

eMMC™

SMART's eMMC product family is an embedded memory solution that combines NAND Flash Memory, an embedded MMC (MultiMediaCard) controller, and advanced firmware in a small BGA (Ball Grid Array) package that provides a stable, yet cost effective high-density embedded storage.

eMMC can simplify system design because the JEDEC® standard interface makes the NAND technology invisible to the host, enabling easier design-in, reducing TTM (Time to Market), as well as simpler technology migration as the NAND memory scales.



SMART's eMMC product family is designed to meet the rigid requirements of the industrial, medical and networking markets where technical support, extended life, and stable roadmaps are critical in choosing the right supplier.

SMART's eMMC solution is available in the standard JEDEC 0.5mm pitch, 153-ball package as well as an eMMC interposer module which has a footprint and pin-out compatible with the JEDEC standard 1.0mm pitch, 100-ball package. The 100-ball package offers a solution with large ball pitch and ball diameter which enables lower cost PCB designs, simplifies PCB routing with wider metal traces, resulting in better thermal dissipation.

Why SMART for eMMC

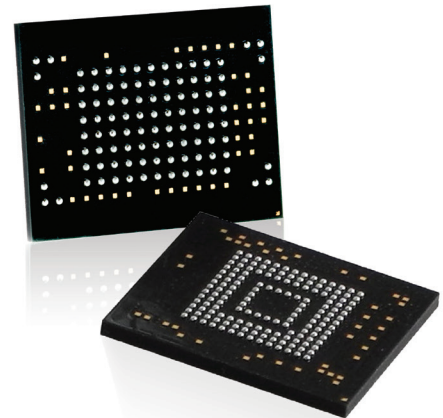
1. A Trusted Supplier – supporting OEMs
2. Support with a True Embedded Focus – every customer is treated with equal focus and respect for their individual application
3. Differentiated Products – a wide variety of product features suited for a range of markets and applications
4. Support Across the Entire Life Cycle – dedicated support from product introduction to obsolescence

Features & Benefits

- Compliant to JEDEC v5.0 standard
- 8GB, 16GB, 32GB, 64GB
- Pre-configurable to pSLC Enhanced Storage Media Mode
- Industrial temp (-40 °C to 85 °C)
- VCC = 3.3V and VCCQ = 3.3V or 1.8V

eMMC Product Family Overview

Capacity	Sustained Performance	Operating Temperature
8GB to 64GB (interposer)	Up to 270MB/s sequential read Up to 95MB/s sequential write	Industrial Temp: -40°C to +85°C



Applications

- Factory Automation
- Networking Appliances
- Medical Devices
- POS Terminals
- RFID Scanners
- Single Board Computers
- VoIP

eMMC Ordering Information

JEDEC v5.0, 0.5mm pitch, 11.5x13mm

SMART Part Number	Density (GB)
Industrial Temperature	
SH9MCGP1ATI01	64GB
SH9MBGP1ATI01	32GB
SH9MAGP1ATI01	16GB
SH9M8GP1ATI01	8GB

JEDEC v5.0, 1.0mm pitch, 14x18mm (interposer)

SMART Part Number	Density (GB)
Industrial Temperature	
SH9QCGP1ATI01	64GB
SH9QBG1ATI01	32GB
SH9QAGP1ATI01	16GB
SH9Q8GP1ATI01	8GB

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