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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*23 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 166/200/233/266 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 M5123 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 four 16-bit ISA slots and three 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

FRONT1:Power LED, Speaker, SLEEP LED, ATX POWER SWITCH, Reset, Hard disk LED, Turbo LED, Turbo Switch, IR connect

PIN		
Power LED	1 14	Hard Disk LED
	2 15	
	3 16	
Sleep LED	4 17	Turbo LED
	5 18	
Speaker	6 19	Turbo switch
	7 20	
	8 21	
ATX POWER /Sleep & Resume Switch Connect RESET	9 22	IR connect
	10 23	
	11 24	
	12 25	
	13 26	

FRONT1(1-3): Power LED & Keylock connect

PINOUT	ASSIGNMENTS
1	LED OUTPUT
2	NC
3	GND

FRONT1(4-5): SLEEP LED Connect

PINOUT	ASSIGNMENTS
1	LED OUTPUT
2	HIGH

FRONT1(6-9): Speaker Connect

PINOUT	ASSIGNMENTS
1	speaker output
2	GND
3	GND
4	VCC

FRONT1(10-11): ATX POWER / Sleep & Resume Switch Connect

- 1• AT POWER MODE : This connect for Sleep & Resume Switch Connect
- 2• ATX POWER MODE: 1. Under WIN95 this connect for Sleep & Resume Switch Connect
2. Under MS-DOS this connect for ATX POWER SWITCH
3. This item allows you to select Delay 4 sec or Instant-off. Please refer section 3-6 relating “Soft-off By PWR-BTTN”

FRONT1(12-13): RESET Switch Connect

RONT1(14-17): Hard Disk LED Connect

PINOUT	ASSIGNMENTS
1	VCC
2	LED1 Signal
3	LED2 Signal
4	VCC

FRONT1(18-19): Turbo LED connect

PINOUT	ASSIGNMENTS
1	VCC
2	LED1 Signal

FRONT1(20-21): Turbo switch connect (Default close)

FRONT1(22-26): IR connect

PINOUT	ASSIGNMENTS
1	VCC
2	FIRRX Signal
3	IRRX2 Signal
4	GND
5	IRTX2 Signal

JP2: CACHE SIZE SELECT. Please refer section 2-6 relating

JP3: FOR 168 PIN SDRAM (Synchronous DRAM) OR FPM/EDO DRAM Voltage SELECT

JP3	Function
1-2	+5V FPM/EDO
2-3	+3.3V SDRAM

JP4: COMS CLEAR SETTING

JP4	Function
OPEN	NORMAL
CLOSE	CMOS CLEAR

JP5: CPU CLK SELECT. Please refer section 2-4 relating

JP8: FAN power

GND	+12V
-----	------

JP10,JX1: Flash ROM VCC Select

JP10,JX1	Function
1-2 1-2	+12V VPP
2-3 2-3	+5V VPP

JP12,JP13: CPU Voltage Jumper setting. Please refer section 2-3 relating

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

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.

5ITXA JUMPER SETTING

INSTALL 586CPU.

QUICK TO SETTING FOR INTEL PENTIUM MMX /AMD K6 MMX /CYRIX M2 MMX
CLK & VOLTAGE

Product Name CPU Speed BUS CLK JP5 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	

PENTIUM- MMX- 266	266	66
------------------------------	------------	-----------

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

4X

· SET CPU VOLTAGE ·

CPU POWER TYPER TYPE	JP12 CONNECT	JP513CONNCET																
DUAL 2.8V&3.3V	<table border="1"><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"><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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7	8																	
1	2																	
3	4																	
5	6																	
7	8																	

B. AMD K6 MMX

(1) CPU CLK

Product Name	CPU Speed (MHZ)	BUS CLK (MHZ)	JP5 CONNECT	Multiplier												
AMD-K6-166	166	66	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	2.5X
12	11															
10	9															
8	7															
6	5															
4	3															
2	1															
AMD-K6-200	200	66	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	3X
12	11															
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AMD-K6-233	233	66	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	3.5X
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6	5															
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AMD-K6-266	266	66	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	4X
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AMD-K6-300	300	66	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	4.5X
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AMD-K6-333	333	66	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	5X
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2	1															

