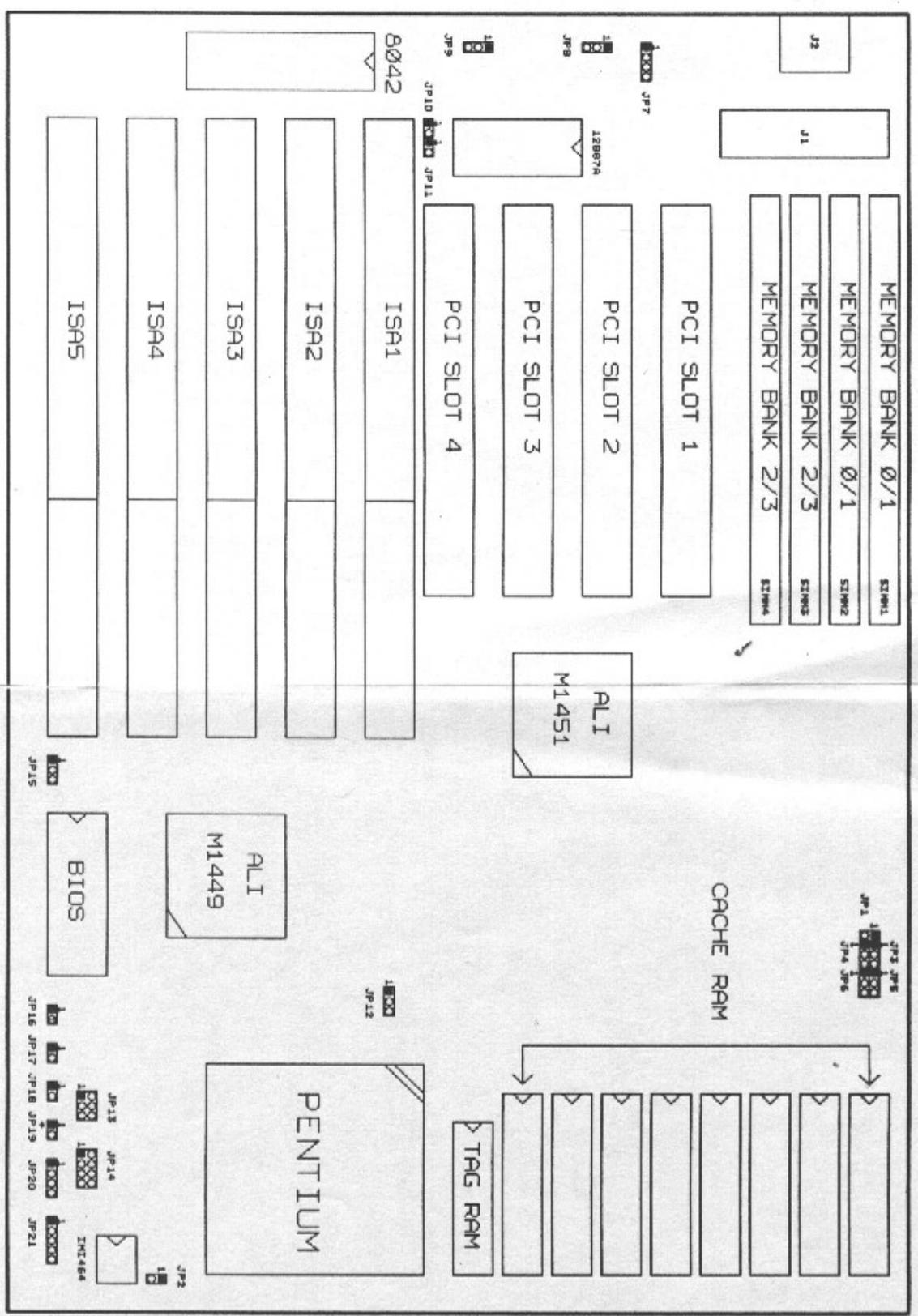


## **Mainboard Specification**

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- **CPU:** Intel 64-bit Pentium CPU.
- **Frequency:** Support system running at 60/66 MHz.
- **System chipset:** ALI 1449, 1451
- **Cache size:** Write back direct mapped cache with size of 256/512KB/1M selection.
- **SRAM type:** TAG SRAM 8KX8/16KX8/32KX8.  
DATA SRAM 32KX8/64KX8/128KX8.
- **DRAM size:** Four banks up to 512 MB.
- **DRAM type:** Support 256K/512K/1M/2M/4M/8M/16M/32M 72-pin SIMM module.
- **Slots:** Five 16-bit ISA slots.  
Four 32-bit PCI slots (master mode).
- **Green function:** HDD standby.  
Monitor standby  
CPU slow clock to 33 MHz
- Support green power supply connector for controlling AC output power and VESA VGA monitor control through VGA feature connector.
- Hardware power down switch supported.

# Appendix B : PCB Layout P1 placement



# Chapter 2

## Hardware Description

In this chapter we will describe the system mainboard's connectors and jumpers. That will help you do the right setting of this board whenever you change the system configuration or make an upgrade. For the PCB Layout Placement, please refer to the Appendix B.

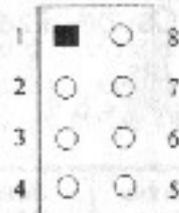
### Connectors

**J1:** Power Supply Connector

**J2:** Keyboard Connector

**JP14:** Green function connector.

Pin 1,3,5,7: Control signal to external devices  
Pin 2,4,6,8: Ground



JP14

**JP16:** Power Saving Switch Connector

Open: Normal

Short: Power down state

**NOTE:**

When this switch is short, it will force the system to enter suspend mode. At the same time the turbo LED will be blinking to indicate its status.

