

ASUS M5A78L-M LX PLUS

ASUS M5A78L-M LX PLUS Motherboard User Manual

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of the ASUS M5A78L-M LX PLUS motherboard. This motherboard is designed to support AMD AM3+ FX, Phenom II, Athlon II, and Sempron 100 Series Processors, featuring the AMD 760G/SB710 chipset. It supports dual-channel DDR3 memory up to 1866 MHz and includes an integrated ATI Radeon HD 3000 GPU for graphics capabilities.

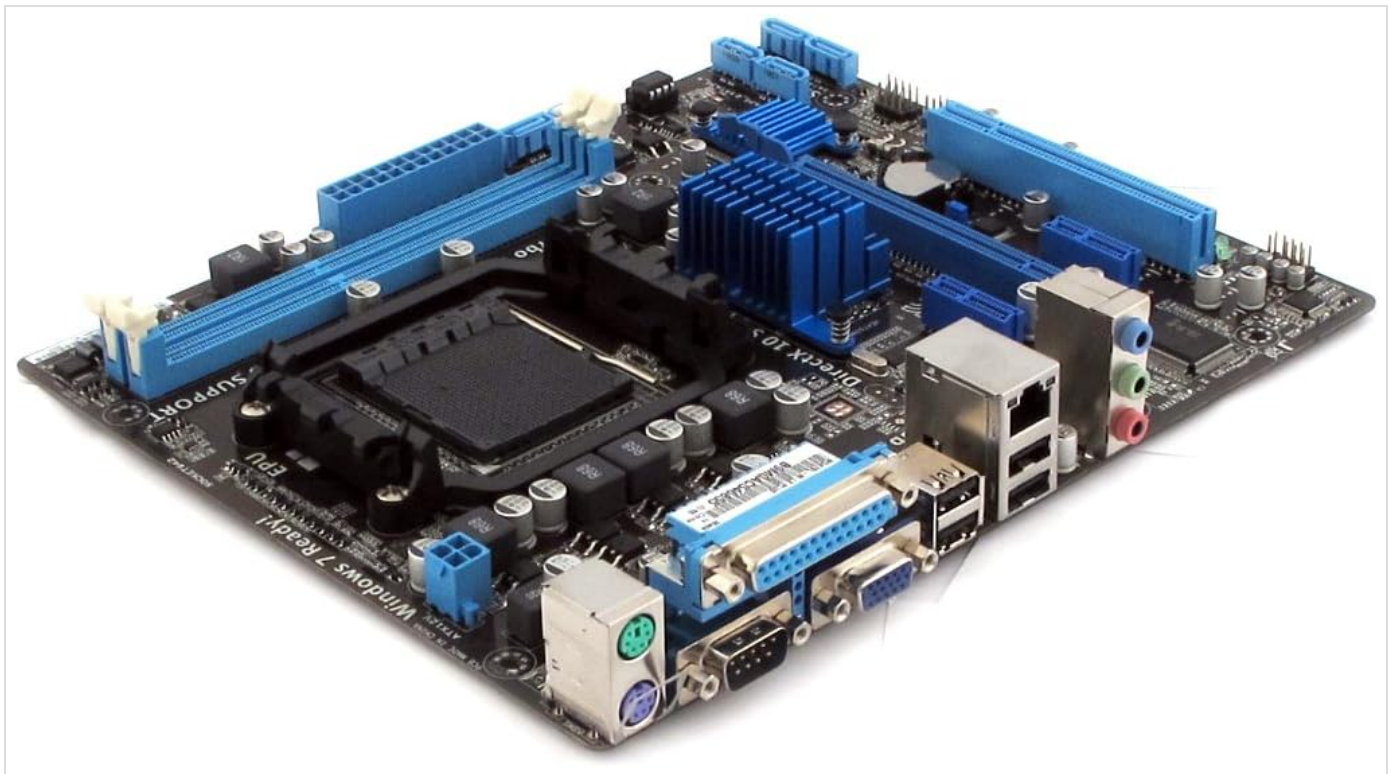


Figure 1: Top-down view of the ASUS M5A78L-M LX PLUS motherboard, highlighting the CPU socket, DDR3 memory slots, and various expansion and I/O connectors.

