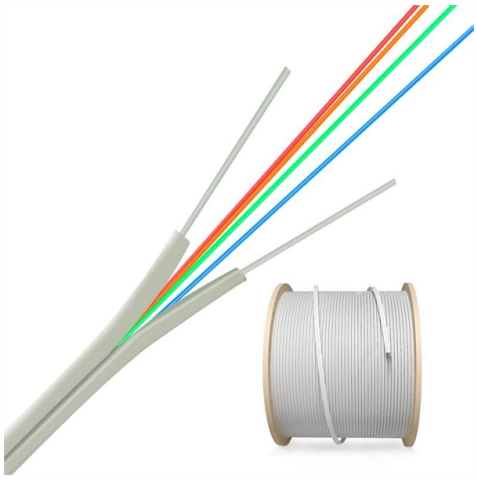
Singapore Franchise Enterprise-Grade Optical Router QSFP-DD



Overview

Singapore Franchise Enterprise-Grade Optical Router QSFP-DDThe product supports 100Gbps transmission speeds in an industry-standard, pluggable QSFP-DD form.

Key Takeaways

QSFP-DD optical routers in Singapore support 400G and 800G high-density, low-latency networking for enterprise and data center applications. Overview of QSFP-DD TechnologyQSFP-DD (Quad Small Form-Factor Pluggable Double-Density) is a high-speed, hot-pluggable optical transceiver standard designed for 400G and 800G networks, doubling the electrical interfaces of QSFP28 while maintaining the same port density. It uses PAM4 modulation to achieve higher bandwidth per lane, supporting applications in AI clusters, HPC, and web-scale data centers.

QSFP-DD modules are backward compatible with QSFP+, QSFP28, and QSFP56, allowing flexible network upgrades.

Key Features

High Bandwidth: Supports 400G and 800G data rates, with breakout options like 4x100G or 8x100G for flexible deployment. Form Factor: Double-density design enables more ports per switch or router without increasing physical space. Thermal Management: QSFP-DD ports incorporate heatsinks and airflow optimization to maintain stable operation under high-density traffic.



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Versatile Connectivity: Compatible with copper, multimode fiber, and single-mode fiber, supporting short-range and long-range links. Energy Efficiency: Offers low power consumption per Gbps, supporting green data center initiatives.

Use Cases

Data Centers: High-density 400G/800G interconnects for server-to-ToR switch connections.

AI and HP

C Clusters: Low-latency, high-bandwidth links for machine learning workloads and parallel computing. Service Providers: Aggregation of 100G traffic and scalable network expansion. Vendors and Availability in SingaporeFS TECH PTE.

LTD.: Offers a portfolio of 400G QSFP-DD modules with local warehouse support and 30-day returns, ideal for enterprise deployments.

QSFPTE

K: Provides high-density, reliable optical transceivers and network solutions for AI clusters, HPC, and campus networks. Cisco: Offers QSFP-DD400 and QSFP-DD800 modules optimized for copper, multimode, and single-mode fiber, with comprehensive thermal and system design support.

Giga

Tech Products: Supplies QSFP-DD modules for 400G, 800G, and breakout applications, including SR8, DR4, and SR BD variants for multimode and single-mode fiber.

Deployment Considerations

Port Matching: Ensure the transceiver speed and form factor match the router or switch port to avoid link failures. Thermal Planning: High-density QSFP-DD deployments require proper airflow and heatsink management to prevent thermal throttling. Breakout Options: Use breakout modules for flexible aggregation of lower-speed links (e.g., 4x100G from a 400G port) to optimize network design.

Vendor Compliance: Choose MSA-compliant, lab-verified modules to ensure interoperability with major brands like Huawei, Ruijie, and Cisco. QSFP-DD optical routers in Singapore provide enterprise-grade performance, scalability, and energy efficiency, making them suitable for modern high-speed networking environments, from AI data centers to service provider networks.

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Article Content

Singapore Franchise Enterprise-Grade Optical Router QSFP-DD

The product supports 100Gbps transmission speeds in an industry-standard, pluggable QSFP-DD form factor with 7nm DSP and can be widely used in metro carrier, access and Cloud/DCI applications.

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.

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,

QSFP-DD Optical Transceivers for High-Speed Connections

Systems designed with QSFP-DD ports are backwards compatible to support existing QSFP+, QSFP28, and QSFP56 modules. This provides flexibility for network designs and migrations to next-generation

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

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)

400GbE QSFP-DD Transceiver Modules | Optical Transceivers

FS offers a growing portfolio of 400G QSFP-DD module solutions featuring high-performance, high-bandwidth, and cost-effectiveness. The 400G transceivers are ideal for 400GbE and data centers.

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

This article will introduce the next generation optical module in detail, QSFP-DD, also known as quad small factor pluggable, and this article will also introduce the difference between

200G QSFP-DD/QSFP56 | Transceiver Modules

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FS provides an expanding portfolio of 200G QSFP-DD/QSFP56 solutions featuring high-performance, high-bandwidth, and backward compatibility. The 200G transceiver modules are ideal choice for AI

Understanding QSFP-DD 400G Optical Transceivers – The ...

Data centers, cloud services, and telecom providers are constantly looking for ways to transmit more data, faster, and more efficiently. That''s where QSFP-DD 400G optical transceivers

400GE QSFP-DD Optical Modules

This document provides an overall description of the CE16800 series switches hardware that V300R020C00 and later versions, helping you obtain detailed information about each chassis, power

QSFP-DD Optical Transceivers – MapYourTech

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

100G QSFP28 Transceiver Modules | Optical Transceivers

FS offers a growing portfolio of 100G QSFP28 modules. The 100G QSFP28 module solution provides high-performance 100GbE connectivity for data centres, enterprise core & distribution layers,

SFP vs SFP+ vs QSFP28 vs QSFP-DD: 2026 Optical Buyer''s Guide

SFP vs SFP+ vs QSFP28 vs QSFP-DD: Master optical transceiver selection for 1G to 800G AI networks with our lab-verified guide.

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 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 Reference Table for SFP & QSFP Optical Transceiver ...

Executive Summary: Navigating the 2025 Optical Landscape In 2025, the optical transceiver market has shifted decisively. While 100G remains the workhorse for enterprise edges,

The Ultimate Guide to Cisco QSFP Optical Transceiver Modules

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The QSFP standard was followed by Cisco''s QSFP optical transceiver modules, which were created for fast data transmission. The QSFP+ can work with 100 Gbps and more because it

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

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