C. CYRIX M2 MMX

(1) CPU CLK

Product Name	CPU Speed (MHZ)	BUS CLK (MHZ)	JP5 CONNECT	Multiplier												
CYRIX-M2-PR166	150	60	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	2.5X
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CYRIX-M2-PR200	166	66	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	2.5X
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CYRIX-M2-PR233	200	66	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	3X
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6	5															
4	3															
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CYRIX-M2-PR300	233	66	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	3.5X
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2	1															

(2) SET CPU Voltage

CPU Type	CPU Power Type/Jumper	JP12 CONNECT	JP13 CONNECT																
CYRIX-M2-PR166 /PR200/PR233 /PR300	DUAL 2.9V & 3.3V	<table border="1"> <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"> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	8	7	6	5	4	3	2	1
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AMD-K6-350	350	66	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	5.5X
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(2) SET CPU Voltage

CPU Type	CPU Power Type/Jumper	JP12 CONNECT	JP13 CONNECT																
AMD-K6-166/200	DUAL 2.9V & 3.3V	<table border="1"> <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"> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	8	7	6	5	4	3	2	1
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AMD-K6-233/266	DUAL 3.2V & 3.3V	<table border="1"> <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"> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	8	7	6	5	4	3	2	1
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AMD-K6-266	DUAL 2.2V & 3.3V	<table border="1"> <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"> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	8	7	6	5	4	3	2	1
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8	7																		
6	5																		
4	3																		
2	1																		
AMD-K6-300 AMD-K6-333 AMD-K6-350	DUAL 2.2V & 3.45V	<table border="1"> <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"> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	8	7	6	5	4	3	2	1
1	2																		
3	4																		
5	6																		
7	8																		
8	7																		
6	5																		
4	3																		
2	1																		

→ In case the marking voltage on CPU is not meet up with our manual, please setup according to CPU marking.
You can reference our manual section 2-3 : the jumper setting of CPU Voltage.

Product Name	CPU Speed (MHZ)	BUS CLK (MHZ)	JP5 CONNECT	Multiplier												
PENTIUM-180	180	60	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	3X
12	11															
10	9															
8	7															
6	5															
4	3															
2	1															
PENTIUM-200	200	66	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	3X
12	11															
10	9															
8	7															
6	5															
4	3															
2	1															

→ You can reference our manual section 2-3 : the jumper setting of CPU Voltage.

● **CYRIX-M2-PR333**
(1) CPU CLK

Product Name	CPU Speed (MHZ)	BUS CLK (MHZ)	JP5 CONNECT	Multiplier												
CYRIX-M2-PR333	266	66	<table border="1"> <tr><td>12</td><td>11</td></tr> <tr><td>10</td><td>9</td></tr> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	12	11	10	9	8	7	6	5	4	3	2	1	4X
12	11															
10	9															
8	7															
6	5															
4	3															
2	1															

