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eMCP

The Perfect Power Efficient Integrated Storage Solution For Space-constrained Mobile, IoT, and Embedded Applications

Kingston offers a range of JEDEC standard eMCP components. eMCP integrates Embedded MultiMedia Card (eMMC) storage and Low-Power Double Data Rate (LPDDR) DRAM into a Multi-Chip Package (MCP) with one small footprint. This solution provides greater integration, reducing overall size. eMCP is an ideal combined storage and memory component for space-constrained systems such as smartphones, tablets, wearables, and various "Internet of Things" (IoT) devices.

KEY BENEFITS

- Managed NAND flash solution that simplifies design and product sustainment with an industry standard eMMC interface. This significantly reduces the design complexity and qualification cycle.
- The highly integrated memory and storage combination reduces space on system design, making eMCP an ideal solution for small form factor applications.
- Low-Power DRAM reduces overall power consumption, making eMCP an optimal solution for many battery powered applications such as wearables and mobile IoT products.
- Reduced Bill Of Material complexity with component count reduction.
- Multiple firmware configurations available to best fit your application requirements for performance, power, and life span.

MARKET SEGMENTS



Smartphones and Tablets



Wearables



AI Accelerators



IoT

PART NUMBERS AND SPECIFICATIONS

LPDDR3 based eMCP

Part Number	Capacity		Description		Package	FBGA	Operating Temperature
	NAND (GB)	DRAM (Gb)	eMMC	DRAM	(mm)		
04EM04-N3GM627	4	4	5.0	LPDDR3	11.5x13.0x1.0	221	-25°C ~ +85°C
08EM08-N3GML36	8	8	5.1	LPDDR3	11.5x13.0x1.0	221	-25°C ~ +85°C
16EM08-N3GTB29	16	8	5.1	LPDDR3	11.5x13.0x1.0	221	-25°C ~ +85°C
16EM16-N3GTB29	16	16	5.1	LPDDR3	11.5x13.0x1.0	221	-25°C ~ +85°C
32EM16-N3GTX29	32	16	5.1	LPDDR3	11.5x13.0x1.0	221	-25°C ~ +85°C
32EM32-N3HTX29	32	32	5.1	LPDDR3	11.5x13.0x1.1	221	-25°C ~ +85°C
64EM32-N3HTX29	64	32	5.1	LPDDR3	11.5x13.0x1.1	221	-25°C ~ +85°C

LPDDR4x based eMCP

Part Number	Capacity		Description		Package	FBGA	Operating Temperature
	NAND (GB)	DRAM (Gb)	eMMC	DRAM	(mm)		
04EM08-M4EM627	4	8	5.1	LPDDR4x	8x9.5x0.8	149	-25°C ~ +85°C
16EM16-M4CTB29	16	16	5.1	LPDDR4x	11.5x13.0x1.0	254	-25°C ~ +85°C
32EM16-M4CTX29	32	16	5.1	LPDDR4x	11.5x13.0x1.0	254	-25°C ~ +85°C
32EM32-M4DTX29	32	32	5.1	LPDDR4x	11.5x13.0x1.0	254	-25°C ~ +85°C
64EM32-M4DTX29	64	32	5.1	LPDDR4x	11.5x13.0x1.0	254	-25°C ~ +85°C
128EM32-M4DTX29	128	32	5.1	LPDDR4x	11.5x13.0x1.1	254	-25°C ~ +85°C