CONTENTS

HOW TO USE THIS MANUAL

To obtain maximum use from this manual it is suggested:

Read Page A COMPONENT LOCATION DIAGRAM where you find the mainboard layout diagram. Please refer to it when you configure the system.

Read about an overview of the mainboard features, packing contents, and how to upgrade as well as to change hardware configurations such as memory size, CPU type, jumper settings lists and connectors in the following categories:

    INSIDE THE ATC-5250 MAINBOARD PACKAGE
    Chapter 1 Introduction
    Chapter 2 Installation

When you have finished reading of both chapter 1 and chapter 2, turn to **Chapter 3 Award BIOS Setup** where you will find the update BIOS procedure and the further information which is stored in the SETUP is the system hardware configuration.

Your system dealer will set up the mainboard according to your demand of the computer. It means that the current settings of your mainboard may not be the same as the defaults shown in this user's manual. If you need to change your configuration, please ask your dealer first. Be sure this will not void your system warranty, or ask your dealer to do it for you.

INSIDE THE ATC-5250 MAINBOARD PACKAGE

The mainboard comes securely packed in a durable box or shipping carton. If any of the following items are missing or damaged, please contact your supplier.

Each mainboard contains:

Q'TY	Description
1	Mainboard : ATC-5250.
1	CD : Enhanced IDE driver
	Award system BIOS Update Utility
	VIA MVP3 AGP VGA Vgart.vxd
	Utility
	VIA IRQ Routing Utility
	VIA MVP3 ACPI compliant utility
1	Cable : Enhanced IDE cable.
1	Cable : F.D.D. cable.
1	Cable : Serial & PS/2 mouse.
1	Cable : Serial / Parallel.
1	Manual : User manual. (English version)

CHAPTER 1 INTRODUCTION

ATC-5250 mainboard supports 100MHz host clock Super 7 processors, ie. AMD K6-2, Cyrix M II. Of course , ATC-5250 mainboard also supports 66 ~ 95 MHz host clock Socket 7 processors , ie. Intel Pentium & Pentium processor with MMX technology , AMD K5/K6/K6-2 , Cyrix 6X86/6X86MX , and IDT Winchip. ATC-5250 mainboard , VIA MVP3 chipset , supports AGP slot for best performance of VGA display in 3D application .

1-1 SYSTEM FEATURES

- Supports Intel Pentium® (P54C) CPU operating from 100MHz to 200MHz, Intel Pentium MMX™ 166~233MHz (P55C), AMD K5, AMD K6, AMD K6-2, Cyrix 6x86MX™, MII, 6x86L, IDT Win Chip C6 CPU.

- VIA @ VT82C598MVP & VT82C586B (with keyboard control) chipset.

- Uses three 168-pin DIMM sockets, provides three banks of 64-bit wide path up to 384MB SDRAM or 768 EDO DRAM (with parity chip ECC support).

- Built-in Switching Voltage Regulator.(VRM 8.2 SPEC.)

- Supports CPU core voltage range from 2.2V up to 3.5V.

- Supports one AGP slot, three PCI slots with revision 2.1 interface compliant and two 16-bit ISA slots.

- Dual Master IDE connectors support Ultra DMA/33, up to four devices in two channels for connecting of high capacity hard drive, CD-ROM, tape backup etc.

- Two USB (Universal Serial Bus) headers support up to 127 devices.

- AT style keyboard connector and PS/2 mouse header.

- WINBOND W83877TF high-speed Super Multi-I/O chipset.

- Supports Infrared transfer (IrDA TX/RX) connector.

- One FDC port supports two devices.

- Two 16550A fast UARTs compatible serial ports.

- One EPP/ECP mode parallel printer port.

- Supports AT & ATX power connectors.

- Hardware Dimension is 220mm x 230mm (8.66" x 9.0"); BabyAT Form Factor.

1-2 SOFTWARE POWER OFF CONTROL

The mainboard design supports Software Power Off Control feature through the SMM code in the BIOS under Windows 95/98, and MS-DOS operation system environment. (It needs to use with the ATX power supply.)

First, you should connect the power switch cable to the connector "PS-ON" on the mainboard. In the BIOS screen of POWER MANAGEMENT SETUP', choose "User Defined" (or "Min. Power Saving" or "Max. Power Saving") in 'Power Manager' and choose "Yes" in 'PM Control by APM'.

In Windows 95/98, if you would like to power off the system, you just choose "shutdown the computer ?" in the "Shut Down Windows" from Windows 95/98, then the system power will be off directly and become the stand-by status. If you would like to restart the system, just press the power switch button, and the system will be powered on.

Note : If you will leave your system for several days, we suggest you use hardware power off to shutdown your system.

1-3 Wake-On-LAN

The remote Wake-On-LAN mode of operation is a mechanism that uses Advanced Micro Device Magic Packet technology to power up a sleeping workstation on the network. This mechanism is accomplished when the LAN card receives a specific packet of information, called a Magic Packet, addressed to the node on the network. For additional protection, Secure ON is an optional security feature that can be added to the Magic Packet that requires a password to power up the sleeping workstation. When the LAN card is in remote Wake-On-LAN mode, main system power can be shut down leaving power only for the LAN card and auxiliary power recondition.

The LAN card performs no network activities while in the remote Wake-On-LAN mode of operation. It only monitors the network for receipt of a Magic Packet. If a Magic Packet is addressed to the LAN card on the network, the LAN card wake up the system. If the Secure ON feature has been enabled, the password added to the Magic Packet is also verified prior to waking up the system.

CAUTION :

For Wake-on-LAN, the +5V standby for the power supply must be capable of delivering +5V ±5% at 720mA. Failure to provide adequate standby current when implementing Wake-on-LAN can damage the power supply. (It needs to use with the ATX power supply.)

Before you enable Wake-on-LAN function, please check your power supply specification first to meet the above requirement or not.

CHAPTER 2 INSTALLATION

2-1 INSTALLATION PROCEDURE

Before installing the computer, please prepare all components such as CPU, DRAM; peripherals such as hard drive, keyboard, CD-ROM and accessories such as cables. Then, install the system as following:

1. Plug CPU, heat sink, cooling fan and DRAM modules into the ATC-5250

   mainboard.

2. Set DIP switch based on your configuration.

3. Set jumpers based on your configuration.

4. Plug add-on cards into PCI/ISA slots, if needed.

5. Connect the power supply.

6. Connect I/O and other cables to the system.

7. Make sure all components and devices are well connected, turn on the power and

    setup System BIOS based on your configuration.

8. Install peripheral devices, add-on card drivers and test them.

If all of above procedures are running successfully, turn it off and screw the chassis

cover to the system, and then connect external devices which are cabled to the system.

2-2 CPU INSTALLATION

ATC-5250 supports Pentium level CPUs.

For installation, please notice CPU pin 1 must align with the ZIF socket 7 pin 1 location. Before you install or upgrade your CPU, please read CPU guide from CPU manufacturer to make sure the CPU voltage specification. Then choose the right installation in section 2-2-1 based on your CPU type / brand and follow the description to setup DIP Switch & Jumpers.

It is important to remember that you must set **DIP switch of SW1, Jumpers of JP1, JP2, JP3, JP4, JP5** accurately, so that you can power up your system correctly.

The followings are the description of these important DIP switch & jumpers :

     SW1,JP1,JP2,JP3 : The completed jumper group is to setup CPU and system frequency.(with yellow color jumper cap)

     JP4,JP5 : The completed jumper group is to setup CPU working voltage.(with red color jumper cap)

The followings are the locations of these important DIP switches & Jumpers :

DIMM slots

JP4   JP1,JP2&JP3   SW1   JP5

(red color jumper cap)   (yellow color   (red color jumper cap)

jumper cap)
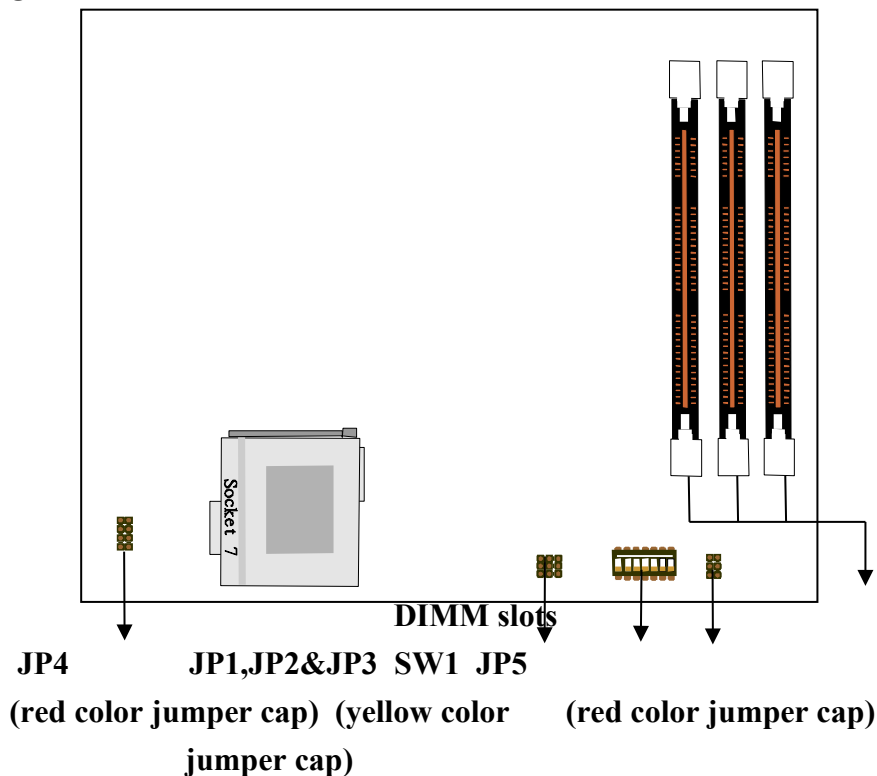
ATC-5250 uses the following DIP Switch & Jumpers to install the CPU easily.

SW1 (pin 1-3) for Frequency_Ratio and SW1 (pin 4-6) for External Clock, SW1(pin 7) & JP1 for CPU host clock/DRAM clock ratio selection, Asynchronous or Synchronous .

