

Chapter 1

Introduction

The ATX TX3 mainboard is a high-performance personal computer mainboard. This mainboard supports Intel®Pentium® processor and Pentium®processor with MMX™ technology, Cyrix®6x86/6x86L/6x86MX processor, and AMD®K5/K6 processor. The mainboard also supports four 32-bit PCI (Peripheral Component Interconnect) Local Bus standard slots.

A cache subsystem is configured for 512K cache memory to improve overall throughput.

The mainboard uses the highly integrated Intel®83430TX chipset to support the PCI/ISA and Green standards, and to provide the Host/PCI bridge. The Intel®82430TX 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®82430TX chipset also improves the IDE transfer rate by supporting Ultra DMA/33 IDE that transfer data at the rate of 33MB/s.

The mainboard has an on-board Audio which uses Creative®Vibra 16X chipset. The Creative®Vibra 16X chipset provides Windows applications like Creative®Wavesynth and Sound Blaster 16 Utility that allows you to play high quality music for Windows multimedia applications and computer games.

The mainboard also supports the LM78 System Hardware Monitor Controller as optional function. The LM78 function includes: CPU chassis/ power fan control, CPU temperature detect and protect, and chassis intrusion detect.

1.1 Mainboard Features

CPU

- Socket 7 supports Intel® Pentium® processor -- Pentium® processor w/ MMX™ technology.
- The Cyrix® 6x86/6x86L/6x86MX and AMD® K5/K6 processors are also supported.

Cache Memory

- Supports Directed Map Organization and Write-Back Cache Policy.
- Supports 512K pipelined burst cache memory.

VRM

- VRM (Voltage Regulator Module) is on board. It provides power for the processor.

Chip Set

- Intel® 82430TX PCI chipset.

Main Memory

- Supports Six memory banks using Three 168-pin DIMM sockets.
- Up to 256 Mbytes main memory.
- Supports Fast Page (FP) Mode, Extended Data Output (EDO) Mode and SDRAM.
- Supports only unbuffered DIMM.

Slots

- Four 32-bit Master PCI Bus slots and Four 16-bit ISA bus slots. One shared slot that can be used as ISA or PCI.
- Supports 3.3V/5V PCI Bus Interface.

On-Board Peripherals

- On-Board Peripherals include:
 - 1 floppy port supports 2FDD with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes.
 - 2 serial ports (COMA + COMB)
 - 1 parallel port supports SPP/EPP/ECP mode
 - 1 IrDA connector or Fast IrDA(reserved)
 - 1 Consumer IR(reserved)
- Supports ACPI

On-Board IDE

- An IDE controller on the Intel®82430TX PCI Chipset provides IDE HDD/CD-ROM with PIO Bus Master and Ultra DMA/33 operation modes.
- Can connect up to 4 IDE devices.

On-Board USB

- Supports dual port USB(Universal Serial Bus).

On-Board System Hardware Monitor(LM78)

- System Voltage Detect
- CPU and Chassis Fan Speed detect
- Chassis Intrusion detect(reserved)
- CPU temperature detect(reserved)

Creative®Vibra 16x CT2510

- Codec, Mixer, Processor, CQM, Joystick I/F
- Microsoft®PC97 compliant
- PnP
 - Supports 2 Devices: SB & Joystick
 - Resources (4 IRQ, 38-bit DMA)
- 16CL mixer with extra mixer channel (5 stereo, 2 mono)
- Creative®3D Stereo Enhancement
- Full Duplex 16-bit Record and Playback
- Supports Type-F and Demand Mode DMA
- APM 1.2

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.

