Chapter 1

INTRODUCTION

The MICRO ATX ZX mainboard is a high-performance personal computer mainboard based on the Intel® Pentium® II/Pentium® III/Celeron™ processor. This mainboard combines leading edge nVIDIA Riva TNT2 M64 technology in graphics and Creative® ES1373 PCI technology in audio. The Intel® Pentium® II/III/Celeron™ processor supports MMX™ (Multimedia Extension) technology.

The mainboard uses the highly integrated Intel® 82443ZX AGP chipset to support the PCI/ISA and Green standards, and to provide the Host/AGP bridge. The Intel® 82371EB chipset integrates all system control functions such as ACPI (Advanced Configuration and Power Interface). The ACPI provides more Energy Saving Features for the OSPM(OS Direct Power Management) function. The Intel® 82371EB chipset also improves the IDE transfer rate by supporting Ultra DMA/33 IDE that transfers data at the rate of 33MB/s.

The mainboard also supports the System Hardware Monitor Controller as an optional function. Its functions include: CPU /power supply/chassis fan revolution detect, CPU/system voltage monitor, system temperature monitor, and chassis intrusion detect(optional).

1.1 Mainboard Features

CPU

- Slot 1 for Intel® Pentium® II/Pentium® III/Celeron™ processor.
- Supports 233MHz, 266MHz, 300MHz, 333MHz, 350MHz, 400MHz, 450MHz, 500MHz and faster.

Chipset

- Intel® 440ZX AGPset
  - support 66 or 100Mhz Host bus frequency
  - support AGP & PCI
- Intel® PIIX4E chipset
  - PCI to ISA Bridge PC98 Compliant
  - UltraDMA-33 Master Mode PCI IDE Controller
  - Super I/O Interface
  - 324 pin BGA package

FSB (Front Side Bus)

- 66.6MHz and 100MHz clocks are supported.

Main Memory

- Supports four memory banks using two 168-pin unbuffered DIMM.
- Supports a maximum memory size of 256MB (8M x 8).
- Supports 3.3v SDRAM DIMM.

Slots

- Three 32-bit Master PCI Bus slots
- Supports 3.3v/5v PCI bus Interface.

On-Board IDE

- An IDE controller on the Intel® PIIX4E PCI Chipset provides IDE HDD/ CD-ROM with PIO, Bus Master and Ultra DMA/33 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 (COM A) + 1 serial connector (COM B)
  - 1 parallel port supports SPP/EPP/ECP mode
  - 1 MIDI/Game Port
  - 2 USB ports
  - 1 IrDA connector for SIR/FIR.
  - 1 Audio port (Line_In, Line_Out, and Mic_In Jack)
  - 1 VGA port

VGA

- nVIDIA Riva TNT2 M64
  - Running on AGP BUS.
  - Onboard 32MB (4*16M) SDRAM.
  - 3D Acceleration.
  - AGP 2x mode support pipelined protocols.

Sound

- Creative® ES1373
  - Running on PCI BUS.
  - Support Direct Sound and Direct Sound 3D
  - AC97' Compliant

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.
- ACPI(Advanced Configuration and Power Interface) feature.

Dimension

- MICRO-ATX Form Factor: 24.4cm(L) x 20.6cm(W) x 4 layers PCB

Mounting

- 6 mounting holes.

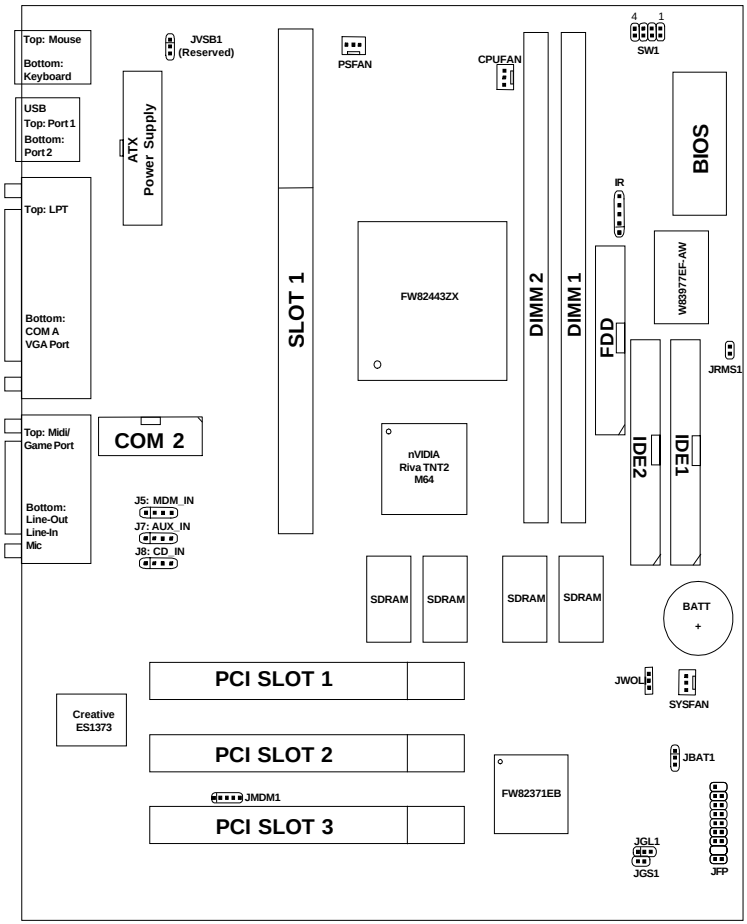
System Hardware Monitor (optional)

- CPU/Power Supply/Chassis Fan Revolution Detect
- CPU Fan Control (the fan will automatically stop when the system enters suspend mode)
- System Voltage Detect
- CPU Overheat Warning.
- Display Actual Current Voltage

Other Features

- Keyboard Password Wake-Up (reserved)
- LAN Wake-Up
- Internal/External Modem Wake-Up

1.2 Mainboard Layout



Medion 9901 MICRO ATX ZX Mainboard