JP2 & JP3 for CPU host clock/PCI clock ratio selection .

JP4 for different CPU voltage value.

JP5 for Single / Dual CPU Voltage selection.

The following DIP switches & Jumpers charts are the effective information for you to setup correct CPU and total system speed , when installing your system with ATC-5250 mainboard :

SW1 setting

(The setting for CPU host clock and Times of multiple clock)

SW1	SW1-1	SW1-2	SW1-3	SW1	SW1-4	SW1-5	SW1-6
2.0X	OFF	OFF	ON	66.6MHz	ON	ON	OFF
2.5X	OFF	ON	ON	75MHz	OFF	ON	ON
3.0X	OFF	ON	OFF	83.5MHz	OFF	ON	OFF
1.5X;3.5X	OFF	OFF	OFF	95.25MHz	OFF	OFF	ON
4.0X	ON	OFF	ON	100MHz	OFF	OFF	OFF
4.5X	ON	ON	ON				
5.0X	ON	ON	OFF				
5.5X	ON	OFF	OFF				

SW1(pin7) & JP1 setting

(The setting for Asynchronous and Synchronous mode)

DRAM CLK.	SW1-7	JP1
ASYNC	ON	Pin 1-2
SYNC	OFF	Pin 2-3

* ASYNC. mode: The speed of the DRAM clock is not the same as the CPU host clock, ie.

When the CPU host clock is 100 MHz , and the DRAM clock is 66 MHz .

** SYNC. Mode: The speed of the DRAM clock is the same as the CPU host clock, ie.

1. When the CPU host clock is 100 MHz , and the
   SDRAM clock follows PC-100 specification (100MHz) .

2. When the CPU host clock is 66 ~ 83.3 MHz , and
   the DRAM/SDRAM clock is not PC-100 spec.(lower than 100MHz).

✸**how to set up DIP switch:**
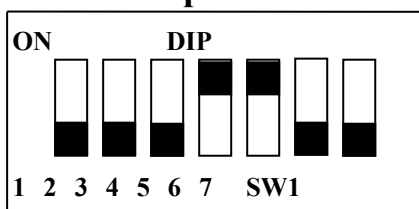
DIP switch, (i.e. : OFF, OFF, OFF, ON, ON, OFF, OFF)

ON : switch to the 'ON' position.

OFF : switch to the 'OFF' position.

JP2 & JP3 Setting

(The setting for frequency-ratio comparing with the PCI clock and the CPU host clock.)

CPU_CLK	JP 2	JP 3
66.6MHz	Pin 2-3	Pin 2-3
75MHz	Pin 1-2	Pin 1-2
83.3MHz	Pin 1-2	Pin 1-2
95.25MHz	Pin 1-2	Pin 2-3
100MHz	Pin 1-2	Pin 2-3

JP4 Setting

(The setting for CPU core voltage selection)

Vcore	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
2.2V	OPEN	CLOSE	OPEN	OPEN
2.7V	CLOSE	CLOSE	CLOSE	OPEN
2.8V	OPEN	OPEN	OPEN	CLOSE
2.9V	CLOSE	OPEN	OPEN	CLOSE
3.2V	OPEN	OPEN	CLOSE	CLOSE
3.3V	CLOSE	OPEN	CLOSE	CLOSE
3.5V	CLOSE	CLOSE	CLOSE	CLOSE

JP5 setting

(The setting for Single/Dual Voltage supporting for Pentium level Processor)

Mode	JP5 (Pin1-2,3-4,5-6)
Single Voltage Mode(Vcore = Vi/o)*	OPEN
Dual Voltage Mode(Vcore ≠ Vi/o)**	CLOSE

* P54C mode (Single Voltage Mode)   : supports for Intel Pentium, AMD-
K5,Cyrix 6X86, IDT Win Chip C6.

** P55C mode (Dual Voltage Mode)   : supports for Intel Pentium MMX,
AMD-K6, AMD-K6-2, Cyrix 6X86L,
Cyrix 6X86MX, Cyrix M II.

✸how to set up jumpers:

OPEN
(remove the
jumper cap)

CLOSE
(put on the
jumper cap)

1 2 3

Pin1-2

1 2 3

Pin2-3
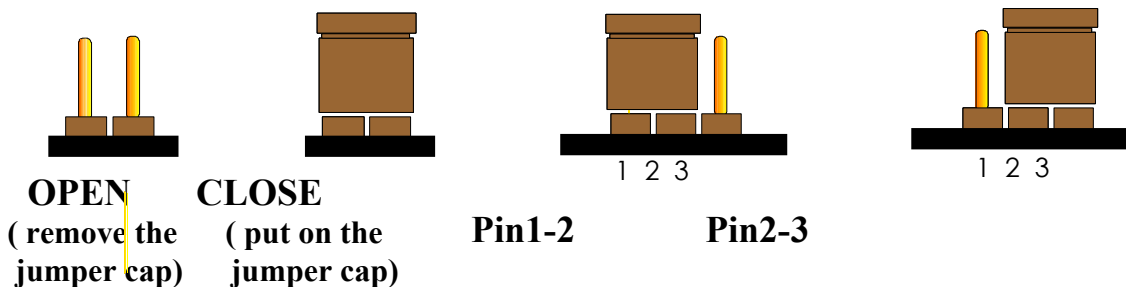
2-2-1 CPU TYPE SELECTION

A. INTEL PENTIUM® CPU (P54C)

※ **P54C VRE : 3.400V~3.600V** (The fourth line of the mark on the under-side of the processor contains a code that identifies the voltage level type. V is VRE, S is standard.)

JP4(3.5V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	CLOSE	CLOSE	CLOSE	CLOSE

※ **P54C STD : 3.135V ~ 3.600V** (The fourth line of the mark on the under-side of the processor contains a code that identifies the voltage level type. V is VRE, S is standard.)

JP4 (3.3V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	CLOSE	OPEN	CLOSE	CLOSE

JP5 Setting (Single)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Single Voltage Mode(Vcore = Vi/o)*	OPEN

JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	JP 1	JP 2	JP3
66MHz/66MHz/33MHz	Pin 2-3	Pin 2-3	Pin 2-3

A-1. Intel Pentium   100MHz

INTERNAL CPU CLOCK	SW1		Ext.x Frq.
100MHz	ON OFF	 1 2 3 4 5 6 7	66 x 1.5
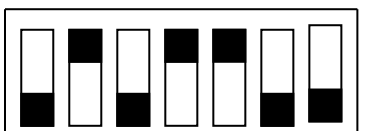
A-2. Intel Pentium 133MHz

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
133MHz	ON / OFF 1 2 3 4 5 6 7	66 x 2.0

A-3. Intel Pentium 166MHz

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
166MHz	ON / OFF 1 2 3 4 5 6 7	66 x 2.5

A-4. Intel Pentium 200MHz

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
200MHz	ON / OFF 1 2 3 4 5 6 7	66 x 3.0

B. INTEL PENTIUM MMX™ CPU (P55C)

JP4 (2.8V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	OPEN	OPEN	OPEN	CLOSE
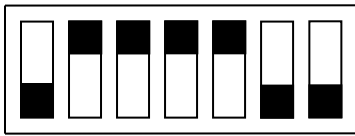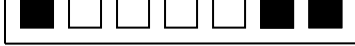
JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠ Vi/o)**	CLOSE

JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	JP1	JP2	JP3
66MHz/66MHz/33MHz	Pin 2-3	Pin 2-3	Pin 2-3
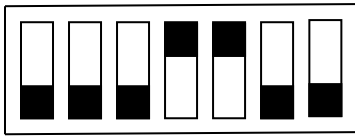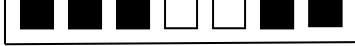
B-1. Intel Pentium MMX™ 166MHz

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
166MHz		66 x 2.5

B-2. Intel Pentium MMX™ 200MHz

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
200MHz		66 x 3.0

B-3. Intel Pentium MMX™ 233MHz

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
233MHz		66 x 3.5

C. Cyrix 6x86MX CPU

JP4 (2.9V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	CLOSE	OPEN	OPEN	CLOSE

JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠Vi/o)**	CLOSE

JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	JP1	JP2	JP3
66MHz/66MHz/33MHz	Pin 2-3	Pin 2-3	Pin 2-3
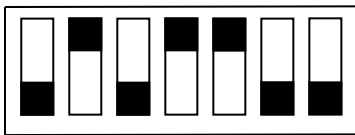
C-1. Cyrix 6x86MX PR166 @ 66MHz Bus 2x

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
PR166	ON / OFF 1 2 3 4 5 6 7	66 x 2.0

C-2. Cyrix 6x86MX PR200 @ 66MHz Bus 2.5x

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
PR200	ON / OFF 1 2 3 4 5 6 7	66 x 2.5

C-3. Cyrix 6x86MX PR233 @ 66MHz Bus 3x

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
PR233	ON / OFF 1 2 3 4 5 6 7	66 x 3.0

C-4. Cyrix 6x86MX PR233 @ 75MHz Bus 2.5x

JP4 (2.9V)
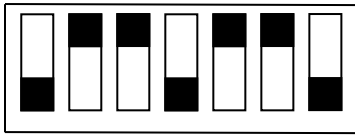
JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	CLOSE	OPEN	OPEN	CLOSE

JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠Vi/o)**	CLOSE

JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	JP1	JP2	JP3
75MHz/75MHz/30MHz	Pin 2-3	Pin 1-2	Pin 1-2

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
PR233	ON OFF 1 2 3 4 5 6 7	75 x 2.5

D. Cyrix MII CPU

D-1 Cyrix MII 300MHz @ 66MHz Bus 3.5x

JP4(2.9V)
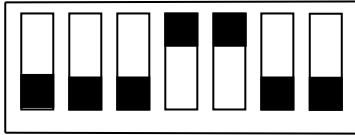
JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	CLOSE	OPEN	OPEN	CLOSE

JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠Vi/o)**	CLOSE

JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	JP1	JP2	JP3
66MHz/66MHz/33MHz	Pin 2-3	Pin 2-3	Pin 2-3

