

# Motherboard 7KM400QP

|   |           |
|---|-----------|
| <b>Chapter 1 Specifications .....</b>                 | <b>3</b>  |
| <b>1.1. Introduction .....</b>                        | <b>3</b>  |
| <b>1.2. Package Contents .....</b>                    | <b>3</b>  |
| <b>1.3. Specifications and Features .....</b>         | <b>4</b>  |
| CPU Processor .....                                   | 4         |
| Chipset .....   | 4         |
| PCI .....   | 4         |
| DDR SDRAM Memory .....                                | 4         |
| Universal Serial Bus .....                            | 4         |
| AGP .....   | 4         |
| VGA integrated on board .....                         | 4         |
| Award BIOS .....                                      | 5         |
| ATA 133 On Board .....                                | 5         |
| IEEE 1394A Controller on board .....                  | 5         |
| SATA RAID Interface integrated .....                  | 5         |
| WOL (Wake On LAN) .....                               | 5         |
| <b>1.4. 7KM400QP Layout Diagram .....</b>             | <b>6</b>  |
| <b>1.5. CPU Installation .....</b>                    | <b>8</b>  |
| <b>1.6. DDR SDRAM Installation .....</b>              | <b>8</b>  |
| <b>1.7. Connectors &amp; Jumpers Setting .....</b>    | <b>9</b>  |
| <b>1.7.1. Back Panel I/O Connectors .....</b>         | <b>9</b>  |
| 1.7.1.1. PS/2 Mouse / Keyboard CONN: .....            | 9         |
| 1.7.1.2. USB3 (2 ports) .....                         | 9         |
| 1.7.1.3. Serial Interface Port: COM1 .....            | 9         |
| 1.7.1.4. Parallel Interface Port .....                | 10        |
| 1.7.1.5. Audio Ports .....                            | 10        |
| 1.7.1.6. S-Video out and A-V out connectors .....     | 10        |
| 1.7.1.7. VGA connector integrated on board .....      | 10        |
| 1.7.1.8. RJ45 connector optional on board .....       | 10        |
| <b>1.7.2. ATX Main Power Connectors: ATXPWR .....</b> | <b>10</b> |
| <b>1.7.3. Floppy Disk Connector: FDD .....</b>        | <b>11</b> |
| <b>1.7.4. Hard Disk Connectors: IDE1/IDE2 .....</b>   | <b>11</b> |
| <b>1.7.5. Fan Connectors: FAN1 (CPU)/2/3 .....</b>    | <b>11</b> |
| <b>1.7.6. CD Audio-In Connectors: CDIN1 .....</b>     | <b>11</b> |

- 1.7.7. IR infrared module: IR1 Connector ..... 12
- 1.7.8. SPDIF Connector: SPDIF1 ..... 12
- 1.7.9. Front Audio Connector: J8 ..... 12
- 1.7.10. USB Pin Header: USB1/2 ..... 13
- 1.7.11. Wake On LAN Connector: WOL1 ..... 13
- 1.7.12. Front Panel Connectors: PANEL1 ..... 14
- 1.7.13. 1394A Pin Header: J10 ..... 15
- 1.7.14. Modem Pin-header: J9 (optional) ..... 15
- 1.7.15. Serial ATA Connectors: CN2/3 ..... 15
- 1.7.16. AGP 8X/4X Slot ..... 15
- 1.7.17. CMOS Function Selector: JBAT1 ..... 16
- 1.7.18. USB1/2 Power Selector: J7 ..... 16
- 1.7.19. PS2 / USB3 Keyboard Power Selector: J6 ..... 17
- 1.7.20. CPU Clock Frequency Selector: J5 ..... 17
- Chapter 2 Drivers & Utilities ..... 18**
- 2.1. Auto-run Menu ..... 18
- 2.2. Installing VIA 4-in-1 Service Pack ..... 20
- 2.3. Installing Audio Driver ..... 21
- 2.4. Installing VGA Drivers ..... 22
- 2.5. Installing USB 2.0 Driver ..... 23
- 2.6. LAN Drivers (optional) ..... 24
- 2.7. Installing Modem Driver (optional) ..... 25
- 2.8. Installing RAID Driver (optional) ..... 26
- Chapter 3. Compatibility Test ..... 27**
- (1) CPU Compatibility Test ..... 27
- (2) Memory Compatibility Test ..... 27
- (3) AGP Display Card Compatibility Test ..... 28
- Chapter 4. etBIOS to Boot System .... 29**
- 4.1. etBIOS integrated in System BIOS ..... 29
- 4.2. To Boot System from etBIOS Menu ..... 30
- 4.2. The etBIOS DVD Interface ..... 31

# Chapter 1

## 7KM400QP Specifications

### Chapter 1 Specifications

#### 1.1. Introduction

The 7KM400QP motherboard is an integration of AMD Athlon/Duron CPU in Socket 462 packaging and the North Bridge VIA KM400A supporting 100/133/166/200 MHz Front Side Bus.

North Bridge KM400A on board also supports DDR 266/333/400 SDRAMs, while the South Bridge VT8235 provides stable supports of ULTRA ATA 133, SATA interface, 6-channel Audio playback and USB 2.0/1.1 interface.

**This manual is a general reference of the first release of this motherboard which is subject to update without notice. If any difference is found between this manual and the motherboard you are using, please visit our Web Site for update information.**

#### 1.2. Package Contents

- HDD UDMA66/100 Cable x1.
- FDD Cable.
- Flash Memory with BIOS.
- I/O Shielding
- Fully Setup Driver CD with built in utilities.
- User Manual.

## 1.3. Specifications and Features

### CPU Processor

- | Support 100/133/166/200 MHz System Interface speed
- | Single Socket 462 for AMD™ Athlon CPUs 700MHz~3200+ or higher\*, and Duron CPUs 600 ~ 1400 MHz or higher\*

\* The higher frequency CPU should be compatible with AMD CPU specification and the motherboard latest BIOS version which will be released in our Web Site (url printed on the cover page).

### Chipset

- | VIA KM400A North Bridge
- | VIA VT8237 South Bridge

### PCI

- | Supports 1 x PCI slots, 32-bit 33MHz PCI Bus speed.

### DDR SDRAM Memory

- | Supporting 64/128/256/512/1G....MB DDR module in 2 slots
- | Supporting Synchronous 400/333/266MHz DDR SDRAM
- | Supporting a maximum memory size of 2GB of DDR SDRAM

### Universal Serial Bus

- | Supporting two on-board Universal Serial Bus(USB) Ports and four external Universal serial Bus USB Ports.
- | Supporting USB 2.0/1.1

### AGP

- | Supporting 1 x AGP8X slot, V3.0 compliant.

