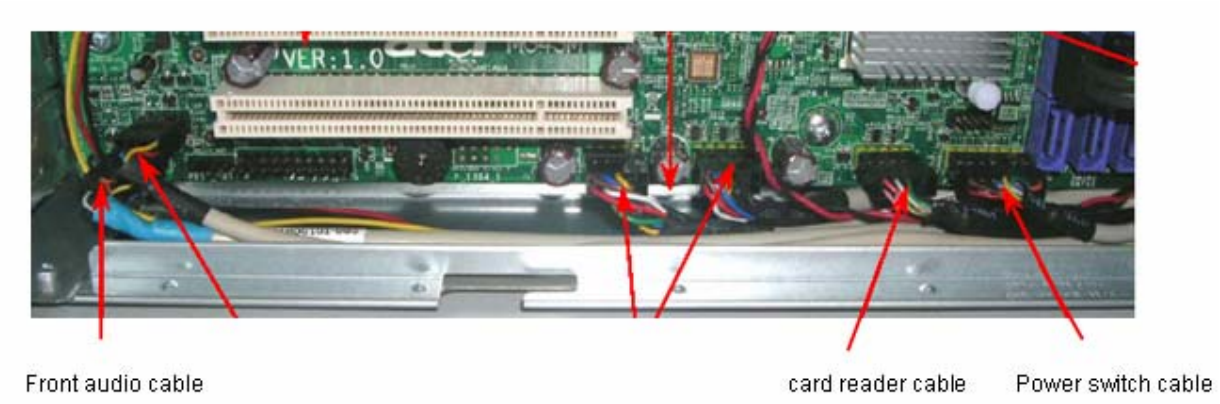
1. Remove master HDD data cable from master HDD.

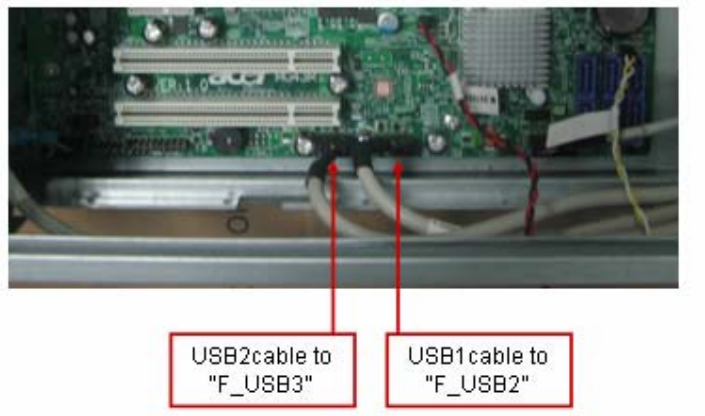
2. Remove slave HDD data cable from slave HDD

Remove Cables

Process:

1. Remove front panel light cable from“PANEL1” slot of M/B.
2. Remove USB1 cable from M/B”F_ USB3” ◦
3. Remove USB2 cable from M/B”F_ USB4” ◦
4. Remove Card reader cable from M/B”USB2”.
5. Remove audio cable from the “AUDIO” port on M/B.



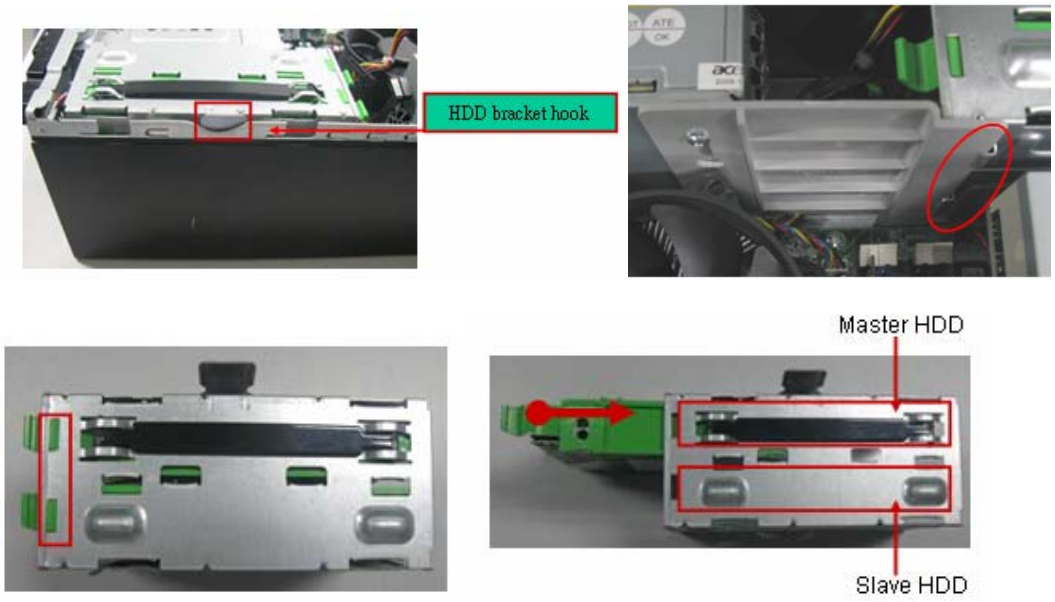


SKU status	USB Port1	USB Port2	USB Port3
W/I Card Reader	Card Reader USB	USB cable1	USB cable2
W/O Card Reader		USB cable1	USB cable2

Remove HDD

Process:

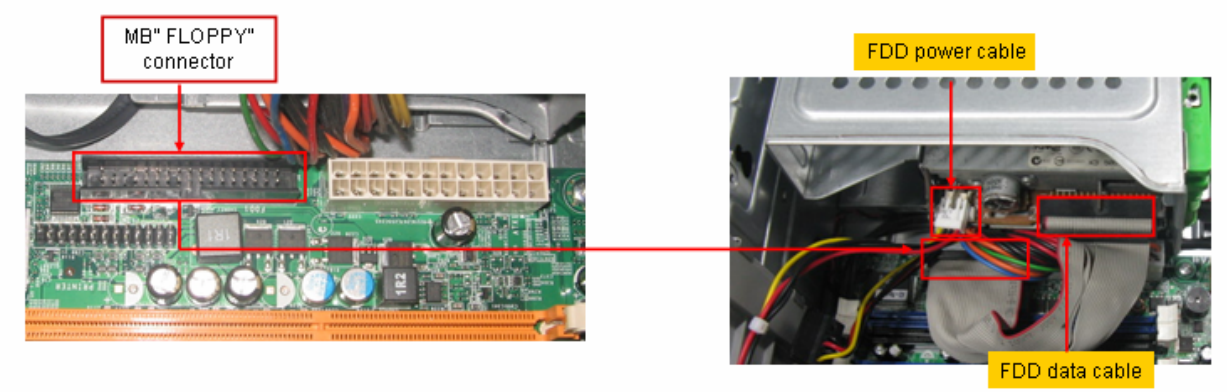
1. Remove Master HDD from the first HDD location.
2. Remove Slave HDD from the second HDD location. (Optional by SKU)



Remove FDD Cable

Process:

1. Remove FDD digital cable just as pictures (Optional by SKU).
2. Plug 4 pins power cord from FDD slot.
3. Remove front bezel light cable from PATA power cable



Remove card reader

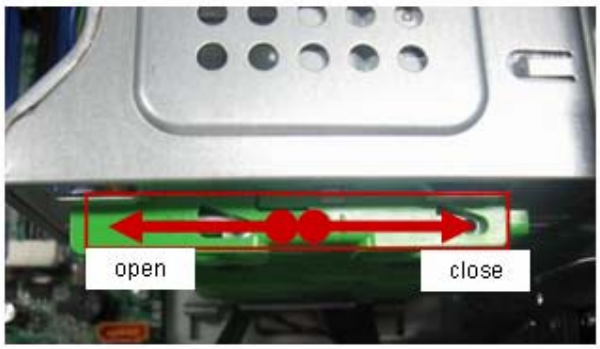
Process:

1. Remove card reader from chassis.

Remove ODD

Process:

1. Push the lock handle release ODD.
2. Remove ODD from the location.

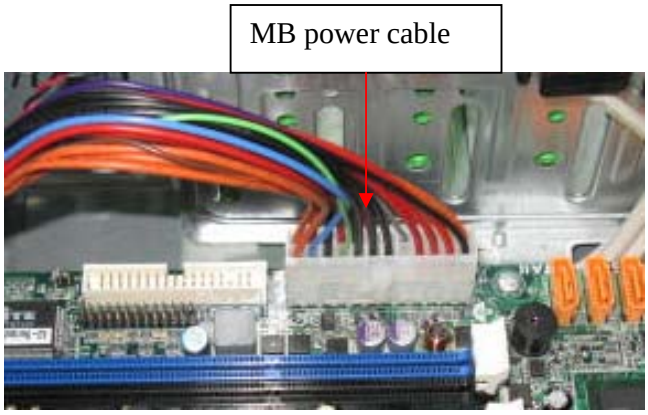


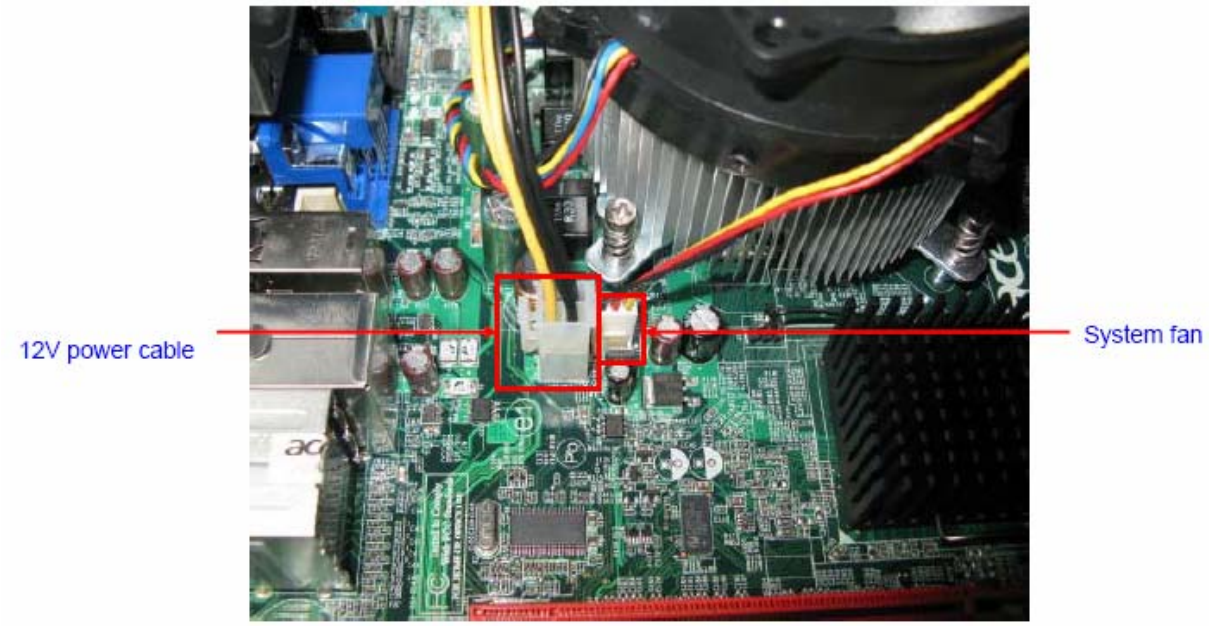
Remove Cables

Process:

1. Remove M/B power cable from M/B “ATX1”.

2. Remove 12 V power cable from M/B” JPW1”
3. Remove System Fan cable from M/B”SYS-F2”.





Remove System FAN

Process:

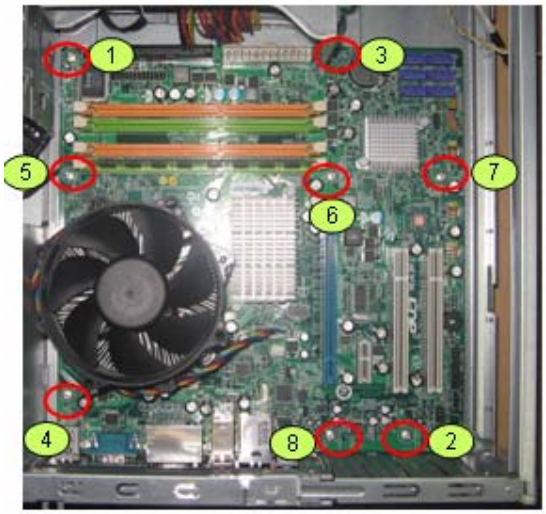
1. Release four screws according to the following picture.

Remove mother board

Process:

1. Release 8 pcs screws form the corresponding hole.
2. Release screws according to the following picture in turn.

3. Remove the Mother board from chassis.

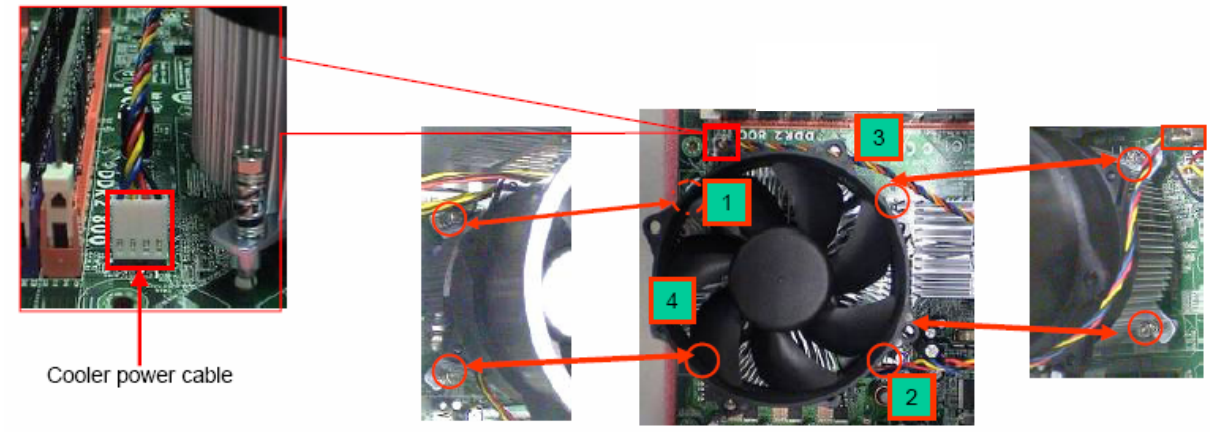


Remove CPU cooler

Process:

1. Remove cooler power cable from M/B “CPU-F2”.

2. Release screw 1 first, then fixes screw 2, screw 3 & screw 4 (As Picture).
3. Remove Cooler from the Retention module.