INTERNAL CPU CLOCK	SW1		Ext.x Frq.
MII 300MHz	ON OFF	1 2 3 4 5 6 7	66 x 3.5

D-2 Cyrix MII 300MHz @ 75MHz Bus 3x

JP4(2.9V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	CLOSE	OPEN	OPEN	CLOSE

JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠Vi/o)**	CLOSE

JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	JP1	JP2	JP3
75MHz/75MHz/30MHz	Pin 2-3	Pin 1-2	Pin 1-2

INTERNAL CPU CLOCK	SW1		Ext.x Frq.
MII 300MHz	ON OFF	 1 2 3 4 5 6 7	75 x 3.0

D-3 Cyrix MII 333MHz @ 83MHz Bus 2.5x

JP4(2.9V)
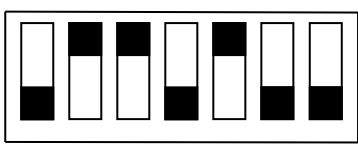
JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	CLOSE	OPEN	OPEN	CLOSE

JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠Vi/o)**	CLOSE

JP1, JP2 & JP 3 Settings

CPU host clock/DRAM/PCI clock	JP1	JP2	JP3
83.3MHz/83.3MHz/33MHz	Pin 2-3	Pin 1-2	Pin 1-2

INTERNAL CPU CLOCK	SW1		Ext.x Frq.
MII 333MHz	ON OFF	 1 2 3 4 5 6 7	83 x 2.5

D-4 Cyrix MII 333MHz @ 100MHz Bus 2.5x

JP4(2.2V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	OPEN	CLOSE	OPEN	OPEN

JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠Vi/o)**	CLOSE

SW1(Pin7), JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	SW1-Pin7	JP1	JP2	JP3
100MHz/100MHz/33MHz*	OFF	Pin 2-3	Pin 1-2	Pin 2-3
100MHz/66MHz/33MHz**	ON	Pin 1-2	Pin 1-2	Pin 2-3

*   Please use for PC-100 SDRAM module (SYNC.)

**   Please use non PC-100 SDRAM module or EDO DIMM module (ASYNC.)

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
MII 333MHz	ON OFF 1 2 3 4 5 6 7	100 x 2.5

D-5 Cyrix MII 350MHz @ 100MHz Bus 3x

JP4(2.2V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	OPEN	CLOSE	OPEN	OPEN

JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠Vi/o)**	CLOSE

SW1(Pin7), JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	SW1-pin7	JP1	JP2	JP3
100MHz/100MHz/33MHz*	OFF	Pin 2-3	Pin 1-2	Pin 2-3
100MHz/66MHz/33MHz**	ON	Pin 1-2	Pin 1-2	Pin 2-3

*　　Please use for PC-100 SDRAM module (SYNC.)

**　　Please use non PC-100 SDRAM module or EDO DIMM module (ASYNC.)
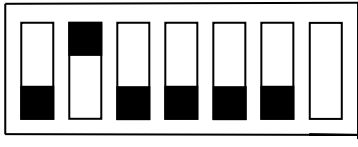
INTERNAL CPU CLOCK	SW1		Ext.x Frq.
MII 350MHz	ON OFF	 1 2 3 4 5 6 7	100 x 3.0

E. Cyrix 6x86L CPU (dual voltage)

JP4 (2.8V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	OPEN	OPEN	OPEN	CLOSE

JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠ Vi/o)**	CLOSE

JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	JP1	JP2	JP3
66MHz/66MHz/33MHz*	Pin 2-3	Pin 2-3	Pin 2-3

Cyrix 6x86L PR166+

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
PR166+	ON OFF 1 2 3 4 5 6 7	66 x 2.0

F. AMD-K5 CPU Series

JP4(3.5V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	CLOSE	CLOSE	CLOSE	CLOSE
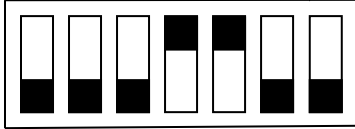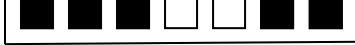
JP5 Setting (Single)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Single Voltage Mode(Vcore = Vi/o)*	OPEN
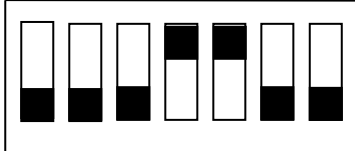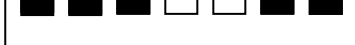
JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	JP1	JP2	JP3
66MHz/66MHz/33MHz*	Pin 2-3	Pin 2-3	Pin 2-3

F-1. AMD-K5 PR100

INTERNAL CPU CLOCK	SW1		Ext.x Frq.
PR100	ON OFF	1 2 3 4 5 6 7	66 x 1.5

F-2. AMD-K5 PR133

INTERNAL CPU CLOCK	SW1		Ext.x Frq.
PR133	ON OFF	1 2 3 4 5 6 7	66 x 1.5

F-3. AMD-K5 PR166

INTERNAL CPU CLOCK	SW1		Ext.x Frq.
PR166	ON OFF	1 2 3 4 5 6 7	66 x 2.5

G. AMD-K6 CPU

JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	JP1	JP2	JP3
66MHz/66MHz/33MHz	Pin 2-3	Pin 2-3	Pin 2-3

JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠Vi/o)**	CLOSE

G-1. AMD-K6 166MHz

JP4(2.9V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	CLOSE	OPEN	OPEN	CLOSE

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
166MHz	ON OFF 1 2 3 4 5 6 7	66 x 2.5

G-2. AMD-K6 200MHz

JP4(2.9V)
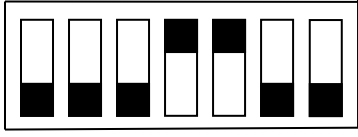
JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	CLOSE	OPEN	OPEN	CLOSE

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
200MHz	ON OFF 1 2 3 4 5 6 7	66 x 3.0

G-3a. AMD-K6 233MHz

JP4(3.2V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	OPEN	OPEN	CLOSE	CLOSE

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
233MHz	ON / OFF — 1 2 3 4 5 6 7 (4,5 ON; 1 2 3 6 7 OFF)	66 x 3.5

G-3b. AMD-K6-2 233MHz

JP4(2.2V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	OPEN	CLOSE	OPEN	OPEN

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
233MHz	ON / OFF — 1 2 3 4 5 6 7 (4,5 ON; 1 2 3 6 7 OFF)	66 x 3.5

G-4a. AMD-K6 266 MHz

JP4(2.2V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	OPEN	CLOSE	OPEN	OPEN

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
266MHz	ON / OFF — 1 2 3 4 5 6 7 (1,3,5 ON; 2,6,7 OFF)	66 x 4.0

G-4b. AMD-K6-2 266 MHz

JP4(2.2V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	OPEN	CLOSE	OPEN	OPEN

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
266MHz	ON / OFF 1 2 3 4 5 6 7	66 x 4.0

G-5a. AMD-K6 300MHz

JP4(2.2V)
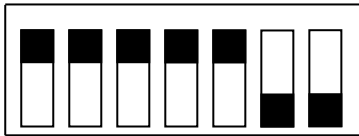
JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	OPEN	CLOSE	OPEN	OPEN

JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠Vi/o)**	CLOSE

JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	JP1	JP2	JP3
66MHz/66MHz/33MHz	Pin 2-3	Pin 2-3	Pin 2-3

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
300MHz	ON / OFF 1 2 3 4 5 6 7	66 x 4.5

G-5b. AMD-K6-2 300MHz

JP4(2.2V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	OPEN	CLOSE	OPEN	OPEN

JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠ Vi/o)	CLOSE

SW1(Pin7), JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	SW1-pin7	JP1	JP2	JP3
100MHz/100MHz/33MHz*	OFF	Pin 2-3	Pin 1-2	Pin 2-3
100MHz/66MHz/33MHz**	ON	Pin 1-2	Pin 1-2	Pin 2-3

*   Please use for PC-100 SDRAM module (SYNC.)

**   Please use non PC-100 SDRAM module or EDO DIMM module (ASYNC.)

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
300MHz	ON ... OFF 1 2 3 4 5 6 7	100 x 3.0

G-5c. AMD-K6-2 333MHz

JP4(2.2V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	OPEN	CLOSE	OPEN	OPEN

JP5 Setting (Dual)
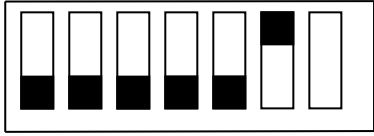
Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠ Vi/o)	CLOSE

SW1(Pin7), JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	SW1-pin7	JP1	JP2	JP3
95MHz/95MHz/33MHz*	OFF	Pin 2-3	Pin 1-2	Pin 2-3
95MHz/66MHz/33MHz**	ON	Pin 1-2	Pin 1-2	Pin 2-3

*   Please use for PC-100 SDRAM module (SYNC.)

**   Please use non PC-100 SDRAM module or EDO DIMM module (ASYNC.)

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
333MHz	ON / OFF 1 2 3 4 5 6 7	95 x 3.5

G-6. AMD-K6-2 350MHz

JP4(2.2V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	OPEN	CLOSE	OPEN	OPEN

JP5 Setting (Dual)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Dual Voltage Mode(Vcore ≠Vi/o)**	CLOSE

SW1(Pin7), JP1 & JP2 Settings

CPU host clock/DRAM/PCI clock	SW1-pin7	JP1	JP2	JP3
100MHz/100MHz/33MHz*	OFF	Pin 2-3	Pin 1-2	Pin 2-3
100MHz/66MHz/33MHz**	ON	Pin 1-2	Pin 1-2	Pin 2-3

*   Please use for PC-100 SDRAM module (SYNC.)

