

## **Chapter 1**

### **INTRODUCTION**

The MS-6315 Micro-ATX S1 mainboard is a high-performance computer mainboard based on Intel® 815E chipset. The MS-6315 is optimized to support the Intel® Pentium® III (FC-PGA) processor for high-end business/personal desktop markets.

The Intel® 815E 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® 815E 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.

## **Mainboard Features**

### **CPU**

- Support Socket370 for Intel® Celeron™/Pentium® III (FC-PGA) processor and Cyrix® Joshua processor.
- Support 500MHz, 550MHz, 600MHz, 633MHz, 667MHz and faster

### **Chipset**

- Intel® 815E chipset. (544 BGA)
  - AGP 4x/2x universal slot
  - Support 66/100/133MHz FSB
- Intel® ICH2 chipset. (360 EBGA)
  - AC'97 Controller Integrated
  - 2 full IDE channels, up to ATA100
  - Integrated 10/100Mbit/sec Ethernet
  - Low pin count interface for Winbond SIO
  - 4USB ports

### **Main Memory**

- Support two 168-pin DIMM sockets.
- Support a 32 to 512MB using 16/64/128/256Mbit technology.

### **Slots**

- One CNR(Communication Network Riser).
- One AGP(Accelerated Graphics Port) 2x/4x slot.
- Three PCI 2.2 32-bit Master PCI Bus slots.
- 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 DMA66/100 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.
  - 2 serial port (COMA + COMB--Header)
  - 1 parallel port supports SPP/EPP/ECP mode
  - 4 USB ports (Rear \* 2 / Front \* 2)
  - 1 VGA port
  - 1 RJ45 Connector (optional)
  - 1 Line-In/Line-Out/Mic-In/Game port

**Video**

- GMCH chip integrated
- 2D/3D Graphics
- Intel® D.V.M Technology
- Flexible AGP In-Line Memor Module(AIMM) (optional)

**Audio**

- ICH2 chip integrated
- Sigmatel 9721
  - AC97 2.1 Compliant.
  - Support 2 Channel Audio
- Creative® CT5880. (Optional)
  - PCI 2.2 compliant
  - PC97/98 specification compliant
  - 3D audio effects.
  - 32-voice XG wavetable synthesizer
  - Direct Sound Hardware Accelerator
  - Direct Music Hardware Accelerator
  - Full-Duplex stereo
  - Support SPDIF connector
  - 4 Channel Speaker Audio

**Network**

- ICH2 Integrated LAN Controller
- Intel 82562 ET/EM (optional)
  - ACPI and APM Supported (EM)
  - Wake-On-LAN and WFM 2.0 Supported (ET/EM)
  - Backward Compatible software with 82557, 82558 and 82559 (ET/EM)
  - Support Basic AOL functionality (EM)

**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**

- Micro-ATX Form Factor

**Mounting**

- 6 mounting holes.

