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chapter 1

INTRODUCTION

This main board is a high performance system hardware based on Intel Pentium processor and is equipped with three master PCI slots, four 16-bit ISA slot, two serial ports with 16550 high speed, one parallel with ECP/EPP bi-direction, one PS/2 Mouse port, one infrared port (IR), dual enhanced PCI IDE ports for 4 IDE device mode 5 and DMA mode 2, one FDD port. The dimension is 22*22.6 cm.

Features:

☞ CPU ZIF Socket

- ZIF 321-pin ZIF socket. Socket 7.
- Intel Pentium 90, 100, 120, 133, 150, 166, 180, and 200MHz.
- Intel Pentium-MMX 166/200/233 MHZ
- Switch Voltage Regulator for P55C
- Cyrix M1 P120+/P133+/P150+/P166+/CYRIX M2(MMX)
- AMD K5 /K6 (MMX) CPU

☞ Chipset

- Main board: Intel 430TX chipset
- Enhanced I/O:ALI M5135 for 2.88MB FDD, Enhanced I/O. 16550/ECP/EPP bi-direction and the Infrared port (IR)

☞ Memory, SIMM 1-4,DIMMx2

- The RAM MODULE assortment is flexible. There are two 168 pin DIMM sockets and four 72 pin SIMM sockets on the motherboard. You can use 3.3V SDRAM and 5V EDO RAM on the 168 pin DIMM socket of the motherboard. The total capacity is up to 256MB. Otherwise, you can use 5V EDO RAM and FPM RAM on the 72 pin SIMM socket of the motherboard. The total capacity is up to 256MB. Please notice that you can't use the SIMM RAM MODULE and DIMM RAM MODULE at the same time.

☞ Pipe Line Cache

- 64 bit Cache.
- Implements level two (L2), external cache write through or write-back design, featuring two pipe line sram onboard.
- External cache size is on board 256K or 512K Cache RAM.

☞ **Expansion Slots, ISA1-ISA4,PCI1-PCI4**

- Builds three 16-bit ISA slots and four 32-bit PCI slots (PCI 1 to PCI 4)

☞ **Enhanced PCI IDE & ISA I/O**

- Built in enhanced PCI Local Bus IDE controller.
- Ultra DMA/33 Support BUS master IDE
- Supports 4 PCI IDE devices. PIO Mode 5 and DMA Mode 2 and CDROM driver. BIOS auto detects HDD.
- Two serial ports with 16550, Infrared port (IR), one Parallel port with ECP/EPP pocket device, bi-direction, one PS/2 mouse port, two FDD. Through ECP/EPP, the board increases the performance of printer or connect SCSI or IDE devices.
- Controlled by BIOS. Disable I/O function by BIOS in order to Install an I/O card. Set COM 1 and COM 2 as COM 3 and COM 4 by BIOS.
- Six cables in package.

☞ **System Green BIOS**

- Flash BIOS option on board, AWARD deep green BIOS, PLUG & PLAY, PnP function.
- Auto configuration for PCI add-on cards.
- CPU stop-clock, real zero clock for CPU.
- I/O Device's power saving, APM & SMI.
- Implements the EPA Energy Star PC specification with Deep Green system design.

Full-on : System runs in full speed CPU clock.

Doze : System scales-down CPU clock.

Standby : System scales-down the CPU clock, and turns off video display, and spin-off hard disk driver.

Suspend: With SMM CPU, stop CPU clock in suspend mode.

☞ **ACPI (ATX Power Supply Mode)**

- power management. Soft-off Control
- Support Modem Ring-in
- RTC Alarm wake up

☞ **Power Connect**

- AT/ATX option

J1:Power LED, Speaker, SLEEP LED, ATX POWER SWITCH, Reset, Hard disk LED, Turbo LED, Turbo Switch.

Speaker						Sleep LED	Power LED		
10	9	8	7	6	5	4	3	2	1
20	19	18	17	16	15	14	13	12	11
RESET		Tubro Switch	Turbro LED		HDD LED		ATX POWER SWITCH		

J1(1-3): Power LED

PINOUT	ASSIGNMENTS
1	LED OUTPUT
2	NC
3	GND

J1(4-5): SLEEP LED

PINOUT	ASSIGNMENTS
1	LED OUTPUT
2	HIGH

J1(6): NOT CONNECT

J1(7-10): Speaker Connect

PINOUT	ASSIGNMENTS
1	speaker output
2	GND
3	GND
4	VCC

J1(11-12): ATX POWER Switch Connect

J1(13-14): Hard Disk LED connect

PINOUT	ASSIGNMENTS
1	VCC
2	LED1 Signal

J1(15-16): Turbo LED connect

PINOUT	ASSIGNMENTS
1	VCC
2	LED1 Signal

J1(17-18): Turbo switch connect (Default close)

J1(19-20): RESET switch connect

**JP2: FOR 168 PIN SDRAM (Synchronous DRAM) OR FPM/EDO DRAM
Voltage SELECT**

JP2	Function
1-2,1-2	+3.3V SDRAM
2-3,2-3	+5V EDO / FPM

JP3: CACHE SIZE SELECT. Please refer section 2-6 relating

JP4: CPU CLK SELECT. Please refer section 2-4 relating

JP5,JP10: CPU Voltage Jumper setting. Please refer section 2-3 relating

JP6: IR connect

PINOUT	ASSIGNMENTS
1	VCC
2	N.C
3	IRRX2 Signal
4	GND
5	IRTX2 Signal

JP7: Flash ROM VCC Select

JP7	Function
1-2,1-2	+12V VPP
2-3,2-3	+5V VPP

JP8: COMS CLEAR SETTING

JP8	Function
OPEN	NORMAL
CLOSE	CMOS CLEAR

☞ **To cover the cap on JP8 FOR 5-10 seconds then to
Remove the cap from JP8.**

MOUSE1: PS/2 MOUSE CONNECT

PINOUT	ASSIGNMENTS
1	MDATA
2	N.C
3	GND
4	VCC
5	MSCLK

AT-KB1: AT KEYBOARD

IDE1: Primary IDE CONNECT

IDE2: Secondary IDE CONNECT

FDC1: Floppy CONNECT

COM1: COM1 CONNECT

COM2: COM2 CONNECT

LPT1: PRINT CONNECT

USB-1: USB-1 connect

PINOUT	ASSIGNMENTS
1	VCC
2	USBP0-
3	USBP0+
4	GND_A
5	GND_B

USB-2: USB-2 connect

PINOUT	ASSIGNMENTS
1	VCC
2	USBP1-
3	USBP1+
4	GND_A
5	GND_B

SIMM 1-4: 72 pin DRAM Module Socket

DIMM 1-2: 168 pin SDRAM Module Socket

U12: LM 75 FOR CPU Temperature detect

U14: CPU ZIF SOCKET 7

2.2 Install The System CPU Processor

Install 586 CPU on the ZIF Socket 7

- ✧ Locate the 321-pin ZIF Socket.
- ✧ Raise the ZIF Socket retaining arm to the open position. Pin Coordinates A-1 will be the arm corner.
- ✧ Position the notched corner of microprocessor over the notched corner of the ZIF Socket and align the pins of CPU over the Socket.
- ✧ Carefully insert the aligned CPU into the ZIF Socket and press Firmly. After CPU inserted, press ZIF retaining arm downwards.
- ✧ Examine the installed CPU to ensure it is install in the correct direction and pin aligned properly.

