

OEM QSFP-DD Optical Module SFP



AI Overview

QSFP-DD modules support up to 400 Gbps in a compact form factor, while SFP modules range from 1 Gbps to 50 Gbps depending on the variant, offering flexible options for data center and networking applications.

Overview of SFP Modules

SFP (Small Form-factor Pluggable) modules are compact optical transceivers used in telecommunications and data communications. Standard SFP supports speeds up to 1 Gbps, while SFP+ supports 10 Gbps, SFP28 supports 25 Gbps, and SFP56 can reach 50 Gbps using PAM4 modulation. SFP-DD (Double Density) doubles the electrical lanes from one to two, enabling 100 Gbps on a server port while maintaining the same physical size as legacy SFP modules, which is ideal for upgrading server speeds without changing rack architecture. SFP modules are widely used in enterprise networks, access, and edge applications due to their backward compatibility and compact footprint.

Overview of QSFP-DD Modules

QSFP-DD (Quad Small Form-factor Pluggable Double Density) is designed for high-performance data center and core network applications. It supports speeds up to 400 Gbps and maintains backward compatibility with QSFP28 optics. QSFP-DD modules are commonly used in spine-leaf architectures, high-speed interconnects, and data center interconnects (DCI). They can handle Ethernet, OTN, and coherent optical signals, with some high-power variants incorporating mini optical amplifiers for extended reach. QSFP-DD is preferred in standard enterprise and cloud data centers, while OSFP is often used in AI/ML supercomputing environments due to higher thermal tolerance.

Key Considerations

Speed and Modulation: SFP-DD and QSFP-DD use PAM4 modulation for higher data rates, while older SFP+ and QSFP+ use NRZ.

Compatibility: QSFP-DD is backward compatible with QSFP28, allowing gradual upgrades. SFP-DD allows 100G on legacy SFP ports.

Thermal and Power: QSFP-DD modules are suitable for standard data centers, but OSFP may be needed for 800G+ AI clusters due to heat constraint...

Article Content

What Is an SFP and How It Works Explained

What is an SFP? Learn about Small Form-Factor Pluggables, their uses, and how they enable network connectivity.

SFP, QSFP, QSFP-DD, OSFP Active Optical Cable Assemblies

Our active optical cable assembly portfolio provides improved cable flexibility and longer reach as compared to both traditional passive copper and emerging active copper (ACC/AEC) solutions,

QSFP-DD Optical Transceivers for High-Speed Connections

Systems designed with QSFP-DD ports are backwards compatible to support existing QSFP+, QSFP28, and QSFP56 modules. This provides flexibility for network designs and migrations to next-generation

Arista Optics Modules and Cables

Arista's Optical Modules and Cable portfolio offer a wide variety of high-density and low-power 800G (dual 400G), 400G, 200G, 100G, 50G, 40G, 25G, 10G, 1G, and 100M Ethernet connectivity options

D Link Dgs 712 Compatible Copper Sfp Module

SFP (Small Form-factor Pluggable) optical modules are compact, hot-pluggable transceivers that enable network equipment to connect seamlessly to fiber and copper links. These modules, including SFP,

400G QSFP-DD SR8 850nm 100m MMF MPO16 Optical Transceiver Module

400G QSFP-DD SR8 850nm 100m MMF MPO16 Optical Transceiver Module Cisco Arista Compatible Factory Price OEM ODM Wholesale Unit

QSFP-DD Connector System

QSFP-DD Interconnect System enables faceplate density equal to the current 2x1 QSFP form factor, but with 8-lane ports. In other words, a total of 256 differential

The Ultimate Guide to SFP Modules (2026): Types,

Confused by SFP vs SFP+? Read the definitive 2026 guide on SFP modules. We explain Single Mode vs Multimode, DDM diagnostics, and how to choose the

Cisco 400G QSFP-DD High-Power (Bright) Optical

These small, modular optical interface transceivers offer a convenient and cost-effective solution for an array of applications in the data center,

SFP/SFP+/QSFP28/QSFP-DD Transceivers | OEM

From legacy 1G SFP uplinks to hyperscale 800G OSFP AI clusters, our modules are built on MSA standards and powered by top-tier DSP chips (Broadcom/Inphi).

Cisco 400G QSFP-DD High-Power (Bright) Optical

Learn how Cisco 400G QSFP-DD High-Power (Bright) Optical module's small size and low power make it an optimal choice for a wide range of

Optical Transceiver Market Size, Share, Industry Report

Optical Transceiver Market Size The global optical transceiver market was valued at USD 13.4 billion in 2025. The market is expected to grow from USD 15.4 billion in

MikroTik · DDQ+85MP01D

QSFP-DD optical module for reliable 400G fiber connections, perfect for distances beyond DAC reach, up to 100 meters! The module includes built-in digital

Active Optics Cable Assemblies | TE Connectivity

Our Active Optical Cable assembly portfolio provides greater cable flexibility and longer reach, as compared to passive copper and emerging active copper (ACC/AEC) solutions.

400GbE QSFP-DD Transceiver Modules | Optical Transceivers

FS 400G QSFP-DD module solutions featuring high-performance, high-bandwidth, and cost-effectiveness, are ideal for 400GbE and data centres.

Cisco Transceiver Modules

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

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

OSFP vs QSFP-DD Comparison | 800G Optical Module Form Factors

Detailed analysis of OSFP and QSFP-DD form factors for 800G optical modules. Compare specifications, thermal management, backward compatibility, and choose the right solution

Optical Transceivers SFP SFP28 QSFP28 QSFP-DD

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

SFP Optical Transceiver Modules for Long Distance: A Complete

Discover everything you need to know about SFP optical transceiver modules for long-distance fiber transmission. Compare LX, EX, ZX models and choose the right module for your

The Ultimate Guide to Optical Transceivers: SFP, QSFP

This comprehensive guide breaks down the categories of optical modules, including SFP, SFP+, SFP28, QSFP+, QSFP28, QSFP56/QFSP112,

SFP Optical Transceivers: How Pluggable Optics Are Reshaping

2. What Is an SFP Optical Transceiver? An SFP transceiver is a compact, hot-swappable interface module designed to convert electrical signals from a network switch or router into optical

Contact Us

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