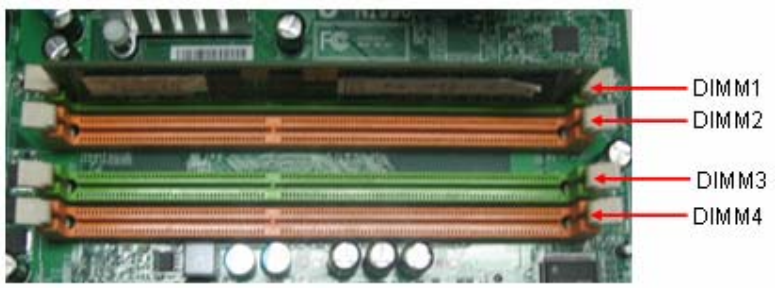


Remove memory

Process:

1. Remove the first Memory from DIMM.

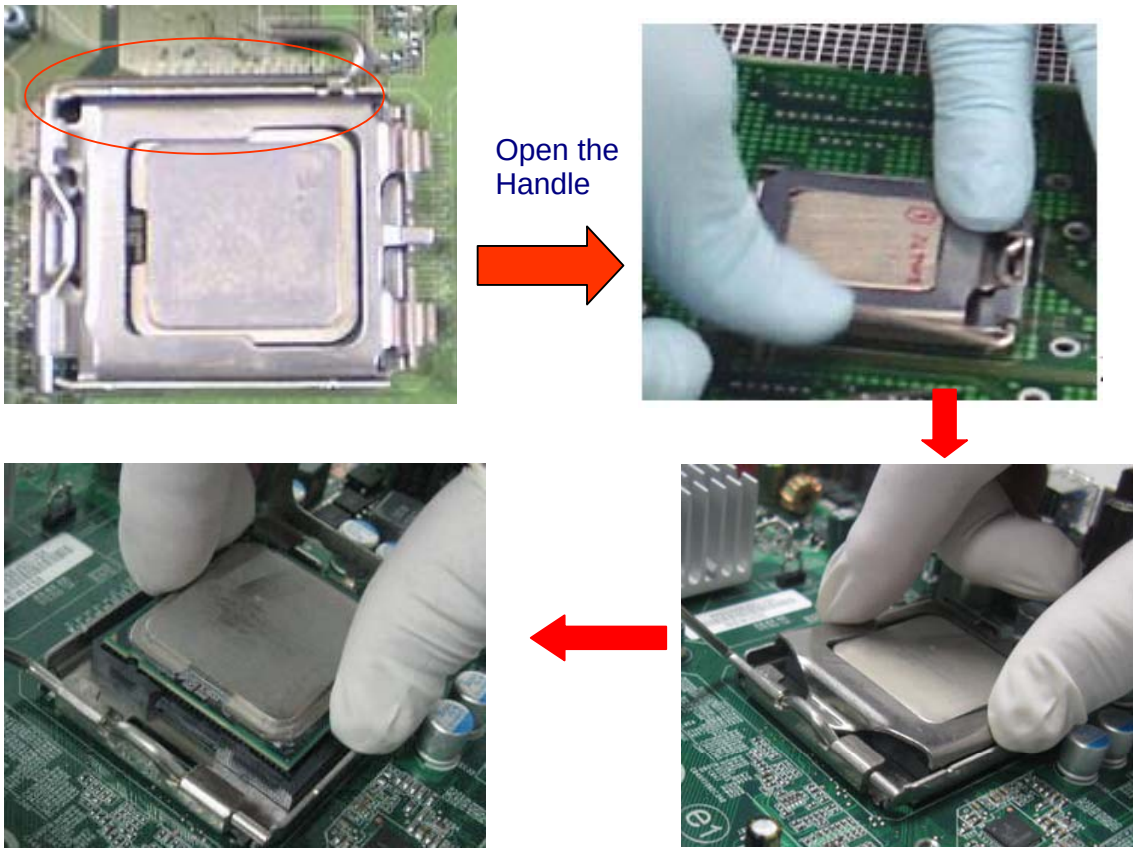
2. Remove the second Memory from DIMM2 (Optional by SKU).



Remove CPU

Process:

1. Remove CPU according following the pictures.



Remove I/O shielding

Process:

1. Remove I/O Shielding.

Troubleshooting

Please refer to generic troubleshooting guide for troubleshooting information relating to following topics:

- Power-On Self-Test (POST)
- POST Check Points
- POST Error Messages List
- Error Symptoms List

Jumper and Connector Information

Jumper Setting

This section explains how to set jumpers for correct configuration of the mainboard.

Setting Jumper

Use the motherboard jumpers to set system configuration options. Jumpers with more than one pin are numbered. When setting the jumpers, ensure that the jumper caps are placed on the correct pins.

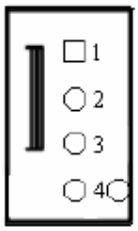
Description	Illustration
The illustrations show a 2-pin jumper. When the jumper cap is placed on both pins, the jumper is SHORT. If you remove the jumper cap, or place the jumper cap on just one pin, the jumper is OPEN.	 SHORT OPEN
This illustration shows a 3-pin jumper. Pins 1 and 2 are SHORT	

Clear CMOS

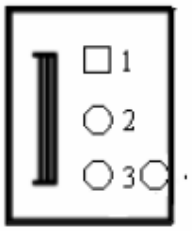
Jumper	Type	Description	Setting(Default)	Illustration
CLR_CMOS	3-pin	CLEAR CMOS	1-2 : Clear 2-3 : Normal Before clearing the CMOS,make sure to turn off the system	 Clear CMOS 1

Checking Connector

CPU_FAN: CPU Cooling Fan Connector

	Pin	Signal Name	Function
	1	GND	System Ground
	2	+12V	Power +12V
	3	Sense	Sensor
	4	Control	FAN Control Signal

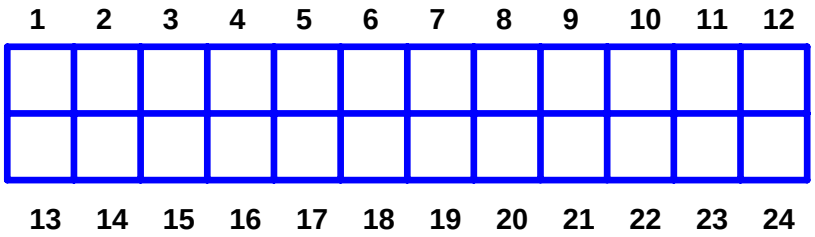
SYS_FAN/PWR_FAN: FAN Power Connectors

	Pin	Signal Name	Function
	1	GND	System Ground
	2	+12V	Power +12V
	3	Sense	Sensor

ATX12V: ATX 12V Power Connector

Pin	Signal Name
1	Ground
2	Ground
3	+12V
4	+12V

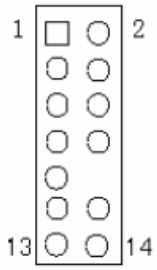
ATX_POWER: ATX 24-pin Power Connector



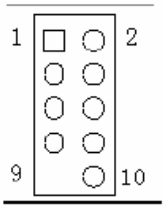
Pin	Signal Name	Pin	Signal Name
1	+3.3	13	+3.3V
2	+3.3	14	-12V
3	COM	15	COM
4	+5V	16	PS_ON
5	COM	17	COM
6	+5V	18	COM
7	COM	19	COM
8	PWR OK	20	-5V
9	5VSB	21	+5V
10	+12V	22	+5V
11	+12V	23	+5V
12	+3.3V	24	COM

Front Panel Header

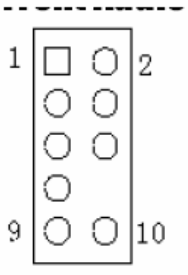
The front panel header (PANEL1) provides a standard set of switch and LED connectors commonly found on ATX or Micro ATX cases. Refer to the table below for information:

Illustration	Pin	Signal	Pin	Signal
	1	5V_SYS	2	GPIO_GRN_HDR_R
	3	HDD_LED_R	4	GPIO_YLW_HDR_R
	5	GND	6	PSIN
	7	ICH_SYS_RSTJ	8	GND
	9	5V_SYS	10	KEY
	11	NC	12	5V_SB
	13	NC	14	LAN_ACTJ

Front USB

Illustration	Pin	Signal	Function	Pin	Signal	Function
	1	VREG_FP_USBPWR0	Front panel USB power(Ports 0,1)	2	VREG_FP_USBPWR0	Front panel USB power(Ports 0,1)
	3	USB_FP_P0-	Front panel USB Port 0 Negative Signal	4	USB_FP_P1-	Front panel USB Port 1 Negative Signal
	5	USB_FP_P0+	Front panel USB Port 0 Positive Signal	6	USB_FP_P1+	Front panel USB Port 1 Positive Signal
	7	GROUND		8	GROUND	
	9	KEY		10	GROUND	

Front Audio

Illustration	Pin	Signal Name	Pin	Signal Name
	1	MIC2-L	2	AUD_GND
	3	MIC2-R	4	AUD_PRESENCE_L
	5	LINE2-R	6	MIC2-JD
	7	FRONT-IO-SENSE	8	KEY
	9	LINE2-L	10	LINE2-JD

Intruder

Pin	Signal Name	Pin	Signal Name
1	INTRUDERJ	2	GROUND

J3(for requested)

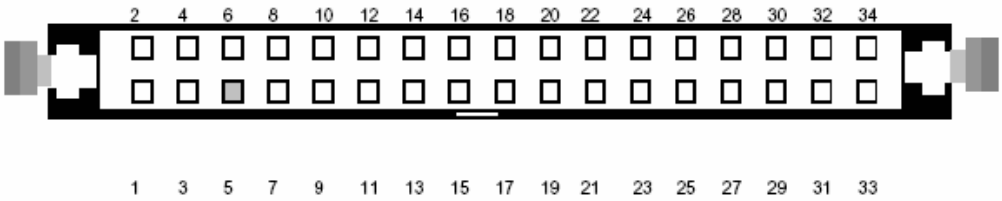
Pin	Signal Name	Pin	Signal Name
1	AGPIO1	2	GROUND

J4(for requested)

Pin	Signal Name	Pin	Signal Name
1	AGPIO2	2	GROUND

FDD

(Top-View)



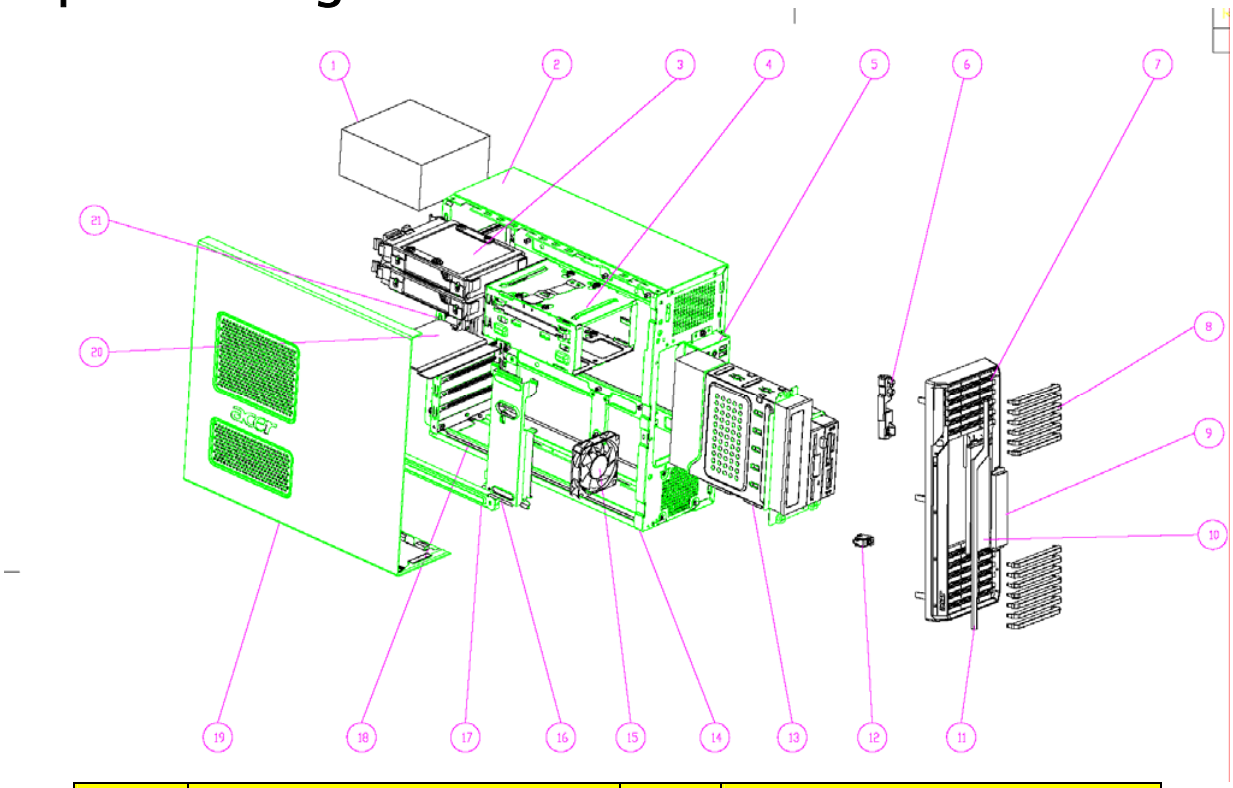
Pin	Signal Name	Pin	Signal Name
1	Ground	2	DRVDEN0
3	Ground	4	HDL-
5	Keypin	6	DS3-
7	Ground	8	INDEX-
9	Ground	10	MTR0-
11	Ground	12	DS0-
13	Ground	14	DS1-
15	Ground	16	MTR1-
17	Ground	18	DIR-
19	Ground	20	STEP-
21	Ground	22	WDATA
23	Ground	24	WGATE-
25	Ground	26	TRK0-
27	Ground	28	WP-
29	Ground	30	RDATA
31	Ground	32	HDSEL-
33	Ground	34	DSKCHG-

