

Paraguayan OEM Fiber Optic Enterprise Router QSFP-DD



Overview

Specification – QSFP-DD July 11, 2019 – QSFP-DD Hardware Specification for QSFP DOUBLE DENSITY 8X PLUGGABLE TRANSCEIVER – Rev 5.0 May 8, 2019 – Common Manag.

Key Takeaways

QSFP-DD modules enable high-speed 400G to 800G optical connectivity for enterprise routers, supporting long-haul, metro, and data center interconnects. QSFP-DD Overview QSFP-DD (Quad Small Form-factor Pluggable Double Density) is a high-density, high-speed pluggable module standard designed to support 400G, 800G, and up to 1.6T optical links.

It features an eight-lane electrical interface and is backward compatible with existing QSFP modules, allowing flexible deployment in enterprise routers and switches. QSFP-DD modules support multiple media types, including direct attach copper (DAC), multi-mode fiber (MMF), and single-mode fiber (SMF), and are compatible with Ethernet, Fibre Channel, and InfiniBand standards.

Enterprise Router Integration

Paraguayan OE



M routers that support QSFP-DD modules can leverage these modules for high-bandwidth optical interconnects. QSFP-DD modules plug directly into router ports, enabling: Data Center Interconnect (DCI) for distances up to 120 km with 800ZR coherent optics or beyond 1000 km with 800G ZR+ coherent optics. Metro and regional networks, providing high-speed connectivity for enterprise and service provider applications.

AI and HP

C clusters, where low-latency, high-throughput links are critical. Modern QSFP-DD modules, such as those from Cisco, Acacia, or QSFPTEK, use advanced DSP ASICs and silicon photonics to optimize power consumption, thermal performance, and interoperability across multiple line rates.

Pricing and OE

M Considerations QSFP-DD module pricing varies widely depending on speed, reach, and vendor: Short-reach SR8 modules for in-rack connections typically cost \$1,400–\$2,000 from reputable third-party vendors. Coherent ZR+ modules for long-haul DCI can exceed \$130,000 from OEMs. Total Cost of Ownership (TCO) should consider capital expenditure, operational costs, and volume discounts, especially for enterprise deployments in Paraguay.

OE

M modules generally offer higher reliability, guaranteed interoperability, and vendor support, while third-party modules may provide cost savings but require careful validation for compatibility.

Deployment Recommendations

For Paraguayan enterprises or service providers: Evaluate network reach requirements (in-rack, campus, metro, or long-haul) to select the appropriate QSFP-DD module type (SR8, DR4, FR4, 800ZR, 800G ZR+). Ensure router compatibility with QSFP-DD ports and support for coherent optics if long-distance links are needed. Consider future-proofing by selecting modules and routers that support multi-rate operation and backward compatibility with existing QSFP modules.

Factor in vendor support and local availability in Paraguay to minimize deployment delays and maintenance challenges. QSFP-DD modules provide a scalable, high-performance solution for modern enterprise networks, enabling Paraguayan organizations to meet growing bandwidth demands while maintaining flexibility and reliability.

Article Content

Specification – QSFP-DD

July 11, 2019 – QSFP-DD Hardware Specification for QSFP DOUBLE DENSITY 8X PLUGGABLE TRANSCEIVER – Rev 5.0 May 8, 2019 – Common Management Interface

Cisco 400G QSFP-DD Cable and Transceiver Modules

It provides a QSFP-DD-to-QSFP-DD copper direct-attach solution. QDD-400-CuxM cables are suitable for very short links and offer a cost-effective

QSFP-DD Linear Pluggable Optics (LPO)

Watch Amphenol's expert demonstrate the QSFP-DD Linear Pluggable Optics in action at the OFC 2025! Lightning-fast PCIe Gen 5

Cisco QSFP-DD and OSFP 800G ZR/ZR+ Coherent Optics Modules

The Cisco 800G QSFP-DD coherent optics modules are mechanically compliant with the QSFP-DD Multi-Source Agreement (MSA), and the Cisco 800G OSFP optical modules are mechanically

Product – Transceivers – QSFP-DD

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. The data rate of each channel can

Optical Transceivers | Network Solutions for AI Cluster,

Learn the differences between 200G DAC and 200G AOC cables, including QSFP56 and QSFP-DD form factors, transmission distance, power consumption,

400G DR4++/PLR4 QSFP-DD 10km | €370.87 | EDGE

The 400G-QSFP-DD-12 is an extended-reach DR4 (DR4++) module that carries 400GbE over 10 km of parallel single-mode fiber. Four 100G PAM4 lanes run at

QSFP-DD Price Guide 2026: 400G/800G Costs & TCO Analysis

QSFP-DD price guide with 400G/800G module costs, OEM vs third-party comparison, volume discounts, and 3-year TCO analysis for data center buyers.

QSFP-DD Product Family » Acacia

Quad Small Form-factor Pluggable Double Density (QSFP-DD) solution that fits into high-density switch and router client ports for optical interconnect links

LC Fiber Optics: A Comprehensive, Modern Guide for

Explore LC fiber optics in depth: LC connectors, LC patch cables, uniboot designs, attenuators, breakout cables, LC adapters, patch panels, MPO

FS Transceivers | Premium Optical Transceivers

FS Transceivers offers a comprehensive range of optical transceivers including SFP, SFP+, SFP28, QSFP+, QSFP28, QSFP-DD, and OSFP form factors. We support

Top Optical Modules for POTN Deployment: SFP, QSFP, and OSFP

Understanding the Role of Optical Modules in POTN Optical modules—often called transceivers—serve as the physical bridge between electrical equipment and optical fiber. They

DAC Cable | China Factory Direct | Direct Attach Cable

FibreCross offers high-performance 10G-800G Direct Attach Copper Cables (DAC Cables), plug-and-play, supporting OEM/ODM customization, China Factory Direct

JAYANI TECHNOLOGIES LLP | JTOPTICS

Jayani Technologies LLP, operating under the JTOptics brand, is a leading provider of fiber optic solutions and network connectivity products. We offer high-performance transceivers, cables, and

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

AAOI Optical Transceiver 800G: High-Speed Data Solutions

Find top AAOI optical transceiver 800G options for AI, HPC, and data centers. Explore low-latency, high-density, and verified suppliers. Click to discover reliable, future-ready connectivity for

Third-Party Optical Transceivers Market by Form Factor, Connector

Third-Party Optical Transceivers Market by Form Factor, Connector Type, Fiber Mode, Protocol Family, Fiber Count, Application, End User - Global Forecast 2026-2032 - The Third-Party

Paraguay Wholesale Price Enterprise-Grade Optical Router QSFP

Wholesale 100G LR4 QSFP 1310nm Wavelength Compatibility The 100G LR4 QSFP+ is a high-performance optical solution designed for modern data centers and enterprise networks.

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