**   Please use non PC-100 SDRAM module or EDO DIMM module (ASYNC.)

INTERNAL CPU CLOCK	SW1	Ext.x Frq.
350MHz	ON / OFF 1 2 3 4 5 6 7	100 x 3.5

H. IDT Win Chip C6

JP4(3.5V)

JP4	Pin1 & Pin5	Pin2 & Pin6	Pin3 & Pin7	Pin4 & Pin8
Vcore	CLOSE	CLOSE	CLOSE	CLOSE
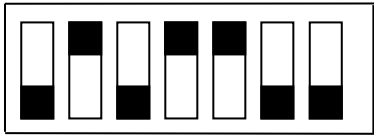
JP5 Setting (Single)

Mode	JP5 (Pin1-2, 3-4, 5-6)
Single Voltage Mode(Vcore = Vi/o)*	OPEN

H-1. IDT Win Chip C6 200MHz

JP1, JP2 & JP3 Settings
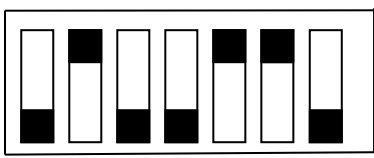
CPU host clock/DRAM/PCI clock	JP1	JP2	JP3
66MHz/66MHz/33MHz	Pin 2-3	Pin 2-3	Pin 2-3

INTERNAL CPU CLOCK	SW1		Ext.x Frq.
200MHz	ON OFF	1 2 3 4 5 6 7	66 x 3.0

H-2 IDT Win Chip C6 225MHz

JP1, JP2 & JP3 Settings

CPU host clock/DRAM/PCI clock	JP1	JP2	JP3
75MHz/75MHz/30MHz	Pin 2-3	Pin 1-2	Pin 1-2

INTERNAL CPU CLOCK	SW1		Ext.x Frq.
225MHz	ON OFF	1 2 3 4 5 6 7	75 x 3.0

2-3 SYSTEM MEMORY INSTALLATION

The ATC-5250 provides three 168-pin DIMM sockets for system memory expansion from 8MB to 768MB. These three DIMMs are arranged to three banks, please refer to page A. Each bank provides 64-bit wide data path.

※ Samples of System Memory Combinations Options ※

BANK0 DIMM 1	BANK1 DIMM 2	BANK2 DIMM 3	Total Memory DIMM 1-3
32MBx1	-	-	32MB
-	-	32MBx1	32MB
8MBx1	16MBx1	16MBx1	40MB
32MBx1	32MBx1	-	64MB
-	32MBx1	32MBx1	64MB
64MBx1	-	-	64MB
:	:	:	:
-	64MBx1	64MBx1	128MB
128MBx1	-	-	128MB
-	128MBx1	-	128MB
-	-	128MBx1	128MB
128MBx1	128MBx1	-	256MB
128MBx1	-	128MBx1	256MB
-	128MBx1	128MBx1	256MB
256MBx1	-	-	256MB
:	:	:	:
256MBx1	256MBx1	-	512MB
256MBx1	-	256MBx1	512MB
-	256MBx1	256MBx1	512MB
256MBx1	256MBx1	256MBx1	768MB

2-4 CONNECTORS DESCRIPTION

The locations of following connectors are indicated in page A. When you plug wires into the following connector of CONN1, you should have the pin 1 edge of the wires align with the pin 1 end of the connector.

CONN1 : speaker, keyboard lock, reset, SMI, turbo LED, and IDE LED connectors.

SPK : speaker
Speaker
GND
GND
VCC

Power LED connector

Power LED +
N/C
GND (power)
Keylock
GND
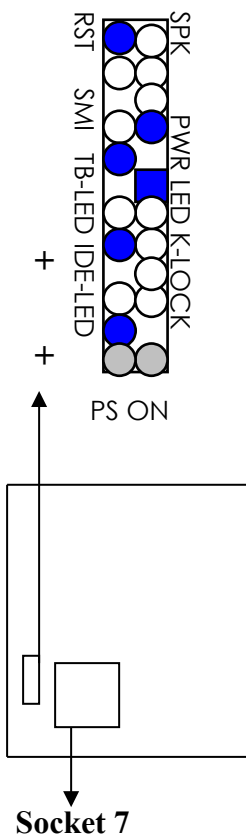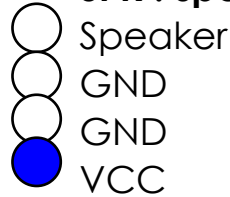
RST : Reset connector
Reset Signal
GND
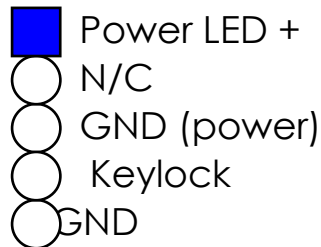
SMI : SMI lead
GND
SMI Signal
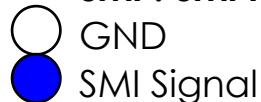
TB-LED : Turbo LED indicator, LED on when system runs higher speed.
GND
+5V

Socket 7

PS ON

IDE-LED : IDE devices indicator LED
connector. IDE-LED stays ON indicates
LED signal on-board IDE devices in operation. The
+5V   red wire of the HDD connector must be
connected to the pin which is +5V.

Pin 12 ◄─────── ◯◯N **: Power Button**
Pin 24 ◄─────── ~~Pin~~ 12 : PS_ON   Pin 24 : +5VSB

SOCKET 7
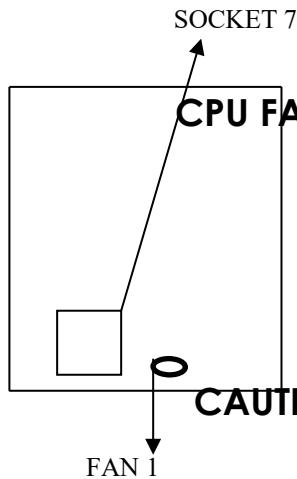
CPU FAN1 : CPU cooling fan connector. Wire
with +12V voltage (most likely red wire) must
be plugged into pin2, and GROUND wires
(most likely black wire) must be plugged into
pin1. Please confirm the wire color
re-presentation with your supplier.
CAUTION: Plug the wire into wrong connector will
AMAGE fan and mainboard.

FAN 1

3 2 1
◯◯▢
GND +12V GND
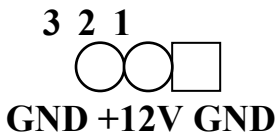
IR1 · Infrared module connector.

1 ▢ +5V
2 ◯ FIRRX
3 ◯ IRRX
4 ◯ GND
5 ◯ IRTX
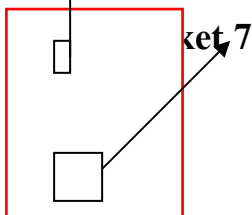
ket 7

PW1 : ATX mode +3.3/5/12V power supply connector.

1   10

11   20
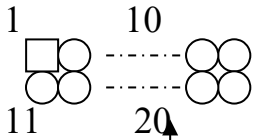
1	3.3V	6	+5V	11	3.3V	16	GND
2	3.3V	7	GND	12	-12V	17	GND
3	GND	8	PWRGD	13	GND	18	-5V
4	+5V	9	5VSB	14	PS_ON *	19	+5V
5	GND	10	+12V	15	GND	20	+5V

8
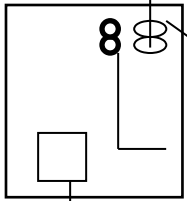
SOCKET 7

PW2 : AT mode +5V voltage power supply connector.

PG +12V   GND   +5V

+5V -12V   -5V

COM1/COM2 : these two connectors are used to connect serial port cables.

6 7 8 9

1 2 3 4 5
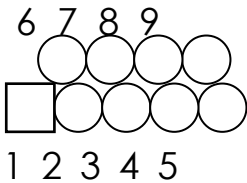
pin	signal name
1	NDCDA/B
2	NSINA/B
3	NSOUTA/B
4	NDTRA/B
5	GND
6	NDSRA/B
7	NRTSA/B
8	NCTSA/B
9	NRIA/B

A is COM1, B is COM2

KB: 5-pin AT style keyboard connector.
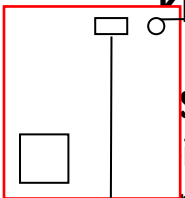
S/2 Mouse: It is used to connect an optional cable.

3 1 2 4 pin1: data

pin2: N/C

pin3: GND

pin4: VCC

pin5: clock

5   6 pin6: N/C
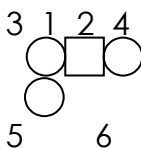
FDC : this connector is used to connect the floppy drive through a cable.

34

2

0
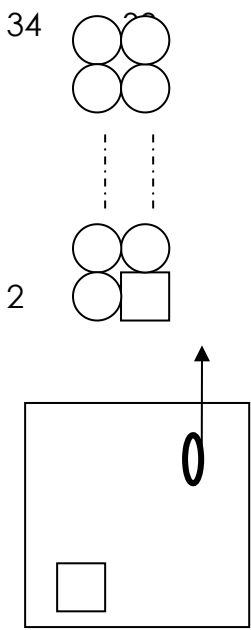
pin	signal	pin	signal
2	RWC-	20	STEP-
4	Reserved	22	Write Data
6	FDEDIN	24	Write Gate
8	Index-	26	Track 00-
0	Motor EnableA-	28	Write Protect-
12	Drive Sele.B-	30	Read Data-
14	Drive Sele.A-	32	Side 1 Sele.-
16	Motor EnableB-	34	DisketteChange
18	DIR-		
All of odd pins are ground			

LPT : this connector is used to connect parallel port cable.

26

14

0
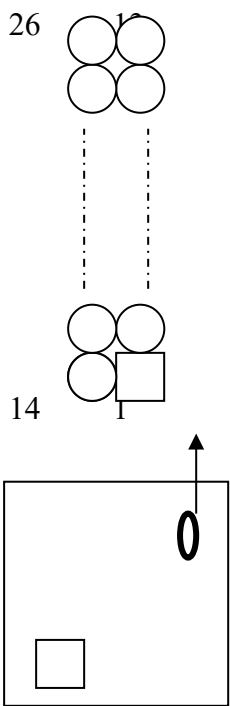
pin	signal	pin	signal
1	STROBE-	10	ACK-
2	Data Bit 0	11	BUSY
3	Data Bit 1	12	PE
4	Data Bit 2	13	SLCT
5	Data Bit 3	14	Auto Feed-
6	Data Bit 4	15	ERROR-
	Data Bit 5	16	INIT-
8	Data Bit 6	17	SLCT IN-
9	Data Bit 7		
pin18 -- pin25 are GND			

IDE1/IDE2 : these two connectors are used to connect IDE devices through IDE cables, a total of 4 devices can be connected.

