

#### FCC Compliance Statement:

This equipment has been tested and found to comply with limits for a Class B digital device. pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses. and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television equipment reception, which can be

determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna

-Move the equipment away from the receiver

-Plug the equipment into an outlet on a circuit different from that to which the receiver is connected

-Consult the dealer or an experienced radio/television technician for additional suggestions

You are cautioned that any change or modifications to the equipment not expressly approve by the party responsible for compliance could void Your authority to operate such equipment.

This device complies with Part 15 of the FCC Rules. Operation is subjected to the following two conditions 1) this device may not cause harmful interference and 2) this device must accept any interference received, including interference that may cause undesired operation.

Declaration of Conformity We, Manufacturer/Importer

(full address)

## G.B.T. Technology Träding GMbH Ausschlager Weg 41, 1F, 20537 Hamburg, Germany

declare that the product ( description of the apparatus, system, installation to which it refers)

#### Mother Board GA-6ETXDR

## is in conformity with (reference to the specification under which conformity is declared) in accordance with 89/336 EEC-EMC Directive

🗌 EN 55011	Limits and methods of measurement of radio disturbance characteristics of industrial, scientific and medical (ISM high frequency equipment	☐ EN 61000-3-2* ⊠ EN60555-2	Disturbances in supply systems caused by household appliances and similar electrical equipment "Harmonics"
EN55013	Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment	EN61000-3-3* EN60555-3	Disturbances in supply systems caused by household appliances and similar electrical equipment "Voltage fluctuations"
EN 55014	Limits and methods of measurement of radio disturbance characteristics of	🛛 EN 50081-1	Generic emission standard Part 1: Residual, commercial and light industry
	portable tools and similar electrical apparatus	🖾 EN 50082-1	Generic immunity standard Part 1: Residual, commercial and light industry
EN 55015	Limits and methods of measurement of radio disturbance characteristics of fluorescent lamps and luminaries	EN 55081-2	Generic emission standard Part 2: Industrial environment
EN 55020	Immunity from radio interference of broadcast receivers and associated equipment	EN 55082-2	Generic immunity standard Part 2: Industrial environment
🛛 EN 55022	Limits and methods of measurement of radio disturbance characteristics of information technology equipment	ENV 55104	Immunity requirements for household appliances tools and similar apparatus
DIN VDE 0855	Cabled distribution systems; Equipment for receiving and/or <b>distribution</b> from sound and television signals	□ EN 50091-2	EMC requirements for uninterruptible power systems (UPS)
CE marking		(EC conformity	marking)
	The manufacturer also declares the with the actual required safety states the second second safety states the second seco	ne conformity of above me andards in accordance wit	entioned product h LVD 73/23 EEC
EN 60065	Safety requirements for mains operated electronic and related apparatus for household and similar general use	EN 60950	Safety for information technology equipment including electrical business equipment
EN 60335	Safety of household and similar electrical appliances	EN 50091-1	General and Safety requirements for uninterruptible power systems (UPS)
	Manufa	acturer/Importer	
	(Stamp) Date	: May. 20, 2001	Signature : <u>Rex Lin</u> Name : <u>Rex Lin</u>

## 6ETXDR

### Socket 370 Dual Processors Motherboard

# **USER'S MANUAL**

Socket 370 Dual Processors Motherboard REV. 1.0 First Edition 12ME-6ETXDR-1001

## How This Manual Is Organized

This manual is divided into the following sections:

1) Revision History	Manual revision information
2) Item Checklist	Product item list
3) Features	Product information & specification
4) Hardware Setup	Instructions on setting up the motherboard
5) Performance & Block Diagram	Product performance & block diagram
6) Advanced Networking Services	For Windows NT*4 and Windows 2000 (Teaming)
7) BIOS Setup	Instructions on setting up the BIOS software
8) Appendix	General reference

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Revision History				
Revision	Revision Note	Date		
1.0	Initial release of the 6ETXDR motherboard user's manual.	Aug. 2001		

The author assumes no responsibility for any errors or omissions that may appear in this document nor does the author make a commitment to update the information contained herein. Third-party brands and names are the property of their respective owners.

Aug. 10, 2001 Taipei, Taiwan, R.O.C

### Item Checklist

- ☑ The 6ETXDR motherboard
- Cable for SCSI U160 / ATA33 / Floppy device
- Diskettes or CD (Driver CD) for motherboard driver & utility
- 6ETXDR user's manual
- □ Internal COM B Cable (Optional)
- □ Internal Chassis Cable (Optional)

#### Summary Of Features 30.4 cm x 24.3 cm ATX size form factor. 6 lavers PCB. Form Factor • 250 watt or higher power supply required • CPU Dual ZIF PGA370 Socket • Supports all new PentiumIII processors (FC-PGA & FC-PGA2 package) up to 1.26GHz. Two onboard VRMs (VRM 8.5) • • 100/133 MHz Front Side Bus support Chipset ServerWorks ServerSet™III LE-T Chipset • Integrated I/O APIC • Full peer-to-peer support • Four 25° angled 168-pin DIMM sockets Memory • Support only 3.3V PC-100/PC133 registered 72 bit • ECC type SDRAM DIMM. Maximum up to 4 GB. • I/O Controller NS PC97317VUL Super I/O Chip • Two PCI slots supports 33MHz & PCI 2.2 compliant Slots • • Two PCI-64bit/66Mhz slots & PCI 2.2 compliant PCI Raiser Card (Optional) • Support for UDMA33 IDE and ATAPI compliant On-Board IDE • devices. Supports for dual channel master mode and up to 4 • enhance IDE devices. Integrated LSI SYM53C1010-66 Chipset with On-Board SCSI • 64b/66MHz Supports dual channel Ultra160 SCSI • 160MBps throughput and up to 15 devices per channel • Channel A and B: 68-pin connectors • 1 floppy port supports 2 FDD with 360K, 720K, 1.2M. On-Board • Peripherals 1.44M and 2.88M bytes 1 parallel ports supports Normal/EPP/ECP mode • 2 9-pin UART serial ports (COM 1 & COM 2) • (one serial port via cable- optional) 4 USB ports ٠ Onboard Ati Rage XL PCI Accelerator On-Board VGA ٠ Standard 15-pin analog VGA port • 8MB SDRAM frame buffer

To be continued...

•

On-Board LAN	<ul> <li>Integrated two Intel 82559 LAN controllers</li> <li>10/100Mbps data transfer rate per controller</li> <li>3 pin Wake on LAN (S1 and S5 state) connector</li> <li>Adapter Fault Tolerance (AFT) and Adaptive Load Balancing (ALB)</li> </ul>	
Hardware Monitor	<ul> <li>CPU 1/ CPU 2 fan revolution detect</li> <li>CPU 1/ CPU 2 temperature detect</li> <li>System voltage detect</li> <li>CPU overheat shutdown detect</li> <li>3pin fan speed monitoring headers</li> <li>2pin chassis intrusion header</li> <li>CPU, Voltages and system temperature monitoring</li> <li>Built-in Wake on Modem header</li> </ul>	
PS/2 Connector	PS/2 <sup>®</sup> Keyboard interface and PS/2 <sup>®</sup> Mouse interface	
BIOS	<ul> <li>Licensed AMI BIOS, 4M bits flash ROM</li> <li>Auto configure IDE HDD type</li> <li>User setting for hardware monitoring</li> <li>DMI 2.0 compliant</li> <li>Multiple boot (<b>Optional</b>)</li> </ul>	
Additional Features	<ul> <li>Support Internal / External Modem Ring On</li> <li>Poly fuse for PS/2<sup>®</sup> and USB devices over-current protection</li> </ul>	

### **6ETXDR Motherboard Layout**



#### 6ETXDR Motherboard Layout

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### **CPU Speed Setup**

The system bus speed is depended on CPU. (Supported 100,133MHz). The user can change the DIP switch (SW1) and Jumper (JP9) selection to set up the CPU speed for 600MHz - 1GHz processor.

## ● The CPU speed must match with the frequency ratio. It will cause system hanging up if the frequency ratio is higher than that of CPU.

