ASUS P5KPL-AM EPU

ASUS P5KPL-AM EPU Motherboard User Manual

Model: P5KPL-AM EPU

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your ASUS P5KPL-AM EPU motherboard. Designed for Intel LGA 775 processors, this Micro ATX motherboard features the Intel G31 Express chipset and supports DDR2 memory. Please read this manual thoroughly before proceeding with installation to ensure proper setup and optimal performance.

2. SETUP AND INSTALLATION

Before beginning installation, ensure your system is powered off and disconnected from the mains electricity. Always handle the motherboard by its edges to prevent damage from static electricity.
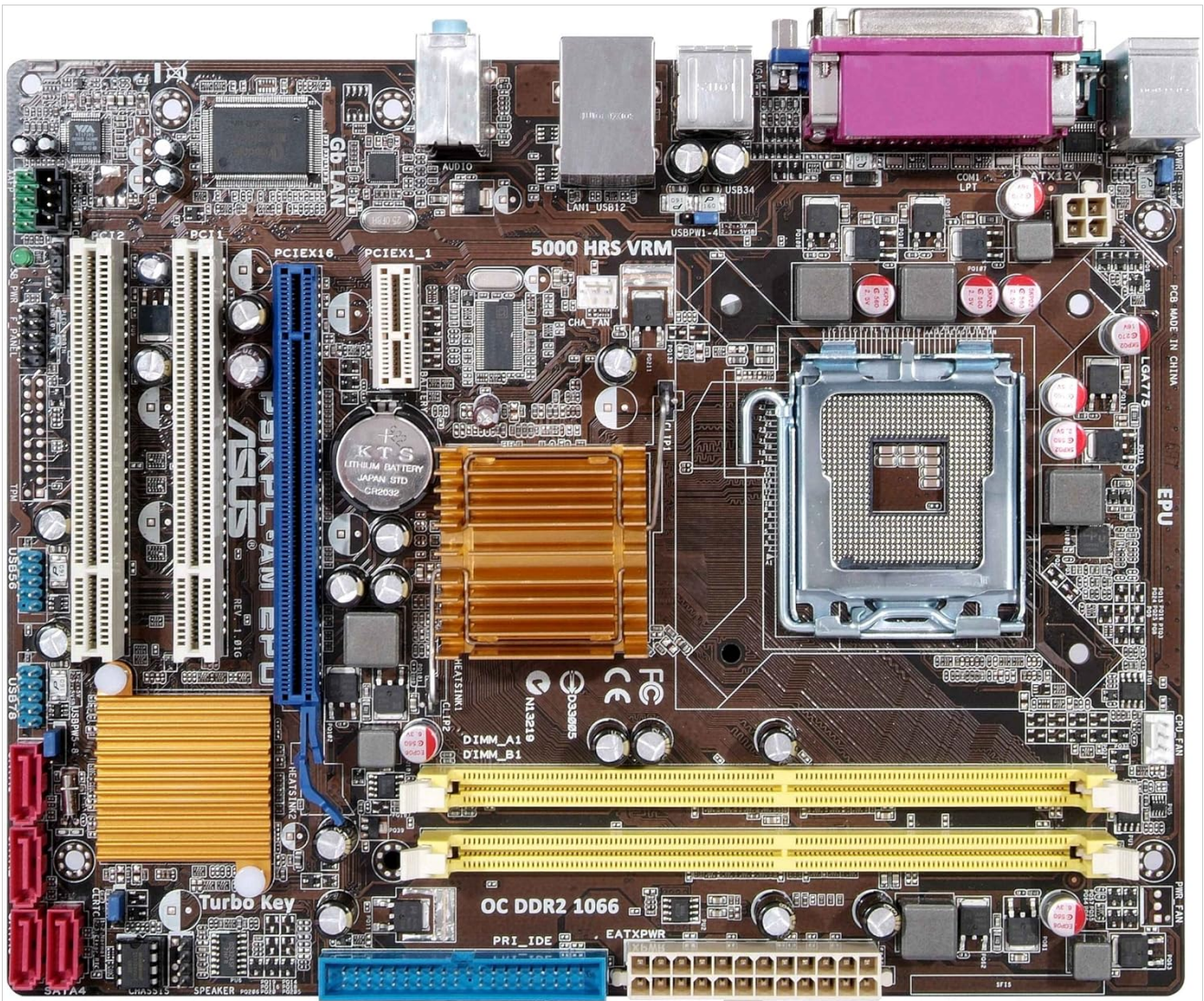
Figure 2.1: Overview of the ASUS P5KPL-AM EPU motherboard, showing major components like the CPU socket, RAM slots, and expansion slots.

