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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

## eMCP 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

