

Gulf Region OTN Router QSFP-DD



AI Overview

QSFP-DD modules enable 400G Ethernet and coherent optical transport in OTN routers, supporting high-density, long-reach, and cost-efficient deployments. Overview of QSFP-DD Modules for OTN QSFP-DD (Quad Small Form-Factor Pluggable Double Density) modules are high-bandwidth optical transceivers designed for 400G Ethernet and coherent optical transport networks. They are backward compatible with lower-speed QSFP modules, allowing flexible deployment in data centers, service provider networks, and metro/regional OTN routers. Key Features Data Rates: 400G per module, with breakout options to 4x100G or 8x50G depending on the variant. Form Factor: Compact QSFP-DD design, supporting high port density on routers and switches. Optical Interfaces: Available in multimode (OM3/OM4/OM5) and single-mode fiber, with MPO or LC connectors depending on the module type. Coherent Variants: Digital coherent optics (DCO) QSFP-DD modules support long-haul and metro OTN applications, including OpenZR+ and 400ZR standards, with tunable C-band operation and advanced modulation schemes (QPSK, 8-QAM, 16-QAM) for distances up to 120 km or more. FEC and Coding: Forward Error Correction (FEC) and Net Coding Gain (NCG) are implemented to ensure reliable transmission over long distances. Applications in Gulf Region OTN Routers Metro and Regional Networks: QSFP-DD DCO modules allow direct connection to ROADMs without intermediate transponders, reducing CAPEX and OPEX. Data Center Interconnects: Modules like Cisco QDD-400G-VR4 or QDD-400G-SR8-S support short-reach (50-100 m) and medium-reach (up to 50 km) links, ideal for high-capacity interconnects between data centers. Long-Haul OTN: OpenZR+ QSFP-DD modules provide 400G coherent transmission with tunable wavelengths, suitable for Gulf region backbone networks requiring high reliability and low latency. Operational Benefits High Port Density: QSFP-DD modules double the density of standard QSFP p...

Article Content

Cisco QSFP-DD Pluggable Open Line System (QSFP-DD OLS)

The Cisco® QSFP-DD Open Line System (QSFP-DD OLS) is a pluggable optical amplifier module that, together with the channel breakout options (described later), provides a simple yet powerful open line

DATASHEET 6.8 QSFP-DD 100GE DP-QPSK 450KM ETH/OTN

100Gbps Ethernet, OTN and OpenROADM applications. The transceiver is intended for use in interconnect applications between data centers with switches, routers etc. having QSFP-DD supp.

Cisco QSFP-DD Pluggable Open Line System (QSFP-DD OLS)

The QSFP-DD OLS is a pluggable open line system solution that can be directly hosted on a Cisco router.

Understanding QSFP-DD 400G Optical Transceivers -

QSFP-DD stands for Quad Small Form-factor Pluggable Double Density. It's an upgraded version of the standard QSFP form factor, designed to

QSFP-DD Optical Transceivers for High-Speed Connections

QSFP-DD ports incorporate a riding heatsink that can be sized independently of the optical module, added on top of the module, or placed between modules. This flexibility enables switch and routing

Cisco QSFP-DD800 Transceiver Modules Data Sheet

For more information and references on QSFP-DD cable guides, please click on the following link: [Cisco Transceiver Modules - Brochures - Cisco](#)

Cisco 400G QSFP-DD Ultra Long Haul Coherent Optics

Prominent feature The 400G QSFP-DD ULH module delivers high performance and low power in a QSFP-DD form factor, making it an optimal

400G QSFP-DD ZR Coherent Optical Module

The GIGALIGHT 400G QSFP-DD ZR coherent optical module supports 400GE and OTN links reach up to 120km. It operates on full C-band DWDM wavelengths

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

Cisco 400G QSFP-DD High-Power (Bright) Optical Module

The Cisco 400G QSFP-DD High-Power (Bright) Optical module multirate Ethernet/OTN variant shares the same HW platform (and so also the high Tx power) of the Ethernet variant but also supports OTN

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 200G QSFP56 Cables and Transceiver Modules

The Cisco® family of QSFP modules provide solutions for AI/ML data center applications, Network Interface Cards (NICs) on servers, and for

Comprehensive Guide to QSFP - MapYourTech

Service providers are deploying coherent QSFP-DD modules directly in routers, eliminating separate transponder equipment. This architecture

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

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

These digital coherent optics modules enable 800G traffic over amplified DWDM links up to 120 km for 800ZR and over 1000 km for 800G ZR+.

400G QSFP-DD ZR+ Coherent Optical Transceiver

FIBERSTAMP 400G QSFP-DD ZR+ Coherent Optical Module for Data Center 400G Ethernet and OTN OTU4 Metro Optical Transport Network links over single

Cisco Routed Optical Networking | Design | XRdocs

100G QSFP28 tuneable DWDM optics The DP01QS28-E20 and DP01QS28-E25 transceivers enhances the Routed Optical Networking solution

Cisco 100GBASE QSFP-DD 100G ZR Module Data Sheet

The Cisco 100G Quad Small Form-Factor Pluggable Double-Density (QSFP-DD) 100G ZR provides customers with a 100 Gigabit Ethernet ZR

Gulf Region OLT Optical Line Terminal QSFP28

The QSFP-DD OLS is a pluggable open line system solution that can be directly hosted on a Cisco router. The Cisco ® QSFP-DD Open Line System (QSFP-DD OLS) is a pluggable optical amplifier

WaveLogic 5 Nano 100G-400G Universal QSFP-DD

The WaveLogic™ 5 Nano (WL5n) Universal QSFP-DD is a coherent pluggable transceiver that supports up to +4dBm Tx launch power.

Three rare value-adding features in QSFP-DD transceivers

OTN-capable QSFP-DD optics are also compliant with the Open ROADM standard, enabling seamless interoperability in ROADM-based networks. This ensures

Enhancing Gulf Fiber Speeds: How ISPs Support Router

Recent improvements in Gulf countries' fiber coverage and adoption have resulted in faster and more affordable internet services.

Cisco Routed Optical Networking | Design | XRdocs

The 1Tbps N540-24QL16DD-SYS high density router brings QSFP-DD and Routed Optical Networking ZR/OpenZR+ optics to a flexible access and

Cisco 400G QSFP-DD Data Sheet

The Cisco QSFP-DD OLS can be directly configured and managed by the IOS® XR SW on board the Cisco router itself. Multiple Cisco routing platforms are in the

800G Module Packaging: QSFP-DD or OSFP, Which

Discover the differences between 800G QSFP-DD and OSFP modules. Learn which packaging offers the best performance, heat dissipation,

Contact Us

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