

ASUS P7F-M

ASUS P7F-M Micro ATX Motherboard User Manual

Model: P7F-M

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of the ASUS P7F-M Micro ATX Motherboard. Please read this manual thoroughly before installing or using the motherboard to ensure proper setup and functionality.

The ASUS P7F-M is designed for Intel Xeon 3400 series, Core i7, Core i5, and Core i3 processors with an LGA 1156 socket, supporting DDR3 memory and offering various expansion and connectivity options.

2. SETUP AND INSTALLATION

Before beginning installation, ensure your system is powered off and disconnected from the power source. Wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage to components.

2.1 Motherboard Layout

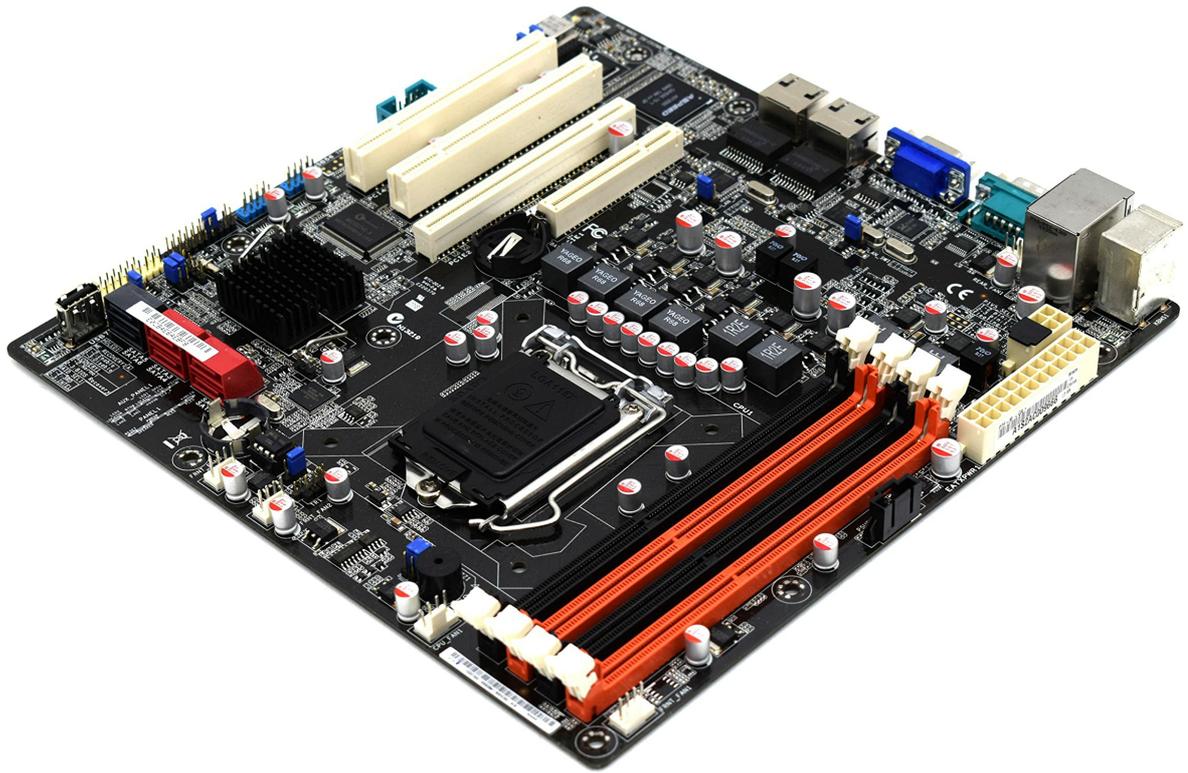


Image: Top-down view of the ASUS P7F-M motherboard, showing the CPU socket, RAM slots, PCIe slots, and various connectors.