### VGA integrated on board

- | KM400A supporting VGA interface for VGA display
- | Supporting 1x S-Video and 1x A-Video connectors for TV display

### **Award BIOS**

- | Supporting Plug & Play specification which detects the peripheral devices and expansion cards automatically
- | Supporting CD-ROM, SCSI, LAN BOOT, Temperature sensor, LAN, Alarm Bus CLK setup
- | Supporting Desktop Management Interface (DMI) function for recording mainboard specification

### **ATA 133 On Board**

- | Supporting PIO Mode 5, Master Mode, high performance hard disk drives.
- | Supporting Ultra DMA 33/66/100/133 Bus Master Mode.
- | Supporting 4xIDE devices, including CD-ROM, CD-R, CD-RW, LS-120 and high capacity hard disk drives with LBA mode

### **PCI-Based AC 97 Digital Audio Processor**

- | AC 97 2.2 compatible Codec, 6-channel Audio interface.
- | 18-bit Stereo Full-Duplex Codec with up to 48 KHz sampling rate
- | 4 Analog Line-level Stereo inputs for connection from Line, CD, Video and AUX
- | 2 Analog Line-level Stereo inputs for speakerphone and PC beep

### **IEEE 1394A Controller on board**

- | IEEE 1394A Controller VT6307S on board
- | Supporting 1 x 1394A connector for 400/200/100 Mbits transfer rate

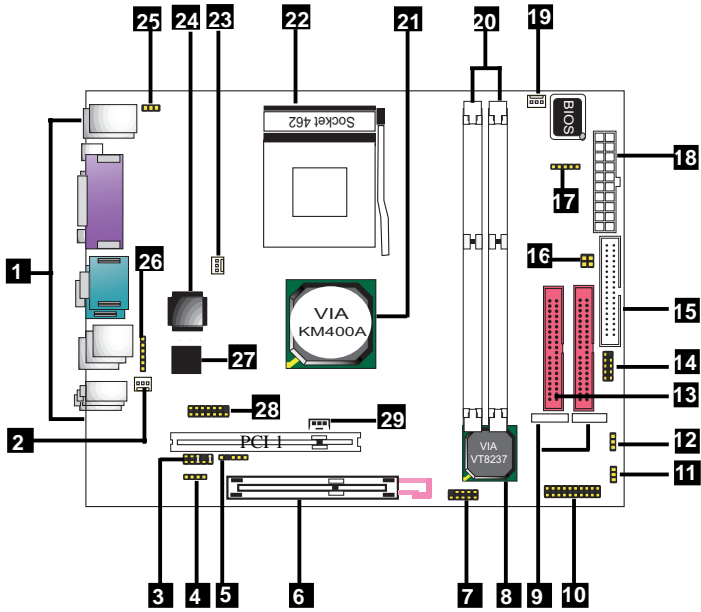
### **SATA RAID Interface integrated**

- | South Bridge VT8237 supporting SATA RAID interface for RAID system configuration
- | Supporting 2 x SATA connectors for 2 RAID Hard Disks configuration

### **WOL (Wake On LAN)**

- | Supporting system power-on by LAN Ring-up signal.

# 1.4. 7KM400QP Layout Diagram



**7KM400QP Component Layout :**

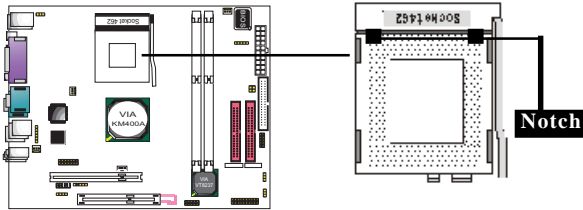
1. Back Panel: Back Panel I/O Connectors ( Mouse, Keyboard, SV, AV, Printer, 1394A, COM1, VGA, LAN, USB0/1, Mic in, Line in, Speaker-out)
2. FAN3: Cooling Fan Connector (for AGP Fan)
3. J8: Front Audio Connector
4. CD-IN1: CD Audio In Connector
5. SPDIF1: (Sony/Philip Digital Interface Format) Audio Connector
6. AGP 8X/4X slot
7. USB1: Pin-Header for 2 USB ports
8. South Bridge VIA VT8237CD
9. 2x Serial ATA connectors
10. PANEL1: Front Panel connectors
11. J7: Jumper for USB Power Select
12. JBAT1: Jumper for clearing CMOS
13. 2 x IDE connectors
14. USB2: Pin-header for 2 x USB ports
15. FDD: Floppy Drive Connector
16. J5: Jumper for CPU Clock Select
17. IR1: Connector for Infrared signal Receive/Transmit
18. ATX2: ATX Power Connector
19. FAN2: Cooling Fan connector
20. 2 x DDR DIMM slots
21. North Bridge VIA KM400A
22. CPU Socket 462 for AMD K7 CPUs
23. FAN1: Cooling Fan connector (for CPU Fan)
24. LAN Controller RTL8101L
25. J6: Jumper for PS2 / USB1-2 Keyboard Power Select
26. J10: IEEE 1394A Pin-header
27. VT6307S: Chip for IEEE 1394 control
28. Modem Pin-header (optional)
29. WOL1: Wake-on LAN connector

## 1.5. CPU Installation

The motherboard operates with Socket 462 for AMD Athlon™ and Duron™ processor. The CPU should always have a Heat Sink and cooling fan attached to prevent overheating.

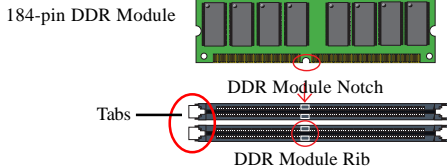
### CPU Installation Procedures for Socket 462

1. Pull the lever sideways away from the socket then raise the lever to a 90-degree angle.
2. Locate Pin 1 in the socket and look for the white dot or cut edge in the CPU. Match Pin 1 with the white dot/cut edge then insert the CPU.
3. Press the lever down to complete the installation.



## 1.6. DDR SDRAM Installation

The motherboard supports a maximized 3GB memory. It provides three 184-pin unbuffered DDR sockets and each supports 64MB to 1GB DDR memory module.



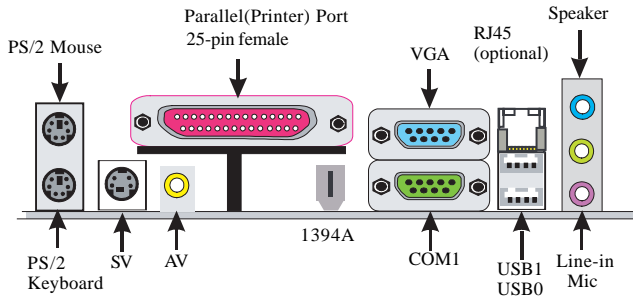
**Note:** Push the tabs out. Insert the DDR memory modules into the socket at a 90-degree angle then push down vertically to fit onto place. When you plug or unplug DDR module, you must check your power supply is OFF.



## 1.7. Connectors & Jumpers Setting

### 1.7.1. Back Panel I/O Connectors

This motherboard provides the following back panel connectors:


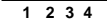


#### 1.7.1.1. PS/2 Mouse / Keyboard CONN:

The motherboard provides a standard PS/2 mouse / Keyboard mini DIN connector for attaching a PS/2 mouse. You can plug a PS/2 mouse / Keyboard directly into this connector.

