Samsung M323R4GA3BB0-CQK

Samsung 32GB DDR5 4800MHz Desktop RAM Module User Manual

Model: M323R4GA3BB0-CQK

1. Introduction

This manual provides instructions for the installation and use of your Samsung 32GB DDR5 4800MHz Desktop RAM Module. This module is designed to enhance the performance of compatible desktop computer systems by expanding available memory resources.

The Samsung DDR5 RAM module is a high-performance, non-ECC, unbuffered DIMM (UDIMM) operating at 4800MHz with a capacity of 32GB. It is engineered to meet JEDEC DDR5 standards for reliability and compatibility.



Figure 1: Samsung 32GB DDR5 4800MHz Desktop RAM Module.

2. Safety Information

Please read and follow these safety guidelines to prevent damage to the memory module or your computer system, and to ensure personal safety.

- **Electrostatic Discharge (ESD) Prevention:** Always handle the memory module by its edges. Avoid touching the gold connector pins or the memory chips. Use an anti-static wrist strap or ground yourself by touching a metal, unpainted part of your computer chassis before handling components.
- **Power Off:** Ensure your computer is completely powered off and unplugged from the wall outlet before opening the case or installing any components.
- **Component Compatibility:** Verify that your motherboard and CPU support DDR5 memory and the specific speed (4800MHz) and capacity (32GB) of this module. Refer to your motherboard's manual for detailed compatibility information.
- **Proper Handling:** Do not bend, drop, or apply excessive force to the memory module. Store it in its anti-static

packaging until ready for installation.

3. Setup & Installation

Follow these steps to properly install the Samsung DDR5 RAM module into your desktop computer.

1. **Prepare Your System:**
    - Shut down your computer completely.
    - Unplug the power cord from the wall outlet.
    - Disconnect all peripheral cables (monitor, keyboard, mouse, etc.).
    - Open the computer case.
    - Ground yourself to prevent ESD.
2. **Locate RAM Slots:** Identify the DDR5 DIMM slots on your motherboard. These are typically long slots near the CPU. Consult your motherboard manual for the correct slot configuration for single or dual-channel operation.
3. **Open Retention Clips:** Gently push down the small clips at each end of the RAM slot to open them.
4. **Align the Module:** Hold the RAM module by its edges. Align the notch on the bottom edge of the module with the key in the DIMM slot. DDR5 modules have a specific notch position to prevent incorrect insertion.
5. **Insert the Module:** Place the module into the slot and apply even, firm pressure to both ends of the module until it clicks into place. The retention clips should automatically snap shut. If they do not, gently push them closed.
6. **Verify Installation:** Ensure the module is seated firmly and evenly in the slot, and both retention clips are fully closed.
7. **Reassemble and Power On:**
    - Close the computer case.
    - Reconnect all cables.
    - Plug in the power cord and power on your computer.
8. **BIOS/UEFI Check:** Upon first boot, enter your system's BIOS/UEFI settings to confirm that the new memory is recognized and operating at the correct speed.



Figure 2: Illustrative image of RAM module insertion (actual image may vary).

4. Compatibility and Operation

This Samsung DDR5 4800MHz memory module is designed for use in desktop computer systems that support DDR5 UDIMM memory. It is not compatible with laptop computers or motherboards designed for DDR4, DDR3, or older memory types.

For optimal performance, ensure your motherboard's BIOS/UEFI is updated to the latest version. Some systems may require manual configuration in the BIOS/UEFI to achieve the advertised 4800MHz speed, especially if other memory modules are present or if the system defaults to a lower speed.

The module operates at a standard voltage of 1.1V, as per JEDEC DDR5 specifications.

5. Care and Handling

Proper care and handling will ensure the longevity and reliability of your memory module.

- **Storage:** Store unused memory modules in their original anti-static packaging in a cool, dry place.
- **Cleaning:** If necessary, gently clean the module with a soft, lint-free cloth. Do not use liquid cleaners or solvents. Avoid touching the gold contacts.
- **Temperature:** Operate the module within the recommended temperature range of your computer system. Excessive heat can degrade performance and lifespan.
- **Physical Damage:** Avoid any physical stress, bending, or dropping of the module.

6. Troubleshooting

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

- **System Does Not Boot:**
  - Ensure the module is fully seated in the DIMM slot and the retention clips are closed.
  - Verify that the module is inserted in the correct slot(s) according to your motherboard manual.
  - Try installing only one module at a time if you are installing multiple.
  - Clear the CMOS (Complementary Metal-Oxide-Semiconductor) settings on your motherboard (refer to your motherboard manual).
- **Incorrect Memory Capacity Detected:**
  - Check your system's BIOS/UEFI settings to confirm the detected memory.
  - Ensure your operating system is 64-bit to fully utilize 32GB or more RAM.
  - Verify motherboard compatibility with high-capacity modules.
- **System Instability or Crashes:**
  - Run a memory diagnostic tool (e.g., Windows Memory Diagnostic, MemTest86) to check for errors.
  - Ensure your motherboard BIOS/UEFI is updated.
  - Check for proper cooling within your computer case.
- **Memory Not Running at Advertised Speed (4800MHz):**
  - Access your system's BIOS/UEFI settings.
  - Look for memory frequency or XMP/EXPO profile settings. You may need to manually select the 4800MHz profile or set the frequency.
  - Ensure your CPU and motherboard chipset support DDR5 4800MHz.

7. Specifications

Feature	Specification
Brand	Samsung
Model Number (Equivalent)	M323R4GA3BB0-CQK
Memory Type	DDR5 UDIMM
Capacity	32 GB (Single Module)
Speed	4800 MHz (PC5-38400)
CAS Latency	CL40

Rank	2Rx8 (Dual Rank x8)
ECC Type	Non-ECC Unbuffered
Voltage	1.1V
Pin Count	288-Pin
Form Factor	DIMM (Desktop)
Compatible Devices	Desktop Computers with DDR5 support

8. Warranty and Support

Warranty Information: This Samsung memory module comes with a Limited Lifetime Warranty covering defects in materials and workmanship. This warranty ensures that the product is free from defects under normal use for the lifetime of the product. Please retain your proof of purchase for warranty claims.
Exclusions: The warranty does not cover damage caused by improper installation, misuse, abuse, unauthorized repairs, accidents, or modifications. It also does not cover cosmetic damage or normal wear and tear.
Technical Support: For technical assistance, compatibility questions, or warranty claims, please contact Samsung customer support or visit the official Samsung website for support resources. You may need to provide the product model number (M323R4GA3BB0-CQK) and proof of purchase.
Online Resources: For additional information and support, visit the official Samsung website: www.samsung.com/us/support/

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