Chapter 1

INTRODUCTION

The 815E PRO (MS-6337) ATX S3 mainboard is a high-performance computer mainboard based on Intel® 815 chipset. The MS-6337 is optimized to support the Intel® Pentium® III (FC-PGA) processor for high-end business/personal desktop markets.

The Intel® 815 chipset integrates a Display Cache SDRAM controller that supports a 32-bit 133MHz SDRAM array for enhanced integrated 3D graphics performance. It is a highly-flexible chipset which is designed to extend the basic graphics/multimedia PC platform up to the mainstream performance desktop platform.

The Intel® 815 chipset implements the host address, control, and data bus interfaces within a single device. It takes advantage of the pipelined addressing capability of the processor to improve the overall system performance. In addition, the chipset also integrates a system memory controller that supports a 64-bit 100/133 MHz SDRAM array.

The Intel® 82801BA (ICH2) chipset is a highly integrated multifunctional I/O Controller Hub that provides the interface to the PCI Bus and integrates many of the functions needed in today's PC platforms. It communicates with the host controller over a dedicated hub interface and provides added flexibility in designing cost-effective system solutions.

1.1 Mainboard Features

CPU
- Support Socket370 for Intel® Celeron™/Pentium® III(FC-PGA) processor.
- Support 500MHz, 550MHz, 600MHz, 633MHz, 667MHz and up to 1GHz

Chipset
- Intel® Solano chipset. (544 BGA)
   - AGP 4x/2x universal slot
   - Support 66/100/133MHz FSB
- Intel® ICH2 chipset. (241 BGA)
   - AC'97 6-channel support
   - Integrated LAN controller
   - 2 full IDE channels, up to ATA100
   - Low pin count interface for SIO
   - 2 USB host controller/4USB ports

Main Memory
- Support four 168-pin DIMM sockets.
- Support a maximum memory size of 256MB or 512MB SDRAM.

Slots
- One CNR (Communication Network Riser).
- One AGP (Accelerated Graphics Port) 2x/4x slot.
- Six PCI 2.2 32-bit Master PCI Bus slots. All PCI slots can be used as master. (One PCI/ISA slot shared; ISA slot is optional).
- Support 3.3v/5v PCI bus Interface.

On-Board IDE
- An IDE controller on the ICH2 chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA 66/100 operation modes.
- Can connect up to four IDE devices.

On-Board Peripherals
- On-Board Peripherals include:
  - 1 floppy port supports 2 FDD with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes.
  - 1 serial port (COMA)
  - 1 parallel port supports SPP/EPP/ECP mode
  - 4 USB ports (Rear * 2 / Front * 2)
  - 1 VGA port

Video
- GMCH chip integrated
- 2D/3D Graphics
- Intel® D.V.M Technology
- Flexible AGP In-Line Memory Module (AIMM) (optional)
- One AGP slot for external AGP card

Audio
- ICH2 chip integrated
- Support 4 Channel Audio or 6 Channel Audio (optional)

BIOS
- The mainboard BIOS provides "Plug & Play" BIOS which detects the peripheral devices and expansion cards of the board automatically.
- The mainboard provides a Desktop Management Interface(DMI) function which records your mainboard specifications.
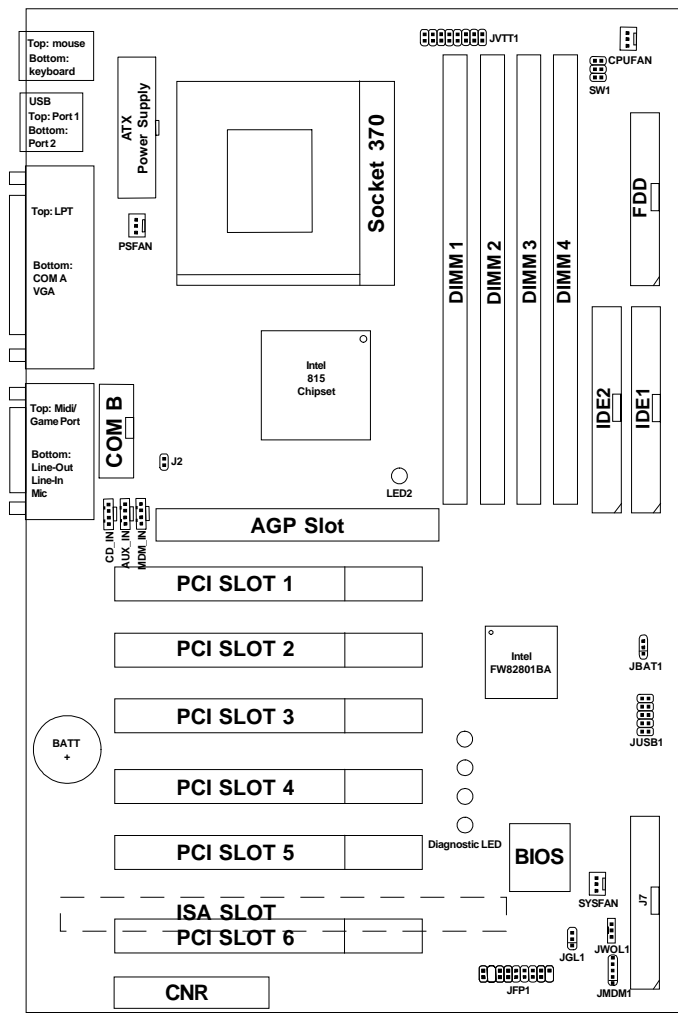
Dimension
- ATX Form Factor

Mounting
- 6 mounting holes.

1.2 Mainboard Layout

Top: mouse
Bottom: keyboard

USB
Top: Port 1
Bottom: Port 2

Top: LPT

Bottom:
COM A
VGA

Top: Midi/
Game Port

Bottom:
Line-Out
Line-In
Mic

ATX Power Supply

PSFAN

COM B

CD_IN

AUX_IN

MDM_IN

J2

JVTT1

CPUFAN

SW1

Socket 370

DIMM 1

DIMM 2

DIMM 3

DIMM 4

FDD

Intel
815
Chipset

IDE2

IDE1

LED2

AGP Slot

PCI SLOT 1

PCI SLOT 2

Intel
FW82801BA

JBAT1

PCI SLOT 3

BATT
+

JUSB1

PCI SLOT 4

Diagnostic LED

PCI SLOT 5

BIOS

SYSFAN

J7

ISA SLOT

PCI SLOT 6

JGL1

JWOL1

CNR

JFP1

JMDM1

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