FRU (Field Replaceable Unit) List

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of Veriton S480G/S488G/S480 Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

NOTE: Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. For whatever reasons a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

Exploded Diagram



NO	DESCRIPTION	NO	DESCRIPTION
1	POWER SUPPLY	12	HOLDER-SWITCH
2	ACER-16L-BASE	13	ODD-CAGE
3	HDD-MOUDLE	14	ACER-16L-FRONT-CHASSIS
4	HDD-CAGE	15	FAN
5	USB-MOUDLE	16	ACER-16L-ODD-SUPPORT-BKT
6	LENS-HOLDER	17	ACER-16L-SUPPORT
7	MAIN-BEZEL	18	ACER-16L-CHASSIS-SUPPORT
8	FRONT-STRIP	19	ACER-16L-TOP-COVER
9	FDD-COVER	20	ACER-16L-FAN-DUCK
10	ODD-COVER	21	ACER-16L-REAR-CHASSIS
11	UP-BEZEL	22	

Veriton S488G/S480/S480G FRU List

Category	Description	Part Number
MAINBOARD		
	MG43M Intel G43/ICH10R, Intel LGA775 CPU, DDR3, GbE, HD codec (with IO shielding and CPU RM), RoHS compliance	MB.V7605.005
CPU Cooler		
	Cooler-Intel CPU cooler for HS080	HI.10800.026
CPU		
	Core 2 Quad Q9450 (2.66G 12M 1333FSB), 95W , C1	KC.94501.QQ0
	Core 2 Quad Q8200 (2.33G 4M 1333FSB) 95W , M1	KC.82001.QQ0
	Core 2 Duo E4700 (2.6G 2M 800FSB) , 65W , G0	KC.47001.DE0
	Celeron 450 (2.2G 512K 800FSB) , 35W , A1	KC.D0001.450
Memory		
	1GB DDRIII1066(Samsung)	KN.1GB0B.022
	1GB DDRIII1066(Micron)	KN.1GB04.008
	1GB DDRIII1333(Unifosa)	KN.1GB0H.012
HDD		
	160G SATA3.0Gbps 8MB 7200 NCQ,	KH.16007.023
	HGST 3.5" 7200rpm 320GB	**KH.32007.006**
	HDD HGST 3.5" 7200rpm 640GB 640G SATA2 16MB 7200 NCQ(Seagate)	KH.64007.001
	160G SATA3.0Gbps 8MB 7200 NCQ,	KH.16008.025
	320G SATA3.0Gbps	KH.32008.016
	640G SATA3.0Gbps	KH.64008.003

ODD		
	HLDS DVD-ROM HH 16X DH-10N LF Black Bezel 0A02 SATA	KV.0160D.015
	PHILIPS DVD-ROM HH DL 16X DH-16D4S LF W/O bezel JA12 SATA	KV.0160F.001
Card Reader		
	3.5" USB1.1 9-in-1 card reader, with USB cable , with improved USB connector,support USB2.0	CR.10400.002
Modem		
	Pro-Nets PCI Modem card, HPI56L6, LSI Universal Modem (PCI) 56K V.92 - Pinball (P40)	FX.10100.006
Power Supply		
	**300W ES5.0 for HS080**	PY.30009.015
Mouse		
	Acer 0810 Project PS2 Optical mouse	MS.11200.013
	Logitech 0810_USB Optical mouse USB M-UAY-ACR2	MS.11200.014
	Lite-On PS2 optical mouse PS2 SM-9620	MS.11200.017
	Lite-On USB optical USB SM-9625	MS.11200.018
KEYBOARD		
	Keyboard CHICONY KB-0759 PS/2 Standard 104KS Black US w/o eKey	KB.PS203.284
	Keyboard CHICONY KB-0759 PS/2 Standard 104KS Black Traditional Chinese w/o eKey	KB.PS203.285
	Keyboard CHICONY KB-0759 PS/2 Standard 104KS Black Simplified Chinese w/o eKey	KB.PS203.286

	Keyboard CHICONY KB-0759 PS/2 Standard 104KS Black US International w/o eKey	KB.PS203.287
	Keyboard CHICONY KB-0759 PS/2 Standard 104KS Black Arabic/English w/o eKey	KB.PS203.288
	Keyboard CHICONY KB-0759 PS/2 Standard 104KS Black Thailand w/o eKey	KB.PS203.289
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Spanish w/o eKey	KB.PS203.290
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Portuguese w/o eKey	KB.PS203.291
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Canadian French w/o eKey	KB.PS203.292
	Keyboard CHICONY KB-0759 PS/2 Standard 107KS Black Brazilian Portuguese w/o eKey	KB.PS203.293
	Keyboard CHICONY KB-0759 PS/2 Standard 109KS Black Japanese w/o eKey	KB.PS203.294
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black German w/o eKey	KB.PS203.295
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Italian w/o eKey	KB.PS203.296
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black French w/o eKey	KB.PS203.297
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Swedish w/o eKey	KB.PS203.298
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black UK w/o eKey	KB.PS203.299
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Dutch w/o eKey	KB.PS203.300
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Swiss/G w/o eKey	KB.PS203.301
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Belgium w/o eKey	KB.PS203.302
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Icelandic w/o eKey	KB.PS203.303
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Norwegian w/o eKey	KB.PS203.304
	Keyboard CHICONY KB-0759 PS/2 Standard 104KS Black Hebrew w/o eKey	KB.PS203.305
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Polish w/o eKey	KB.PS203.306
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Slovenian w/o eKey	KB.PS203.307

	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Slovak w/o eKey	KB.PS203.308
	Keyboard CHICONY KB-0759 PS/2 Standard 104KS Black Russian w/o eKey	KB.PS203.309
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Hungarian w/o eKey	KB.PS203.310
	Keyboard CHICONY KB-0759 PS/2 Standard 104KS Black Greek w/o eKey	KB.PS203.311
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Danish w/o eKey	KB.PS203.312
	Keyboard CHICONY KB-0759 PS/2 Standard 104KS Black Czech w/o eKey	KB.PS203.313
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Romanian w/o eKey	KB.PS203.314
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Turkish w/o eKey	KB.PS203.315
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Spanish Latin w/o eKey	KB.PS203.316
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Turkish-Q w/o eKey	KB.PS203.317
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Arabic/French w/o eKey	KB.PS203.318
	Keyboard CHICONY KB-0759 PS/2 Standard 104KS Black Kazakh w/o eKey	KB.PS203.319
	Keyboard CHICONY KB-0759 PS/2 Standard 104KS Black Turkmen w/o eKey	KB.PS203.320
	Keyboard CHICONY KB-0759 PS/2 Standard 105KS Black Nordic w/o eKey	KB.PS203.321
	Keyboard LITE-ON SK-9620 PS/2 Standard 104KS Black US w/o eKey	KB.PS20B.069
	Keyboard LITE-ON SK-9620 PS/2 Standard 104KS Black Traditional Chinese w/o eKey	KB.PS20B.070
	Keyboard LITE-ON SK-9620 PS/2 Standard 104KS Black Simplified Chinese w/o eKey	KB.PS20B.071
	Keyboard LITE-ON SK-9620 PS/2 Standard 104KS Black US International w/o eKey	KB.PS20B.072
	Keyboard LITE-ON SK-9620 PS/2 Standard 104KS Black Arabic/English w/o eKey	KB.PS20B.073
	Keyboard LITE-ON SK-9620 PS/2 Standard 104KS Black Thailand w/o eKey	KB.PS20B.074
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Spanish w/o eKey	KB.PS20B.075
	~~Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Portuguese w/o~~	~~KB.PS20B.076~~

	eKey	
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Canadian French w/o eKey	KB.PS20B.077
	Keyboard LITE-ON SK-9620 PS/2 Standard 107KS Black Brazilian Portuguese w/o eKey	KB.PS20B.078
	Keyboard LITE-ON SK-9620 PS/2 Standard 109KS Black Japanese w/o eKey	KB.PS20B.079
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black German w/o eKey	KB.PS20B.080
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Italian w/o eKey	KB.PS20B.081
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black French w/o eKey	KB.PS20B.082
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Swedish w/o eKey	KB.PS20B.083
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black UK w/o eKey	KB.PS20B.084
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Dutch w/o eKey	KB.PS20B.085
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Swiss/G w/o eKey	KB.PS20B.086
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Belgium w/o eKey	KB.PS20B.087
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Icelandic w/o eKey	KB.PS20B.088
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Norwegian w/o eKey	KB.PS20B.089
	Keyboard LITE-ON SK-9620 PS/2 Standard 104KS Black Hebrew w/o eKey	KB.PS20B.090
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Polish w/o eKey	KB.PS20B.091
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Slovenian w/o eKey	KB.PS20B.092
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Slovak w/o eKey	KB.PS20B.093
	Keyboard LITE-ON SK-9620 PS/2 Standard 104KS Black Russian w/o eKey	KB.PS20B.094
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Hungarian w/o eKey	KB.PS20B.095
	Keyboard LITE-ON SK-9620 PS/2 Standard 104KS Black Greek w/o eKey	KB.PS20B.096
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Danish w/o eKey	KB.PS20B.097
	Keyboard LITE-ON SK-9620 PS/2 Standard 104KS Black Czech w/o eKey	KB.PS20B.098
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Romanian w/o eKey	KB.PS20B.099
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Turkish w/o eKey	KB.PS20B.100
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Spanish Latin w/o eKey	KB.PS20B.101

	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Turkish-Q w/o eKey	KB.PS20B.102
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Arabic/French w/o eKey	KB.PS20B.103
	Keyboard LITE-ON SK-9620 PS/2 Standard 104KS Black Kazakh w/o eKey	KB.PS20B.104
	Keyboard LITE-ON SK-9620 PS/2 Standard 104KS Black Turkmen w/o eKey	KB.PS20B.105
	Keyboard LITE-ON SK-9620 PS/2 Standard 105KS Black Nordic w/o eKey	KB.PS20B.106
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	Keyboard CHICONY KU-0760 USB Standard 104KS Black Simplified Chinese w/o eKey	KB.USB03.194
	Keyboard CHICONY KU-0760 USB Standard 104KS Black US International w/o eKey	KB.USB03.195
	Keyboard CHICONY KU-0760 USB Standard 104KS Black Arabic/English w/o eKey	KB.USB03.196
	Keyboard CHICONY KU-0760 USB Standard 104KS Black Thailand w/o eKey	KB.USB03.197
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Spanish w/o eKey	KB.USB03.198
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	Keyboard CHICONY KU-0760 USB Standard 107KS Black Brazilian Portuguese w/o eKey	KB.USB03.201
	Keyboard CHICONY KU-0760 USB Standard 109KS Black Japanese w/o eKey	KB.USB03.202
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	Keyboard CHICONY KU-0760 USB Standard 105KS Black Italian w/o eKey	KB.USB03.204
	Keyboard CHICONY KU-0760 USB Standard 105KS Black French w/o eKey	KB.USB03.205
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Swedish w/o eKey	KB.USB03.206
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	Keyboard CHICONY KU-0760 USB Standard 105KS Black Dutch w/o eKey	KB.USB03.208

	Keyboard CHICONY KU-0760 USB Standard 105KS Black Swiss/G w/o eKey	KB.USB03.209
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Belgium w/o eKey	KB.USB03.210
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Icelandic w/o eKey	KB.USB03.211
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Norwegian w/o eKey	KB.USB03.212
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	Keyboard CHICONY KU-0760 USB Standard 105KS Black Slovak w/o eKey	KB.USB03.216
	Keyboard CHICONY KU-0760 USB Standard 104KS Black Russian w/o eKey	KB.USB03.217
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Hungarian w/o eKey	KB.USB03.218
	Keyboard CHICONY KU-0760 USB Standard 104KS Black Greek w/o eKey	KB.USB03.219
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Danish w/o eKey	KB.USB03.220
	Keyboard CHICONY KU-0760 USB Standard 104KS Black Czech w/o eKey	KB.USB03.221
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Romanian w/o eKey	KB.USB03.222
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Turkish w/o eKey	KB.USB03.223
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Spanish Latin w/o eKey	KB.USB03.224
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Turkish-Q w/o eKey	KB.USB03.225
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Arabic/French w/o eKey	KB.USB03.226
	Keyboard CHICONY KU-0760 USB Standard 104KS Black Kazakh w/o eKey	KB.USB03.227
	Keyboard CHICONY KU-0760 USB Standard 104KS Black Turkmen w/o eKey	KB.USB03.228
	Keyboard CHICONY KU-0760 USB Standard 105KS Black Nordic w/o eKey	KB.USB03.229
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	Keyboard LITE-ON SK-9625 USB Standard 104KS Black Simplified Chinese w/o eKey	KB.USB0B.160
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	Keyboard LITE-ON SK-9625 USB Standard 104KS Black Arabic/English w/o eKey	KB.USB0B.162
	Keyboard LITE-ON SK-9625 USB Standard 104KS Black Thailand w/o eKey	KB.USB0B.163
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Spanish w/o eKey	KB.USB0B.164
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Portuguese w/o eKey	KB.USB0B.165
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Canadian French w/o eKey	KB.USB0B.166
	Keyboard LITE-ON SK-9625 USB Standard 107KS Black Brazilian Portuguese w/o eKey	KB.USB0B.167
	Keyboard LITE-ON SK-9625 USB Standard 109KS Black Japanese w/o eKey	KB.USB0B.168
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black German w/o eKey	KB.USB0B.169
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Italian w/o eKey	KB.USB0B.170
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black French w/o eKey	KB.USB0B.171
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Swedish w/o eKey	KB.USB0B.172
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black UK w/o eKey	KB.USB0B.173
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Dutch w/o eKey	KB.USB0B.174
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Swiss/G w/o eKey	KB.USB0B.175
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Belgium w/o eKey	KB.USB0B.176
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Icelandic w/o eKey	KB.USB0B.177
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Norwegian w/o eKey	KB.USB0B.178
	Keyboard LITE-ON SK-9625 USB Standard 104KS Black Hebrew w/o eKey	KB.USB0B.179
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Polish w/o eKey	KB.USB0B.180
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Slovenian w/o eKey	KB.USB0B.181
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Slovak w/o eKey	KB.USB0B.182
	Keyboard LITE-ON SK-9625 USB Standard 104KS Black Russian w/o eKey	KB.USB0B.183

