

Subway-Grade OSFP Optical Module Selection Guide



AI 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

- Bandwidth and Electrical Performance**
OSFP1600 supports 8x200G lanes, ideal for 1.6T applications with full backward compatibility. OSFP-XD doubles the number of lanes internally, supporting 16 high-speed channels, which is critical for future-proofing and breakout applications. Paddlecard thickness and module height in OSFP-XD are increased to support 200G electrical interfaces and robust power distribution, but it is not compatible with standard OSFP cages.
- Thermal Management**
OSFP-IHS (Integrated Heat Sink): Heat sink is built into the module, dissipating heat independently. Suitable for standard air-cooled switches and modules up to 30W. Offers simplicity and high universality but limited scalability for liquid cooling.
OSFP-RHS (Riding Heat Sink): Transfers heat to the host system via a thermal interface. Supports higher power and ultra-high-density deployments, optimized for advanced cooling architec...

Article Content

The Ultimate Guide to ZTE SFP Module Distance and Wavelength

The selection of the correct ZTE SFP module is dictated by the physical topology and network architecture requirements. In a typical enterprise campus network, the core distribution layer will

Selection Guide for SFP Optical Modules for Power Systems

Explore the ultimate guide to optical modules. Learn types, functions, performance metrics & how to choose the right module for your fiber network. How to choose the right SFP module ? Discover how

SFP Optical Transceivers: How Pluggable Optics Are Reshaping

Discover how SFP optical transceivers are driving AI data centers and FTTX networks in 2026. Weunion's expert guide covers 400G, 800G, BiDi, DAC vs AOC, and compatibility strategies

1000BASE-SX vs 1000BASE-LX, EX, ZX & BX SFP Guide

1000BASE-SX, 1000BASE-LX, 1000BASE-EX, 1000BASE-ZX and 1000BASE-BX are all Gigabit Ethernet fiber optic module terms, but they are not the same type of link. They differ in fiber

400G OSFP/QSFP-DD/QSFP112 Module Introduction and Selection

This article explores the technical characteristics, product lineup, and use cases of 400G OSFP/QSFP-DD/QSFP112 modules to choose the most suitable 400G solution for your data centers.

Optical Module Procurement Guide

Optical Module Procurement guide to pricing trends, OEM vs aftermarket insights, and strategic buying tactics to optimize costs, reliability, and total ownership.

How to Choose SFP Module for Compatibility, Speed, and Distance

Learn how to choose the right SFP module based on compatibility, speed, fiber type, wavelength, and distance. Practical guide for engineers and IT buyers.

2026 Global Optical Module Selection Guide (Website Homepage)

—— Explosive Growth of 800G/1.6T Technologies, Scene-Based Selection + Finisar Original Solutions in One Stop In 2026, driven by AI computing power, optical modules have entered

SFP vs SFP28 vs QSFP28 vs QSFP-DD/OSFP: 2026 Data Center

A 2026-ready, engineer-focused guide comparing SFP, SFP28, QSFP28, QSFP-DD and OSFP transceivers. Learn decision rules, deployment use cases, cost/risk factors, and compatibility

SFP Optical Module Selection Guide for 2025: Key

Explore our comprehensive SFP optical module selection guide for 2025. Learn about crucial factors like data rate, distance, fiber type, and

The Ultimate Reference Table for SFP & QSFP Optical Transceiver ...

The definitive guide to SFP, QSFP, and QSFP-DD standards for 2025. Compare 400G/800G optics, understand PAM4 complexity, and master QSFP-DD vs OSFP deployment

Top Factors to Consider When Selecting Industrial SFP Modules

Selecting industrial SFP modules requires checking compatibility, link budget, temperature rating, DDM (SFF-8472) and vendor support. Practical guide for rugged networks.

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

The Ultimate Guide to OSFP 400G DR4 Optical Modules

The OSFP 400G DR4 optical transceiver module is the ultimate solution for modern data centers and high-speed communication networks. It's the ideal choice for today's digital world, where

800G Multimode Optical Module Selection: QSFP-DD vs OSFP, SR8

A comprehensive guide to 800G multimode optical module selection: compare QSFP-DD and OSFP form factors, analyze SR8 vs 2xSR4 application scenarios, and master fiber patch cable

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.

THE ULTIMATE GUIDE TO OSFP 400G DR4 OPTICAL MODULES

Understand the core function, compare data rates (1G to 25G), learn critical compatibility rules, and follow our 5-step checklist for selecting the perfect SFP optical module for your network build.

SFP Transceivers Selection Guide 2024

As the spectrum of applications broadens, a multitude of 1G SFP transceivers has emerged, making the selection process for the ideal module a daunting task. If you find yourself on

Ultimate Guide to 1G SFP Module Selection

Learn how to choose the right 1G SFP module for your network. Our guide covers compatibility, distance, fiber type, cost, and vendor selection for optimal performance.

Intelligent Selection Guide for Campus Network-Grade OSFP Optical

The definitive guide to the QSFP optical module series (40G, 100G, 400G, 800G). Learn the technical differences, evolution path, and optimal selection criteria for QSFP+, QSFP28, QSFP

Learn how to choose the right SFP module for your network. Avoid ...

Learn how to choose the right SFP module for your network and avoid common compatibility mistakes. This practical guide explains SR vs LR, singlemode vs multimode,

Complete Guide to OSFP Transceiver: 400G/800G/1.6T

Master OSFP transceiver technology with our comprehensive guide. Covers 400G/800G/1.6T speeds, OSFP vs QSFP-DD comparison, thermal management, and AI

UNDERSTANDING OSFP MODULES YOUR GUIDE TO HIGH

Understand the core function, compare data rates (1G to 25G), learn critical compatibility rules, and follow our 5-step checklist for selecting the perfect SFP optical module for your network build.

The Complete Guide to the Best Choice of 10G SFP+ Optical Modules

The Complete Guide to the Best Choice of 10G SFP+ Optical Modules 10G SFP+ Function Introduction 10G SFP+ (Small Form-Factor Pluggable Plus) optical modules are essential components in modern

SFP module specification and selection guide (EN)

CXR SFP modules are based on industrial grade components to deliver higher reliability and to enable extended operating temperature range in any host equipment and integration conditions.

How to Choose the Right SFP Module for Your Network?

Unsure how to choose the correct SFP module for your network? Dive in to discover essential factors like speed requirements, compatibility, and budget considerations. Our guide simplifies the selection

Contact Us

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

Website: <https://lwazipm.co.za>

Email: info@lwazipm.co.za

Phone: +27 82 415 6392

Address: 15 Oxford Street, Rosebank, Johannesburg, 2196, South Africa

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

