

Article Overview

QSFP modules generally have shorter lead times than OSFP modules, with typical delivery ranging from 1-4 weeks for standard QSFPs and 4-12 weeks for high-speed OSFPs, depending on demand and customization.

QSFP Optical Modules

QSFP (Quad Small Form-factor Pluggable) modules, including QSFP+, QSFP28, and QSFP-DD, are widely used for 40G to 400G Ethernet deployments in enterprise and data center networks . Because QSFP technology is mature and widely adopted, standard QSFP modules are often available from multiple vendors and distributors, allowing delivery within 1-4 weeks for off-the-shelf products. Lead times may extend if the modules are high-speed variants (e.g., QSFP-DD 400G) or require specific vendor certifications, custom firmware, or extended reach options .

OSFP Optical Modules

OSFP (Octal Small Form-factor Pluggable) modules are designed for 400G, 800G, and future 1.6T networks, particularly in hyperscale and AI-focused data centers . OSFP modules are newer and less widely stocked than QSFP modules, which can result in longer lead times, typically 4-12 weeks depending on the module type, power requirements, and thermal design (e.g., OSFP IHS or OSFP-RHS for high-power applications), . Custom or high-performance OSFP modules, such as 800G ZR/ZR+ coherent optics, may require additional manufacturing and testing, further extending delivery times .

Factors Affecting Delivery

- o Module Type and Speed: Higher-speed modules (400G-800G) generally have longer lead times than legacy 40G-100G QSFP modules .
- o Thermal and Power Design: Modules with integrated heat sinks or advanced thermal architectures (OSFP IHS/RHS) may require longer production cycles .
- o Supply Chain and Vendor Stock: Availability depends on vendor inventory, regional distribution, and global semiconductor supply constraints .
- o Customization: Modules with specific firmware, extended reach, or coherent optics capabilities may add several weeks to delivery .

Practical Guidance

- o For standard QSFP modules, plan for 1-4 weeks delivery from major distributors.
- o For OSFP modules, especially 800G or coherent optics, expect 4-12 weeks, and consider early procurement to align with deployment schedules.
- o Always confirm with vendors regarding stock availability, lead times, and shipping options, as these can

fluctuate with market demand and production cycles. By understanding these typical delivery windows and factors, network operators can better plan deployments and avoid delays in high-speed data center or AI cluster projects.

This article explores the characteristics of OSFP and QSFP-DD form factors and practical solutions for

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

Introduction: The Shift from QSFP-DD to OSFP As data centers transition from 400G to 800G interconnects,

QSFP+ vs. OSFP: A Comprehensive Comparison of Optical Transceivers In the rapidly evolving landscape of data

OSFP is short for Octal Small Form Factor Pluggable. it is being designed to use eight electrical lanes and each lane for 50GBE to

Product overview Cisco®; QSFP-DD and OSFP 800G ZR/ZR+ coherent optics modules enable 800G traffic over amplified DWDM

Comprehensive guide to NVIDIA optical modules covering QSFP-DD and OSFP 800G solutions. Learn about

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

Explore the OSFP roadmap from 800G to 1.6T. Compare OSFP vs QSFP-DD and plan your 2025-2027 data center

Explore how Fibrecross's QSFP-DD and OSFP packaged 200G optical transceivers can improve the bandwidth, density and

Understand optical transceiver form factors including SFP, QSFP, and CFP. Learn the

Learn what a QSFP module is, how QSFP+, QSFP28, QSFP56, and QSFP-DD differ, and how to choose the right

QSFP-DD is the mainstream module of 400G transceivers which is different than other form

Initial Published: February 19, 2022 The optical transceiver plays a crucial role in modern fiber networking.

Various

Can I use OSFP modules in QSFP-DD ports? No, because OSFP modules and QSFP-DD ports have different

The definitive guide to SFP, QSFP, and QSFP-DD standards for 2025. Compare 400G/800G optics, understand

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