

ExtremePort™ QSFP 224G Connectors

EXTREMEPORT™ QSFP 224G, ULTRA-DENSE, BACKWARD- COMPATIBLE, SCALABLE UP TO 800G

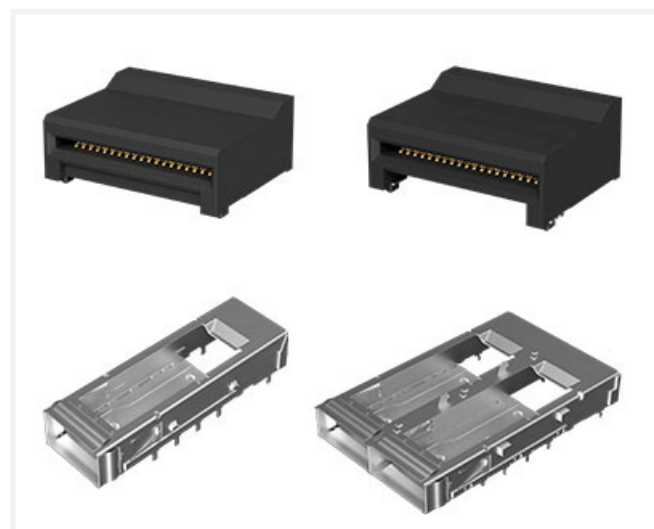
Amphenol's ExtremePort™ QSFP 224G interconnect system is a next-generation, high-performance 38-position, 0.80 mm pitch connector platform engineered for ultra-high-speed serial applications. Designed to support 224G PAM4 signaling per lane while maintaining backward plug compatibility with existing QSFP modules, the platform delivers exceptional signal integrity, mechanical durability, and port density for emerging AI, networking, and data center architectures.

Each QSFP port supports four high-speed electrical lanes, enabling up to 800G aggregate bandwidth in a compact, industry-standard QSFP form factor. Precision-engineered stamped-and-formed contacts, advanced grounding, and integrated resonance-dampening features minimize crosstalk and impedance discontinuities across the connector interface, ensuring reliable performance at 224G speeds. The ExtremePort™ QSFP 224G system also provides a scalable migration path to QSFP-DD architectures, supporting future bandwidth growth while protecting existing system designs.

- 224 Gb/s PAM4 per channel (4 channels)
- High-density QSFP 224G interconnect, enabling 800G bandwidth with backward compatibility
- Backward compatible with existing QSFP modules
- Advanced shielding and grounding architecture that minimizes crosstalk
- ExtremePort™ QSFP 224G delivers four-lane 224G performance with superior signal integrity

FEATURES

- 224G PAM4 per-lane support for next-generation high-speed signaling
- High-speed electrical channels as in the standard QSFP form factor
- 38-position connector with 0.80 mm pitch for high-density designs
- Backward compatible with existing QSFP modules
- Stamped-and-formed contact design for mechanical durability
- Advanced shielding and resonance-dampening features to optimize signal integrity



TARGET MARKETS



BENEFITS

- Delivers up to 800G aggregate bandwidth
- Enables higher port density while conserving valuable PCB real estate
- Simplifies platform upgrades by supporting legacy QSFP compatibility
- Ensures reliable performance at 224G speeds with minimized crosstalk and loss
- Improves system longevity and robustness
- Provides a scalable migration path toward future QSFP-DD and higher-bandwidth architectures

TECHNICAL INFORMATION

MATERIAL

- Housing: Black color, glass-reinforced, Lead-free solder reflow process compatible thermoplastic
- Contact Base Material: Copper Alloy
- Plating Solder Tails: Matte Tin over Nickel
- Plating Mating Area: Gold
- Resonance Dampening Feature: Stainless Steel

ELECTRICAL PERFORMANCE

- Operating Voltage: 30 V DC per contact
- Operating Current: 0.5 A per signal contact max., 1.5 A per power contact max
- Differential Impedance: $95 \Omega \pm 10$

MECHANICAL PERFORMANCE

- Durability: 100 mating cycles
- Mating Force: 60 N max.
- Unmating Force: 30 N max.
- PCB thickness for 1xN Cage:
 - 1.44 mm min. for single mounted
 - 2.35 mm min for belly-to-belly mounted

ENVIRONMENTAL

- Operating and Storage Temperature: -40°C to $+85^{\circ}\text{C}$
- RoHS & REACH & Halogen-free

SPECIFICATIONS

- Cage Mounting: Thru Bezel
- EMI Options: Spring fingers
- Configurations:
 - 1XN (N=1)

PACKAGING

- Tape and Reel (connector)
- Tray (cage)

TARGET MARKETS/APPLICATIONS



Cellular Infrastructure
Wireless Base Station
Telecom



Network Interface Cards
SAN-Storage Attached Networks
Hubs
Switch
Router and Server
Datacom
Networking Equipment
Data Center Switching Applications
Storage System
Supercomputer
High-density Ethernet Switching/Routing Products



Test and Measurement Equipment

PART NUMBERS

Description	Part Numbers
ExtremePort™ QSFP 224G 1X1 Surface Mount Connector	V95-AEZ01-000011T
ExtremePort™ QSFP 224G 1X1 Surface Mount Connector	V95-AEZ01-000021T
ExtremePort™ QSFP 224G 1X1 Cage	V95-DAZ01-01020A0

Find part number details using the search box on www.amphenol-cs.com

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