SW1:

FREQ. RATIO	DIP SWITCH			
	1	2	3	4
X3	0	Х	0	0
X3.5	Х	Х	0	0
X4	0	0	Х	0
X4.5	Х	0	Х	0
X5	0	Х	Х	0
X5.5	Х	Х	Х	0
X6	0	0	0	Х
X6.5	Х	0	0	Х
X7	0	Х	0	Х
X7.5	Х	Х	0	Х
X8	0	0	Х	Х
X8.5	0	Х	0	0
X9	Х	Х	0	0
X9.5	Х	0	0	0
X10	Х	0	Х	Х
X10.5	0	0	Х	0
X11	0	Х	Х	Х
X11.5	Х	0	Х	0
X12	0	Х	Х	0
X13	X	Х	Х	Ō
X14	0	0	0	Х
X15	X	Ō	Ō	X
X16	0	Х	0	X

- ●<sup>™</sup> For double CPU use, the same CPU must be used in CPU socket 1 and socket 2. (The same stepping, FSB, ratio)
- Intel Processor all have locked Frequency Multiple, so you can not change the CPU Frequency Multiple.

### 1. Pentium<sup>®</sup> *!!!* 600/100MHz FSB Pentium<sup>®</sup> *!!!* 800/133MHz FSB



2. Pentium<sup>®</sup> *!!!* 650/100MHz FSB Pentium<sup>®</sup> *!!!* 866/133MHz FSB



 Pentium<sup>®</sup> !!! 700/100MHz FSB Pentium<sup>®</sup> !!! 933/133MHz FSB



4. Pentium<sup>®</sup> *!!!* 750/100MHz FSB Pentium<sup>®</sup> *!!!* 1GHz/133MHz FSB



5. Pentium<sup>®</sup> !!! 800/100MHz FSB Pentium<sup>®</sup> !!! 1.06GHz/133MHz FSB



Pentium<sup>®</sup> !!! 850/100MHz FSB
 Pentium<sup>®</sup> !!! 1.13GHz/133MHz FSB



### 7. Pentium<sup>®</sup> !!! 1.2GHz/133MHz FSB



8. Pentium<sup>®</sup> !!! 1.26GHz/133MHz FSB



9. Pentium<sup>®</sup> !!! 533/133MHz FSB



10. Pentium<sup>®</sup> !!! 600/133MHz FSB



### Connectors

#### ATX Power



			_		
20					11
10					1

Pin No.	Definition
3,5,7,13, 15-17	GND
1,2,11	3.3V
4,6,19,20	VCC
10	+12V
12	-12V
18	-5V
8	Power Good
9	5V SB stand by+5V
14	PS-ON(Soft On/Off)



#### Please note:

AC power cord should only be connected to your power supply unit after ATX power cable and other related devices are firmly connected to the mainboard.

### COM 1 / VGA / LPT Port







#### Please note:

This mainboard supports 1 standard COM port ,1 VGA port and 1 LPT port. Device like printer can be connected to LPT port ; mouse and modem etc can be connected to COM ports.

### COM 2 Port





### FDD 1 : Floppy Port





### IDE1 (Primary), IDE2 (Secondary) Port



J1 : CPU1 Fan



Pin No.	Definition
1	Control
2	+12V
3	SENSE

### J2 : Panel Fan





Pin No.	Definition
1	Control
2	+12V
3	SENSE

### J4 : Wake On LAN



1

Pin No.	Definition
1	+5V SB
2	GND
3	Signal

### J5 : Ring Power On (Internal Modem Card Wake Up)





1 11 110.	Deminion	
1	Signal	
2	GND	

J6 : CPU2 Fan





Pin No.	Definition
1	Control
2	+12V
3	SENSE

### J7 : Power Fan 1



	1	

Pin No.	Definition
1	Control
2	+12V
3	SENSE

### J19 : System Interface Connector



#### J22 : Power Fan 2





Pin No.	Definition
1	Control
2	+12V
3	SENSE

### LAN Connector





(LAN Active LED)

- 1 Yellow LED (LAN Active LED)
- 2 Green LED (LAN Link LED) 100Mb--Light 10 Mb--Blind

#### PS/2 Keyboard & PS/2 Mouse Connector





Please note:

This mainboard supports standard PS/2 keyboard and PS/2 mouse interface connector.

SCSI 1 (Primary), SCSI 2 (Secondary) Port



#### USB1: USB 1 Connector



1 :	2:	3 4	1
5	6 7	7 8	8

Definition
USB V0
USB D0-
USB D0+
GND
USB V1
USB D1-
USB D1+
GND



#### Please note:

Before you connect your device(s) into USB connector(s), please make sure your device(s) has a standard USB interface like, USB keyboard, mouse, scanner, zip, buzzer... Also make sure your OS supports USB controller (Win 95 w/ USB supperment, Win98, Windows 2000, Windows ME, Win NT w/ SP 6). If your OS does not support USB controller, please contact OS vendor for passible patch or driver upgrade. For more information please contact your OS or device(s) vendors.

#### USB2 : Front USB Connector



Pin No.	Definition	
1	5V-SB	
2	GND	
3	USB D2-	
4	NC	
5	USB D2+	
6	USB D3+	
7	NC	
8	USB D3-	
9	GND	
10	5V-SB	



#### Please note:

Be careful with the polarity of the front panel USB connector. Check the pin assignment while you connect the front panel USB cable. Please contact your nearest dealer for optional front panel USB cable.

### J23 : SMBUS Connector





Pin No.	Definition
1	VCC
2	SDA
3	SCL
4	NC
5	GND

### Panel And Jumper Definition

J3: 2x11 Pins Jumper





GN (Green Switch)	Open: Normal Operation
	Close: Entering Green Mode
GD (Green LED)	Pin 1: LED anode(+)
	Pin 2: LED cathode(–)
HD (IDE Hard Disk Active LED)	Pin 1: LED anode(+)
	Pin 2: LED cathode(–)
SPK (Speaker Connector)	Pin 1: VCC(+)
	Pin 2- Pin 3: NC
	Pin 4: Data(–)
RE (Reset Switch)	Open: Normal Operation
	Close: Reset Hardware System
P+P–P–(Power LED)	Pin 1: LED anode(+)
	Pin 2: LED cathode(–)
	Pin 3: LED cathode(-)
PW (Soft Power Connector)	Open: Normal Operation
	Close: Power On/Off



#### Please note:

Please connect the power LED, PC speaker, reset switch and power switch etc of your chassis front panel to the front panel jumper according to the pin assignment above.

### JP1 : Fireware Write Protect



1	

Disable (Default)

1

Pin No.	Definition
2-3 close	Disable (Default)
1-2 close	Enable

Enable



To flash/upgrade BIOS on this MB JP1 must be Enabled. We recommend JP1 to be set to "Disabled", whenever user is not try to flash/upgrade the BIOS.

JP2 : VGA Enable jumper



1	1
Enabled	Disabled

(Default)

Pin No.	Definition
1-2 close	Onboard VGA Enable (Default)
2-3 close	Onboard VGA Disable

JP3 : SCSI Enable jumper



1		
Enable	d Disabled	
(Default)		
Pin No.	Definition	
1-2 close	Onboard SCSI Enable (Default)	
2-3 close	Onboard SCSI Disable	

JP4 : SCSI TERM A



JP4		
C	Disable	Enable

(Default)

Pin No.	Definition
Close	Enable (Default)
Open	Disable

#### JP6 : SCSI TERM B





### JP10 : LAN1 Enable Selection



1		
Enable	d Disabled	
(Defau	lt)	
'in No.	Definition	
1-2	Onboard LAN1	

Г

-

Т

Definition
Onboard LAN1
Enabled (Default)
Onboard LAN1
Disabled

### JP11 : LAN2 Enable Selection



JP12 : Case Open



Pin No.	Definition
1	Signal
2	GND

SW2 : Pole1\_ON Password Enable/ Pole4\_ON CMOS Clear





Pin No.	Definition
Pole4_Off	CMOS Clear
Pole3_ON	NC
Pole2_ON	NC
Pole1_ON	Password Enable

BAT1 : Battery



#### CAUTION

- Danger of explosion if battery is incorrectly replaced.
   Replace only with the same or equivalent type recommended by the manufacturer.
   Dispose of used batteries executing to the manufacturer'
- according to the manufacturer's instructions.