**JP17:** Hardware Reset

Pin 1: Ground

Open: Normal

Pin 2: Reset input

Short: Reset

**JP18:** Turbo Switch

Pin 1: Ground

Open: Normal

Pin 2: Turbo active

Short: Turbo

### JP19: Turbo LED

Pin 1: LED cathode  
Pin 2: LED power

**NOTE:**  
The LED will be blinking when system is in Doze, Stand-by and Suspend Mode.

### JP20: Speaker Connector

Pin 1: Data out  
Pin 2: N.C.  
Pin 3: Ground  
Pin 4: +5V VDC

### JP21: Keylock and Power LED Connector

Pin 1: LED power  
Pin 2: N.C.  
Pin 3: Ground  
Pin 4: Keyboard inhibit  
Pin 5: Ground

## Jumpers

### A. Cache SRAM Size Selection

#### 1. Cache Size Selection

JP1: Pin header 1x2  
JP3,4,5,6: Pin header 1x3

Cache Size	Data RAM	TAGRAM	JP1	JP3	JP4	JP5	JP6
256 Kx8	32 Kx8	32 Kx8	Off	1-2	1-2	Off	1-2
512 Kx8	64 Kx8	32 Kx8	Off	2-3	1-2	1-2	2-3
1024 Kx8	128 Kx8	32 Kx8	Short	2-3	2-3	2-3	2-3

**NOTE:**  
1. 15ns SRAM is required.  
2. TAGRAM location is U19.  
3. DATA RAM location is U1,U3,U6,U8,U11,U13,U16,U18.

## B. CPU Clock Selection

JP13: Pin header 2x3

	60 MHz	66 MHz
JP13	3-4	1-2, 3-4

## C. Others

JP11: Pin header 1x2

Short: Clear CMOS data.

Open: Normal operation.

JP12: Pin header 1x3

1-2: Normal operation.

2-3: ADS# strobe delay.

JP15: Pin header 1x3

1-2: Flash ROM 27010.

2-3: EPROM 27010

## Green Function Support

Connector JP14 support 4 pairs of hardware method to control peripheral device especially for the monitor power control. Connector JP14 is designed for the monitor and power-supply that provide AC output control to cut off monitor power when the system power enter the "standby" mode.

## Green Power Down Sequence

Mode	CPUCLK Clock Status	Peripheral Device Status
Normal	CPUCLK = CPUCLK	Normal mode
Doze	CPUCLK = CPUCLK/2	Normal mode
Standby	CPUCLK = CPUCLK/2	HDD standby CRT standby
Suspend	CPUCLK = CPUCLK/2	JP14 output low states HDD standby CRT standby

## DRAM Bank Configuration

The following is the configuration table:

Bank 0 (SIMM 1)	Bank 1 (SIMM 2)	Bank 2 (SIMM 3)	Bank 3 (SIMM 4)	Total
256 K x 36-S	256 K x 36-S			2 MB
512 K x 36-D	512 K x 36-D			4 MB
1 M x 36-S	1 M x 36-S			8 MB
256 K x 36-S	256 K x 36-S	1 M x 36-S	1 M x 36-S	10MB
512 K x 36-D	512 K x 36-D	1 M x 36-S	1 M x 36-S	12MB
1 M x 36-S	16MB			
2 M x 36-D	2 M x 36-D			16MB
4 M x 36-S	4 M x 36-S			32MB
2 M x 36-D	32MB			
512 K X 36-D	512 K x 36-D	4 M x 36-S	4 M x 36-S	36MB
1 M x 36-S	1 M x 36-S	4 M x 36-S	4 M x 36-S	40MB
4 M x 36-S	64MB			
8 M x 36-D	8 M x 36-D			64MB
1 M x 36-S	1 M x 36-S	8 M x 36-D	8 M x 36-D	72MB
4 M x 36-S	4 M x 36-S	8 M x 36-D	8 M x 36-D	96MB
8 M x 36-D	128 MB			
16 M x 36-S	16 M x 36-S	256 K x 36-S	256 K x 36-S	130 MB
16 M x 36-S	16 M x 36-S	512 K x 36-D	512 K x 36-D	132 MB
16 M x 36-S	16 M x 36-S	1 M x 36-S	1 M x 36-S	136 MB
16 M x 36-S	16 M x 36-S	2 M x 36-D	2 M x 36-D	144 MB
16 M x 36-S	16 M x 36-S	4 M x 36-S	4 M x 36-S	160 MB
16 M x 36-S	16 M x 36-S	8 M x 36-D	8 M x 36-D	192 MB
16 M x 36-S	256 MB			

**NOTE:**

1. S = Single side,  
D = Double side.
2. Sim 1 and Sim 2 must be the same type  
Sim 3 and Sim 4 must be the same type

# Chapter 3

## WinBIOS Setup

WinBIOS Setup configures system information that is stored in CMOS RAM. WinBIOS Setup has an easy-to-use graphical user interface that is easily recognized by anyone who has used the Microsoft Windows. WinBIOS Setup sets a new standard in BIOS user interface.

### Starting WinBIOS Setup:

As POST executes, the following appears:

Hit <DEL> if you want to run setup.

Press <DEL> to run WinBIOS Setup.

The WinBIOS Setup main menu, shown below, is organized into Setup, Utilities, Security and Default four windows. Each window contains several icons, by clicking each icon will activate a specific function. The WinBIOS Setup icons and functions are described as follows:

