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# *Chapter 1*

## Overview

The AP57 is a high-performance Pentium<sup>®</sup>-based system board that utilizes the PCI/ISA architecture. It integrates the SiS 5571 PCIsset, a super I/O controller, and a PCI mode 4 enhanced IDE controller with bus master support to enhance system performance. It has four single in-line memory module (SIMM) sockets that allow system memory expansion up to a maximum of 256MB. It also supports 256KB and 512KB pipelined-burst second-level cache.

One main feature of AP57 is the green power-management function that extends energy conservation from system components to display monitor. It complies with the power-saving standards of the U.S. Environmental Protection Agency (EPA) Energy Star program.

The AP57 board measures 220 mm x 250 mm.

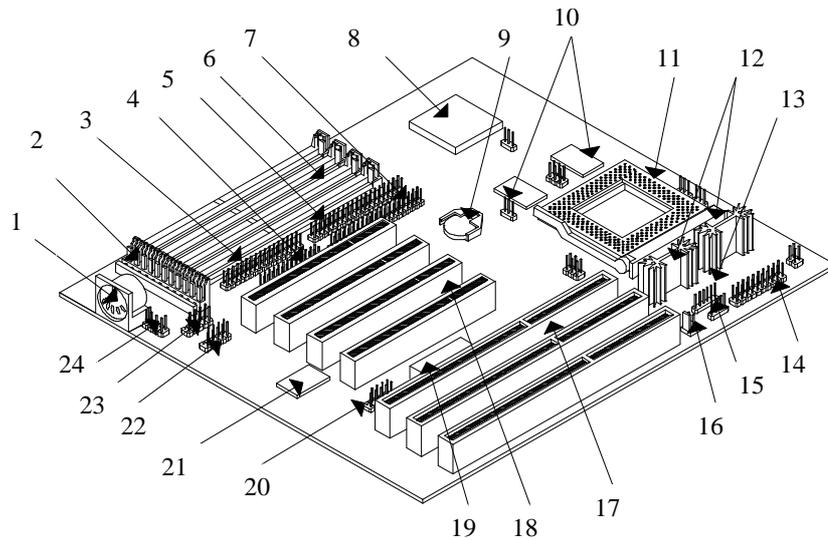
## Overview

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### 1.1 Specifications

<b>Form Factor</b>	Baby AT
<b>Board Size</b>	220mm x 250mm
<b>CPU</b>	Intel Pentium Processor P54C, PP/MT (P55C), AMD K5 and Cyrix 6x86
<b>System Memory</b>	FPM (Fast Page Mode) or EDO (Extended Data Output) 72-pin SIMM x4, maximum 256MB.
<b>Second-level Cache</b>	256KB or 512KB pipelined-burst cache onboard
<b>Chipset</b>	SiS 5571 PCIset (480-pin BGA Package)
<b>Expansion Slots</b>	ISA x3 and PCI x4
<b>Serial Port</b>	Two serial ports UART 16C550 compatible
<b>Parallel Port</b>	One parallel port supports standard parallel port (SPP), enhanced parallel port (EPP) or extended capabilities port (ECP).
<b>Floppy Interface</b>	Floppy interface supports 3.5-inch drive with 720KB, 1.44MB or 2.88MB format or 5.25-inch drive with 360KB, 1.2MB format
<b>IDE Interface</b>	Dual-channel IDE interface supports a maximum of 4 IDE hard disks or CDROM. Mode 4 and bus master hard disk drives are also supported.
<b>USB Interface (optional)</b>	USB bracket that supports two USB ports . The BIOS also supports USB driver to simulate legacy keyboard.
<b>PS/2 Mouse</b>	Via PS/2 mouse bracket
<b>Keyboard</b>	Default: AT compatible keyboard Mini-DIN PS/2 keyboard connector is optional.
<b>BIOS</b>	Award Plug-and-Play Flash ROM BIOS
<b>RTC</b>	RTC build in chipset
<b>Battery</b>	Lithium (CR2032)

## 1.2 Board Layout



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|----|-------------------------------|---|
| 1  | <i>Keyboard connector:</i>    | <i>The default is AT-compatible keyboard. The P/2-compatible mini-DIN keyboard connector is optional.</i> |
| 2  | <i>Power connector:</i>       | <i>Provides mainboard power.</i>  |
| 3  | <i>FDC connector:</i>         | <i>Connects to 3.5-inch/5.25-inch floppy drives.</i>  |
| 4  | <i>Printer connector:</i>     | <i>Connects to parallel printer</i>   |
| 5  | <i>IDE1 connector:</i>        | <i>Primary channel for IDE hard disk or CDROM, accepts a maximum of two devices.</i>                      |
| 6  | <i>SIMM sockets:</i>          | <i>Accepts 72-pin fast page mode or EDO DRAM module for system main memory.</i>                           |
| 7  | <i>IDE2 connector:</i>        | <i>Secondary channel for IDE hard disk or CDROM, accepts a maximum of two devices.</i>                    |
| 8  | <i>SiS chipset:</i>           | <i>SiS 5571 cache/memory controller in BGA package.</i>   |
| 9  | <b>Battery:</b>               | <b>CR2032-compatible</b>  |
| 10 | <i>Pipelined-burst cache:</i> | <i>256/512KB secondary level cache. Cache is used to enhance memory performance.</i>                      |
| 11 | <i>CPU socket:</i>            | <i>Accepts Intd Pentium P54C, PP/MT (P55C), AMD K5, and Cyrix 6x86 CPUs.</i>                              |

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- 12 *Voltage Regulators w/ Heatsink:* The regulator is used to supply CPU voltage.
- 13 *IrDA connector:* Wireless Infrared connector, used as COM2.
- 14 *Front-panel connector:* Connector for front panel power reset, suspend switches and power or green LED.
- 15 *IDE LED connector:* For front panel IDE LED.
- 16 *CPU fan connector:* +12V 2-pin connector for CPU fan.
- 17 *ISA slots:* Accepts 8-MHz ISA bus expansion cards.
- 18 *PCI slots:* Accepts 33-MHz PCI bus expansion cards.
- 19 *Keyboard controller:* Controls keyboard input/output functions.
- 20 *USB connector (optional):* Universal Serial Bus (USB). The USB is a new 4-pin serial interface that allows easy installation and cascading of USB devices..
- 21 *Super I/O controller:* SMC 669-compatible I/O control chip including two serial ports (COM1/COM2), one parallel port (printer), and floppy controller.
- 22 *COM1 connector:* Serial port 1.
- 23 *COM2 connector:* Serial port 2.
- 24 *PS/2 mouse connector:* Connects to PS/2 mouse bracket for PS/2-compatible mouse. Unlike serial mouse from COM1/COM2, the PS/2 mouse signal is similar as the keyboard and is also controlled by the keyboard controller.