COMPONENT PRODUCT BRIEF · RFQ REFERENCE

MTFC8GACAEDQ-AAT

Micron eMMC 5.0 · 8 GByte (64 Gbit) · 8G × 8 (x8) · HS200 200 MHz / 400 MT/s · VCC 2.7~3.6V / VCCQ 3.3V · 100-ball LBGA 14×18×1.4 mm · AAT −40~+105 °C

1. Quick Description

Micron 8-GB eMMC 5.0 managed NAND, organized **8G × 8 (x8 bus)**, HS200 high-speed interface at **200 MHz / 400 MT/s**. VCC = 2.7~3.6 V, VCCQ = 3.3 V. Packaged in a **100-ball LBGA (14.0 × 18.0 × 1.4 mm)**. **Automotive grade AAT = −40 °C to +105 °C**. **Procurement focus:** this eMMC 5.0 device is **Obsolete at Micron** — source from legacy inventory only. Confirm on-hand stock, date code, host eMMC controller compatibility, and migration path to eMMC 5.1/UFS.

2. Product Overview

The MTFC8GACAEDQ-AAT is Micron's 8-GB (64-Gbit) eMMC (embedded MultiMediaCard) managed NAND device, integrating an MMC controller with high-density MLC NAND in a single package. It supports the JEDEC eMMC 5.0 specification (JESD84-B50) with HS200 high-speed mode at 200 MHz clock (400 MT/s data rate). The device features an advanced 12-signal interface supporting x1, x4, and x8 bus widths. It operates from VCC = 2.7 to 3.6 V with VCCQ at 3.3 V. Packaged in a 100-ball LBGA measuring 14.0 × 18.0 × 1.4 mm, it is qualified for automotive operation at −40 °C to +105 °C. As an eMMC 5.0 generation device, it is now obsolete at Micron.

3. Key Attributes

CAPACITY **8 GByte (64 Gbit)**	PROTOCOL **eMMC 5.0 (MMC)**	CONFIG **8G × 8 (x8)**
SPEED **HS200: 200 MHz / 400 MT/s**	BUS WIDTH **x1 / x4 / x8**	VOLTAGE **VCC 2.7~3.6V; VCCQ 3.3V**
PACKAGE **100-ball LBGA 14×18×1.4 mm**	TEMP GRADE **AAT −40~+105 °C**	STATUS **Obsolete** EOL automotive

4. Technical Specifications

Parameter	Value
Manufacturer	Micron Technology, Inc.
Part Number	MTFC8GACAEDQ-AAT
Product Type	eMMC (embedded MultiMediaCard) managed NAND Flash
Memory Density	8 GByte (64 Gbit)
Organization	8G × 8 (x8); managed NAND with on-die MMC controller
Data Rate	HS200: 400 MT/s (200 MHz clock); x1/x4/x8 bus
Clock Rate	200 MHz (HS200 high-speed mode)
Package	100-ball LBGA, 14.0 × 18.0 × 1.40 mm; surface mount; RoHS ("green"); dry pack qty 980
Operating Temperature Code	Automotive AAT: −40 °C to +105 °C
Automotive Requirement	**Yes — automotive grade** (AAT suffix, −40~+105 °C). Suitable for automotive ECU, infotainment, and telematics storage.

Revision	EDQ package option; MMC 5.0 generation
RFQ Status	**Obsolete** at Micron. Source from legacy inventory or last-time-buy only. Confirm on-hand stock, date code, and migration path to eMMC 5.1/UFS.

Other key: VCC = 2.7~3.6 V; VCCQ = 3.3 V; JEDEC JESD84-B50 (eMMC 5.0); 12-signal interface; managed NAND controller; wear leveling and bad block management on-die.

5. Typical Application Areas

- **Automotive infotainment / telematics** — high-capacity storage for head units and connected car systems.
- **Automotive ECU / body electronics** — code and data storage for automotive control units.
- **Industrial / IoT gateways** — high-capacity embedded storage for edge computing devices.
- **Single-board computers / embedded systems** — high-speed boot and application storage for SBCs.
- **Aftermarket / service spares** — replacement eMMC for fielded automotive systems.

6. RFQ Information to Confirm — Alternative / Cross-Reference Parts

Same 8-GB eMMC die. Variants differ mainly in **package ball count, protocol version, and temperature grade**.

Part Number	Capacity	Protocol / Speed	Package	Temp / Status
MTFC8GACAEDQ-AAT (target)	8 GB	eMMC 5.0; HS200 200 MHz/400 MT/s	**100-ball LBGA 14×18 mm**	AAT −40~+105 °C; Obsolete.
MTFC8GACAEDQ-K1-AIT	8 GB	eMMC 5.0; HS200	100-ball LBGA 14×18 mm	**AIT industrial −40~+85 °C**; same package.
MTFC8GACAAAM-4M IT	8 GB	**eMMC 4.51**; HS200	**153-ball** LBGA	IT −40~+85 °C; different ball count.
MTFC8GACAANA-4M IT	8 GB	eMMC 5.0; HS200	153-ball LBGA	IT −40~+85 °C; FBGA JWB18.

Confirm at RFQ: (1) real on-hand stock, date code, COO, and packing; (2) host eMMC controller protocol version and bus width; (3) whether automotive AAT temperature is required; (4) whether the 100-ball package matches the PCB vs. the 153-ball variant; (5) migration path to eMMC 5.1/UFS for new designs.

7. Product FAQ

Q1. What is the capacity?

A1. 8 GByte (64 Gbit), organized as 8G × 8 managed NAND with on-die MMC controller.

Q2. What eMMC protocol version does it support?

A2. eMMC 5.0 (JEDEC JESD84-B50) with HS200 high-speed mode at 200 MHz clock (400 MT/s).

Q3. What bus width does it support?

A3. x1, x4, and x8 bus widths via the 12-signal MMC interface, selectable by the host controller.

Q4. What voltages does it operate from?

A4. VCC = 2.7 to 3.6 V; VCCQ = 3.3 V for this variant.

Q5. What package is it in?

A5. A 100-ball LBGA measuring 14.0 × 18.0 × 1.40 mm, surface-mount, RoHS ("green").

Q6. What temperature range is it rated for?

A6. Automotive grade (AAT): −40 °C to +105 °C.

Q7. Is this part still in production?

A7. No. This eMMC 5.0 generation is Obsolete at Micron. Only legacy inventory is available; for new designs, migrate to eMMC 5.1 or UFS.

8. RFQ Tip

When sending an RFQ, state explicitly: **(a)** the full ordering code "MTFC8GACAEDQ-AAT" and required packing; **(b)** the **real on-hand quantity, date code and COO** you can commit — as an EOL part, only actual legacy stock is shippable; **(c)** host eMMC controller protocol version and bus width compatibility; **(d)** whether automotive AAT temperature is required; **(e)** whether the 100-ball package matches the PCB vs. the 153-ball variant; **(f)** whether migration to eMMC 5.1/UFS is permitted. Always request a recent-date-code sample to confirm the device marking before committing, and ask for a **lifetime-buy / bridge** proposal if the program still needs this eMMC 5.0.

Document Description: The content on this page is compiled based on publicly available technical data and authorized channel parameters, intended for RFQ communication and preliminary selection reference. For final procurement, design integration, or replacement confirmation, please refer to the customer's original BOM, official specifications, project certification requirements, and actual supply documentation.