#### **Performance List**

The following performance data list is the testing results of some popular benchmark testing programs.

These data are just referred by users, and there is no responsibility for different testing data values gotten by users. (The different Hardware & Software configuration will result in different benchmark testing results.)

- CPU Intel Socket 370 Pentium<sup>®</sup> III 1G Hz x 2 processor
- DRAM (128 x 1)MB SDRAM (Micro MT48LC16M4A2-75)
- CACHE SIZE 256KB include in CPU (Intel Pentium<sup>®</sup> III)
- DISPLAY Onboard ATI Rage XL
- STORAGE Onboard SCSI (Seagate ST39204LW 9GB)
- O.S. Windows 2000 + SP1
- DRIVER Display Driver at 1024x768x16bitx75MHz

Processor	Intel Pentium <sup>®</sup> III Socket 370
	1G Hz x 2 (133x7.5)
Winbench99 (ver.1.2g)	
Business Disk	6230
Hi-End Disk	18500
Business Graphics	137
Hi-End Graphics	456
Winstone2001	
Business Winstone	37.1
Content Creation Winstone	41.3

#### Block Diagram



# Advanced Networking Services for Windows NT\* 4 and Windows 2000 (Teaming)

● Please make sure the Intel LAN Adapter teaming driver Install complete. (☞ refer to page 62)

#### 1. Intel LAN Adapter Teaming

Adapter Teaming Installation Notes for the PRO/100 S Server Adapter Under Windows NT 4.0 and Windows 2000.

Note: Teaming requires Intel® Server Adapters.

#### 1.1 Overview

The PRO/100 S adapter provides several options for increasing throughput and fault tolerance when running Windows NT 4.0 or Windows 2000 :

- Adapter Fault Tolerance (AFT) provides automatic redundancy for your adapter. If the primary adapter fails, the secondary takes over.
- Adaptive Load Balancing (ALB) creates a team of 2 8 adapters to increase transmission throughput. Also includes the AFT option. Works with any 100BASE-TX switch.
- Fast EtherChannel\* (FEC) creates a team of 2 or 4 adapters to increase transmission and reception throughput. Also includes the AFT option. Requires a Cisco switch with FEC capability.

#### 1.2 Before You Get Started

Before you can configure the PRO/100 S adapter for Adapter Teaming, you need to do the following:

 Install at least two PRO/100+ or PRO/100 S server adapters in a Windows NT 4.0 or Windows 2000 system. When installation is complete make sure you restart Windows.

**Note:** Windows NT 4.0 Service Pack 5 or later is required for implementing Adapter Teaming properly. Install Service Pack prior to configuring Adapter Teaming.

If connecting to a hub, each adapter in a team must be connected to a port which is
in the same collision domain. If connected to a switch, each adapter in a team must
be connected to a port which is in the same network.
# 2. Adapter Fault Tolerance (AFT)

### 2.1 OverView

A method of safeguarding the network link to the server switch or network service using transparent backup links. Adapter Fault Tolerance (AFT) requires two adapters and an intelligent software agent that continuously monitors both links. If any component of one link fails, the redundant link takes over within seconds—typically, without users (connected via a hub or switch) even noticing the exchange.



### 2.2 Performance

To increase server availability, the server communicates with the LAN via a primary adapter. If the primary link fails, traffic is automatically re-routed to the secondary adapter with no interruption of service.

### 2.3 Manageability

Generates alert when an adapter fails. This allows any problems with links to be fixed promptly. These alerts are operating system-based for compatibility with management applications such as Intel®LANDesk® Server Manager which can detect the alert and trigger an action (email, page, call).

# 3. Adaptive Load Balancing (ALB)

### 3.1 Overview

Also known as asymmetric port aggregation—is a method of ensuring consistent high server throughput and transparent backup connections by using multiple network interface cards and balancing the data transmissions across them. As many as four Intel® server adapters, connected to a switch, can be configured to work together as a "team" for an aggregate throughput of up to 400Mbps with Fast Ethernet adapters or 8Gbps with Gigabit Ethernet Adapters.



### 3.2 Performance

In ALB, an intelligent adaptive agent, provided in the driver, dynamically manages the server adapter team and evenly distributes the load among them by constantly analyzing the traffic flow from the server. In addition, four Fast Ethernet server adapters teamed with a switch can be configured for up to 400 Mbps bandwidth, or 8Gbps with Gigabit Ethernet adapters.

### 3.3 Manageability

A single network address is assigned to the collection of adapters that constitute the ALB. Aggregation team so that you no longer have to spend time segmenting the network to reduce server bottlenecks.

# 4. General Instructions

### 4.1 Perform Teaming In Windows NT4.0 Or Windows 2000

1. Setup Intel PROSet II. Then, double-click on the Intel (R) PROSet II icon in the Control Panel will launch the PROSet utility.

Intel(R) PROSet II	<u>×</u>
Actor (Mp	
E 🛄 Nelsvoel, Components	Tsublechooling Advanced
Intel(TI) E2003 Fact Ethemet LAN on Mohe	Poblem
Infat(R) PR0/100+ Server Adapter     Wel(R) PR0/100+ Server Adapter     #2	Detected driver: installed for this satisfies: but the adapter itself
	1
	Possible causes:
	The adapter has been sensived or a real-unchaning
	Possible rolutions
	Use the "Add/Renove Hardware" woard in the Control Panel to install the drivers for this adapter.
	1
	Evenue Elect
4	
Ready	Skow the gay icon OK Cancel

2. Create a new team .

Action Help							
E 📄 Network Campo	mento		General Advanced Network Driver Diagnostics				
	Retucive	an H2		NAME & DAVIS TO D			
	Add to Tease 🕴	Create	New Tears	002060644400			
	Add ILAN	3	Distant	100 100 1000			
			Maharda Dainas Shahar	132-100-10-30			
			HENRICK DEVELOPMENT	LINKS			
			Network Status				
			<ul> <li>Link</li> </ul>	Full Duples			
			100 Mitor	C Artists			
				jderally adaptes			
			int <sub>e</sub> l.				
Ready			Show the transon	OK Caroel			

3. At the Teaming Wizard dialog, select the type of team you want to create and click Next.



4. Add a check in the checkbox for each adapter you want as a part of the team and click Next.

	Intel(R) PR0/100+ ✓ Intel(R) PR0/100+	Server Adapter #2 Server Adapter
<b>@</b>		
	Adapter Information	000000.040004
	Eneries Address	T2205E D04
	Partnulluel.	0.05
	pre loud	0((3)

5. Click OK to close PROSet. II

You should notice a new listing in the Network control panel, which is the team you have created.

6. After the team created, a Intel® Advanced Network Services Virtual Adapter will appear on Network in the Control Panel. Assign a IP for this Virtual Adapter.

cal Area Connection 3 Properties	?
General Sharing	
Connect using:	
Intel(R) Advanced Network Services Virtual	Adapter
	<u>C</u> onfigure
Components checked are used by this connection:	
Install	Properties
Install	Properties
Transmission Control Protocol/Internet Protocol, wide area network protocol that provides commu across diverse interconnected networks.	The default unication
Sho <u>w</u> icon in taskbar when connected	

# **Memory Installation**

The motherboard has 4 dual inline memory module (DIMM) sockets. The BIOS will automatically detects memory type and size. To install the memory module, just push it vertically into the DIMM Slot .The DIMM module can only fit in one direction due to the two notch. Memory size can vary between sockets.

