

Spot Coherent Optical Module OSFP



Article Overview

OSFP (Octal Small Form-factor Pluggable) modules are high-speed, thermally optimized optical transceivers supporting 400G to 1.6T data rates for modern data centers and AI workloads.

Overview of OSFP

The OSFP standard is an open, vendor-neutral specification designed for high-density, high-speed optical connectivity in hyperscale, cloud, and AI-driven environments . OSFP modules support eight electrical lanes per module, each capable of up to 100G PAM4 signaling, enabling total bandwidths of 400G, 800G, or 1.6T depending on configuration . Unlike QSFP-DD, OSFP prioritizes thermal headroom, electrical performance, and future scalability, making it ideal for next-generation Ethernet and GPU cluster interconnects .

Key Features

- **High-Speed Connectivity:** Supports 400G (8×50G or 4×100G), 800G (8×100G or 4×200G), and 1.6T (8×200G) links .
- **Thermal Management:** Variants include open finned top, closed finned top, and flat top/riding heatsink designs to accommodate air-cooled or liquid-cooled systems, ensuring signal integrity under high power (up to 30W for OSFP1600), .
- **PAM4 Signaling:** Uses Pulse Amplitude Modulation 4 to double data rates over the same bandwidth, improving efficiency and reducing power consumption .
- **Interoperability:** Defined by the OSFP Multi-Source Agreement (MSA), ensuring compatibility across vendors and system OEMs

Article Content

Jan 30, 2026

800G Optical Modules Explained: Standards, Types & Use Cases

Discover everything about 800G optical modules—standards, packaging, types & applications. Learn how they power AI, HPC & next-gen data centers.

Jul 04, 2026

OSFP-XD, OCTAL SMALL FORM FACTOR eXtra Dense PLUGGABLE MODULE

Abstract: This specification defines the electrical connectors, electrical signals and power supplies, mechanical and thermal requirements of the OSFP-XD Module, connector and cage systems. The

Aug 23, 2025

800G/600G/400G OSFP Digital Coherent Optics

The 800G Digital Coherent Optics (DCO) family of transceivers are available in

Aug 16, 2025

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 different form factors, data rates, and compatibility options available.

Sep 12, 2025

400G Optical Module Selection Guide: QSFP-DD vs.

Compare QSFP-DD, QSFP28, and OSFP form factors. Learn about compatibility, power constraints, migration TCO, and data center selection

Nov 01, 2025

Optical Transceivers | Coherent

Get the pluggable module performance you need from the manufacturer of choice for all major networking equipment vendors worldwide.

Mar 05, 2026

What Drives OSFP Coherent Optical Module Market Growth to 2034?

The OSFP Coherent Optical Module market expands at a 14.69% CAGR, driven by rising data center and network demands. Access key market drivers, segment analysis, and 2034

Jun 27, 2026

OSFP Transceivers: High-Density Optical Connectivity from 400G to

Designed for high thermal capacity, electrical scalability, and forward compatibility, OSFP modules now drive connectivity across 400G, 800G and the emerging 1.6T generation.

Nov 07, 2025

400G ZR/ZR+ OSFP-DCO

Utilizing the latest in house SiPho Coherent Optical Subassembly (COSA) and nano-ITLA, this module delivers superior cost/performance for applications

Oct 17, 2025

800G/600G/400G OSFP Digital Coherent Optics Transceiver

High transmitter optical output power enable the transceivers to be compatible with deployed and emerging ROADM line systems. The 800G Digital Coherent Optics (DCO) family of transceivers are

Apr 19, 2026

Coherent optical module

Coherent optical module refers to a typically hot-pluggable coherent optical transceiver that uses coherent modulation (BPSK / QPSK / QAM) rather than amplitude modulation (RZ/ NRZ / PAM4) and

Apr 18, 2026

800G/400G Coherent OSFP/QSFP-DD Transceiver Modules | Optical

FS 800G/400G Coherent OSFP/QSFP-DD optical transceiver module solutions offer a range of OSFP/QSFP-DD modules 120km/500km reach, and used for Edge DCI, LH, Regional, Metro and

Nov 27, 2025

OFC 2025 Accelink | Lighting Your Dreams

California, March 31, 2025 – Accelink, a leading innovator in optical communication solutions, today announced that it will showcase a live demo at OFC 2025 of its cutting-edge 1.6T O-band coherent

Oct 03, 2025

OSFP Optical Module Thermal Design: Structure, Heat Dissipation ...

