
SECTION 1.

PRODUCT INFORMATION

Thanks for purchasing EX/LX Pentium II mainboard.

This user's manual contains all the information and features that show you how to use the EX/LX mainboard. Please take a moment to familiarize yourself with the design and organization of this manual.

1-1 Manual Features

This manual is divided into the following four sections:

Section 1: Product Information

A brief overview of what comes in the mainboard package, the mainboard layout and the specification it appears.

Section 2: Hardware Installation

Tell you the usage of the mainboard jumpers and the connectors.

Section 3: CMOS Setup Utility

A summary of the mainboard CMOS (BIOS) Setting.

Section 4: BIOS/Software Utility

Introduction of mainboard BIOS flash utility.

1-2 Package Check List

This EX/LX mainboard package contains the following items. Please inspect the package contents and confirm that everything is there. If anything is missing or damaged, call your vendor for instructions before operating.

I. PRODUCT INFORMATION

The package includes:

- One EX/LX Mainboard
- One Pentium II Retention Module
- One Floppy Interface Cable
- One IDE Interface Cable
- One CD Title including Bus Master IDE Driver and Utilities
- One User's Manual
- One serial port bracket
- One parallel port & PS/2 Mouse bracket

1-3 Mainboard Specifications

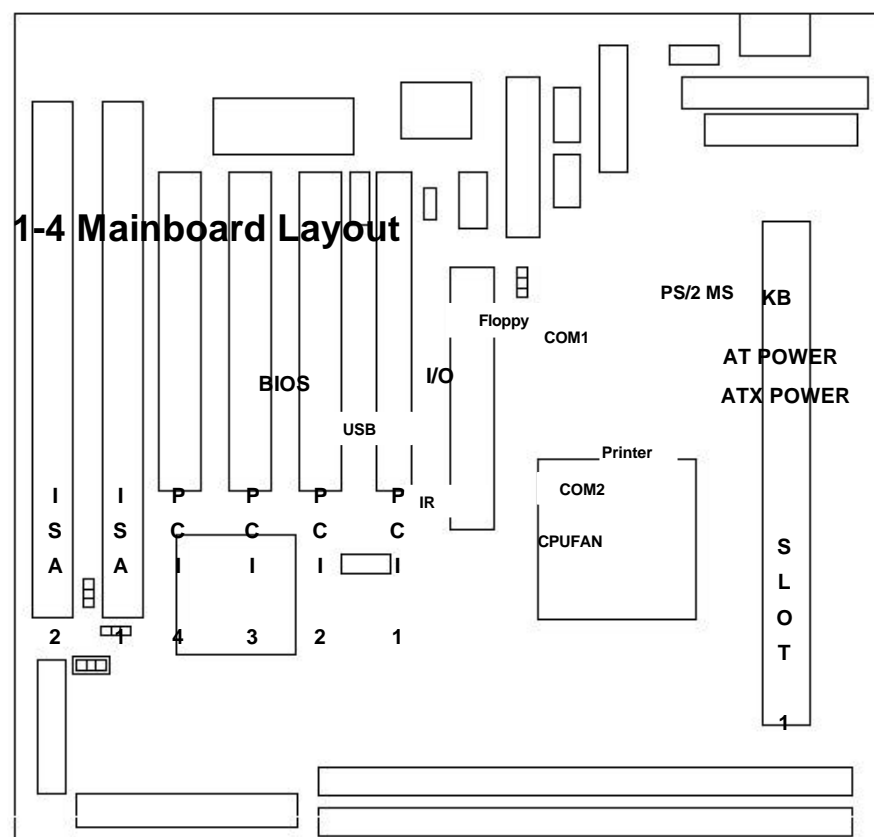
Form Factor	<ul style="list-style-type: none">● Baby AT form factor
Board Size	<ul style="list-style-type: none">● 22 cm x 22 cm
CPU	<ul style="list-style-type: none">● Supports Pentium II/Celeron CPU up to 333 MHz
System Memory	<ul style="list-style-type: none">● For LX mainboard, DIMM 168-pin x 3 , SDRAM added maximum up to 384MB For EX mainboard, DIMM 168-pin x 2 , SDRAM added Maximum up to 256MB● Supports 64M-bit SDRAM technology
Chipset	<ul style="list-style-type: none">● Intel 440LX/EX AGP Chipset
Expansion Slots	<ul style="list-style-type: none">● 1 x AGP bus● 2 x ISA bus● PCI bus with Bus master/slave mode For LX mainboard, 4 x PCI bus with Master/Slave mode. For EX mainboard, 3 x PCI bus with Master/ Slave mode and 1x PCI bus with Slave mode(PCI Slot4).
Serial Port	<ul style="list-style-type: none">● Two serial ports UART 16C550 compatible● Sets serial port 2 to operate in normal mode , IrDA

