

# ExtremePort™ OSFP 112G Connectors

## 112GB/S PAM-4 WITH UP TO 800GB/S AGGREGATED BANDWIDTH

Amphenol's ExtremePort™ OSFP 112G interconnect system is comprised of a 60 position, 0.60mm pitch connector designed for high-speed serial applications. Each port supports up to 800Gb/s in aggregate over an 8 x 112Gb/s electrical interface.

The OSFP footprint is optimized for signal integrity performance. The stacked OSFP SMT connector is enhanced for low crosstalk and has ground communing for resonance dampening. It is also designed for 1U applications and features an integrated heat sink for optimal thermal performance.

Amphenol's ExtremePort OSFP 112G interconnect system is one of the industry's leading multi-lane pluggable form factors used across Ethernet, Fibre Channel and InfiniBand.

- Operates at 112Gb/s PAM-4 for up to 800Gb/s aggregated bandwidth
- OSFP series product with 8 channels per port
- Backwards mating compatible with 56G OSFP
- Multiple connector and heat sink configurations
- MSA supported standard interface

### FEATURES

- Electrical interface employs 8 lanes that support 112Gb/s PAM4, providing solutions up to 800 Gb/s aggregate bandwidth
- Enables up to 28.8 Tb/s aggregate bandwidth in a single switch slot
- Backwards mating compatible with 56G OSFP
- Supports passive and active copper and optical solutions products
- Multiple connector configurations
- Multiple heat sink options
- RoHS & REACH compliant



### TARGET MARKETS



### BENEFITS

- Enables 400G and 800G aggregate bandwidth per port
- A single switch slot can have 36 ports OSFP
- Allows for use of either 56G OSFP or 112G OSFP products in any port
- Enables use of DAC, short and long range optical
- Single (1x1), ganged (1xN) and stacked (2xN) connector and cage configurations
- Allows user to choose from multiple options to maximize heat dissipation
- Meets environmental, health and safety standards

## TECHNICAL INFORMATION

### MATERIAL

- Housing: Black color, glass reinforced, lead free older reflow process compatible thermo plastic
- Contacts Base Material: Copper alloy
- Plating Solder Tails: Matte tin over nickel
- Plating Mating Area: Gold
- Resonance Dampening Feature: Stainless steel

### MECHANICAL PERFORMANCE

- Durability: 100 mating cycles
- Mating Force: 40N max. (55N if the cage has riding heatsink)
- Unmating Force: 30N max. (45N if the cage has riding heatsink)
- PCB Thickness for 1xN Cage:
  - 1.40mm min. for single mounted
  - 2.20mm min. for belly to belly mounted

### ELECTRICAL PERFORMANCE

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

### PACKAGING

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

### SPECIFICATION

- Cage mounting: Through bezel
- EMI options: Spring fingers
- Configurations:
  - 1xN (N = 1, 2, 4)
  - 2xN (N = 1, 4, 6)

### ENVIRONMENTAL

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

### TOOLING INFORMATION

- Hard tooling

### TARGET MARKETS/APPLICATIONS



Switch  
Router and Server  
Wireless Base Station  
Telecom



Consumer Electronics  
Datacom/Networking Equipment  
Hubs  
Data center switching applications  
Storage System  
Supercomputer  
High Density Ethernet Switching/Routing Products



Test Equipment  
Measuring Equipment