

Embedded Solutions



e.MMC

EMC310M e.MMC Memory

Transcend's EMC310M embedded MultiMediaCard (e.MMC) integrates flash memory, storage controller, and MMC interface into a small 153-ball BGA package. The simplified interface makes it extremely compact, facilitating manufacturing process and effectively shortening time-to-market for end devices. The EMC310M complies with JEDEC e.MMC 5.1 specification. The top-tier MLC NAND flash delivers high performance and stability. The small form factor, simplified design, and high speed are ideal for embedded systems, medical devices, infotainment systems, set-top boxes, and kiosks.

Hardware Features

- Complies with JEDEC e.MMC Specification Ver. 5.1 (JESD84-B51A)
- I/O (VCCQ) voltage: either 1.7-1.95V or 2.7-3.6V
- MLC NAND flash
- Core voltage (VCC) 2.7-3.6V
- 153-ball BGA

Ordering Information

8GB	TS8GEMC310M
16GB	TS16GEMC310M

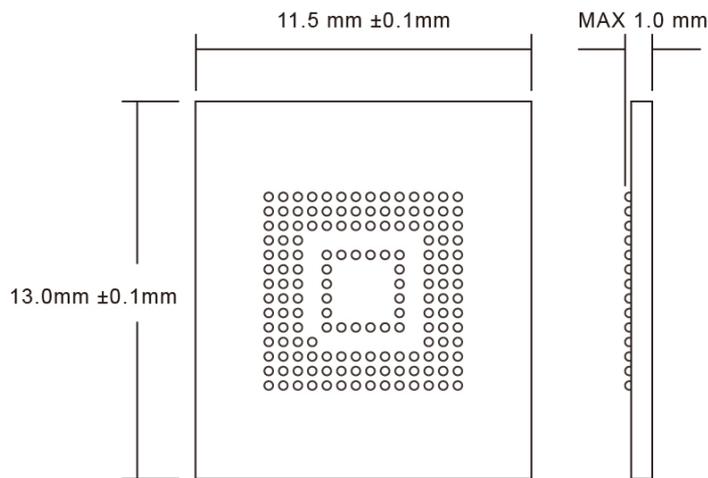
Firmware Features

- Bus widths supported: x1, x4, x8
- Clock frequencies supported: 0~200MHz
- Built-in BCH ECC (Error Correction Code) functionality
- TRIM command for better performance
- Wear-Leveling

Specifications

Appearance	Dimensions	11.5 mm x 13 mm x 1.0 mm (0.45" x 0.51" x 0.04")
	Form Factor	eMMC5.1 (BGA-153)
	Bus Speed Mode	HS400
Storage	Flash Type	MLC NAND flash
	Capacity	8 GB / 16 GB
Operating Environment	Operating Temperature	Standard -25°C (-13°F) ~ 85°C (185°F)
	Storage Temperature	-40°C (-40°F) ~ 85°C (185°F)
	Humidity	0% ~ 95%
	Clock Frequency Supported	0 MHz ~ 200 MHz
	Bus Width Supported	x1, x4, x8
Performance	Read Speed (Max.)	up to 280 MB/s
	Write Speed (Max.)	up to 100 MB/s
	Note	Speed may vary due to host hardware, software, usage, and storage capacity.
Warranty	Warranty	Three-year Limited Warranty
	Warranty Policy	Please click here for more information about the Transcend Warranty Policy. Due to the complexity and variety of industrial applications, Transcend cannot guarantee 100% compatibility with all platforms and under all scenarios. For special applications and environments, it is strongly suggested that you contact Transcend beforehand for clarification.

Mechanical Dimensions



Product specifications are subject to change without notice. Pictures shown may differ from actual products. Total accessible capacity varies depending on operating environment. Due to the complexity and variety of industrial applications, Transcend cannot guarantee 100% compatibility with all platforms and under all scenarios. For special applications and environments, it is strongly suggested that you contact Transcend beforehand for clarification.