The information presented in this publication has been carefully checked for reliability; however, no responsibility is assumed for inaccuracies. Specifications are subject to change without notice.

Trademarks

Contents

Chapter 1
Introduction

This mainboard is a high-performance mainboard based on the advanced Pentium™ microprocessor and featuring PCI Local Bus and the high-end chipset. The mainboard offers a high degree of flexibility in configuration and is fully IBM PC/AT compatible.

Key Features

The advanced features of this mainboard include:

- 66MHz Advanced Graphic Port

- Supports either P54C/P55C Pentium™ (MMX) CPUs with 321-pin ZIF socket and Cyrix/IBM 6x86L/6x86MX (M2), AMD K6, IDT C6 Processors with External Clock Speed at 50/55/60/66/75 MHz;

- Supports 3 banks of FP/EDO SIMM/DIMM and SDRAM DIMM expandable memory up to 384MB;

- Four 72-pin SIMM sockets and two 168-pin DIMM sockets;

- Supports 64M-bit (16Mx4, 8Mx8, 4Mx16) technology DRAM/SDRAM;

- Supports onboard 64-bit 512KB L2 cache;

- Provides dual 20-pin ATX power connector and AT 12-pin power connector, and ATX power support Modem Ring On & Suspend Switch;

- Supports both ACPI and Legacy PMU;

- 4 PCI Local Bus slots and 3 16-bits ISA Bus slots, all 4 PCI slots support master mode;

- Supports Ultra DMA/33, PCI Bus Master IDE interface onboard with 2 connectors which support 4 IDE devices in 2 channels; the PCI IDE controller supports PIO Mode 0 to Mode 4 and Ultra DMA/33 at maximum transfer rate of 33MB/s and Bus Master IDE DMA Mode 2;

- System BIOS supports 4 IDE hard disk drives which do not need device driver for S/W application and the capacity of each hard disk can be larger than 528MB and up to 8.4 GB;

- Onboard super Multi-I/O chip supports 2 serial ports with 16550 fast UART compatible, 1 parallel port with EPP and ECP capabilities, and one floppy disk drive interface;

- System BIOS supports Green feature function and "Plug & Play" Flash ROM;

- Supports PS/2 Mouse pin header;

- Supports ATX FORM CARD containing PS/2 Mouse, USB interface x 2, and Infrared connectors (optional);

- Supports embedded 64-bit VGA chip:
  —— high performance 64-bit GUI accelerator with excellent video playback capability,
  —— system memory shares up to 4MB with video buffer,
  —— high resolution graphic modes 640x480/800x600/1024x768;

- Onboard Sound Pro supports:
  —— Sound Blaster 16/PRO compatible with stereo voice up to 48KHz sampling rates,
  —— HRTF 3D Positional Audio Technology,
  —— Windows Sound System ver 2.0 compatible,
  —— Windows 95/31 and DOS drivers supported,
  —— Accelerates Direct Sound 3D in Win95,
  —— Device supports: SB16, WSS, Game,
  —— HSP-23 Wavetable synthesizer,
  —— Full Duplex 16-bits CODEC with filters,
  —— High quality 3D sound(ON/OFF controllable),
  —— Auto switch the hardware between Windows Sound System and Sound Blaster16,
  —— Stereo Mixer supports analog mixing form CD-Audio, Line-In, supports digital mixing from Voice, FM/Wave-table and digital CD-Audio,
  —— Supports 44.1K digital audio(SPDIF)IN.

Unpacking & Static Electricity Precautions

This mainboard package contains the following items:
1. The mainboard
2. The device driver for this mainboard
3. This user's guide
4. Sound & Game ribbon cables/bracket
5. ATX Form Card (optional)

The mainboard is easily damaged by static electricity. Follow the precautions below while unpacking or installing the mainboard.
1. Do not remove the mainboard from its original package until you are ready to install it.
2. Before handling the mainboard, ground yourself by grasping an unpainted portion of the system's metal chassis.
3. Frequently ground yourself to discharge any static electric charge that may build up in your body while working on installation and/or configuration.
4. Remove the mainboard from its anti-static packaging and place it on a grounded surface, component side up.
5. Handle the mainboard by its edges or by the mounting bracket to avoid touching its components.
6. Check the mainboard for damage. If any integrated circuit appears loose, press carefully to seat it firmly in its socket.
7. Make sure that JP2 is set to Normal mode(pin 1-2)
8. Do not apply power if the mainboard appears damaged. If there is damage to the board contact your dealer immediately.

