India Certified Co-packaged Optical QSFP-DD



Overview

The QDDCO4 provides increased performance and flexibility compared to the 400ZR module and also comes in a QSFP-DD form factor.

Key Takeaways

QSFP-DD (Quad Small Form-factor Pluggable Double Density) modules are high-speed 400G optical transceivers suitable for co-packaged optics, widely available from certified vendors and compatible with Indian deployments. Overview of QSFP-DD ModulesQSFP-DD is a high-density, high-bandwidth optical transceiver standard designed for 400G Ethernet and beyond. It doubles the electrical lanes compared to legacy SFP modules, enabling 8-lane 400G transmission while maintaining a compact form factor, making it ideal for co-packaged optics in data centers and enterprise networks.

QSFP-DD modules support both 400GE and 4x100GE interfaces, providing backward compatibility with previous-generation routers and switches (Cisco).

Key Features

Form Factor: QSFP-DD, compatible with OSFP and QSFP112 in some deployments. Transmission Distance: Options include ZR (up to 120 km) and ZR Plus variants for regional to long-haul distances with multiple amplification sites. Modulation and Baud Rates: Supports QPSK, 8-QAM, and 16-QAM modulation schemes with configurable TX filter shaping for optimized signal quality.

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Applications: Data centers, AI workloads, enterprise networks, service provider networks, and high-performance computing. Standards Compliance: Complies with OIF MSA, OpenZR+, and SFF-8679 Rev 1. 8.

4, ensuring interoperability across certified vendors.

Availability in India

While specific India certification is not explicitly listed in the sources, global vendors like Cisco and FS provide QSFP-DD modules that can be shipped to India.

F

S, for example, offers a portfolio of 400G QSFP-DD transceivers with nearby warehouse shipping and 30-day return policies, making them accessible for Indian enterprises. Cisco modules are widely deployed in India through authorized partners and distributors, ensuring compliance with international standards and local network requirements.

Considerations for Co-

Packaged Optics

Integration: QSFP-DD modules can be integrated directly with switch ASICs or line cards, reducing latency and improving power efficiency. Thermal Management: High-density 400G modules require careful cooling and airflow planning in racks. Vendor Certification: Ensure modules are sourced from authorized distributors to guarantee interoperability and warranty support in India.

Conclusion

For Indian deployments, certified QSFP-DD modules from Cisco, FS, and other global vendors provide reliable, high-speed optical connectivity suitable for co-packaged optics. They support 400G Ethernet, long-distance transmission, and multiple modulation schemes, making them ideal for modern data centers and enterprise networks. When procuring, verify vendor certification, standards compliance, and local availability to ensure seamless integration.

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Article Content

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

Generic Compatible 400G DCO QSFP-DD DWDM Tunable Coherent

Designed in a compact QSFP-DD form factor, the module enables 400Gbps coherent transmission over DWDM with a typical reach of up to 40km (unamplified), making it a strong fit for metro DCI, campus

PSE 100G/400G pluggable coherent optics

The QDDCO4 provides increased performance and flexibility compared to the 400ZR module and also comes in a QSFP-DD form factor. The module supports

JTOPTICS_400GBASE-LR4_QSFP

JTOPTICS 400G LR4 QSFP-DD transceiver is designed for 400-Gbps optical links up to 10 km over single-mode fiber. It converts eight 50-Gbps PAM4 electrical

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800G OSFP/QSFP-DD Optical Transceivers for

High-density 800G OSFP and QSFP-DD transceivers support InfiniBand and RoCE, enabling 100m to 2km transmission via MMF and SMF.

QSFP-DD Series Fibre Optic Cable Assemblies – Mouser India

QSFP-DD Series Fibre Optic Cable Assemblies are available at Mouser Electronics. Mouser offers inventory, pricing, & datasheets for QSFP-DD Series Fibre Optic Cable Assemblies.

QSFP-DD Product Family » Acacia

Powered by Greylock and Delphi DSP ASICs, and silicon photonic integrated circuits (PICs) for an optimized co-packaged design with 3D Siliconization.

QSFP-DD Packaged Optical Module

The QSFP-DD Packaged Optical Module market size, estimations, and forecasts are provided in terms of sales volume (K Units) and sales revenue ($ millions), considering 2024 as the base year, with

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Optical Modules Market Research Report 2034

The QSFP (Quad Small Form-factor Pluggable) form factor family, encompassing QSFP+, QSFP28, QSFP56, and QSFP-DD variants, was the dominant form factor in the optical modules market in

QSFP-DD Optical Transceivers – MapYourTech

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

Cisco DP04QSDD-HE0 Compatible 100-400GbE QSFP-DD DWDM

Hitech Lab Solutions - Offering Cisco DP04QSDD-HE0 Compatible 100-400GbE QSFP-DD DWDM Duplex LC SMF Optical Transceiver Module at ₹ 200000/piece in Chennai, Tamil Nadu.

Differences Between QSFP-DD and QSFP+ / QSFP28 / QSFP56 /

QSFP-DD, QSFP+, QSFP28, QSFP56, and QSFP112 belong to the QSFP form-factor family, but what are the differences among them? The differences are explained in the following

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

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Explore the dynamic QSFP-DD Packaged Optical Module market, projected to hit $15.44 billion by 2025 with an 11.1% CAGR. Discover key drivers, trends in data centers, cloud computing,

Global QSFP-DD Packaged Optical Module Market 2024 by

Global QSFP-DD Packaged Optical Module Market 2024 by Manufacturers, Regions, Type and Application, Forecast to 2030

QSFP-DD Packaged Optical Module Market by Data Rate,

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QSFP-DD Packaged Optical Module Market by Data Rate, Transmission Distance, Connector Type, Application, End User - Global Forecast 2026-2032 - The QSFP-DD Packaged

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