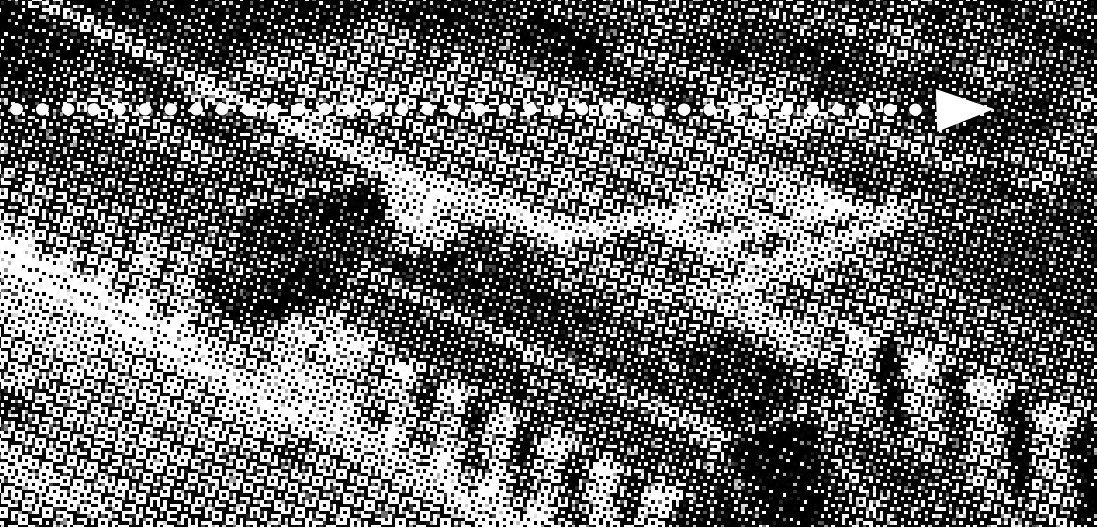


USER'S MANUAL

More compatible, more functional and more competitive.
Excellent quality and faster response.

Supporting Socket mPGA478 Intel Pentium 4® FC-PGA2 Processors,

UDMA33/66/100, PC133 SDRAM

Quality, Performance Mainboards

The product name and revision number are both printed on the board itself. Manual revisions are released for each board design represented by the digit before and after the period of the manual revision number. Manual updates are represented by the third digit in the manual revision number.

Manual Revision: 1.00 Release Date: August 2001

Part No: 90-A845X1-00-00

Contents

Table Of Contents

Overview

Thank You for purchasing our High Performance Mainboard. Our advanced technology mainboard is designed for Socket mPGA478 Pentium 4 CPU at processing speed of 1.4GHz or above and is upgradeable for future processors.

The Intel Mainboard utilizes i845 and ICH2 chipset. The ICH2 I/O Controller provides an Integrated Bus Mastering IDE controller with two high performance IDE interfaces for up to four UDMA IDE devices (hard drives, or CD-ROM's) and two USB 1.1 compliant controllers support a total of 4 USB ports. The LPC (Low-pin count) I/O controller integrates a floppy drive interface, two enhanced 16C550 compatible serial ports, one parallel port and one consumer infrared compatible interface.

Three DIMM slots support up to 3GB Memory Capacity. WAKEUP-LINK Header supports Wake-On-LAN feature.

Integrated AC97 2.1 Compliant Codec with 3D Stereo enhancement. Award 2M bits Firmware Hub compliant with PC99, ACPI//DMI power management.

Optional Ethernet 10/100MB onboard LAN interface.

ATX 305mm x 210mm.

Fast Start Installation

This section will aid you in quickly setting up the Mainboard. Be sure to take caution to avoid personal injury or damage to wiring due to sharp pins on connectors, printed circuit assemblies, rough edges and corners and hot components.

Your Location Requirements Are:

- A sturdy, level surface for placement
- Space allowance around mainboard
- A stable environment with no abrupt temperature or humidity changes
- No exposure to chemicals or direct sunlight
- Line voltage and frequency not varying more than + or -10% from the value stated on the package or nameplate (located on the back, opposite the power plug)