40 ...
2 ...

Socket 7
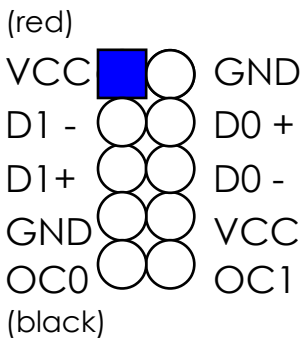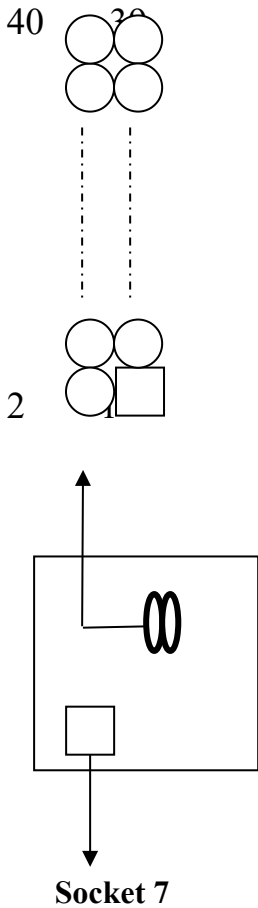
pin	signal	pin	signal
1	Reset IDE	21	DDRQ0(1)
2	GND	22	GND
3	Host Data 7	23	I/O Write-
4	Host Data 8	24	GND
5	Host Data 6	25	I/O Read-
6	Host Data 9	26	GND
7	Host Data 5	27	IORDY
8	Host Data 10	28	N/C
9	Host Data 4	29	DDAK0- (1-)
10	Host Data 11	30	GND
11	Host Data 3	31	IRQ14*
12	Host Data 12	32	IOCS16-
13	Host Data 2	33	Addr 1
14	Host Data 13	34	N/C
15	Host Data 1	35	Addr 0
16	Host Data 14	36	Addr 2
17	Host Data 0	37	ChipSele.1P-
18	Host Data 15	38	ChipSele.3P-
19	GND	39	Activity
20	Key	40	GND

* IDE1 : pin31 is IRQ14;

   IDE2 : pin31 is IRQ15 or MIRQ0

(red)

VCC   GND
D1 -   D0 +
D1+   D0 -
GND   VCC
OC0   OC1

(black)
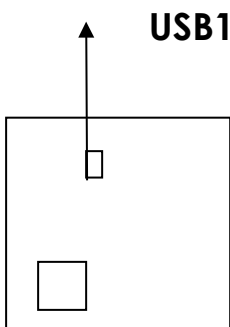
USB1 : USB connector; Universal Serial Bus; this is used to connect USB devices through an optional dual head cable with a iron plane. OC0 and OC1 are used to mention the status of the USB power supply lines.

CAUTION: Plug wire into wrong connector will DAMAGE USB devices and mainboard.

2-5 IDE DRIVER INSTALLATION

The IDE driver installation procedures are in the following :

Setup from Windows 95/98 :

1. Starting Windows 95/98.
2. Put All-In-One CD into your CD-ROM drive.
3. In "My Computer" Windows, double clicking "VIA" icon.
4. Choose "IDE driver".
5. Follow the screen instructions to complete the installation.

Setup from WinNT :

1. Starting WinNT.
2. Put the All-In-One CD into your CD-ROM drive.
3. Choose "VIA MVP3 Integrated Installation".
4. Choose "IDE driver".
5. Follow the screen instructions to complete the installation.
6. In "control panel" Windows, click "SCSI Adapters" twice.
7. In "SCSI Adapters" Windows, choose "Drivers".
8. Choose "Add".
9. In manufacturers, select "additional models", then in SCSI adapter, select "VIA bus master IDE drivers", then choose "OK".
10. Restart your computer.

2-6 VIA MVP3 AGP VGA Driver Installation

1. Put the All-In-One CD into your CD-ROM drive.
2. In "My computer" Windows, choose VxD driver.
3. Follow the screen instructions to complete the installation.

Remark :
Please install two VIA utilities from our CD, " VIA Routing Utility " & " VIA MVP3 ACPI Compliant utility ", when you install Windows95/98 on your system, in order to get best compatibility.

CHAPTER 3 Award BIOS SETUP

Award BIOS manufacturer provides access to the system BIOS through the hardware and software on each ATC-5250 mainboard. The hardware consists of a Flash ROM and the software is a group of programs that are installed in the ROMBIOS along with all the other data the BIOS must contain.

The ATC-5250 mainboard will require special driver supplied by the manufacturer to update the BIOS SETUP program. It is a good idea to read the next page for details for update BIOS driver installation or you can ask your system dealer to do it for you.

When the driver has been successfully updated, it is very important to contact your system dealer to change the CMOS settings for your computer. The CMOS settings are shown in the following pages.

NOTE : To clear CMOS you should unplug the power cord, then set 2-3 to clear, put it back to normal position and plug the power cord again.

	JP8
Normal	1-2
Clear	2-3

Normal CMOS   **Clear CMOS**

JP8

ISA slots
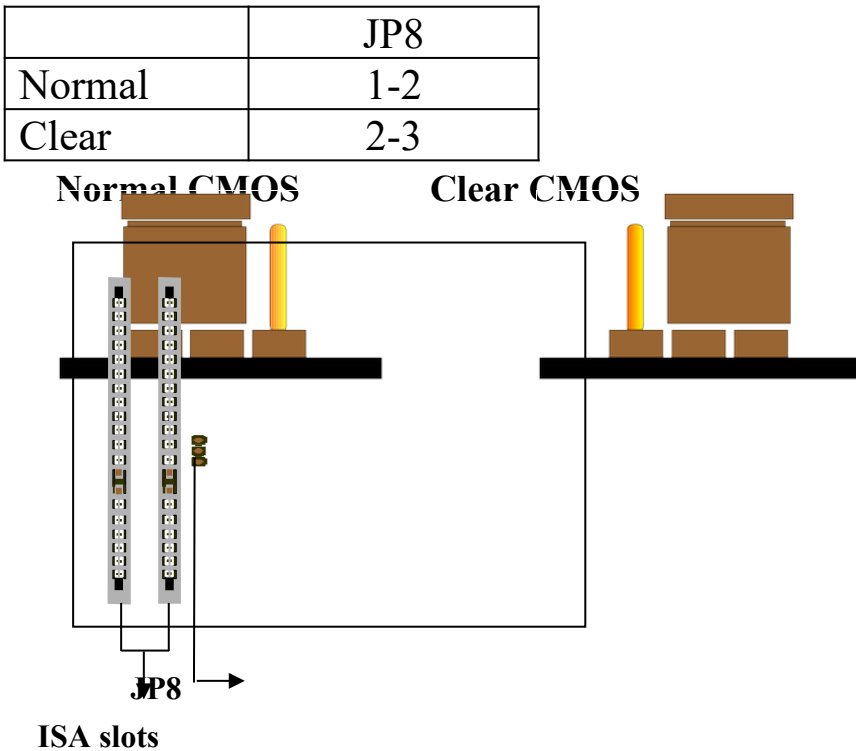
3-1 UPDATE BIOS PROCEDURE

If the BIOS needs to be updated, you can get a All-In-One CD with the updated BIOS drive (in "flash" directory)in the package. The updated BIOS drive includes :

    "awdflash.exe" -- BIOS update utility program
    "awdflash.doc"

The update procedure is in the following:

1. Boot the system to DOS mode in a normal manner.
2. Put the All-In-One CD into your CD-ROM drive.
3. Change working directory to your CD-ROM drive, D or E, which contains the update BIOS driver. -- Type "d:\" or "e:\", "ENTER".
4. Run the BIOS update utility -- Type "cd flash", then type "awdflash", then press "ENTER" key.
5. Type "(update BIOS file name with version number).bin", ENTER.
6. If you do not want to save the old BIOS Type "N" when the screen displays the message : " Do you want to save BIOS (Y/N) ?".
7. Type "Y" when the screen shows the message : " Are you sure to program (Y/N) ?".
8. Follow instructions displayed on the screen. DO NOT remove the CD from the CD-ROM nor turn the system power off until the BIOS update is completed.
9. Turn the power off. Clear the data in CMOS according to the procedure described in the previous page.
10. Turn the system power on and test that your system is working properly.

3-2 Award SYSTEM BIOS CONFIGURATION SETUP

The following pages explain how to set up the system configuration (CMOS) under the Award BIOS. The SETUP program is stored in the Read-Only-Memory (ROM) on the mainboard. To do the SETUP procedure, press the <Del> key when the system is booting up. The following main menu will appear. Please select " STANDARD CMOS SETUP" to enter the next screen.

ROM PCI/ISA BIOS (ATC-5250)
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	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	
ESC: Quit	↓→←:Select Item
F10: Save & Exit Setup	(Shift) F2 : Change Color
Time, Date, Hard Disk Type	

The section on the bottom of the main menu explains how to control this screen. The other section displays the items highlighted in the list.