2-6 Cache Memory Installation and Jumper Setting

The main board accpet for 256k or 512k of pipeline sram for cache memory support.

(1) ON BOARD 256K OR 512K Cache, Location at U3, U4

TYPE	TAG RAM (U2)	JP3
256k	32k*8	1-2
512k	32k*8	2-3

Install 586 CPU

2.4-1 QUICK TO SETTING FOR INTEL PENTIUM MMX /AMD K6 MMX /CYRIX MW MMX CLK & VOLTAGE.

Product name	cpu speed	bus clk	JP4		Multiplier
PENTIUM MMX-166	166	66	1	2	2.5x
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
PENTIUM- MMX-200	200	66	1	2	3X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
PENTIUM- MMX- 233	233	66	1	2	3.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	

(2) SET CPU VOLTAGE

CPU POWER TYPE	JP10 CONNECT	JP5 CONNECT																
DUAL 2.8V & 3.3V	<table border="1" data-bbox="671 432 962 669"><tbody><tr><td>1</td><td>2</td></tr><tr><td>3</td><td>4</td></tr><tr><td>5</td><td>6</td></tr><tr><td>7</td><td>8</td></tr></tbody></table>	1	2	3	4	5	6	7	8	<table border="1" data-bbox="1153 432 1380 651"><tbody><tr><td>1</td><td>2</td></tr><tr><td>3</td><td>4</td></tr><tr><td>5</td><td>6</td></tr><tr><td>7</td><td>8</td></tr></tbody></table>	1	2	3	4	5	6	7	8
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B.AMD K6 MMX CPU CLK

Product Name	CPU Speed	BUS CLK	JP4		Multiplier
AMD K6-166	166	66	1	2	2.5x
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
AMD-K6-200	200	66	1	2	3X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
AMD-K6- 233	233	66	1	2	3.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	

Product Name	CPU Speed	BUS CLK	JP4		Multiplier
AMD K6-266	266	66	1	2	4X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
AMD-K6-300	300	66	1	2	4.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
AMD-K6- 333	333	66	1	2	5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	

Product Name	CPU Speed	BUS CLK	JP4		Multiplier
AMD-K6- 350	350	66	1	2	5.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	

SET CPU VOLTAGE

CPU TYPE	CPU POWER TYPER TYPE	JP10 CONNECT	JP5 CONNCET																
AMD-K6- 166/200	DUAL 2.9V&3.3V	<table border="1" style="width: 100%; text-align: center;"> <tr><td style="background-color: #cccccc;">1</td><td style="background-color: #cccccc;">2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td style="background-color: #cccccc;">7</td><td style="background-color: #cccccc;">8</td></tr> </table>	1	2	3	4	5	6	7	8	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td style="background-color: #cccccc;">5</td><td style="background-color: #cccccc;">6</td></tr> <tr><td style="background-color: #cccccc;">7</td><td style="background-color: #cccccc;">8</td></tr> </table>	1	2	3	4	5	6	7	8
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AMD-K6-233	DUAL 3.2V & 3.3V	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td style="background-color: #cccccc;">5</td><td style="background-color: #cccccc;">6</td></tr> <tr><td style="background-color: #cccccc;">7</td><td style="background-color: #cccccc;">8</td></tr> </table>	1	2	3	4	5	6	7	8	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td style="background-color: #cccccc;">5</td><td style="background-color: #cccccc;">6</td></tr> <tr><td style="background-color: #cccccc;">7</td><td style="background-color: #cccccc;">8</td></tr> </table>	1	2	3	4	5	6	7	8
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AMD K6-266	DUAL 2.2V & 3.3V	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td style="background-color: #cccccc;">3</td><td style="background-color: #cccccc;">4</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td></tr> </table>	1	2	3	4	5	6	7	8	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td style="background-color: #cccccc;">5</td><td style="background-color: #cccccc;">6</td></tr> <tr><td style="background-color: #cccccc;">7</td><td style="background-color: #cccccc;">8</td></tr> </table>	1	2	3	4	5	6	7	8
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AMD-KK6-300 AMD-K6-333 AMD-K6-350	DUAL 2.2V & 3.45V	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td style="background-color: #cccccc;">3</td><td style="background-color: #cccccc;">4</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td></tr> </table>	1	2	3	4	5	6	7	8	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td style="background-color: #cccccc;">5</td><td style="background-color: #cccccc;">6</td></tr> <tr><td style="background-color: #cccccc;">7</td><td style="background-color: #cccccc;">8</td></tr> </table>	1	2	3	4	5	6	7	8
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CYRIX M2 MMX

CPU CLK:

Product Name	CPU Speed	BUS CLK	JP4		Multiplier
CYRIX-M2-PR166	150	60	1	2	2.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
CYRIX M2-PR200	166	66	1	2	2.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
CYRIX M2 PR233	200	66	1	2	3X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	

Product Name	CPU Speed	BUS CLK	JP4		Multiplier
CYRIX M2 PR300	233	66	1	2	3.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
CYRIX M2 PR333	266	66	1	2	4X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
CYRIX M2 -PR200	166	75	1	2	2X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	

Product Name	CPU Speed	BUS CLK	JP4		Multiplier
CYRIX M2 PR233	188	75	1	2	2.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
CYRIX M2 PR300	225	75	1	2	3X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
CYRIX M2 -PR333	263	75	1	2	3.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	

Product Name	CPU Speed	BUS CLK	JP4		Multiplier
CYRIX M2 PR350	300	75	1	2	4X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	

SET CPU VOLTAGE

CPU TYPE	CPU POWER TYPER TYPE	JP10 CONNECT		JP5 CONNCET	
CYRIX M2 PR166/PR200 /PR233/PR300/ PR333/PPR350	DUAL 2.9V&3.3V	1	2	1	2
		3	4	3	4
		5	6	5	6
		7	8	7	8

QUICK TO SETTING FOR INTEL PENTIUM & AMD K5 CPU CLK & voltage

CPU CLK

PENTIUM -90 AMD K5-PR90 AMD K5-PR120	90	60	1	2	1.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
PENTIUM-100 AMD K5-PR100, AMD-K5-PR133	100	66	1	2	1.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
PENTIUM-120 AMD-K5-PR150	120	66	1	2	2X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	

