

## **Chapter 1**

### **INTRODUCTION**

The MICRO ATX VIA® VT82C693A mainboard is a high-performance personal computer mainboard based on the Intel® Celeron™ PPGA 370/FC-PGA and Pentium® III, and Cyrix® Joshua processor. This mainboard features the leading edge Creative® ES1373 PCI technology in audio. The Intel® Celeron™ Pentium® III processor supports MMX™ (Multimedia Extension) technology.

The mainboard uses the highly integrated VIA® VT82C693A chipset to support the PCI/ISA and Green standards, and to provide the Host/AGP bridge. The VIA® VT82C596B 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 VIA® VT82C596B chipset also improves the IDE transfer rate by supporting Ultra DMA 33/66 IDE that transfers data at the rate of 33/66MB/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**

- Socket 370 for Intel® Celeron™ and Pentium® III processor.
- Supports 333MHz, 366MHz, 400MHz, 466MHz, 500MHz, 566MHz, 600MHz, 667MHz, 700MHz, 733MHz, 800MHz.

### **Chipset**

- VIA® VT82C693A + VT82C596B chipsets.

### **Clock Generator**

- 66/100/133MHz clocks are supported.

### **Main Memory**

- Supports four memory banks using two 168-pin unbuffered DIMM.
- Supports a maximum memory size of 1GB.
- Supports 3.3v SDRAM DIMM.
- Supports ECC (1-bit Error Code Correct) Function.

### **Slots**

- One AGP slot
  - AGP specification compliant
  - AGP 66/133MHz 3.3v device support
- Three 32-bit Master PCI Bus slots
- Supports 3.3v/5v PCI bus Interface.
- Supports PCI 2.2.

### **On-Board IDE**

- An IDE controller on the VT82C596B Chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA/66 operation modes.
- Can connect up to four IDE devices.

**Note:** MSI will update the CPU speed setting from time to time. Please check with our technical support or website for new CPU speed release .

**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 (COM A + COM B)
  - 1 parallel port supports SPP/EPP/ECP mode
  - 2 USB ports
  - 1 IrDA connector for SIR.

**Sound**

- Creative® ES1373
  - Running on PCI BUS.
  - 64 Voice and AC3 Capable
  - Support Direct Sound and Direct Sound 3D
  - AC97' Compliant

**I/O Chip**

- Winbond® multi super I/O W83977/EF
  - 2M bps fast tape drive, IRQ sharing
  - Device Power Management
  - Real time clock (256 bytes RAM)
  - 8042-based keyboard controller (support PS/2 mouse)

**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 19.2cm(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
- LAN Wake-Up
- Internal/External Modem Wake-Up

1.2 Mainboard Layout