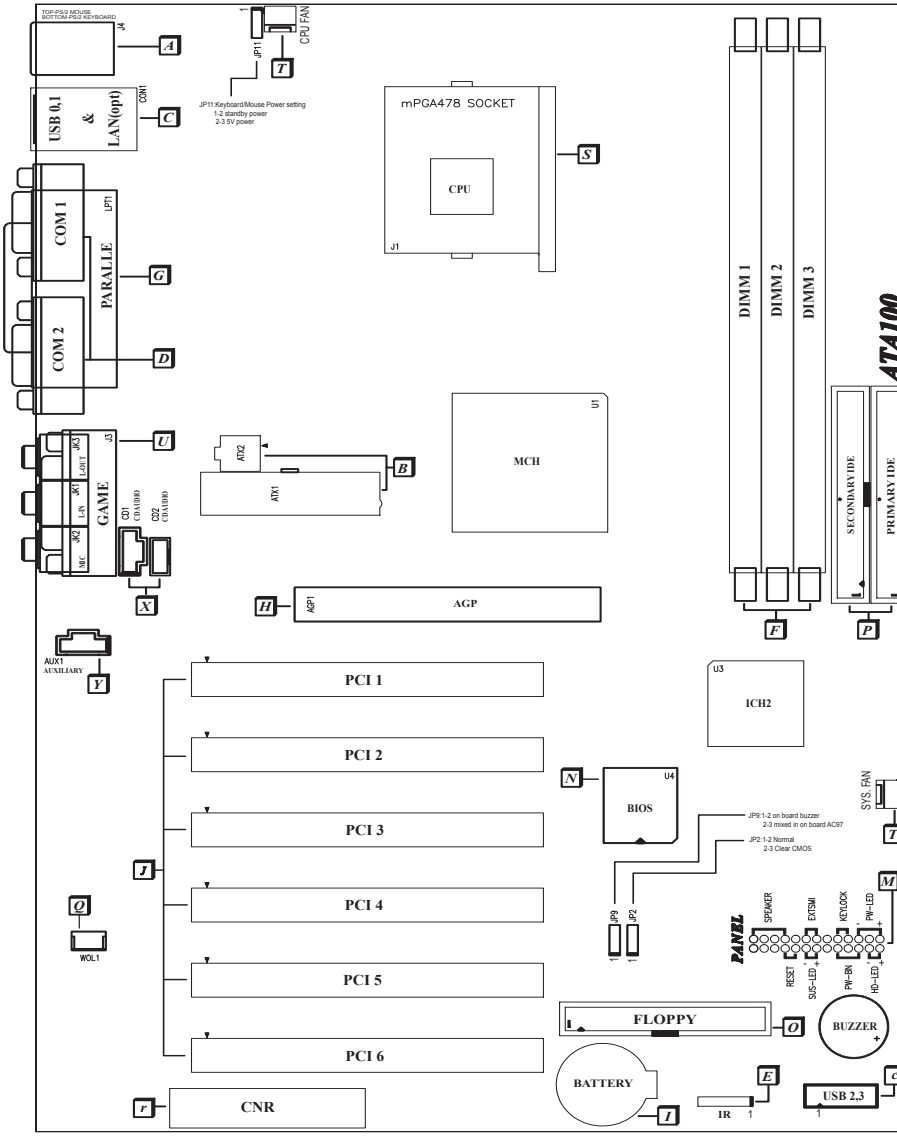
Checking
The Package Contents

Remove the items from the box and make sure you have the following items before beginning. If any of the items below are missing, please contact the representative for part replacement.

ATX Box Standard Package

1) Mainboard
2) Driver CD with Norton AntiVirus 2001 OEM Version
3) User Manual
4) IDE Hard Drive Ribbon Cable
5) Floppy Drive Ribbon Cable

Mainboard Diagram



Before we begin installing your series Mainboard, we have provided you with a diagram of the Mainboard to help you locate the appropriate “connectors”. The letters below describe the key Mainboard components. Page number in the right hand column will direct you to detailed description of the component.

A845SD

Onboard

Jumper Settings

Clear CMOS

Set the Jumper

JP2 : CMOS Setting
- [1-2] Normal
- [2-3] Clear CMOS

JP9 : PC Sound Selection
- [1-2] Onboard buzzer or direct to speaker
- [2-3] Mixed in onboard AC97 codec

JP11: Keyboard / Mouse Power Setting
- [1-2] : Standby Power
- [2-3] : 5V Power

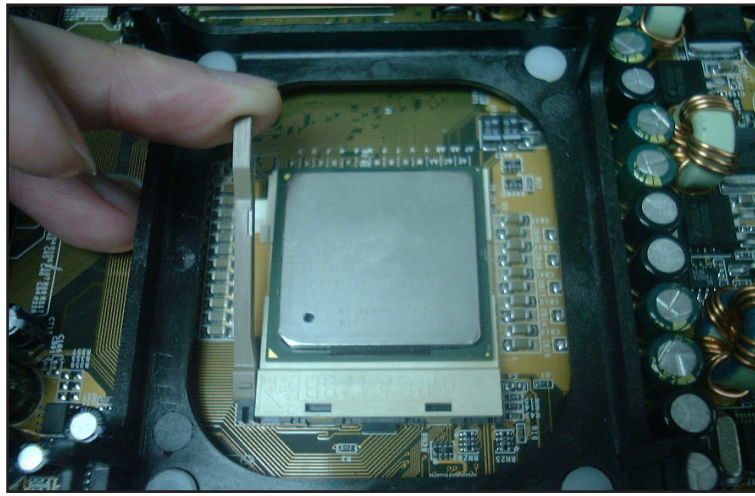
7 Quick Steps

Please follow these steps in order to assure that your series of Mainboard installation is successful. Please refer to the back chapters for further information regarding boot-up and configurations. An anti-static wrist band is recommended when handling electronic components, make sure your work area is static free before you begin this section.