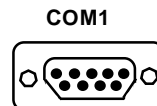
#### 1.7.1.2. USB3 (2 ports)

The motherboard provides a OHCI(Universal Host Controller Interface) & EHCI (Enhance Host Controller Interface) Universal Serial Bus Roots for connecting USB devices such as a keyboard, mouse and other USB devices.

|   | USB Pin | Signal   |
|---|---------|----------|
|   | 1       | 5V Power |
|  | 2       | USBDT-   |
|   | 3       | USBDT+   |
|   | 4       | GND      |

#### 1.7.1.3. Serial Interface Port: COM1

The serial interface port is sometimes referred to as an RS-232 port or an asynchronous communication port. Mice, printers, modems and other peripheral devices are connected to COM1.



### 1.7.1.4. Parallel Interface Port

Sometimes called a Centronics port, the parallel port is almost exclusively used with printers. The parallel port on your system is a 25-pin, DB 25 connector.

### 1.7.1.5. Audio Ports

Speaker out is a connector for Speakers or Headphones. Line in is used for external CD player, Tape player, or other audio devices. Mic is a connector for the microphones.

### 1.7.1.6. S-Video out and A-V out connectors

S-Video-out and A-Video-out connectors support Television display directly from mainboard.

### 1.7.1.7. VGA connector integrated on board

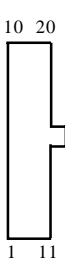
VGA connector integrated on board supporting VGA display.

### 1.7.1.8. RJ45 connector optional on board

RJ45 connector is optionally integrated on board for support of 100/10 Ethernet LAN interface.

## 1.7.2. ATX Main Power Connectors: ATXPWR

This power connector supports instant power-on functionality, which means that the system will boot up instantly when the power connector is inserted on the board.



| Pin | Signal | Pin | Signal |
|-----|--------|-----|--------|
| 1   | 3.3V   | 11  | 3.3V   |
| 2   | 3.3V   | 12  | -12V   |
| 3   | GND    | 13  | GND    |
| 4   | 5V     | 14  | PS-ON  |
| 5   | GND    | 15  | GND    |
| 6   | 5V     | 16  | GND    |
| 7   | GND    | 17  | GND    |
| 8   | PW-OK  | 18  | -5V    |
| 9   | 5V_SB  | 19  | 5V     |
| 10  | 12V    | 20  | 5V     |

### Important:

To switch on your power supply, please make sure:

1. Memory Module is properly installed.
2. Power supply setup is OK.

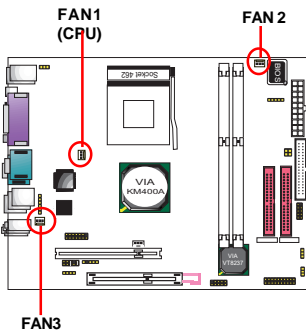
### 1.7.3. Floppy Disk Connector: FDD

This connector supports the provided floppy drive ribbon cable. After connecting the single end to the board, connect the two plugs on the other end to the floppy drives.

### 1.7.4. Hard Disk Connectors: IDE1/IDE2

These connectors are provided with IDE hard disk ribbon cable into the package . After connecting the end of cable with single connector to the mainboard, connect the other two connectors at the other end to your hard disk. If you install two hard disks, you must configure the second drive to Slave mode by setting its jumper settings. BIOS now supports SCSI device or IDE CD-ROM boot up (see "HDD Sequence SCSI/IDE First" & "Boot Sequence" in the BIOS Features Setup of the BIOS SOFTWARE).

### 1.7.5. Fan Connectors: FAN1 (CPU)/2/3



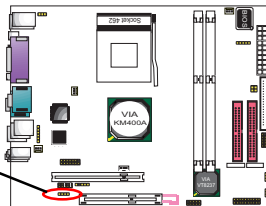
| FAN 1 | Pin Definition |
|-------|----------------|
| 0 1   | <b>GND</b>     |
| 0 2   | <b>+12VDC</b>  |
| 0 3   | <b>Detect</b>  |

| FAN /2/3 | Pin Definition |
|----------|----------------|
| 0 1      | <b>N/C</b>     |
| 0 2      | <b>+12VDC</b>  |
| 0 3      | <b>Ground</b>  |

### 1.7.6. CD Audio-In Connectors: CDIN1

CDIN1 is the connectors for CD-Audio Input signal. Connect it to CD-ROM CD-Audio output connector for CD audio output.

| Pin | CDIN1 | Definition |
|-----|-------|------------|
| 1   |       | CD-L       |
| 2   |       | GND        |
| 3   |       | GND        |
| 4   |       | CD-R       |

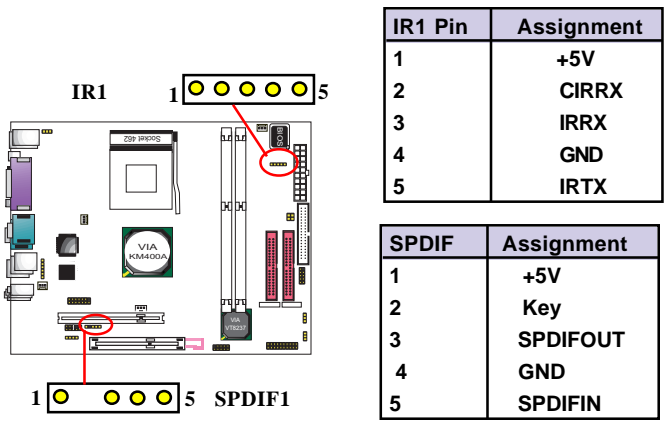


### 1.7.7. IR infrared module: IR1 Connector

This connector supports the optional wireless transmission and reception infrared module. You must configure the setting through the BIOS setup to use the IR function.

### 1.7.8. SPDIF Connector: SPDIF1

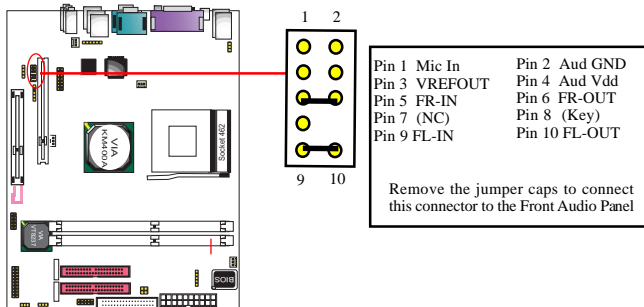
SPDIF1 is designed on board for Digital Audio in/out.



### 1.7.9. Front Audio Connector: J8

J8 provides connection to the Front Audio connectors of the Front Audio Panel.

To use this Front Audio Connector, please remove the jumper caps on it and connect it to the Front Audio Panel.

