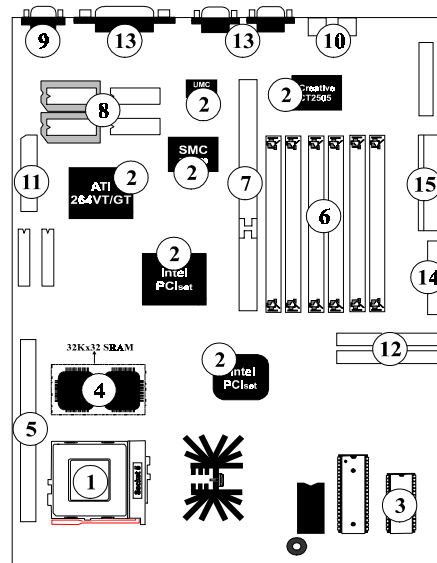


# 1 Introduction

## Mainboard Description



- |                             |   |
|-----------------------------|---|
| ① Processor                 | ⑨ VGA Connector                         |
| ② Chipset                   | ⑩ PS/2 Mouse & Keyboard set             |
| ③ System BIOS               | ⑪ VGA Feature Connector & AMC Connector |
| ④ L2 On-board Cache         | ⑫ IDE Connectors                        |
| ⑤ L2 Cache Module           | ⑬ Serial / Parallel Ports               |
| ⑥ SIMM System Memory Socket | ⑭ FDD Connector                         |
| ⑦ EISA like Expansion Slot  | ⑮ Power Supply Connectors               |
| ⑧ Video Memory              |   |

## *P5HX-LA*

P5HX-LA is a multimedia Pentium PCI W/Z I/O mainboard using Intel 430HX chipset (TXC, PIIX 3) and SMC I/O chip 37C669, ATI VGA Chip 264VT/GT, VT2 / RAGE II, CREATIVE ViBRA 16C Sound chip, and LPX Form factor.

### **1. Processor:**

On-board 7.5 A Regulator supports:  
Intel Pentium™ 75/90/100/120/133/150/166/200 MHz  
Intel Pentium OverDrive (P54CT/P54CTB)  
Intel 166/200 MHz (P55C) (Optional)  
Cyrix 6X86 100/110/120/133 MHz (P120+/P133+/P150+/P166+)

### **2. Chipset:**

Intel 430HX (TXC, PIIX 3)  
SMC 37C669 (SUPER I/O)  
ATI-264VT/ VT2 (GRAPHICS & VIDEO) or ATI-264GT/ RAGEII  
(manufacture optional)  
CREATIVE VIBRA 16C CT2505 (SOUND)

### **3. System BIOS:**

Award BIOS

### **4. L2 On-board Cache:**

Provide On-board 0 K or 256K Pipelined Burst L2 Cache.

### **5. L2 Cache Module :**

An optional ECS “CM161” or later version or upgrade cache module can be inserted to expand the cache memory size to 256KB or 512KB.  
An “COAST 2.1” or later cache module can also be used to upgrade the cache memory size.

### **6. SIMM System Memory Socket:**

Support 72-pin SIMMs of 4MB, 8MB, 16MB, 32MB or 64MB to form a memory size between 8MB to 384MB.

### **7. EISA like Expansion Slot:**

1 EISA like expansion Bus Slot. ( supports PCI & ISA)

### **8. Video Memory:**

On-board default 1 M EDO Video Memory which is upgradable to 2MB EDO.  
Manufacture optional supports SDRAM to 1MB or 2MB.

### **9. VGA Connector:**

15-pin D-type female VGA Connector.  
Supports Energy Star, DDC 1/2 monitor.

**10. PS/2 Mouse & Keyboard Set:**

Provides Connectors for PS/2 Keyboard & PS/2 Mouse.

**11.VGA Feature Connector and AMC Connector:**

Provides 40-pin feature connector and AMC Connector (ATI Multimedia Connector) for general VGA feature connector and some types of MPEG card or TV tuner cards.

**12.IDE Connector:**

Two Enhanced IDE up to 4 IDE Devices Connectors.

**13.Serial / Parallel Port:**

Provides two serial ports and one parallel port.

**14.FDD Connector:**

Provides an on-board FDD Connector which supports 360KB/720KB/1.2MB/1.44MB/2.88MB type drives.

**15.Power Supply Connectors:**

Provides the connectors for standard PC / AT power supply.

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**Features**

☐ **CPU:**

- One Socket 7 supports Pentium 75/90/100/120/133/150/166/200 MHz CPU with On-board Regulator and Intel OverDrive CPUs.
- Upgradable to Intel Pentium OverDrive.
- Supports Cyrix 6x86 P120+/P133+ /P150+/P166+ CPU.

☐ **BIOS:**

- Award BIOS with Flash ROM.
  - ⌘ PNP specification V1.0a

☐ **Cache:**

- Supports the CPU's internal first level (L1) cache and external secondary level (L2) cache.

**16KB Level 1 Cache:**

- ⌘ Data Cache: supports 8KB Write-Through and Write-Back policy.
- ⌘ Code Cache: supports 8KB Write-Through policy.

**256KB /512KB(optional) Pipelined Burst SRAM On Board.**

**160-pin Cache Module Socket for Level 2:**

- supports Global Write Pipelined Burst Extended Cacheability for 256KB/512KB.
- supports Global Write Pipelined Burst for 256KB/512KB.

**□ Memory:**

- 6 pieces of 72-pin SIMM sockets with memory size from 8MB to 384MB.
- 64MB SIMM DRAM Technology support.
- Enhanced EDO/ Hyper Page Mode DRAM support.

**□ IDE:**

- Built-in chip 32-bit PCI IDE interface with 2 IDE channels.
- Supports up to 4 IDE devices.
- Supports up to PIO mode 4 or DMA mode 2 with transfer rate up to 22MB/sec.

**□ FDC:**

- 2 floppy drives support 360K/720K/1.2MB/1.44MB/2.88MB and 3 mode format.

**□ I/O:**

- 1 multi-mode parallel port supports standard, enhanced (EPP), and high speed (ECP) mode.
- Two 16C550 compatible UARTs.
- Two USB channels (cable bracket option)

**□ Power Management:**

- Compatible with EPA “Energy-Star” specification.
- Fully compatible with Microsoft APM 1.2.
- Supports VESA Display Power Management Signaling (DPMS) compliant VGA monitor for power management.
- Supports 2 power management modes : Full-on and Standby modes.

- Programmable idle detector including one programmable I/O & one memory region.

□ **VGA:**

- Programmable dual-clock synthesizer and 24-bit DAC.
  - Ä Pixel clock programmable to 135MHz.
- 32-bit direct-connect CPU interface.
- 64-bit DRAM display memory interface.
  - Ä Supports 1 or 2 MB display memory. (EDO, SDRAM)
- 64x64 hardware cursor.
- 64-bit GUI acceleration.
- Accelerated support for packed-24 mode.
- Supports super high resolution graphic modes.
  - Ä 24-bit RAMDAC Integrated (135 MHz)
  - Ä Resolution up to 1280 x 1024 at 75Hz.
- Supports video playback, overlay and capture by H/W video engine.
- ATI AMC Connector to support video channel.
- Supports DDC 1/2 B monitor plug & play.

□ **Audio:**

- Sound Blaster™ 16 compatible.
- Integrated Music Synthesis and DAC.
- Supports Plug and Play .
- Roland MPU401 VART mode compatible.
- Fully MPC, MPC II compatible.
- Supports APX (All Position Expansion) 3D-sound.

*P5HX-LA*

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