	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Hungarian w/o eKey	KB.USB0B.184
	Keyboard LITE-ON SK-9625 USB Standard 104KS Black Greek w/o eKey	KB.USB0B.185
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Danish w/o eKey	KB.USB0B.186
	Keyboard LITE-ON SK-9625 USB Standard 104KS Black Czech w/o eKey	KB.USB0B.187
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Romanian w/o eKey	KB.USB0B.188
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Turkish w/o eKey	KB.USB0B.189
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Spanish Latin w/o eKey	KB.USB0B.190
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Turkish-Q w/o eKey	KB.USB0B.191
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Arabic/French w/o eKey	KB.USB0B.192
	Keyboard LITE-ON SK-9625 USB Standard 104KS Black Kazakh w/o eKey	KB.USB0B.193
	Keyboard LITE-ON SK-9625 USB Standard 104KS Black Turkmen w/o eKey	KB.USB0B.194
	Keyboard LITE-ON SK-9625 USB Standard 105KS Black Nordic w/o eKey	KB.USB0B.195

Intel RAID SOP (Windows)

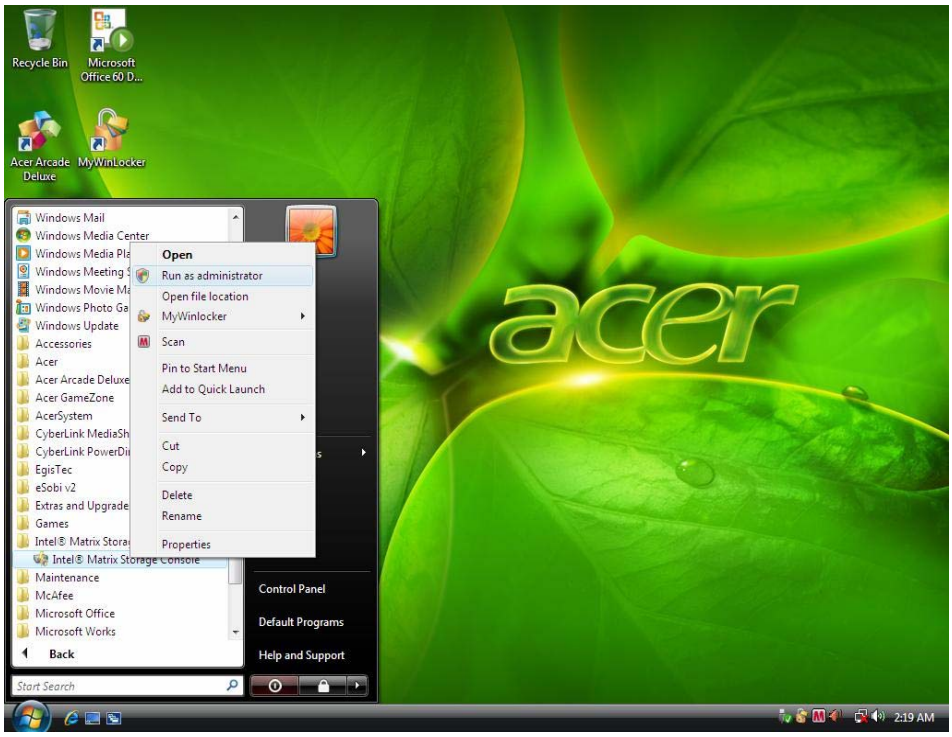
2.Intel(R) Matrix Storage Console

2-1:Create a“RAID Ready” System into" RAID 0" with two Hard Drives by‘Create RAID Volume from Existing HDD Drive ’.

Step 1: Install Vista OS with one SATA HDD.

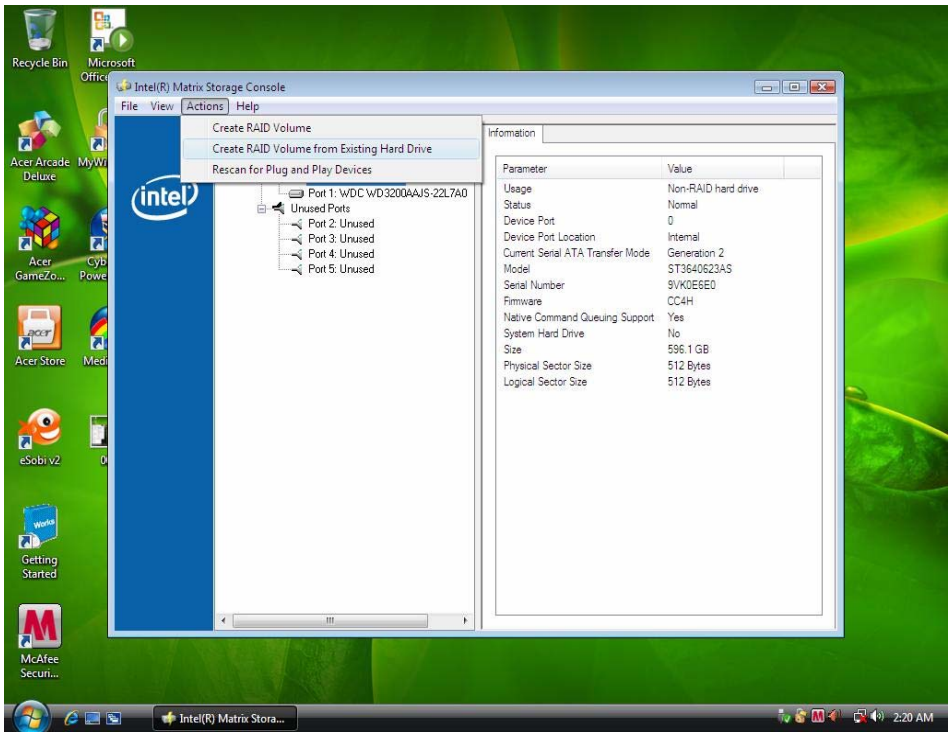
Step 2: Shut down the system,then add one Serial ATA hard drive in the system.

Step 3: Boot to OS desktop, open the Intel® Matrix Storage Console.



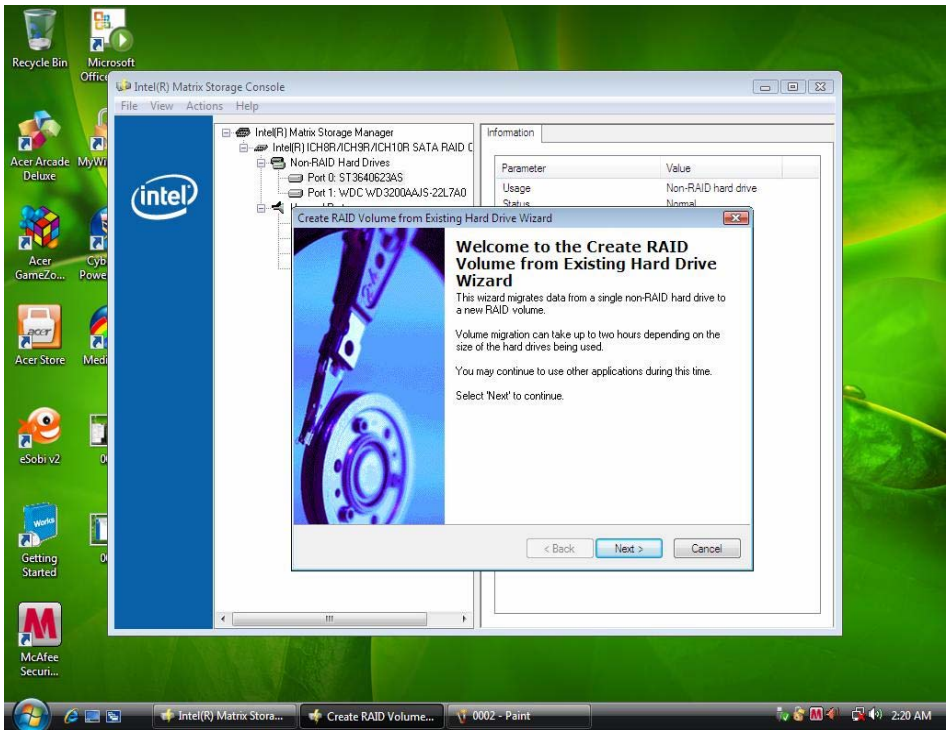
Picture1

Step 4: Click on the by‘Create RAID Volume from Existing HDD Drive ’ to create a RAID volume.



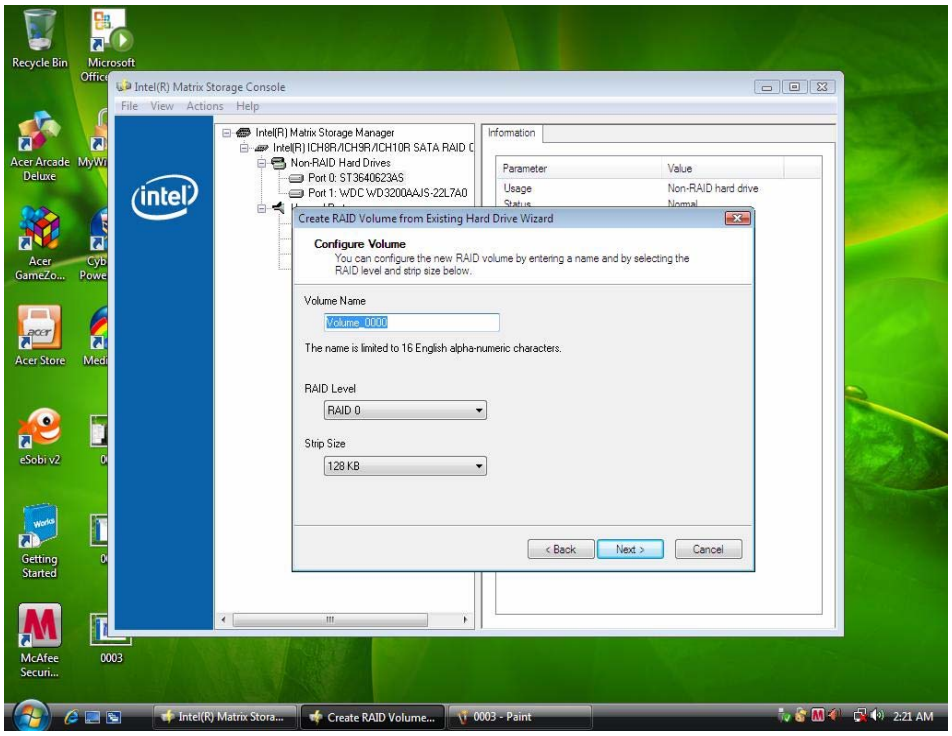
Picture2

Step 5: Click "Next" at create a RAID volume window.



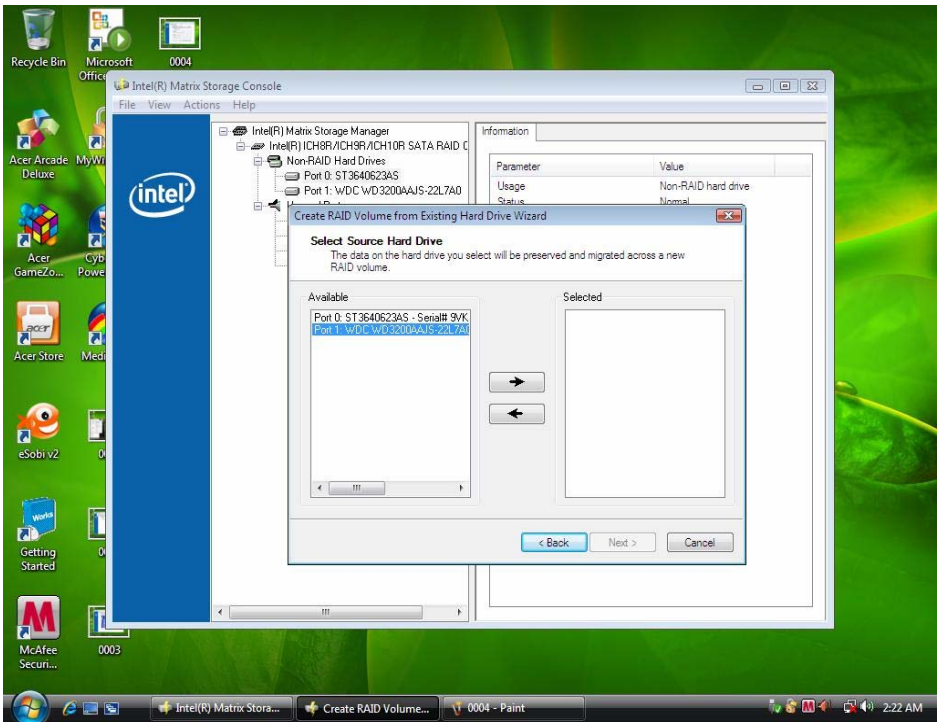
Picture3

Step 6: Key the name in "Volume Name" and select "RAID 0" in RAID Level.