Chapter 2
Hardware Configuration

Before you install this mainboard into the system chassis, you may find it convenient to first configure the mainboard's hardware. This chapter describes how to set jumpers and install memory modules, and where to attach components.

Mainboard Component Locations
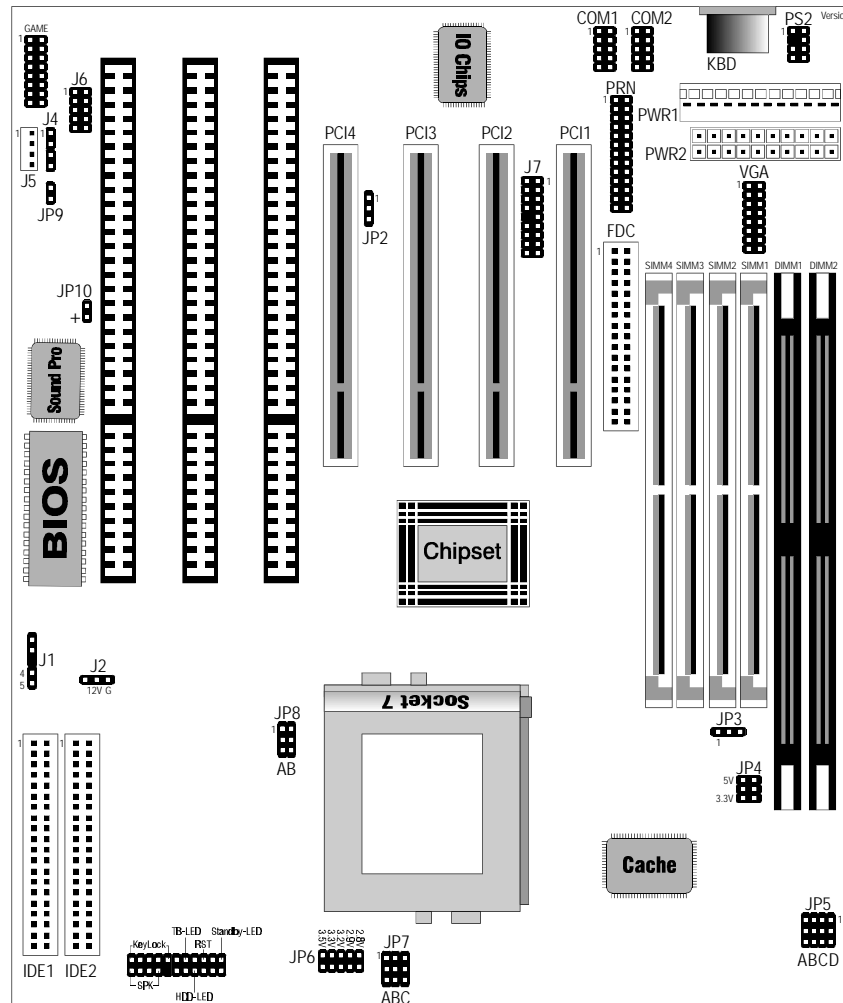
Figure 2-1. Mainboard Component Locations

Connectors

Attach system components and case devices to the mainboard via the mainboard connectors. A description of each connector and its connector pins follows. See Figure 2–1 for the location of the connectors on the mainboard.

Note: Make sure that the power is turned off before making any connection to the board.

PWR1 – Power Supply Connectors

The power supply connectors are two six-pin male header connectors. Plug the dual connectors from the power directly onto the board connectors. Most of power supply have two leads and each lead has six wires. Two of which are black, orient the connectors so that the black wires are in the middle.

Pin	Description	Pin	Description
1	Power Good	7	Ground
2	+5V DC	8	Ground
3	+12V DC	9	–5V DC
4	–12V DC	10	+5V DC
5	Ground	11	+5V DC
6	Ground	12	+5V DC

PWR2 – ATX Style Power Connector

The ATX power supply provides a single 20-pin connector.

Pin	Description	Pin	Description
1	3.3V	11	3.3V
2	3.3V	12	–12V
3	Ground	13	Ground
4	+5V	14	PS-ON
5	Ground	15	Ground
6	+5V	16	Ground
7	Ground	17	Ground
8	Power OK	18	–5V
9	5VSB	19	+5V
10	+12V	20	+5V

Software Power-Off

Follow the steps below to use the "Software Power-Off Control" function in Windows 95.

