

Chapter 1

Introduction

1-1 Product Specifications

□ Processor

- Supports up to Socket-370 Intel processors.
- Supports 370-pin ZIF socket w/ EMI ground pad for future boxed Pentium-III processors.
- Supports 66/100/133 MHz system clock speeds.

□ Chipset

- Intel 815E GMCH + ICH2 AGPset with integrated 2D/3D graphics controller.

□ DRAM Memory

- Three 3.3V 168-pin DIMM sockets support up to 512MB.
- Supports PC-100/133 DIMMs at 100/133MHz FSB Freq.

□ Expansion Slots

- One CNR slot (v1.0 compliant) for low cost networking solution w/100 LAN/PNA + Soft-modem.
- Five 32-bit PCI slots with full master sharing controller (Rev 2.2 compliant).
- One 4xAGP slot w/ AIMM (v2.0 compliant) for graphics performance upgrade.
- * Supports for 2x 1Mbx16, or 1x 2Mbx32 on an optional AIMM card.

□ Boot-Block Flash ROM

- Award System BIOS, supports PnP, APM, DMI, ACPI & Multi-device booting features(floppy, LS120, CD-ROM, HDD(IDE, SCSI), ZIP-ATAPI etc.)
- **BIOS Wonder** technology including ChipAway Virus, Flash BIOS Write Protect, Embedded Flash Utility, Built-in **Hard Disk Backup firmware**.

□ Embedded Super I/O Functions

- ITE 8712 LPC I/O chip with System Monitor Hardware.
- One parallel supports 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 rate.
- Supports HPSIR, ASKIR and CIR function shared with 2nd serial port.
- Supports Game/MIDI port (for soft-audio).

- ❑ **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 Ultra DMA mode 5 with bus mastering.
 - Bus Master software drivers for all well known multi-task operating systems.
- ❑ **Double Stack Back-Panel I/O Connectors with PC99 Colored Codes**
 - PS/2 Mini-DIN keyboard and mouse ports.
 - Two Channel USB/RJ-45 ports.
 - One D-SUB 9-pin male serial ports.
 - One 15-pin D-SUB 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.
- ❑ **Embedded Audio Subsystem via AC-Link**
 - AC' 97 v2.1 compliant CODEC with integrated SRC.
- ❑ **Embedded USB Controller**
 - USB host controller (UHCI v1.0 compliant) with Root Hub.
- ❑ **Embedded System Monitoring Hardware Subsystem**
 - 8 external voltage inputs for CPU Vcore, 1.5v, 3.3v, +/-12v, +5v, 5Vsb, Vbat.
 - 2 temperature inputs VT1 for System temperature VT2 for CPU thermal diode.
 - 4VID inputs pin for CPU Vcore identification.
 - 2 Fan speed (CPU and System) monitoring and control with ON/OFF control in suspend.
- ❑ **Embedded 3D AGP VGA**
 - 3D Hyper pipelined architecture with PDP (Parallel Data Processing), PPI (Precise Pixel Interpolation).
 - 3D graphics visual enhancements.
 - Texture color keying/ Chroma keying can be globally enabled or disabled.
 - Integrated 24-bit 230MHz RAMDAC.
 - Full 2D H/W acceleration with up to 1600 x 1200 in 8-bit color at 85Hz refresh.

- Motion Video acceleration for 30fps software DVD
- Digital video output
 - * 1024x768 85MHz Flat Panel Monitor/ Digital CRT Interface
 - * Use an external TV encoder for NTSC and PAL TV out support
 - * Independent gamma correction, saturation, brightness and contrast for overlay
- Optional LTI-II slot for Panel Link LCD monitor and TV out

❑ Board Dimensions

- Standard ATX form factor, 305mm x 220mm, 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



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

1-2 Product Features

- Complete CPU protection with OVT (Over Voltage Protect) and OCP (Over Current Protect) technology.
- System Monitor Hardware.
- Poly-fuse over-current protection with error warning for keyboard circuitry.
- Chassis intrusion detection with mnemonics during power loss.