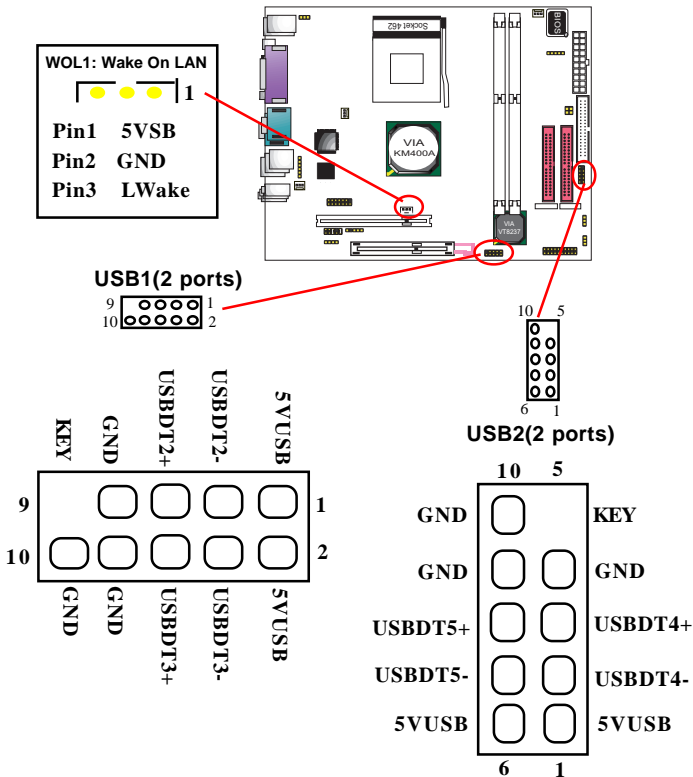


### 1.7.10. USB Pin Header: USB1/2

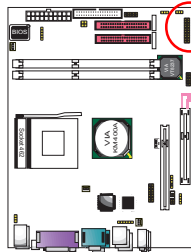
USB1/2 is 2x5 Pin Headers for support of external USB ports. Each USB pin header requires a USB cable for expansion of two USB ports. This optional USB cable is available from your motherboard dealer or vendor.

### 1.7.11. Wake On LAN Connector: WOL1

CN2 is a Wake On LAN (WOL) connector for transmitting the Ring signal from a PCI LAN card to wake up system. If you use a PCI LAN card for system networking, you can connect this Wake On LAN connector to the PCI LAN card on board for Wake On LAN function.



## 1.7.12. Front Panel Connectors: PANEL1



Front Panel Connectors

|    |               |            |
|----|---------------|------------|
| 20 |               | 19         |
| 18 | RST (+)       | 17         |
| 16 |               | 15         |
| 14 | HD LED        | 13         |
| 12 |               | 11         |
| 10 |               | 9          |
| 8  |               | 7          |
| 6  |               | 5          |
| 4  | (+) SPEAKER   | (+) PW LED |
| 2  | (+) PS_SW (+) | 1          |

### PSSW

The system power is controlled by a momentary switch connected to this lead. Pushing the button once will switch the system ON.

### PowerLEDLead (PW\_LED)

The system power LED lights when the system power is on.

### Speaker Connector (SPEAKER)

The speaker (onboard or offboard) provides error beep code information during the Power Self-Test when the computer cannot use the video interface. The speaker is not connected to the audio subsystem and does not receive output from the audio subsystem.

### HardDrive LED Connector (HD\_LED)

This connector supplies power to the cabinet IDE activity LED. Read and write activity by devices connected to the Primary or Secondary IDE connectors will cause the LED to light up.

### Reset Switch Lead (RST)

The connector can be connected to a reset switch. Press this reset switch to restart system.

**1.7.13. 1394A Pin Header: J10**

1x 1394A Pin-header on board, compliant with IEEE 1394A-2000 standard for high performance serial bus, supporting 1x1394 A port, 400/200/100 Mbits transfer rates.

**1.7.14. Modem Pin-header: J9 (optional)**

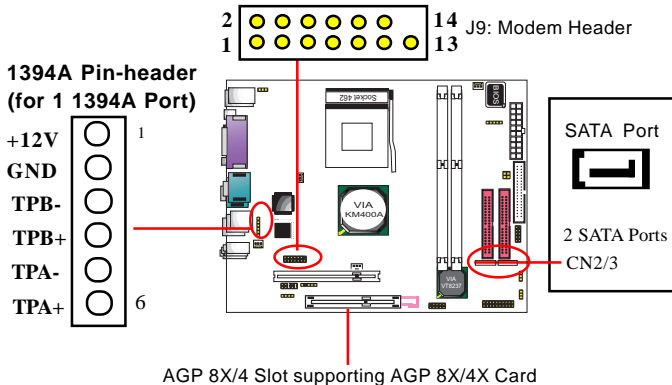
J9 is a Modem Pin-header designed on board for a Modem card setup.

**1.7.15. Serial ATA Connectors: CN2/3**

Two SATA Connectors are built on board for high speed data transfer rate up to 150MB/s. Hard Disk Drive with Serial ATA Interface is supported by these two SATA Connector.

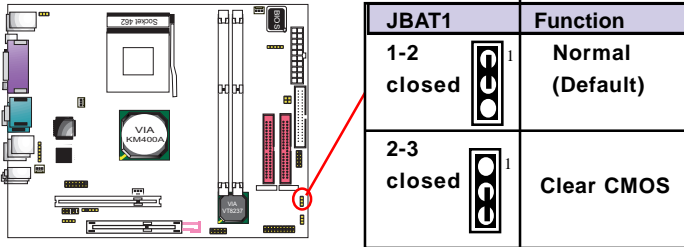
**1.7.16. AGP 8X/4X Slot**

AGP 8X/4X Slot on board supporting AGP 8X/4X digital display



### 1.7.17. CMOS Function Selector: JBAT1

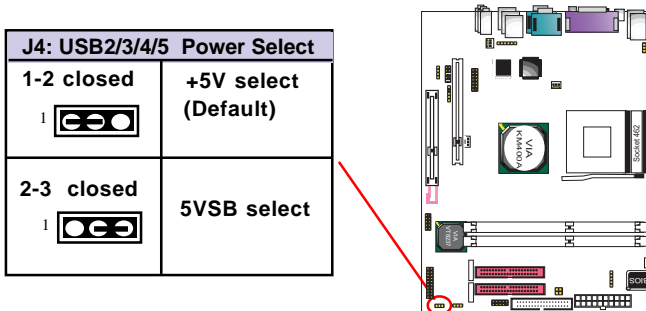
When you have problem with booting system, you may clear CMOS to restore the optimum default BIOS data.



1. Remove the Jumper cap of JBAT1 from 1-2.
2. After 1 or two seconds, set JBAT1 to 2-3 closed with the jumper cap.
3. After 1 or two seconds, restore the JP3 to 1-2 closed.  
Now, the CMOS RAM has restored to the optimum default setting.