1. Click the **START** button on the Windows 95 task bar.
2. Select **Shut Down The Computer** to turn off the computer. The message **"It is now safe to turn off your computer."** will not be shown when using this function.

Modem Ring Power-On

While in Soft-off/Suspend state, if an external modem ring-up signal occurs, the system wakes up and can be remotely accessed. Make sure that the IRQ3 (COM2) option in the Power Management Setup menu is set to

Monitor and the Ring Active option is set to Enabled in
the BIOS setup section (Refer to the Power
Management section in Chapter 3.)

VGA - VGA Connector

Pin	Description	Pin	Description
1	R	9	Vcc
2	G	10	Ground
3	B	11	NC
4	NC	12	DDC DATA
5	Ground	13	H SYNC
6	Ground	14	V SYNC
7	Ground	15	DDC CLK
8	Ground		

COM1/2 - Serial Port #1/#2

PRN - Parallel Port

FDC - Floppy Disk Port

IDE1/IDE2 - Peimary/Secondary IDE Ports

PS2 - PS/2 Mouse Pin Header

KBD - Keybord Connector

J7 - ATX FORM CARD Connector
(1-4,10-13) - 2 sets of Universal Serial Bus (USB)

USB		USB	
Pin	Description	Pin	Description
1	+5 VDC	10	+5 VDC
2	Data -	11	Data -
3	Data +	12	Data +
4	Ground	13	Ground

(5-6,15-16) - PS/2 Mouse

Pin	Description
5	+5 VDC
6	Mouse CLK
15	Mouse Data
16	Ground

(7-9,17-18) - Infrared

Pin	Description
7	Ground
8	Reserved
9	+5 VDC
17	IR In
18	IR Out

J3 (KEY LOCK) – Keylock & Power LED Connector

Keylock connector enables and disables the keyboard key-in function on the case.

Pin	Description
1	LED Output
2	N.C.
3	Ground
4	Keylock
5	Ground

J3 (TB-LED) – Turbo LED Connector

Pin	Description
+	Anode
–	Ground

J3 (RST) – Reset Switch Connector

Attach the Reset push button cable to this connector.

Setting	Description
Open	Normal Mode
Close	Reset System

J3 (STANDBY LED) – Standby LED Connector

Pin	Description
+	Anode
−	Ground

J3 (SPK) – Speaker Connector

Pin	Description
1	Data Out
2	N.C.
3	Ground
4	+5V

J3 (HDD-LED) – HDD LED Connector

Pin	Description
+	+5V
−	Active Low

J2 (FAN-POW) – Fan Power

Pin	Description
1	N.C.
2	+12V
3	Ground

J1 (4-5) - Over-Ride Power Button Connector

When the system is off, push the power button to turn
the system on.

When the system is on, push the power button rapidly
to switch the system to the Suspend mode, and, by
push and hold the button for more than 4 seconds to
turn the system completely off.

When the system is in the Suspend mode, push the
power button rapidly to turn the system on.

Sound Pro Connectors

J4/J5 - Analog Audio for Sony/Panasonic
Connect to CD-ROM drive

J6 & GAME - Sound and Game Connectors
Sound contains Line-in, MIC(Microphone), and
Line-out(Speaker). Game connector is also the Joystic
connector. Please connect J6 & GAME to the Sound & Game
ribbon cable/bracket as follows:

```
LINE_IN    MIC    LINE_OUT              Game
  ( )      ( )      ( )         [                ]

         J6                          GAME
```
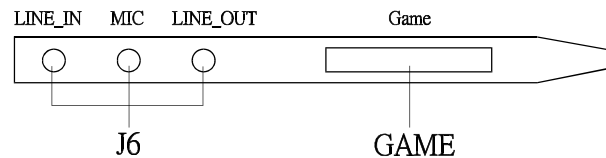
JP10 - Digital Audio
Connect to CD-ROM drive.(It depends on CD-ROM drive)
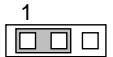
JP9 - Microphone Type Jumper
Close: Special type
Open: Normal type

