

High-speed optoelectronic connection QSFP-DD



Overview

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. Network operators are looking for cost-optimized optical solutions that provide increased density and reduced power consumption—across high-speed as well as legacy ports—without sacrificing network performance or reliability. © 2023 Cisco and/or its affiliates. QSFP DD has become one of the most important optical module form factors in modern networking infrastructure. As cloud computing, artificial intelligence, and large-scale data centers continue to grow rapidly, the demand for higher bandwidth and greater network efficiency is increasing. The QSFP-DD (Quad Small Form-Factor Pluggable Double Density) optical transceiver is a revolutionary advancement in high-speed data communication, designed to meet the escalating bandwidth demands of modern data centers, cloud computing, and 5G 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

QSFP-DD Optical Transceivers Unlocking Faster

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

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

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

Exploring the Benefits and Applications of 800G QSFP-DD Optical

The 800G optical transceiver is a high-speed optoelectronic conversion device used for achieving 800Gbps data transmission. It adopts small form-factor packaging types, such as QSFP

AOC Vs DAC Vs ACC Vs AEC: Complete Guide To

Understand AOC, DAC, ACC & AEC modules in one guide. Compare features, benefits & best use cases to choose the right cable for your

QSFP-DD vs OSFP: What Are the Differences?

QSFP-DD vs OSFP: What Are the Differences? QSFP-DD vs OSFP: Size OSFP is a new pluggable form factor with eight high speed electrical lanes that will initially

QSFP-DD Optical Transceivers for High-Speed Connections

Product overview The ongoing explosion of data traffic is driving the need for faster processing, greater bandwidth, and higher density connections within and between data centers. Network operators are

Understanding QSFP-DD 400G Optical Transceivers -

QSFP-DD delivers unprecedented speed in a familiar form factor. It enables scalable, future-proof networks without massive hardware changes. For

QSFP DD Guide: High-Speed QSFP DD Optical Modules

Learn how QSFP DD enables high-speed 400G networking with higher density, compatibility, and performance for modern data centers.

QSFP-DD Linear Pluggable Optics (LPO) | High Speed

Amphenol's QSFP-DD Linear Pluggable Optical (LPO) Transceiver delivers low-latency, high-bandwidth PCIe[®] Gen 5.0 over optical link, enabling

Complete Guide to 400G QSFP-DD Optical

The 400G QSFP-DD Optical Transceivers represent the next evolution in high-speed connectivity solutions for data centers and Ethernet applications.

QSFP Versus QSFP-DD Here Are the Key Differences

QSFP-DD was designed in such a way that you should be able to plug QSFP devices into QSFP-DD cages and have them work. The reverse is not

QSFP-DD Optical Transceivers for High-Speed Connections

Quad Small Form-Factor Pluggable Double-Density (QSFP-DD) offers twice as many high-speed electrical interfaces as QSFP28 while maintaining the same port density.

QSFP-DD TRANSCEIVERS for 400G and 800G

Smartoptics QSFP-DD transceivers provide cost-efficient 400G and 800G optical networking. QSFP-DD (Quad Small Form-Factor Pluggable Double Density)

QSFP-DD Optical Module Overview: What is the differ?

QSFP-DD vs OSFP/CFP8/COBO The following section will talk about the differences between common mainstream 400G optical modules.

QSFP-DD Optical Transceivers for High-Speed

Cisco's comprehensive portfolio of QSFP-DD modules support 400G and 800G data rates across copper, multimode fiber, and single-mode fiber, and

The Ultimate Guide to QSFP Cable: Everything You

Applications of QSFP Cables The need for high-speed data transfer makes QSFP cables popular in many areas. The main places where they are

Comprehensive Guide to QSFP-DD, QSFP28, QSFP56,

Complete Guide to QSFP-DD, QSFP28, QSFP56, SFP56, and SFP28 Optical Modules As high-speed networks continue to evolve, optical transceivers like

How to Achieve Interconnection Between OSFP and

With exponential traffic growth, hyperscale data centers must deploy multiple high-speed optical modules to meet varied demands. However, the

SFP+, SFP28, QSFP+, QSFP28, QSFP56, QSFP-DD,

Various high-speed transceiver types are on the market, including SFP+, SFP28, QSFP+, QSFP28, QSFP56, QSFP112, QSFP-DD, OSFP, etc.

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 scalable 400G/800G data center networks.

QSFP-DD Optical Transceivers – MapYourTech

What is QSFP-DD? QSFP-DD is an advanced hot-pluggable optical transceiver form factor that doubles the bandwidth density of traditional QSFP28

Analyzing 400G Optical Transceiver Market Growth & Forecast

INNOLIGHT: A prominent designer and manufacturer of high-speed optical transceivers, INNOLIGHT is a significant player in the 400G market, particularly strong in the Data Center Market

Unlocking the Future of Connectivity: Understanding

Discover the future of connectivity with QSFP-DD transceivers. Learn how this compact, high-density interface enhances 200G/400G interconnect

QSFP-DD Optical Transceivers Unlocking Faster

The QSFP-DD (Quad Small Form-Factor Pluggable Double Density) optical transceiver is a revolutionary advancement in high-speed data

800G Digital Coherent Optics (DCO) Transceiver Market 2026

800G Digital Coherent Optics (DCO) Transceiver Market Trends Rising Demand in Data Center Interconnect (DCI) Applications 800G Digital Coherent Optics (DCO) Transceiver Market is

QSFP-DD Optical Transceivers – MapYourTech

Introduction QSFP-DD (Quad Small Form-Factor Pluggable Double Density) represents a transformative advancement in optical transceiver

All About QSFP Cables, Connectors, and More

Production plans are in place for 800G OSFP and QSFP DD cable assemblies, giving Amphenol an advantage over the competition when it comes

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