I. PRODUCT INFORMATION

	or ASKIR
Parallel Port	One parallel port supports : <ul style="list-style-type: none">● SPP-standard parallel port● EPP-enhanced parallel port● ECP-extended capabilities port
Floppy Interface	Supports drives inches/format with: <ul style="list-style-type: none">● 3.5 inches—720KB/1.44MB/2.88MB● 5.25 inches—360KB/1.2MB
IDE Interface	<ul style="list-style-type: none">● Dual PCI IDE interface support up to 4 x IDE HDD or CDROM● Supports PIO mode 4 , DMA mode 2 and Ultra DMA 33
USB Interface	<ul style="list-style-type: none">● Two USB ports supported● USB legacy keyboard function supported
PS/2 Mouse	<ul style="list-style-type: none">● PS/2 mouse supported by connector onboard
Keyboard	<ul style="list-style-type: none">● PS/2 keyboard by connector onboard
Fuse	<ul style="list-style-type: none">● Supports recoverable fuse for USB and KB / MOUSE
RTC and Battery	<ul style="list-style-type: none">● RTC build in chipset (south bridge PIIX4)● Lithium (CR-2032) battery
Wake up function	<ul style="list-style-type: none">● Modem ring wake up● LAN wake up● RTC Alarm wake up
Synchronous Switching Regulator	<ul style="list-style-type: none">● High efficient synchronous switching regulator for CPU core voltage from 2.0V to 3.5V● Supports over-voltage / over-current protection function
Hardware Monitor (Optional)	<ul style="list-style-type: none">● Fan speed monitor--Two fan connectors , warning when CPU or Housing fan is malfunction● Voltage monitor—Warning when system voltage (5V,12V,3.3V,VCORE) are abnormal● CPU and system thermal monitor—Warning when CPU and system temperature is higher than a

I. PRODUCT INFORMATION

	predefined value
Power connector	<ul style="list-style-type: none"> ● Supports ATX(20-pin) power connector ● Supports AT(12-pin) power connector
BIOS	<ul style="list-style-type: none"> ● Award BIOS ● Year 2000 Compliance ● PCI 2.1 Compliance ● PnP BIOS v1.0a Compliance ● APM v1.2 Compliance ● DMI 2.0 compliance ● Flash/Upgrade BIOS protection ● Supports ACPI (Advanced Configuration and Power Interface) and OS Directed Power Management ● Supports SOFT power ● Virus warning supported ● Floppy drive swapping function supported
LED Indicator	<ul style="list-style-type: none"> ● System power LED ● HDD activity LED ● System Suspend LED



CHAFAN

PIIX4

JP2

LX/EX

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JP1

Wake on LAN

Panel

Secondary IDE

Primary IDE

DIMM 1

DIMM 2

DIMM 3

I. PRODUCT INFORMATION

Jumpers

1. **JP1** Clear CMOS (Real Time Clock)
2. **JP2** CPU Clock Ratio & CPU Type

Expansion Sockets

1. **DIMM 1 to DIMM 3** Support DIMM Memory

Expansion Slots

1. **CPU** Slot 1 for supporting Pentium II/Celeron CPU
2. **ISA Slot 1 & Slot 2** 16-bit ISA Bus Expansion Slot
3. **PCI Slot 1 to Slot 4** 32-bit PCI Bus Expansion Slot

Connectors

1. **KB** AT Keyboard Connector (6 pins)
2. **PS/2 Mouse** PS/2 Mouse Connector (6 pins)
3. **USB** Universal Serial BUS Port 1 and Port 2 (10 pins)
4. **COM1/COM2** Serial Port 1 / Serial Port 2 (9 pins)
5. **PRINTER** Printer (Parallel) Port Connector (25 pins)
6. **ATX POWER** ATX Mainboard Power Connector (20 pins)
7. **AT POWER** Baby AT Mainboard Power Connector (12 pins)
8. **CPUFAN** Pentium II CPU 1 Fan Connector (3 pins)
9. **CHAFAN** Chassis Fan Connector (3 pins)
10. **Floppy** Floppy Drive Connector (34 pins)
11. **Primary IDE** Primary IDE Connector (40 pins)
12. **Secondary IDE** Secondary IDE Connector (40 pins)
13. **IR** Infrared Port Connector (5 pins)
14. **Wake on LAN** LAN wake Up Connector(3 pins)
15. **Panel:**
 - **PWR LED** ATX Power LED Connector (3 pins)
 - **KBLCK** Keyboard Lock Switch Connector (2 pins)
 - **SLP** Suspend Switch Connector (2 pins)

EX/LX

User's

Manual

I. PRODUCT INFORMATION

- **SPEAKER** Chassis Speaker Connector (4 pins)
- **GRN LED** Green Status LED Connector (3 pins)
- **HDD LED** HDD LED Connector (4 pins)
- **RESET** Reset Switch Connector (2 pins)
- **PWR ON** ATX Power Switch Connector (2 pins)