Chapter 1

Introduction

1-1 Product Specifications

❒ **Processor**

- Supports up to 200 MHz Intel **Pentium®** processors and up to 233MHz **Pentium®** processors with MMX technology
- Supports Cyrix/IBM 6x86MX PR166+~PR233+ and up to 380 MHz MII processors
- Supports AMD K6 166 MHz~266 MHz processors, K6-2 ,K6-2 CXT and K6-III up to 450 MHz processors
- Supports IDT180 MHz to 225 MHz Winchip C6, 240 MHz to 300MHz Winchip 3D processors
- 321-Pin ZIF Socket 7
- High efficiency Switching Power Module
- Supports 66/75/83/90/95/100 MHz system clock speeds

❒ **Chipset**

- **SiS** 530/5595 two chip AGPset with integreted **2D/3D** graphics controller

❒ **L2 Cache**

- On board 512KB Pipelined Burst SRAM and up to 1MB (optional)

❒ **DRAM Memory**

- Three 3.3V 168-pin DIMM sockets support up to 384MB

⚠ Because 256MB unbuffered DIMM modules are not yet mainstream, their compatibility can not be guaranteed. (See Section 2-5 for details.)

❒ **Expansion Slots**

- Four 32-bit PCI slots
- One 16-bit ISA slot (one PCI/ISA shared slot)

❒ **BIOS**

- Award System BIOS, supports PnP, APM, DMI, ACPI & Multi-device booting features i.e. floppy, LS120, HDD(IDE/SCSI), ZIP-ATAPI etc.
- Includes Trend **ChipAway Virus** protection for virus-free boot and virus free operating system

✍ The Trend ChipAway Virus is a rule-based anti-virus technology and does not require periodical updates of virus code

- **Two Ultra DMA-66 PCI IDE Ports**
  - Supports up to PIO Mode 4, Multi-word Mode 4 and Ultra DMA-33/66 timings
  - Complete Bus Mastering software drivers for all well known multi-task operating systems

- **Embedded Ultra I/O**
  - ITE 8661 I/O chip
  - One Parallel (SPP/ECP/EPP) and one Serial (16550A compliant) ports
  - One floppy disk drive connector supports up to 2.88MB, Japanese 3-Mode, and 1Mbps transfer rates

- **Back-Panel I/O Connectors**
  - PS/2 Mini-DIN keyboard and mouse ports
  - Two Channel USB ports
  - One D-Sub 9-pin male serial port
  - One D-Sub 15-pin female VGA port
  - One D-Sub 25-pin female Printer port
  - One D-Sub 15-pin female Game/MIDI port
  - Audio Line-out, Line-in, Mic-in jacks

- **Integreted Super AGP 2D/3D Video/graphics controller**
  - Built-in high performance 3D engine has a peak polygon rate of 800K polygons/second at 50 pixels/polygon and has a peak fill rate at 40M pixels/ second.
  - Built-in programmable 24-bit true color RAMDAC upto 230MHz pixel clock
  - Integrated Direct Draw Accelerator, with a 64-bit BITBLT engine
  - Supports 42 double-word hardware command queue
  - Supports programmable 8MB memory configuration

- **On Board Audio Subsystem**
  - ESS Solo-1 (1938S)16-bit stereo audio controller
  - Programmable independent sample rate from 4KHz to 48KHz for recording and play-back with Full-duplex DSVD capability
  - Built-in high quality ESFM music synthesizer
  - Supports DLS(Downloadable Wavetable Sounds) wavetable synthesizer with limitless variety of samples using PC RAM.

- **Two Channel USB Ports**

  ⚠ Now under compatibility testing with different peripherals

❒ Board Dimensions

- Micro-ATX form factor, 244mm x220mm, 4 Layers
- Six mounting holes

❒ Advanced Management Features

- Software power off control, Over-ride power button, Power-on by modem, Power-on by keyboard, Power-on by alarm,Power failure recovery, Blinking LED in Suspend etc.
- Integrated LDCM compliant System Monitor Hardware for electrical security
- **Poly-fuse** over-current protection for USB and keyboard
- Supports PC/PCI to Creative S-link
- **ACPI** features ready when ACPI-enabled O/S is available
- Special PCI Asynchronous mode for maximum performance betweenCPU and memory configuration
- First industrial mainboard to combine Trend ChipAway Virus and PC-cillin for a 100% virus free system boot-up in one

❒ Switching Power Supply Requirement

Output Voltage	Max. Regulation Requirement	Min. Current Requirement (Amps)
+12V	+/- 5%	0
+5V	+/- 5%	1
+3.3V	+/- 5%	10*
-5V	+/- 10%	0
-12V	+/- 10%	0
+5VSB	**+/- 5%**	**0.75**

Table 1-1

⚠ 3.3V at 10Amps is necessary to guarantee full loading operation because some AGP cards and memory modules have high current consumption.