2.1. CPU Installation

1. Locate the LGA 775 CPU socket on the motherboard.
2. Gently lift the load lever and open the CPU socket cover.
3. Carefully align the CPU with the socket, ensuring the golden triangle on the CPU matches the triangle mark on the socket. Do not force the CPU into the socket.
4. Close the socket cover and press down the load lever until it locks into place.
5. Apply thermal paste to the CPU and install the CPU cooler according to its manufacturer's instructions.

2.2. Memory (RAM) Installation

The motherboard supports DDR2 memory modules. Refer to the specifications for supported memory speeds and capacities.

1. Open the clips at both ends of the DIMM slot.
2. Align the notch on the DDR2 memory module with the key in the DIMM slot.
3. Insert the module firmly into the slot until the clips snap into place. Ensure both clips are fully closed.

2.3. Motherboard Installation into Chassis

1. Install the I/O shield into the chassis's rear panel opening.
2. Carefully place the motherboard into the chassis, aligning the screw holes on the motherboard with the standoffs

in the chassis.

3. Secure the motherboard with screws. Do not overtighten.

2.4. Connecting Peripherals

- **Power Connectors:** Connect the 24-pin ATX power connector and the 4-pin ATX 12V power connector from your power supply to the motherboard.
- **SATA Devices:** Connect SATA data cables from your storage drives (HDD/SSD) to the SATA ports on the motherboard.
- **Front Panel Connectors:** Connect the power switch, reset switch, HDD LED, power LED, and front panel audio/USB headers to their respective pins on the motherboard. Refer to the motherboard diagram for exact locations.
- **Expansion Cards:** Insert graphics cards into the PCI-Express x16 slot and other expansion cards (e.g., network cards, sound cards) into the PCI-Express x1 or PCI slots.

3. OPERATING INSTRUCTIONS

3.1. First Boot and BIOS Setup

Upon the first power-on, the system will perform a Power-On Self-Test (POST). To enter the BIOS (Basic Input/Output System) setup utility, press the **DEL** key during POST. The BIOS allows you to configure system settings such as boot order, date/time, and hardware parameters.

- **Boot Device Priority:** Set the primary boot device (e.g., DVD drive for OS installation, then your SSD/HDD).
- **Date and Time:** Adjust the system date and time.
- **Save and Exit:** Always save changes before exiting the BIOS.

3.2. Driver Installation

After installing your operating system, install the necessary drivers for the motherboard's components. These typically include chipset drivers, audio drivers, LAN drivers, and integrated graphics drivers. Drivers are usually provided on a support CD or can be downloaded from the ASUS official website.

3.3. EPU (Energy Processing Unit) Feature

The ASUS P5KPL-AM EPU motherboard incorporates ASUS's exclusive EPU technology, which intelligently moderates power consumption by detecting current PC loadings and moderating power in real-time. This feature helps to optimize power efficiency and reduce energy waste. Further configuration may be available through ASUS utility software.

4. MAINTENANCE

4.1. Cleaning

Regularly clean the interior of your computer case to prevent dust buildup, which can lead to overheating and component failure. Use compressed air to remove dust from fans, heatsinks, and motherboard components. Ensure the system is powered off and unplugged before cleaning.

4.2. BIOS Updates

BIOS updates can provide improved compatibility, stability, and new features. Check the ASUS support website for the latest BIOS versions for your P5KPL-AM EPU motherboard. Follow the instructions provided by ASUS carefully when performing a BIOS update, as an incorrect update can render the motherboard inoperable.

4.3. CMOS Battery

The motherboard uses a small coin-cell battery (CR2032) to retain BIOS settings and the system clock when the computer is powered off. If you experience issues with incorrect date/time or lost BIOS settings, the CMOS battery may need replacement.

5. TROUBLESHOOTING

This section provides solutions to common issues you might encounter.

- **No Power/No Boot:**

  - Check all power connections (24-pin ATX, 4-pin ATX 12V) to the motherboard.
  - Ensure the power supply is functional and switched on.
  - Verify the front panel power switch is correctly connected.
  - Test with minimal components (CPU, one RAM stick, graphics card if no integrated graphics) to isolate the issue.

- **No Display:**

  - Ensure the monitor is connected to the correct video output (integrated or discrete graphics card).
  - Check if the graphics card is properly seated in its slot and has adequate power.
  - Try reseating RAM modules.