Install memory in any combination table:

DIMM	168-pin SDRAM DIMM Modules	
DIMM 1	Supports 16 / 32 / 64 / 128 / 256 / 512 MB / 1GHz	X 1 pcs
DIMM 2	Supports 16 / 32 / 64 / 128 / 256 / 512 MB / 1GHz	X 1 pcs
DIMM 3	Supports 16 / 32 / 64 / 128 / 256 / 512 MB / 1GHz	X 1 pcs
DIMM 4	Supports 16 / 32 / 64 / 128 / 256 / 512 MB / 1GHz	X 1 pcs

Total System Memory (Max 4GB)

# **DIMM QVL List**

Vender	Туре	Module Size	Chip Size	Vender P/N	Chips vender	Chip P/N	Result
TwinMOS	PC133 Reg ECC	256MB	16M×8	039MDS102300028	TwinMOS	TMS3808B4E-6	Pass
SMART	PC133 Reg ECC	128MB	16M×4	SM572164574E63R	Infineon	HYB39S64400CT	Pass
SMART	PC133 Reg ECC	256MB	32M×4	SM572324574E03R	SAMSUNG	K4S280432B-TC75	Pass
SMART	PC133 Reg ECC	512MB	64M×4	SM572644578E63R	SAMSUNG	K4S560432A-TC75	Pass
SMART	PC133 Reg ECC	1024MB		SM572284578E83R	IBM		Pass
ATP	PC133 Reg ECC	128MB	16M×4	AR16V72C4S4GAS	SAMSUNG	K4S640432D-TC75	Pass
ATP	PC133 Reg ECC	128MB	16M×8	AR16V72L8S4GAS	SAMSUNG	K4S280823B-TC75	Pass
ATP	PC133 Reg ECC	256MB	32M×4	AR32V72C4S4GAS	SAMSUNG	K4S280432B-TC75	Pass
ATP	PC133 Reg ECC	512MB	64M×4	AR64V72N4S8GAS	SAMSUNG	K4S560432A-TC75	Pass
ATP	PC133 Reg ECC	512MB	64M×4	AR64V72C4S8GAS	SAMSUNG	K4S560432A-TC75	Pass
ATP	PC133 Reg ECC	1024MB	64M×4	AR128V72C4SSGAS	SAMSUNG	K4S560432A-TC75	Pass
ATP	PC133 Reg ECC	1024MB	64M×4	AR128V72J4SGAS	SAMSUNG		Pass
Micron	PC133 Reg ECC	256MB	32M×4	MT18LSDT3272G- 133B1	Micron	MT48LC32M4A2-75	Pass
Micron	PC133 Reg ECC	128MB	16M×4	MT18LSDT1672G- 133C2	Micron	MT48LC16M4A2-75	Pass
NEC	PC133 Reg ECC	256MB	32M×4	MC-4532DA727EF- A75	NEC	D45128441G5-A75- 9JF	Pass
HITACHI	PC133 Reg ECC	512MB	64M×4	HB52F649E1-75B	HITACHI	5225405BTT75	Pass
APACER	PC133 Reg ECC	128MB	8M×8	71.7335 2.114 (phase out)	Infineon	HYB39S64800CT- 7.5	Pass
APACER	PC133 Reg ECC	128MB	16M×8	71.74352.111	Infineon	HYB39S128800CT- 7.5	Pass
APACER	PC133 Reg ECC	256MB	32M×4	71.85252.112	Infineon	HYB39S128400CT- 7.5	Pass

### BIOS Setup

		Module	Chip	Vender	Chips		
Vender	Туре	Size	Size	P/N	vender	Chip P/N	Result
APACER	PC133 Reg ECC	512MB	64M×4	71.96252.462	SAMSUNG	K4S560432A-TC75	Pass
PANRAM	PC133 Reg ECC	512MB	32M×8	168SD512M338,WB, BR10	Winbond	W982508BH-75	Pass
PANRAM	PC133 Reg ECC	256MB	16M×8	168SD256M3,WB, ERB	Winbond	W981208BH-75	Pass
PANRAM	PC133 Reg ECC	128MB	16M×8	168SD128M38,WB, ERB	Winbond	W981208BH-75	Pass
Samsung	PC133 Reg ECC	128MB	16M×4	M390S1620DT1-C75	SAMSUNG	K4S280432A-TC75	Pass
Samsung	PC133 Reg ECC	256MB	32M×4	M390S3320AT1-C75	SAMSUNG	K4S640432D-TC75	Pass
Samsung	PC133 Reg ECC	512MB	64M×4	M390S6450BT1-C75	SAMSUNG		Pass

	_
GC Page Index for BIOS Setup	Page
Main	P.39
Advanced	P.41
Chipset	P.52
PCIPnP	P.54
Power	P.55
Boot	P.56
Security	P.57
Exit	P.62

# **BIOS Setup**

BIOS Setup is an overview of the BIOS Setup Program. The program that allows users to modify the basic system configuration. This type of information is stored in battery-backed CMOS RAM so that it retains the Setup information when the power is turned off.

### ENTERING SETUP

Power ON the computer and press <Del> immediately will allow you to enter Setup. If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the "RESET" bottom on the system case. You may also restart by simultaneously press <Ctrl> - <Alt> - <Del> keys.

### CONTROL KEYS

<↑>	Move to previous item
<↓>	Move to next item
<←>	Move to the item in the left hand
<→>	Move to the item in the right hand
<esc></esc>	Main Menu - Quit and not save changes into CMOS
	Status Page Setup Menu and Option Page Setup Menu - Exit current page
	and return to Main Menu
<+/PgUp>	Increase the numeric value or make changes
<-/PgDn>	Decrease the numeric value or make changes
<f1></f1>	General help, only for Status Page Setup Menu and Option Page Setup
	Menu
<f2></f2>	Reserved
<f3></f3>	Reserved
<f4></f4>	Reserved
<f5></f5>	Reserved
<f6></f6>	Reserved
<f7></f7>	Discard Changes
<f8></f8>	Load Failsafe Defaults
<f9></f9>	Load Optional Defaults
<f10></f10>	Save all the CMOS changes, only for Main Menu

### **GETTING HELP**

#### Main Menu

The on-line description of the highlighted setup function is displayed at the bottom of the screen.

#### Status Page Setup Menu / Option Page Setup Menu

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window press <Esc>.

### Main

Once you enter AMI BIOS CMOS Setup Utility, the Main Menu (Figure 1) will appear on the screen. The Main Menu allows you to select from eight setup functions and one exit choices. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-screen.

			BIC	)S SETUP L	JTILITY			BIOS SETUP UTILITY							
Main	Advance	d	Chipset	PCIPnP	Power	Boot	Security	Exit							
AMIBIOS \	/ersion	:		07.00.xx											
BIOS Build	Date :	:		02/07/01											
BIOS ID	:	:		GA6ETXD	R0										
	:	:													
	;	:													
Processor	Туре :	:		PentiumIII	тм										
Processor	Speed :	:		800MHz											
		:													
System Me	emory :	:		512MB											
System Tir	ne			[14:23:47]											
System Da	te			[Mon 02/19	3/2001]	$\leftrightarrow \rightarrow$	Select Screen								
						$\wedge \downarrow$	Select Item								
						+ -	Change Field								
						Tab	Select Field								
						F1	General Help								
						F10	Save and Exit								
						ESC	Exit								
	V02.04	+ (C) (	Copyright	1985-2000,	American N	/legatrend	ds Inc.								

Figure 1: Main

### Main

This setup page includes all the items in standard compatible BIOS.

### Advanced

This setup page includes all the items of AMI special enhanced features.

(ex: Auto detect fan and temperature status, automatically configure hard disk parameters.)

#### Chipset

This setup page includes all the items of chipset special features.

#### PCIPnP

This setup page includes all the configurations of PCI & PnP ISA resources.

#### Power

This setup page includes all the items of Green function features.

### Boot

This setup page includes all the items of first boot function features.

### Security

Change, set, or disable password. It allows you to limit access to the system and Setup, or just to Setup.

### • Exit

Save CMOS value settings to CMOS and exit setup or abandon all CMOS value changes and exit setup.