PENTIUM - 133	133	66	1	2	2X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
PENTIUM-150	150	60	1	2	2.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
PENTIUM-166 AMD K5- PR166	166	66	1	2	2.5X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	

PENTIUM M-180	180	60
PENTIUM-200	200	66

1	2
3	4
5	6
7	8
9	10
11	12
1	2
3	4
5	6
7	8
9	10
11	12

3X
3X

CPU TYPE	CPU POWER TYPER TYPE	JP10 CONNECT	JP5 CONNCET																
PENTIUM 90-200 -	ONLY 3.3V	<table border="1" style="margin: auto;"> <tr><td style="background-color: #cccccc;">1</td><td style="background-color: #cccccc;">2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td style="background-color: #cccccc;">5</td><td style="background-color: #cccccc;">6</td></tr> <tr><td style="background-color: #cccccc;">7</td><td style="background-color: #cccccc;">8</td></tr> </table>	1	2	3	4	5	6	7	8	<table border="1" style="margin: auto;"> <tr><td style="background-color: #cccccc;">1</td><td style="background-color: #cccccc;">2</td></tr> <tr><td style="background-color: #cccccc;">3</td><td style="background-color: #cccccc;">4</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td></tr> </table>	1	2	3	4	5	6	7	8
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AMD K5 PR90-PR166	ONLY 3.52V	<table border="1" style="margin: auto;"> <tr><td style="background-color: #cccccc;">1</td><td style="background-color: #cccccc;">2</td></tr> <tr><td style="background-color: #cccccc;">3</td><td style="background-color: #cccccc;">4</td></tr> <tr><td style="background-color: #cccccc;">5</td><td style="background-color: #cccccc;">6</td></tr> <tr><td style="background-color: #cccccc;">7</td><td style="background-color: #cccccc;">8</td></tr> </table>	1	2	3	4	5	6	7	8	<table border="1" style="margin: auto;"> <tr><td style="background-color: #cccccc;">1</td><td style="background-color: #cccccc;">2</td></tr> <tr><td style="background-color: #cccccc;">3</td><td style="background-color: #cccccc;">4</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td></tr> </table>	1	2	3	4	5	6	7	8
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QUICK TO SETTING FOR CYRIX 6X86 CPU CLK & VOLTAGE

CPU CLK

6X86-P133+GP	110	55	1	2	2X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
			1	2	
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
			1	2	
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	
					2X

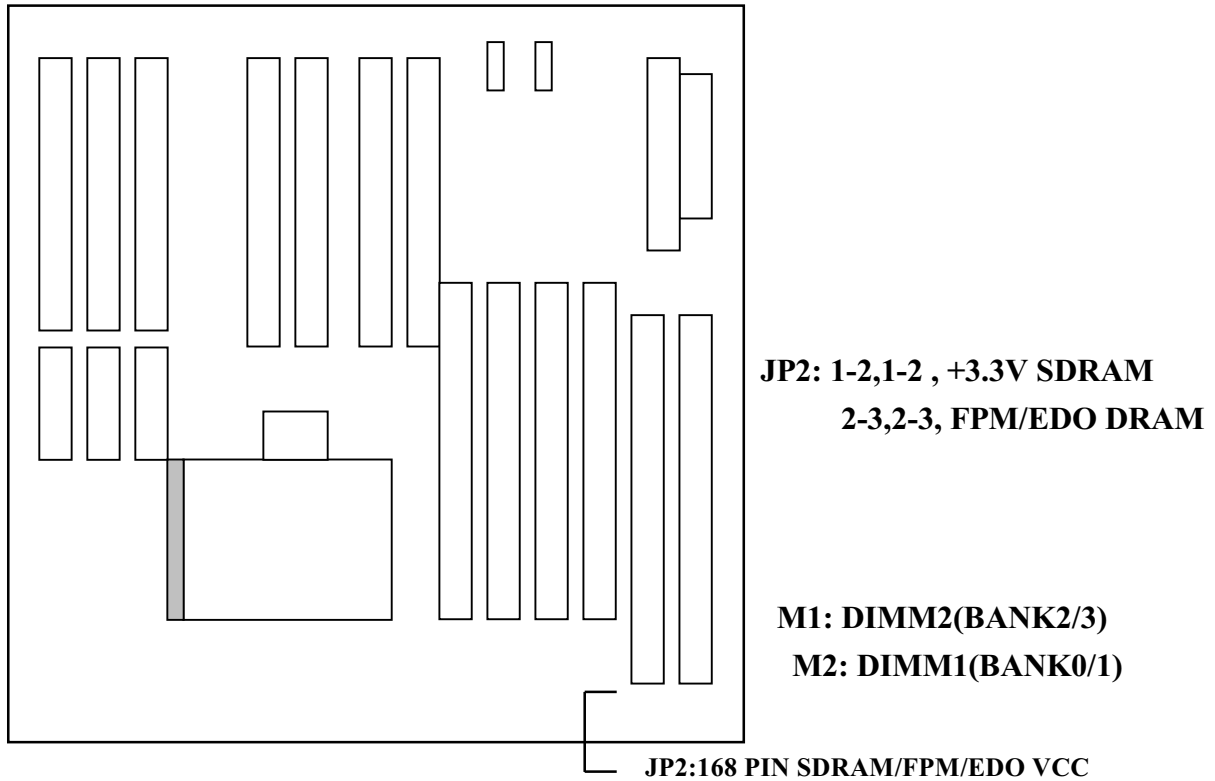
6X86-P200+GP (Reserved)	150	75	1	2	2X
			3	4	
			5	6	
			7	8	
			9	10	
			11	12	

SET CPU VOLTAGE

CPU POWER TYPER TYPE	JP10 CONNECT	JP5 CONNCET																
ONLY 3.52V	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td></tr> </table>	1	2	3	4	5	6	7	8	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td></tr> </table>	1	2	3	4	5	6	7	8
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ONLY 3.3V	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td></tr> </table>	1	2	3	4	5	6	7	8	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td></tr> </table>	1	2	3	4	5	6	7	8
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DUAL 2.8V & 3.3V	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td></tr> </table>	1	2	3	4	5	6	7	8	<table border="1" style="width: 100%; text-align: center;"> <tr><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td></tr> </table>	1	2	3	4	5	6	7	8
1	2																	
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7	8																	
1	2																	
3	4																	
5	6																	
7	8																	

