

## Article Overview

Leading manufacturers of 800G OSFP optical modules include Cisco, Amphenol, Juniper, and FS, offering high-speed, low-latency solutions for AI, data center, and enterprise networks.

## Key Manufacturers and Offerings

Cisco provides OSFP 800G transceiver modules supporting 800GE, 2x400GE, 4x200GE, and 8x100GE connectivity. These modules comply with the OSFP MSA and IEEE 802.3 standards, featuring integrated heat sinks for thermal management and high reliability in AI and data center applications . Amphenol offers a range of 800G OSFP modules including 2xDR4 (plus), 2xFR4 (plus), 2xLR4, AOC, and AOC breakout series. These modules use LC or MPO optical ports, CWDM DFB lasers, and silicon photonics modulators, delivering low latency, low power consumption (typically 7.5W at 800G), and high bandwidth for HPC, AI clusters, and 800G Ethernet environments . Juniper Networks provides 800G OSFP modules qualified for PTX and QFX platforms. Their modules are standards-compliant, ensuring interoperability in multivendor environments, and are optimized for WAN, data center, and AI/ML cluster applications. Juniper emphasizes rigorous system-level testing and software integration with Junos OS for seamless management . FS supplies a broad portfolio of 800G OSFP and QSFP-DD modules, designed for AI data centers, enterprise networks, and service providers. FS modules focus on high performance, high bandwidth, and backward compatibility, with global warehouse availability and support for rapid deployment .

## Technical Highlights

- o Form Factor: OSFP supports 8 electrical lanes per module, each capable of 100G PAM4 signaling, enabling 800G throughput .
- o Thermal Management: Larger OSFP housing allows higher power dissipation (up to 15-20W), suitable for AI and high-performance computing workloads .
- o Standards Compliance: Modules adhere to IEEE 802.3, OIF-CMIS, and OSFP MSA specifications, ensuring interoperability across vendors .
- o Applications: Ideal for AI/ML clusters, hyperscale data centers, enterprise core and distribution layers, and service provider networks requiring ultra-low latency and high bandwidth .

## Summary

800G OSFP optical modules are a next-generation solution for high-speed networking, with multiple manufacturers providing options tailored for AI, HPC, and data center environments. Cisco, Amphenol, Juniper, and FS are key suppliers, offering modules with robust thermal management, low power consumption, and full compliance with industry standards, ensuring reliable and interoperable deployment in modern high-performance networks.

The Cisco® OSFP 800G transceiver modules provide 800 Gigabit Ethernet (GE), 2x 400GE, 4x 200GE, and 8x 100GE connectivity

FS 800G/400G Coherent OSFP/QSFP-DD optical transceiver module solutions offer a range of OSFP/QSFP-DD modules

A comprehensive selection of 800G optical modules is available, including AOC, DAC, and AEC, all provided in OSFP

The 800GBASE-DR8L OSFP optical transceiver module is designed for 800GBASE Ethernet throughput up to 100m link lengths

An in-depth guide to 800G and OSFP transceivers, explaining form factors, core features, key advantages,

Amphenol's 800G OSFP optical modules include 2xDR4(plus), 2xFR4(plus), 2xLR4, AOC, and AOC breakout

The 800G OSFP stands for 800G "Octal Small Form-factor Pluggable". The electrical interface of an OSFP connector consists of 8

It is the focus of optical transmission network construction in recent years and an important part of the development of high-speed

The 800G Digital Coherent Optics (DCO) family of transceivers are available in two small form-factors,

The module seamlessly integrates with an optical fiber cable equipped with dual MPO-12 connectors, ensuring precise alignment

800G Transceivers Transceiver USA's optical OSFP modules are used in enterprise and datacenter networks. View price, stock and

Coherent 800G OSFP DR4 LPO Demonstration at OFC 2024 Coherent's 800G transceiver portfolio offers multiple form factor

Product overview The FS® 800GBASE Quad Small Form-Factor Pluggable (OSFP/QSFP-DD) portfolio offers

Optical module is the optoelectronic device that realizes photoelectric and photoelectric conversion in optical



## Manufacturer OSFP Optical Module 800G

Juniper's qualified 800G pluggable optics and 800G platforms allow WAN and data center networks to leverage advanced high

800G OSFP optical module includes two architecture solutions, 4x100Gx2 and 8X100G. In addition to the traditional EML design, it

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