US SFP Optical Module QSFP



Overview

OEM-compatible optical transceivers from 1G to 800G—SFP, SFP28, QSFP28, QSFP-DD & OSFP. MSA-compliant, TAA-certified, lifetime warranty. Find your module today.

Key Takeaways

SFP modules are compact, versatile transceivers for lower-speed connections, while QSFP modules support higher-speed, multi-lane data transmission for data centers and high-performance networks.

Overview of Optical Modules

Optical modules, also called transceivers, convert electrical signals into optical signals and vice versa, enabling high-speed data transmission over fiber-optic networks. They come in various form factors that define their size, speed, and compatibility with networking equipment.

SF

P (Small Form-factor Pluggable)Form Factor: Compact, hot-pluggable, half the size of the older GBIC modules. Speed: Typically supports 1 Gbps, with SFP+ supporting 10 Gbps and SFP28 supporting 25 Gbps. Applications: Ideal for enterprise networks, Ethernet, Fibre Channel, and PON.

Suitable for environments with limited space and lower bandwidth requirements. Advantages: Hot-swappable, low power consumption (~1W), cost-effective, and versatile for both single-mode and multi-mode fiber.

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QSF

P (Quad Small Form-factor Pluggable)Form Factor: Larger than SFP but still hot-pluggable; “Quad” indicates four channels in a single module. Speed: QSFP+ supports 40 Gbps (4x10 Gbps), QSFP28 supports 100 Gbps (4x25 Gbps), and QSFP-DD can reach 400 Gbps. Applications: Designed for high-performance computing, hyperscale data centers, and high-speed backbone networks.

Advantages: High throughput, scalable for multi-lane connections, maintains compact size relative to speed, and supports Ethernet, InfiniBand, and Fibre Channel.

Key Differences Between SF

P and QSFPFeatureSFPQSFPSizeSmall, compactLarger, quad-channelSpeed1–25 Gbps (SFP, SFP+, SFP28)40–400 Gbps (QSFP+, QSFP28, QSFP-DD)ChannelsSingleFour (quad)ApplicationsEnterprise networks, low to medium bandwidthData centers, high-performance computing, high-speed backbonePower ConsumptionLow (~1W)Higher, depends on speed and lanesHot-swappableYesYesChoosing the Right ModuleWhen selecting between SFP and QSFP, consider: Bandwidth requirements: QSFP is preferred for high-speed aggregation and backbone links. Distance: Check single-mode vs multi-mode fiber compatibility. Hardware compatibility: Ensure the switch or router supports the module type.

Power and space constraints: SFP is more energy-efficient and space-saving for smaller deployments. In summary, SFP modules are ideal for flexible, lower-speed connections, while QSFP modules are optimized for high-speed, multi-lane data transmission, making them essential for modern data centers and high-performance networks.

Article Content

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

100GBASE QSFP-100G Modules Data Sheet

The Cisco QSA Module converts a QSFP28 port to an SFP28, SFP+ or SFP port. This flexibility allows customers a cost-effective transition to high

Cisco 40GBASE QSFP Modules Data Sheet

The Cisco QSA Module (Figure 6 and Figure 7) converts a QSFP+ port to an SFP or SFP+ port. With this adapter, customers have the flexibility to use a SFP or SFP+ module, or cable

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Small Form-factor Pluggable

The physical dimensions of the SFP transceiver (and its subsequent faster variants) are narrower than the later QSFP counterparts, which allows for SFP transceivers to be placed in QSFP

Optical Transceivers SFP SFP28 QSFP28 QSFP-DD 1G to 400G Range

OEM-compatible optical transceivers from 1G to 800G—SFP, SFP28, QSFP28, QSFP-DD & OSFP. MSA-compliant, TAA-certified, lifetime warranty. Find your module today.

QSFPTEK Online Store for Optical Transceivers

$9.90 Cisco SFP-10G-LR Compatible 10GBASE-LR SFP+ 1310nm 10km DOM LC SMF Transceiver $13.90 Cisco QSFP-40G-SR4 Compatible 40GBASE-SR4 QSFP+ 850nm 150M DDM MTP/MPO

SFP SFP+ SFP28 QSFP+ QSFP28: Fiber Module Form Factor Guide

Learn the differences between SFP, SFP+, SFP28, QSFP+, and QSFP28 optical module form factors, including speeds, interfaces, and deployment scenarios.

40G QSFP+ Transceiver Modules | Optical

FS 40G QSFP+ optical transceiver module solutions offer a full range of QSFP+ modules from 150m to 80km reach, and used for high-density switching, routing

SFP vs SFP+ vs QSFP28 vs QSFP-DD: 2026 Optical Buyer''s Guide

SFP vs SFP+ vs QSFP28 vs QSFP-DD: Master optical transceiver selection for 1G to 800G AI networks with our lab-verified guide.

Understanding the Differences of SFP, SFP+, SFP28, QSFP+, and

Among the most widely used form factors are SFP, SFP+, SFP28, QSFP+, and QSFP28. While these modules may look similar at first glance, they differ significantly in terms of performance,

Optical Transceivers | Coherent

Get the pluggable module performance you need from the manufacturer of choice for all major networking equipment vendors worldwide.

HTF DWDM equipment,OTN Solution,QSFP28 OSFP

OCS OCS Optical AI and Data Center Networking 200G QSFP-DD/QSFP56 400G QSFP-DD/OSFP/QSFP112 800G QSFP-DD/OSFP 1.6T OSFP-XD

Cisco 40GBASE QSFP Modules Data Sheet

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The 4x10G connectivity is achieved using an external 12-fiber parallel to 2-fiber duplex breakout cable, which connects the 40GBASE-SR4 module to

Cisco Transceiver Modules

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

The Big Differences Between SFP, SFP+, SFP28, QSFP+, QSFP28, QSFP

Delve deep into the world of optical modules. From SFP to the latest QSFP-DD, explore their differences, applications, and what to consider for your networking needs

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Learn how Coherent empowers innovations and breakthrough technologies for the industrial, communications, electronics, and instrumentation markets.

Specifications of the Fiber Gigabit Ethernet SFP, XFP, SFP+, QSFP+ ...

Topic The following specifications are for the available Fiber Gigabit Ethernet modules and the platforms that support those modules. Important: The end user must ensure suitability of

The Ultimate Guide to SFP, SFP+, SFP28, QSFP+, and QSFP28:

These modules are fundamental building blocks in enterprise-grade fiber Ethernet infrastructures, making them among the most ubiquitous optical networking components deployed

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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