Supermicro X10SLM-F-B

Supermicro X10SLM-F-B LGA1150 MicroATX Server Motherboard User Manual

Model: X10SLM-F-B

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, configuration, operation, and maintenance of the Supermicro X10SLM-F-B MicroATX Server Motherboard. Designed for reliable server performance, this motherboard supports Intel LGA1150 processors and features the Intel C224 PCH chipset, DDR3 memory, SATA3, USB 3.0, and dual Gigabit Ethernet. Please read this manual thoroughly before proceeding with installation and operation to ensure proper functionality and system stability.

2. PRODUCT OVERVIEW

The Supermicro X10SLM-F-B is a MicroATX server motherboard engineered for robust performance and reliability in server environments. Key features include:

- **CPU Socket:** LGA1150 for Intel Xeon E3-1200 v3/v4 series, 4th Gen Core i3, Pentium, Celeron processors.
- **Chipset:** Intel C224 PCH.
- **Memory:** 4x DDR3 DIMM slots supporting up to 32GB Unbuffered ECC DDR3 1600MHz.
- **Expansion Slots:** 1x PCI-E 3.0 x16, 1x PCI-E 2.0 x4 (in x8 slot), 1x PCI-E 2.0 x4 (in x4 slot).
- **Storage:** 6x SATA3 (6Gbps) ports.
- **Networking:** Dual Gigabit Ethernet LAN ports (Intel i210AT).
- **Integrated Graphics:** Aspeed AST2400 BMC for IPMI 2.0 with KVM over IP.
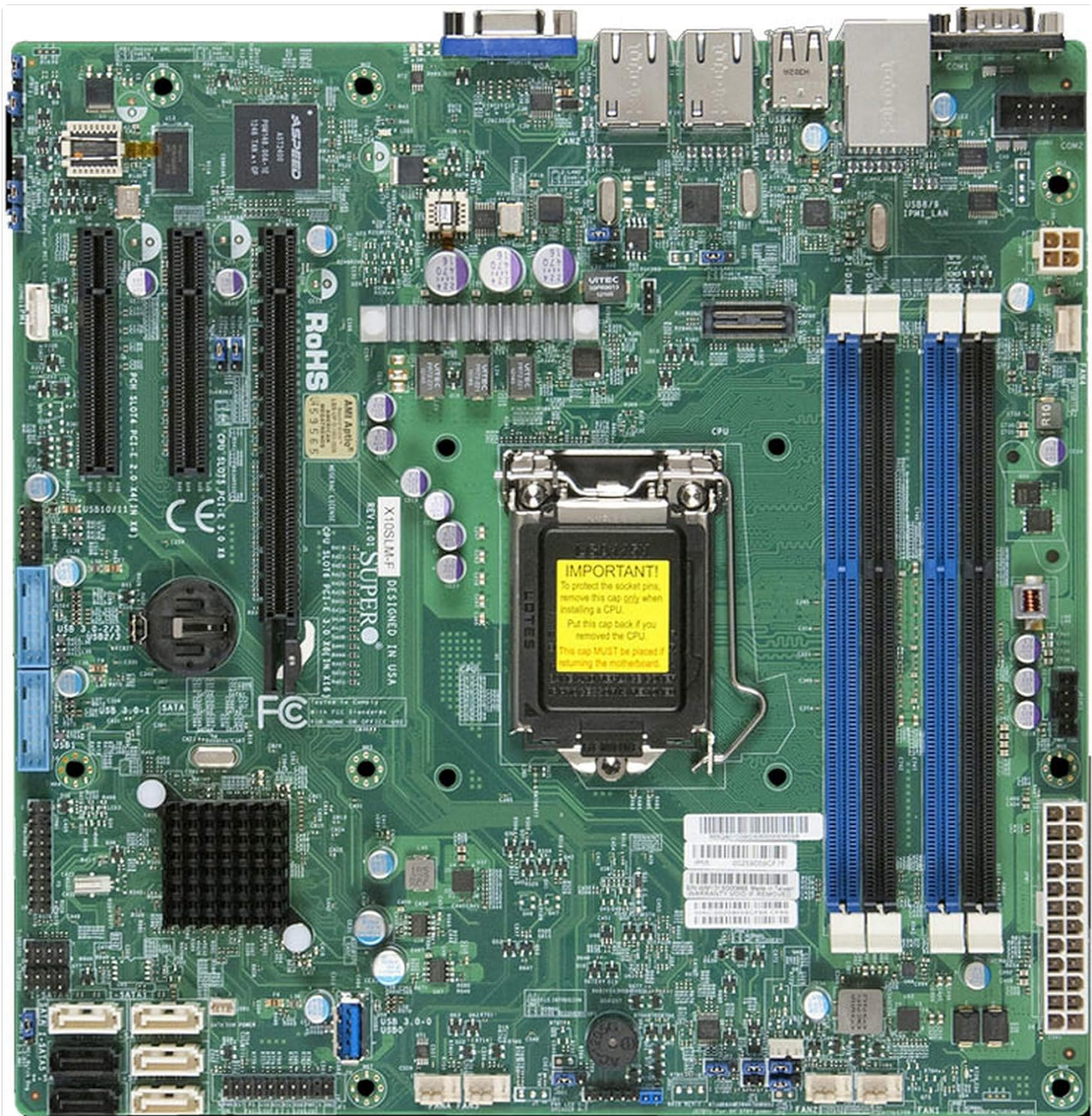- **USB Ports:** USB 3.0 and USB 2.0 ports.