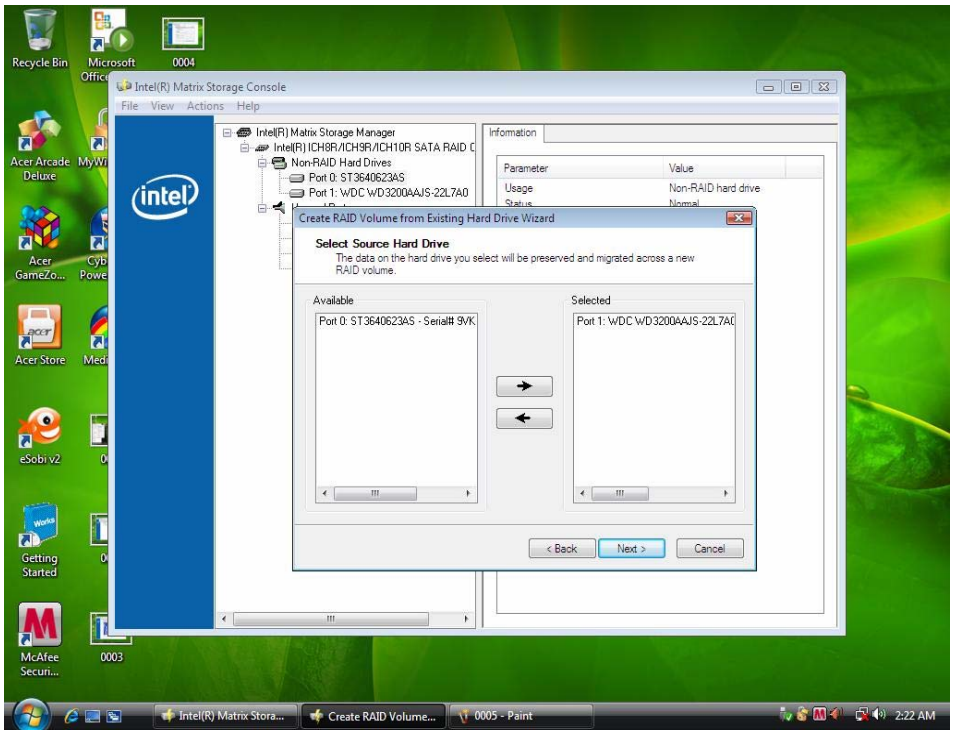


Picture4

Step 7: Select minimum HDD as "Source Hard Drive".

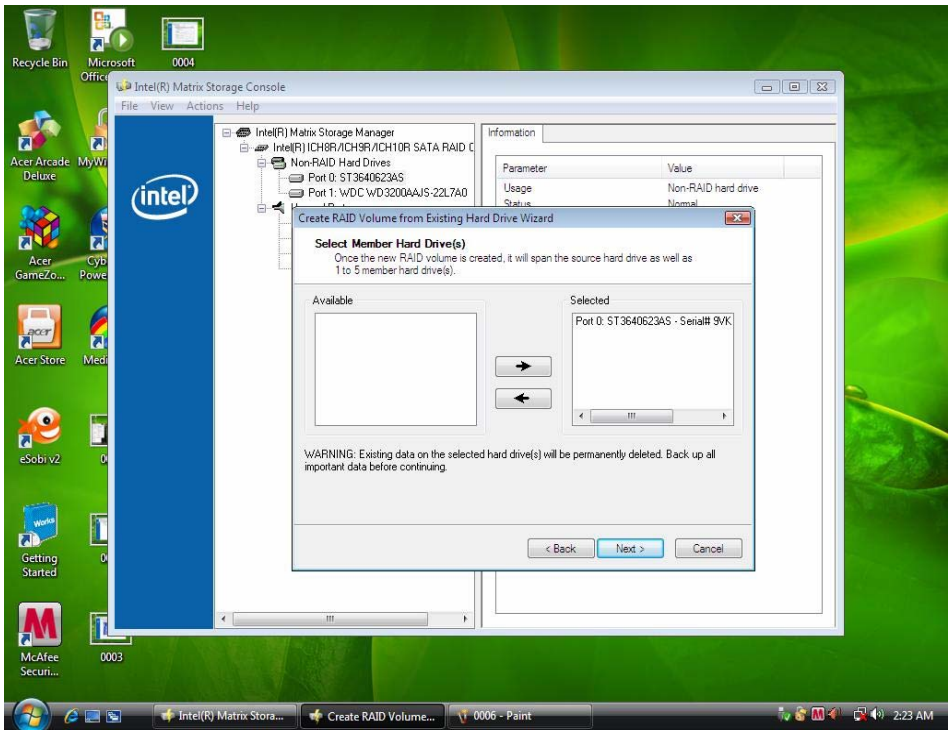


Picture5



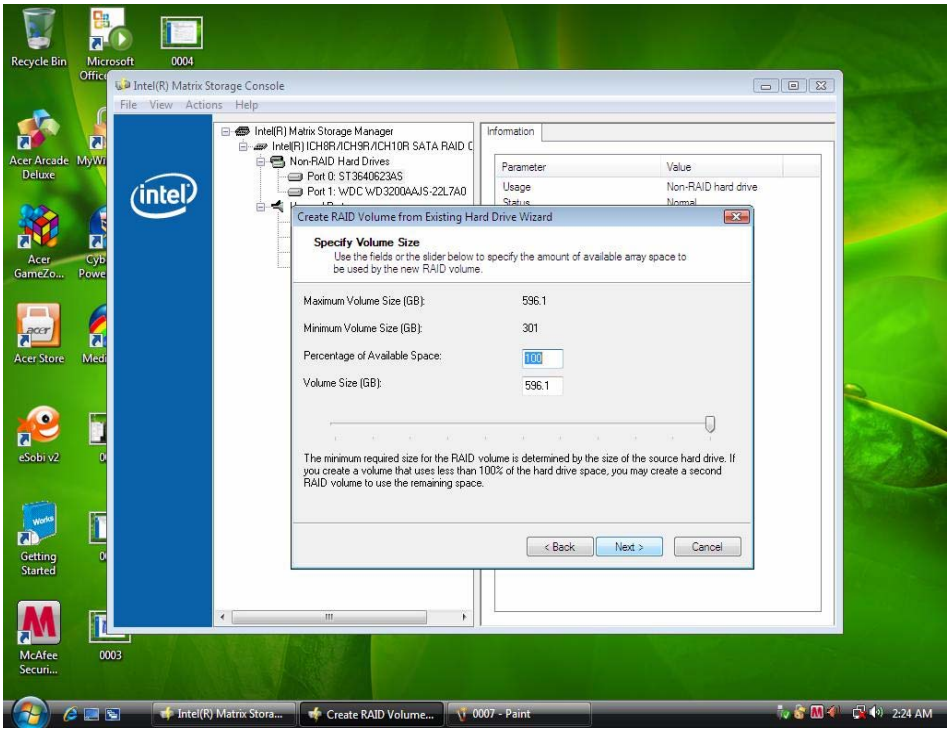
Picture6

Step 8: Select Menber Hard Drive(s).



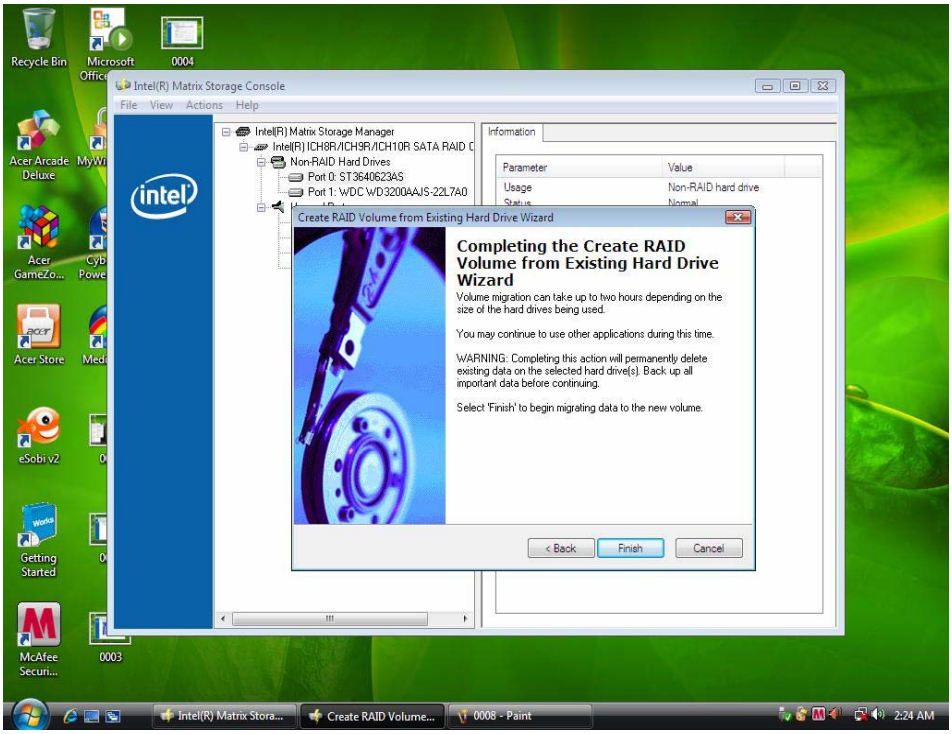
Picture7

Step 9: Specify Volume Size then press "next".



Picture8

Step 10: Press "next" to finish setup and start create RAID0.



Picture9

Step 11: It may takes half and hours to create RAID0.After create completely,it will ask to reboot to finish create RAID0.

2-2:Create a“RAID Ready” System into" RAID 1" with two Hard Drives by‘Create RAID Volume from Existing HDD Drive ’.

Step 1: Install Vista OS with one SATA HDD.

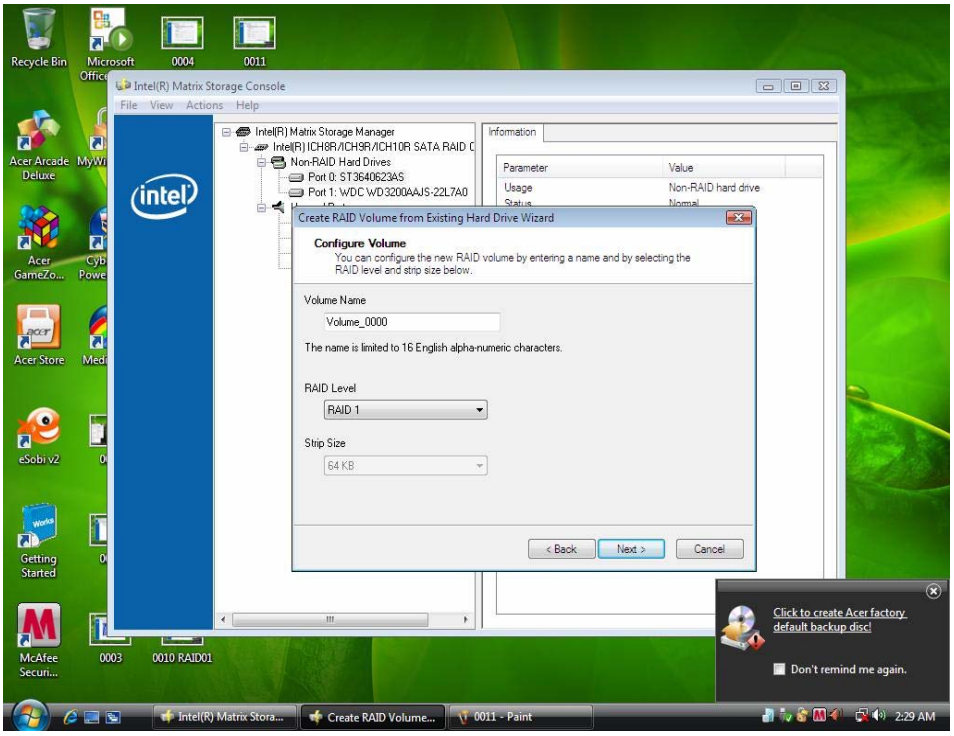
Step 2: Shut down the system,then add another Serial ATA hard drive in the system.

Step 3: Boot to OS desktop, open the Intel® Matrix Storage Console.

Step 4: Click on the by‘Create RAID Volume from Existing HDD Drive ’ to create a RAID volume.

Step 5: Click "Next" at create a RAID volume window.

Step 6: Key the name in "Volume Name" and select "RAID 1" in RAID Level.



Picture10

Step 7: Select minimum HDD as "Source Hard Drive".

Step 8: Select Menber Hard Drive(s).

Step 9: Specify Volume Size then press "next".

Step 10: Press "next" to finish setup and start create RAID1.

Step 11: It may takes half and hours to create RAID1.After create completely,it will ask to reboot to finish create RAID1.

2-3:Create a“RAID Ready” System into" RAID 5" with three Hard Drives by‘Create RAID Volume from Existing HDD Drive ’.

Step 1: Install Vista OS with one SATA HDD.

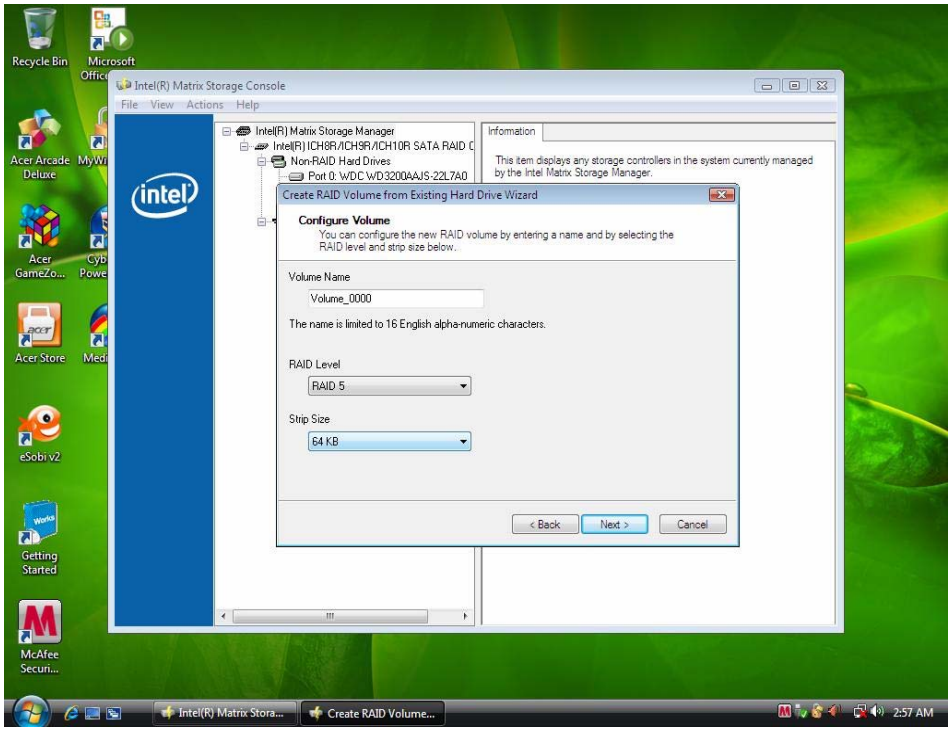
Step 2: Shut down the system,then add other two serial ATA hard drives in the system.