Jumper Settings

JP2 – CMOS RAM Discharge Selector

Description	Setting
Normal Mode	1 ▯ / ▯ / 3 ▯
Clear CMOS	1 ▮ / ▮ / 3 ▮

JP3 – Internal VGA Option

Description	Setting
Disable	1 ▮▮ ▯
Enable	1 ▯ ▮▮
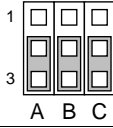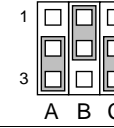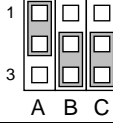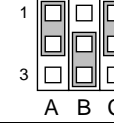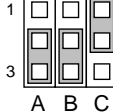
JP4 – DIMM Voltage Selectors*

Voltage Selectors	Setting
5V	5V ▮▮ / 3.3V ▯▯
3.3V	5V ▯▯ / 3.3V ▮▮

JP5(D) – PCI Clock Jumper**

Description	Setting
CPU CLK/2	1 ▮ / ▮ / ▯ / D
33 MHz	1 ▯ / ▮ / ▮ / D

JP5 (A, B, C) – CPU External Clock Selectors

External Clock	JP5 (A, B, C) Settings	External Clock	JP5 (A, B, C) Settings
50MHz	A B C	66MHz	A B C
55MHz	A B C	75MHz	A B C
60MHz	A B C		

JP6 - CPU Core Voltage Selectors

Core Vcc	Setting	Core Vcc	Setting
● 2.2V		3.2V	
2.8V		3.3V	
2.9V		3.5V	

Note: The original jumper setting is for 2.5V. Now, it is changed into 2.2V,if there is a "BLACK LABEL" located around this jump.

JP7(A,B,C) - CPU Internal Clock Speed Selectors

Internal	Setting	Internal	Setting
1.5X / 3.5X	A B C	4.0X	A B C
2.0X	A B C	4. 5X	A B C
2.5X	A B C	5.0X	A B C
3.0X	A B C	5.5X	A B C

Note: The CPU speed is equal to CPU External Clock x
       CPU Internal Clock Speed.

JP8 - CPU Type Selector

CPU	Setting	Example
P54C (Single Voltage)	A B	Intel P54C, IDT C6
P55C (Single Voltage)	A B	Intel MMX™, AMD K6,IBM/Cyrix 6x86L/6x86MX(M2)

*   Jp4 must be set to 3.3v position for all Synchronous DRAM.
**   Jp5(D) must be set to 2-3 position only when the system is running at 75MHz.

Memory Installation

The mainboard lets you add up to 384MB of system memory through SIMM and DIMM sockets on the board. Four SIMM sockets on the mainboard are divided into two banks: Bank 0 and Bank 2. Each bank consists of two 72-pin SIMM modules, and two 168-pin DIMM sockets are divided into two banks: Bank 0 and Bank 1. The mainboard supports the following memory configurations, however, **the manufacture does not recommend the mixed mode DRAM usage**.

SIMM 1&2	SIMM 3&4	DIMM1	DIMM2	Total Memory
4MB x 2	None	None	None	8MB
8MB x 2	None	None	None	16MB
16MB x 2	None	None	None	32MB
32MB x 2	None	None	None	64MB
None	None	8MB	None	8MB
None	None	16MB	None	16MB
None	None	32MB	None	32MB
None	None	64MB	None	64MB
4MB x 2	4MB x 2	None	None	16MB
8MB x 2	8MB x 2	None	None	32MB
16MB x 2	16MB x 2	None	None	64MB
32MB x 2	32MB x 2	None	None	128MB
None	None	8MB	8MB	16MB
None	None	16MB	16MB	32MB
None	None	32MB	32MB	64MB
None	None	64MB	64MB	128MB
4MB x 2	None	None	8MB	16MB
8MB x 2	None	None	16MB	32MB
16MB x 2	None	None	32MB	64MB
32MB x 2	None	None	64MB	128MB

SIMM 1&2	SIMM 3&4	DIMM1	DIMM2	Total Memory
8MB x 2	None	None	8MB	24MB
8MB x 2	None	None	16MB	32MB
8MB x 2	None	None	32MB	48MB
8MB x 2	None	None	64MB	80MB
16MB x 2	4MB x 2	None	None	40MB
16MB x 2	8MB x 2	None	None	48MB
16MB x 2	16MB x 2	None	None	64MB
16MB x 2	32MB x 2	None	None	96MB
16MB x 2	None	None	8MB	40MB
16MB x 2	None	None	16MB	48MB
16MB x 2	None	None	32MB	64MB
16MB x 2	None	None	64MB	96MB
32MB x 2	4MB x 2	None	None	72MB
32MB x 2	8MB x 2	None	None	80MB
32MB x 2	16MB x 2	None	None	96MB
32MB x 2	32MB x 2	None	None	128MB
32MB x 2	None	None	8MB	72MB
32MB x 2	None	None	16MB	80MB
32MB x 2	None	None	32MB	96MB
32MB x 2	None	None	64MB	128MB
None	32MB x 2	8MB	8MB	80MB
None	32MB x 2	16MB	16MB	96MB
None	32MB x 2	32MB	32MB	128MB
None	32MB x 2	64MB	64MB	192MB
64MB x 2	None	None	8MB	136MB
64MB x 2	None	None	16MB	144MB
64MB x 2	None	None	32MB	160MB
64MB x 2	None	None	64MB	192MB