This screen records some basic hardware information, and sets the system clock and error handling. These records can be lost or corrupted if the on-board battery has failed or is weak.

```
                    ROM PCI/ISA BIOS (ATC-5250)
                       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             ║ SAVE & EXIT SETUP                 ║
║ LOAD BIOS DEFAULTS                ║ EXIT WITHOUT SAVING               ║
║ LOAD SETUP DEFAULTS               ║                                   ║
╠═══════════════════════════════════╩═══════════════════════════════════╣
║ ESC: Quit                        ↑↓→←:Select Item                     ║
║ F10: Save & Exit Setup           (Shift) F2 : Change Color            ║
╠════════════════════════════════════════════════════════════════════════╣
║               Time, Date, Hard Disk Type .....                         ║
╚════════════════════════════════════════════════════════════════════════╝
```

```
                    ROM PCI/ISA BIOS (ATC-5250)
                       STANDARD CMOS SETUP
                      AWARD SOFTWARE, INC.
╔════════════════════════════════════════════════════════════════════════╗
║ Date (mm:dd:yy) : Wed, June 05 1998                                     ║
║ Time(hh:mm:ss)  : 13 : 37 : 14                                          ║
║ HARD DISKS  TYPE  SIZE  CYLS  HEAD  PRECOMP LANDZ 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,  3.5  in.                                             ║
║ Drive B : None              ┌──────────────────────────────────────┐   ║
║ Floppy 3 Mode Support :     │ Base Memory      :    640K           │   ║
║            Disabled         │ Extended memory  :    7168K          │   ║
║                             │ Other Memory     :    384K           │   ║
║ Video  : EGA/VGA            │ ------------------------------------ │   ║
║ Halt On: All Errors         │ Total Memory     :    8192K          │   ║
║                             └──────────────────────────────────────┘   ║
╠════════════════════════════════════════════════════════════════════════╣
║ 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
Month	The month, Jan. through Dec.
Year	The year, from 1900 to 2099

__Time__

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

__Primary Master__
__Primary Slave__
__Secondary Master__
__Secondary Slave__

These categories identify the types of the 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 45 are predefined. Type **'user'** is user-definable. Press PgUp/PgDn to select a numbered hard disk type or type the number and press<Enter>. If you select **'Auto', the** BIOS will auto-detect the HDD & CD-ROM Drive at the POST stage and show the IDE for HDD & CD-ROM Drive. If you select **'user'**, you will need to know the information listed below. Enter the information directly from the keyboard and press <Enter>. This information should be from your hard disk vender or dealer. If the controller of the HDD interface is ESDI, the selection shall be '**Type 1**'; if SCSI, the selection shall be **'None'**. If no device is installed select **'NONE'** and press <Enter>.

Type	drive type
SIZE	Automatically adjusts
CYLS	number of cylinders
HEAD	number of heads
PRECOMP	write precom
LANDZ	landing zone
SECTOR	number of sectors
MODE	mode type

Drive A
Drive B

This 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	5.25" PC-type 360KB capacity
1.2M, 5.25 in	5.25" AT-type 1.2MB capacity
720K, 3.5 in	3.5" double-side 720KB capacity
1.44M, 3.5 in	3.5" double-side 1.44MB capacity
2.88M, 3.5 in	3.5" double-side 2.88MB capacity

Floppy 3 Mode Support

This is the Japanese standard floppy drive. This standard stores 1.2MB in a 3.5" diskette

Video

This 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 Adapters, power up in 40 column mode
CGA 80	Color Graphics Adapters, power up in 80 column mode
MONO	Monochrome adapter, includes high resolution monochrome adapters

Halt On

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

No errors	The system boot will not be stopped for any error that may be detected
All errors	When the BIOS detects a non-fatal error the system will be stopped and you will be prompted
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 disk or keyboard error, it will stop for all other errors

Memory   This 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 or 640K based on the memory installed on the motherboard.

Extended Memory 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 users 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.

This screen is a list of system configuration options. Some of them are defaults required by the mainboard's design, others depend on the features of your system.

```
                    ROM PCI/ISA BIOS (ATC-5250)
                       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          │ SAVE & EXIT SETUP              ║
║ LOAD BIOS DEFAULTS             │ EXIT WITHOUT SAVING            ║
║ LOAD SETUP DEFAULTS            │                               ║
╠═══════════════════════════════════════════════════════════════╣
║ ESC: Quit              ↑↓→←:Select Item                         ║
║ F10: Save & Exit Setup      (Shift) F2 : Change Color          ║
╠═══════════════════════════════════════════════════════════════╣
║            Virus, Protection, Boot Sequence                    ║
╚═══════════════════════════════════════════════════════════════╝
```

```
                    ROM PCI/ISA BIOS (ATC-5250)
                      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            : A,C,SCSI │ D4000-D7FFF Shadow     : Disabled║
║ Swap Floppy Drive        : Disabled │ D8000-DBFFF Shadow     : Disabled║
║ Boot Up Floppy Seek      : Enabled  │ DC000-DFFFF Shadow     : Disabled║
║ Boot Up NumLock Status   : On       │                                 ║
║ Gate A20 Option          : Fast     │                                 ║
║ Memory Parity/ECC Check  : Enabled  │                                 ║
║ Typematic Rate Setting   : Disabled │                                 ║
║ Typematic Rate(Chars/Sec): 6        │                                 ║
║ Typematic Delay(Msec)    : 250      │ Esc : Quit   ↑↓→←:Select Item   ║
║ Security Option          : Setup    │ F1 : Help   PU/PD/+/- : Modify  ║
║ PCI/VGA Palette Snoop    : Disabled │ F5 : Old Values (SHIFT) F2:Color║
║ OS Select for DRAM>64MB  : Non-OS2  │ F6 : Load BIOS Defaults         ║
║ Report No FDD For Win95  : No       │ F7 : Load Setup Defaults         ║
║                                     │                                 ║
╚═══════════════════════════════════════════════════════════════════════╝
```

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.

Enabled	Activates automatically when the system boots up, if anything attempts to access the boot sector or hard disk partition table will cause a warning message to appear.
Disabled	No warning message will appear when anything attempts to access the boot sector or hard disk partition table.

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 'enabled'.

Quick Power On
Self Test

This category speeds up Power On Self Test after you power up the computer. If you set Enabled, BIOS will shorten or skip some checked items during POST.

Boot Sequence   This category determines which drive is to search first for the Disk Operating System (i.e., DOS).

A, C, SCSI	System will first search for floppy disk drive then hard disk drive, and the next is SCSI device.
C, A, SCSI	System will first search for hard disk drive then floppy disk drive, and the next is SCSI device.
C, CDROM, A	System will first search for hard disk drive then CDROM drive, and the next is floppy disk drive.
CDROM, C, A	System will first search for CDROM drive then hard disk drive, and the next is floppy disk drive.
D, A, SCSI	System will first search for secondary hard disk drive then floppy disk drive, and the next is SCSI device.
E, A, SCSI	System will first search for third hard disk drive then floppy disk drive, and the next is SCSI device.
F, A, SCSI	System will first search for fourth hard disk drive then floppy disk drive, and the next is SCSI device.
SCSI, A, C	System will first search for SCSI device then floppy disk drive, and the next is hard disk drive.
SCSI, C, A	System will first search for SCSI device then hard disk drive, and the next is floppy disk drive.
C only	System will search for hard disk drive only.
LS/ZIP, C	System will first search for LS120 or IOMEGA (ZIP) drive, and the next is hard disk drive.

C is primary master; D is primary slave;
E is secondary master, F is secondary slave

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

Boot Up Floppy Seek   During POST, the BIOS will determine if the floppy disk drive installed is 40 tracks (360K) or 80 tracks (720K, 1.2M, 1.44M)

Enabled	BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks
Disabled	BIOS will not search for the type of floppy disk drive by track number

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 numeric keys
Off	Keypad is arrow keys

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 MB. 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 is keyboard; Fast is chipset.

Memory Parity/
ECC Check

Select parity, ECC, or Disabled, depending on the type of DRAM installed in your system.
The choice : ECC, Parity, Disabled

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 key 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.
The choice : Enabled/Disabled

Typematic Rate
(Chars/Sec)

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

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

When the typematic rate is enabled, this section

__(Msec)__   allows you 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

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.

__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

__OS Select for DRAM > 64MB__   This item allows you to access the memory that is over 64MB in OS/2.
The choice : Non-OS2 or OS2

__Report No FDD For WIN 95__   Set this item to Yes BIOS will report FDD to Win95. If in standard CMOS setup, set Drive A to none, and set this item to yes. Inside Win95, My Computer and File manager Disk(A:) will show Removable Disk (A:).

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. The choice : Enabled/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 the support of onboard SCSI. The choice : Enabled/Disabled

This screen controls the setting for the chipset on the mainboard.

```
                    ROM PCI/ISA BIOS (ATC-5250)
                       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            SAVE & EXIT SETUP                 │
│ LOAD BIOS DEFAULTS               EXIT WITHOUT SAVING               │
│ LOAD SETUP DEFAULTS                                                │
├─────────────────────────────────────────────────────────────────┤
│ ESC: Quit                    ↑↓→←:Select Item                     │
│ F10: Save & Exit Setup       (Shift) F2 : Change Color            │
├─────────────────────────────────────────────────────────────────┤
│                AT Clock, DRAM Timings, .......                     │
└─────────────────────────────────────────────────────────────────┘
```

```
                    ROM PCI/ISA BIOS (ATC-5250)
                     CHIPSET FEATURES SETUP
                     AWARD SOFTWARE, INC.
┌─────────────────────────────────────────────────────────────────┐
│ Bank 0/1 DRAM Timing  : FP/EDO 60ns  OnChip USB          : Disabled │
│ Bank 2/3 DRAM Timing  : FP/EDO 60ns  Auto Detect DIMM/PCI ClK : Enabled │
│ Bank 4/5 DRAM Timing  : FP/EDO 60ns  Spread Spectrum Modulatd : Disabled │
│ SRAM Cycle Length     : 3                                          │
│ DRAM Read Pipeline    : Disabled                                   │
│ Sustained 3T Write    : Enabled                                    │
│ Cache Rd+CPU Wt Pipeline : Disabled                               │
│ Cache Timing          : Fast                                      │
│ Video BIOS Cacheable  : Disabled                                  │
│ System BIOS Cacheable : Disabled                                  │
│ Memory Hole At 15Mb Addr. : Disabled                             │
│ AGP Aperture Size (MB) : 128MB                                    │
│                                                                   │
│                              Esc: Quit          :Select Item      │
│                              F1 : Help      PU/PD/+/-:Modify       │
│                              F5 : Old Values  (Shift)F2 :Color     │
│                              F6 :Load BIOS Defaults               │
│                              F7 : Load Setup Defaults             │
└─────────────────────────────────────────────────────────────────┘
```

Bank 0/1/2/3/4/5 The DRAM speed is controlled by the DRAM timing
DRAM Timing registers. The programmed into this register are depend on
the system design. Slower rates may be required in certain
system designs to support loose layouts or slower memory.
i.e. 60ns; 70ns

SDRAM Cycle You should select CAS latency time in HCLKS of 2/2 or 3/3.
Length The system board designer should set the values in this field,
depending on the DRAM installed. Do not change the values
in this field unless you change specifications of the installed
DRAM or the installed CPU..
The choice : 2, .3

DRAM Read Enable/Disable DRAM Read Pipeline Cycle.
Pipeline

Sustained 3T Enabled : set cache to write back mode.
Write Disabled : set cache to write through mode.

Cache Rd+CPU Enable/Disable Cache Read Write cycle.
Wt Pipeline

Cache Timing Fastest : better system performance will occur.

Video BIOS Select Enabled allows caching of the video BIOS ROM at
Cacheable F0000h-FFFFFh, resulting in better system performance.
However, if any program writes to this memory area, a system
error may result.

System BIOS Select Enabled allows caching of the system BIOS ROM at
Cacheable F0000h-FFFFFh, resulting in better system performance.
However, if any program writes to this memory area, a system
error may result.

Memory Hole At In order to improve performance, certain space
15Mb Addr. in memory can be reserved for ISA cards. This memory
must be mapped into the memory below 16MB.

AGP Aperture Size (MB)   Select the size of the AGP aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycle that hit the aperture range are forwarded to the AGP without any translation. See www.agpforum.org for AGP information.

Onchip USB   Enable/Disable USB.

Auto Detect DIMM/PCI ClK   If this item is enabled, the unused DIMM and PCI slot clock will be disabled. If this item is disabled the unused DIMM and PCI slot will still get the active clock signal.

Spread Spectrum Modulated   Enable / Disable this item the BIOS will Enable / Disable the clock generator spread spectrum .

This screen controls the 'green' features of this mainboard.