### System Time & Date

The times format in <hour> <minute> <second>. The time is calculated base on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

Week	The week, from Sun to Sat, determined by the BIOS and is display-only
Month	The month, Jan. Through Dec.
Day	The day, from 1 to 31 (or the maximum allowed in the month)
Year	The year, from 1990 through 2099

The date format is <Week> <Month> <Day>, <Year>.

# Advanced

		BIC	DS SETUP L	BIOS SETUP UTILITY								
Main	Advanced	Chipset	PCIPnP	Power	Boot	Security	Exit					
Setup Warr Setting iten cause the s	ning ns on this scree system to malfur	n to incorre action!	ct values ma	Ŋ								
<ul> <li>Standard</li> <li>SuperIO</li> <li>Floppy Ci</li> <li>IDE Conf</li> <li>Event Log</li> <li>System F</li> <li>Remote A</li> </ul>	Boot Settings Configuration onfiguration iguration g Configuration lealth Monitoring Access Configur	g Hardware ation			← → Enter F1 F10 ESC	Select Screen Select Item Go To Sub Sc General Help Save and Exit Exit	reen					
	V02.04 (C)	Copyright	1985-2000, /	American N	/legatrend	ls Inc.						

# Figure 2: Advanced

	BIOS SETUP UTILITY		
Advanced			
Standard Boot Settings			
Quick Boot Bootup Num-Lock PS/2 Mouse Support	[Enabled] [On] [Enabled]		Select Screen
		← → ↑ ↓ + - Tab F1 F10 ESC	Select Screen Select Item Change Field Select Field General Help Save and Exit Exit
V02.04 (C) Copyright 1985-2000, American Megatrends Inc.			

### Figure 2-1: Advanced

# Quick Boot

Disabled	Disabled Quick Boot Function.
Enabled	Enabled Quick Boot Function. (Default Value)

# Boot Up Num-Lock

On	Keypad is number keys. (Default Value)
Off	Keypad is arrow keys.

# PS/2 Mouse Support

Enabled	Enabled PS/2 Mouse Support. (Default Value)
Disabled	Disabled PS/2 Mouse Support.

SuperIO Chipset Nat317		
Advanced		
Configure Nat317 Serial Port(s) and Parallel Port		
Serial Port1 Address       [3F8]         Serial Port1 Irq       [4]         Serial Port2 Address       [2F8]         Serial Port2 Irq       [3]         Parallel Port Address       [378]         Parallel Port IRQ       [7]         Parallel Port Mode       [ECP]         ECP Mode DMA Channel       [3]	← → ↑ + - Tab F1 F10 ESC	Select Screen Select Item Change Field Select Field General Help Save and Exit Exit
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Figure 2-2: Advanced

### • Serial Port 1 Address

3F8	Enable onboard Serial port 1 and address is 3F8. (Default Value)
2F8	Enable onboard Serial port 1 and address is 2F8.
3E8	Enable onboard Serial port 1 and address is 3E8.
2E8	Enable onboard Serial port 1 and address is 2E8.
Disabled	Disable onboard Serial port 1.

# • Serial Port 1 Irq

Disabled	Disabled Serial Port1 Irq.
3	Set Serial Port1 Irq is 3.
4	Set Serial Port1 Irq is 4. (Default Value)

# • Serial Port 2 Address

2F8	Enable onboard Serial port 2 and address is 2F8. (Default Value)
3F8	Enable onboard Serial port 2 and address is 3F8.
3E8	Enable onBoard Serial port 2 and address is 3E8.
2E8	Enable onBoard Serial port 2 and address is 2E8.
Disabled	Disable onBoard Serial port 2.

### Serial Port 2 Irq

Disabled	Disabled Serial Port1 Irq.
3	Set Serial Port1 Irq is 3. (Default Value)
4	Set Serial Port1 Irq is 4.

# Parallel Port Address

378	Enable On Board LPT port and address is 378. (Default Value)
278	Enable On Board LPT port and address is 278.
3BC	Enable On Board LPT port and address is 3BC.
Disabled	Disable On Board LPT port.

### Parallel Port IRQ

7	Set Parallel Port IRQ is 7. (Default Value)
5	Set Parallel Port IRQ is 5.

# • Parallel Port Mode

EPP	Using Parallel port as Enhanced Parallel Port.
ECP	Using Parallel port as Extended Capabilities Port. (Default Value)
Normal	Normal Operation.
<b>Bi-Directional</b>	Using Parallel port as Bi-Directional.

# • ECP Mode DMA Channel

3	Set Parallel Port DMA is 3. (Default Value)
0	Set Parallel Port DMA is 0.
1	Set Parallel Port DMA is 1.
2	Set Parallel Port DMA is 2.

BIOS SETUP UTILITY			
Advanced			
Floppy Configuration			
OnBoard Floppy Controller	[Enabled]		
Floppy A Floppy B	[1.44 MB 3 ½] [Disabled]		
Diskette Write Protect	[Disabled]		
		← → ↑ ↓ + - Tab F1	Select Screen Select Item Change Field Select Field General Help
		F10 ESC	Save and Exit
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Figure 2-3: Advanced

# • OnBoard Floppy Controller

Enabled	Enabled OnBoard Floppy Controller. (Default Value)
Disabled	Disabled OnBoard Floppy Controller.

### • Floppy Drive A / Floppy Drive B

The category identifies the types of floppy disk drive A or drive B that has been installed in the computer.

Disabled	No floppy drive installed
360KB, 5¼ .	51/2 PC-type standard drive; 360K byte capacity.
1.2MB, 5¼ .	51/4 AT-type high-density drive; 1.2M byte capacity (31/2 when 3
	Mode is Enabled).
720KB, 3½".	31/2 double-sided drive; 720K byte capacity
1.44MB, 3½ .	31/2 double-sided drive; 1.44M byte capacity.
2.88MB, 31/2".	3 <sup>1</sup> / <sup>2</sup> double-sided drive; 2.88M byte capacity.

# Diskette Write Protect

Enabled	Diskette Write Protect.
Disabled	Disabled Diskette Write Protect. (Default Value)

BIOS SETUP UTILITY			
Advanced			
IDE Configuration			
OnBoard PCI IDE Controller	[Enable]		
<ul> <li>Primary IDE Master</li> <li>Primary IDE Slave</li> <li>Secondary IDE Master</li> <li>Secondary IDE Slave</li> </ul> Hard Disk Write Protect	[Not Detected] [Not Detected] [Not Detected] [Not Detected] [Disabled]		
		← → ↑↓ Enter F1 F10 ESC	Select Screen Select Item Go To Sub Screen General Help Save and Exit Exit
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Figure 2-4: Advanced

BIOS SETUP UTILITY			
Advanced			
Primary IDE Master (Primary I	DE Slave,		
Secondary IDE Master, Seconda	ary IDE Slave)		
Device:	Not Detected		
Type LBA/Large Mode Block(Multi-Sector Transfer) PIO Mode DMA Mode S.M.A.R.T. 32 Bit Data Transfer	[Auto] [Auto] [Auto] [Auto] [Auto] [Auto] [Enabled]		
		<ul> <li>← →</li> <li>↑ ↓</li> <li>+ -</li> <li>Tab</li> <li>F1</li> <li>F10</li> <li>ESC</li> </ul>	Select Screen Select Item Change Field Select Field General Help Save and Exit Exit
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Figure 2-4-1: Advanced

### OnBoard PCI IDE Controller

Disabled	Disabled OnBoard PCI IDE Controller.
Enabled	Enabled OnBoard PCI IDE Controller. (Default Value)

# • Type (Primary IDE Master, Slave / Secondary IDE Master, Slave)

Not Installed	Not Installed Primary / Secondary IDE Master, Slave type.
Auto	Auto detect Primary / Secondary IDE Master, Slave type.
CDROM	Set type is CDROM.
ARMD	Set type is ARMD.

# LBA/Large Mode

Disabled	Disabled LBA/Large Mode.
Auto	Auto Set LBA/Large Mode.

### Block (Multi-Sector Transfer)

Disabled	Disabled Multi-Sector Transfer.
Auto	Auto set block.