- Complete Data Security:
 - * **Flash BIOS write protection** against unauthorized access.
 - * **Trend ChipAway Virus** for a 100% virus free system boot-up.
 - * **Embedded Flash Utility** to ease BIOS upgrade and eliminate in compatibility with the flash utility version.
 - * **Embedded HDD Instant Recovery** to protect against system crash.

- Advanced Management Features:
 - * Power-on events:
Modem ring, RTC Alarm.
 - * Software power-off control for Win9x.
 - * 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 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 1-2).
- One User's Manual.
- One CD-ROM that includes
 - Award Flash EPROM Utility.
 - Award DMI Utility for DOS.
 - Intel Bus Master IDE drivers for Win95/98.
 - Intel Security Driver.
 - Audio drivers for Win9x, NT4.0, Win2000.
 - Optional **Value Pack 2001** software group including Norton AntiVirus, AutoSave, ADOBE ActiveShare, Acrobat Reader, Imagemore, X-stop, Appio and Ewalla.



Figure 1-1 UDMA66 IDE cable

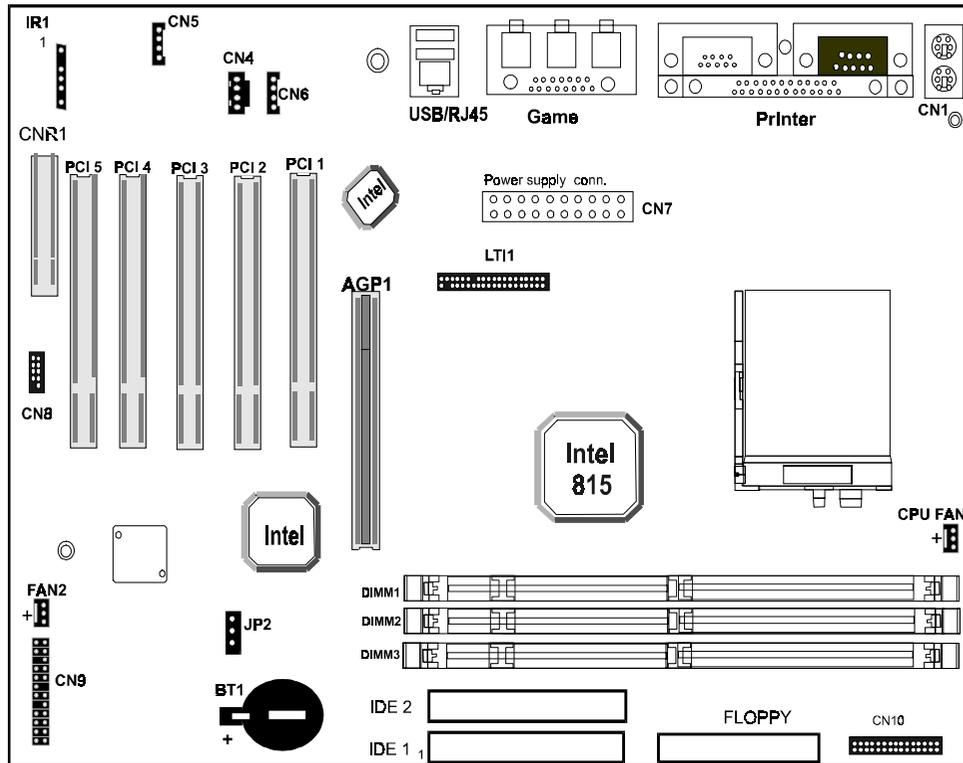


Figure 1-2 Standard Floppy cable

Memo

60JN2 Quick Reference Jumper Setting

7.12.2000 Layout_Version:S101 XX0 v.1



JP/CN	Function	Jumper Setting/Connector
CN1	PS/2 Mouse and Keyboard Ports	
CN3	USB/RJ45 Ports	
CN4	CD-ROM Audio In Connector	
CN5	Audio Mono-in/out Connector	
CN6	Auxiliary Audio In Connector	
CN7	ATX Power Supply Connector	
CN8	COM2 Connector	
CN9	Front Panel Connector	
CN10	ITP PORT	
JP2	Clear CMOS Data	1-2:Disable;2-3:Clear CMOS Data
FAN1/FAN	CPU/Case Cooling Fan Connector	
IR1	IR(Infrared)) Connector	
LTI1	LTI-II Riser	