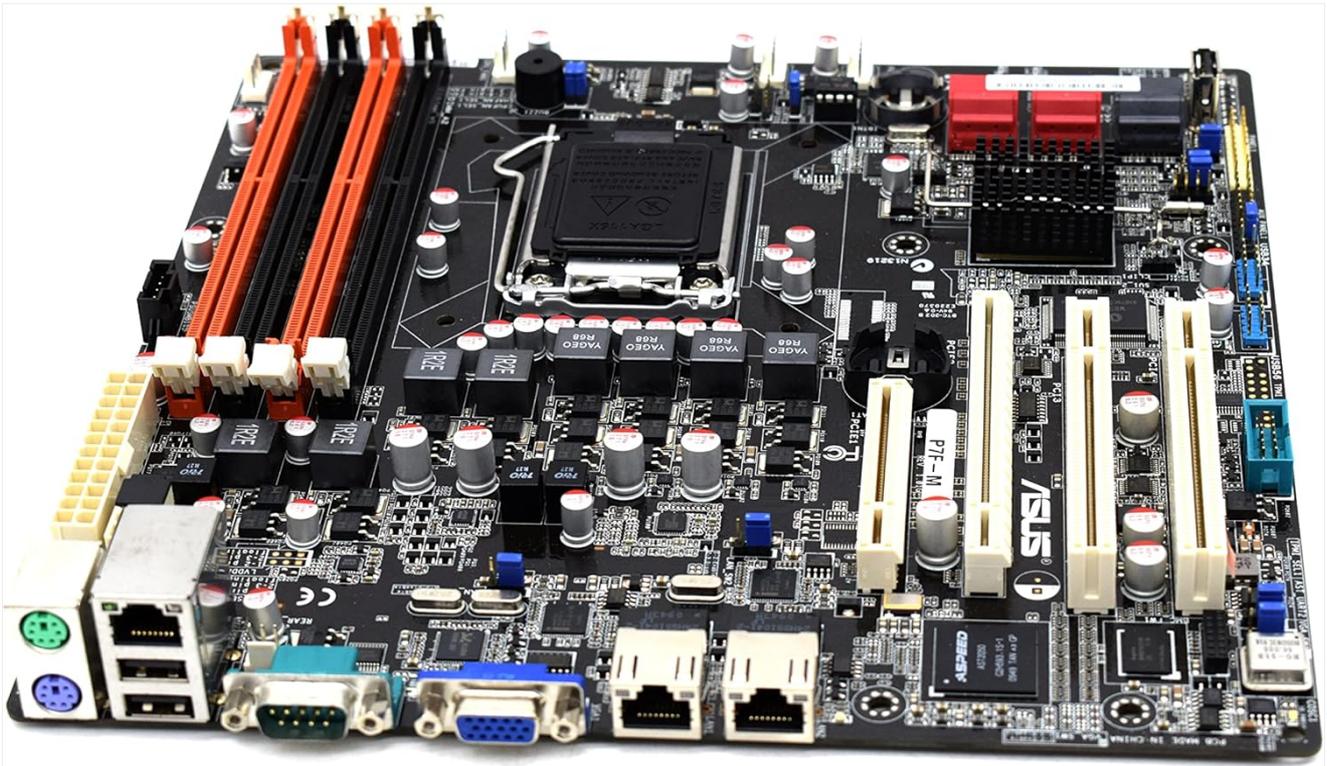


Image: Angled view of the ASUS P7F-M motherboard, highlighting the rear I/O panel, CPU socket, and expansion slots.

2.2 CPU Installation

1. Locate the LGA 1156 CPU socket on the motherboard.
2. Gently push down the load lever and pull it sideways to open the socket retention frame.
3. Carefully align the CPU with the socket, ensuring the gold triangle on the CPU matches the triangle on the socket. Do not force the CPU into the socket.