### 1.7.18. USB1/2 Power Selector: J7

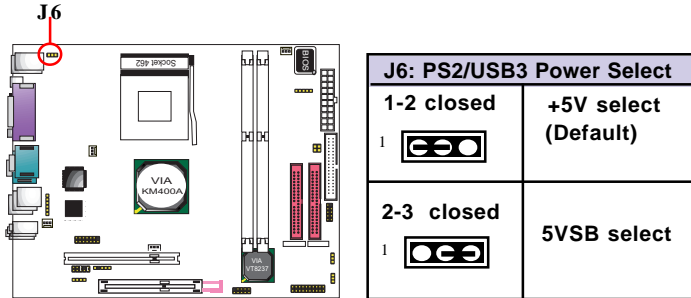
J7 is designed to select the USB2/3/4/5 Power function.







### 1.7.19. PS2 / USB3 Keyboard Power Selector: J6

J6 is designed to select the PS2 / USB3 Keyboard Power function.







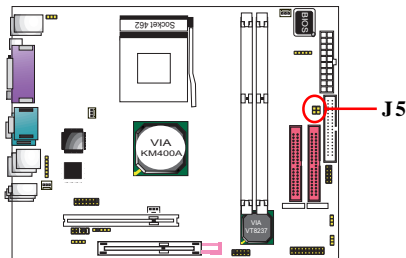
The diagram shows the motherboard layout with J6 highlighted in a red circle. The table below details the settings for J6:

| J6: PS2/USB3 Power Select |   |
|---------------------------|---|
| 1-2 closed                | +5V select (Default)  |
| 1                         |  |
| 2-3 closed                | 5VSB select   |
| 1                         |  |

### 1.7.20. CPU Clock Frequency Selector: J5

J3 & J5 are designed to detect the CPU Frequency on board. This motherboard support 200/133/166 MHz overclocking, while 100 MHz is default CPU clock.

|            |   |   |   |   |
|------------|---|---|---|---|
| J5 Setting |  |  |  |  |
| CPU(MHz)   | 100 MHz (default)   | 133 MHz   | 166 MHz   | 200 MHz   |



## Chapter 2 Drivers & Utilities

There are motherboard drivers and utilities included in the disc attached in this motherboard package. You don't have to install all of them for booting your system. But after you have finished the hardware installation, you have to install an operation system (such as windows XP) before you are able to install any drivers or utilities.

**Note:** Please be aware of the different Procedures for installing drivers for Windows 98/ME/XP/2000 .

### 2.1. Auto-run Menu

You can use the auto-run menu in the driver CD attached in the motherboard package. Then choose the utility or driver and select model name. The autorun starting screen looks like below:

(1)  
Select "Driver".

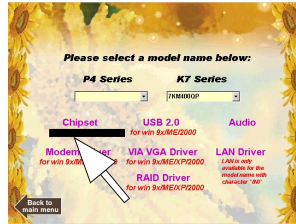




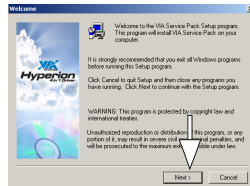
## 2.2. Installing VIA 4-in-1 Service Pack

Enter the item "Chipset" of the Autorun program and install the VIA Service Pack. Follow the illustrations below :

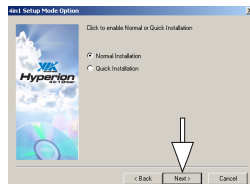
(1)  
Click "Chipset" Item on the Main Menu.



(2)  
Click "Next" to continue.



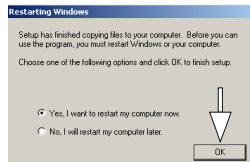
(3)  
Click "Yes" to continue



(4)  
Click "Next" to install VIA ATAPI Vender Support Driver, AGP Driver and VIA INF Driver.



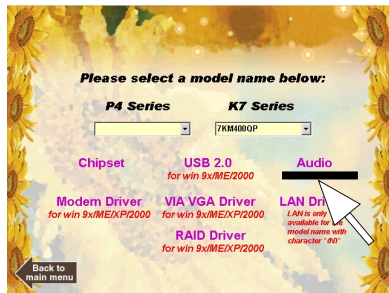
(5)  
Tick the Restart button and click "OK" to restart system and complete the Chipset driver setup.



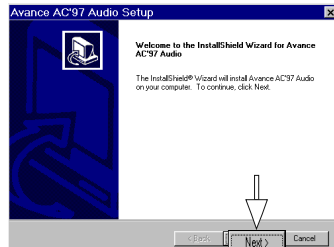
## 2.3. Installing Audio Driver

This motherboard comes with an AC97 CODEC V2.2, 6-channel compatible. You can find the Audio driver from this Auto-run menu.

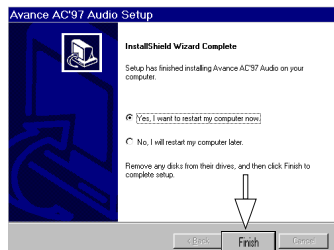
(1)  
Click "Audio Driver" Item  
to start.



(2)  
Click "Next".



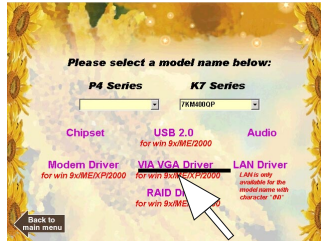
(3)  
Click "Finish".



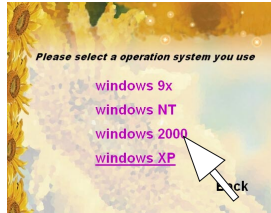
## 2.4. Installing VGA Drivers

Enter the item "VGA" of the Autorun program and install the VGADrivers for Win9X/NT/2000/XP. Follow the illustrations below

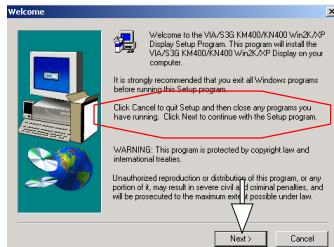
(1)  
Click "VIA VGADriver"  
Item.



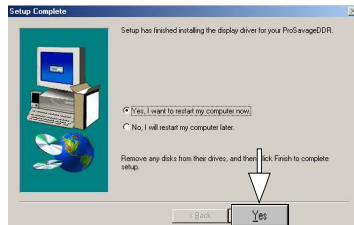
(2)  
Click the OS running on  
system.



(3)  
Click "Next" to continue  
with the setup.



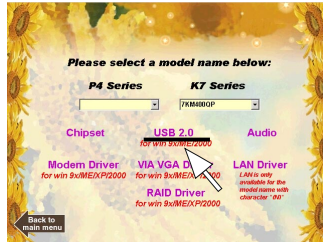
(4)  
In a few seconds, you are  
prompted to restart system,  
click "Finish" to restart  
system and complete  
installation.