SIMM 1&2	SIMM 3&4	DIMM1	DIMM2	Total Memory
64MB x 2	4MB x 2	None	None	136MB
64MB x 2	8MB x 2	None	None	144MB
64MB x 2	16MB x 2	None	None	160MB
64MB x 2	32MB x 2	None	None	192MB
None	64MB x 2	8MB	8MB	144MB
None	64MB x 2	16MB	16MB	160MB
None	64MB x 2	32MB	32MB	192MB
None	64MB x 2	64MB	64MB	256MB
128MB x 2	None	None	8MB	264MB
128MB x 2	None	None	16MB	272MB
128MB x 2	None	None	32MB	288MB
128MB x 2	None	None	64MB	320MB
128MB x 2	4MB x 2	None	None	264MB
128MB x 2	8MB x 2	None	None	272MB
128MB x 2	16MB x 2	None	None	288MB
128MB x 2	32MB x 2	None	None	320MB
None	128MB x 2	8MB	8MB	272MB
None	128MB x 2	16MB	16MB	288MB
None	128MB x 2	32MB	32MB	320MB
None	128MB x 2	64MB	64MB	384MB

Notes:
1. *Bank 0 (SIMM 1 & 2 and DIMM1) these two types of DRAM module can not be used at the same time.*
2. *If internal VGA is being used, the DRAM must be installed in Bank 0 (SIMM 1 & 2 or DIMM1).*
3. *The speed of all SIMMs and DIMM modules have to be faster than 70ns.*
4. *Use 2 DRAM types: Fast Page Mode or Extend DATA Out (EDO) for SIMM socket.*
5. *Use 3 DRAM types: Fast Page Mode, Extend Data Out (EDO), or Synchronous DRAM (SDRAM) for DIMM socket.*
6. *Hold down the <Home> key for more than 5 seconds before powering on the system, if using the SDRAM of 2T CAS Latency.*

Chapter 3
BIOS Setup

This chapter explains how to configure the mainboard's BIOS setup program. The setup program provided with the mainboard is the BIOS from AMI.

After you have configured the mainboard and have assembled the components, turn on the computer and run the software setup to ensure that the system information is correct.

The software setup of the system board is achieved through Basic Input-Output System (BIOS) programming. You use the BIOS setup program to tell the operating system what type of devices are connected to your system board.

The system setup is also called CMOS setup. Normally, you need to run system setup if either the hardware is not identical with information contained in the CMOS RAM, or if the CMOS RAM has lost power.

Note: When installing newer BIOS into this mainboard, JP2 must be set to clear CMOS position for a moment then set back to Normal Mode or hold down the <End> key then power on to reboot the system.

Entering BIOS Setup

To enter the BIOS Setup program:

1. Turn on or reboot the system. A screen appears with a series of diagnostic checks.

2. When "Hit <DEL> if you want to run SETUP" appears, press the <DEL> key to enter the BIOS setup program. The following screen appears:

```
          AMIBIOS SIMPLE SETUP UTILITY - VERSION 1.03
       (C)1997 American megatrends, Inc. All Rights Reserved

  Standard CMOS Setup            Peripheral Setup

  Advanced CMOS Setup            Change User Password

  Advanced Chipset Setup         Auto-Detect Hard Disks

  Power Management Setup          Save Settings and Exit

  PCI/Plug and Play Setup         Exit Without Saving

  Load Optional Settings

  Load Best Performance Settings

  Esc: Quit    ↑↓→←: Select Item    (Shift) F2: Change Color    F5: Old Values
  F6: Optional values         F7: Best performance values       F10 : Save&Exit

       Standard CMOS setup for changing time, date, hard disk type, etc.
```

3. Use your keyboard to select option. Modify system parameters to reflect system options.

Default

Every option in BIOS Setup contains two default values: Load Optional Settings and Load Best Performance Settings.