### PIO Mode

Auto	Set PIO Mode to Auto.
0	Set PIO Mode to 0.
1	Set PIO Mode to 1.
2	Set PIO Mode to 2.
3	Set PIO Mode to 3.
4	Set PIO Mode to 4.

# DMA Mode

Auto	Set DMA Mode to Auto.
SWDMA 0~2	Set DMA Mode to SWDMA 0~2.
MWDMA 0~2	Set DMA Mode to MWDMA 0~2.
UDMA 0~4	Set DMA Mode to UDMA0~4.

# S.M.A.R.T.

Disabled	Enabled S.M.A.R.T. for Hard Disks.
Enabled	Disabled S.M.A.R.T. for Hard Disks. (Default Value)
Auto	Set Auto for S.M.A.R.T. for Hard Disks.

# 32 Bit Data Transfer

Enabled	Enabled 32Bit Data Transfer. (Default Value)
Disabled	Disabled 32Bit Data Transfer.

### Hard Disk Write Protect

Disabled	Disabled Hard Disk Write Protect. (Default Value)
Enabled	Hard Disk Write Protect.

	BIOS SETUP UTILITY		
Advanced			
Event Log Configuration			
Event Logging Clear All Event Logs	[Enabled] [No]		
		<ul> <li>← →</li> <li>↑ ↓</li> <li>+ -</li> <li>Tab</li> <li>F1</li> <li>F10</li> <li>ESC</li> </ul>	Select Screen Select Item Change Field Select Field General Help Save and Exit Exit
V02.04 (C) Copy	right 1985-2000, American I	Vegatren	ds Inc.

# Figure 2-5: Advanced

# • Event Logging

Disabled	Disabled Event Logging. (Default Value)
Enabled	Enabled Event Logging.

# Clear All Event Logs

Yes	Enabled Clear All Event Logs. (Default Value)
No	Disabled Clear All Event Logs.

	BIOS SETUP UTILITY		
Advanced			
System Health Monitoring			
ACPI Shut Down Temp.	[Disabled]	1	
CPU Temp. Alarm	[Disabled]		
CPU1 Fan Fail Alarm	[No]		
CPU2 Fan Fail Alarm	[No]		
Power Fan1 Fail Alarm	[No]		
Power Fan2 Fail Alarm	[No]		
System Fan Fail Alarm	[No]		
Reset Case Open Status	[No]		
Case Status	[Closed]		
CPU1 Present	[OK!]		
CPU2 Present	[FAIL!]		
Current CPU1 Temp.	53°C/127°F		
Current CPU2 Temp.	127°C/260°F		
Current CPU1 Fan Speed	5113 MPR		
Current CPU2 Fan Speed	0 MPR		
Current System Fan Speed	0 MPR		
CPU VID	1.50V		
Vcc2P	1.595V °F	$\leftrightarrow \rightarrow$	Select Screen
Vcc2S	1.308V °F	$\wedge \downarrow$	Select Item
Vcc 3	2.759V °F	+ -	Change Field
Vcc	4.933V °F	Tab	Select Field
+12V	12.075V °F	F1	General Help
5V SB	4.775V °F	F10	Save and Exit
VBAT	2.408V °F	ESC	Exit
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Figure 2-6: Advanced

# • ACPI Shut Down Temp. (°C / °F)

(This function will be effective only for the operating systems that support ACPI Function.)

Disabled	Disabled ACPI Shutdown function. (Default Value)	
60°C / 140°F	Monitor CPU Temp. at 60°C / 140°F, if Temp. > 60°C / 140°F	
	system will automatically power off.	
70°C / 158°F	Monitor CPU Temp. at 70°C / 158°F, if Temp. > 70°C / 158°F	
	system will automatically power off.	
80°C / 176°F	Monitor CPU Temp. at 80°C / 176°F, if Temp. > 80°C / 176°F	
	system will automatically power off.	
90°C / 194°F	Monitor CPU Temp. at 90°C / 194°F, if Temp. > 90°C / 194°F	
	system will automatically power off.	

### • CPU Temp. Alarm

Disabled	Normal Operation. (Default value)
60°C / 140°F	Monitor CPU Warning Temp. at 60°C / 140°F
70°C / 158°F	Monitor CPU Warning Temp. at 70°C / 158°F
80°C / 176°F	Monitor CPU Warning Temp. at 80°C / 176°F
90°C / 194°F	Monitor CPU Warning Temp. at 90°C / 194°F

#### • Fan Fail Alarm

CPU 1/ CPU 2 / System / Power Fan 1 / Power Fan 2

No	Fan Fail Alarm Function Disabled. (Default value)
Yes	Fan Fail Alarm Function Enabled.

#### Reset Case Open Status

#### Case Status

If the case is closed, " Case Status" will show " Closed" . If the case have been opened, " Case Status" will show " Closed" . If you want to reset " Case Status" value, set " Reset Case Open Status" to " Yes" and save CMOS, your computer will restart.

### • CPU 1 / CPU 2 Present.

Detect CPU1 / CPU 2 Status automatically.

### Current CPU1 / CPU2 Temp. (°C / °F)

Detect CPU 1 / CPU 2 / Temperature automatically.

### Current CPU1 / CPU2 / System Fan Speed

Detect CPU 1 / CPU 2 / System Fan speed status automatically.

### • Current Voltage (V)

# CPU VID (CPU2) / Vcc2P (CPU1) / Vcc2S (CPU2) / Vcc3/ Vcc / 5V SB / VBAT / +12 V

Detect system' s voltage status automatically.

	BIOS SETUP UTILITY		
Advanced			
Configure Remote Acces	ss type and parameters		
Remote Access	[Disabled]		
		$\leftrightarrow$	Select Screen
		$\wedge \downarrow$	Select Item
		+ -	Change Field
		Tab	Select Field
		F1	General Help
		F10	Save and Exit
		ESC	Exit
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# Figure 2-7: Advanced

### Remote Access

Disabled	Disable this Function. (Default Value)
Serial (ANSI)	Server use COM port to control client.

# Chipset

		BIOS SETUP L	JTILITY			
Main	Advanced	Chipset PCIPnP	Power	Boot	Security	Exit
Memory So ISA IO Cyc	crubbing cle Delay	[Disabled] [1.5 BCLK]				
MPS 1.4 S	Support	[Enabled]				
				<i>← →</i> <i>↑</i> ↓ <i>+ -</i> Tab F1 F10 ESC	Select Screen Select Item Change Field Select Field General Help Save and Exit Exit	
V02.04 (C) Copyright 1985-2000, American Megatrends Inc.						

Figure 3: Chipset

### Memory Scrubbing

Disabled	Disabled Memory scrubbing. (Default Value)
Enabled	Enabled Memory scrubbing writs the ECC corrected memory data back
	to the DRAM.

ISA IO Cycle Delay (Define the delay inserted between an ISA I/O cycle and the next cycle)

Full Delay	Set ISA IO cycle delay is full delay.
1.5 BCLK	Set ISA IO cycle delay is 1.5 BCLK. (Default Value)
2.5 BCLK	Set ISA IO cycle delay is 2.5 BCLK.
3.5 BCLK	Set ISA IO cycle delay is 3.5 BCLK.

• MPS 1.4 Support (Support Multi Processor Specification revision 1.4)

Enabled	Enabled MPS 1.4 support. (Default Value)
Disabled	Disabled MPS 1.4 support.

# PCIPnP

BIOS SETUP UTILITY							
Main	Advanced	Chipset	PCIPnP	Power	Boot	Security	Exit
Plug & Play O Reset Config PCI Latency T Palette Snoop	I∕S Data ⁻imer ⊳ing	[N [N [6 [D	o] o] 4] isabled]				
USB Function [Enabled] Legacy USB Support [Auto]		nabled] uto]		$\leftrightarrow \rightarrow \downarrow$ + - Tab F1 F10 ESC	Select Screen Select Item Change Field Select Field General Help Save and Exit Exit		
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Figure 4: PCIPnP

# • Plug & Play O/S

Yes	Enable Plug and Play Aware O/S function.
No	Disable Plug and Play Aware O/S function (Default Value)

# Reset Config Data

Yes	Clear PnP information in ESCD & update DMI data.
No	Disabled this function. (Default Value)

# • PCI Latency Timer

32	Set PCI Latency Timer is 32.
64	Set PCI Latency Timer is 64. (Default Value)
96	Set PCI Latency Timer is 96.
128	Set PCI Latency Timer is 128.
160	Set PCI Latency Timer is 160.
192	Set PCI Latency Timer is 192.
224	Set PCI Latency Timer is 224.
248	Set PCI Latency Timer is 248.

