# molex

OSFP 112 Gbps PAM-4 Interconnect System and Cable Assemblies

OSFP 112 Gbps PAM-4 Interconnect System and Cable Assemblies provide single-port, 8-lane I/O connectivity with DAC, AOC, ACC and optical modules for high-density switch applications.



OSFP Interconnect System and Cable Assembly

### **FEATURES AND ADVANTAGES**

Connector

Supports 16 lanes of 112 Gbps PAM- 4; 4 Rx and 4 Tx pairs on each row

Provides an optimized interface



Compatible with previous-generation 56 Gbps mating interface

Is easy to implement without having to change entire infrastructure

Cage

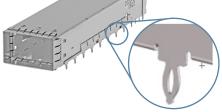
112 Gbps PAM-4 and 56 Gbps versions are available

Has a single-port, high-speed and high-density design intended to interface with DAC, AOC, ACC and optical modules

> Easy to insert cage to board while improving retention force

Delivers convenient assembly without sacrificing reliability

**Spring fingers**Offer additional robustness



MSA Suggested Design



Molex Design

Good contact points between ground shield and ground beams; good contact of the flex shield to rigid and ground beams

Prevents crosstalk



Laser welding technology used for terminal insertion

Ensures terminal position accuracy



Complete connector structure and mating interface Provides grounding

> Tight tolerance control of terminal width and spacing

Achieves superior signal integrity performance

Meets IEEE 802.3ck channel compliance and OSFP 112G multi-source agreement (MSA)

Complies with industry standards for easy implementation

Single, dual and quad light pipe options available. Two different types of ventilation designs available Provides design flexibility

Improved EMI shielding and 2D press-fit design

Delivers enhanced EMI performance

- Hexagonal ventilation
- Thermally optimized for >12W applications
- Cooling to support a 25W module in an enterprise environment

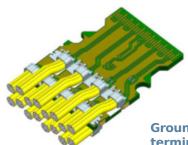
Enhances thermal and EMI performance



## **OSFP 112 Gbps PAM-4 Interconnect** System and Cable Assemblies >

### **FEATURES AND ADVANTAGES**

Direct Attach Cable (DAC) Assemblies



**Ground structure** terminates drain and prevents crosstalk

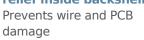
Improves signal integrity perfor

Molded cable strain relief inside backshell Prevents wire and PCB



MSA compatible for **56 and 112 Gbps** applications Delivers reliable highspeed performance

**Supports up to 2.0m DAC** implementation, 25 to 26 AWG available Offers design flexibility



### MARKETS AND APPLICATIONS

**Data Center Solutions Telecommunication / Networking** High-density switches



High-density switches