```
                    ROM PCI/ISA BIOS (ATC-5250)
                       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           │ SAVE & EXIT SETUP               │
│ LOAD BIOS DEFAULTS              │ EXIT WITHOUT SAVING             │
│ LOAD SETUP DEFAULTS            │                                 │
├─────────────────────────────────┴─────────────────────────────────┤
│ ESC: Quit                          ↑↓→←:Select Item              │
│ F10: Save & Exit Setup             (Shift) F2 : Change Color      │
├────────────────────────────────────────────────────────────────────┤
│                Sleep Timer, Suspend Timer, .....                    │
└────────────────────────────────────────────────────────────────────┘
```

```
                    ROM PCI/ISA BIOS (ATC-5250)
                    POWER MANAGEMENT SETUP
                      AWARD SOFTWARE, INC.
```

Power Management	: User Defined	Primary INTR	: ON	
PM Control by APM	: Yes	IRQ3 (COM2)		: Primary
Video Off Option	: Suspend ->OFF	IRQ4 (COM1)		: Primary
Video Off Method	: DPMS	IRQ5 (LPT 2)		: Primary
Modem Use IRQ	: 3	IRQ6 (Floppy Disk)		: Primary
Soft-Off by PWRBTN	: Instant-Off	IRQ7 (LPT 1)		: Primary
** PM Timers **		IRQ8 (RTC Alarm)		: Disabled
HDD Power Down	: Disabled	IRQ9 (IRQ2 Redir)		: Primary
Doze Mode	: Disabled	IRQ10 (Reserved)		: Primary
Suspend Mode	: Disabled	IRQ11 (Reserved)		: Primary
** PM Events **		IRQ12 (PS/2 Mouse)		: Primary
VGA	: OFF	IRQ13 (Coprocessor)		: Disabled
LPT & COM	: LPT/COM	IRQ14 (Hard Disk)		: Primary
HDD & FDD	: ON	IRQ15 (Reserved)		: Disabled
DMA/master	: OFF	Esc: Quit ↑↓→← :Select Item		
Modem Ring Resume	: Disabled	F1 : Help PU/PD/+/- : Modify		
RTC Alarm Resume	: Disabled	F5 : Old Values (Shift) F2: Color		
		F6 : Load BIOS Defaults		
		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 **: Doze; Standby; Suspend;** HDD Power Down.

Min. Power Saving	Minimum power management. Doze =1hr.; Standby=1hr.; Suspend=1hr.; HDD Power Down=15min
Max. Power Saving	Maximum power management **only available for SL CPU**.Doze=1min.; Standby=1min.;Suspend=1min.;HDD Power Down=1min
User Defined	Allows you to set each mode individually. When not disabled, each of the ranges are from 1min. to 1hr. except for HDD Power Down which ranges from 1 to 15min. and disable

If you would like to use Software Power-off Control function, you cannot choose" Disabled "here, and should select "Yes" in PM Control by APM.

__PM Control by 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 shown as NO.

__Video Off Option__   When enabled, this feature allows the VGA adapter to operate in a power saving mode.

Always On	Monitor will remain on during power saving modes.
Suspend	Monitor blanked when the systems enters the Suspend mode.
Susp, Stby	Monitor blanked when the system enters Suspend or Standby mode.
All Modes	Monitor blanked when the system enters any power saving mode.

| *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 sync. 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

MODEM Use IRQ   This item determines the IRQ in which the MODEM can be used. The choice : 3,4,5,7,9,10,11,NA.

Soft-Off by PWR-BTTN   Instant-off : When push the power button, the system power will be off immediately. Delay 4 sec : when push the power button, it will enter suspend mode. We need to push the power button and hold for 4 seconds to turn off the power.

The Following 4 modes are Green PC power saving functions which are only user configurable when 'User Defined' power management has been selected.

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.

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.

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

VGA/LPT & COM These are I/O events whose occurrence can prevent the system
HDD & FDD/   from entering a power saving mode or can awaken the system
DMA/master   from such a mode. In effect, the system remains alert for anything
which occurs on a device which is configured as on, even when
the system is in a password down mode. When an I/O device
wants to gain the attention of the operating system, it signals this
by causing an IRQ(Interrupt ReQuest) to occur. When the
operating system is ready to respond to the request, it interrupts
itself and performs the service. When set to off, activity will
neither prevent the system from going into a power management
mode nor awaken it.

Modem Ring   Enabled : when system in suspend mode, it can be wake up
Resume   by modem.
Disabled : it cannot be wake up by modem.

RTC Alarm   When enabled, two additional lines will added to the screen :
Resume   Date (of Month) Alarm; Time (hh:mm:ss) Alarm to let user set
The desired date and time. After power off, the system will
automatic power on at the specified date and time.

Primary INTR   It enables/disables the IRQ3 to IRQ15 PM events.

This screen configures the PCI Bus slots.

```
                    ROM PCI/ISA BIOS (ATC-5250)
                       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             SAVE & EXIT SETUP                │
│ LOAD BIOS DEFAULTS                EXIT WITHOUT SAVING              │
│ LOAD SETUP DEFAULTS                                                │
├─────────────────────────────────────────────────────────────────────┤
│ ESC: Quit                      ↑↓→←:Select Item                     │
│ F10: Save & Exit Setup         (Shift) F2 : Change Color           │
├─────────────────────────────────────────────────────────────────────┤
│              IRQ Settings, Latency Timers, .....                    │
└─────────────────────────────────────────────────────────────────────┘
```

```
                    ROM PCI/ISA BIOS (ATC-5250)
                      PNP/PCI CONFIGURATION
                      AWARD SOFTWARE, INC.
┌─────────────────────────────────────────────────────────────────────┐
│ PNP OS Installed       : No      CPU to PCI Write Buffer  : Enabled  │
│ Resources Controlled by : Auto   PCI Dynamic Bursting     : Disabled │
│ Reset Configuration Data : Disabled  PCI Master 0 WS Write : Enabled │
│ ACPI I/O Device Node   : Enabled PCI Delay Transaction    : Disabled │
│                                  PCI Master Read Prefetch : Disabled │
│                                  PCI#2 Access #1 Retry    : Disabled │
│                                  AGP Master 1 WS Write     : Disabled │
│                                  AGP Master 1 WS Read      : Disabled │
│                                  PCI IDE IRQ Map To       : PCI-AUTO │
│                                  Primary  IDE INT#         : A       │
│                                  Primary  IDE INT#         : B       │
│                                  Assign IRQ For USB        : Disabled │
│                                  Assign IRQ For VGA        : Enabled  │
│                                 ┌────────────────────────────────────┤
│                                 │ Esc: Quit  ↑↓→←    :Select Item    │
│                                 │ F1  : Help       PU/PD/+/- : Modify│
│                                 │ F5  : Old Values   (Shift) F2: Color│
│                                 │ F6  : Load BIOS Defaults           │
│                                 │ F7  : Load Setup Defaults          │
└─────────────────────────────────┴────────────────────────────────────┘
```

PNP OS Installed   This item allows you to determine PnP OS or not.
Choices are Yes or No.

Resources
Controlled By   The Award Plug and Play BIOS has the capability 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 OS such as Windows 95. Choices are Auto and Manual.

Reset Config-
uration Data   This item allows you to determine whether to reset the configuration data or not.

ACPI I/O Device   Enable : reserve a node in memory for ACPI.
Node

CPU to PCI   Enable/Disable CPU to PCI POST Write.
Write Buffer

PCI Dynamic   Enable/Disable PCI burst operation.
Bursting

PCI Master   Enable : PCI Master 0 wait state mode.
0 WS Write   Disable : PCI Master 1 wait state mode.

PCI Delay   This chipset has an embedded 32-bit posted write buffer to support
Transaction   deadly transactions cycles. Select "enabled" to support compliance with PCI specification version 2.1.
The choice : Enabled, disabled space

PCI Master   Enable : always prefetch
Read Prefetch   Disable : prefetch only if enhance command

PCI#2 Access   Disable : PCI#2 will be disconnected until access finished
#1 Retry   Enable : PCI#2 will be disconnected if max. retries are attempted without success.

AGP Master   Enable/Disable AGP master one wait state write.
1 WS Write

AGP Master   Enable/Disable AGP master one wait state read.
1 WS Read

 PCI IDE IRQ   This allows you to configure your system to the type of IDE disk
  Map To   controller in use. By default, Setup assumes that your controller is
Primary IDE INT#   an ISA device rather than a PCI controller. The most apparent
Secondary IDE   difference is the type of slot being used. If you have equipped your
INT#   system with a PCI controller, changing this allows you to specify
which slot holds the controller and which PCI interrupt (A,B,C,D)
is associated with the connected hard disk. 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 " *lot x Using INT#"*
above. Select 'PCI Auto' allows the system to automatically
determine how your IDE disk system is configured.

Assign IRQ for   When this items is enabled, the system will assign an IRQ for
USB   USB. If this item is disabled, the USB will not occupy an
IRQ; therefore the IRQ of USB will be released for other
usage.

Assign IRQ for   When this items is enabled, the system will assign an IRQ for
VGA   VGA. If this item is disabled, the VGA will not occupy an
IRQ; therefore the IRQ of VGA will be released for other
usage.

This section page includes all the items of IDE hard drive and Programmed Input/Output features. See also Section "Chipset Features Setup".