Load Optional Settings

This option provides the optimum system settings for all devices and system features.

Load Best Performance Settings

This option provides the best performance settings for all devices and system features, but, the manufacturer is not guaranty that the system will run smoothly overnight for these devices.

BIOS Setup

Standard CMOS Setup

Choosing the Standard CMOS Setup from the BIOS Setup main menu. All Standard Setup options are described in this section.

Date/Time   Select the Date or Time option to change the date or time. The current date and time are displayed. Enter new values on proper position.

Pri Master   Choose these options to configure the hard
Pri Slave   disk drive named in the option. When you
Sec Master   click on an option, the following parameters
Sec Slave   are listed: Type, LBA Mode, Blk Mode, PIO Mode, and 32Bit Mode. All parameters relate to IDE drives except **Type**. Choose the **Type** parameter and select Auto BIOS automatically detects the IDE drive parameters and displays them. Choose on **LBA Mode** and choose *On* to enable support for IDE drives with capacities greater than 528MB. Click on **Blk Mode** and choose *On* to support IDE drives that use Blk Mode. Click on **32Bit Mode** and click on *On* to support IDE drives that permit 32-bit accesses.

Floppy Drive A, B   Choose the Floppy Drive A or B option to specify the floppy drive type. The settings are 360KB $5^1/_4$", 1.2MB $5^1/_4$", 720KB $3^1/_2$", 1.44MB $3^1/_2$", or 2.88MB $3^1/_2$".

Boot Sector Virus Protection   This option protects the boot sector and partition table of your hard disk against accidental modifications. Any attempt to write to them will cause the system to halt and continue or use a bootable none virus floppy disk to reboot and check your system. The default setting is "Disabled". This setting is recommended because that conflicts with new operating systems.

Advanced CMOS Setup

Choosing the Advanced CMOS Setup from the BIOS Setup main menu. All Advanced Setup options are described in this section.

1st Boot Device
2nd Boot Device
3rd Boot Device
4th Boot Device   Set these options to select the boot sequence from different booting devices.

Try Other Boot Devices   Set this option to enable other booting devices.

S.M.A.R.T for Hard Disks   Select this option to enable or disable the S.M.A.R.T. function of HDDs.

Quick Boot   Set this option to *Enabled* to permit BIOS to boot within 5 seconds.

Boot Up Num-Lock   When this option is set to *On*, BIOS turns off the *Num Lock* key when the system is powered on so the end user can use the arrow keys on both the numeric keypad and the keyboard.

Floppy Drive Swap   Set this option to *Enabled* to specify that floppy drives A: and B: are swapped.

Floppy Drive Seek   Choose Enabled or Disabled. *Disabled* provides a fast boot and reduces the possibility of damaging the heads.

PS/2 Mouse Support   When this option is set to *Enabled*, BIOS supports a PS/2-type mouse.

Primary Display   This option configures the primary display subsystem in the computer. The settings are *Mono (monochrome) Absent, VGA/EGA, CGA 40x50, or CGA 80x25.*

Password Check   This option specifies the type of BIOS password protection that is implemented. The settings are:
Setup: The password prompt appears only when an end user attempts to run BIOS Setup.
Always: A password prompt appears every time the computer is powered on or rebooted.
The BIOS password does not have to be enabled. The end user sets the password by choosing the Change Supervisor Password option on the BIOS Setup main menu.

Internal Cache   This option selects to enable the internal cache or not.

External Cache   This option selects to enable External
                            Cache or not.

System BIOS   BIOS always copies the system BIOS from
Cacheable   ROM to RAM for faster execution. Set this
                            option to *Enabled* to permit the contents of
                            the F0000h RAM memory segment to be
                            written to and read from cache memory.

C000, 16K Shadow;	Enabled:	The contents of the ROM area
C400, 16K Shadow;		are not only copied from ROM
C800, 16K Shadow;		to RAM for faster execution, the
CC00, 16K Shadow;		contents of the RAM area can
D000, 16K Shadow;		be written to or read from cache
D400, 16K Shadow;		memory.
D800, 16K Shadow;	Cached:	The contents of the ROM area
DC00, 16K Shadow		are copied from ROM to RAM
		for faster execution.