# Palette Snoop

Enabled	For having Video Card on ISA Bus and VGA Card on PCI Bus.
Disabled	For VGA Card only. (Default Value)

# USB Function

Enabled	USB Controller for All USB Port. (Default Value)
Disabled	USB Controller Function Disabled.

# Legacy USB Support

Enabled	Enabled USB Legacy Support Keyboard.
Disabled	Disabled USB Legacy Support Keyboard.
Auto	Set Auto USB Legacy Support Function. (Default Value)

# Power

		BIC	OS SETUP	UTILITY			
Main	Advanced	Chipset	PCIPnP	Power	Boot	Security	Exit
ACPI Aware Power Man System Afte	e O/S agement er AC Back	ןץ ס] נס	es] isabled] )/ff]			Select Screen Select Item Change Field Select Field General Help Save and Exit Exit	
	V02.04 (C)	) Copyright	1985-2000,	American M	legatrend	s Inc.	

Figure 5: Power

### ACPI Aware O/S

Yes	Enabled ACPI Aware O/S. (Default Value)
No	Disabled ACPI Aware O/S.

# Power Management

Enabled	Enable Green function.
Disabled	Disable Green function. (Default Value)

# • System After AC Back

Off	Set Restore on AC/Power Loss is Power off. (Default Value)
Last State	Set Restore on AC/Power Loss is Last state mode.

# Boot

		BIC	DS SETUP L	JTILITY			
Main	Advanced	Chipset	PCIPnP	Power	Boot	Security	Exit
<ul> <li>Boot Dev</li> <li>Hard Dis</li> <li>ATAPI C</li> </ul>	vice Priority k Drivers DROM Drivers				← → ▲ ↓ Enter F1 F10 ESC	Select Screen Select Item Go To Sub Scr General Help Save and Exit Exit	reen
	V02.04 (C)	Copyright	1985-2000,	American N	/legatrend	s Inc.	

Figure 6: Boot

	BIOS SETUP UTILITY		
		Boot	
1 <sup>st</sup> Boot Device 2 <sup>nd</sup> Boot Device 3 <sup>rd</sup> Boot Device 4 <sup>th</sup> Boot Device 5 <sup>th</sup> Boot Device	[ATAPI CDROM] [Hard Drive] [SYM53C8XX Boot Sup] [Intel®Boot Agen] [Intel®Boot Agen]	<ul> <li>← →</li> <li>↑ ↓</li> <li>+ →</li> <li>Tab</li> <li>F1</li> <li>F10</li> <li>ESC</li> </ul>	Select Screen Select Item Change Field Select Field General Help Save and Exit Exit
V02.04 (C) C	opyright 1985-2000, American N	Megatrend	ls Inc.

Figure 6 -1: Boot

# Figure 6: It will list all the bootable devices found by BIOS.

Figure 6-1: Lets the user to set the boot device priority.

# Security

		BI	OS SETUP L	JTILITY			
Main	Advanced	Chipset	PCIPnP	Power	Boot	Security	Exit
Supervisor User Passv	Password : vord :	N N	lot Installed lot Installed				
<ul> <li>Change</li> <li>Change</li> <li>Clear Us</li> <li>Boot Secto</li> </ul>	Supervisor Pas User Password er Password r Virus Protectio	sword I on [[	Disabled]				
<ul> <li>← → Select Screen</li> <li>↑ ↓ Select Item</li> <li>Enter Go to Sub Screen</li> <li>F1 General Help</li> <li>F10 Save and Exit</li> <li>ESC Exit</li> </ul>						reen	
	V02.04 (C)	Copyright	1985-2000,	American M	legatrenc	ls Inc.	

Figure 7: Security

The BIOS Setup program allows you to specify two separate passwords: a **SUPERVISOR PASSWORD** and a **USER PASSWORD**. When disabled, anyone may access all BIOS Setup program function. When enabled, the Supervisor password is required for entering the BIOS Setup program and having full configuration fields, the User password is required to access only basic items.

# BIOS Setup

		BIC	OS SETUP L	ITILITY			
Main	Advanced	Chipset	PCIPnP	Power	Boot	Security	Exit
Supervisor User Pass	Password : word :	N	lot Installed lot Installed				
<ul> <li>Change</li> <li>Change</li> <li>Clear Us</li> <li>Boot Sector</li> </ul>	Supervisor Pas User Password er Password r Virus Pro	sword	Password:	_		]	
					← → ↑ ↓ Enter F1 F10 ESC	Select Screen Select Item Go to Sub Scr General Help Save and Exit Exit	reen
V02.04 (C) Copyright 1985-2000, American Megatrends Inc.							

# Figure 7 -1: Security

		BI	OS SETUP	JTILITY			
Main	Advanced	Chipset	PCIPnP	Power	Boot	Security	Exit
Supervisor User Pass	Password : word :	In N	stalled ot Installed				
<ul> <li>Change S</li> <li>User Acces</li> <li>Change</li> <li>Clear Us</li> </ul>	Supervisor Pas ss Level User Password er Password	sword [F	ull]				
Boot Secto	r Virus Protecti	on [D	etupj isabled]				
Boot Sector Virus Protection       [Disabled]         ← →       Select Screen         ↑ ↓       Select Item         +       - Change Field         Tab       Select Field         F1       General Help         F10       Save and Exit         ESC       Exit							
	V02.04 (C)	Copyright	1985-2000,	American N	/legatrend	ls Inc.	

# Figure 7 -2: Security

When you select "**Change Supervisor Password**" this function, the following message will appear at the center of the screen to assist you in creating a password.

Type the password, up to six characters, and press <Enter>. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

To disable password, enter your password and then press <Enter> when prompts you for "Enter New Password". A message "**Password Uninstalled**" will appear to confirm the password being disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

•	User Access Leve	l (A supervisor can	set the "User A	Access Level" f	for their user.)
---	------------------	---------------------	-----------------	-----------------	------------------

No Access	Prevents user access to the setup utility.
View Only	Allows access to the setup utility but the fields can not be changed. (Default Value)
Limited	Allows only limited fields to be changed such as date and time.
Full	Allows any filed to be changed except the supervisor password.

#### Password Check

Setup	Set Password Check to Setup. (Default Value)
Always	Set Password Check to Always.

If you select " **Always**" at " **Password Check**", you will be prompted for the password every time the system is rebooted or any time you try to enter Setup Menu.

If you select " Setup" at " Password Check", you will be prompted only when you try to enter Setup.

# BIOS Setup

BIOS SETUP UTILITY								
Main	Advanced	Chipset	PCIPnP	Power	Boot	Security	Exit	
Supervisor User Pass	Password : word :	In N	nstalled lot Installed					
<ul> <li>Change S</li> <li>User Acces</li> <li>Change</li> </ul>	Change Supervisor Password User Access Level [Full] Change User Password							
Clear User Password Password Check Boot Sector Virus Protec								
	_				← → ↑ ↓ + - Tab F1 F10 ESC	Select Screen Select Item Change Field Select Field General Help Save and Exit Exit		
V02.04 (C) Copyright 1985-2000, American Megatrends Inc.								

# Figure 7 -3: Security

BIOS SETUP UTILITY							
Main	Advanced	Chipset	PCIPnP	Power	Boot	Security	Exit
Supervisor User Pass	Password : word :		nstalled nstalled				
Change Supervisor Password User Access Level Change User Password Clear User Password							
Password Boot Secto	Check or Virus Protection	on [l	Setup] Disabled]				
					$\begin{array}{c} \leftarrow \rightarrow \\ \uparrow \downarrow \\ + & - \\ Tab \\ F1 \\ F10 \\ ESC \end{array}$	Select Screen Select Item Change Field Select Field General Help Save and Exit Exit	
V02.04 (C) Copyright 1985-2000, American Megatrends Inc.							