4. Close the retention frame and push the load lever back into place until it clicks.

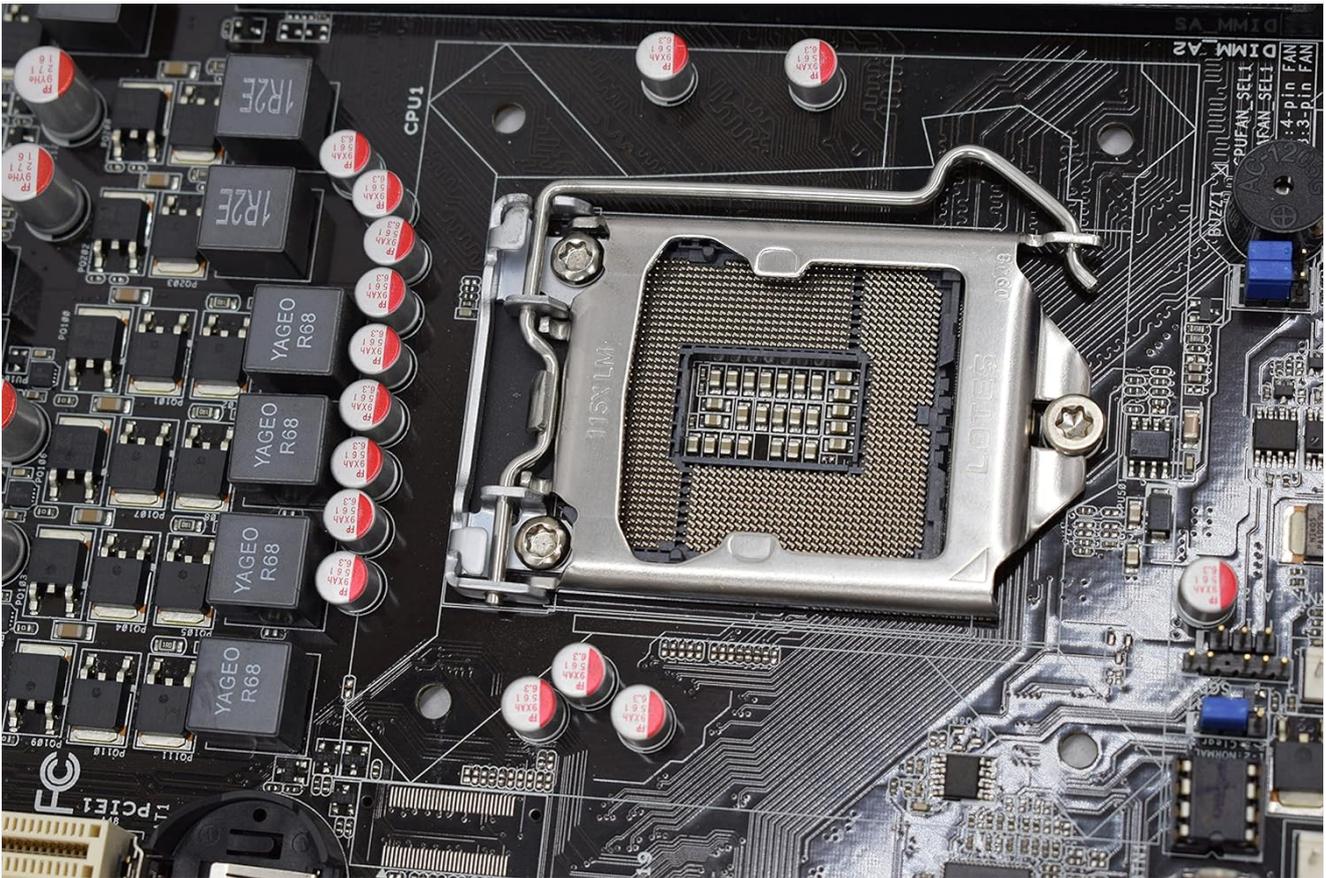


Image: Close-up view of the LGA 1156 CPU socket on the ASUS P7F-M motherboard, ready for processor installation.

2.3 Memory Installation

The motherboard supports 4x DDR3-1333/1066 DIMMs, with a maximum capacity of 16GB. It supports both ECC and non-ECC un-buffered memory.

