

Certified Optical Modulator QSFP-DD



Article Overview

QSFP-DD (Quad Small Form-Factor Pluggable Double Density) modules are high-speed, standards-compliant optical transceivers supporting 400G and beyond, designed for dense, high-performance networking applications.

Overview

QSFP-DD is an evolution of the QSFP family, featuring double the electrical lanes (8 lanes) compared to traditional QSFP modules, enabling aggregate data rates of 400G, 800G, and up to 1600G with PAM4 signaling . The form factor maintains backward mechanical compatibility with QSFP28 and QSFP56 cages, allowing seamless upgrades in high-density switch and server environments . Certified QSFP-DD modules comply with QSFP-DD MSA standards, ensuring interoperability across vendors and reliable deployment in cloud, AI/ML, and carrier-grade infrastructures .

Key Features

- High Bandwidth: Supports 400G Ethernet and beyond, with advanced variants reaching 800G and 1600G .
- Form Factor: Compact, double-density design allows high port density without increasing power or space requirements .
- Thermal Optimization: Designed for efficient heat dissipation, supporting high-power modules in dense data center environments .
- Low Latency: Linear Pluggable Optical (LPO) QSFP-DD modules provide low-latency, high-bandwidth PCIe Gen 5.0 optical links for server disaggregation and rack-to-rack interconnects

Article Content

QSFP-DD Optical Transceivers Unlocking Faster Connections

QSFP-DD Optical Transceivers deliver up to 800Gbps speeds, offering high bandwidth, energy efficiency, and

OptiModule — High-Performance Optical Transceivers 10G to 800G ...

OptiModule by eSeeSky Inc. — Enterprise optical transceivers from 10G to 800G. SFP+, QSFP28, QSFP-DD, OSFP. MSA

Understanding the QSFP-DD Standard: The Foundation of 400G Optical ...

The QSFP-DD standard represents the pinnacle of optical interconnect evolution — enabling unprecedented

Understanding the QSFP-DD Standard: The Foundation of 400G

The QSFP-DD was conceived by the QSFP-DD MSA group, including Cisco, Intel, Broadcom, and Mellanox (now

40G QSFP+ Transceiver Modules | Optical Transceivers

FS 40G QSFP+ optical transceiver module solutions offer a full range of QSFP+ modules from 150m to 80km reach, and used for

Cisco 400G Digital Coherent Optics QSFP-DD Optical Modules Data

Cisco now offers a range of all new 400G Digital Coherent QSFP-DD transceivers. Cisco already offers a range of

400G QSFP-DD Cable and Transceiver Modules Data Sheet

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

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

QSFP-DD Optical Transceivers - MapYourTech

What is QSFP-DD? QSFP-DD is an advanced hot-pluggable optical transceiver form factor that doubles the bandwidth

DESIN SLUINS

How to Power Your QSFP-DD Optical Transceiver Growth in the optical transceiver market is driven by demand for higher Ethernet

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

The QSFP-DD optical module can increase the data rate of each transmission channel up to 25Gb/s through NRZ

QSFP-DD Module Testing

QSFP-DD optical modules are the mainstream form factor for 400G client interfaces. This white paper shares the key factors in

QSFP-DD Hardware

August 7, 2020 Abstract: This specification defines: the electrical and optical connectors, electrical signals and power supplies,

4x100G-LR QSFP-DD Optical Transceiver Module

These transceivers are compliant with the QSFP-DD MSA, and portions of IEEE P802.3bs. Digital diagnostic functions are available

Exploring the Benefits and Applications of 800G QSFP-DD Optical

High-Order Modulation and Cellular Technology The 800G QSFP-DD optical module supports a 16QAM modulation

QSFP-DD Optical Transceivers for High-Speed Connections

Cisco helped define the QSFP-DD form factor Multisource Agreement (MSA) to meet the requirements of next-generation switching

Cisco 400G Digital Coherent Optics QSFP-DD Optical Modules

The QSFP-DD ZR Plus variant complies with OpenZR+ MSA, allowing to cope for distances going from regional to long haul with

QSFP-DDVSQSFP+/QSFP28/QSFP56/OSFP:What Are the Differences?

The QSFP-DD, heralded as the most compact form factor for 400G transceivers, is gaining traction among fiber optic

Cisco 400G Digital Coherent Optics QSFP-DD Optical Modules

These small, modular optical interface transceivers offer a convenient and cost-effective solution for an array of applications in the

The Ultimate Guide to Cisco QSFP Optical Transceiver Modules

Efficient and consistent data transmission is significant in the rapidly changing technological environment. Without a

400G QSFP-DD Cable and Transceiver Modules Data Sheet

It provide 400Gb/s of optical bandwidth over a single optical wavelength using coherent, Dual Polarization-16QAM modulation. This

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

Featuring high bandwidth, low power consumption, and pluggable design, the QSFP-DD optical transceivers have

QSFP-DD DCO

It uses advanced modulation formats like DP-QPSK and DP-16QAM, and supports flex-grid channel spacing DWDM infrastructure.

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.watermanfinance.co.za>

Email: sales@watermanfinance.co.za

Phone: +49-176-8294713

Address: Neue Mainzer Str. 66-68, 60311 Frankfurt am Main, Germany

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