Support 168 Pin DIMMx2 for SDRAM/FPM/EDO DRAM

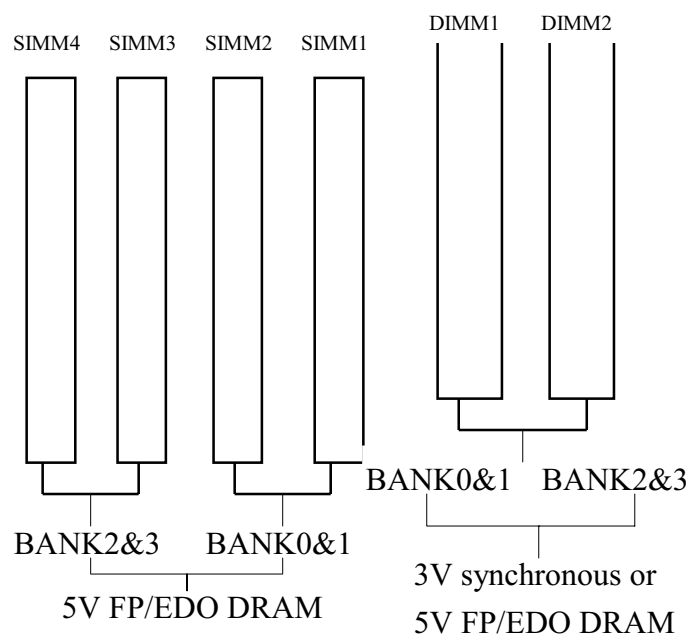
(1)PCB Layout and Relevant Position for DIMMx2



SELECT

3	2	1
3	2	1

(2) The supports different type of settings for the system memory. There is no jumper nor connector needed for memory configuration. Following



FPM/EDO DRAM		SDRAM		STATUS
BANK0&1	BANK2&3	BANK0&1	BANK2&3	
SIMM1,2	SIMM3,4	DIMM1	DIMM2	
INSTALLED	NONE	NONE	NONE	OK
NONE	INSTALLED	NONE	NONE	OK
NONE	NONE	INSTALLED	NONE	OK
NONE	NONE	NONE	INSTALLED	OK
INSTALLED	INSTALLED	NONE	NONE	OK
NONE	NONE	INSTALLED	INSTALLED	OK

NOTE:

1. Supports both Fast Page DRAM and EDO DRAM SIMMs, but they can not be mixed in the same memory bank.
2. SDRAM Module Specification:
3.3V ONLY.
3. Support 168pin DIMMx2 for SDRAM / FPM /EDO.

JP2: FOR 168 PIN SDRAM (Synchronous DRAM) OR FPM/EDO DRAM Voltage SELECT.

JP2	Function
1-2,1-2	+3.3V SDRAM
2-3,2-3	+5V EDO / FPM

3.1 Main Menu

Once you enter the Award BIOS CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions and two exit choices. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

ROM PCI/ISA BIOS (2A5KFF99)
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	SUPERVISOR PASSWORD
CHIPSET FEATURES SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PNP/PCI CONFIGURATION SETUP	HDD LOW LEVEL FORMAT
LOAD BIOS DEFAULTS	SAVE & EXIT SETUP
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
Esc : Quit	↑↓→← : Select Item (Shift) F2 : Color
Time, Date, Hard Disk Type...	

Note that a brief description of each highlighted selection appears at the bottom of the screen.

Setup Items

The main menu includes the following main setup categories. Recall that some systems may not include all entries.

Standard CMOS Setup

This setup page includes all the items in a standard, AT-compatible BIOS.

BIOS Features

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

Super/User Setting

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

Chipset Features Setup

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

Power Management Setup

This entry only appears if your system supports Power Management, “Green PC”, standards.

PNP/PCI Configuration Setup

This entry appears if your system supports PNP/PCI.

Load BIOS Defaults

The BIOS defaults have been set by the manufacturer and represent settings which provide the minimum requirements for your system to operate.

Load Setup Defaults

The chipset defaults are settings which provide for maximum system performance. While Award has designed the custom BIOS to maximize performance, the manufacturer has the right to change these defaults to meet their needs.

Integrated Peripherals

This section page includes all the items of IDE hard drive and Programmed Input/ Output features.

IDE HDD Auto Detection

Automatically detect and configure hard disk parameters. The Award BIOS includes this ability in the event you are uncertain of your hard disk’s parameters.

HDD Low Level Format

If supported by your system, this provides a hard disk low level format utility.

Save & Exit Setup

Save CMOS value changes to CMOS and exit setup.

Exit Without Save

Abandon all CMOS value changes and exit setup.

3.2 Standard CMOS Setup

The items in Standard CMOS Setup Menu are divided into 10 categories.

Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

ROM PCI/ISA BIOS
STANDARD CMOS SETUP
AWARD SOFTWARE. INC.

Date (mm:dd:yy) : Fri, Dec 6 1996								
Time (hh:mm:ss) : 15 : 40 : 00								
HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDE	SECTOR	MODE
Primary Master	: Auto	0	0	0	0	0	0	Auto
Primary Slave	: Auto	0	0	0	0	0	0	Auto
Secondary Master	: Auto	0	0	0	0	0	0	Auto
Secondary Slave	: Auto	0	0	0	0	0	0	Auto
Drive A	: 1.44M, 3.5in							
Drive B	: None							
						Base Memory : 640K		
						Extended Memory : 15360 K		
Video	: EGA/VGA							
						Other Memory : 384K		
Halt On	: All Errors							
						Total Memory : 16384K		
ESC	: Quit	↑↓→← : Select Item				PU/PD/+/- : Modify		
F1	: Help	(Shift) F2 : Change Color						

Date

The date format is <day>, <date> <month> <year>. Press<F3> to show the calendar.

day	The day, from Sun to Sat, determined by the BIOS and is display-only
date	The date, from 1 to 31 (or the maximum allowed in the month)
month	The month, Jan through Dec.
year	The year, from 1900 through 2099

Time

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

Daylight saving

The category adds one hour to the clock when daylight-saving time begins. It also subtracts one hour when standard time returns.

Enabled	Enabled daylight-saving
Disabled	Disabled daylight-saving

Primary Master/ Primary Slave/Secondary Master/ Secondary Slave

The categories identify the types of 2 channels that have been installed in the computer. There are 45 predefined types and 4 user definable types are for Enhanced IDE BIOS. Type 1 to Type 45 are predefined. Type user is user-definable.

Press PgUp or PgDn to select a numbered hard disk type or type the number and press <Enter>. Note that the specifications of your drive must match with the drive table. The hard disk will not work properly if you enter improper information for this category. If your hard disk drive type is not matched or listed, you can use Type “User” to define your own drive type manually.

If you select Type “User”, you will need to know the information listed below. Enter the information directly from the keyboard and press <Enter>. This information should be included in the documentation from your hard disk vendor or the system manufacturer.

If the controller of HDD interface is ESDI, the selection shall be “Type 1”.
If the controller of HDD interface is SCSI, the selection shall be “None”.

If you select Type “Auto”, BIOS will Auto-Detect the HDD & CD-ROM Drive at the POST stage and showing the IDE for HDD & CD-ROM Drive.

