

Technical Support for Industrial Switches

OSFP



Article Overview

OSFP (Octal Small Form-Factor Pluggable) connectors provide high-speed, scalable interconnects for industrial switches, supporting 400G, 800G, and up to 1.6T systems with multiple thermal and form-factor variants.

OSFP Overview

OSFP is an 8-lane pluggable interface designed for high-density, high-speed networking applications, including industrial switches, AI accelerators, and data centers. It supports PAM4 signaling at 56G, 112G, and 224G per lane, enabling aggregate port speeds of 400G, 800G, and 1.6T. Compared to QSFP-DD, OSFP offers a larger thermal envelope, improved airflow, and higher-power optics support, which is critical for industrial environments with high data throughput.

OSFP Variants and Compatibility

OSFP modules come in several thermal and density variants:

- OSFP-IHS (Integrated Heat Sink): Standard finned-top modules for typical 400G/800G deployments.
- OSFP-RHS (Reduced Heat Sink): Optimized for specific switch designs requiring lower thermal profiles.
- OSFP-XD (Extended Density): Designed for future 1.6T systems with higher front-panel density and lane speeds

Article Content

OSFP Optical Transceiver MSA Spec

OSFP MSA Specification for OSFP OCTAL SMALL FORM FACTOR PLUGGABLE MODULE
Rev 1.12 August 1 st, 2017 Abstract:

Welcome to OSFPmsa

A: No, due to mechanical and electrical differences, OSFP modules are not compatible with OSFP-XD ports, and vice-versa.

OSFP1600_and_OSFP-XD

OSFP-XD While the OSFP1600 supports future switch silicon with 200 Gb/s electrical lanes, there is broad interest in 1.6 Tb/s optics

OSFP Connector System

The OSFP Connector System supports a wide range of interconnect cables, including direct-attach cables (DACs), active cables

OSFP CONNECTORS, CAGES & CABLE ASSEMBLIES

By utilizing integrated thermal heatsink technology in the plug, OSFP products provide superior thermal performance and the signal

Optical Transceivers MSA Standards Technical Guide

From SFP and QSFP to today's QSFP-DD and OSFP form factors, MSA specifications define how optical modules are mechanically,

Understanding the OSFP Standard: The Open 400G/800G Optical

Learn how OSFP (Octal Small Form Factor Pluggable) enables scalable 400G and 800G Ethernet connectivity with

OSFP Compatible Switches: 2026 Vendor Guide for 400G/800G

Complete OSFP compatible switches guide covering Cisco, Arista, Juniper, NVIDIA. 400G/800G platform

Welcome to OSFPmsa

A: The OSFP-XD is a pluggable form factor with 16x high speed electrical lanes, doubling the faceplate density versus OSFP. Hence,

What are OSFP transceivers?

The OSFP (octal small form factor pluggable) is a type of transceiver that connects a network device, such as a switch, to fiber or

OSFP Connectors & Cable Assemblies

Built for High-Speed Data Center Scaling TE's Octal Small Form Factor Pluggable (OSFP) connectors and cable assemblies support

OSFP Connector Guide: 400G and 800G Modules, DAC, AOC, ACC,

OSFP Connector Explained: Features and Benefits for 400G 800G Networks OSFP (Octal Small Form-factor

OSFP Connector System

The Octal Small Form Factor Pluggable (OSFP) Connector System provides single- or dual-port, 8- or 16-lane I/O connectivity with

OSFP Connectors & Cable Assemblies

Our Octal Small Form Factor Pluggable (OSFP) connectors, cages and cable assemblies address next-generation data center needs

How to Achieve Interconnection Between OSFP and QSFP-DD Ports?

This article outlines key OSFP and QSFP-DD differences and offers four practical interconnection solutions to support

OSFP | High Speed Interconnects | Amphenol

Amphenol's OSFP base series supports high-speed transmission with 60 contacts per port, eight high

Small Form-factor Pluggable

Small Form-factor Pluggable connected to a pair of fiber-optic cables Small Form-factor Pluggable (SFP) is a compact, hot-pluggable

Cisco OSFP 800G Transceiver Modules Data Sheet

The Cisco ® OSFP 800G transceiver modules provide 800 Gigabit Ethernet (GE), 2x 400GE, 4x 200GE, and 8x

OSFP | High Speed Interconnects | Amphenol

EXTREMEPORT™ OSFP CONNECTOR AND CAGE SYSTEMS SUPPORTING 56G, 112G & 224G Amphenol's ExtremePort™

Arista Transceiver and Cable Guide

Arista transceivers and cables are all hot-swappable pluggable devices, compliant with industry standards, and certified on all Arista

OSFP Guide

OSFP stands for Octal Small Form-factor Pluggable. OSFP is a high-speed, high-density, hot-pluggable transceiver module used in

FS InfiniBand NDR OSFP Solution for 400G/800G HPC Networks

Discover FS InfiniBand NDR OSFP solutions with NVIDIA Quantum-2 switches and ConnectX-7 adapters for

Understanding OSFP Modules: Your Guide to High-Speed Optical ...

Discover how OSFP modules provide high-speed optical connectivity for data center applications. Learn about the

OSFP MSA Rev 5

Abstract: This specification defines the electrical connectors, electrical signals and power supplies, and mechanical and thermal

Contact Us

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