Electronic Emission Notices

Federal Communications Commission (FCC) Statement (01812C)
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with instructions contained in this manual, may cause harmful interference to radio and television communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- REORIENT OR RELOCATE THE RECEIVING ANTENNA
- INCREASE THE SEPARATION BETWEEN THE EQUIPMENT AND THE RECEIVER
- CONNECT THE EQUIPMENT INTO AN OUTLET ON A CIRCUIT DIFFERENT FROM THAT OF THE RECEIVER
- CONSULT THE DEALER OR AN EXPERIENCED AUDIO/TELEVISION TECHNICIAN

NOTE: Connecting this device to peripheral devices that do not comply with Class B requirements, or using an unshielded peripheral data cable, could also result in harmful interference to radio or television reception.

The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

To ensure that the use of this product does not contribute to interference, it is necessary to use shielded I/O cables.

Table of Contents

HARDWARE CONFIGURATION

Key Features :

Chipset

- Intel® 815E/815EP/815EB/815EPB Chipset.

Processor

- Full support for the Intel® Pentium® III and Celeron® processors (FC-PGA package) using PGA370 socket.
- Full support for the Intel® Tualatin processors (FC-PGA2 package) using PGA370 socket (only for Intel® 815EB/815EPB chipset).
- Support for Intel® Celeron® processors (FC-PGA package) and Intel® Pentium® III processors.
- 66/100/133MHz System Bus Frequency.

VRM 8.5 (Voltage Regulator Modules) on Board

- Flexible motherboard design with on board VRM 8.5.

System Memory

- A total of two 168-pin DIMM sockets.
- Memory size up to 512M bytes.
- 32MB to 256MB using 16Mb/32Mb/64Mb/128Mb/256Mb technology.
- Support for x8, x16 DRAM device widths.
- Supports single & double sided DIMMs.
- Unbuffered, Non-ECC SDRAM only Supported.

System BIOS

- Firmware Hub with security feature.
- PnP, APM, ATAPI and Windows® 95/98/2000.
- Full support of ACPI & DMI.
- Auto detects and supports LBA harddisks with capacities over 8.4GB.
- Easy to upgrade BIOS by end-user.

On-board I/O

- On board two PCI fast IDE ports supporting up to 4 ATA, ATA2 , Ultra DMA33/66/100 IDE HDDs, CD-ROMs, ZIP drives and LS-120 drives as boot drive.
- Support Bus Master IDE, Read transfers up to 100MB/s, Writes to 89MB/s.
- One ECP/EPP parallel port.
- Two 16550 Compatible UART serial ports.
- One floppy port support two FDDs of 360KB, 720KB, 1.2MB, 1.44MB and 2.88MB capacity.
- Four USB ports.
- PS/2 keyboard connector.
- PS/2 mouse is supported.
- Infrared (IrDA) is supported via a header.

Plug-and-Play

- Supports Plug and Play specification 1.1.
- Plug and Play for DOS, Windows® 3.X, Windows® 95/98 as well as Windows® 2000.
- Fully steerable PCI interrupts.

On-board VGA (only for Intel® 815E/815EB Chipset)

- 3D Hyper Pipelined Architecture.
- Full 2D H/W Acceleration.
- Motion Video Acceleration.
- Up to 1600x1200 in 8 bit Color at 85MHz Refresh.
- H/W Motion Compensation Assistance for S/W MPEG2 Decode.
- Software DVD at 30fps.
- Integrated 24-bit 230MHz RAMDAC.

Display Cache Interface multipexed on the AGP interface (only for Intel® 815E/815EB Chipset)

- 32-bit data interface.
- 133MHz SDRAM interface only.
- Flexible AGP In-Line Memory Module (AIMM) Implementation.
- Support for two 1Mx16,or one 2Mx32 on AIMM card.
- 4MB max addressable.

On-board AC97 Sound (optional)

- Integrated AC97 controller with standard AC97 Codec.
- Direct Sound and Sound Blaster compatible.
- Full-Duplex 16-bit record and play back.
- PnP and APM 1.2 support.
- Win® 95/98, NT drivers ready.
- Line-in, Line-out, Mic-in and MIDI/Game port.

Power Management

- Supports SMM, APM and ACPI.
- Break switch for instant suspend/resume on system operations.
- Energy star “Green PC” compliant.
- Hardware monitoring circuit is supported, provide voltage, temperature, fan speed, etc. monitoring (optional).
- WOL (Wake-On-Lan) header support.
- External Modem Ring-in Wake-up support.