2. KEY FEATURES

- **Memory Support:** Two DIMM slots supporting a maximum of 16GB DDR3 memory at speeds of 1866(OC)/1600(OC)/1333/1066 MHz.
- **Integrated Graphics:** Features an integrated ATI Radeon 3000 GPU with support for Hybrid CrossFireX and DirectX

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- **Durable Components:** Utilizes 100% Solid Capacitors for enhanced durability, improved lifespan, and better thermal performance.
- **ASUS Core Unlocker:** Technology designed to unlock the potential of certain AMD processors.
- **ASUS EPU Technology:** Provides system-level energy saving and real-time power management for improved platform power efficiency.

3. TECHNICAL SPECIFICATIONS

Feature	Detail
Model Name	M5A78L-M LX PLUS
CPU Socket	Socket AM3+
Compatible Processors	AMD AM3+ FX, Phenom II, Athlon II, Sempron 100 Series
Chipset Type	AMD 760G / SB710
RAM Memory Technology	DDR3
Memory Clock Speed	1866 MHz (OC), 1600 MHz (OC), 1333 MHz, 1066 MHz
Maximum RAM Supported	16 GB
Form Factor	Micro ATX
Integrated Graphics	ATI Radeon HD 3000
Platform	Windows 10 (and earlier compatible versions)
Item Weight	2 pounds
Date First Available	October 18, 2011

4. SETUP AND INSTALLATION

Proper installation is crucial for the stable operation of your system. Please follow these steps carefully.

4.1. Preparation

- **Safety First:** Always disconnect the power supply from the wall outlet before installing or removing any components.
- **Anti-Static Precautions:** Wear an anti-static wrist strap or frequently touch a grounded metal object (like the unpainted part of your computer case) to discharge static electricity.
- **Gather Components:** Ensure you have your CPU, CPU cooler, RAM modules, power supply, storage devices, and any expansion cards ready.

4.2. CPU Installation

1. Locate the AM3+ CPU socket on the motherboard.
2. Gently lift the load lever on the side of the socket.

3. Align the triangular mark on the CPU with the corresponding mark on the socket. Carefully place the CPU into the socket without forcing it.
4. Lower the load lever to secure the CPU in place.
5. Install the CPU cooler according to its manufacturer's instructions.

4.3. RAM Installation

1. Open the clips at both ends of the DIMM slots.
2. Align the notch on the DDR3 memory module with the notch in the DIMM slot.
3. Press down firmly on both ends of the memory module until the clips snap into place.

4.4. Motherboard Mounting

1. Install the I/O shield into the rear opening of your computer case.
2. Carefully place the motherboard into the case, aligning the screw holes on the motherboard with the standoffs in the case.
3. Secure the motherboard with screws. Do not overtighten.

4.5. Connecting Cables

- **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 your storage drives (HDD/SSD) to the SATA ports on the motherboard using SATA data cables.
- **Front Panel Connectors:** Connect the power button, reset button, HDD LED, power LED, and front panel USB/audio headers to their respective pins on the motherboard. Refer to the motherboard diagram for correct pin assignments.
- **Expansion Cards:** Install any PCI Express graphics cards or other expansion cards into the appropriate slots and secure them.