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

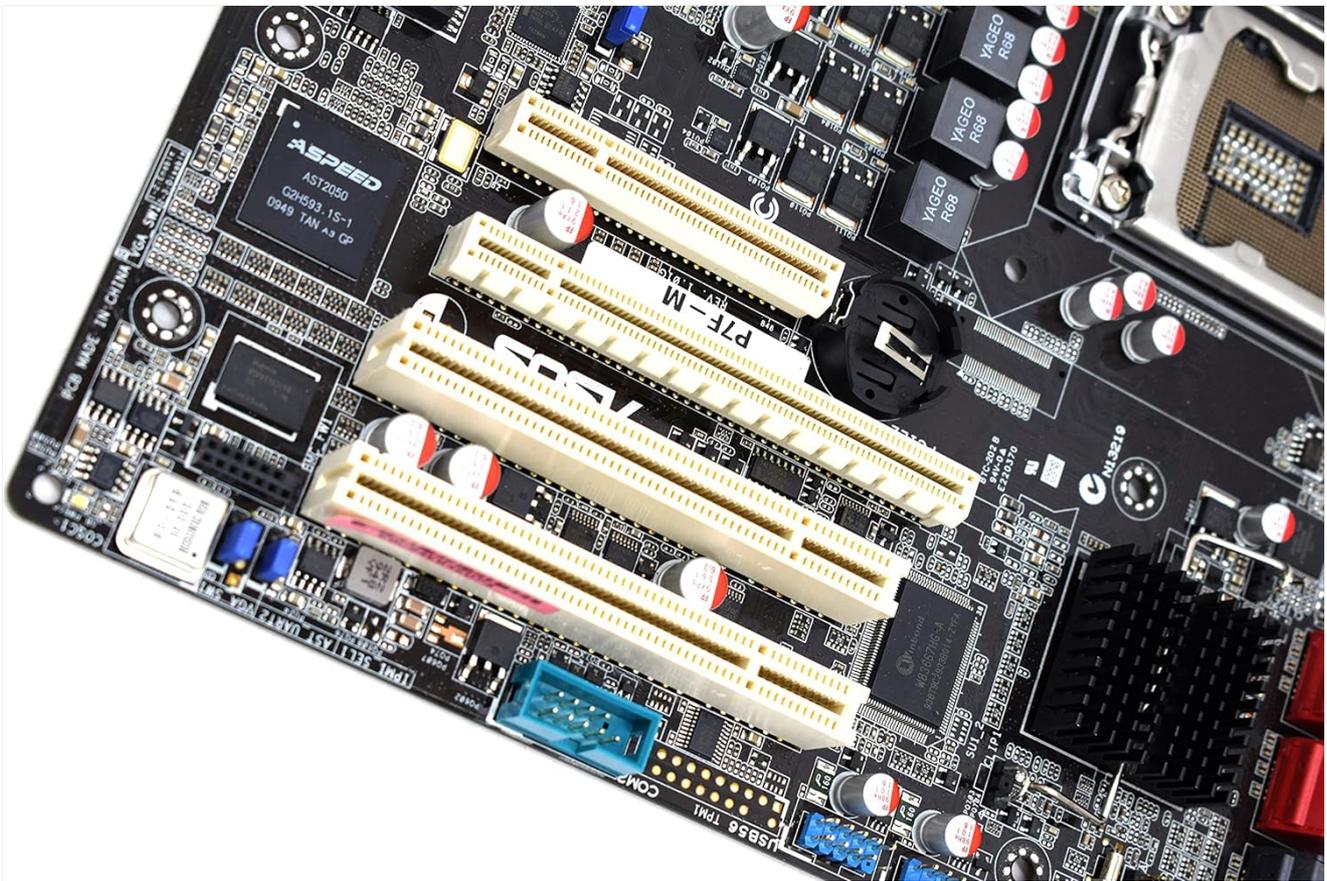


Image: Close-up view of the four DDR3 DIMM slots on the ASUS P7F-M motherboard, showing their arrangement.

