

Chapter 1

INTRODUCTION

The MS-6195 ATX IR3 mainboard is a high-performance personal computer mainboard based on the AMD Athlon® processor. This mainboard provides onboard Creative® CT5880 PCI technology in audio. The AMD Athlon® processor is the newest microprocessor in the AMD K86™ family of microprocessors.

The mainboard uses the highly integrated AMD® 751 system controller and AMD 756 peripheral controller. The AMD-751 system controller features: the S2k system interface supports a 100Mhz clock and double-data rate (DDR) transfers, the 33MHz 32-bit bus interface supports up to six PCI masters, the 66MHz AGP 1.0 compliant interface supports 2x data transfer mode, and High Speed memory designed to support a 100MHz SDRAM (PC-100-compatible-DIMM) with serial presence detect (SPD). The AMD-756 peripheral bus controllers feature an integrated ISA bus controller, an enhanced IDE controller with Ultra DMA-66 support, and a keyboard/mouse controller.

The MS-6195 ATX IR3 mainboard is one of our system board to implement the AMD-750 chipset (AMD-751 and AMD-756), which supports a single Slot A for AMD Athlon® processor.

1.1 Mainboard Features

CPU

- Slot A for AMD® Athlon™ processor.
- Support 500MHz, 550MHz, 600MHz, 650MHz or higher processor

Chipset

- AMD® Irongate chipset. (Northbridge)
 - 200MHz EV6 System Interface speed
 - 100MHz SDRAM
 - 1x/2x AGP
 - Status - Silicon currently in bring-up
- AMD® 756™ (Viper) chipset. (Southbridge)
 - OHCI USB
 - APIC
 - ACPI Power Management

Front Side Bus (FSB)

- 100MHz clock is supported. (200MHz Internal System Bus)

Main Memory

- Supports three memory banks using three 168-pin unbuffered DIMM sockets.
- Supports a maximum memory size of 768MB for SDRAM.
- Supports 3.3v PC100 SDRAM DIMM.

Slots

- One AGP (Accelerated Graphics Port) slot.
 - AGP specification compliant
 - AGP 66/133MHz 3.3v device support
- Six 32-bit Master PCI Bus slots and one 16-bit ISA bus slots
- Supports 3.3v/5v PCI bus Interface.

On-Board IDE

- An IDE controller on the AMD® 756 chipset provides IDE HDD/CD-ROM with PIO and Ultra DMA/66 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 ports (COMA + COMB)
 - 1 parallel port supports SPP/EPP/ECP mode
 - 4 USB ports
 - 1 IrDA connector for SIR.

Audio

- Creative CT5880. (optional)
 - 64 Voice WaveTable Synthesizer
 - Sound Library of over 4000 different sounds
 - Support SPDIF (AC3)
 - Support Microsoft Direct Sound, Direct Sound 3D, Direct Music, and A3DAPI.

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.

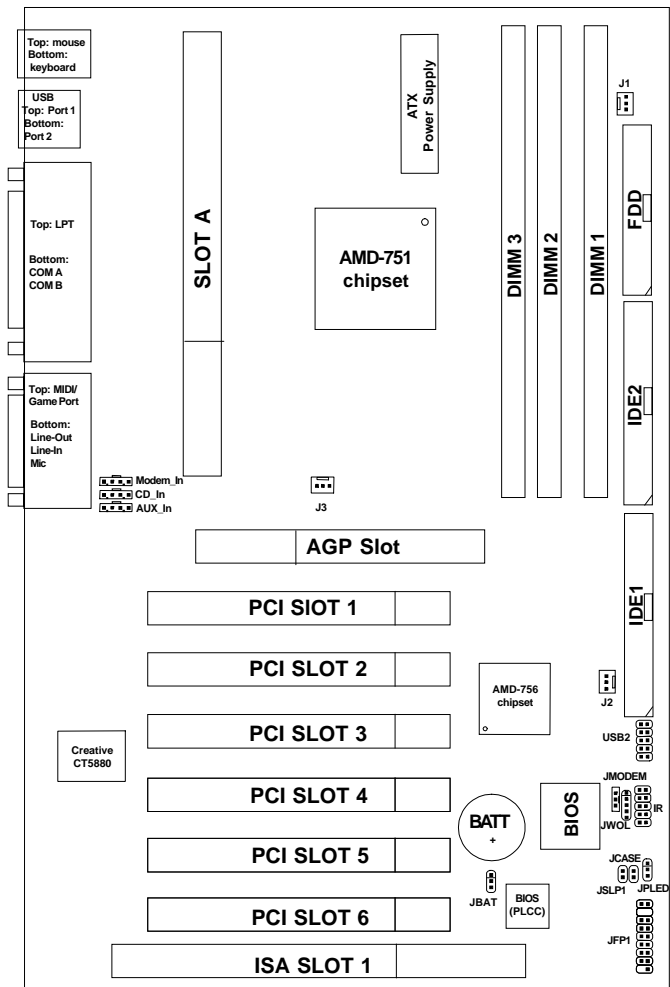
Dimension

- ATX Form Factor : 30.5cm x 19.2cm x 4 layers PCB

Mounting

- 7 mounting holes.

1.2 Mainboard Layout



MS-6195 ATX IR3 Mainboard