

## **Chapter 1**

### **INTRODUCTION**

The MSI LPX SI15 mainboard is a high-performance personal computer mainboard based on the Pentium® processor. This mainboard supports Intel®Pentium®Pentium®with MMX™Technology, Cyrix®6x86/6x86L/6x86MX, AMD®K5/K6, and IDT C6™ processors.

The mainboard utilizes the SiS®5597 chipset, which has Built-in VGA using UMA mode. In addition there is an on-chipset USB and IDE controller which supports IDE PIO/Bus master operation mode for IDE HDD/CD-ROM. The PIO mode supports Mode 0,1,2,3 and 4, with a transfer rate up to 22 MB per/sec.

## **1.1 Mainboard Features**

### **CPU**

- Socket 7 supports Intel® Pentium®/Pentium® with MMX™ technology Processor
- The Cyrix® 6x86/6x86L/6x86MX ,AMD® K5/K6 and IDT C6™ processors are also supported.

### **Cache Memory**

- Supports 512K pipelined burst cache memory.
- Supports Direct Map Organization and Write-Back cache policy.

### **Chipset**

- SiS®5597 single chip BGA package with built-in VGA.
- Built-in 16Kb dirty SRAM.

### **Main Memory**

- Supports two 168-pin unbuffered DIMM sockets.
- Up to 128 MB main memory.
- Supports symmetric or asymmetric memory.
- Supports Fast Page (FP) Mode, Extended Data Output (EDO) Mode, and SDRAM.

### **Slots**

- Supports riser slot.
- Riser card supports one PCI and ISA slots or two ISA slots.
- Supports 3.3V PCI cards.

### **On-Board Peripherals**

- On-Board Peripherals include:
  - 1 floppy port supports 2 FDD with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes.
  - 2 serial ports (COM A & COM B).
  - 1 parallel port supports EPP/ECP mode.
  - 1 IrDA connector.

**On-Board IDE**

- An IDE controller on the SiS®5597 PCI Chipset provides IDE HDD/CD-ROM with PIO and Bus Master Operation Mode. The PIO Mode supports modes 0, 1, 2, 3 and 4 with a transfer rate of 22 Mbytes per second.
- Supports Multi-word DMA and Ultra DMA/33.
- Supports dual mode operation - Native & Compatibility mode.

**On-Board VGA**

- On-chip SiS®VGA.
- Supports UMA(Untied Memory Address) 0.5MB~4MB.

**Network**

- **Concerto I (PCB ver 1.X)**
  - Winbond W940 10M
  - Supports 10BASE-T/TX
- **Concerto II (PCB ver 2.X)**
  - Intel®558 100M chipset
  - 100BASE-T/TX LAN
  - Supports wake-up on LAN
  - 3K byte transmit and receiver FIFOs provide large on-chip storage of multiple transmit and receive frames

**Sound**

- ESS®1869 chip .
  - 3D audio effects.
  - 16 bit full-duplex stereo.
  - 16 bit address decode.
- Supports full duplex phonic mode.
- Three jack connectors: mic, line-in, and speaker.

**On-Board USB**

- Supports dual port USB(Universal Serial Bus).

**BIOS**

- The system board BIOS provides “Plug & Play” BIOS which detects the peripheral devices and expansion cards of the board automatically.
- The system board provides a Desktop Management Interface(DMI) function which records your system board specifications.

**RTC**

- Non-Volatile RTC with 256 bytes of CMOS RAM.

**Keyboard Connector**

- PS/2® keyboard interface and PS/2® mouse interface.