2.4 Expansion Card Installation

The motherboard features:

- 1x PCI-Express x16 Slot
- 1x PCI-Express x8 Slot (operates at x4)
- 2x 32bit/33MHz PCI Slots

1. Select an appropriate expansion slot for your card.
2. Remove the corresponding metal slot cover from your PC case.
3. Align the card with the slot and press down firmly until it is securely seated.
4. Secure the card with a screw to the PC case.

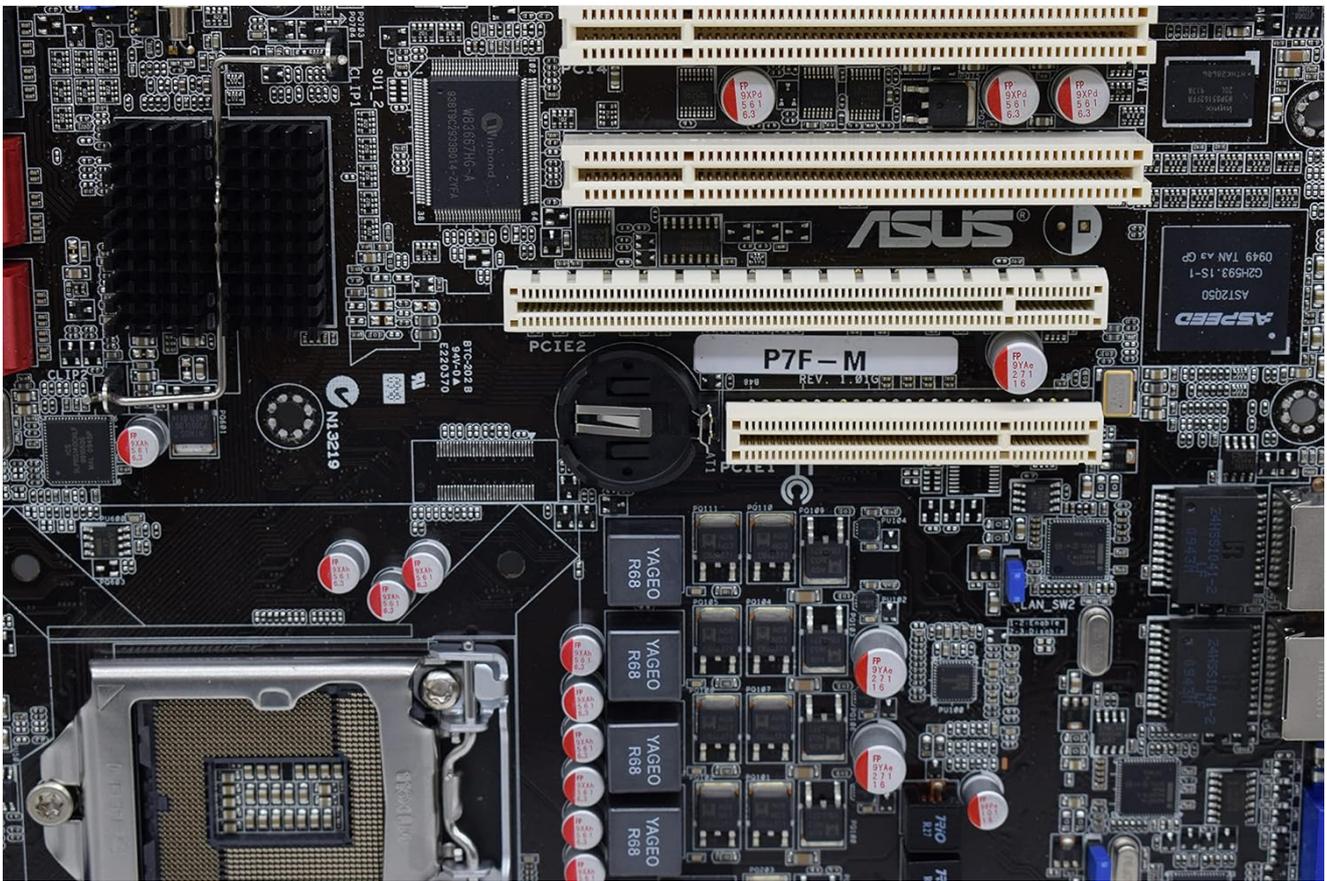


Image: Close-up view of the PCI Express and PCI expansion slots on the ASUS P7F-M motherboard.