- **System Beep Codes:**

  The motherboard may emit a series of beeps during POST to indicate specific errors. Consult the motherboard's official documentation or ASUS support website for a detailed list of beep codes and their meanings.

- **Peripheral Not Detected:**

  - Ensure the device is properly connected.
  - Check device manager in your operating system for driver issues.
  - Verify settings in BIOS related to the peripheral (e.g., SATA mode).

6. SPECIFICATIONS

Key technical specifications for the ASUS P5KPL-AM EPU motherboard:

Brand	ASUS
Model Name	P5KPL-AM EPU
CPU Socket	LGA 775
Chipset	Intel G31 Express
Memory Technology	DDR2
Max Memory Capacity	4 GB
Memory Clock Speed	Up to 2133 MHz (OC)
Graphics Interface	Integrated, PCI-Express x16
Total USB Ports	6

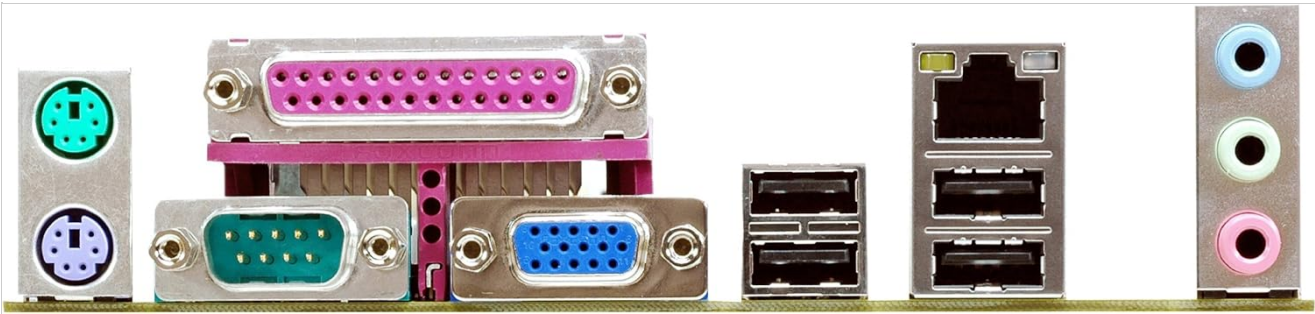| Total SATA Ports	4
Form Factor	Micro ATX

Figure 6.1: Rear I/O panel of the ASUS P5KPL-AM EPU motherboard, showing various ports including PS/2, USB, LAN, Audio, and VGA.

7. WARRANTY AND SUPPORT

For warranty information, please refer to the warranty card included with your product or visit the official ASUS website. For technical support, driver downloads, and further assistance, please visit the ASUS support portal: ASUS Official Support Website

Related Documents - P5KPL-AM EPU

P5KPL-VM **Motherboard**	**ASUS P5KPL-VM Motherboard User Manual and Specifications** This user manual provides comprehensive information for the ASUS P5KPL-VM motherboard, including installation guides, BIOS setup, software support, technical specifications, and safety precautions. Learn how to configure and optimize your system.
PRIME B365M-K **Motherboard**	**ASUS PRIME B365M-K Motherboard User Manual** This user manual provides comprehensive information for the ASUS PRIME B365M-K motherboard, covering installation, BIOS setup, and specifications. It details component connections, safety precautions, and system configuration options.

P7P55D **Motherboard**		**ASUS P7P55D Motherboard User Manual and Specifications** Comprehensive user manual for the ASUS P7P55D motherboard, detailing hardware setup, BIOS configuration, software support, safety guidelines, and technical specifications for Intel Core i7/i5 processors.
PRIME H610M-D D4 **Motherboard**		**ASUS PRIME H610M-D D4 Motherboard User Manual** This manual provides detailed information on the ASUS PRIME H610M-D D4 motherboard, including safety precautions, component layout, specifications, BIOS information, and installation guides for CPU and system memory.
EX-H610M-V3 D4 **Motherboard**		**ASUS EX-H610M-V3 D4 Motherboard User Manual** Comprehensive user manual for the ASUS EX-H610M-V3 D4 motherboard, covering product introduction, specifications, BIOS setup, safety information, and compliance details.
		ASUS Pro WS W790-ACE Motherboard Quick Start Guide Concise guide for installing the ASUS Pro WS W790-ACE motherboard, covering CPU, memory, storage, expansion cards, and system connections for professional workstations.