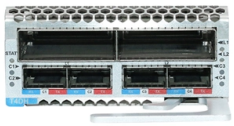
QSFP-DD Optical Module EML Franchise



AI Overview

QSFP-DD EML optical modules are high-speed, hot-pluggable transceivers designed for 400G–800G data center and service provider networks, with a bifurcated market between Western and Chinese suppliers.Technical OverviewQSFP-DD (Quad Small Form-factor Pluggable Double Density) modules are designed for high-density switch and router ports, supporting data rates up to 800Gbps over multimode or singlemode fiber . EML (Electro-absorption Modulated Laser) technology enables high-speed optical transmission with low power consumption and extended reach. For example, the GIGALIGHT 400G QSFP-DD DR4 EML supports 500m transmission at 1310nm, converting 8 electrical channels at 53.125 Gbps to 4 optical lanes at 106.25 Gbps . These modules are compliant with QSFP-DD MSA, IEEE 802.3bs 400GBASE-DR4, and 400GAUI-8 standards, ensuring interoperability across vendors . Leading QSFP-DD EML modules leverage advanced DSP ASICs and silicon photonics for optimized performance, supporting multiple line rates and interoperability modes such as OpenZR+ and OpenROADM MSA . Applications include data center interconnects (DCI), metro/regional networks, long-haul, and AI/ML cluster communications .Market and Franchise InsightsThe 800G QSFP-DD market is rapidly expanding, projected to grow from $220 million in 2025 to $2.8 billion by 2032, driven by hyperscale data centers, AI clusters, and cloud providers . The market is bifurcated:Western suppliers (e.g., Cisco, II-VI, Acacia) dominate the US/EU hyperscale and AI cluster segments, offering high-performance DSP and EML modules .Chinese domestic suppliers (e.g., GIGALIGHT, Canal, MaxLinear alternatives) provide cost-effective modules for local cloud providers, though typically 1–2 years behind in power and reach performance . Regional market share in 2025: North America 45%, Asia-Pacific 40%, Europe 10%, with Asia-Pacific growing fastest due to domestic supply chains and cloud expansion .Franchise and DistributionQSFP-DD EML modules are available through authorized...

Article Content

800G QSFP-DD-Product Solutions-INNOLIGHT

In addition to the traditional EML design, it also adopts silicon-based solution to meet short-distance transmission needs. The products of this series comply with IEE802.3ck and QSFP-DD 800 MSA

QSFP-DD vs OSFP vs QSFP56 vs QSFP112 | FiberMall

QSFP-DD is the mainstream module of 400G transceivers which is different than other form factors like OSFP and QSFP56.

800Gb/s QSFP-DD Transceivers

Amphenol''s 800G QSFP-DD optical modules include 2xFR4(plus), 2xLR4, AOC, and AOC break-out series, which adopt LC or MPO optical ports and are compatible with IEEE802.3, OIF-CMIS, and

QSFP-DD Hardware

Abstract: This specification defines: the electrical and optical connectors, electrical signals and power supplies, mechanical and thermal requirements of the pluggable QSFP Double Density (QSFP-DD)

Prelim Data Sheet

The electrical interface uses a 76 contact QSFP-DD edge type connector. The optical interface uses a conventional 4+4 MPO SMF connector. This module incorporates FIT Optical Interconnect

Overview of 400G QSFP-DD Mid-Range Optical Modules

QSFP-DD LR4 Optical Module The "LR" in QSFP-DD LR4 optical module denotes long-distance transmission of 10km. It utilizes four EML lasers

Worldwide 400G QSFP DD Optical Module Market 2026

In 2025, EML Based Modules led the worldwide 400G QSFP DD optical module market, bringing in USD 2.16 Billion and accounting for an estimated 54.7% of global share.