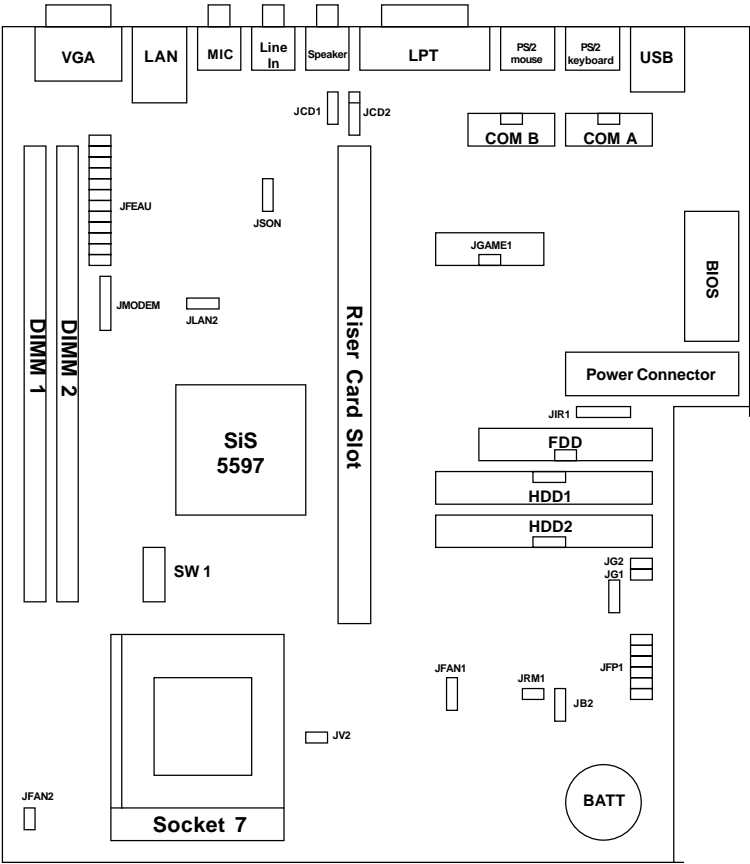
**Dimension**

- ALL-IN-ONE: 25cm(L) x 22.3cm(W) x 4 layer PCB.

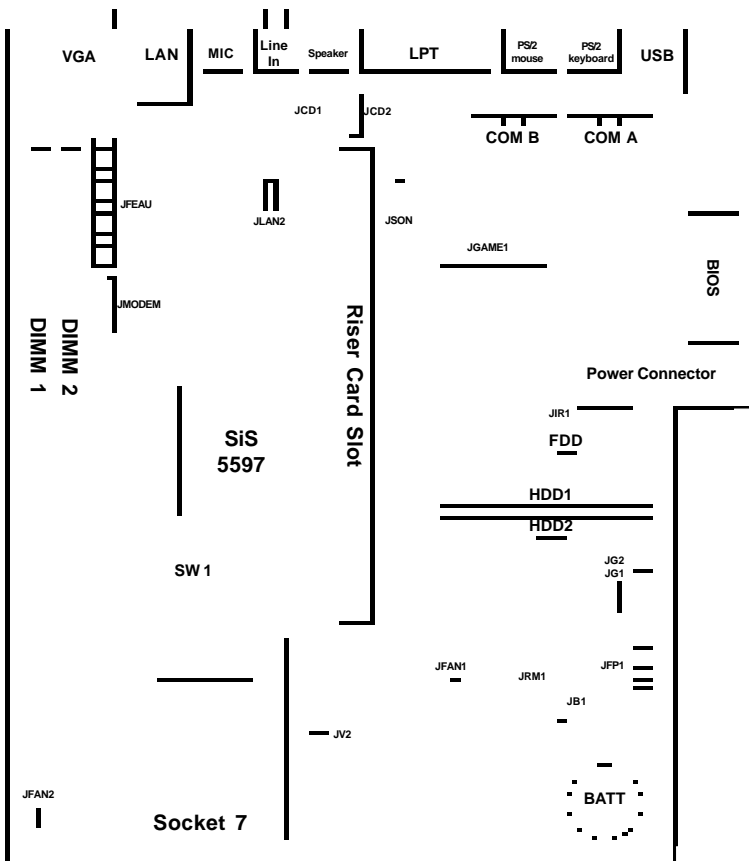
**Mounting**

- 6 mounting holes.

**1.2 Mainboard Layout**



**MS-5150 ver 1.X  
CONCERTO I**



MS-5150 ver 2.X  
CONCERTO II