

Certified Passive Optical Network QSFP-DD



Overview

QSFP-DD (Quad Small Form Factor Pluggable Double Density) is an evolution of the QSFP family, extending its lane capacity from 4 to 8 high-speed electrical lanes. Each lane supports up to 50G PAM4 signaling, delivering an aggregate throughput of 400G — or even 800G in advanced PAM4. Cisco QSFP-DD and OSFP 800G ZR/ZR+ digital coherent optics modules enable 800G traffic over amplified Dense Wavelength-Division Multiplexing (DWDM) links up to 120 km for 800ZR and over 1000 km for 800G ZR+. The QSFP-DD specification, maintained by the QSFP-DD. Amphenol's QSFP-DD Linear Pluggable Optical (LPO) Transceiver delivers low-latency, high-bandwidth PCIe[®] Gen 5.0 over optical link, enabling scalable server disaggregation and efficient rack-to-rack interconnects ideal for AI/ML and rack-scale data center expansion. QSFP-DD LPO TRANSCEIVER. The Master Reference Matrix: SFP vs. QSFP Standards (2025 Edition) This table consolidates specifications from over 20 different MSA documents into a single, actionable view. Pro Tip: In 2025, QSFP112 is gaining traction as a bridge technology. At Pivotal Optics, we deliver transceiver solutions you can count on— precision-built, MSA-compliant, and performance-driven.



Article Content

Jul 04, 2026

SFP, QSFP, QSFP-DD, OSFP ACTIVE OPTICAL CABLE ASSEMBLIES

TE Connectivity's (TE) active optical cable assembly portfolio provides improved cable flexibility and longer reach, as compared to

Oct 10, 2025

Cisco QSFP-DD800 Transceiver Modules Data Sheet

Product overview The Cisco QSFP-DD800 modules introduce 8x100G and 2x400GGBASE Quad Small Form-Factor Pluggable

Aug 08, 2025

400G QSFP-DD Cable and Transceiver Modules Data Sheet

Certified and tested on Cisco, Arista, Juniper, Dell QSFP-DD ports for superior performance, quality, and reliability.

Feb 27, 2026

QSFP-DD Optical Transceivers Unlocking Faster Connections

QSFP-DD Optical Transceivers deliver up to 800Gbps speeds, offering high bandwidth, energy efficiency, and

Mar 10, 2026

QSFP-DD Connector System

QSFP-DD Interconnect System's 8-lane electrical interface transmits 28G NRZ, 56G PAM-4 and 112G PAM-4, up to 200, 400 or 800

Oct 12, 2025

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

Sep 18, 2025

800G QSFP-DD Digital Coherent Optics Transceiver

The 800G Digital Coherent Optics (DCO) family of transceivers are available in two small form-factors,

Feb 17, 2026

How to Achieve Interconnection Between OSFP and QSFP-DD Ports?

This article outlines key OSFP and QSFP-DD differences and offers four practical interconnection solutions to support

Apr 12, 2026

QSFP DD Loopback Modules

Amphenol's QSFP DD (Double-Density) Loopback Modules are part of Amphenol's comprehensive QSFP DD product family offering

Dec 09, 2025

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,

Nov 07, 2025

400G QSFP-DD Passive Direct Attach Copper Twinax Cable | FS

Description In an effort to keep up with the demands of higher performance and increasing amounts of memory bus bandwidth, FS

Dec 06, 2025

QSFP-DD Hardware

17 16 15 September 29, 2023 19 18 Abstract: This specification defines: the electrical and optical connectors, electrical signals and

Sep 18, 2025

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

The explosive growth of global data volume has placed higher demands on the bandwidth and performance of data

Jan 14, 2026

400G QSFP-DD Passive DAC Twinax Copper Cable (0.5-3m)

400G QSFP-DD Passive DAC Twinax Cable 0.5m. Supports 400GbE and InfiniBand HDR up to 425 Gbps. AWG 28 copper, low

Nov 30, 2025

QSFP-DD TRANSCEIVERS for 400G and 800G

As a leading form factor for 400ZR and 800ZR, QSFP-DD delivers cost-efficient, interoperable connectivity

Jul 18, 2026

Understanding the QSFP-DD Standard: The Foundation of 400G

The QSFP-DD was conceived by the QSFP-DD MSA group, including Cisco, Intel, Broadcom, and Mellanox (now

Apr 03, 2026

Cisco 400G QSFP-DD Cable and Transceiver Modules

Product overview The Cisco 400GBASE Quad Small Form-Factor Pluggable Double Density (QSFP-DD) portfolio offers customers a

May 07, 2026

An Overview on QSFP-DD (Double Density QSFP)

An Overview on QSFP-DD (Double Density QSFP) With the rapid growth of data center and 5G development,

Nov 18, 2025

Understanding the QSFP-DD Standard: The Foundation of 400G Optical ...

The QSFP-DD standard represents the pinnacle of optical interconnect evolution — enabling unprecedented

Jun 17, 2026

The Ultimate Guide to Cisco QSFP Optical Transceiver Modules

Efficient and consistent data transmission is significant in the rapidly changing technological environment. Without a

Aug 24, 2025

200G QSFP-DD Passive Direct Attach Copper Twinax Cable

The 200G QSFP-DD DAC primarily enables high-bandwidth 200G links and supports 200G Ethernet rate. It provides a QSFP-DD to

Dec 13, 2025

Differences Between QSFP-DD and QSFP, QSFP28, QSFP56,

□□ Introduction: High-Speed Optical Networking Essentials In the world of high-speed data transmission, selecting the

Apr 12, 2026

Quadwire® QSFP-DD Active Optical Cables | Coherent

Networking Quadwire® QSFP-DD Active Optical Cables Drive high-speed connectivity enabled by multiple (4 or 8) parallel channels

Contact Us

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