(2) SET CPU Voltage

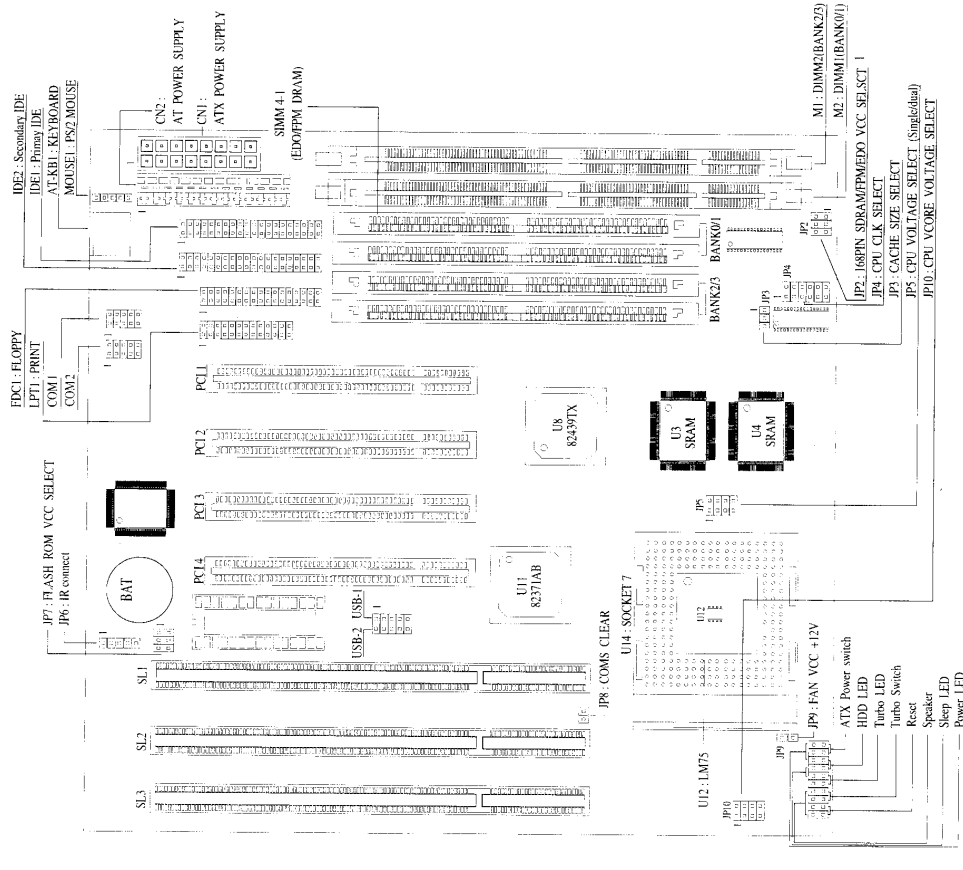
CPU Type	CPU Power Type/Jumper	JP12 CONNECT	JP13 CONNECT																
CYRIX-M2-PR333	DUAL 2.9V & 3.3V	<table border="1"> <tr><td>1</td><td>2</td></tr> <tr><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td></tr> </table>	1	2	3	4	5	6	7	8	<table border="1"> <tr><td>8</td><td>7</td></tr> <tr><td>6</td><td>5</td></tr> <tr><td>4</td><td>3</td></tr> <tr><td>2</td><td>1</td></tr> </table>	8	7	6	5	4	3	2	1
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4	3																		
2	1																		

→ You can reference our manual section 2-3 : the jumper setting of CPU Voltage.

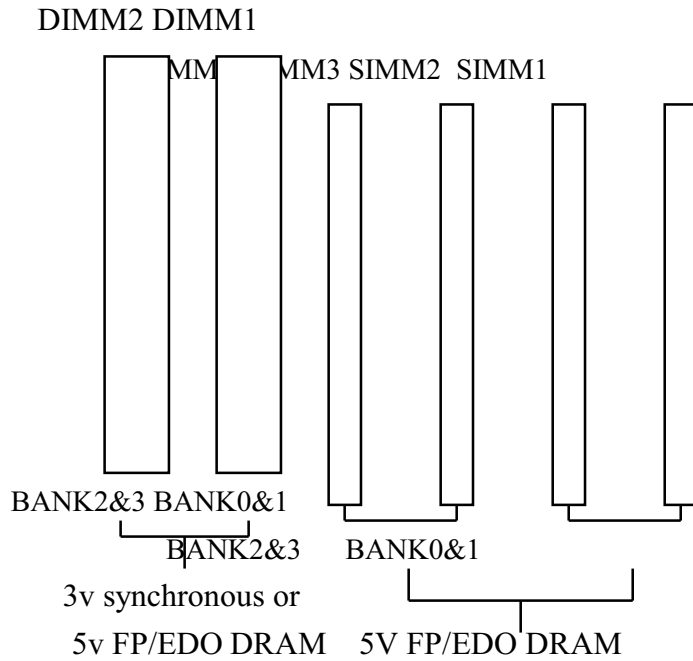
2.7 Support SDRAM use 168-pin DIMMx2

(1)PCB Layout and Relevant Position for SDRAM

2.1 Connectors & Jumpers



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



2-6 Cache Memory Installation and Jumper Setting

The main board accept 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

FPM/EDO DRAM		SDRAM		STATUS
BANK0&1	BANK2&3	BANK0&1	BANK2&3	
SIMM1,2	SIMM3,4	M1	M2	
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:

- 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.

