

Chapter 1

Introduction

1-1 Product Specifications

❑ Processor

- Supports up to 450 MHz Intel **Pentium® II** processors
- Slot 1 CPU socket with retention mechanism
- High efficiency **Switching Power Module** (1.8v ~ 3.5v, 0.1v increments)
- Supports 66/100 MHz system clock speeds
- Innovative *SeePU* technology (software CPU installation with no jumper settings)



Supports 68 (Turbo mode), 75/83/103/112 MHz system clock for over-clocking possibility.

❑ Chipset

- Intel **82440BX** two chip PCIs

❑ DRAM Memory

- Four 3.3V 168-pin DIMM sockets support up to 512 MB
- Supports 16/32/64/128MB, 64/72-bit unbuffered Synchronous DIMM modules
- Provides single-bit ECC capability



10ns or faster SDRAM DIMM modules with SPD are required for 100MHz frequency clock speed



Because 128MB unbuffered DIMM and Registered DIMM modules are not yet mainstream, their compatibility can not be 100% guaranteed. (See Section 2-5 for details.)

❑ Expansion Slots

- One 32-bit AGP slot (Rev 1.0 compliant)
- Four 32-bit PCI slots (Rev 2.1 compliant)
- Three 16-bit ISA slots (one PCI/ISA shared slot)

❑ BIOS

- Award System BIOS, supports PnP, APM, DMI & Multi-device booting features i.e. floppy, LS120, CD-ROM, HDD(IDE, SCSI), ZIP-ATAPI etc.
- Includes SYMBIOS SCSI BIOS
- 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-33 PCI IDE Ports

- Supports up to PIO Mode 4, Multi-word Mode 2 and Ultra DMA-33 timings
- Bus Mastering software drivers for all well known multi-task operating systems

❑ On-board Ultra I/O

- WB977TF I/O chip (built-in AMI KBC software and RTC)
- 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
- IrDA IR function supports up to 115.2Kbps

❑ Two Channel USB Ports

-  Now under compatibility testing with different peripherals

❑ Board Dimensions

- ATX form factor, 305mm x 220mm, 4 Layers
- Six mounting holes

❑ Advanced Management Features


- Software power off control, Power-on by modem, Power on by alarm, Power-on by keyboard, Over-ride power button, Chassis intrusion detection, Power failure recovery, Blinking LED in Suspend(optional), **Wake Up On LAN**, etc.
- **Poly-fuse** over-current protection for USB and keyboard
- Flash BIOS protect via BIOS
- Supports **SB-link** header for Creative PCI audio cards
- Supports **FAN-II** (EISCA v1.0 compliant cooling fan, see Appedinx III) or on-board Management Extension Hardware and includes Shepherd system monitoring software to streamline PC management
- Meets EPA Green PC standard: power consumption under 30W in Doze, Standby, and Suspend modes
- **ACPI** features ready when ACPI-enabled O/S is available

❑ Switching Power Supply Requirement (at least 200 Watts)

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%	0.05

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.

 The on-board 3.3v regulator provides maximum 6Amp current drive capability for AGP cards and memory modules.

1-2 Package Contents

This product comes with the following components:

- ☐ One mainboard
- ☐ On-board Slot 1 foldable retention mechanism and four screws
- ☐ One 40-pin IDE connector ribbon cable (Figure 1-1)
- ☐ One 34-pin floppy disk drive ribbon cable (Figure 1-2a) or (Figure 1-2b)
- ☐ One User's Manual
- ☐ One CD-ROM that includes
 - Award Flash EPROM Utility, Award DMI Utility
 - Intel Bus Master IDE drivers for Win95, WinNT, and OS/2
 - Exclamation Mark Remover Utility
 - Shepherd Utility--System Health Monitoring Software
 - Trend **PC-cillin** Anti-virus v3.0(OEM version) Utility in eight different languages

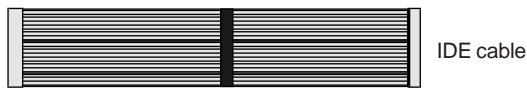


Figure 1-1

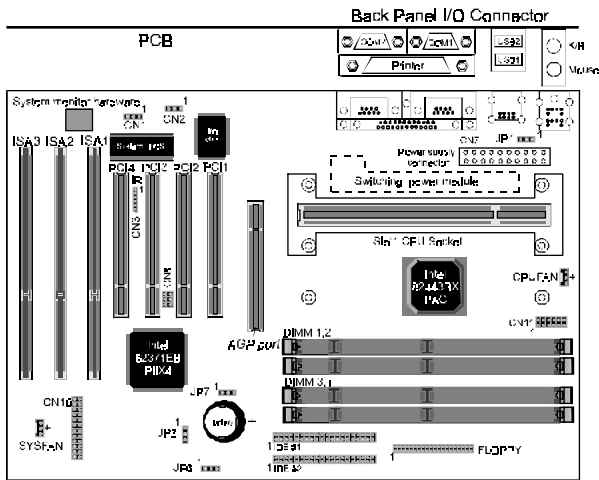


Figure 1-2a Standard Floppy cable



Figure 1-2b Optional 5.25 in. floppy cable

1-3 Mainboard Layout



1-4 Connector and Jumper Reference Chart

Jumper & Connector No.	Function	Ref. page
CN1	Chassis intrusion monitoring connector	16
CN2	WOL (Wake-on-LAN) Connector	14
CN3	Infrared connector	14
CN7	ATX power supply connector	11
CN8	Creative's SB-LINK connector	15
CN10	Green switch connector	13
	Green LED connector	13
	System reset switch connector	13
	Turbo LED connector	13
	Keyboard lock & power indicator LED connector	12
	Speaker connector	13
	IDE activity LED connector	13
	Over-ride power button connector	12
CN11	Optional FAN-II connector (if system monitoring hardware is not present)	51
JP1	Power on by keyboard jumper	15
JP6	Clear CMOS data jumper	15
JP7	Reserved for factory	--
JP8	Power failure recovery jumper	16
CPUFAN	CPU cooling fan connector	14
SYSFAN	System cooling fan connector	14
Ports	PS/2 mouse and keyboard ports	16
Ports	USB (Universal Serial Bus) ports	17



Memo