Keyboard Connector

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

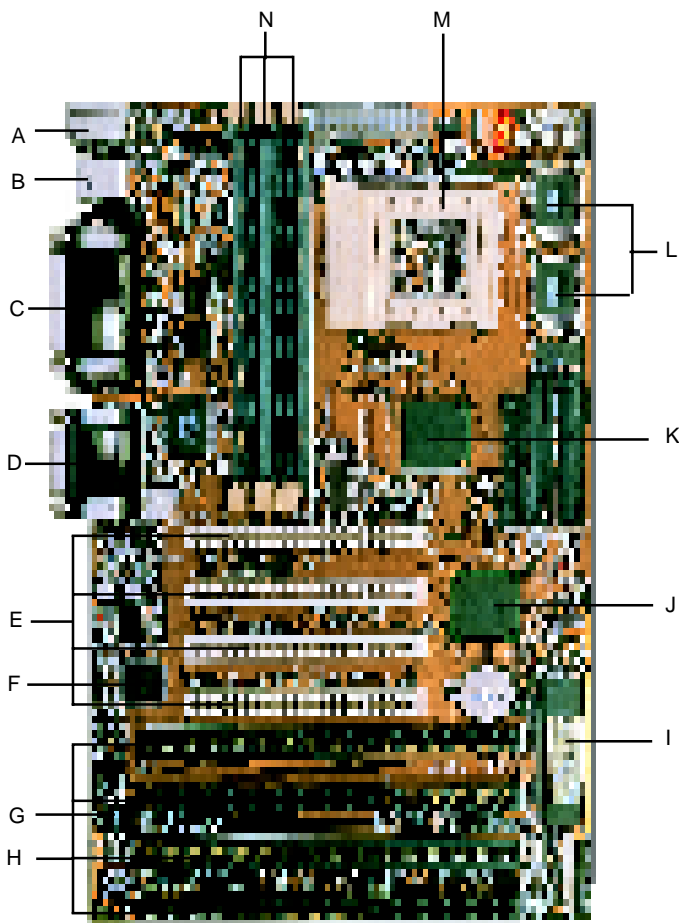
Dimension

- ATX Form Factor: 30.5cm(L) x 18.6cm(W) x 4 layer PCB.
- Double deck I/O connectors, compatible with Intel[®] Venus mainboard.

Mounting

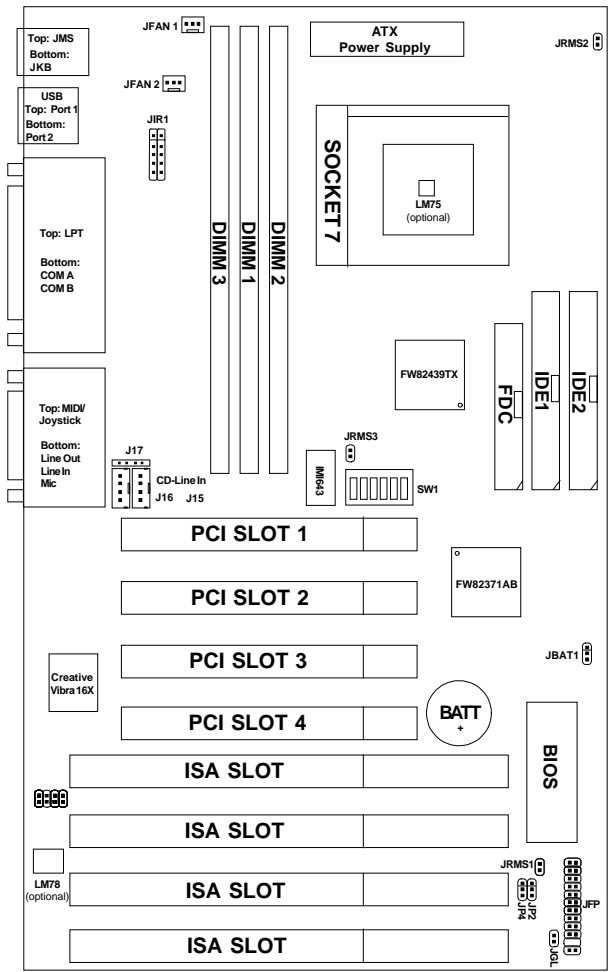
- 6 mounting holes.

1.2 Parts of the Mainboard



A	PS/2 Ports	Top: Mouse Bottom: Keyboard
B	USB Ports	Top: Port 1 Bottom: Port 2
C	COM Ports	Top: Parallel Bottom: Serial
D	Sound Ports	Top: Joystick/Midi Bottom: Line-Out/Line-In/Mic
E	Four 32-Bit PCI SLOTS	
F	Creative®Vibra 16X	
G	LM78	
H	Four 16-Bit ISA SLOTS	
I	Flash BIOS	
J	Intel®PCIsset 82371AB	
K	Intel®PCIsset 82430TX	
L	512KB Pipelined Burst L2 Cache	
M	CPU Socket 7	
N	Three 168-pin DIMM Sockets	

1.3 Mainboard Layout



MS-5153