

ITEM LIST CHECKUP

- ☒ Mainboard
- ☒ Support CD
- ☒ Bundled Bonus Pack CD
- ☒ Bundled Bonus Pack Manual
- ☐ Temperature Sensor Cable (Optional)
- ☒ ATA66/100 IDE Cable
- ☐ RS232 Cable
- ☒ FDD Cable
- ☒ User's Manual

Chapter 1 Specification

Introduction

- This chapter introduces the characteristics of this series of mainboards. It includes the information on the chipset, CPU types, built-in functions and layout. Users will have more ideas about this powerful series after reading this chapter.

The topics contained in this chapter are:

1-1 Mainboard Specifications

1-2 Mainboard Layout

1-3 Chipset Diagram

1-1 Mainboard Specifications

1-1.1 CPU Socket

- CPU Socket 478B on board, supporting Intel® Pentium 4 and Northwood processors in the 478-pin package for 400MHz System Bus.

1-1.2 System Chipset Architecture

- INTEL 845-D Chipset Memory Control Hub (MCH):
To work with Intel Pentium 4 Processor for managing and arbitrating between 4 interfaces:
 - the System Bus (Host Interface);
 - the memory Interface;
 - the AGP Port and the Hub Interface;
- MCH Clockings:
 - Asynchronous;
 - System Bus target speed at 400MHz;
 - AGP and Hub Interface constantly at 66MHz base;
- Intel ICH2 Chipset (Second generation I/O Controller Hub):
Communicating with Intel 845-D by the Hub interface at 66MHz/266MB/s;
 - Transmitting Interrupt related messages;
 - Transmitting Power management events;
 - Transmitting SMI, SCI, SERR indication messages;

1-1.3 Memory

2pcs of DIMM on board for single / double sided DIMMs, supported by 2.5V default voltage:

- Intel 845-D MCH directly supporting one channel of DDR SDRAM up to 2GB capacity.

1-1.4 AMI BIOS V2.01A

- Supporting Plug & Play V1.0.
- FLASH MEMORY for easy upgrade.
- Supporting BIOS writing protection.
- Year 2000 compliant.

1-1.5 Hardware Monitoring

- Programmable control, status, to provide monitoring and alarm for flexible desktop management of hardware temperatures. Utility Software is enclosed in Support CD to help display monitoring statuses of:
 - 6 positive voltages, 3 types of hardware temperatures, 3 Fan speeds;

1-1.6 Multi-I/O Function

- Integrated IDE Controller, supporting:
 - 2x Ultra ATA100 / 66 / 33 Connectors
 - Two UARTs for Complete Serial Ports (2x COM).
- Dedicated IR Connector:
 - Third serial port dedicated to IR function either through the two complete serial ports or the third dedicated port Infrared-IrDA (HPSIR) and ASK (Amplitude Shift Keyed) IR.
- Multi-mode parallel connector:
 - Standard mode, ECP and EPP support.
- Floppy Disk connector:
 - One FDD connector with drive swap support.
- Universal Serial Bus connector:
 - USB V1.1 compliant.
 - 2 built-in USB connectors and one USB Header (USB1) which requires an optional USB cable to provide 2 more optional USB ports.
- PS/2 Keyboard connector.
- PS/2 Mouse connector.

1-1.7 Expansion Slots

- Six PCI bus Master slots.
 - One AGP 4x mode slot.
 - One CNR slot.
 - One SCR1 slot (optional).
 - Two DIMM slots.
 - One CMEM1 slot (optional).
- (Smart / Memory Stick / Secure Digital card reader function by SCR1 slot and CMEM1 slot is optional.)

1-1.8 Accelerated Graphics port (AGP) Interface

- One AGP slot on board is supported by the Intel 845-D Chipset MCH AGP Interface in 1.5V mode (with AGP voltage selectable in BIOS Setup):
 - AGP v2.0 compliant.

1-1.9 FORM FACTOR

- ATX form factor.
- This mainboard is compatible with both ATX Power Supply Version 2.03 (with +12V Power Connector) and the older ATX Power Supply (with Peripheral Power Connector).
- Mainboard size: 30.5cm x 21.0cm.

