

Custom AI Server 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. In one real-world case, a large AI research organization discovered that its GPU cluster was operating at no more than 60% utilization. This raised a critical question: should they invest in better analytics frameworks, or were they effectively wasting millions of dollars in compute resources due. The InfiniBand solution for her team's new AI cluster would cost \$680,000. The RoCEv2 Ethernet option using QSFP-DD 800G came in at \$410,000. The performance specs showed only a 5% difference in all-reduce benchmarks. "That's \$270,000 for 5%," she thought. Her CFO would ask hard questions about. In the rapidly evolving landscape of high-performance computing and AI infrastructure, NVIDIA optical transceivers have emerged as critical components for enabling next-generation 800G network deployments. The choice between QSFP-DD and OSFP form factors represents a strategic decision for data. QSFP-DD is a new module and cage/connector system similar to current QSFP, but with an additional row of contacts providing for an eight lane electrical interface. It is being developed by the QSFP-DD MSA as a key part of the industry's effort to enable high-speed solutions. Understanding QSFP-DD and QSFP112 in AI Networking □□ What is QSFP-DD?

QSFP-DD (Quad.



Article Content

Hot

Cisco 400G QSFP-DD Cable and Transceiver Modules

The Cisco® family of QSFP-DD modules provide the industry's highest bandwidth density while leveraging the backward compatibility to lower-speed

Jun 22, 2026 Hot

AI Datacenter Optics Market Size and Forecasts 2032

AI Datacenter Optics Market is projected to reach XX by 2032, registering a CAGR of XX% during the forecast period.

Jan 18, 2026 Hot

Specification – QSFP-DD

August 7, 2020 – QSFP-DD Hardware Specification for QSFP DOUBLE DENSITY 8X PLUGGABLE TRANSCEIVER – Rev 5.1 July 11, 2019 – QSFP-DD Hardware Specification for QSFP

Sep 05, 2025 Hot

Choosing 400G NICs by Network Interface: OSFP,

Explore FS 400G NICs and their network interfaces—OSFP, QSFP-DD, and QSFP112. Learn how to choose the right 400G adapter for AI, HPC, and

Aug 18, 2025 Hot

QSFP-DD for AI Data Centers: 400G/800G GPU Interconnect Guide

Learn how QSFP-DD optical transceivers enable AI data centers with 400G/800G bandwidth. Compare modules, architectures, and deployment strategies for GPU clusters.

Dec 18, 2025 Hot

What is QSFP & QSFP+ Transceiver: An Ultimate Guide

Despite AI computing dramatically driving the demand for higher-speed optics, such as the 400G OSFP and QSFP-DD, as well as the 800G OSFP

Dec 29, 2025 Hot

NADDOD 800G QSFP-DD Ethernet Transceiver Overview

The 800G QSFP-DD optical transceiver module, based on the QSFP-DD package, is specifically designed for modern hyperscale data center

Apr 28, 2026 Hot

Generic Compatible 400GBASE-SR8 QSFP-DD

NADDOD Generic Compatible 400G QSFP-DD SR8 optical transceiver modules are designed for AI and HPC data center 400G Ethernet networks. This 400G module

Jan 20, 2026 Hot

QSFP-DD vs. OSFP: From 400G to 800G and Beyond

Today, 25G server ports are becoming more common, especially in Hadoop/HBase or other BI, datamining, and reporting applications. The advantage

May 01, 2026 Hot

Optimizing AI Networks: Connecting 400G Ports with Backward

This article explores how to connect 400G ports with backward-compatible QSFP-DD modules while leveraging QSFP112 transceivers for AI servers, ensuring scalable, low-latency, and high-bandwidth

Sep 03, 2025 Hot

QSFP-DD Linear Pluggable Optics (LPO)

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

May 17, 2026 Hot

AI Data Center Networking: QSFP-DD Guide for GPU Clusters

Deploy QSFP-DD for AI clusters with confidence. Learn bandwidth requirements, QSFP-DD vs OSFP for AI, and GPU cluster sizing.

Jan 06, 2026 Hot

QSFP-DD Optical Transceivers – MapYourTech

Hyperscale data centers operated by major cloud providers have adopted QSFP-DD as their standard for leaf-spine fabric interconnections,

Dec 19, 2025 Hot

400G Modules Compared: QSFP-DD, OSFP & QSFP112

Unsure which 400G module fits your data center? Compare QSFP-DD, OSFP, and QSFP112 with expert insights for top performance and scalability.

Feb 20, 2026 Hot

NVIDIA Optical Transceivers: QSFP-DD/OSFP 800G

Complete guide to NVIDIA optical transceivers covering QSFP-DD and OSFP form factors for 800G networks. Learn about compatibility, deployment

Aug 28, 2025 Hot

Understanding QSFP-DD Cable: A Comprehensive

Explore the QSFP-DD cable in our comprehensive guide, covering 400G connectivity, double density technology, and passive copper cable

Jan 26, 2026 Hot

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.

Mar 19, 2026 Hot

QSFP-DD Transceiver Guide 2026: Complete 400G/800G Deployment

Master QSFP-DD transceiver deployment for 400G/800G networks. Compare module types (SR8/DR4/FR4/LR4), cable options, pricing, and implementation best practices.

Aug 08, 2025 Hot

The Ultimate Guide to QSFP Cage Connectors and

In summary, it is apparent that the two connectors come in handy with the changing trends in the networking industry where both the QSFP28 and

Feb 13, 2026 Hot

Flexible AI Networks with Arista-Compatible SR4

The QSFP-DD SR4 features four 100G optical lanes over multimode fiber and an 8x56G host interface, offering the seamless integration of QSFP-DD switches into AI cluster architectures.

Nov 16, 2025 Hot

The Ultimate Guide to QSFP Cables

Explore the ultimate guide to QSFP cables. Learn QSFP types, differences from SFP, installation methods, and benefits for high-speed data

Jan 02, 2026

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://eedenmarketing.co.za>

Email: info@moletenare-ew.co.za

Phone: +86 138 1658 3346

Address: Ningbo, China

This document is for informational purposes only. Specifications subject to change without notice.

