Chapter 1

Introduction

1-1 Product Specifications

❒ **Processor**

- Supports AMD Socket A processors up to 1.1GHz
- 100MHz DDR (Double Data Rate) transfer on K7 CPU address and data buses
- High efficiency switching power modules provides 1.6v for Vcc and up to 42A for Icc

❒ **Chipset**

- SIS 730S AGP chip with integreted **2D/3D** graphics controller

❒ **DRAM Memory**

- Two 3.3V 168-pin DIMM sockets support up to 1GB
- Supports PC-100, PC-133 SDRAM

❒ **Expansion Slots**

- One 32-bit AGP slot for both 2x/4xAGP at 3.3v or 1.5v (Rev 2.0 compliant) or support SIS 301 card for TV/DPF monitor
- Two32-bit PCI slots (Rev 2.2 compliant)
- One **ACR** slot

❒ **Optional PCI Riser Connector**

- One PCI riser connector for low profile PC designs

❒ **2Mb Boot-Block Flash ROM**

- Award System BIOS, supports PnP, APM, DMI,ACPI & Multi-device booting features i.e. floppy, LS120, CD-ROM, HDD(IDE, SCSI), ZIP-ATAPI etc.
- Includes Trend **ChipAway Virus** protection for virus-free boot and virus free operating system
- **BIOS Wonder** technology including ChipAway Virus, Flash BIOS Write Protect, Embedded Flash Utility.

❒ **Embedded Ultra DMA-100 PCI IDE controller**

- Supports two IDE ports up to 4 ATAPI devices
- Supports up to PIO Mode 4 up to 16.6MBps, Multi-Word Mode 4 up to 66MBps and Multi Word Mode 5 up to 100MBps with bus mastering

- Bus Master software drivers for all common multi-task operating systems

❏ **Embedded Super I/O Functions**
- Two UARTs support two serial ports and IR function for HPSIR and ASKIR
- One parallel supports SPP/ECP/EPP
- One floppy disk drive connector supports up to 2.88MB, Japanese 3- Mode and 1Mbps transfer rate
- Supports Game/MIDI port for soft-audio

❏ **Double Stack Back-Panel I/O Connectors with PC99 Colored Codes**
- 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

❏ **Embedded Audio Subsystem AC-link**
- Full-duplex operation for simultaneous recording and plackback
- Built-in FM-emulation music synthesizer
- External high quality AC97/98 CODEC provides 90dB+SNR CD quality audio
- Use wavetable data on the system memory
- Hardware SoundBlaster Pro for Windows DOS box and real-mode DOS legacy compatibility
- Complete software driver support for Win95/98/2000

❏ **Embedded USB Controller**
- USB host controller (UHCI v1.0 compliant) with Root Hub
- Four USB ports with over-current protection
- Optional USB riser with 2 additional USB ports

❏ **Embedded System Monitoring Hardware Subsystem**
- 8 external voltage inputs for CPU Vcore, 2.5v, +12v, +5v and 3.3v (internal detecting) ,5v-stby,3.3v-stby,-12v
- 2 temperature sensor with thermistor for CPU and System
- 2 Fan speed (CPU and System) monitoring

❏ **Embedded Graphic Accelerator**
- Integrated 128 bit 2D/3D Graphics Accelerator
- Support DVD playback
- Fully DirctX 7 compliant graphics
- Shared system memory area up to 64MB
- Support VESA DDC1,DDC2B&DDC3.0

❒ **Board Dimensions**
  - Micro ATX form factor, 244mm x 194mm, 4 Layers

❒ **Switching Power Supply Requirement**

Output Voltage	Max. Regulation Requirement	Min. Current Requirement (Amps)
+12V	+/- 5%	5.5
+5V	+/- 5%	20
+3.3V	+/- 5%	15
-5V	+/- 10%	0.5
-12V	+/- 10%	0.5
+5VSB	**+/- 5%**	**0.75**

Table 1-1

⚠ 3.3Vat 15Amps is necessary to guarantee full loading operation because some AGP cards and memory modules have high current consumption.

1-2 Product Feature

- Poly-fuse over-current protection with error warning for keyboard circuitry
- Complete Data Security:
  * **Flash BIOS write protection** against unauthorized access
  * **Trend ChipAway Virus** for a 100% virus free system boot-up
  * **Embbeded Flash Utility** ease the upgrade way and solve the incompatibility between flash type and flash utility

- Advanced Management Features**:**
  * Power-on events:
    WOL(Wake-on-LAN) network card, Modem ring, RTC Alarm
  * Software power-off control for Win95
  * Over-ride power button
  * Three states advanced Power-failure recovery: Always On, Always Off, Last state
  * Blinking Power-LED in suspend

1-3 Package Contents

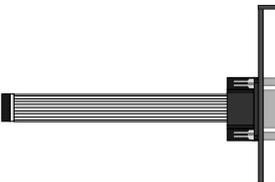This product comes with the following components:

❒ One mainboard

❒ One 40-pin(80-wire) UDMA-66/100 IDE connector ribbon cable (Figure 1-1)
   * Color coded connection for UDMA-66/100 cable
      Blue to mainboard, Gray to Master and Black to slave

❒ One 34-pin floppy disk drive ribbon cable (Figure 1-2)

❒ One (optional) 9-pin Serial port ribbon cable with bracket (Figure 1-3)

❒ One User's Manual

❒ One CD-ROM that includes

   - Acrobat Reader
   - Award Flash EPROM Utility
   - Award DMI Utility for DOS
   - SiS Bus Master IDE drivers for Win9X, WinNT4.0
   - SiS AGP VXD Driver
   - SiS USB Supplement
   - Audio Driver for DOS/Win95/98/00/NT
   - Audio Utility for Win95/98/00/NT
   - SIS AGP Driver for Win9x/NT
   - Optional **Value Pack 2000** software group including Trend PC-cillin,
     Norton AntiVirus, ADOBE ActiveShare, Appio and X-stop

Figure 1-1   UDMA-66/100 IDE cable

Figure 1-2   Standard Floppy cable

Figure 1-3 Optional Serial Port cable (COM2)

Memo