

Active Optical Module OSFP



Article Overview

OSFP (Octal Small Form Factor Pluggable) modules are high-speed optical transceivers designed for 400G, 800G, and future 1.6Tbps data center and AI cluster interconnects, offering scalable bandwidth, thermal efficiency, and vendor interoperability.

Overview of OSFP

OSFP is an open standard pluggable optical module defined by the OSFP Multi-Source Agreement (MSA) to support eight high-speed electrical lanes per module, each capable of 50–200 Gbps depending on the variant, enabling total bandwidths from 400G to 1.6Tbps or higher. The form factor is slightly larger than QSFP-DD to accommodate enhanced thermal management, supporting power dissipation up to 15–20W for standard OSFP and over 30W for OSFP1600. OSFP modules are hot-swappable, allowing network upgrades without downtime.

Variants and Capabilities

- Standard OSFP: Supports 8×50G (400G) or 8×100G (800G) lanes, with an integrated heatsink for thermal efficiency.
- OSFP-XD (Extended Density): Doubles the number of high-speed lanes to 16, supporting up to 1.6Tbps (16×100G) or 3.2Tbps (8×200G), with a slightly taller module and thicker paddlecard to handle higher electrical performance. OSFP-XD is not backward compatible with standard OSFP due to mechanical and electrical differences.
- OSFP1600: Designed for 8×200G lanes, achieving 1.6Tbps throughput with full ba...

Article Content

The Ultimate Guide to OSFP Transceivers: Unveiling 400G Optical ...

Octal Small Form-factor Pluggable transceivers (OSFP) are a type of sophisticated optical module that can transmit

Arista Optics Modules and Cables

All interface speeds, from 1G to 400GE have connectivity options that include Direct Attach copper Cables (DACs), Active Optical

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

The OSFP standard marks a pivotal step toward scalable 400G and 800G optical networking, designed from the

OSFP Connector System

OSFP connectors from Molex provide a standardized interface that allows installers to choose the I/O

Juniper 800G Optical Transceivers and Cables Guide

Use the information in this topic to remove OSFP or QSFP-DD optical transceivers and fiber-optic cables. Juniper

OSFP Product Family » Acacia

Octal Small Form-factor Pluggable (OSFP) solution that fits into high-density switch and router client ports for optical interconnect links

1.6T OSFP Transceivers Explained: Advantages, Types & FS Solution

Explore the evolution of 1.6T optical transceivers, including their working principles, key technologies, module types,

SFP AOC Active Optical Cable Application Guide

AOC stands for Active Optical Cable. It integrates an optical cable of a specified length with

800G OSFP Loopback Module for High-Efficiency Network Testing

The 800G OSFP Loopback Module enables efficient network testing and fault diagnosis with port self-test, BER

OSFP1600_and_OSFP-XD

The OSFP MSA roadmap provides an excellent mechanical and electrical solution for 800G, 1.6T, and 3.2T pluggable optics with

The Ultimate Guide to SFP Modules (2026): Types, Speeds

Confused by SFP vs SFP+? Read the definitive 2026 guide on SFP modules. We explain Single Mode vs Multimode, DDM

Welcome to OSFPmsa

A: The OSFP is a pluggable form factor with 8x high speed electrical lanes that support up to 400 Gbps

Pluggable Optical Transceivers Continue to Evolve

As communications applications approach THz frequencies, current 5G and future 6G

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

Introduction to OSFP Optical Transceiver

The OSFP receptacle does not offer backwards intermate-ability to existing modules since it favors optimizing the electrical,

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

OSFP (Octal Small Form Factor Pluggable) is a pluggable optical transceiver interface standard that supports eight

Arista Optics Modules and Cables

Arista's Optical Modules and Cable portfolio offer a wide variety of high-density and low-power 800G (dual 400G), 400G, 200G,

Cisco OSFP 800G Transceiver Modules Data Sheet

It is compliant with IEEE 802.3 800GBASE-VR8 and OSFP MSA module requirements with integrated heat sink. Optical signals are

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

OSFP AOC Cables: Active Optical Cables for Medium-Reach Data Center Applications
OSFP AOC uses multimode

OSFP MSA Rev 5.0

This specification defines the electrical connectors, electrical signals and power supplies, mechanical and thermal requirements of

Cisco Transceiver Modules

Cisco Transceiver Modules - Learn product details such as features and benefits, as well as hardware and software specifications.

OSFP OCTAL SMALL FORM FACTOR PLUGGABLE MODULE

7.7.2 MPO 12 Optical Interface Figure 52 shows channel orientation of the optical connector when a male MPO 12 connector as in

OSFP MSA Rev 5

A Type 3 OSFP module provides a maximum of 3.6mm of additional height in the front compared to a Type 2 module. Type 2 and

Understanding OSFP Modules: Your Guide to High

Discover how OSFP modules provide high-speed optical connectivity for data center

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.thebucketlistbook.co.za>

Email: sales@thebucketlistbook.co.za

Phone: +33 1 42 78 39 16

Address: 10 Rue de la Paix, 75002 Paris, France

This document is for informational purposes only. Specifications subject to change without notice.