1. Why thermal design matters for OSFP in 400G+ systems As electrical and optical integration intensifies in next-generation pluggable modules, module power dissipation rises. OSFP

Sep 22, 2025

Top Optical Modules for POTN Deployment: SFP, QSFP, and OSFP

Modern optical transport networks are the nervous system of digital infrastructure. As data demand continues to multiply, choosing the right optical module becomes a crucial decision in

Feb 12, 2026

Cisco QSFP-DD and OSFP 800G ZR/ZR+ Coherent Optics Modules

Cisco QSFP-DD and OSFP 800G coherent optical modules are supported on Cisco switches and routers. For more details, refer to the Cisco Transceiver Modules Compatibility Matrix.

Nov 16, 2025

Coherent |1.6T OSFP Optical Module | OFC 2026 Demo

Discover Coherent's latest 1.6T OSFP optical module demonstrated live at OFC 2026, designed to enable next-generation AI data center connectivity.

Sep 05, 2025

OSFP MSA Rev 5.0

Abstract: This specification defines the electrical connectors, electrical signals and power supplies, mechanical and thermal requirements of the OSFP Module, connector and cage systems. The OSFP

Aug 05, 2025

Pluggable Optical Transceivers Continue to Evolve

Optical modules are available to support multiple signaling protocols, with the most current pluggables featuring 400 Gb coherent optical transmission.

Mar 10, 2026

800G Client Optics in the Data Center

Data center interconnect links that had previously relied on separate optical transport systems with integrated coherent transceivers that support DWDM connections can now use QSFP-DD or OSFP,

Nov 25, 2025

OSFP OCTAL SMALL FORM FACTOR PLUGGABLE MODULE

Abstract: This specification defines the electrical connectors, electrical signals and power supplies, mechanical and thermal requirements of the OSFP Module, connector and cage systems. The OSFP

May 09, 2026

Common Optical Module Form Factors

Early coherent modules were board-mounted designs, requiring large 300-pin form factors measuring 5 inches x 7 inches to accommodate modulators, light sources, mixers, balanced

Jul 19, 2026

800G (2×400 DR4) OSFP Optical Transceiver

FTCE4517E1PxA (2 x DR4) OSFP transceiver modules are compliant with the OSFP MSA, IEEE 802.3bs and IEEE P802.3ck. Digital diagnostic functions are

Sep 02, 2025

OSFP ZR Coherent: 400G & 800G DCI Guide

This guide explains how OSFP ZR coherent technology works, the differences between 400 ZR, OpenZR+, and 800 ZR, and why OSFP is

Dec 06, 2025

OSFP Transceivers: High-Density Optical Connectivity from 400G to

As hyperscale data centers shift toward AI-optimized fabrics and ultra-high-bandwidth switching platforms, the OSFP (Octal Small Form-Factor Pluggable) form factor has become central

Oct 10, 2025

What Is an OSFP Module?

Picking an OSFP module for sale today means investing in a piece of the future, where connectivity is seamless and unstoppable. The optical world is evolving, and this little device is

Dec 06, 2025

Understanding the Competitive Landscape of the OSFP Coherent

To discover detailed information on the current growth trends and competitive landscape of the OSFP Coherent Optical Module industry, access our extensive resources at Statshub.ai.

Nov 24, 2025

Strategizing Growth: OSFP Coherent Optical Module Market's

Discover the explosive growth of the OSFP Coherent Optical Module market, projected to reach \$7 billion by 2033. Learn about key drivers, trends, and challenges impacting this crucial

May 14, 2026

OSFP Form Factor: Complete Guide to 400G/800G/1.6T

Coherent OSFP Evolution Coherent optical modules for OSFP continue to advance. 800G ZR coherent modules are sampling now, with general availability expected in late 2025.

Contact Us

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

Website: <https://www.chromadecksigns-eastrand.co.za>

Email: sales@chromadecksigns-eastrand.co.za

Phone: +32 2 318 5792

Address: Avenue Louise 500, 1050 Brussels, Belgium

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