JP3: FOR 168 PIN SDRAM (Synchronous DRAM) OR FPM/EDO DRAM
Voltage SELECT.

JP3	Function
1-2,1-2	+5V EDO / FPM
2-3,2-3	+3.3V SDRAM

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 Password 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		
								Other Memory : 384K		
								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.

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.

!WARNING!
Disk boot sector is to be modified
Type “Y” to accept write or “N” to abort write
Award Software, Inc.

3.5 Setup/Integrated Peripherals Features Setup

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

Auto Configuration	: Enabled	DRAM Refresh Rate	: 15 us
DRAM Timing	: 70ns	POWER-Supply Type	: AT
DRAM Leadoff Timing	: 10/6/4		
DRAM Read Burst (EDO/FP)	: X333/X444		
DRAM Write Burst Timing	: X444		
Fast EDO Lead off	: Disabled		
Refresh RAS# Assertion	: 5 Clks		
Fast RAS TO CAS Delay	: 3		
DRAM Page Idel Timer	: 2 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 Item
8 Bit I/O Recovery Time	: 1	F1 : Help	PU/PD/+/- : Modify
16 Bit I/O Recovery Time	: 2	F5 : Old Values	(Shift) F2 : Color
Memory Hole At 15M-16M	: Disabled	F6 : Load BIOS Defaults	
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 become SHOW-ONLY.

AT Bus Clock

This item allows you to select 7.16MHZ, CLK2/2, CLK2/3, CLK2/4, CLK2/5, CLK2/6, clocks. The default is CLK2/4.

Async. SRAM Read/Write WS

This item allows you to select x-3-3-3, x-2-2-2. The default is x-3-3-3.

EDO Read WS

This item allows you to select x-3-3-3, x-2-2-2. The default is x-3-3-3.

Page Mode Read WS

This item allows you to select x-3-3-3, x-4-4-4. The default is x-3-3-3.

DRAM Write WS

This item allows you to select x-3-3-3, x-2-2-2. The default is x-2-2-2.

CPU to DRAM Page Mode

The default is Disabled.

DRAM Refresh Period

This item allows you to select 15us, 30us, 60us, 120us. The default is 60us.

DRAM Data Integrity Mode

This item allows you to select between two methods of DRAM error checking,

ECC and Parity. The default is Parity.

Pipelined Function

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

16 Bit ISA I/O, Mem Command WS

This item allows you to select Normal, 1 to 3 Wait. The default is 2 Wait.

Local Memory 15-16M

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

Passive Release

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

ISA Line Buffer

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

Delay Transaction

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

Primary Frame Buffer

This item allows you to select Disabled. 1,2,4,8,16MB. The default is 2MB.

VGA Frame Buffer

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

Linear Merge

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

Word Merge

The default is Disabled.

Byte Merge

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

Fast Back-to-Back

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

PCI Write Burst

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

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	

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 Timing Events**	
PM Control by APM	: Yes	IRQ3 [3-7,9-15],NMI	: Enabled
Video Off Method	: V/H SYNC+Blank	Primay IDE 0	: Disabled
Video Off After	: Standy	Primay IDE 1	: Disabled
Doze Mode	: Disabled	Secondary IDE 0	: Disabled
Standby Mode	: Disabled	Secondary IDE 1	: Disabled
Suspend Mode	: Disabled	Floppy Disk	: Disabled
HDD Power Down	: Disabled	Serial Port	: Enabled
Throttle Duty Cycle	: 62.5%	Parallel Port	: Disabled
ZZ Active in Suspend	: Disabled		
VGA Active Monitor	: Disabled		
Soft-off By PWR-	: Delay 4ses.		
BTTN	: Disabled		
Resume by Ring	: Disabled		
Resume by Alarm			
** Break Event From Suspend**		ESC : Quit	↑↓→←: Select
IRQ8 8 Clock Event	: Disabled	F1 : Help	Item
		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.

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 CONFUGURATION
AWARD SOFTWARE. INC.

PNP OS Installed	: No	PCI IDE IRQ MAP to	: Disabled
Resources Controlled By	: Manual	Primary IDE INT#	: Level
Resources Configuration Data	: Disable	Secondary IDE INT#	: ISA
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).