Figure 7-4: Security

When you select " **Change User Password**" this function, the following message will appear at the center of the screen to assist you in creating a password.

Type the password, up to six characters, and press <Enter>. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

To disable password, enter your password and then press <Enter> when prompts you for " Enter New Password". A message " **Password Uninstalled**" will appear to confirm the password being disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

#### Boot Sector Virus Protection

If it is set to enable, the category will flash on the screen when there is any attempt to write to the boot sector or partition table of the hard disk drive. The system will halt and the following error message will appear in the mean time. You can run anti-virus program to locate the problem.

Enabled	Activate automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table
Disabled	No warning message to appear when anything attempts to access the boot sector or hard disk partition table. (Default Value)

# Exit

BIOS SETUP UTILITY							
Main	Advanced	Chipset	PCIPnP	Power	Boot	Security	Exit
<ul> <li>Exit Savi</li> <li>Exit Disc</li> <li>Load Op</li> <li>Load Fai</li> <li>Discard 0</li> </ul>	ng Changes arding Changes timal Defaults Isafe Defaults Changes	5			+ →	Select Screen Select Item	
					Enter F1	Go to Sub Scre General Help	een
					F10 ESC	Save and Exit Exit	
V02.04 (C) Copyright 1985-2000, American Megatrends Inc.							



#### Exit Saving Changes

Type "Y" will quit the Setup Utility and save the user setup value to RTC CMOS. Type "N" will return to Setup Utility.

### • Exit Discarding Changes

Type "Y" will quit the Setup Utility without saving to RTC CMOS. Type "N" will return to Setup Utility.

### Load Optimal Defaults

BIOS defaults contain the most appropriate values of the system parameters that allow minimum system performance.

#### Load Failsafe Defaults

Selecting this field loads the factory defaults for BIOS and Chipset Features which the system automatically detects.

#### Discard Changes

To get back to the previous setting, select "Discard Changes".

# Appendix

### Appendix A : Intel 82559 LAN Driver Installation

Insert the support CD that came with your motherboard into your CD-ROM driver or double –click the CD driver icon in My Computer to bring up the screen.



#### Appendix



### Appendix B: BIOS Flash Procedure

BIOS update procedure:

If your OS is Win9X, we recommend that you used Gigabyte @BIOS Program to flash BIOS.



Methods and steps :

- I. Update BIOS through Internet
  - a. Click "Internet Update" icon
  - b. Click "Update New BIOS" icon
  - c. Select @BIOS sever ( "Gigabyte @BIOS sever 1 in Taiwan" and "Gigabyte @BIOS sever 2 in Taiwan" are available for now, the others will be completed soon)
  - d. Select the exact model name on your motherboard
  - e. System will automatically download and update the BIOS.
II. Update BIOS NOT through Internet :

- a. Do not click "Internet Update" icon
- b. Click "Update New BIOS"
- c. Please select "All Files" in dialog box while opening the old file.
- d. Please search for BIOS unzip file, downloading from internet or any other methods (such as: 6ETXDR.F1).
- e. Complete update process following the instruction.
- III. Save BIOS

In the very beginning, there is "Save Current BIOS" icon shown in dialog box. It means to save the current BIOS version.

IV. Check out supported motherboard and Flash ROM :

In the very beginning, there is "About this program" icon shown in dialog box. It can help you check out which kind of motherboard and which brand of Flash ROM are supported.

Note :

- a. In method I, if it shows two or more motherboard's model names to be selected, please make sure your motherboard's model name again. Sellecting name will cause the system unbooted.
- b. In method II, be sure that motherboard's model name in BIOS unzip file are the same as your motherboard's. Otherwise, your system won't boot.
- c. In method I, if the BIOS file you need cannot be found in @BIOS server, please go onto Gigabyte's web site for downloading and updating it according to method II.
- d. Please note that any intercorruption during updating will cause system unbooted

## 6ETXDR Motherboard

Or else you can select flash BIOS in DOS mode.

- Please check your BIOS vendor (AMI or AWARD), your motherboard name and PCB version on the motherboard.
  - 1. Format a bootable system floppy diskette by the command " **format a:/s**" in command mode.
  - 2. Visit the Gigabyte website at http://www.gigabyte.com.tw ,Select the BIOS file you need and download it to your bootable floppy diskette.
  - 3. Insert the bootable diskette containing the BIOS file into the floppy diskette driver.
  - 4. Assuming that the floppy diskette driver is A, reboot the system by using the A: driver. At the A: > prompt, run the BIOS upgraded file by executing the Flash BIOS utility and the BIOS file with its appropriate extension.

Example: (AMI tool) (Where 6ETXDR.f1 is name of the BIOS file name)

A:>flashxxx.exe 6ETXDR.f1 ←

Example: (Award tool) (Where 6ETXDR.f1 is name of the BIOS file name)

A:>wdflash.exe 6ETXDR.f1 ←

- Upon pressing the <Enter> key, a flash memory writer menu will appear on screen. Enter the new BIOS file name with its extension filename into the text box after file name to program.
- 6. If you want to save the old BIOS file(perform as soon as system is operational, this is recommended), select Y to DO YOU WANT TO SAVE BIOS, then type the old BIOS filename and the extension after filename to save: This option allows you to copy the contents of the flash memory chip onto a diskette, giving you a backup copy of the original motherboard BIOS in case you need to re-install it. Select N to DO YOU WANT TO SAVE BIOS, if you don' t want to save the old BIOS file.
- After the decision to save the old BIOS file or not is made, select Y to ARE YOU SURE TO PROGRAM when the next menu appear; wait until a message showing Power Off or Reset the system appears. Then turn off your system.
- 8. Remove the diskette and restart your system.
- Hold down <Delete> key to enter BIOS setup. You must select "Load Setup BIOS Default" to activate the new BIOS, then you may set other item from the main menu.

## Appendix C: Acronyms

Acronyms	Meaning
ACPI	Advanced Configuration and Power Interface
APM	Advanced Power Management
AGP	Accelerated Graphics Port
AMR	Audio Modem Riser
ACR	Audio Communication Riser
BIOS	Basic Input / Output System
CPU	Central Processing Unit
CMOS	Complementary Metal Oxide Semiconductor
CRIMM	Continuity RIMM
CNR	Communication and Networking Riser
DMA	Direct Memory Access
DMI	Desktop Management Interface
DIMM	Dual Inline Memory Module
DRM	Dual Retention Mechanism
DRAM	Dynamic Random Access Memory
DDR	Double Data Rate
ECP	Extended Capabilities Port
ESCD	Extended System Configuration Data
ECC	Error Checking and Correcting
EMC	Electromagnetic Compatibility
EPP	Enhanced Parallel Port
ESD	Electrostatic Discharge
FDD	Floppy Disk Device
HDD	Hard Disk Device
IDE	Integrated Dual Channel Enhanced
IRQ	Interrupt Request
I/O	Input / Output
IOAPIC	Input Output Advanced Programmable Input Controller
ISA	Industry Standard Architecture
LAN	Local Area Network
LBA	Logical Block Addressing
LED	Light Emitting Diode
MHz	Megahertz
MIDI	Musical Interface Digital Interface
MTH	Memory Translator Hub
MPT	Memory Protocol Translator
NIC	Network Interface Card
OS	Operating System

To be continued...

## 6ETXDR Motherboard

Acronyms	Meaning
OEM	Original Equipment Manufacturer
PAC	PCI A.G.P. Controller
POST	Power-On Self Test
PCI	Peripheral Component Interconnect
RIMM	Rambus in-line Memory Module
SCI	Special Circumstance Instructions
SECC	Single Edge Contact Cartridge
SRAM	Static Random Access Memory
SMP	Symmetric Multi-Processing
SMI	System Management Interrupt
USB	Universal Serial Bus
VID	Voltage ID