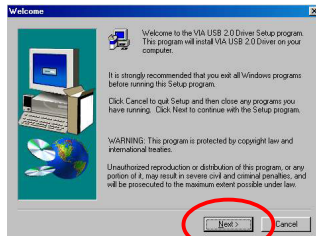
## 2.5. Installing USB 2.0 Driver

The VIA USB 2.0 driver is intended for Win 9X/Me/2K/XP systems.

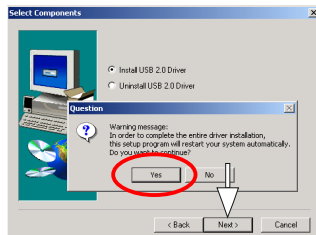
(1)  
Click the "USB2.0"  
item.



(2)  
Click "Next" to  
continue.



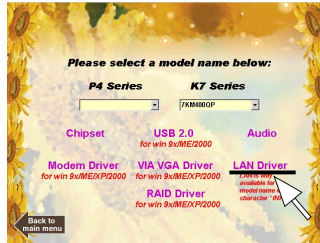
(3)  
Tick "Install USB Driver" The  
Setup Program informs you that  
System will restart  
automatically after setup  
completes. Click "Yes" and  
"Next" to continue



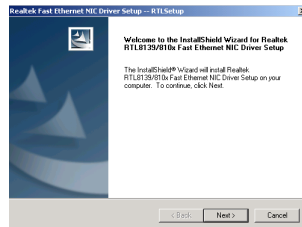
(4)  
Follow the instructions on the Setup screens and finish Setup in a  
few seconds. Your system will then automatically restart to  
complete setup

## 2.6. LAN Drivers (optional)

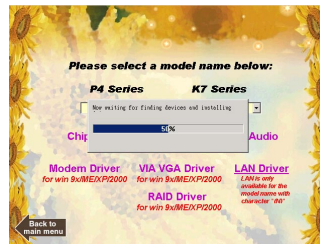
(1)  
Click the "LAN Driver" item.



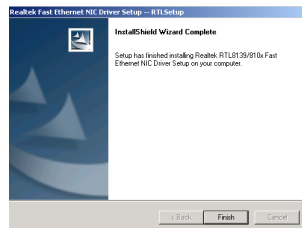
(2)  
Instantly, Setup Wizard starts. Click "Next" to continue.



(3)  
Instantly, Setup starts installing.



(4)  
In a few seconds, setup completes. Restart system to put the just installed driver into effect.



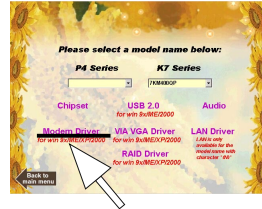


## 2.7. Installing Modem Driver (optional)

Enter the item "Modem" of the Autorun program and install the Modem Drivers for Win9X/NT/2000/XP. Follow the illustrations below

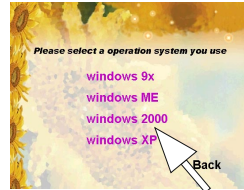
(1)

Click "VIA ModemDriver"  
Item.



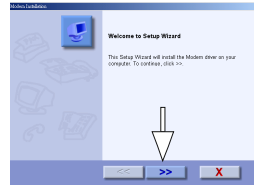
(2)

Click the OS running on  
system.



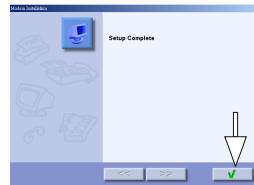
(3)

Click the ">>" button to  
continue.



(4)

In a few seconds, setup  
completes. Click the Tick  
button to restart system and  
complete installation.

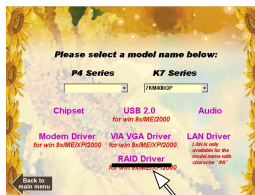


## 2.8. Installing RAID Driver (optional)

You should first configure your Serial ATA hard disk into RAID configuration and then install the RAID driver.

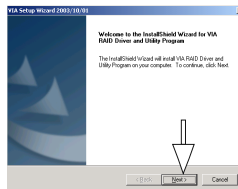
(1)

Click "RAID Driver" Item.



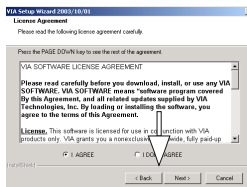
(2)

The RAID Wizard starts. Click "Next" to continue.



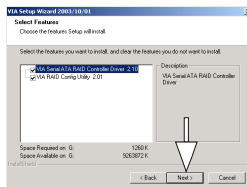
(3)

Agree to the License Agreement and click "Next" to continue.



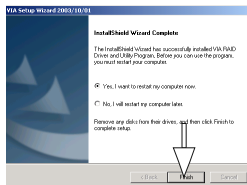
(4)

The Setup Program will set up the RAID driver and Config Utility into your system. Click "Next" to continue.



(5)

In a few seconds, setup completes. Click the Finish button to restart system and complete installation.



# Chapter 3 Test Report

## Chapter 3. Compatibility Test

### (1) CPU Compatibility Test

| Win98 SE 1024 x 768 x 32 bit |          |          |                |                          |        |         |
|------------------------------|----------|----------|----------------|--------------------------|--------|---------|
| AGP Model                    | Vendor   | AGP Mode | Driver Version | Screen Size (inch, inch) | Frames | Seconds |
| FX5900Z56M                   | WINFAST  | 8X       | 4.14.10.4403   | 9809                     | 1346   | 8.6     |
| GF 4 TI4200                  | WINFAST  | 8X       | 4.14.10.4403   | 8900                     | 1346   | 9.9     |
| Xabre 400T26M                | ACORP    | 8X       | 4.14.01.3080   | 8467                     | 1346   | 11      |
| G550                         | Matrox   | 4X       | 4.12.01.1210   | 1367                     | 1346   | 41.1    |
| GF2 GTS Ultra 64M DDR        | CREATIVE | 4X       | 4.14.01.3082   | 4760                     | 1346   | 10.6    |

| Win98 SE 800 x 600 x 16 bit |          |          |                |                          |        |         |
|-----------------------------|----------|----------|----------------|--------------------------|--------|---------|
| AGP Model                   | Vendor   | AGP Mode | Driver Version | Screen Size (inch, inch) | Frames | Seconds |
| RADEON 9700                 | ATI      | 8X       | 4.13.01.9069   | 10252                    | 1346   | 12.5    |
| GF3 TI500                   | WINFAST  | 4X       | 4.14.10.4403   | 9678                     | 1346   | 9.8     |
| GF4 TI4200                  | PORLINK  | 8X       | 4.14.10.4403   | 9678                     | 1346   | 9.7     |
| GA-OF-2560                  | GIGABYTE | 4X       | 4.14.10.3082   | 4273                     | 1346   | 11.4    |
| Xabre 600E4M                | ACORP    | 8X       | 4.14.01.3080   | 7329                     | 1346   | 10.8    |

| Win 2004 1024 x 768 x 32 bit |         |          |                |                          |        |         |
|------------------------------|---------|----------|----------------|--------------------------|--------|---------|
| AGP Model                    | Vendor  | AGP Mode | Driver Version | Screen Size (inch, inch) | Frames | Seconds |
| GF 4 TI4200                  | WINFAST | 8X       | 6.14.10.4523   | 8673                     | 1346   | 9.2     |
| RADEON 64M                   | ATI     | 4X       | 6.14.10.6343   | 3558                     | 1346   | 18.3    |
| V7100 PRO                    | ASUS    | 4X       | 6.14.10.3082   | 3375                     | 1346   | 17      |
| Xabre 64M TV-OUT             | TRIPLEX | 8X       | 6.14.10.3010   | 6342                     | 1346   | 10.3    |
| GF4 TI4200                   | PORLINK | 8X       | 6.14.10.4523   | 8630                     | 1346   | 9.3     |