Step 3: Boot to OS desktop, open the Intel® Matrix Storage Console.

Step 4: Click on the by‘Create RAID Volume from Existing HDD Drive ’ to create a RAID

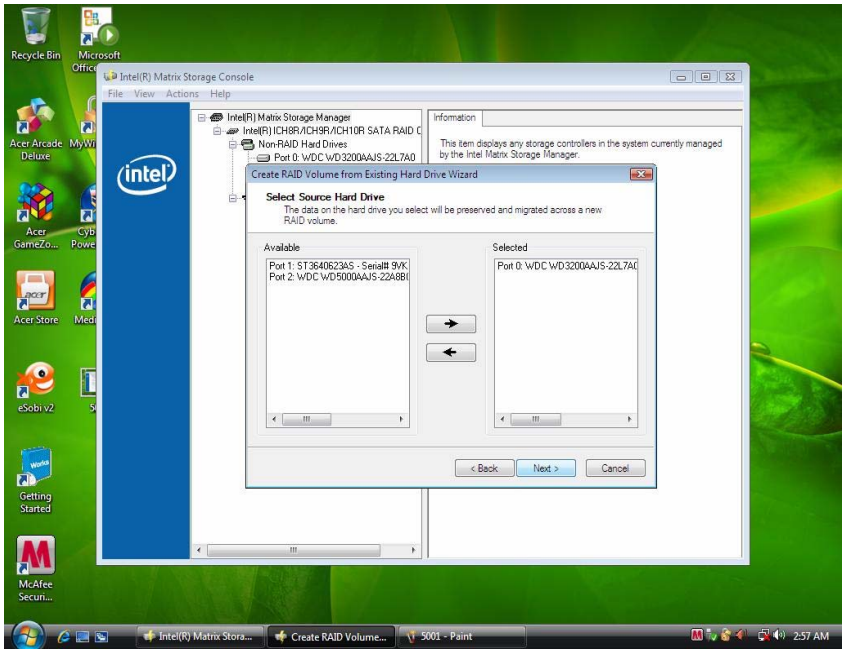
Step 5: Click "Next" at create a RAID volume window.

Step 6: Key the name in "Volume Name" and select "RAID 5" in RAID Level.



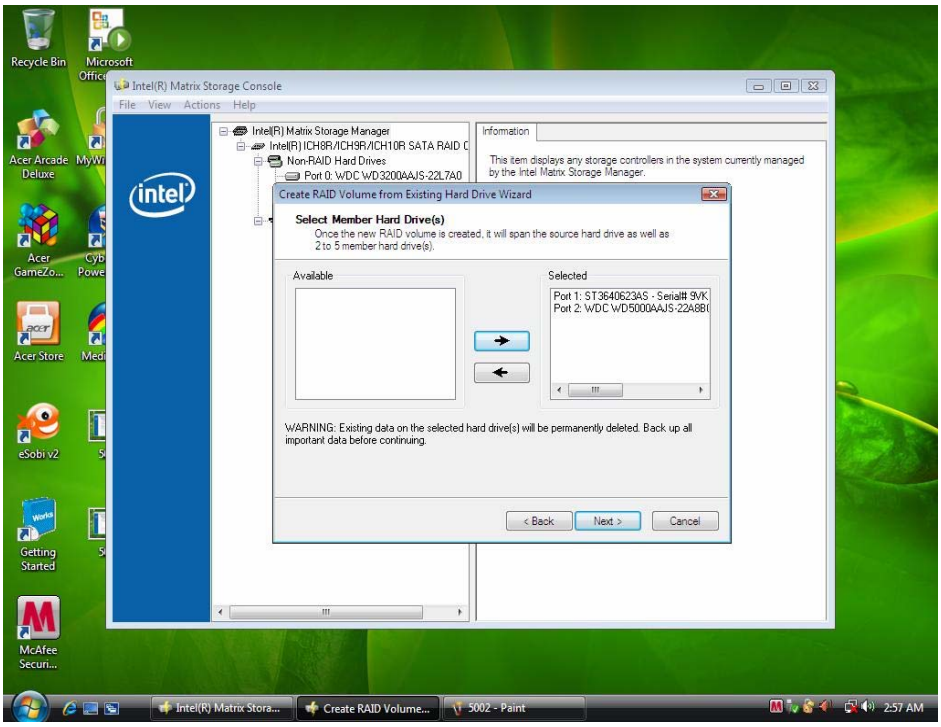
Picture11

Step 7: Select minimum HDD as "Source Hard Drive".



Picture12

Step 8: At least select two HDD as Menber Hard Drive(s).



Picture13

Step 9: Specify Volume Size then press "next".

Step 10: Press "next" to finish setup and start create RAID5.

Step 11: It may takes half and hours to create RAID5.After create completely,it will ask to reboot to finish create RAID5.

2-4:Create a“RAID Ready” System into" RAID 10" with three Hard Drives by‘Create RAID Volume from Existing HDD Drive ’.

Step 1: Install Vista OS with one SATA HDD.

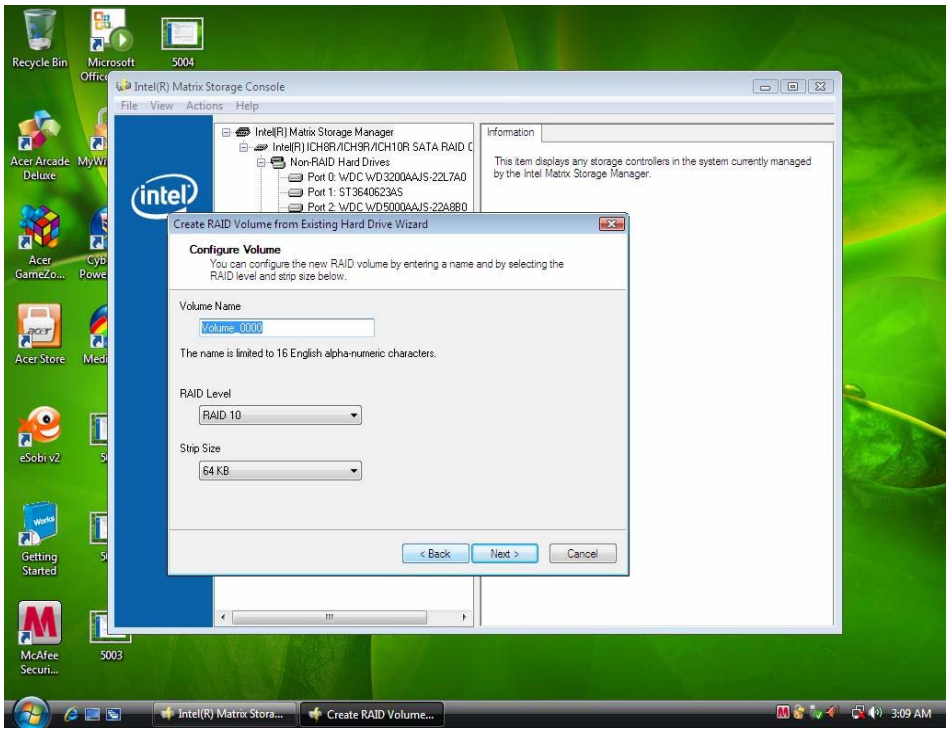
Step 2: Shut down the system,then add other two serial ATA hard drives in the system.

Step 3: Boot to OS desktop, open the Intel® Matrix Storage Console.

Step 4: Click on the by‘Create RAID Volume from Existing HDD Drive ’ to create a RAID

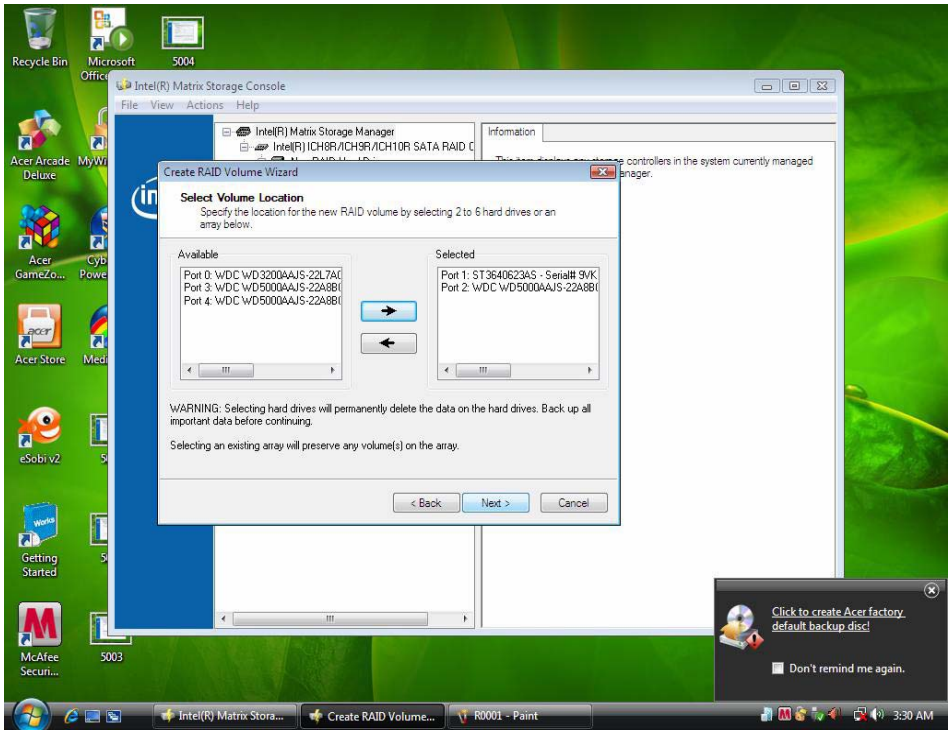
Step 5: Click "Next" at create a RAID volume window.

Step 6: Key the name in "Volume Name" and select "RAID 10" in RAID Level.



Picture14

Step 7: Select two HDDs as "Source Hard Drive".



Picture15

Step 8: At least select two HDD as Menber Hard Drive(s).

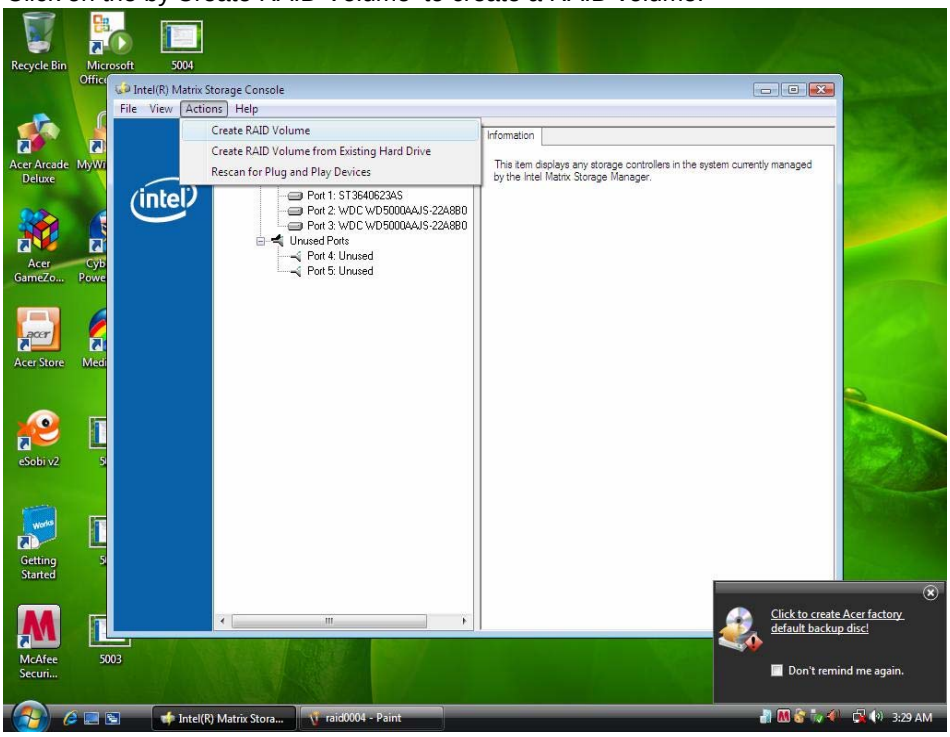
Step 9: Specify Volume Size then press "next".

Step 10: Press "next" to finish setup and start create RAID 10.

Step 11: It may takes half and hours to create RAID 10.After create completely,it will ask to reboot to finish create RAID10.

2-5:Create a“RAID Ready” System into" RAID 0" with two Hard Drives by ‘Create RAID Volume ’.

Step 1: Install Vista OS with one SATA HDD.
Step 2: Shut down the system,then add another two serial ATA hard drives in the system.
Step 3: Boot to OS desktop, open the Intel® Matrix Storage Console.
Step 4: Click on the by‘Create RAID Volume’ to create a RAID volume.