800G QSFP-DD800 DR8 Transceiver

The 800G QSFP-DD800 DR8 Transceiver is designed to transmit and receive serial optical data links up to 106.25 Gbps data rate (per channel) by PAM4 modulation

800G QSFP-DD Cable and Transceiver Modules Data Sheet

The 800GBASE-DR8 OSFP Optical Transceiver Module is designed for 800GBASE Ethernet throughput up to 500m over singlemode fiber (SMF) with MPO-16 connectors. This

400G QSFP-DD LR8 EML LWDM8 10km Optical Transceiver

GIGALIGHT 400G QSFP-DD LR8 is a hot-pluggable optical transceiver module designed for 400GBASE-LR8 Ethernet links in data centers and 5G backhaul. It adopts 50G PAM4 and LWDM8

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

400G ZR, DR4, FR4, LR4, SR8 QSFP-DD Optical

FiberMall 400G DR4 QSFP-DD Optical Transceiver Module The 400G QSFP-DD DR4 fiber module achieves the transmission over SMF (single

400GBASE-ER4 Lite QSFP-DD 30km | LAN WDM

EDGEOPTIC 400GBASE-ER4 Lite QSFP-DD: 30km over SMF, 4 narrow LAN WDM lanes, 12.5dB budget, 425 Gbps with built-in FEC. LC duplex for metro networks.

800G QSFP-DD CWDM8 EML 2km Transceiver Module

GIGALIGHT 800G QSFP-DD CWDM8 is a hot-pluggable optical transceiver module designed for 800G Ethernet links in data centers. It adopts 100G PAM4 and EML

CHT-QSFPDD-400G-FR4

This product is a 400Gb/s Quad Small Form Factor Pluggable-double density (QSFP-DD) optical module designed for 2km optical communication applications. The module converts 8 channels of

800G DR8 QSFP-DD Optical Transceiver

Product Detail The FTCE4516E1PxM DR8 QSFPDD-800 transceiver modules are engineered for application in 800 Gigabit Ethernet connections over a maximum

800G QSFP-DD-Product Solutions-INNOLIGHT

800G QSFP-DD optical module includes two architecture solutions, 4x100Gx2 and 8X100G. In addition to the traditional EML design, it also adopts silicon-based solution to meet short-distance

What is QSFP-DD 800G DR8 Transceivers?

Conclusion 800G optical modules have huge market potential. QSFP-DD 800G DR8 transceivers play an important role in increasing data

800G DR8 QSFP-DD Optical Transceiver

FTCE4516E1PxM DR8 QSFPDD-800 transceiver modules are compliant with the QSFPDD MSA, IEEE 802.3bs and IEEE P802.3ck. Digital diagnostic functions

Cisco Compatible 800GBASE-2FR4 QSFP-DD PAM4

Cisco Compatible 2x 400G FR4 QSFP-DD 800G transceiver module supports a max data rate of 850Gbps up to 2km over single-mode fiber (SMF) with dual duplex

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

Cisco QSFP-DD Pluggable Open Line System (QDD

Learn more about the Cisco QSFP-DD Open Line System (QDD OLS), a pluggable optical amplifier module that provides a simple yet powerful

800G QSFP-DD FR8 Duplex LC EML CWDM 2km

800G QSFP-DD FR8 Duplex LC EML CWDM 2km Transceiver Module The FIBERSTAMP 800G QSFPDD FR8 is a high-speed transceiver module for 2km

400G QSFP-DD FR4 EML CWDM4 2km Optical Transceiver

GIGALIGHT 400G QSFP-DD FR4 optical transceiver module for medium-distance interconnect in data centers is compliant with IEEE 802.3cu 400GBASE-FR4 Ethernet transport protocol. It features a

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

800G-QSFP112-DD-AI and Data Center Networking

800G-2xDR4 QSFP112-DD based on EML. 8 channels of 100G-PAM4 electrical and optical parallel lanes,dual MPO-12/APC optical connectors, 500m maximum

QSFP-DD Optical Transceivers for High-Speed

QSFP-DD ports incorporate a riding heatsink that can be sized independently of the optical module, added on top of the module, or placed

Contact Us

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