



I-Temp eMMC – the perfect storage solution for harsh environment embedded applications.

Overview

Kingston® I-Temp eMMC™ Flash memory offers JEDEC eMMC5.1 features and is backward compatible to earlier eMMC standards. It has all the advantages of standard eMMC plus the operating temperature range of the device meets industrial operating temperature requirements (-40°C~+85°C), which make it an ideal storage solution for outdoor, harsh environment and automotive applications.

Key Benefits

- Simplifies system design and reduces time to market. The standard interface makes fast-changing NAND technology invisible to the host and the host processor doesn't have to keep changing its software to accommodate every NAND technology change and variation. This helps to significantly reduce the design-in complexity and shorten the qualification cycle.
- Helps to improve whole system performance. The eMMC controller frees up the host processor's valuable resources from NAND management so the host processor can use its processing power on other tasks.
- Provides a cost-effective solution. As opposed to SLC NAND where one bit of data is stored in each cell, eMMC uses multi-level cell NAND where multiple bits of data are stored in each cell. It makes higher capacity storage in embedded applications much more affordable and enables today's embedded designs to meet increasing demands for storage.
- Supports industrial operating temperature range (-40°C~+85°C)

I-Temp eMMC Part Numbers and Specifications

Part Number	Capacity	eMMC Standard	Package	NAND	Operating Temperature
EMMC04G-W627	4GB	5.0/5.1 (HS400)	11.5x13x1.0	MLC	-40°C~+85°C
EMMC08G-W325	8GB	5.0/5.1 (HS400)	11.5x13x1.0	MLC	-40°C~+85°C
EMMC16G-IB29	16GB	5.1 (HS400)	11.5x13x0.8	3D TLC BiCS3	-40°C~+85°C
EMMC32G-IB29	32GB	5.1 (HS400)	11.5x13x0.8	3D TLC BiCS3	-40°C~+85°C
EMMC64G-IB29	64GB	5.1 (HS400)	11.5x13x0.8	3D TLC BiCS3	-40°C~+85°C

For more information, please visit kingston.com/emmc

Key Features

JEDEC Standard Features	eMMC 5.0	eMMC 5.1
Boot Operation	✓	✓
Partitioning	✓	✓
Sleep Mode	✓	✓
Replay Protected Memory Block	✓	✓
Secure Trim/Secure Erase	✓	✓
Hardware Reset	✓	✓
Reliable Write	✓	✓
Background Operation	✓	✓
High Priority Interrupt	✓	✓
DDR Interface	✓	✓
Discard/Sanitize CMD	✓	✓
Packed Commands, Context IDs	✓	✓
Power OFF Notification	✓	✓
Data Tag	✓	✓
Device Health Report	✓	✓
Field FW Update	✓	✓
Production State Awareness	✓	✓
CMD Queuing		✓



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