

We are Memory

Enabling world-changing innovations with industry-leading flash memory technology.



KIOXIA's BiCS FLASH™ e-MMC: Notable higher performance for consumer storage

Consumer applications are challenging, with many players vying for the same customers with minimally differentiated product offerings. Product reviews, where every last performance measurement is recorded and rated, drive many purchasing decisions. It is, therefore, essential, that both memory capacity and its performance are of the highest capability.

Unresponsive memory solutions manifest themselves as graphical user interfaces (GUI) that are slow with poor reaction times. Limited memory capacity causes user frustration as files or photos are deleted to make space for new information.

KIOXIA provides the optimal solution.

As a leading supplier and acknowledged pioneer in Flash Memory, [KIOXIA](#) offers [e-MMC Consumer Storage](#) devices that have been developed to meet the wide and differing needs of consumer applications.

What is e-MMC?



e-MMC (Embedded MultiMedia Card) is a long-established standard that plays a prominent role for interfacing flash memories. The interface is commonly available on the system-on-chip (SoC) devices that form the brains of consumer applications. The NAND memory it provides is managed, meaning that bad block management, wear leveling and error correction code functionality are integrated. This reduces the load on the host processor, leaving the user experience more responsive and providing GUIs more fluidity.

Key Features of KIOXIA's Consumer e-MMC

- Compatible to latest JEDEC standard 5.0 and 5.1
- Ultra-reliable and robust technology (based on 15 nm NAND and 3D BiCS FLASH™ topologies)
- Bus widths of x1 / x4 / x8
- Supplies: 3.3 V for core; 1.8 V or 3.3 V for interface logic
- Integrated memory management:
 - Error correction code mechanisms
 - Bad block management
 - Wear-leveling
 - Garbage collection
- Range of capacities from 4 GB to 128 GB
- Temperature range of -25° C to +85 °C
- Compact 11.5 x 13.0 x 0.8 or x 1.0 mm 153-ball FBGA

KIOXIA's Unique Memory at its Core

This range of consumer e-MMC products also make use of KIOXIA'S BiCS FLASH™ 3D technology. By stacking layers of the flash memory in each die, and using unique capabilities to stack several die in each package, this established and robust solution can be relied upon to meet the vigors of daily use, while delivering the performance and capacity consumers expect today.

[Find out more >](#)

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