TYPE	drive type
CYLS.	number of cylinders
HEADS	number of heads
PRECOMP	write precom
LANDZONE	landing zone

SECTORS	number of sectors
MODE	mode type

If a hard disk has not been installed select NONE and press <Enter>.

Drive A Type/ Drive B Type

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

None	No floppy drive installed
360K, 5.25 in	5-1/4 inch PC-type standard drive; 360 kilobyte capacity
1.2M, 5.25 in	5-1/4 inch AT-type high-density drive; 1.2 megabyte capacity
720M, 3.5 in	3-1/2 inch double-sided drive; 720 kilobyte capacity
1.44M, 3.5 in	3-1/2 inch double-sided drive; 1.44 megabyte capacity
2.88M, 3.5 in	3-1/2 inch double-sided drive; 2.88 megabyte capacity

Video

The category selects the type of video adapter used for the primary system monitor. Although secondary monitors are supported, you do not have to select the type in Setup.

EGA/VGA	Enhanced Graphics Adapter/Video Graphics Array, For EGA, VGA, SEGA, SVGA, or PGA monitor adapters.
CGA 40	Color Graphics Adapter, power up in 40 column mode
CGA 80	Color Graphics Adapter, power up in 80 column mode
NONO	Monochrome adapter, includes high resolution monochrome adapters

Error Halt

The category determines whether the computer will stop if an error is detected during power up.

No errors	Whenever the BIOS detects a non-fatal error the system will be stopped and you will be prompted.
All errors	The system boot will not be stopped for any error that may be detected.
All, But Keyboard	The system boot will not stop for a keyboard error, it will stop for all other errors.
All, But Diskette	The system boot will not stop for a disk error; it will stop for all other errors.
All, But Disk/Key	The system boot will not stop for a keyboard or disk

error; it will stop for all other errors.

Memory

The category is display-only which is determined by POST (Power on Self Test) of the BIOS.

Base Memory

The POST will determine the amount of base (or conventional) memory installed in the system. The value of the base memory is typically 512K for systems with 512K memory installed on the motherboard, or 640K for system with 640K or more memory installed on the motherboard.

Extended Memory

The BIOS determines how much extended memory is present during the POST. This is the amount of memory located above 1MB in the CPU'S memory address map.

Other Memory

This refers to the memory located in the 640K to 1024K address space. This is memory that can be used for different applications. DOS uses this area to load device drivers in an effort to keep as much base memory free for application programs. The BIOS is the most frequent user of this RAM area since this is where it shadows RAM.

3.3 BIOS Features Setup

This section allows you to configure your system for basic operation. You have the opportunity to select the system's default speed, boot-up sequence, keyboard operation, shadowing and security.

ROM PCI/ISA BIOS
BIOS FEATURES SETUP
AWARD SOFTWARE. INC.

Virus Warning	: Disabled	Video BIOS Shadow	: Enabled
CPU Internal Cache	: Enabled	C8000-CBFFF Shadow	: Disabled
External Cache	: Enabled	CC000-CFFFF Shadow	: Disabled
Quick Power On Self Test	: Enabled	D0000-D3FFF Shadow	: Disabled
Boot Sequence	: C, A, SCSI	D4000-D7FFF Shadow	: Disabled
Swap Floppy Drive	: Disabled	D8000-DBFFF Shadow	: Disabled
Boot Up Floppy Seek	: Disabled	DC000-DFFFF Shadow	: Disabled
Boot Up Numlock Status	: On		
Boot Up System Speed	: High		
Gate A20 Option	: Fast		
Memory Parity Check	: Disabled		
Typematic Rate Setting	: Disabled		
Typematic Rate (Chars/Sec)	: 6	ESC : Quit	↑↓→← : Select Item
Typematic Delay (Msec)	: 250	F1 : Help	PU/PD/+/- : Modify
Security Option	: Setup	F5 : Old Values	(Shift) F2 : Color
PCI/VGA Palett Snoop	: Disabled	F6 : Load BIOS Defaults	
OS Select For DRAM >	: Non-OS2	F7 : Load Setup Defaults	
64MB			

Virus Warning

When this item is enabled, the Award BIOS will monitor the boot sector and partition table of the hard disk drive for any attempt at modification. If an attempt is made, the BIOS will halt the system and the following error message will appear. Afterwards, if necessary, you will be able to run an antivirus program to locate and remove the problem before any damage is done.

<p>!WARNING!</p> <p>Disk boot sector is to be modified</p> <p>Type "Y" to accept write or "N" to abort write</p>

Award Software, Inc.

Enabled	Activates 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 will appear when anything attempts to access the boot sector or hard disk partition table.

NOTE:

Many disk diagnostic programs which attempt to access the boot sector table can cause the above warning message. If you will be running such a program, we recommend that you first disable Virus Protection beforehand.

CPU Internal Cache/External Cache

These two categories speed up memory access. However, it depends on CPU/chipset design. The default value is enable.

Enabled	Enabled cache
Disabled	Disable cache

Quick Power On Self Test

This category speeds up Power On Self Test (POST) after you power up the computer. If it is set to Enable, BIOS will shorten or skip some check items during POST.

Enabled	Enable quick POST
Disabled	Normal POST

Boot Sequence

The category determines which drive to search first for the disk operating system (i.e., DOS). Default value is A, C.

C,A	System will first search for hard disk drive then floppy disk drive.
A,C	System will first search for floppy disk drive then hard disk drive.
CDROM, C,A	System will first search for CDROM drive, then hard disk drive and then floppy disk drive.
C, CDROM, A	System will first search for hard disk drive, then CDROM drive, and then floppy disk drive.

Swap Floppy Drive

This item allows you to determine whether enable the swap floppy drive or not. The choice: Enabled/Disabled.

Boot Up Floppy Seek

During POST, BIOS will determine if the floppy disk drive installed is 40 or 80tracks. 360K type is 40 tracks while 760K, 1.2M and 1.44M are all 80 tracks.

Enabled	BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks. Note that BIOS can not tell from 720K, 1.2M or 1.44M drive type as they are all 80 tracks.
Disabled	BIOS will not search for the type of floppy disk drive by track number. Note that there will not be any warning message if the drive installed is 360K.

Boot Up NumLock Status

This allows you to determine the default state of the numeric keypad. By default, the system boots up with NumLock on.

On	Keypad is number keys
Off	Keypad is arrow keys

Boot Up System Speed

Selects the default system speed- the normal operating speed at power up.

High	Set the speed to high
Low	Set the speed to low

Gate A20 Option

This entry allows you to select how the gate A20 is handled. The gate A20 is a device used to address memory above 1 Mbytes. Initially, the gate A20 was handled via a pin on the keyboard. Today, while keyboards still provide this support, it is more common, and much faster, for the system chipset to provide support for gate A20.