```
                ROM PCI/ISA BIOS (ATC-5250)
                   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	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	

ESC: Quit   ↑↓→←:Select Item
F10: Save & Exit Setup   (Shift) F2 : Change Color

Time, Date, Hard Disk Type .....

```
                ROM PCI/ISA BIOS (ATC-5250)
                 INTEGRATED PERIPHERALS
                  AWARD SOFTWARE, INC.
```

OnChip IDE First Channel	: Enabled	Onboard Parallel Port	: 378/IRQ7
Onchip IDE Second Channel	: Enabled	Onboard Parallel Mode	: ECP
IDE Prefetch Mode	: Enabled	ECP Mode Use DMA	: 3
IDE HDD Block Mode	: Enabled		
IDE Primary Master PIO	: Auto		
IDE Primary Slave PIO	: Auto		
IDE Secondary Master PIO	: Auto		
IDE Secondary Slave PIO	: Auto		
IDE Primary Master UDMA	: Auto		
IDE Primary Slave UDMA	: Auto		
IDE Secondary Master UDMA	: Auto		
IDE Secondary Slave UDMA	: Auto		
Init AGP Display First	: Disabled		
Onboard FDC Controller	: Enabled		
Onboard UART 1	: 3F8/IRQ4	Esc: Quit ↑↓→←	:Select Item
Onboard UART 2	: 2F8/IRQ3	F1 : Help	PU/PD/+/- : Modify
Onboard UART 2 Mode	: Standard	F5 : Old Values	(Shift) F2: Color
		F6 : Load BIOS Defaults	
		F7 : Load Setup Defaults	

OnChip IDE First Channel   This setup item allows you to either enable or disable the primary/secondary controller. You might choose to

OnChip IDE Second Channel   disable the controller if you were to add higher performance or specialized controller.

IDE Prefetch Mode   Enable/Disable IDE Read Prefetch Buffer.

IDE HDD Block Mode   This allows your HD controller to use the fast block mode to transfer data to and from your HDD drive

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

IDE Primary Master/Slave PIO
IDE Secondary Master/Slave PIO
PIO - Programmed Input/Output, it allows the BIOS to tell the controller what it wants and then let the controller and the CPU to complete the task by themselves. This is simpler and more faster. Your system supports five modes, 0 - 4, which primarily differ in timing. When **Auto** is selected, the BIOS will select the best available mode.

IDE Primary Master/Slave UDMA
IDE Secondary Master/Slave UDMA
Auto, will support the Ultra DMA function.
Disabled, will not support the Ultra DMA function.

Init AGP Display First   This item will activate the AGP in the multi-display environment, it displayed, if disabled, and the system has both AGP and PCI VGA card, the AGP monitor will not display.

KBC input clock   Let user change the keyboard working clock.

On Board FDC Controller   This item will enable or disable the floppy disk controller.

On Board UART Port 1   User can select serial port IRQ. If set to 3F8/IRQ4, system will assign an IRQ for it. Note : set to Auto is not recommended.

On Board UART Port 2   User can select serial port IRQ. If set to 2F8/IRQ3, system will assign an IRQ for it. Note : set to Auto is not recommended.

OnBoard UART   This lets you select the Infrared mode. Choices are Standard,
2 Mode   HPIR, and ASKIR. If you choose HPIR or ASKIR mode,
         the screen will show another two lines to let you choose
         'IR Function Duplex' (Full or Half) and 'RxD TxD Active'
         (Hi Lo; Lo Hi; Hi Hi;Lo Lo).

On Board   Let user select IRQ for parallel port, when Disabled, the parallel
Parallel Port   port will be disabled

On Board   Let user select error check mode. This item is not recommended to
Parallel Mode change except user has special request.

ECP Mode   Select a DMA channel for the port.
Use DMA   Choices are 3, 1.

ROM PCI/ISA BIOS (ATC-5250)
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	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	

ESC: Quit   ↑↓→←:Select Item
F10: Save & Exit Setup   (Shift) F2 : Change Color

Time, Date, Hard Disk Type .....

ROM PCI/ISA BIOS (ATC-5250)
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

Hard Disks Type Size CYLS HEAD PRECOMP LANDZ SECTOR MODE

Primary Master :

Select Primary Master Option (N=Skip) : N

Options	Size	CYLS	Head	PRECOMP	LANDZ	Sector	Mode
2(Y)	1337	648	64	0	2594	63	LBA
1	1339	2595	16	65535	2594	63	NORMAL
3	1338	1297	32	65535	2594	63	LARGE

Note : Some OSes (like SCO-UNIX) must use "Normal" for installation

ESC : Skip

The last second step is 'save and exit'. If you select this item and press 'Y', then these records will be saved in the CMOS memory on the mainboard. It will be checked every time you turn your computer on.

ROM PCI/ISA BIOS (ATC-5250)
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	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	
ESC: Quit	↑↓→←:Select Item
F10: Save & Exit Setup	(Shift) F2 : Change Color
Time, Date, Hard Disk Type	

ROM PCI/ISA BIOS (ATC-5250)
STANDARD CMOS SETUP
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	PASSWORD SETTING
CHIPSET FEATURES SETUP	IDE HDD AUTO DETECTION
POWER MANAGEMENT SETUP	SAVE & EXIT SETUP
PNP/PCI CONFIGURATION	EXIT WITHOUT SAVING
LOAD BIOS DEFAULTS	SAVE to CMOS and EXIT (Y/N):Y
ESC: Quit	↑↓→←:Select Item
F10: Save & Exit Setup	(Shift) F2 : Change Color
Save Data to CMOS & Exit SETUP	

LOAD BIOS DEFAULTS

When your mainboard has problems and needs to trouble shoot the system, you can use this function. The default values loaded only affect the BIOS Features Setup, Chipset Features Setup, Power Management Setup and PNP/PCI Configuration Setup. There is no effect on the Standard CMOS Setup. To use this function, select it from main menu and press <Enter>. A line will appear on the screen asking if you want to load the BIOS default values. Press <Yes> and <Enter> then the BIOS default values will be loaded.

LOAD SETUP DEFAULTS

This allows you to load optimal settings which are stored in the BIOS ROM. The default values loaded only affect the BIOS Features Setup, Chipset Features Setup, Power Management Setup and PNP/PCI Configuration Setup. There is no effect on the Standard CMOS Setup. To use this function, select it from main menu and press <Enter>. A line will appear on the screen asking if you want to load the Setup default values. Press <Yes> and <Enter> then the Setup default values will be loaded.

SUPERVISOR PASSWORD / USER PASSWORD

This allows you to set the password. The mainboard defaults with password disabled.

Enter/Change password : Enter the current password, at the prompt, key-in your new password (up to eight alphanumeric characters), press <Enter>. At the next prompt, confirm the new password by typing it again and press <Enter>.

Disable password : Press the <Enter> key instead of entering a new password when the 'Enter Password' dialog box appears. A message will appear confirming that the password is disabled.

If you set both supervisor and user passwords, only the supervisor password allows you to enter the BIOS SETUP program.

CAUTION : If you forgot your password, you must disable
the CMOS by turning power off and set JP 8 to 'close'. And then
open reload the system.

IDE HDD AUTO DETECTION

This allows you to detect the IDE hard disk drivers' parameters
and enter them into 'Standard CMOS Setup' automatically.

If the auto-detected parameters displayed do not
match the ones that should be used for your hard drive,
do not accept them. Press <N> to reject the values
and enter the correct ones manually on the Standard
CMOS Setup screen.

SAVE & EXIT SETUP

This allows you to save the new setting values in the
CMOS memory and continue with the booting process.
Select what you want to do, press <Enter>.

EXIT WITHOUT SAVING

This allows you to exit the BIOS setup utility without
recording any new values or changing old ones.

※ **Control Key Description** ※

UP ARROW	↑	Move to previous item
DOWN ARROW	↓	Move to next item
LEFT ARROW	←	Move to the item in the left hand
RIGHT ARROW	→	Move to the item in the right hand
Esc KEY	Esc	Main Menu : Quit and not save changes Setup menu : Exit current page and return to main menu
PgUp KEY		Increase the numeric value or make changes
PgDn KEY		Decrease the numeric value or make changes
F1 KEY	Help	General help
F2 KEY	< Shift > +F2	Change color from total 16 colors
F5 KEY	Old Value	Restore the pervious CMOS value from CMOS
F6 KEY	Load BIOS default	Load the default CMOS value from BIOS default table
F7 KEY	Load setup default	Load Setup default
F10 KEY	Save & Exit Setup	Save all the CMOS changes and Exit setup, only for Main Menu

APPENDIX A

<p align="center">※※**TECHNICAL SUPPORT REQUEST FORM**※※</p>

If the mainboard doesn't function properly, please complete the following information and return it to your system dealer. If the further information is needed, please attach it.

Model No : _ATC-5250_   Date of Purchase : _____

Serial No : _____

HARDWARE :

	BRAND	MODEL	SPEED	Q'TY
DIM Module				

CPU SPEED : _____ MHz
DRAM :_____MB (___SDRAM/EDO DRAM)
Hard Disk Interface Controller : _____ IDE, _____ SCSI
Hard Disk Brand :_____, Model :_____, Capacity :_____
Display Controller Brand :_____,Model :_____
          Controller Chip Brand :_____,Model :_____
SOFTWARE:
Award SYSTEM BIOS: Version _____ Date Code _____

   Other Add-on Cards Information:

Add-on Card	Bus Interface	Model	Remark

Error Description

C-160-5250-010000-80820