

CX2 and CX2 Dual-Speed Connectors and Cable Assemblies

CX2 and CX2 Dual-Speed Connectors and Cable Assemblies help customers meet AI-driven demands for greater speed and capacity with near-chip cabled connector solutions that enable direct chip-to-chip system architecture at next-generation data rates. These systems support routing high-speed signals from near the chip to elsewhere in the system via twinax cable, improving signal integrity (SI) and system performance compared with using PCB traces.

ADVANTAGES AND FEATURES

Supports next-generation data rates of up to 112G (CX2) or 224G (CX2 Dual-Speed)

The isolated transceiver/receiver pinout with its innovative shielding structure and high-performance twinax cable help enable speeds up to 112Gbps with CX2 or 224Gbps with CX2 Dual-Speed.

Improves reliability and helps prevent mis-mating and accidental disconnection by ensuring full connector seating

The two-piece mated set consisting of a connector and socket features mechanical wipe and either positive latch or screw retention.

Enables maximum system performance and greater reach within the box

Cable assemblies use 31 AWG (CX2) or 30 AWG (CX2 Dual-Speed) twinax cable to support BiPass cabled system architecture solutions.

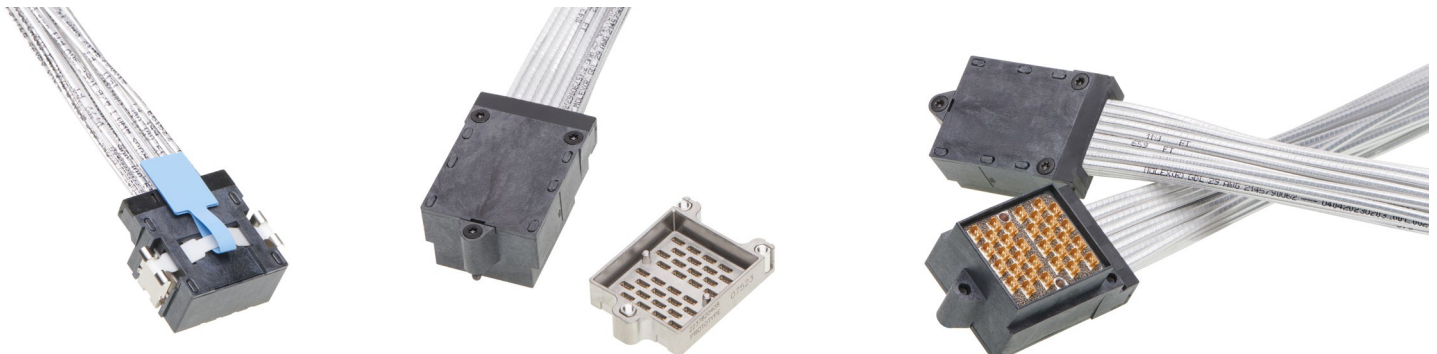
Speed	CX2: up to 112Gbps CX2 Dual-Speed: up to 224Gbps
Current (max.)	0.5A (per mated contact)
Differential Pairs (DPs)	CX2: 32 DPs CX2 Dual-Speed: 32 or 64 DPs
Pitch	4.00mm DP to DP 1.80mm row to row (CX2), 2.30mm row to row (CX2 Dual-Speed)
Durability	200 cycles (CX2) 50 cycles (CX2 Dual-Speed)
Operating Temperatures	-40 to +85°C

Minimizes risk of pin damage on PCB connector during installation

The fully protected thumb-proof mating interface simplifies installation and helps ensure connectors are mated reliably.

Offers reduced cross talk and improved SI necessary for higher signal speeds

The design ensures high-speed performance with minimal signal degradation.



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MARKETS AND APPLICATIONS

Servers and Storage

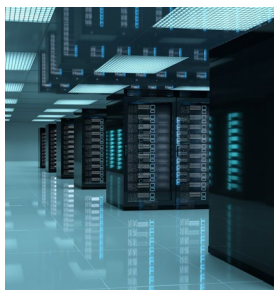
AI systems
AI clusters
AI infrastructure
Machine learning systems
Graphics processing units (GPUs)

Networking

Ethernet-based communications systems

Telecommunications

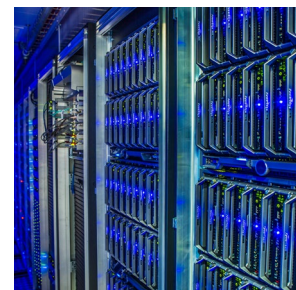
Servers
Routers



AI Infrastructure



Ethernet-Based Communications



Servers

SPECIFICATIONS

Reference Information

Series:

220014 (CX2 32-DP cable assembly)
220294 (CX2 32-DP socket)

Packaging: Embossed tape with cover

Designed In: Millimeters

RoHS: Yes

Halogen Free: Yes

Physical

Housing: LCP

Contact: Copper Alloy

Plating: Contact Area—Gold

Solder Tail Area—Tin

Underplating—Nickel

Operating Temperatures: -40 to +85°C

Electrical

Voltage (max.): 29.9V AC RMS

Current (max.): 0.5A per mated contact

Dielectric Withstanding Voltage: 250V

Insulation Resistance: 100 Megohms

Mechanical

Pitch: 4.00mm DP to DP

1.80mm row to row (CX2)

2.30mm row to row (CX2 Dual-Speed)

Mated Height:

16.60mm (32-DP CX2 Dual-Speed)

18.40mm (64-DP CX2 Dual-Speed)

13.20mm (32-DP CX2)

Circuit Size:

32 DPs (CX2 or CX2 Dual-Speed) or

64 DPs (CX2 Dual-Speed only)

Durability (min.): 200 cycles (CX2),

50 cycles (CX2 Dual-Speed)

Mate Force (max.): 2N per pair

Wrench Test (max.): 25N

Screw Torque (max.): 0.65N-m

Gatherability: 0.60mm

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