Expansion Slots

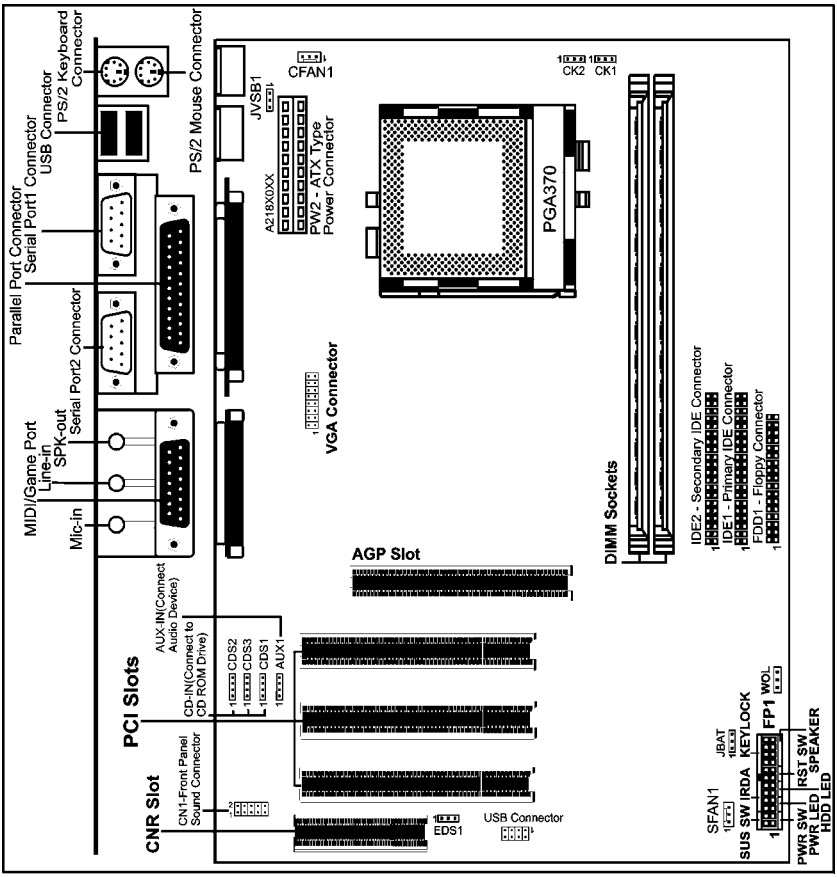
- 1 CNR slot (shares 1 PCI slot).
- 1 AGP slot.
- 3 PCI bus master slots - ver. 2.1 compliant (1 PCI shares with CNR slot).

CAUTION

Static electricity can harm delicate components of the motherboard. To prevent damage caused by static electricity, discharge the static electricity from your body before you touch any of the computers electronic components.

Motherboard Layout

The following diagrams show the relative positions of the jumpers, connectors, major components and memory banks on the motherboard.



 # The "VGA Connector" is installed for Intel® 815E/815EB chipset version only.

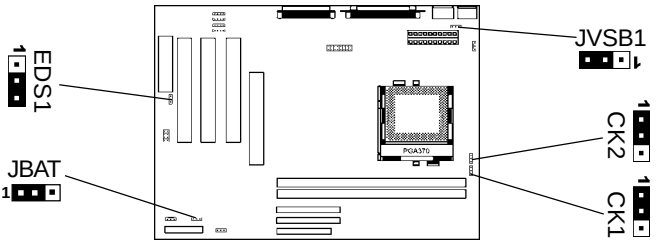
NOTE

1) Be sure to check the cable orientation in order to match the colored strip to the pin 1 end of the connector.

2) When you start up the system, please wait for 5 seconds after you power on AC.

Jumper Settings

This chapter explains how to configure the motherboard's hardware. Before using your computer, make sure all jumpers and DRAM modules are set correctly. Refer to this chapter whenever in doubt.



CPU Speed Selection

In this motherboard, jumperless feature is implemented such that no jumper is required to be set for different type of CPU installed.

Notice:
1. Be sure to save the CMOS setting when exit the CMOS.
2. The CPU is frequency multiplier locked, no CPU speed change will be seen even if the frequency multiplier setting in CMOS setup is changed.

CK1, CK2 - System Bus Frequency

CK1	CK2	CPU Clock Speed
Open	Open	133MHz
Open	1-2	100MHz
1-2*	1-2*	Auto*

EDS1 - On Board AC97 Codec Sound

EDS1	Function
2-3*	AC97 Sound Enable*
1-2	AC97 Sound Disable

JBAT - CMOS Clear

JBAT	Selection
1-2*	Normal*
2-3	CMOS Clear

JVSB1 - Keyboard Power Select

JVSB1	Select
2-3*	Powered by +5V*
1-2	Powered by +5V Standby *(Allows Keyboard Power On)*

Close Open * = *Default setting.*

Pin Assignment

Internal Audio Connector

AUX1 : AUX-IN

Pin	Assignment
1	AUX-L
2	GND
3	GND
4	AUX-R

CDS2 : CD-IN

Pin	Assignment
1	CD-R
2	GND
3	CD-L
4	GND

CDS1 : CD-IN

Pin	Assignment
1	CD-L
2	GND
3	GND
4	CD-R

CDS3 : CD-IN

Pin	Assignment
1	GND
2	CD-L
3	GND
4	CD-R

USB Connector

Pin	Assignment
1	VCC
2	GND
3	USBP1-
4	USBP0+
5	USBP1+
6	USBP0-
7	GND
8	VCC

FP1
FRONT PANEL HEADER
HEADER 2x12