2.5 Storage Device Connection

Connect your SATA storage devices (HDDs, SSDs, optical drives) to the SATA ports on the motherboard.

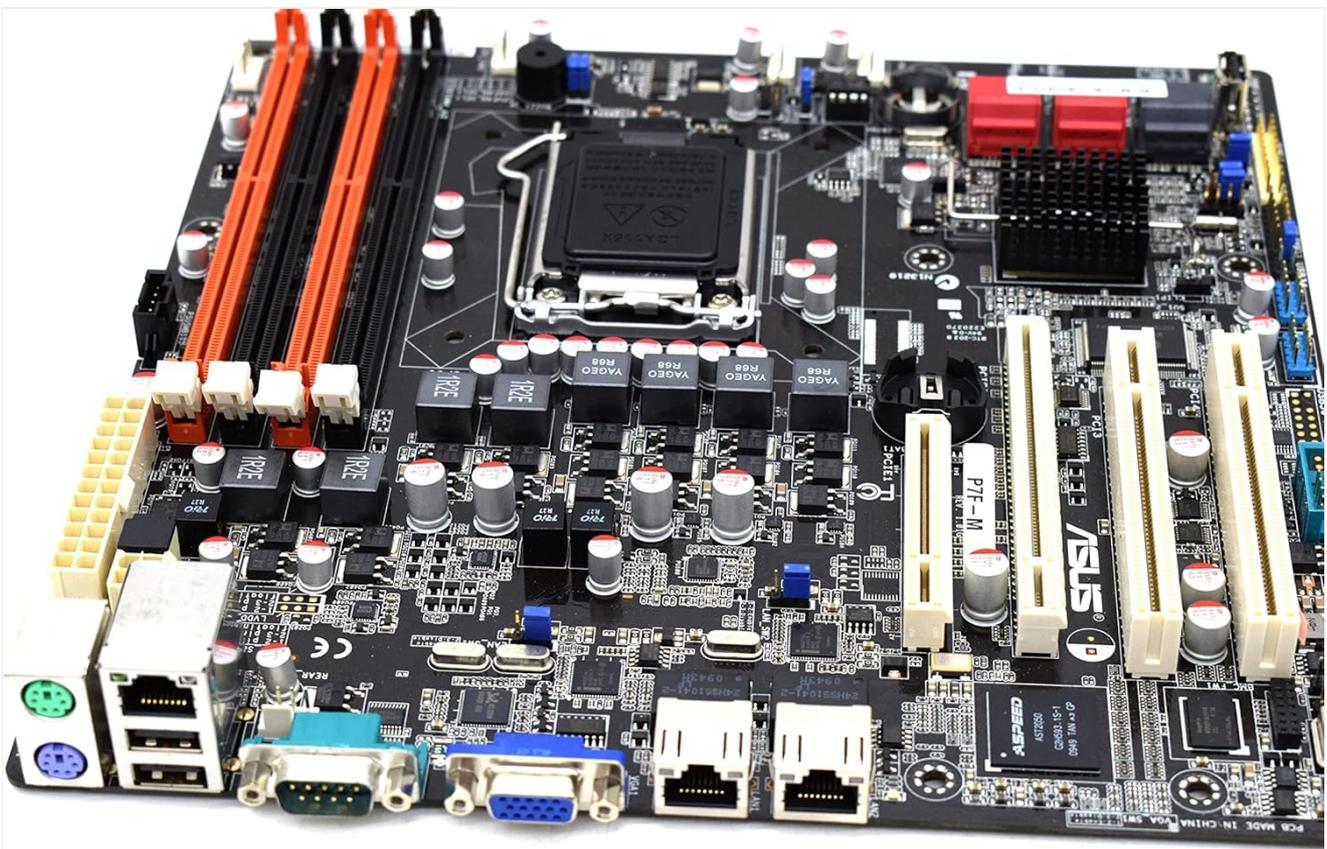


Image: Close-up view of the SATA ports on the ASUS P7F-M motherboard, typically located near the chipset.