### (2) Memory Compatibility Test

| Module Vendor | C_Vendor  | C_Serial Numbers | CAPACITY           | SFB  | DRAM CLA | Location | Memtest Test | WS 2002 (minutes) |      |
|---------------|-----------|------------------|--------------------|------|----------|----------|--------------|-------------------|------|
| 2             | A988      | Adata            | ADD8008A04-4.5     | 256M | S        | 450      | DIMM 1,2     | PASS              | 20.9 |
| 2             | Adata     | Adata            | ADD8008A04-5B      | 256M | S        | 400      | DIMM 1,2     | PASS              | 18.3 |
| 2             | Adata     | hynix            | HY5DU56822BT-D43   | 256M | S        | 400      | DIMM 1,2     | PASS              | 18.9 |
| 2             | Adata     | Samsung          | K4H560938D-TCC0    | 256M | S        | 400      | DIMM 1,2     | PASS              | 21.1 |
| 2             | Adata     | Winbond          | W942508CH-5        | 256M | S        | 400      | DIMM 1,2     | PASS              | 21.4 |
| 2             | Adata     | WINBOND          | W942508BH-5        | 512M | D        | 400      | DIMM 1,2     | PASS              | 22   |
| 2             | Adata     | SAMSUNG          | K4H560938D-TCC4    | 512M | D        | 400      | DIMM 1,2     | PASS              | 15.3 |
| 2             | Kingston  | Kingston         | D3208DL1T-5        | 512M | D        | 400      | DIMM 1,2     | PASS              | 21.7 |
| 3             | Chiria    | PMI              | PM40328V5          | 256M | S        | 400      | DIMM 1,2     | PASS              | 18.9 |
| 3             | Gell      | Gell             | G218L8484D2T05MKT3 | 512M | D        | 400      | DIMM 1,2     | PASS              | FAIL |
| 3             | Kingston  | hynix            | HY5DU56822BT-D43   | 256M | S        | 400      | DIMM 1,2     | PASS              | 17   |
| 2             | Transcend | Mosel            | V58C22580A04S75    | 512M | D        | 400      | DIMM 1,2     | PASS              | 22.1 |
| 2             | Kingmax   | Kingmax          | KDL389P4EA-50      | 512M | D        | 400      | DIMM 1,2     | PASS              | 21.9 |
| 3             | Sellec    | Sellec           | DDR32M8AT-5        | 512M | D        | 400      | DIMM 1,2     | PASS              | 16.7 |
| 2             | Kingmax   | KINGMAX          | KDL844T42A-05      | 256M | D        | 333      | DIMM 1,2     | PASS              | 14.5 |
| 3             | Adata     | Vista            | VCD0808A8A-8B      | 256M | S        | 333      | DIMM 1,2     | PASS              | 14.4 |
| 3             | Adata     | Nanya            | NT5DS32M8BT-6K     | 512M | D        | 333      | DIMM 1,2     | FAIL              | 22   |
| 1             | Apacer    | Infineon         | HY825D25800AT-7    | 256M | D        | 266      | DIMM 1,2     | PASS              | 19.2 |
| 2             | Chiria    | hynix            | HY5DU56822AT-H     | 512M | D        | 266      | DIMM 1,2     | PASS              | 19.8 |
| 2             | Yuelink   | ELIJOR           | N2051200AT-768     | 256M | D        | 266      | DIMM 1,2     | PASS              | 19.4 |
| 2             | Adata     | Adata            | ADD8008A04-4.5     | 256M | S        | 450      | DIMM 1       | PASS              | 20.1 |
| 2             | Adata     | Adata            | ADD8008A04-5B      | 256M | S        | 400      | DIMM 1       | PASS              | 19.7 |
| 2             | Adata     | hynix            | HY5DU56822BT-D43   | 256M | S        | 400      | DIMM 1       | PASS              | 18.3 |
| 2             | Adata     | Samsung          | K4H560938D-TCC0    | 256M | S        | 400      | DIMM 1       | PASS              | 18.3 |
| 2             | Adata     | Winbond          | W942508CH-5        | 256M | S        | 400      | DIMM 1       | PASS              | 18.2 |
| 2             | Adata     | WINBOND          | W942508BH-5        | 512M | D        | 400      | DIMM 1       | PASS              | 19.2 |
| 2             | Adata     | SAMSUNG          | K4H560938D-TCC4    | 512M | D        | 400      | DIMM 1       | PASS              | 13.4 |
| 2             | Kingston  | Kingston         | D3208DL1T-5        | 512M | D        | 400      | DIMM 1       | PASS              | 21.2 |
| 3             | Chiria    | PMI              | PM40328V5          | 256M | S        | 400      | DIMM 1       | PASS              | 18   |
| 3             | Gell      | Gell             | G218L8484D2T05MKT3 | 512M | D        | 400      | DIMM 1       | PASS              | 20   |
| 2             | Kingston  | hynix            | HY5DU56822BT-D43   | 256M | S        | 400      | DIMM 1       | PASS              | 16.3 |
| 2             | Transcend | Mosel            | V58C22580A04S75    | 512M | D        | 400      | DIMM 1       | PASS              | 19.2 |
| 2             | Kingmax   | Kingmax          | KDL389P4EA-50      | 512M | D        | 400      | DIMM 1       | PASS              | 20.8 |
| 3             | Sellec    | Sellec           | DDR32M8AT-5        | 512M | D        | 400      | DIMM 1       | PASS              | 13.8 |

