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> Samsung 64GB DDR4 3200MHz PC4-25600 ECC RDIMM Server RAM Memory User Manual

Samsung M393A8G40BB4-CWE

User Manual

SAMSUNG 64GB DDR4 3200MHz PC4-25600 ECC RDIMM SERVER RAM MEMORY

Model: M393A8G40BB4-CWE

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your Samsung 64GB DDR4 3200MHz PC4-25600 ECC RDIMM Server RAM Memory module (M393A8G40BB4-CWE). This module is designed exclusively for compatible server systems. Please read this manual thoroughly before installation to ensure optimal performance and system stability.

2. Product Overview

The Samsung M393A8G40BB4-CWE is a high-performance 64GB DDR4 Registered DIMM (RDIMM) module, engineered for server environments requiring high capacity and error correction capabilities. It operates at a speed of 3200MHz (PC4-25600) with a low voltage of 1.2V, contributing to energy efficiency.



Image: A top-down view of the Samsung 64GB DDR4 3200MHz ECC RDIMM server RAM module. The green PCB board is visible with multiple black memory chips arranged on both sides. A white label with Samsung branding, part number M393A8G40BB4-CWE, and specifications like 64GB 2Rx4 PC4-3200AA is affixed to the center. Gold contacts are visible along the bottom edge of the module.

Key features include:

- Single 64 GB RAM Module
- DDR4 DIMM 288-Pin Form Factor
- Speeds up to 3200 MHz (PC4-25600 / PC4-3200AA)
- ECC Registered RDIMM (Error-Correcting Code Registered Dual In-line Memory Module)
- 2Rx4 (Dual Rank x4) Configuration
- JEDEC DDR4 standard 1.2V Operating Voltage

3. Safety Information

Before handling or installing the memory module, please observe the following safety precautions:

- **Static Electricity:** Memory modules are highly sensitive to electrostatic discharge (ESD). Always wear an anti-static wrist strap or frequently touch a grounded metal object (like the unpainted metal chassis of your server) before handling the module.
- **Power Off:** Ensure the server system is completely powered off and unplugged from the power source before opening the chassis or installing components.
- **Compatibility:** This module is **ONLY COMPATIBLE with Server systems**. It is **NOT COMPATIBLE with Desktop Computers, Laptop Computers, or PCs of any kind**. Verify your server's motherboard specifications for compatible memory types (ECC Registered DDR4) and maximum capacity per slot.
- **Handling:** Hold the memory module by its edges, avoiding contact with the gold connectors or the integrated circuits (chips).
- **Mixing Memory:** This ECC Registered module cannot be mixed with different ECC types such as ECC Unbuffered, ECC Load Reduced, or Non-ECC Unbuffered memory.

4. Setup (Installation)

Follow these steps to install the Samsung DDR4 RDIMM module into your server system:

1. **Prepare the System:** Power down your server completely and unplug all power cables.
2. **Open Chassis:** Open the server chassis according to your server manufacturer's instructions.
3. **Ground Yourself:** Touch a grounded metal object or wear an anti-static wrist strap to discharge any static electricity.
4. **Locate DIMM Slots:** Identify the available DDR4 DIMM slots on your server's motherboard. Refer to your server's manual for specific slot numbering and population guidelines, especially for multi-channel configurations.
5. **Open Retention Clips:** Gently push the retention clips at both ends of the DIMM slot outwards to open them.
6. **Align and Insert:** Align the notch on the memory module with the key in the DIMM slot. Carefully insert the module straight down into the slot, applying even pressure to both ends until the retention clips snap into place. Do not force the module.
7. **Secure Chassis:** Once the module is securely seated, close the server chassis.
8. **Reconnect Power:** Reconnect all power cables and power on your server.

The system BIOS should automatically detect the new memory. You may need to enter the BIOS/UEFI setup to verify the memory is recognized correctly.

5. Operating (Usage)

Once properly installed, the Samsung DDR4 RDIMM module operates automatically within your server system. The operating system and applications will utilize the expanded memory resources to improve performance, reduce bottlenecks, and increase workload capacity.

Ensure your server's operating system and applications are configured to take advantage of the increased memory. No specific user interaction is required for the memory module itself after installation.

6. Maintenance

Memory modules generally require minimal maintenance. To ensure longevity and stable operation:

- **Environment:** Operate your server in a clean, dust-free, and temperature-controlled environment to prevent overheating and component degradation.
- **Physical Handling:** Avoid unnecessary removal or re-insertion of the module once installed. If removal is

necessary, follow the same safety precautions as installation.

- **Cleaning:** Do not attempt to clean the gold contacts with abrasive materials. If necessary, use a soft, lint-free cloth and isopropyl alcohol for gentle cleaning of the PCB, avoiding the contacts.

7. Troubleshooting

If you encounter issues after installing the memory module, consider the following troubleshooting steps:

- **System Not Booting / No Display:**

- Ensure the module is fully seated in its slot. Re-seat the module firmly.
- Verify that the module is installed in a compatible slot according to your server's motherboard manual.
- Check for any bent pins on the DIMM slot or damage to the module's gold contacts.
- If multiple modules are installed, try booting with only one module at a time to isolate a potentially faulty module.

- **Memory Not Recognized / Incorrect Capacity:**

- Confirm that your server's motherboard supports 64GB modules and the total memory capacity.
- Ensure your server's BIOS/UEFI firmware is up to date.
- Verify that the module is ECC Registered DDR4 and not mixed with incompatible memory types (e.g., ECC Unbuffered, Non-ECC).

- **System Instability / Crashes:**

- Run a memory diagnostic tool (e.g., MemTest86) to check for errors.
- Ensure adequate cooling within the server chassis to prevent memory overheating.

If problems persist, consult your server's documentation or contact the server manufacturer's technical support.

8. Specifications

Feature	Specification
Brand	Samsung
Part Number	M393A8G40BB4-CWE
Memory Type	DDR4 SDRAM
Memory Size	64 GB (Single Module)
Form Factor	DIMM (288-Pin)
ECC Type	ECC-RDIMM (Registered DIMM)
Speed	3200 MHz (PC4-25600 / PC4-3200AA)
Rank	2Rx4 (Dual Rank x4)
Voltage	1.2 Volts
Compatible Devices	Server Systems ONLY
Item Weight	2.89 ounces

Feature	Specification
Product Dimensions	5.25 x 1.23 x 0.15 inches

9. Warranty and Support

For warranty information regarding your Samsung memory module, please refer to the terms and conditions provided by your point of purchase or the official Samsung website. Warranty coverage typically applies to manufacturing defects and may vary by region and seller.

For technical support or further assistance, please contact the vendor from whom you purchased this product or refer to the support resources available on the official Samsung website. When contacting support, please have your product model number (M393A8G40BB4-CWE) and any relevant system information ready.