Advanced Chipset Setup

Choose the Advanced Chipset Setup from the BIOS
Setup main menu. All Chipset Setup options are then
displayed and are described in the following section:

DRAM Auto   Set this option to enable the Auto
Configuration   Configuration DRAM Timing and Refresh
                            Cycle Time by CPU CLK functions.

SDRAM Access   There are 3 optional timings for this item:
Time   10ns, 12ns, 15ns. Depends on the type of
                            SDRAM you use to select the proper
                            setting.

EDO DRAM Access Time; FP DRAM Access Time
Choose either 60ns or 70ns. Depends on the type of DRAM you use to select the proper setting.

Refresh Cycle Time
Choose 0, 4, 8, or 12 cycles. Based on the DRAM specification to select the proper setting. 12 Cycles is recommend if the system has a playback application and the internal VGA runs on a high resolution monitor (above 800x600).

OnBoard USB
Set this option to *Enabled* to enable USB (Universal Serial Bus) functions on Chipset.

USB Function for DOS
Set this option to *Enabled* to enable the system BIOS USB (Universal Serial Bus) functions for DOS.

OnChip VGA
Set this option to *Enabled* to enable the VGA feature on the chipset.

VGA Shared Memory Size
When OnChip VGA is set to *Enabled*, the system must share memory with VGA.

VGA Frequency
Set this option to select the frequency of VGA shared memory. Choose 55MHz for Fast Page Mode DRAM and 65MHz for EDO DRAM. SDRAM will be synchronized with the system CLK.

Power Management Setup

Choosing the Power Management Setup from the BIOS Setup main menu.

Power Management/ APM

Set this option to enable power management features and APM (Advanced Power Management).

Green PC Monitor Power State

This option specifies the power state that the green PC-compliant video monitor enters when BIOS places it in a power savings state after the specified period of display inactivity has expired.

Video Power Down Mode

This option specifies the power conserving state that the VESA VGA video subsystem enters after the specified period of display inactivity has expired.

Hard Disk Power Down Mode

This option specifies the power conserving state that the hard disk drive enters after the specified period of hard drive inactivity has expired.

Standby Time out (Minute)

This option specified the length of system inactivity while in Full power on state. When this length of time expires, the computer enters Standby power state.

Suspend Time out (Minute)

This option specified the length of a period of system inactivity while in Standby state. When this length of time expires, the computer enters Suspend power state.

Slow Clock Ratio

This option specifies the ratio of system clock while in standby state.

Ring Active

Set this option to enable the Modem Ring to wake up the system which is in the Green mode.

IRQ3 (COM2/COM4); IRQ4 (COM1/COM3); IRQ5 (LPT2); IRQ7 (LPT1); IRQ9; IRQ10; IRQ11; IRQ12 (PS2 Mouse); IRQ13 (Math Coprocessor); IRQ14; IRQ15	When set to *Monitor*, these options enable the event monitoring on the specified hardware interrupt request line. If set to *Monitor* and the computer is in a power saving state, BIOS watches for any activities on the specified IRQ line. The computer will enter the full on power state if any activity occurs.
Soft Off by Power Button	This option specifies the "operation" of Soft Off by Power Button.

PCI/PnP Setup

Choose the PCI/Plug and Play Setup from the BIOS Setup main menu.

Plug and Play Aware OS	Set this option to *Yes* if the operation system in this computer is aware of and follows the Plug and Play specification. Currently, only Windows 95 is PnP-aware.
PCI Latency Timer (PCI Clocks)	This option specifies the latency timings (in PCI clocks) for all PCI devices on the PCI bus.
PCI VGA Palette Snoop	When this option is set to Enabled, multiple VGA devices operating on different buses can handle data from the CPU on each set of palette registers on every video device. Bit 5 of the command register in the PCI device configuration space is the VGA Palette Snoop bit (0 is disabled).