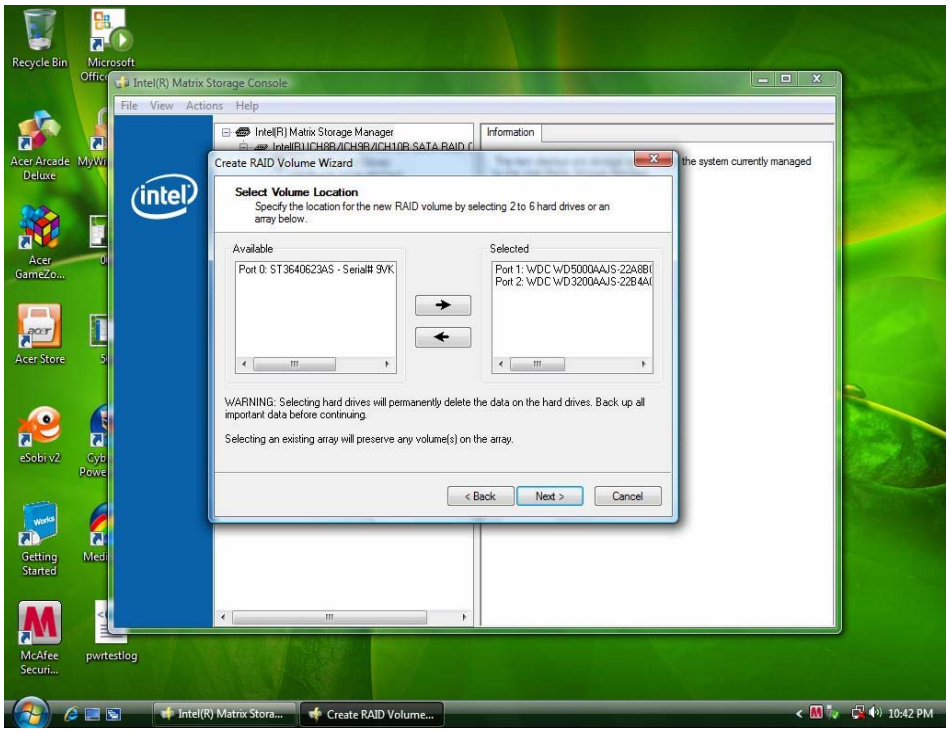


Picture16

Step 5: Click "Next" at create a RAID volume window.

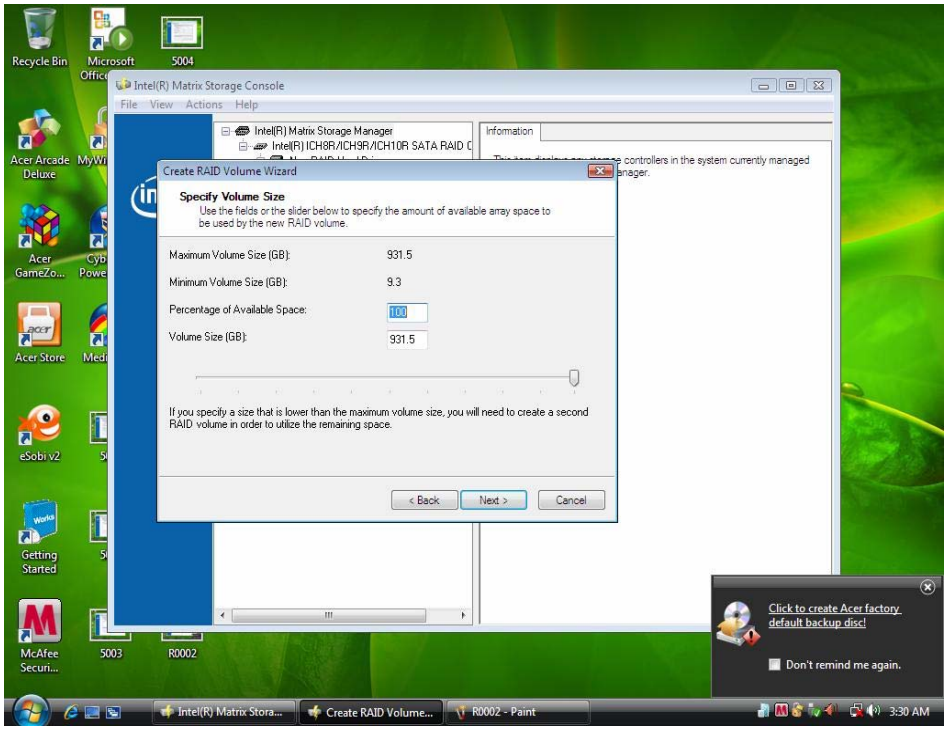
Step 6: Key the name in "Volume Name" and select "RAID 0" in RAID Level.

Step 7: At least select two HDDs as "Volume Location".



Picture17

Step 8: Specify Volume Size then press "next".



Picture18

Step 9: Press "next" to finish setup and start create RAID 0.

Step 10: It may takes half and hours to create RAID 0.After create completely,it will ask to reboot to finish create RAID 0.

2-6:Create a“RAID Ready” System into" RAID 1" with two Hard Drives by ‘Create RAID Volume ’.

Step 1:	Install Vista OS with one SATA HDD.
Step 2:	Shut down the system,then add another two serial ATA hard drives in the system.
Step 3:	Boot to OS desktop, open the Intel® Matrix Storage Console.
Step 4:	Click on the by‘Create RAID Volume’ to create a RAID volume.
Step 5:	Click "Next" at create a RAID volume window.
Step 6:	Key the name in "Volume Name" and select "RAID 1" in RAID Level.
Step 7:	At least select two HDDs as "Volume Location".
Step 8:	Specify Volume Size then press "next".
Step 9:	Press "next" to finish setup and start create RAID 1.
Step 10:	It may takes half and hours to create RAID 1.After create completely,it will ask to reboot to finish create RAID 1.

2-7:Create a“RAID Ready” System into" RAID 5" with two Hard Drives by ‘Create RAID Volume ’.

Step 1:	Install Vista OS with one SATA HDD.
Step 2:	Shut down the system,then add another three serial ATA hard drives in the system.
Step 3:	Boot to OS desktop, open the Intel® Matrix Storage Console.
Step 4:	Click on the by‘Create RAID Volume’ to create a RAID volume.
Step 5:	Click "Next" at create a RAID volume window.
Step 6:	Key the name in "Volume Name" and select "RAID 5" in RAID Level.
Step 7:	At least select three HDDs as "Volume Location".
Step 8:	Specify Volume Size then press "next".
Step 9:	Press "next" to finish setup and start create RAID 5.
Step 10:	It may takes half and hours to create RAID 5.After create completely,it will ask to reboot to finish create RAID 5.

2-8:Create a“RAID Ready” System into" RAID 10" with two Hard Drives by ‘Create RAID Volume ’.

Step 1:	Install Vista OS with one SATA HDD.
Step 2:	Shut down the system,then add another four serial ATA hard drives in the system.
Step 3:	Boot to OS desktop, open the Intel® Matrix Storage Console.
Step 4:	Click on the by‘Create RAID Volume’ to create a RAID volume.
Step 5:	Click "Next" at create a RAID volume window.
Step 6:	Key the name in "Volume Name" and select "RAID 10" in RAID Level.
Step 7:	At least select three HDDs as "Volume Location".
Step 8:	Specify Volume Size then press "next".
Step 9:	Press "next" to finish setup and start create RAID 10.
Step 10:	It may takes half and hours to create RAID 10.After create completely,it will ask to reboot to finish create RAID 10.

Intel RAID SOP

1. INTEL® MATRIX STORAGE TECHNOLOGY CHECK (DOS)

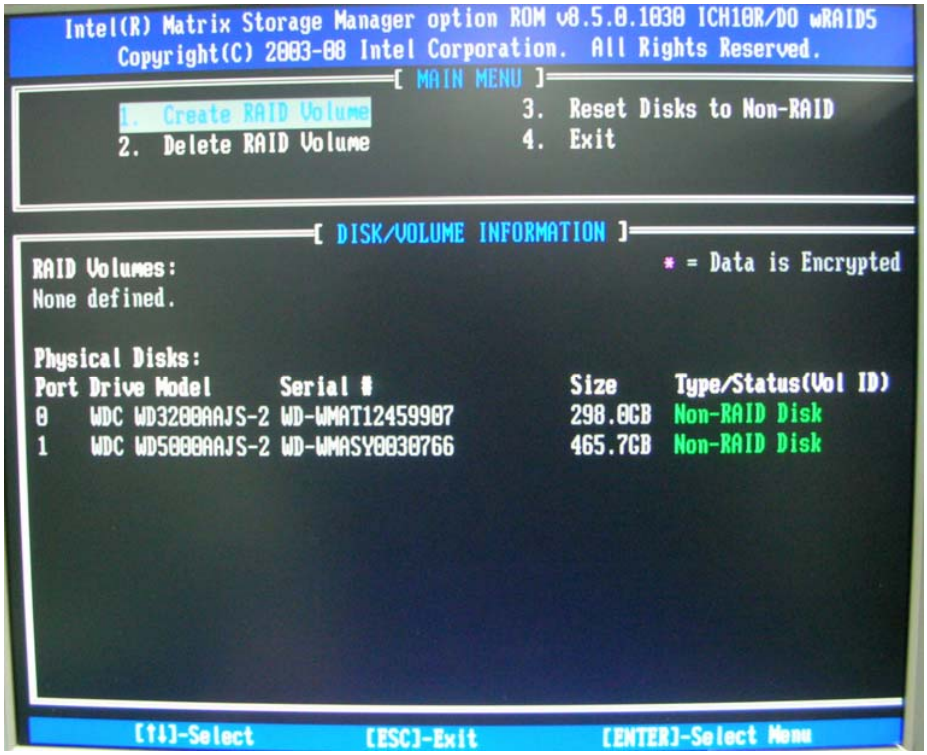
1-1: Create SATA RAID 0

Step 1: Shut down the EUT, unplug the power cable,connect two SATA HDDS to EUT , check the EUT all devices are connect/plug ok

Step 2: Press "PWR-BTTN" to power on the EUT,Load BIOS default setting .

Step 3: At "Integrated_Peripherals" page "OnChip SATA Type" item set is as "RAID" mode,save and exit.

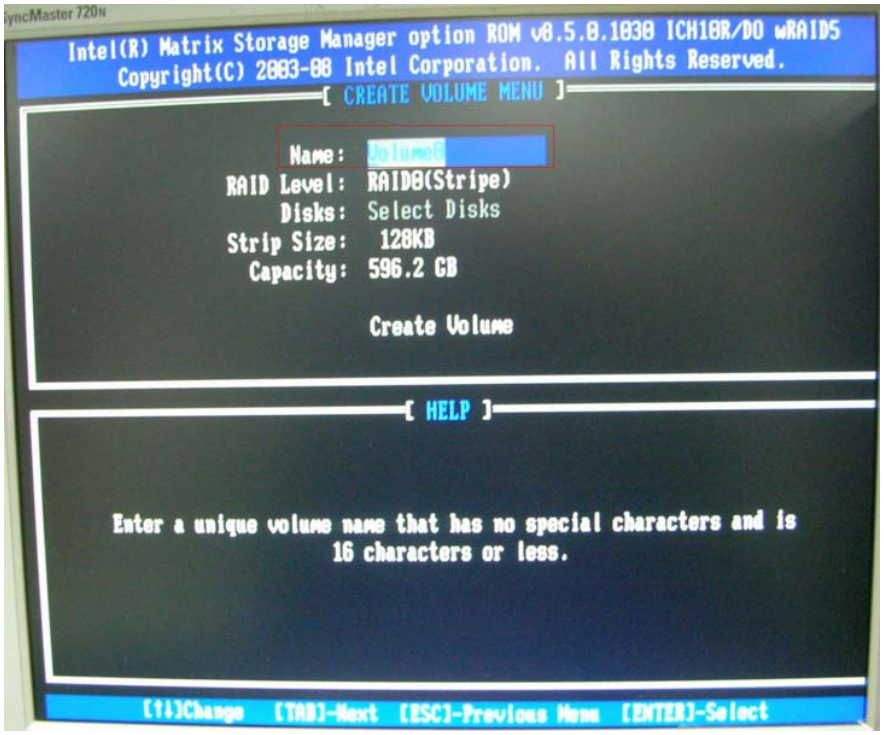
Step 4: During BIOS post, press <Ctrl-I> to enter into Intel RAID setup utility,as picture1.



Picture1

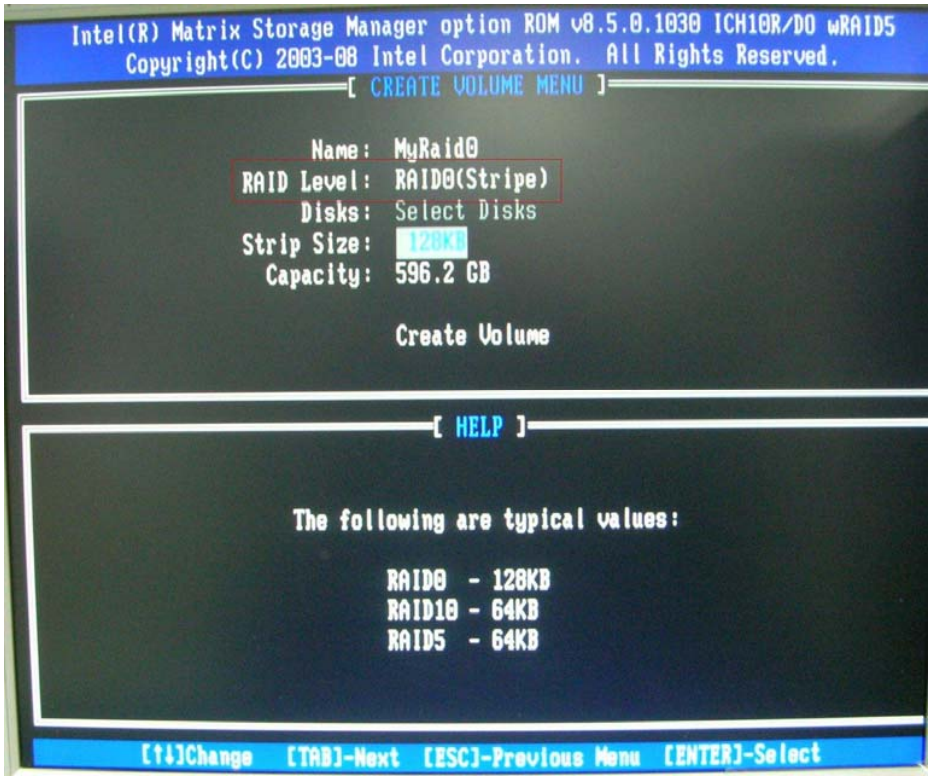
Step 5: Select "1" to enter create RAID mode ,if there is no enough avalable space (there was exist a Raid , delete it).

