

ExtremePort™ QSFP-DD 224G Connectors

EXTREMEPORT™ QSFP-DD 224G INTERCONNECT SYSTEM

Amphenol's ExtremePort™ QSFP-DD 224G interconnect system is comprised of a 76 position, 0.8mm pitch connector built for use in high-speed serial applications. Each port supports up to 1.6Tb/s in aggregate over an 8 x 224Gb/s electrical interface. The cage and connector design provides backwards compatibility to QSFP modules which can be inserted into a QSFP-DD port and connected to 4 of the 8 electrical channels. It is one of the industry's leading multi-lane pluggable form factors used across Ethernet, Fiber Channel, and InfiniBand.

- Operating at 224Gb/s PAM-4 for up to 1.6Tb/s aggregate bandwidth solution
- QSFP-DD series product with 8 channels per port
- Backwards mating compatible with QSFP
- Multiple connector and heat sink configurations



TARGET MARKETS



FEATURES

- Electrical interface employs 8 lanes that support 224Gb/s PAM4, providing solutions up to 1.6Tb/s aggregate bandwidth
- Enables up to 57.6Tb/s aggregate bandwidth in a single switch slot
- Backwards mating compatible with QSFP
- Supports passive & active copper and optical solutions products
- Multiple connector configurations
- MSA supported standard interface
- Multiple heat sink options
- RoHS & REACH compliant

BENEFITS

- Enables 400G, 800G, and 1.6Tb aggregate bandwidth per port
- A single switch slot can have 36 ports QSFP-DD
- Allows for use of either QSFP or QSFP-DD products in any port
- Enables use of DAC, short, and long range optical
- Single (1x1), ganged (1xN) connector, and cage configurations
- Meets or exceeds MSA defined product specifications
- Allows user to choose from multiple options to maximize heat dissipation
- Environmentally friendly

TECHNICAL INFORMATION

MATERIAL

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

ELECTRICAL PERFORMANCE

- Operating Voltage: 30VDC per contact
- Operating Current: 0.5A per signal contact; 1.5A per power contact
- Differential Impedance: $100\Omega \pm 10\Omega$

MECHANICAL PERFORMANCE

- Durability: 100 mating cycles
- Mating Force: 90N max. (55N if the cage has riding heat sink)
- Unmating Force: 50N max. (45N if the cage has riding heat sink)
- PCB thickness for 1xN Cage:
 - 1.44mm min. for single mounted
 - 2.35mm min. for belly to belly mounted

ENVIRONMENTAL

- Operating and Storage Temperature: -40° 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
Network Interface Cards
SAN-Storage Attached Networks
Wireless Base Station
Telecom



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-DD 224G 1x1 SMT connector	V36-AEZ01-X0X000T (X represents various options)
224G QSFP-DD 1x1 cage assembly with heat sink & light pipe options	V36-AAZ01-XXXXX (X represents various options)