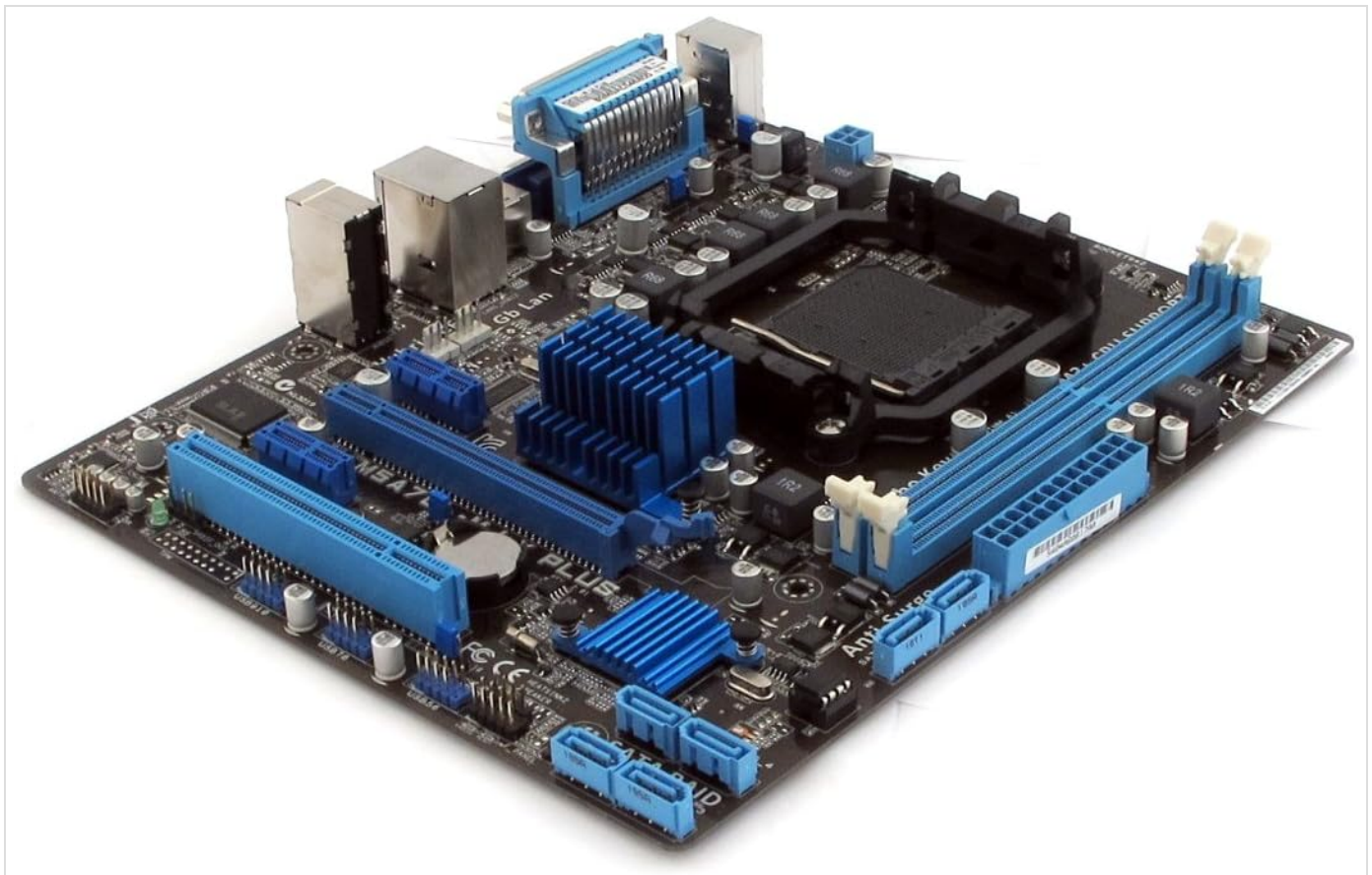


Figure 2: Angled view of the ASUS M5A78L-M LX PLUS motherboard, detailing the rear I/O panel with various ports and the available PCI Express and PCI expansion slots.

5. OPERATING INSTRUCTIONS

5.1. Initial Boot-Up

After all components are installed and connected, connect the power cable to the power supply and press the power button on your computer case. The system should power on and display the ASUS logo or BIOS information on your monitor.

5.2. BIOS/UEFI Setup

To enter the BIOS setup utility, press the **DEL** key repeatedly during the initial boot-up sequence. The BIOS allows you to configure system settings, boot order, and monitor hardware status. Save any changes before exiting the BIOS.

5.3. Driver Installation

After installing your operating system, it is essential to install the latest drivers for the motherboard chipset, integrated graphics, audio, and LAN. These drivers are typically provided on a support CD/DVD with the motherboard or can be downloaded from the official ASUS support website. Installing correct drivers ensures optimal performance and functionality.

5.4. Operating System Installation

Insert your operating system installation media (USB drive or DVD) and configure the BIOS boot order to boot from the media. Follow the on-screen instructions to install your preferred operating system.