Normal	keyboard
Fast	chipset

Typematic Rate Setting

This determines if the typematic rate is to be used. When disabled, continually holding down a key on your keyboard will generate only one instance. In other words, the BIOS will only report that the key is down.

When the typematic rate is enabled, the BIOS will report as before, but it will then wait a moment, and , if the key is still down, it will begin the report that the key has been depressed repeatedly. For example, you would use such a feature to accelerate cursor movements with the arrow keys.

Enabled	Enabled typematic rate
Disabled	Disable typematic rate

Typematic Rate (Chars/Sec)

When the typematic rate is enabled, this selection allows you select the rate at which the keys are accelerated.

6	6 characters per second
8	8 characters per second
10	10 characters per second
12	12 characters per second
15	15 characters per second
20	20 characters per second
24	24 characters per second
30	30 characters per second

Typematic Delay (Msec)

When the typematic rate is enabled, this selection allows you to select the delay between when the key was first depressed and when the acceleration begins.

250	250 msec
500	500 msec
750	750 msec
1000	1000 msec

Security Option

This category allows you to limit access to the system and Setup, or just to Setup.

System	The system will not boot and access to Setup will be denied if the correct password is not entered at the prompt.
Setup	The system will boot, but access to Setup will be denied if the correct password is not entered at the prompt.

Note: To disable security, select PASSWORD SETTING at Main Menu and then you will be asked to enter password. Do not type anything and just press <Enter>, it will disable security. Once the security is disabled, the system will boot and you can enter Setup freely.

OS Select for DRAM > 64

This item allows you to access the memory that over 64MB in OS/2.

The choice: Non-OS2, OS2.

PCI/ VGA Palette Snoop

It determines whether the MPEG ISA/VESA VGA Cards can work with PCI/VGA or not.

Enabled	When PCI/VGA working with MPEG ISA/VESA VGA Card.
Disabled	When PCI/VGA not working with MPEG ISA/VESA VGA Card.

Video BIOS Shadow

Determines whether video BIOS will be copied to RAM. However, it is optional depending on chipset design. Video Shadow will increase the video speed.

Enabled	Video shadow is enabled
Disabled	Video shadow is disabled

C8000-CBFFF Shadow/DC000-DFFFF Shadow

These categories determine whether option ROMs will be copied to RAM. An example of such option ROM would be support of on-board SCSI.

Enabled	Optional shadow is enabled
Disabled	Optional shadow is Disabled

3.4 Supervisor/User Password Setting

You can set either supervisor or user password, or both of them. The differences between them are:

supervisor password: can enter and change the options of the setup menus.

user password: just can enter but do not have the right to change the options of the setup menus.

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

ENTER PASSWORD:

Type the password, up to eight characters in length, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. 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 a password, just press <Enter> when you are prompted to enter the password. A message will confirm the password will be disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

PASSWORD DISABLED.

When a password has been enabled, you will be prompted to enter it every time you try to enter Setup. This prevents an unauthorized person from changing any part of your system configuration.

Additionally, when a password is enabled, you can also require the BIOS to request a password every time your system is rebooted. This would prevent unauthorized use of your computer.

You determine when the password is required within the BIOS Features Setup Menu and its Security option (see Section 4). If the Security option is set to “System”, the password will be required both at boot and at entry to Setup. If set to “Setup”, prompting only occurs when trying to enter Setup.

3.5 Setup/Integrated Peripherals Features Setup

ROM PCI/ISA BIOS
 CHIPSET FEATURES SETUP
 AWARD SOFTWARE. INC.

Auto Configuration	: Enabled	CPU Warning Temperature	: 70°C/158°F
DRAM Timing	: 70ns	Current CPU Temperature	: 41°C/105°F
DRAM Leadoff Timing	: 10/6/4		
DRAM Read Burst (EDO/FP)	: X333/X444		
DRAM Write Burst Timing	: X333		
Fast EDO Lead off	: Disabled		
Refresh RAS# Assertion	: 5 Clks		
Fast RAS TO CAS Delay	: 3		
DRAM Page Idel Timer	: 6 Clks		
DRAM Enhanced Paging	: Enabled		
Fast MA TO RAS# Delay	: 2 Clks		
SDRAM (CAS Lat/RAS-TO-CAS)	: 3/3		
SDRAM Speculative Read	: Disabled		
System BIOS Cacheable	: Disabled		
Video BIOS Cacheable	: Disabled	ESC : Quit	↑↓→← : Select
8 Bit I/O Recovery Time	: 1	F1 : Help	Item
16 Bit I/O Recovery Time	: 2	F5 : Old Values	PU/PD/+/- : Modify
Memory Hole At 15M-16M	: Disabled	F6 : Load BIOS Defaults	(Shift) F2 : Color
PCI 2.1 Compliance	: Disabled	F7 : Load Setup Defaults	

This section allows you to configure the system based on the specific features of the installed chipset. This chipset manages bus speeds and access to system memory resources, such as DRAM and the external cache. It also coordinates communications between the conventional ISA bus and the PCI bus. It must be stated that these items should never need to be altered. The default settings have been chosen because they provide the best operating conditions for your system. The only time you might consider making any changes would be if you discovered that data was being lost while using your system.

DRAM Settings

The first chipset settings deal with CPU access to dynamic random access memory (DRAM). The default timings have been carefully chosen and should only be altered if data is being lost. Such a scenario might well occur if your system had mixed speed DRAM chips installed so

that greater delays may be required to preserve the integrity of the data held in the slower memory chips.

Auto Configuration

Pre-defined values for DRAM, cache.. timing according to CPU type & system clock.

The Choice: Enabled, Disabled.

Note: When this item is enabled, the pre-defined items will becomes SHOW-ONLY.

Follow as:

DRAM Leadoff Timing : 10/6/4 (default)

DRAM Read Burst (EDO / FP) : x333/x444

DRAM Write Burst Timing : x333

Fast EDO Lead off : Disabled

Refresh RAS# Assertion : 5 Clks

Fast RAS to CAS Delay

The item allows you to select DRAM Fast RAS to CAS Delay 2,3 wait .
The default is 3.

DRAM Page Idel Timer

The item allows you to select DRAM Page Idel Timer 2,4,6,8 Clks.
The default is 6 Clks.

DRAM Enhanced Paging

The item allows you to select DRAM Enhanced Paging. Enabled, Disabled.
The default is Enabled.

Fast MA To RAS# Delay

The item allows you select . Fast MA To RAS# Delay. 1,2 Clks.
The default is 2 Clks.

SDRAM (CAS Lat/RAS -TO CAS)

The item allows you to select SDRAM CAS Lat / RAS-TO CAS 2/2, 3/3.

The default is 3/3.

SDRAM Speculative Read

This item allows you select Enabled, Disabled.
The default is Disabled.

System BIOS Cacheable

This item allows you select Enabled, Disabled.
The default is Disabled.

Video BIOS Cacheable

This item allows you select Enabled, Disabled.
The default is Disabled.