1 Installing the CPU

The Mainboard provides a 478-pin socket (S in Mainboard Diagram), namely socket mPGA478B, for an easy CPU installation. Simply disengage the lever from the locking latch, lift it to its vertical position. Match the triangle markings on both the CPU and the mPGA478B socket. Carefully drop the CPU into the socket such that all the CPU pins entered the holes in the socket. Apply slight pressure if necessary. Make sure the CPU is level with the surface of the socket. Maintain a slight pressure on the CPU and rotate the lever back to its horizontal (or locking) position, and snap the lever back to the locking latch.

The CPU should have a heat sink attached to prevent from overheating. User should purchase those with fans attached. The recommended heat sinks fan for the 478-pin processors are those with three-pin connector (with three wire) that can be connected to the fan header on the Mainboard. It provides the +12 Volts D.C. power that is necessary for CPU cooling fan, and a wire for fan speed detection.

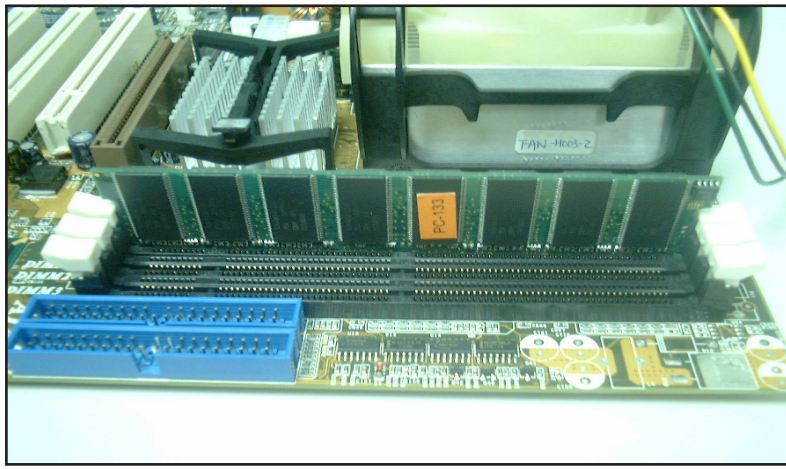


CAUTION!

- The 478-pin Pentium 4® CPU and the mPGA478B socket are delicate parts, and could damage easily. Please handle with care.
- Do not force the lever of the mPGA478B socket to rotate. Doing so may cause damage to the CPU and/or the mPGA478B socket.

2 Installing the Memory

Memory is installed in DIMM Sockets 1-3 (F in Mainboard Diagram) as follows :



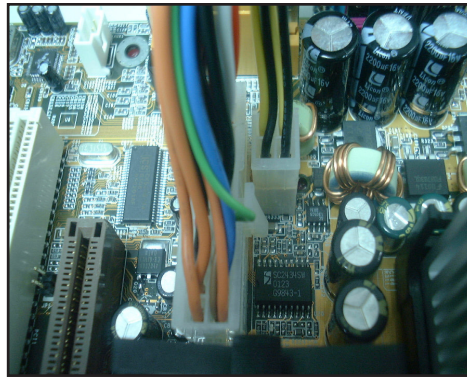
After you have set the DIMM firmly into its socket, snap the white chip holders up to lock the DIMM in place.

3 Attaching ATX Power Supply.

ATX Power Supply Connector (20-pin ATXPWR)

The 20-pin connector (B, labelled as ATX1 in Mainboard Diagram) incorporates standard +/-5V and +/-12V, and a 5V power standby . With a power supply that supports remote power on/off, the mainboard can turn off the system power through software control, such as the shutdown in Windows 98 Start Menu. The BIOS system will turn the system power off when it receives the proper APM command from the OS. APM must be enabled in the BIOS and OS systems in order for the soft-off feature to work properly.

The Pentium 4 ATX Power Supply (B, labelled as ATX2 in Mainboard Diagram) also comes with a 4-pin connector which provides two additional 12V power for the mainboard. These two additional 12V power provide a more stable power source for the CPU power circuitry.



ATX Power Connector