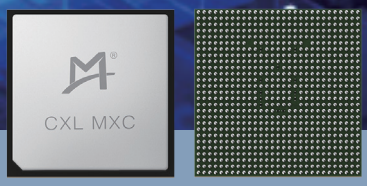
MONTAGE® Technology

Ideal for Memory Expansion and Pooling

Montage CXL® Memory eXpander Controller

Montage's CXL® Memory eXpander Controller (MXC) is a Type 3 Compute Express Link® (CXL®) device. It provides high-speed, low-latency interconnect between CPU and CXL®-based devices to enable memory sharing and pooling to improve system performance, efficiency, and reduce data center TCO.



Up to **64** GT/s
CXL® Data Rate

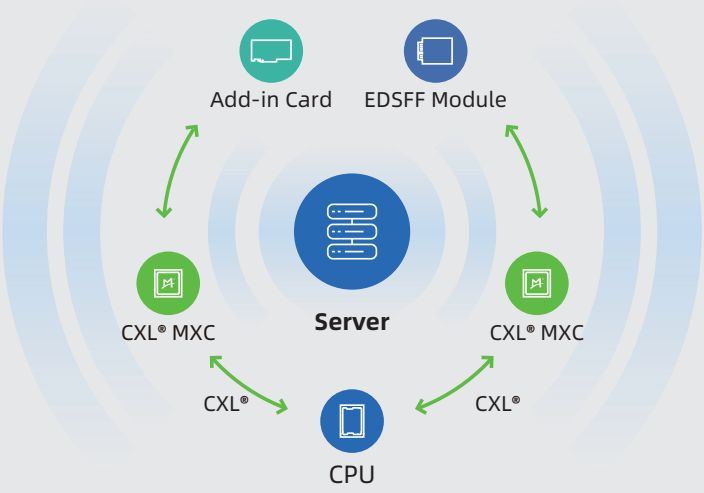
Up to **8000** MT/s
DDR Data Rate

Around **100** ns
Latency

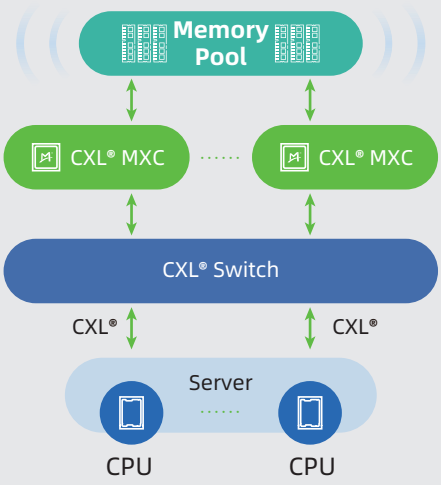
- Integrated CXL® controller and DDR memory controller
- Compliant with CXL® 1.1, 2.0 and 3.1 specifications, supporting CXL.mem and CXL.io protocols
- Included in CXL® Consortium Integrators List
- Designed based on PCIe® 5.0 or 6.2 interface, supporting data rate up to 32 GT/s or 64 GT/s
- Compliant with DDR4/DDR5 specifications, supporting DDR4/DDR5 UDIMM/RDIMM and DRAM on-board
- SMBus, I3C/I²C, and SPI interfaces
- Supporting full security features: IDE, DICE, TSP, SPDM 1.3
- Supporting meta data and server grade ECC protection

Typical Application Scenarios

Memory Expansion



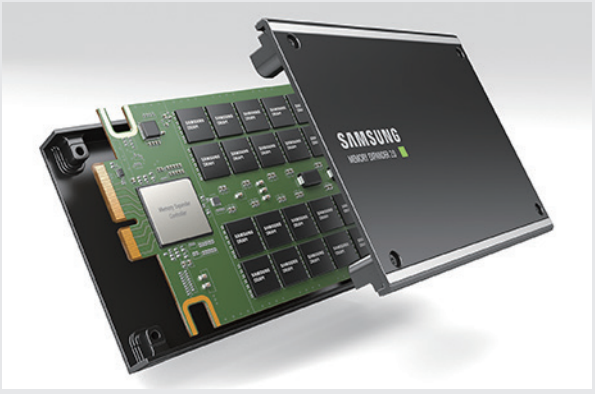
Memory Pooling



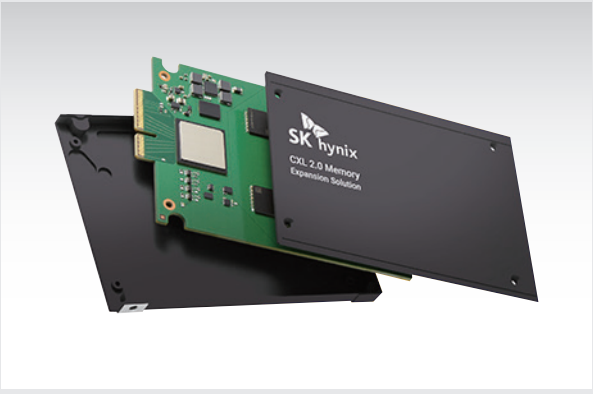
Montage CXL® MXC Product Information

Part No.	CXL® Specification	DDR Specification	Application	Package
M88MX6852	CXL® 1.1/2.0/3.1; CXL® x8 lanes; Speed up to 64 GT/s	JEDEC DDR5	Memory add-in cards; EDSFF memory modules	1211-ball FCCSP
M88MX5851	CXL® 1.1/2.0; CXL® x8 lanes; Speed up to 32 GT/s	JEDEC DDR5	Memory add-in cards; EDSFF memory modules	716-ball FCCSP
M88MX5891	CXL® 1.1/2.0; CXL® x8 lanes; Speed up to 32 GT/s	JEDEC DDR4/DDR5	Memory add-in cards; EDSFF memory modules	767-ball FCCSP

Customer Success Stories



Montage Technology's CXL® Memory eXpander Controller (MXC) has been used on Samsung's first CXL® memory module to enable significantly higher memory capacity with lower latency for server platforms.



Montage Technology's CXL® Memory eXpander Controller (MXC) has been used on SK hynix's first DDR5 DRAM-based CXL® memory module to strengthen its presence in the next-gen memory solutions market.

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