8 Bit I/O Recovery Time

This item allows you to select 1 to 7 Wait.
The default is 1 .

16 Bit I/O Recovery Time

This item allows you to select 1 to 7 Wait.
The default is 2.

Memory Hole At 15M-16M

This item allows you select Enabled, Disabled.
The default is Disabled.

PCI 2.1 Compliance

This item allows you select Enabled, Disabled. The default is Disabled.

CPU Warning Temperature

You can set the temperature of CPU from 50c to 70c by yourself when the CPU running and its temperature become too hot then the temperature sensor will be limited CPU speed with your default value and make the system stable.

Current CPU Temperature

Display current CPU Temperature.

Integrated Peripherals

ROM PCI/ISA BIOS
INTEGRATED PERIPHERALS
AWARD SOFTWARE. INC.

IDE HDD Block Mode	: Enabled	Onboard Parallel Port	: 378/IRQ7
IDE Primary Master PIO	: Auto	Parallel Port Mode	: SPP
IDE Primary Slave PIO	: Auto		
IDE Secondary Master PIO	: Auto		
IDE Secondary Slave PIO	: Auto		
IDE Primary Master UMDA	: Auto		
IDE Primary Slave UMDA	: Auto		
IDE Secondary Master UMDA	: Auto		
IDE Secondary Slave UMDA	: Auto		
On-Chipad Primaryr PCI IDE	: Enabled		
On-Chipad Secondary PCI IDE	: Enabled		
USB Keyboard Support	: Disabled		
Onboard FDC Controller	Enabled		
Onboard Serial Port1	: Auto	ESC : Quit	↑↓→← : Select Item
UR1 Mode	: Normal	F1 : Help	PU/PD/+/- : Modify
		F5 : Old Values	(Shift) F2 : Color
Onboard Serial Port2	: Auto	F6 : Load BIOS Defaults	
UR2 Mode	: Normal	F7 : Load Setup Defaults	

IDE HDD Block Mode

This allows your hard disk controller to use the fast block mode to transfer data to and from your hard disk drive (HDD).

Enabled	IDE controller uses block mode.
Disabled	IDE controller uses standard mode.

Enabled is the default.

PCI Slot IDE 2nd Channel

This item allows you designate an IDE controller board inserted into one of the physical PCI slots as your secondary IDE controller.

Enabled	External IDE controller designated as the secondary controller
Disabled	No IDE controller occupying a PCI slot.

Enabled is the default.

IDE PIO

IDE hard drive controllers can support up to two separate hard drives. These drives have a master / slave relationship which are determined by the cabling configuration used to attach them to the controller. Your system supports two IDE controllers-a primary and a secondary-so you have to ability to install up to four separate hard disks.

PIO means Programmed Input / Output. Rather than have the BIOS issue a series of commands to effect a transfer to or from the disk drive, PIO allows the BIOS to tell the controller what it wants and then let the controller and the CPU perform the complete task by themselves. This simpler and more efficient (and faster).

Your system supports five modes, numbered from 0 (default) to 4, which primarily differ in timing. When *Auto* is selected, the BIOS will select the best available mode. This is true for the next four setup items.

1. IDE Primary Master PIO
2. IDE Primary Slave PIO
3. IDE Secondary Master PIO
4. IDE Secondary Slave PIO

On-Chip Primary PCI IDE

As stated above, your system includes two built-in IDE controllers, both of which operate on the PCI bus. This setup item allows you either to enable or disable the primary controller. You might choose to disable the controller if you were to add a higher performance or specialized controller.

Enabled	Primary HDD controller used-Default
Disabled	Primary HDD controller not used.

On-Chip Secondary PCI IDE

As above for the Primary controller, this setup item you either to enable or disable the secondary controller. You might choose to disable the controller if you were to add a higher performance or specialized controller.

Enabled	Primary HDD controller used
Disabled	Primary HDD controller not used.

Enabled is the default

3.6 Setup Power Management

The Power Management Setup allows you to configure you system to most effectively save energy while operating in a manner consistent with your own style of computer use.

ROM PCI/ISA BIOS
POWER MANAGEMENT SETUP
AWARD SOFTWARE. INC.

Power Management	: User Define	**Reload	Global Events**
PM Control by APM	: Yes	Timing	: Enabled
Video Off Method	: V/H SYNC+Blank	IRQ3 [3-7,9-15],NMI	: Disabled
Video Off After	: Standby	Primay IDE 0	: Disabled
		Primay IDE 1	: Disabled
Doze Mode	: Disabled	Secondary IDE 0	: Disabled
Standby Mode	: Disabled	Secondary IDE 1	: Disabled
Suspend Mode	: Disabled	Floppy Disk	: Enabled
HDD Power Down	: Disabled	Serial Port	: Disabled
Throttle Duty Cycle	: 62.5%	Parallel Port	
ZZ Active in Suspend	: Disabled		
VGA Active Monitor	: Disabled		
Soft-off By PWR-	: Delay 4ses.		
BTTN	: Disabled		
Resume by Ring	: Disabled		
Resume by Alarm			
		ESC : Quit	↑↓→←: Select
** Break Event From Suspend**		F1 : Help	Item
IRQ8 8 Clock Event	: Disabled	F5 : Old Values	PU/PD/+/- : Modify
		F6 : Load BIOS Defaults	(Shift) F2 : Color
		F7 : Load Setup Defaults	

Power Management

This category allows you to select the type (or degree) of power saving and is directly related to the following modes:

1. Doze Mode
2. Standby Mode
3. Suspend Mode
4. HDD Power Down

There are four selections for Power Management, three of which have fixed

mode settings.

Disable (default)	No power management. Disables all four modes
Min. Power Saving	Minimum power management. Doze Mode = 1 hr. Standby Mode = 1 hr., Suspend Mode = 1 hr., and HDD Power Down = 15 min.
Max. Power Saving	Maximum power management -ONLY AVAILABLE FOR SL CPU'S . Doze Mode = 1 min., Standby Mode = 1 min., Suspend Mode = 1 min., and HDD Power Down = 1 min.
User Defined	Allows you to set each mode individually. When not disabled, each of the ranges are from 1 min. to 1 from 1 min. to 15 min. and disable.

PM Control APM

When enabled, an Advanced Power Management device will be activated to enhance the Max. Power Saving mode and stop the CPU internal clock.

If the Max. Power Saving is not enabled, this will be preset to *No*.

Video Off Method

This determines the manner in which the monitor is blanked.

V/H SYNC+Blank	This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.
Blank Screen	This option only writes blanks to the video buffer.
DPMS	Initial display power management signaling.

PM Timers

The following four modes are Green PC power saving functions which are only user configurable when User Defined Power Management has been selected. See above for available selections.

Doze Mode

When enabled and after the set time of system inactivity, the CPU clock will run at slower speed while all other devices still operate at full speed.