1-2 Package Contents

This product comes with the following components:

- ❒ One mainboard
- ❒ One 40-pin Ultra DMA-66 IDE connector ribbon cable (Figure 1-1)
  *** Color coded connection for UDMA/66 cable**
  Blue to mainboard, Ground in blue, Gray to Master and Black to slave
- ❒ One 34-pin floppy disk drive ribbon cable (Figure 1-2a) or (Figure 1-2b)
- ❒ One plastic stub for standard ATX installation (Figure 1-3)
- ❒ One User's Manual
- ❒ One CD-ROM that includes
  - Acrobat Reader
  - Award System BIOS Flash Utility and Award DMI Utility for DOS
  - SiS Bus Master IDE drivers for Win95, WinNT3.5/4.0
  - SiS AGP VXD Driver
  - SiS USB Supplement
  - ESS Audio Driver for DOS/Win95/NT
  - ESS AudioRack Utility for Win95/NT
  - ESS 1MB WaveData for Win95
  - System Health Monitoring Software with DMI Browser
  - Trend **PC-cillin** Anti-virus v3.1Utility (eight different languages)

Figure1-1 UDMA/66 IDE cable

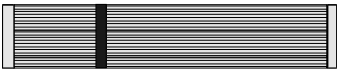


Figure1-2a Standard Floppy cable

Figure1-2b Optional 5.25 in. floppy cable

Insert the stub if the mounting screw is not supported by the ATX case

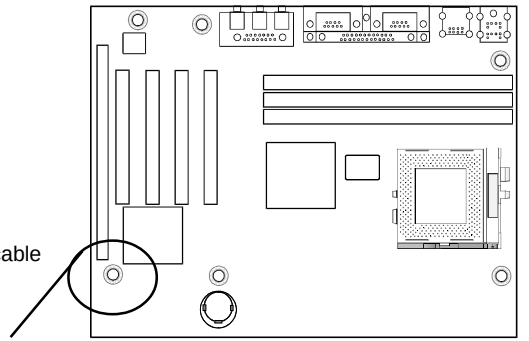
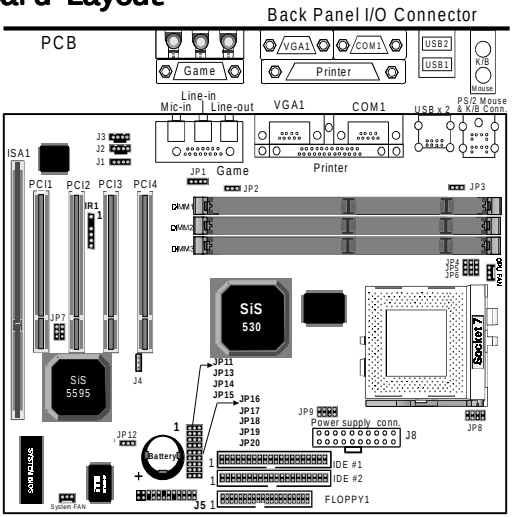


Figure1-3

1-3 Mainboard Layout



1-4 Connector and Jumper Reference Chart

Jumper & Connector No.	Function	Page
J5	Keyboard lock & Power indicator LED connector	13
	System reset switch connector	14
	Speaker connector	14
	Green switch / Green LED connector	14
	Turbo LED connector	14
	IDE activity LED connector	14
	Over-ride power button connector	13
J1	Modem Telephony connector	16
J2	AUX-IN connector	16
J3	CD-ROM Audio-in	15
J4	WOL (wake-on-lan) connector	17
J8	ATX Power supply connector	12
JP1	Volume Control connector	16
JP2	On-board VGA jumper	15
JP3	Power-on by keyboard jumper	18
JP7	Creative SB-LINK Sound connector	16
JP12	Clear CMOS Data jumper	17
CPUFAN	CPU cooling fan connector	15
SYSFAN	System cooling fan connector	15
IR1	Infrared connector	15
Ports	PS/2 mouse and keyboard ports	18
Ports	USB (Universal Serial Bus) ports	19

Memo