

Chapter 1

Introduction

1-1 Product Specifications

❑ Processor

- Supports Intel Slot 1 processors up to 733MHz
- Supports 66/100/133MHz system clocks
- High efficiency switching power modules with dual power delivery(VRM 8.4 compliant)

❑ Chipset

- Intel **810-E** three chip AGPset with 2D/3D graphics controller

❑ DRAM Memory

- Two 168-pin DIMM sockets support up to 512MB SDRAM
- Supports 16/32/64/128/256MB, 64/72-bit unbuffered Synchronous DIMM modules

❑ Embedded 3D AGP VGA

- 3D Hyper Pipelined Architect w/ PDP, PPI
- Full 2D graphics up to 1600x1200x256c at 75Hz refresh
- Hardware Motion compensation assistance for S/W MPEG2 decode
- Integrated 24-bit 230MHz RAMDAC
- 85MHz Flat Panel Monitor Interface or Digital Video output for use with an external TV encoder.
- (Optional) 4MB SDRAM display cache

❑ Embedded Audio Subsystem

- AC'97 v2.1 compliant CODEC with SRC

❑ Embedded Ultra DMA-66 (ICH only) PCI IDE controller

- Two IDE ports support up to 4 ATAPI devices
- Supports up to PIO Mode 4 up to 16.6MBps
- Bus Mastering software drivers for all common multitasking operating systems
- *Blue colored IDE connectors for IDE#1

❑ Embedded USB Controller with two USB ports(UHCI v.1.0 compliant)

❑ Expansion Slots

- One AMR slot (v 1.0 compliant)
- One LTI slot line up with AMR for Panel Link LCD monitor and TV out
- Three 32-bit PCI slots with master mode (Rev 2.2 compliant)

❑ Boot-Block Flash ROM

- Intel 4Mb FWH (Firmware Hub)
- Award System BIOS, supports PnP, APM, DMI, ACPI & Multi-device booting features(Floppy, LS120, CD-ROM, IDE, SCSI, ZIP-ATAPI etc.)
- Includes Trend **ChipAway Virus** protection for virus-free boot and virus free operating system
 - ✎ Trend ChipAway Virus is a rule-based anti-virus technology and does not require periodical updates of virus code

❑ Onboard Super I/O Controller

- W83627HF LPC I/O chip with System Monitor Hardware (SMH)
- One Parallel (SPP/ECP/EPP) and two Serial (16550A compliant) ports
- One floppy disk drive connector supports up to 2.88MB, Japanese 3-Mode, and 1Mbps transfer rates
- Supports HPSIR, and ASKIR function shared with 2nd serial port
- Supports Game/MIDI port

❑ Embedded System Monitoring Hardware(Optional)

- 8 voltage inputs for CPU Vcore, +3.3v, +/-12v, +5v, Vtt(1.5v), 5vsb,Vbat
- 2 temperature inputs for CPU thermal and System temperature
- 5 VID inputs pin for Slot1 CPU Vcore identification
- 2 Fan speed monitoring with On/Off control in Suspend

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

- PC99 compliant color connectors
- PS/2 Mini-DIN keyboard and mouse ports
- Two 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 and Mic-in jacks
- Support 9-pin connect for serial port

❑ Board Dimensions

- Micro-ATX form factor, 244mm x 210mm, 4 Layers
- Six mounting holes

❑ Advanced Management Features

- Innovative **SeePU** technology for jumperless CPU installation
 - LDCM compliant System Monitor Hardware
 - Supports StDram (S3) ready!
 - Poly-fuse over-current protection for USB and keyboard circuitry
 - Power-on events: Mouse clicks, Keyboard password, WOL(Wake-On-LAN) network card, Modem ring, RTC-Alarm
 - AOL(Alert-on-LAN) network card
 - Software power-off control for Win95/98
 - Over-ride power button, Blinking Power-LED in suspend and Power failure recovery
 - System lockup recovery
 - Chassis intrusion detection with mnemonics during power loss
 - On-line BIOS help
 - Complete Data Security
- Flash BIOS write protection against unauthorized access with Trend ChipAway Virus and PC-cillin98 to ensure virus-free booting procedure

