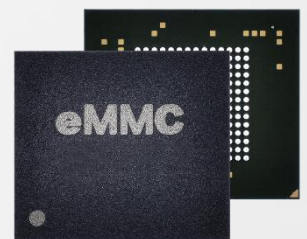


The Most **Reliable**  
Storage For Industries

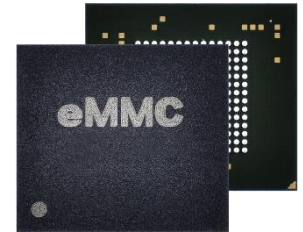
EM110-eMMC



## EM110-eMMC

### Overview

Apacer EM110-eMMC is an embedded, non-volatile memory system that combines multi-level cell (MLC) NAND flash memory with an onboard eMMC controller, supporting the JEDEC Standard eMMC 5.1 interface. The integrated eMMC controller directly manages NAND flash media, freeing the host processor from various tasks, including ECC, wear-leveling, IOPS optimization, and read sensing.



EM110-eMMC serves as the ideal storage solution for a wide range of industrial applications, including embedded systems, factory automation, networking, transportation, aerospace and defense, surveillance, medical equipment, and more. Its compact BGA package sizes and minimal power consumption render eMMC an affordable and efficient memory solution for mobile and embedded products.

Offering capacities ranging from 8GB to 16GB within a JEDEC-compatible form factor, EM110-eMMC provides an excellent solution for vendors looking for seamless integration, a quick market entry, and ample storage capacity.

## Feature

- Variable clock speeds up to 200MHz
- 10-wire bus interface with hardware reset
- Supports 1-bit, 4-bit, and 8-bit data bus widths
- Internal ECC for error correction
- Enhanced data management
- Reliable power failure protection for data updates
- Secure erase/trim commands
- Enhanced write protection (permanent and partial)
- Field Firmware Update (FFU)
- Power-off notification
- Pre-EOL information
- Improved device lifespan
- Optimal size
- Enhanced strobe
- Cache flushing report
- BKOPS Control and Cache Barrier
- Improved RPMB Throughput
- Secure Write Protection

## Specifications

<b>Model</b>	EM110-eMMC
<b>Interface</b>	eMMC5.1 HS400
<b>Form Factor</b>	153 Ball FBGA
<b>NAND Flash Type</b>	MLC
<b>Capacity</b>	8GB~16GB
<b>Sequential Read Performance (MB/sec)</b>	Up to 225
<b>Sequential Write Performance (MB/sec)</b>	Up to 140
<b>Standard Operating Temperature ( °C )</b>	-40 ~ +85
<b>Storage Temperature ( °C )</b>	-40 ~ +85
<b>Thermal sensor</b>	No
<b>Operating Voltage</b>	VCCQ(1.8V) = Min 1.7V ; Max 1.95V VCC(3.3V) = Min 2.7V ; Max 3.6V
<b>Power Consumption</b>	Read: VCCQ(1.8V) = 175mA / VCC(3.3V) = 45mA Write: VCCQ(1.8V) = 85mA / VCC(3.3V) = 75mA
<b>Dimension (L x W x H )</b>	11.50 x 13.00 x 1.00 (mm)