Standby Mode

When enabled and after the set time of system inactivity, the fixed disk drive and the video would be shut off while all other devices still operate at full

speed.

Suspend Mode

When enabled and after the set time of system inactivity, all devices except the CPU will be shut off.

HDD Power Down

When enabled and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.

Power Down & Resume Events

Power Down and Resume events are I/O events whose occurrence can prevent the system from entering a power saving mode or can awaken the system from such a mode. In effect, the system remains alert for anything which occurs to a device which is configured a *On*, even when the system is in a power down mode.

As above, the choices are *On and Off*. *Off* is the default.

When set *On*, activity will neither prevent the system from going into a power management mode nor awaken it.

- IRQ3 (COM2)
- IRQ4 (COM1)
- IRQ5 (LPT2)
- IRQ6 (Floppy Disk)
- IRQ7 (LPT1)
- IRQ8 (RTC Alarm)
- IRQ9 (IRQ2 Redir)
- IRQ10 (Reserved)
- IRQ11 (Reserved)
- IRQ12 (Reserved)
- IRQ13 (Coprocessor)
- IRQ14 (Hard Disk)
- IRQ15 (Reserved)

Soft-off By PWR-BTTN (For ATX POWER ONLY)

This item allows you to select Delay 4 sec or Instant-off.

Resume By Ring (For ATX POWER ONLY)

This item allows you to select Disabled ,Enabled.

If a Fax Modem was connected with serial ports, the computer will be awoken when it received a signal from outside.

Resume By Ring, Setup for MS-DOS mode

1. Select Resume By Ring: Enabled
2. Save the Value and Exit. This system will Reboot.
3. Power off your system by pressing the power button on the panel.

Resume By Ring, Setup for WIN95 mode

1. Select Resume By Ring: Enabled
2. Save the Value and Exit. This system will Reboot.
3. When you want leave WIN95 , select Shut down. The power off by software

Resume By Alarm (For ATX POWER ONLY)

This item allows you to select Disabled ,Enabled.

Which allows the user setting date(Day/Hour/Minute)

in advance for turning on the system with a range in 30 days.

The system will be awoken on the date according to the user' setup.

Resume By Alarm Setup for MS-DOS mode

1. Select Resume By Alarm: Enabled
2. Set the (Day/Hour/Minute) you desire to wake up your system
3. Save the Value and Exit. This system will Reboot.
4. Power off your system by pressing the power button on the panel.

Resume By Alarm Setup for win95 mode

1. Select Resume By Alarm: Enabled
2. Set the (Day/Hour/Minute) you desire to wake up your system
3. Save the Value and Exit. This system will Reboot.
4. When you want leave WIN95 , select Shut down. The power off by software

3.7 Setup PnP/PCI Configuration

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

ROM PCI/ISA BIOS
PNP/PCI CONFUIGURATION
AWARD SOFTWARE. INC.

PNP OS Installed	: No	PCI IDE IRQ MAP to	: PCI-AUTO
Resources Controlled By	: Manual	Primary IDE INT#	: A
Reset Configuration Data	:	Secondary IDE INT#	: B
	Disabled		
IRQ-3 assigned to	: Legacy ISA	Used MEM base addr	: N/A
IRQ-4 assigned to	: Legacy ISA		
IRQ-5 assigned to	: PCI/ISA PnP		
IRQ-7 assigned to	: PCI/ISA PnP		
IRQ-9 assigned to	: PCI/ISA PnP		
IRQ-10 assigned to	: PCI/ISA PnP		
IRQ-11 assigned to	: PCI/ISA PnP		
IRQ-12 assigned to	: PCI/ISA PnP		
IRQ-14 assigned to	: PCI/ISA PnP		
IRQ-15 assigned to	: PCI/ISA PnP		
DMA-0 assigned to	: PCI/ISA PnP		
DMA-1 assigned to	: PCI/ISA PnP	ESC : Quit	↑↓→← : Select Item
DMA-3 assigned to	: PCI/ISA PnP	F1 : Help	PU/PD/+/ - : Modify
DMA-5 assigned to	: PCI/ISA PnP	F5 : Old Values	(Shift) F2 : Color
DMA-6 assigned to	: PCI/ISA PnP	F6 : Load BIOS Defaults	
DMA-7 assigned to	: PCI/ISA PnP	F7 : Load Setup Defaults	

Resource Controlled by

The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play Operating system such as Windows® 95.

Choices are Auto and Manual (default).

Reset Configuration Data

This item allows you to determine reset the configuration data or not.

Choices are Enabled and Disabled (default).

IRQ3/4/5/7/9/10/11/12/14/15, DMA0/1/3/5/6/7 assigned to

This item allows you to determine the IRQ / DMA assigned to the ISA bus and is not available to any PCI slot.

Choices are *Legacy ISA* and *PCI/ISA PnP*.

PCI IRQ Activated by

This sets the method by which the PCI bus recognizes that an IRQ service is being requested by a device. Under all circumstances, you should retain the default configuration unless advised otherwise by your system's manufacturer.

Choices are *Level* (default) and *Edge*.

PCI IDE IRQ MAP to

This allows you to configure your system to the type of IDE disk controller in use. By default, Setup assumes that your controller is an ISA (Industry Standard Architecture) device rather than a PCI controller. The more apparent difference is the type of slot being used.

If you have equipped your system with a PCI controller, changing this allows you to specify which slot has the controller and which PCI interrupt (A, B, C or D) is associated with the connected hard drives.

Remember that this setting refers to the hard disk drive itself, rather than individual partitions. Since each IDE controller supports two separate hard drives, you can select the INT# for each. Again, you will note that the primary has a lower interrupt than the secondary as described in "*Slot x Using INT#*" above.

Selecting "**PCI Auto**" allows the system to automatically determine how your IDE disk system is configured.

3.4 Supervisor/User Password Setting

You can set either supervisor or user password, or both of them. The differences between are:

supervisor password: can enter and change the options of the setup menus.

User password: just can enter but do not have the right to change the options of the setup menus.

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

ENTER PASSWORD

Type the password, up to eight characters in length, and press<Enter>. The password typed now will clear any previously entered password from CMOS memory. 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 disabled a password has been enabled, you will be prompted to enter the password. A message will confirm the password will be disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

PASSWORD DISABLED

When a password has been enabled, you will be prompted to enter it every time you try to enter Setup. This prevents an unauthorized person from changing any part of your system configuration.

Additionally, when a password is enabled, you can also require the BIOS to request a password every time your system is rebooted. This would prevent unauthorized use of your computer.

You determine when the password is required within the BIOS Features Setup Menu and its Security option(see Section 4) . If the Security option is set to “System”, the password will be required both at boot and at boot and at entry to

Setup. If set to “Setup”, prompting only occurs when trying to enter Setup.