❑ Switching Power Supply Requirement

Output Voltage	Max. Regulation Requirement	Min.Current Requirement(Amps)
+12V	+/- 5%	6
+5V	+/- 5%	20
+3.3V	+/- 5%	15
-5V	+/- 10%	0.5
-12V	+/- 10%	0.5
+5VSB	+/- 5%	0.8

Table 1-1



3.3V at 10Amps is necessary too 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, 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)
- ☐ **Optional** 9-pin serial port ribbon cable with bracket (Figure 1-4)
- ☐ One User's Manual
- ☐ One CD-ROM that includes
 - Acrobat Reader
 - Award Flash Utility and Award DMI Utility for DOS
 - Intel Bus Master IDE drivers for Win95/98 and WinNT
 - Intel security driver
 - Exclamation Mark Remover Utility
 - Audio Driver and Utility for Win95/98/NT
 - AGP VGA Driver for Win95/98/NT
 - System Health Monitoring Software
 - Trend **PC-cillin 98** with multilingual support
 - Optional AIRBAG software group including Norton AntiVirus



Figure 1-1 UDMA66 IDE cable

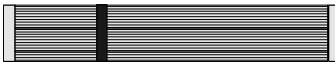


Figure 1-2a Standard Floppy cable



Figure 1-2b Optional 5.25 in. floppy cable

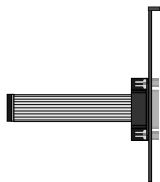


Figure 1-4 COM2(Optional)

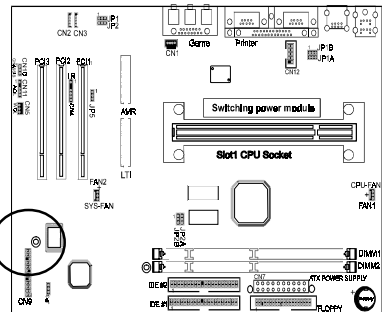
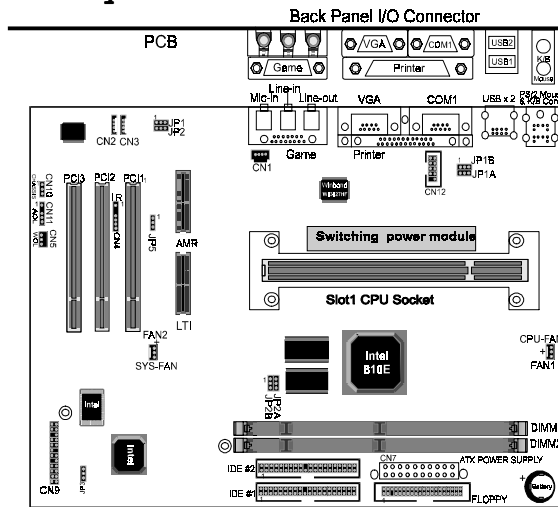


Figure 1-3

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

1-3 Mainboard Layout



1-4 Connector and Jumper Reference Chart

Jumper & Connector No.	Function	Ref. page
CN1	CD-ROM Audio-in connector	17
CN2	Auxiliary CD-ROM Audio-in connector	17
CN3	Audio Mono -in/out connector	17
CN4	Infrared connector	18
CN5	WOL (Wake-on-LAN) connector	18
CN9	Green switch connector	13
	Green LED connector	13
	System reset switch connector	13
	Message LED connector	13
	Keyboard lock & power indicator LED connector	12
	Speaker connector	13
	IDE activity LED connector	13
	Over-ride power button connector	12
CN10	Chassis intrusion monitoring connector	18
CN11	Alert On LAN Connector	19
JP1/JP2	Audio Line out and Speaker out jumper	15
JP1A	PS/2 Keyboard/Mouse Power-on Function jumper	15
JP1B	USB Device Power On Function jumper	15
JP2A/JP2B	External clock frequency jumper	16
JP3	Clear CMOS data jumper	16
JP5	AMR/MR/AC'97 CODEC Jumper	16
CN7	ATX power supply connector	11
FAN1/2	CPU/System cooling fan connector	14
Ports	PS/2 mouse and keyboard ports	14
Ports	USB (Universal Serial Bus) ports	19



Memo