(3) AGP Display Card Compatibility Test

| Win98 SE 1024 x 768 x 32 bit |          |          |                |                        |                        |        |       |
|------------------------------|----------|----------|----------------|------------------------|------------------------|--------|-------|
| AGP Model                    | Vendor   | AGP Mode | Driver Version | Minimum Driver Version | Classica III Dimm (M1) |        |       |
|                              |          |          |                |                        | Frequency              | Access | Size  |
| FX5900/256M                  | WINFAST  | 8X       | 4.14.10.4403   | 9909                   | 1346                   | 6.6    | 156.2 |
| GF4 Ti4200                   | WINFAST  | 8X       | 4.14.10.4403   | 8900                   | 1346                   | 9.9    | 135.9 |
| Xabre 4001/28M               | ACORP    | 8X       | 4.14.01.3080   | 6467                   | 1346                   | 11     | 122   |
| G550                         | Martex   | 4X       | 4.12.01.1210   | 1367                   | 1346                   | 41.1   | 32.7  |
| GF2 GTS Ultra 64M DDR        | CREATIVE | 4X       | 4.14.01.3082   | 4760                   | 1346                   | 10.6   | 126.9 |
| 第 1 頁                        |          |          |                |                        |                        |        |       |
| Win98 SE 800 x 600 x 16 bit  |          |          |                |                        |                        |        |       |
| AGP Model                    | Vendor   | AGP Mode | Driver Version | Minimum Driver Version | Classica III Dimm (M1) |        |       |
|                              |          |          |                |                        | Frequency              | Access | Size  |
| RADEON 9700                  | ATI      | 8X       | 4.12.01.9089   | 10252                  | 1346                   | 12.5   | 107.6 |
| GF3 Ti500                    | WINFAST  | 4X       | 4.14.10.4403   | 9676                   | 1346                   | 8.8    | 137.5 |
| GF4 Ti4200                   | FORLINK  | 8X       | 4.14.10.4403   | 9676                   | 1346                   | 9.7    | 136.9 |
| GA OF 2560                   | GIGABYTE | 4X       | 4.14.10.3082   | 4273                   | 1346                   | 11.4   | 116.5 |
| Xabre 800/64M                | ACORP    | 8X       | 4.14.01.3080   | 7329                   | 1346                   | 10.8   | 124.6 |
| Win 2000 1024 x 768 x 32 bit |          |          |                |                        |                        |        |       |
| AGP Model                    | Vendor   | AGP Mode | Driver Version | Minimum Driver Version | Classica III Dimm (M1) |        |       |
|                              |          |          |                |                        | Frequency              | Access | Size  |
| GF4 Ti4200                   | WINFAST  | 8X       | 6.14.10.4523   | 8673                   | 1346                   | 9.2    | 146.2 |
| RADEON 64M                   | ATI      | 4X       | 6.14.10.6343   | 3558                   | 1346                   | 18.3   | 73.6  |
| V7100 PRO                    | ASUS     | 4X       | 6.14.10.3082   | 3375                   | 1346                   | 17     | 78.3  |
| Xabre 64M TV-OUT             | TRIPLEX  | 8X       | 6.14.10.3010   | 6342                   | 1346                   | 10.3   | 130.4 |
| GF4 Ti4200                   | FORLINK  | 8X       | 6.14.10.4523   | 8630                   | 1346                   | 9.3    | 145.4 |

# Chapter 4

## Booting Options

### Chapter 4. etBIOS to Boot System

#### 4.1. etBIOS integrated in System BIOS

In this Motherboard, etBIOS is integrated in system BIOS Setup for booting choice. That means, with etBIOS enabled, you will boot system from the etBIOS menu, from which you can choose whether to boot system from DVD or directly from operating system.

etBIOS is integrated in “Integrated Peripherals” menu of the system BIOS. To enable etBIOS, please first enter BIOS Setup when powering on system and then choose “Integrated Peripherals”. The “Integrated Peripherals” menu will pop up as below:

#### Phoenix - AwardBIOS CMOS Setup Utility Integrated Peripherals

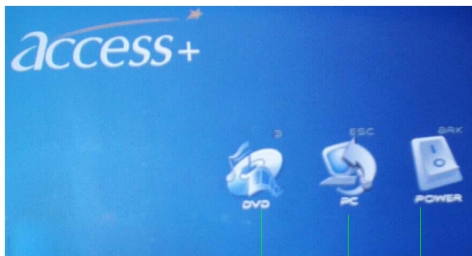
|                             |             | Item Help |
|-----------------------------|-------------|-----------|
| ▶ VIA Onchip IDE Device     | Press Enter |           |
| ▶ VIA Onchip PCI Device     | Press Enter |           |
| ▶ Super IO Device           | Press Enter |           |
| Init Display First          | PCI Slot    |           |
| Onboard LAN Device          | Enabled     |           |
| etBIOS Player Configuration |             |           |
| Boot From etBIOS            | Enabled     |           |
| Enter etBIOS CountDown Time | 10Sec       |           |

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Enable this option to boot system from etBIOS booting menu.

## 4.2. To Boot System from etBIOS Menu

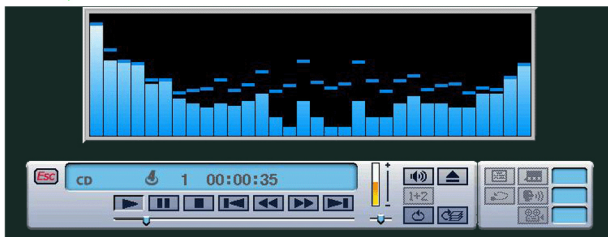
If etBIOS is enabled in system BIOS Setup, your system will not be booted directly into operating system. Instead, the etBIOS Boot Menu will appear first as illustrated below:



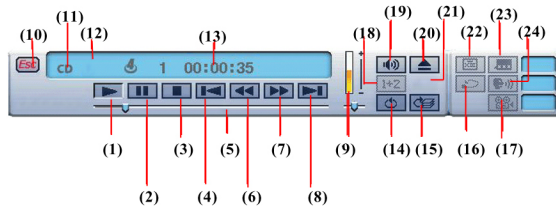
Mouse click this icon  
to enter DVD/VCD/CD Utility  
( Hot Key is “3” )

Mouse click this icon  
to turn off power.  
( Hot Key is “Break” )

Mouse click this icon  
to enter PC OS.  
( Hot Key is “Esc” )



## 4.2. The etBIOS DVD Interface



(1) Play Media



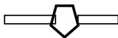
(2) Pause playback



(3) Stop playback



(4) Previous Track/chapter



(5) Progress Indicator



(6) Backward



(7) Forward



(8) Next track/chapter



(9) Sound Volume Tuner



(10) Escape to Main Menu

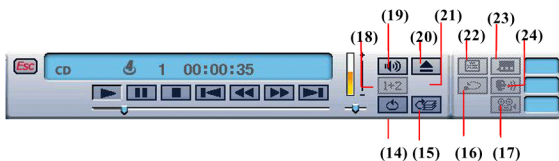


(11) Showing CD/DVD/VCD playback




(12) Optical drive Select

hh:mm:ss (13) How long playback has been on



### Advanced Controls:

 (14) Repeat playback


 (15) Random playback (for CD/MP3 only)


 (16) Resume playback

 (17) Change playback angle (for DVD only)


1 / 2 / / 1+2 (18) Select Audio channel (for the VCD only)


 (19) Audio / Mute select

 (20) Feed / Eject CD

 (21) Zoom (Enlarge) (for VCD/DVD only)

 (22) Go to Movie Menu (depending on the DVD spec.)

 (23) Subtitle (depending on DVD specification)

 (24) Select Audio language during DVD playback