2.6 Power Connections

Connect the 24-pin ATX main power connector and the 8-pin CPU power connector from your power supply unit (PSU) to the corresponding ports on the motherboard.

2.7 Rear Panel Connections

Connect peripherals to the rear I/O ports:

- **USB 2.0 Ports:** For keyboards, mice, and other USB devices.
- **PS/2 Ports:** For legacy PS/2 keyboards and mice.
- **RJ45 LAN Ports:** For network connectivity.
- **Serial Port:** For serial devices.
- **VGA Port:** For video output to a monitor.

3. OPERATING INSTRUCTIONS

3.1 Initial Power On

After all components are installed and connected, connect the power cable to your PSU and press the power button on your PC case. The system should initiate the Power-On Self-Test (POST).

3.2 BIOS/UEFI Setup

During POST, press the designated key (usually **DEL** or **F2**) to enter the BIOS setup utility. Here you can configure system settings, boot order, and monitor hardware status.

3.3 Driver Installation

After installing your operating system, install the necessary drivers for the motherboard chipset, LAN, and any other integrated components. These drivers are typically provided on a support CD or available for download from the ASUS website.

4. MAINTENANCE

4.1 Cleaning

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

4.2 BIOS Updates

Periodically check the ASUS support website for updated BIOS versions. BIOS updates can improve system stability, add support for new hardware, or fix bugs. Follow the instructions provided by ASUS carefully when performing a BIOS update to avoid system damage.

5. TROUBLESHOOTING

If you encounter issues with your ASUS P7F-M motherboard, consider the following troubleshooting steps:

- **No Power:** Ensure all power cables (24-pin ATX, 8-pin CPU) are securely connected. Verify the PSU is functioning correctly.
- **No Display:** Check that the monitor is connected to the correct video output (VGA on the motherboard or a

dedicated graphics card). Reseat the graphics card and memory modules.

- **System Instability:** This can be caused by incompatible memory, insufficient power, or overheating. Verify memory compatibility and check CPU/case fan operation.
- **POST Beep Codes:** Listen for beep codes during startup. Refer to the ASUS website or a general BIOS beep code guide to diagnose the issue.
- **Component Detection Issues:** Ensure all components (CPU, RAM, expansion cards, storage drives) are properly seated and connected.

For further assistance, consult the ASUS support website or contact their technical support.

6. SPECIFICATIONS

Below are the detailed technical specifications for the ASUS P7F-M Motherboard:

Feature	Specification
CPU Socket	LGA 1156
Compatible Processors	Intel Quad Core Xeon 3400 series, Core i7-800, Core i5-700, Core i3 series
Chipset	Intel 3420 PCH Chipset
Memory Slots	4x DDR3 DIMMs
Memory Type	DDR3-1333/1066, Dual Channel, Un-buffered, ECC/non-ECC
Max Memory Capacity	16GB
PCI-Express x16 Slots	1
PCI-Express x8 Slots	1 (runs in x4 mode)
PCI Slots	2x 32bit/33MHz
LAN Controller	Intel 82574L Dual Port Gigabit LAN controller, 1x Management LAN
USB 2.0 Ports	7 (2 rear, 5 via header)
PS/2 Ports	2
RJ45 LAN Ports	3
Serial Ports	2 (1 rear, 1 via header)
VGA Port	1
Main Power Connector	1x 24-pin
CPU Power Connector	1x 8-pin
Form Factor	Micro ATX
Dimensions	13.3 x 11.1 x 3.1 inches (Package)
Item Weight	1.5 pounds

7. WARRANTY AND SUPPORT

For information regarding the product warranty, please refer to the warranty card included with your motherboard or visit the official ASUS website. ASUS provides technical support and resources, including driver downloads, FAQs, and contact information, on their support portal.

ASUS Support Website: <https://www.asus.com/support/>