Offboard PCI IDE Card	This option specifies if an offboard PCI IDE controller adapter card is installed in the computer. You must specify the PCI expansion slot on the motherboard where the offboard PCI IDE controller is installed. If an offboard PCI IDE controller is used, the onboard IDE controller is automatically disabled. If an offboard PCI IDE controller adapter card is installed in the computer, you must also set the **Offboard PCI IDE Primary IRQ** and **Offboard PCI IDE Secondary IRQ** options.
Offboard PCI IDE Primary IRQ; Offboard PCI IDE Secondary IRQ	These options specify the PCI interrupt used by the Primary (or secondary) IDE channel on the offboard PCI IDE controller.
Assign IRQ to PCI VGA Card	Set this option to *Enabled* to assign IRQ to PCI VGA Card.
PCI Slot 1/2/3/4 IRQ Priority;	These options specify the priority IRQ to be used for any PCI devices installed in PCI expansion slots 1 through 4.
DMA Channel 0, 1, 3, 5, 6, 7	These options specify the bus that the specified DMA channel is used on.
IRQ3, 4, 5, 7, 9, 10, 11, 12, 14, 15	These options specify the bus that the specified IRQ line is used on. These options allow you to reserve IRQs for legacy ISA adapter cards. However, IRQ12 option will be disappeared while PS/2 Mouse Support option in the Advanced CMOS Setup is set to *Enabled*.

Peripheral Setup

Choose the Peripheral Setup from the BIOS Setup main menu.

Onboard FDC   This option enables the FDC (Floppy Drive Controller) on the motherboard.

Serial Port1   This option specifies the base I/O port address of serial port 1.

Serial Port2   This option specifies the base I/O port address of serial port 2.

Serial Port Mode   This option specifies the serial port mode.
Normal: The normal serial port mode is being used.
HPSIR/ASKIR: The serial port will be redirected to support IR function when this option is set to HPSIR or ASKIR.

On-board Parallel Port   This option specifies the base I/O port address of the parallel port on the motherboard.

Parallel Port Mode   This option specifies the parallel port mode.
Normal: The normal parallel port mode is used.
EPP: The parallel port can be used with devices that adhere to the Enhanced Parallel Port (EPP) specification. EPP uses the existing parallel port signals to provide asymmetric bi-directional data transfer driven by the host device.

Parallel Port Mode   ECP: The parallel port can be used with
(Continued)   devices that adhere to the Extended
                               Capabilities Port (ECP)
                               specification. ECP uses the DMA
                               protocol to achieve data transfer
                               rates up to 2.5 MB per second. ECP
                               provides symmetric bidirectional
                               communication.

Parallel Port DMA   This option is only available if the setting of
Channel   the Parallel Port Mode option is ECP

Parallel Port IRQ   This option specifies IRQ to parallel port.

Onboard PCI IDE   This option specifies the channel used by the
                             IDE controller on the motherboard.

Primary Master/   These options are available if the setting of
Slave Prefetch;   the Onboard IDE is not set to Disabled.
Secondary Master/
Slave Prefetch

Onboard Sound   Set this option to enable the Sound Pro
Pro   functions.

Change User Password

This item lets you configure the system password and that
is required every time the system boots or an attempt is
made to enter the Setup program .The password cannot
be longer than six characters.

Note: Keep a record of your new password in a safe place.
        If you forget or lose the password, the only way to
        access the   system is to discharge CMOS RAM
        by using jumper JP2.

Auto-Detect Hard Disks

If your system has an IDE hard drive, you can use this item to detect its parameters and automatically enter them into the Standard CMOS Setup. This item is set up to auto detect as many as four IDE devices.

Save Settings and Exit

Select this item to save the values modified during the current session and then exit the BIOS setup program.

Exit Without Saving

Select this item to exit the BIOS setup program without saving the values modified during the current session.

Appendix

A. VGA Memory Size/Clock

This function determines the amount of DRAM to be used by the VGA accelerator. The video memory required for each resolution are shown in the table below:

Resolution	1MB	2MB	3MB	4MB
640x480x8	✓	✓	✓	✓
640x480x24	✓	✓	✓	✓
800x600x4	✓	✓	✓	✓
800x600x8	✓	✓	✓	✓
800x600x16	✓	✓	✓	✓
* 800x600x24	✓	✓	✓	✓
1024x768x4	✓	✓	✓	✓
1024x768x8	✓	✓	✓	✓
1024x768x16		✓	✓	✓
* 1024x768x24			✓	✓

* If you want run on the high resolution VGA mode that depend on your DRAM speed. The EDO 60ns DRAM or higher is recommend.

B. Supported Drivers

1. IDE - (CD-ROM):\Ide\M571\Win95 -- for Windows 95
    (CD-ROM):\Ide\M571\NT -- for Windows NT

2. VGA - (CD-ROM):\Vga\M571\Win95 -- for Windows 95
    (CD-ROM):\Vga\M571\Winnt -- for Windows NT

3. USB support - (CD-ROM):\Usb

4. Sound Pro - (CD-ROM):\Sound\Soundpro\Driver