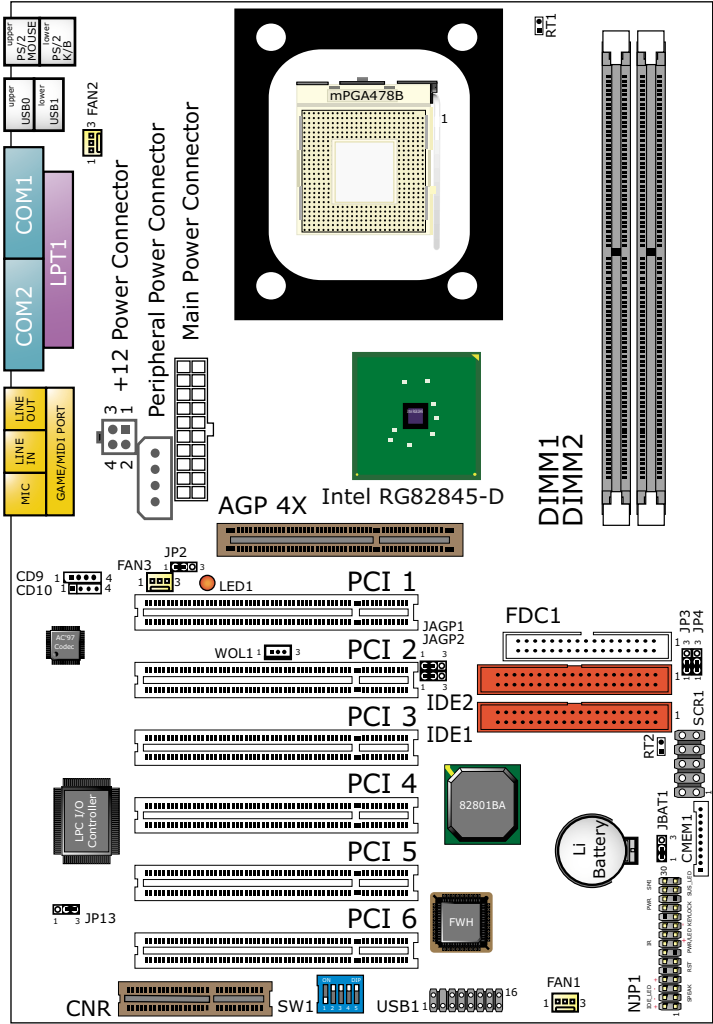
1-1.10 Sound Controller

- SoundBlaster Pro Hardware and Direct Sound Ready AC97 Digital Audio Controller with Codec onboard.

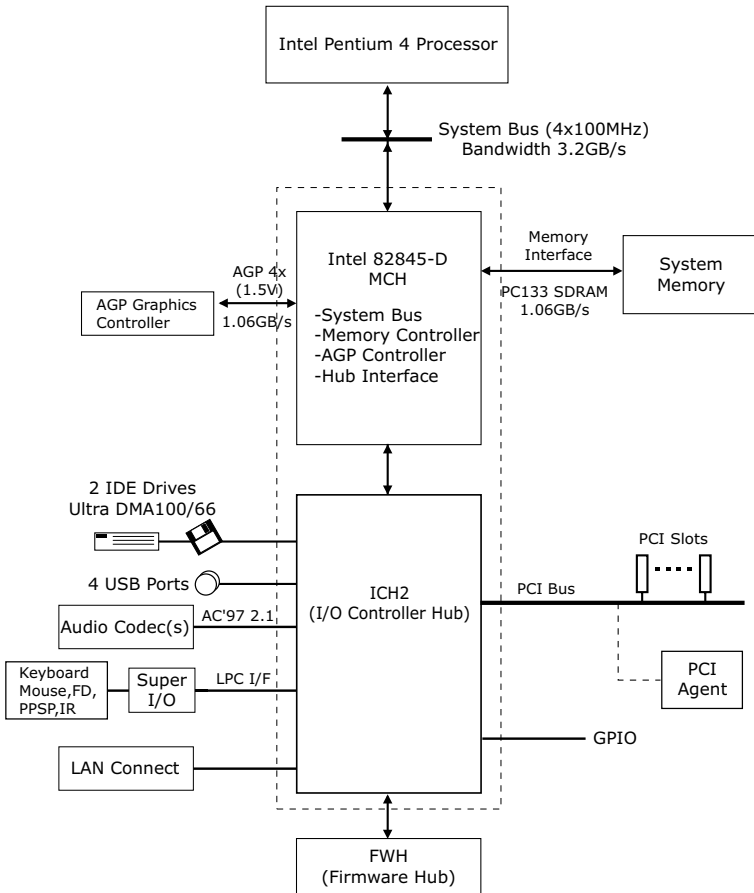
1-1.11 Power Management

- ACPI 1.0B compliant (Advanced Configuration and Power Interface).
- APM V1.2 compliant (Legacy power management).
- Supporting ACPI suspend POS mode (Power On Suspend).
- System event monitoring with two event classes.
- Supporting Wake On LAN (WOL) & Wake On Ring.
- Supporting real time clock (RTC) with date alarm, month alarm, and century field.

1-2 Mainboard Layout



1-3 Chipset System Block Diagram



Intel 82845-DMCH + ICH2 Chipset Diagram