Step 6: Create RAID 0 Mode,enter the RAID name,such as "MyRaid0",default is"Volume0".



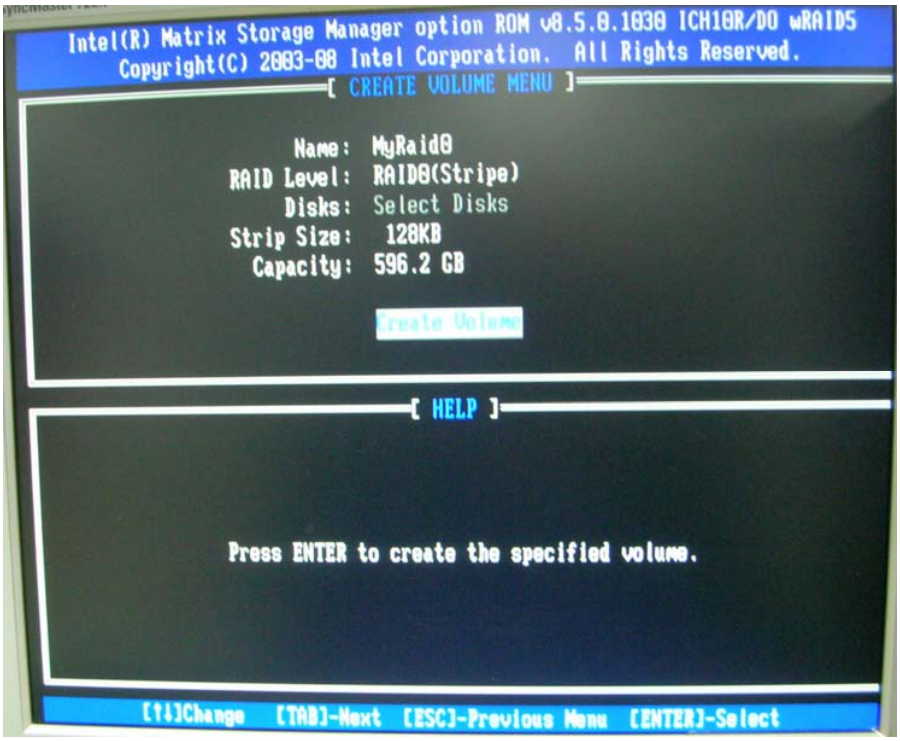
Picture2

Step 7: Select "RAID0(Stripe)" at "RAID Level".



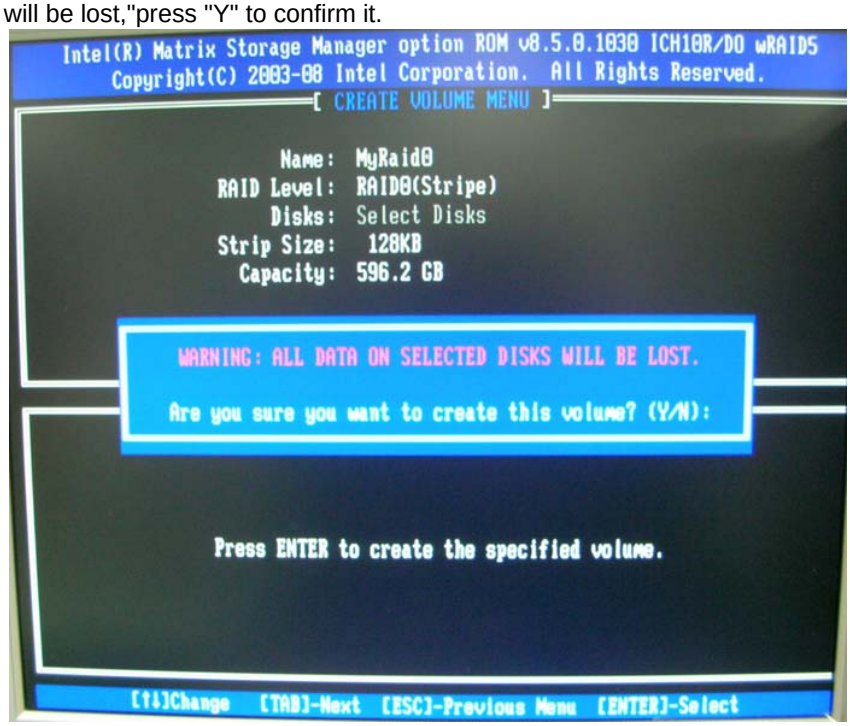
Picture3

Step 8: You can select the "Strip Size" and define RAID capacity in "Capactity".



Picture4

Step 9: Press "Create Volume" to create RAID0,it will pop the warning message that all data will be lost,"press "Y" to confirm it.



Picture5

Step 10: It will back to create RAID interface,then press "ESC" or select 4 to exit and install OS.

1-2: Create SATA RAID 1

Step 1: Shut down the EUT, unplug the power cable,connect two SATA HDDS to EUT , check the EUT all devices are connect/plug ok

Step 2: Press "PWR-BTTN" to power on the EUT,Load BIOS default setting .

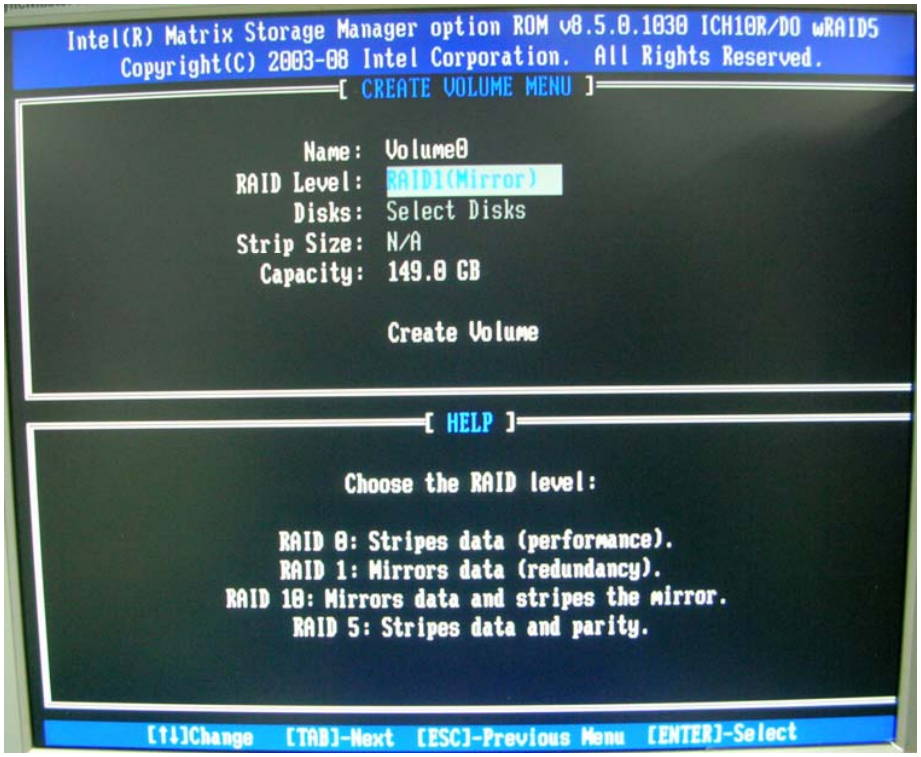
Step 3: At "Integrated_Peripherals" page "OnChip SATA Type" item set is as "RAID" mode,save and exit.

Step 4: During BIOS post, press <Ctrl-I> to enter into Intel RAID setup utility.

Step 5: Select "1" to enter create RAID mode ,if there is no enough avalable space (there was exist a Raid , delete it).

Step 6: Create RAID 1 Mode,enter the RAID name,such as "MyRaid1",default is"Volume0".

Step 7: Select "RAID1(Mirror)" at "RAID Level".



Picture6

Step 8: You can select the "Strip Size" and define RAID capacity in "Capactity".

Step 9: Press "Create Volume" to create RAID1,it will pop the warning message that all data will be lost,"press "Y" to confirm it.

Step 10: It will back to create RAID interface,then press "ESC" or select 4 to exit and install OS.

1-3: Create SATA RAID 5

Step 1: Shut down the EUT, unplug the power cable,connect three SATA HDDS to EUT , check the EUT all devices are connect/plug ok

Step 2: Press "PWR-BTTN" to power on the EUT,Load BIOS default setting .

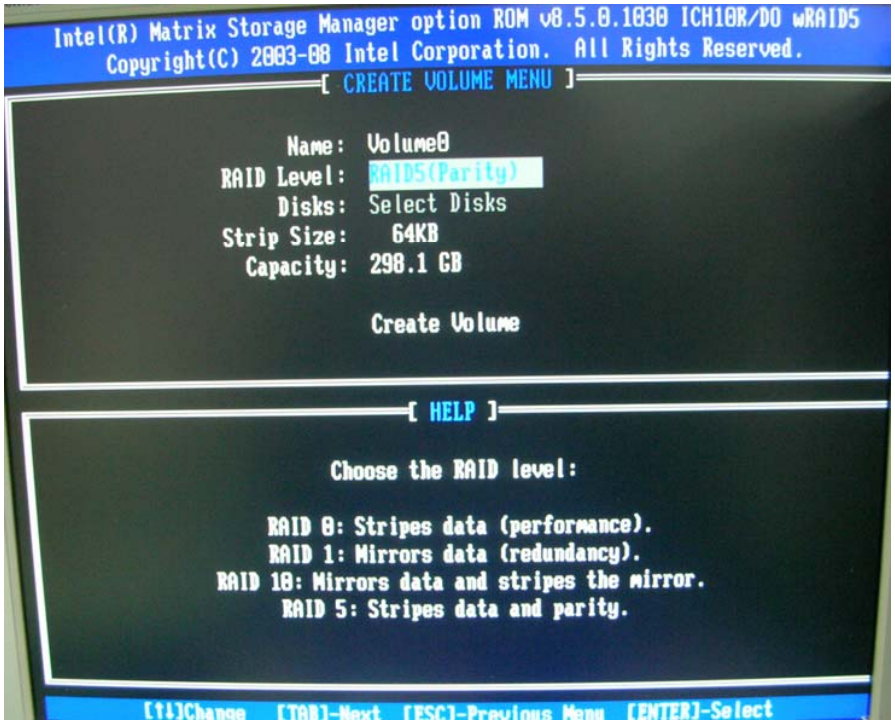
Step 3: At "Integrated_Peripherals" page "OnChip SATA Type" item set is as "RAID" mode,save and exit.

Step 4: During BIOS post, press <Ctrl-I> to enter into Intel RAID setup utility.

Step 5: Select "1" to enter create RAID mode ,if there is no enough avalable space (there was exist a Raid , delete it).

Step 6: Create RAID 5 Mode,enter the RAID name,such as "MyRaid5",default is"Volume0".

Step 7: Select "RAID5(Parity)" at "RAID Level".



Picture7

Step 8: You can select the "Strip Size" and define RAID capacity in "Capactity".

Step 9: Press "Create Volume" to create RAID5,it will pop the warning message that all data will be lost,"press "Y" to confirm it.

Step 10: It will back to create RAID interface,then press "ESC" or select 4 to exit and install OS.

1-4: Create SATA RAID 0+1

Step 1: Shut down the EUT, unplug the power cable,connect four SATA HDDS to EUT , check the EUT all devices are connect/plug ok

Step 2: Press "PWR-BTTN" to power on the EUT,Load BIOS default setting .

Step 3: At "Integrated_Peripherals" page "OnChip SATA Type" item set is as "RAID" mode,save and exit.

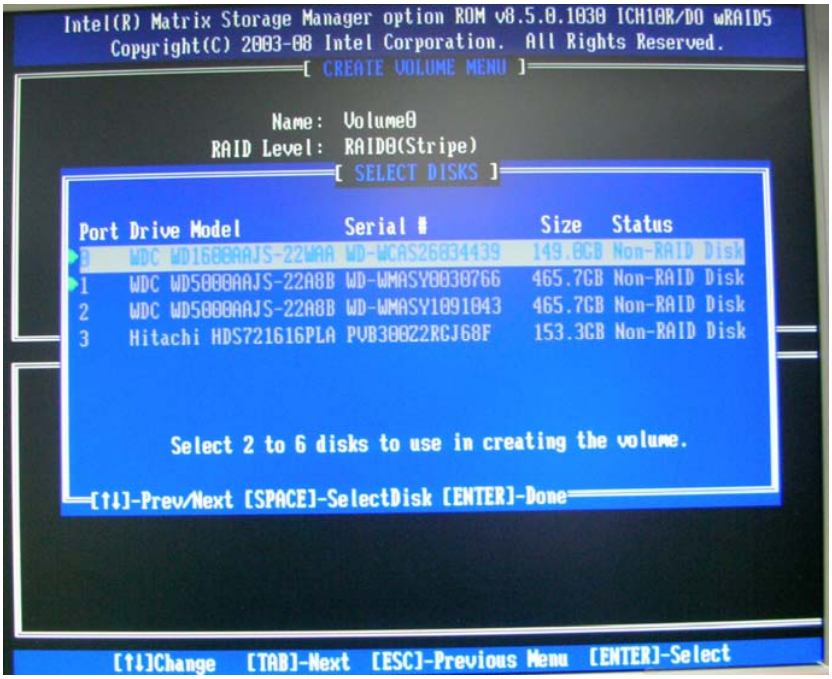
Step 4: During BIOS post, press <Ctrl-I> to enter into Intel RAID setup utility.

Step 5: Select "1" to enter create RAID mode ,if there is no enough avalable space (there was exist a Raid , delete it).

Step 6: Create RAID 0+1 Mode,firstly create RAID 0 Mode,enter the RAID name,such as "MyRaid0+1",default is"Volume0".

Step 7: Select "RAID0(Stripe)" at "RAID Level".

Step 8: Select two HDDs in "Disk" by space key.



Picture8

Step 9: Press "Enter" to finish HDD selection and it will back to RAID creation interface.

Step 10: Repeat RAID1 creation step and exit,then install OS.