Figure 1: Supermicro X10SLM-F-B Motherboard Layout. This image displays the full layout of the motherboard, highlighting the LGA1150 CPU socket at the center, surrounded by four DDR3 DIMM slots (two blue, two black). To the left, multiple PCI-E expansion slots are visible. The bottom right features six SATA ports and USB 3.0 headers. The top section includes various I/O ports such as VGA, USB, and LAN. A yellow protective cap is present on the CPU socket, indicating the importance of its removal before CPU installation.

3. SYSTEM SETUP

Follow these steps for proper installation of components onto your Supermicro X10SLM-F-B motherboard.

3.1 CPU Installation

1. **Prepare the Socket:** Gently lift the load lever and open the CPU socket cover.
2. **Remove Protective Cap:** Carefully remove the yellow protective cap from the LGA1150 socket.*Retain this cap for future use if the CPU is removed or the motherboard is returned.*
3. **Install CPU:** 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. **Secure CPU:** Close the socket cover and press down the load lever until it locks into place.

5. **Install CPU Cooler:** Attach the compatible LGA1150 CPU cooler according to its manufacturer's instructions.

3.2 Memory Installation

The X10SLM-F-B supports DDR3 Unbuffered ECC DIMMs. For optimal performance, install memory modules in pairs.

1. **Open DIMM Clips:** Push open the white clips at both ends of the DIMM slots.

2. **Align Memory:** Align the notch on the DDR3 memory module with the key in the DIMM slot.

3. **Insert Memory:** Insert the module firmly into the slot until the clips snap into place, securing the module.

3.3 Storage Device Connection

Connect your SATA storage devices (HDDs, SSDs) to the SATA3 (6Gbps) ports located on the motherboard.

- Use SATA data cables to connect storage devices to the available SATA ports.
- Ensure power cables from the power supply are connected to each storage device.

3.4 Power Connection

Connect the power supply unit (PSU) to the motherboard.

- Connect the 24-pin ATX main power connector to the corresponding slot on the motherboard.
- Connect the 8-pin (or 4-pin) ATX 12V CPU power connector to the slot near the CPU socket.

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4. OPERATING INSTRUCTIONS

4.1 BIOS/UEFI Configuration

The BIOS (Basic Input/Output System) or UEFI (Unified Extensible Firmware Interface) allows you to configure system settings. To access the BIOS/UEFI setup utility:

- Power on the system.
- Press the `DEL` key repeatedly during the Power-On Self-Test (POST) to enter the BIOS/UEFI setup.
- Navigate through the menus using arrow keys and make necessary adjustments for boot order, SATA mode (AHCI/RAID), and other system parameters.
- Save changes and exit to restart the system.

4.2 Operating System Installation

After configuring the BIOS/UEFI, you can proceed with installing your preferred operating system (e.g., Windows Server, Linux distributions).

1. **Prepare Installation Media:** Create a bootable USB drive or DVD with your operating system installation files.

2. **Set Boot Order:** In BIOS/UEFI, set the boot priority to your installation media.

3. **Install OS:** Follow the on-screen prompts to install the operating system.

4. **Install Drivers:** After OS installation, install all necessary drivers for the motherboard components (chipset, LAN, graphics, etc.) from the Supermicro website or the provided driver disc.

5. Maintenance

5.1 Cleaning

Regular cleaning helps maintain optimal performance and extends the lifespan of your motherboard.

- **Power Off:** Always power down and unplug the system before cleaning.
- **Dust Removal:** Use compressed air to gently remove dust from components, especially heatsinks and fan blades. Hold fans to prevent over-spinning.
- **Surface Cleaning:** Use a soft, lint-free cloth lightly dampened with isopropyl alcohol to clean non-conductive surfaces if necessary. Avoid direct contact with sensitive components.

5.2 Firmware Updates

Supermicro periodically releases BIOS and IPMI firmware updates to improve stability, compatibility, and add new features. Refer to the Supermicro official website for the latest firmware versions and detailed update procedures.

