

Selection Guide for Subway-Grade Active Optical Modules OSFP



Article Overview

Choosing the right OSFP or OSFP-XD module depends on bandwidth requirements, thermal management, port density, and compatibility with your data center architecture.

OSFP vs OSFP-XD Overview

- OSFP (Octal Small Form-Factor Pluggable) is a compact, high-speed optical module form factor widely adopted for 400G, 800G, and now 1.6T applications. It supports 8x200G host electrical interfaces for 1.6T bandwidth while maintaining backward compatibility with 400G/800G modules . OSFP modules integrate an advanced heat sink to manage thermal loads up to 30W, ensuring reliable operation in high-density deployments .
- OSFP-XD (eXtended Density) expands the number of high-speed channels from 8 to 16, enabling single-port 1.6T rates and future upgrades to 3.2T. It supports higher power requirements, passive copper interconnects, and optimized port density, making it suitable for high-power, high-density, and short-reach deployments .

Key Selection Criteria

1. Bandwidth and Electrical Performance

- OSFP1600 supports 8x200G lanes, ideal for 1.6T applications with full backward compatibility

Article Content

OSFP OCTAL SMALL FORM FACTOR PLUGGABLE MODULE

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

QSFP Optical Module Guide: 40G to 800G Evolution & Selection

The definitive guide to the QSFP optical module series (40G, 100G, 400G, 800G). Learn the technical differences, evolution path,

Cisco Transceiver Modules

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

Selection Guide for OSFP Optical Receivers for Power Grid Private

Selection Guide for OSFP Optical Receivers for Power Grid Private The Octal Small Form Factor Pluggable (OSFP) is a high

OSFP MSA Rev 5

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

100G to 1.6T Optical Module PHY Product Selection Guide

Broadcom's Active Copper PHY portfolio enables DAC cable providers to build very low insertion-loss profile, ultra-low latency, ultra

Optical Transceivers MSA Standards Technical Guide

Selecting MSA-compliant optical modules requires more than just verifying form factor. A structured checklist ensures reliable

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