

# RIVO MULTITRADE OPTICAL SYSTEMS

## Offshore Core Switch OSFP



### Overview

Cisco OSFP 800G Transceiver Modules Data Sheet They offer flexible connectivity, with options for 800GE, 400GE, 200GE, and 100GE, for use in data centers.

### Key Takeaways

OSFP modules enable high-speed, high-density connectivity in PoE switches, supporting up to 800G or 1.6Tbps for demanding offshore or remote network environments.OSFP Overview

OSFP (Octal Small Form-factor Pluggable) is a pluggable transceiver standard designed for high-speed data communication. It supports multiple configurations, including 400G, 800G, and 1.6Tbps, using 8 or 16 high-speed electrical lanes depending on the variant (OSFP or OSFP-XD) and is hot-pluggable for easy deployment in data centers or network switches . OSFP modules can interoperate with lower-speed networks via breakout modes and support connections to QSFP-DD, QSFP56, QSFP28, and SFP28/SFP+ form factors .

#### Key Features for Offshore PoE Switches

- **High Bandwidth:** OSFP modules provide aggregate data rates up to 1.6Tbps, with 224Gbps PAM-4 per lane, enabling high-throughput applications such as AI, high-performance computing, and large-scale industrial networks .
- **Thermal Management:** Integrated heatsinks (open or closed top) and OSFP-RHS variants allow efficient heat dissipation, which is critical for offshore environments where cooling may be limited .

- **Flexibility:** OSFP supports multiple port configurations, including single-port, dual-port, and stacked-port designs, allowing high-density deployment in compact switch chassis .
  - **Compatibility:** While OSFP and OSFP-XD are not cross-compatible due to mechanical and electrical differences, OSFP modules can connect to multiple lower-speed applications via breakout modes, making them versatile for mixed-speed networks .
- PoE Switch Integration

Offshore PoE switches, such as the Aruba 2930F series, combine Layer 3 switching with PoE+ capabilities, supporting 1GbE or 10GbE uplinks and advanced routing protocols like OSPF . Integrating OSFP modules into such switches allows:

- High-speed uplinks to core networks or offshore data aggregation points.
- Scalable port density for connecting multiple devices, sensors, or industrial equipment.
- Robust network management with features like dynamic segmentation, QoS, and IPv6 support.
- Power over Ethernet to supply remote devices without additional cabling infrastructure, which is particularly useful in offshore installations.

#### Applications

OSFP-enabled PoE switches are ideal for offshore environments where high bandwidth, reliability, and compact form factors are required. Typical use cases include:

- Offshore oil and gas platforms for real-time monitoring and control.
- Remote wind farms or marine research stations requiring high-speed data aggregation.
- Industrial IoT networks with multiple PoE-powered sensors and devices.

#### Summary

Combining OSFP modules with PoE-capable switches provides a powerful solution for offshore networking, offering high-speed connectivity, thermal efficiency, and flexible deployment. This setup ensures that even in challenging environments, networks can support demanding applications while maintaining reliability and scalability .

## Article Content

### Cisco OSFP 800G Transceiver Modules Data Sheet

They offer flexible connectivity, with options for 800GE, 400GE, 200GE, and 100GE, for use in data centers, high

### Malta Offshore Core Switch OSFP

Explore the OSFP transceiver: a high-speed, future-ready solution for data centers. Learn its advantages in bandwidth, thermal

### Cisco OSFP 800G Transceiver Modules Data Sheet

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

### OSFP Connectors & Cable Assemblies

OSFP products offer high port density and can fit up to 36 ports of an 8-lane interface in a 1RU switch form factor, aligning with

### 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 Cable Overview and Applications - aobla

# OSFP Cable Overview and Applications ## Introduction to OSFP Cables OSFP (Octal Small Form-factor Pluggable)

### OSFP CONNECTORS, CAGES & CABLE ASSEMBLIES

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

### 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

### What is OSFP Octal Small Form Factor Pluggable?

The OSFP is the third MSA aimed at creating a 400 Gigabit Ethernet optical transceiver form factor. It follows the

### Cisco SFP vs SFP+ vs QSFP-28 vs OSFP: Guide for ...

Learn the differences between Cisco SFP, SFP+, QSFP-28, and OSFP optical transceivers. Explore technical comparisons,

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