- **BIOS Update:** Typically performed via a USB drive or a utility within the BIOS.
- **IPMI Firmware Update:** Can often be updated through the IPMI web interface. Note that some advanced IPMI features, such as KVM over IP BIOS updates, may require an activation key.

6. Troubleshooting

This section provides solutions to common issues you might encounter.

- **No Power:**
  - Ensure all power cables (24-pin ATX, 8-pin CPU) are securely connected.
  - Verify the power supply unit (PSU) is switched on and functioning correctly.
  - Check front panel power switch connections to the motherboard.

- **No Display:**
  - Confirm the monitor is connected to the correct video output (onboard VGA or discrete graphics card).
  - Reseat memory modules and expansion cards.
  - Check for POST beep codes (refer to Supermicro documentation for specific codes).

- **System Instability/Crashes:**
  - Verify memory modules are correctly installed and compatible.
  - Check CPU and chipset temperatures.
  - Ensure all drivers are installed and up to date.
  - Run memory diagnostic tools.

- **Operating System Not Booting:**

- Check BIOS/UEFI boot order settings.
- Verify storage device connections.
- Ensure the operating system installation is not corrupted.

For more detailed troubleshooting, consult the official Supermicro X10SLM-F-B manual available on the Supermicro website or contact Supermicro technical support.

7. SPECIFICATIONS

Feature	Specification
Brand	Supermicro
Model Name	X10slm-f-b
CPU Socket	LGA 1150
Compatible Processors	Intel Celeron (also supports Xeon E3-1200 v3/v4, Core i3, Pentium)
Chipset Type	Intel C224
RAM Memory Technology	DDR3
Memory Clock Speed	1600 MHz
Compatible Devices	Personal Computer
Platform	Windows
Item model number	MBD-X10SLM-F-B
Item Weight	1.68 pounds
Package Dimensions	16.93 x 14.57 x 2.83 inches
Date First Available	June 4, 2013

8. WARRANTY AND SUPPORT

8.1 Warranty Information

Supermicro products typically come with a limited manufacturer's warranty. The duration and terms of the warranty may vary by region and reseller. Please refer to the warranty card included with your product or visit the official Supermicro website for the most current and detailed warranty information.

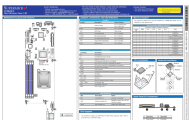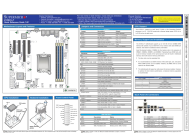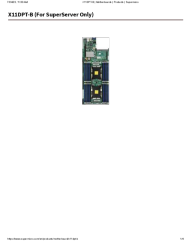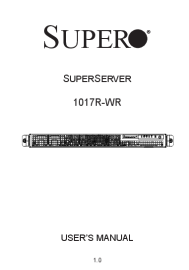*Retain your proof of purchase for warranty claims.*

8.2 Technical Support

For technical assistance, driver downloads, BIOS updates, and further documentation, please visit the official Supermicro support website:

www.supermicro.com/support/

When contacting support, please have your motherboard model (X10SLM-F-B) and serial number ready.

Related Documents - X10SLM-F-B

	Supermicro X10SLM+/X10SLL+ Quick Reference Guide Quick reference guide for Supermicro X10SLM+(-F)(-LN4F) and X10SLL+-F motherboards, detailing layout, features, jumpers, connectors, LED indicators, memory support, and installation.
	Supermicro X11SCM-F Server Motherboard: Features, Specifications, and Parts Detailed technical specifications, key features, and parts list for the Supermicro X11SCM-F server motherboard. Supports 8th/9th Gen Intel® Core™ and Xeon® E processors, DDR4 memory, and offers extensive I/O connectivity.
	Supermicro X13SCD-F Quick Reference Guide - Motherboard Features and Installation A concise quick reference guide for the Supermicro X13SCD-F motherboard, detailing its layout, jumpers, connectors, LED indicators, memory support, CPU and heatsink installation procedures, and back panel I/O. Includes essential contact information and system support links.
	Supermicro X13SCL-F Quick Reference Guide: Motherboard Layout, CPU, Memory, and I/O Concise guide for the Supermicro X13SCL-F motherboard, detailing layout, CPU and memory support, jumpers, connectors, front panel, and back panel I/O for system builders.
	Supermicro X11DPT-B Motherboard Technical Specifications Detailed technical specifications for the Supermicro X11DPT-B motherboard, including processor support, memory capacity, expansion slots, and management features.
	Supermicro SUPERSERVER 1017R-WR User's Manual This user's manual provides comprehensive guidance for the Supermicro SUPERSERVER 1017R-WR, detailing installation, setup, system interface, motherboard and chassis features, BIOS configuration, and specifications for professional system integrators and PC technicians.