6. MAINTENANCE

- **Dust Removal:** Regularly clean the interior of your computer case to prevent dust buildup on components, which can lead to overheating. Use compressed air for this purpose.
- **BIOS Updates:** Periodically check the ASUS support website for BIOS updates. BIOS updates can improve system stability, compatibility, and performance. Follow ASUS's instructions carefully when updating the BIOS.
- **Driver Updates:** Keep your system drivers updated to ensure compatibility with new software and to benefit from performance improvements and bug fixes.
- **Physical Inspection:** Occasionally inspect the motherboard for any visible damage, loose connections, or bulging capacitors.

7. TROUBLESHOOTING

This section addresses common issues you might encounter.

7.1. No Power / No Boot

- Ensure all power cables (24-pin ATX, 4-pin ATX 12V) are securely connected to the motherboard and power supply.
- Verify that the power supply is switched on and connected to a working power outlet.
- Check front panel connections (power button, reset button) for correct polarity and secure fit.
- Try booting with only essential components (CPU, one RAM stick, graphics card if no integrated graphics) to isolate the issue.

7.2. No Display Output

- Confirm that your monitor is connected to the correct video output port (either integrated graphics on the motherboard or a dedicated graphics card).
- Ensure the monitor is powered on and set to the correct input source.
- If using a dedicated graphics card, reseal it firmly in its PCIe slot and ensure any required PCIe power connectors are attached.

7.3. Operating System Not Loading

- Check the boot order in the BIOS to ensure your primary storage drive is selected as the first boot device.
- Verify that SATA data and power cables are securely connected to your storage drive.
- If the operating system was recently installed, ensure all necessary drivers are installed.

7.4. Driver Issues (No Sound, No Network)

- Ensure you have installed the correct drivers for your operating system version.
- Download the latest drivers directly from the official ASUS support website for your specific motherboard model.
- Check Device Manager in Windows for any devices with warning symbols, indicating missing or faulty drivers.


8. WARRANTY AND SUPPORT

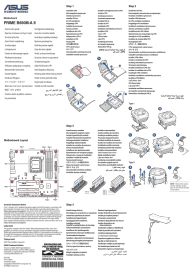




For warranty claims or technical support regarding your ASUS M5A78L-M LX PLUS motherboard, please contact ASUS directly. The manufacturer provides warranty coverage for defects in materials and workmanship under normal use. Keep your proof of purchase for warranty validation.

For the most up-to-date support resources, including drivers, BIOS updates, and FAQs, please visit the official ASUS support website:

ASUS Official Support Website

Related Documents - M5A78L-M LX PLUS

	<p>ASUS PRIME X370-PRO Motherboard User Manual</p> <p>This user manual provides detailed information on the ASUS PRIME X370-PRO motherboard, including installation, configuration, BIOS setup, RAID support, and specifications. Learn about its features, components, and safety guidelines.</p>
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	<p>ASUS PRIME B650M-A II Quick Start Guide</p> <p>A concise guide for installing and setting up the ASUS PRIME B650M-A II motherboard, covering essential steps from CPU installation to operating system setup.</p>
<p>PRIME B365M-K</p> 	<p>ASUS PRIME B365M-K Motherboard User Manual</p> <p>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.</p>
<p>TUF GAMING X670E-PLUS</p> 	<p>ASUS TUF GAMING X670E-PLUS Motherboard User Manual</p> <p>Comprehensive user manual for the ASUS TUF GAMING X670E-PLUS motherboard, covering installation, specifications, BIOS setup, and troubleshooting. Learn about CPU, memory, expansion slots, and more.</p>
<p>TUF GAMING X870-PLUS WIFI</p> 	<p>ASUS TUF GAMING X870-PLUS WIFI Motherboard User Manual</p> <p>Detailed user manual for the ASUS TUF GAMING X870-PLUS WIFI motherboard, covering installation, setup, BIOS, specifications, and safety information. Learn about AMD Ryzen™ 9000/8000/7000 series processors, DDR5 memory, PCIe 5.0, and Wi-Fi 7 connectivity.</p>
<p>ROG STRIX TRX40-XE GAMING</p> 	<p>ASUS ROG STRIX TRX40-XE GAMING Motherboard User Manual</p> <p>This comprehensive user manual provides detailed information for the ASUS ROG STRIX TRX40-XE GAMING motherboard, covering installation, specifications, BIOS setup, and RAID configurations for AMD Ryzen Threadripper processors.</p>