

Dual-Density Optical Module



Overview

QSFP-DD (Quad Small Form-Factor Pluggable Double Density) is a double-density compact pluggable optical module defined by the QSFP-DD MSA (Multi-Source Agreement) consortium. This allows for higher bandwidth and data throughput within space. Dual-density SFP56-DD optical modules are becoming an important option for next-generation high-performance switching and interconnect architectures. GIGALIGHT introduces the dual-density 100G SFP56-DD SR2 optical module based on 2×50G PAM4 modulation technology, delivering double-density. The Cisco ® family of QSFP-DD modules provide the industry's highest bandwidth density while leveraging the backward compatibility to lower-speed QSFP pluggable modules and cables. Cisco has expanded the range of 400G digital coherent QSFP-DD transceivers with the 400G QSFP-DD. Discover the key features, advantages, and types of 100G SFP-DD transceivers, including their dual-channel design, PAM4 modulation, and high-density performance. SFP-DD differences and discover their role in networks. Currently, the most common 100G transceiver form factor is.

Article Content

Arista Announces XPO High Density Liquid Cooled

“The XPO module is a breakthrough for AI data centers delivering 4X the front panel density compared to

OFC 2026 – Scaling Up Optical Network Density

At OFC 2026, Jimmy Yu highlights a shift toward higher-density optical architectures and evolving system designs. Learn more:

What Is QSFP-DD? Specs, Architecture, and 400G Use Cases

What Is QSFP-DD? QSFP-DD enables high-speed Ethernet with double density, backward compatibility, and up to

A dual xgs-pon 10 gigabit small form factor pluggable plus optical module

The present invention relates to a dual XGS-PON Small Form-Factor Pluggable Plus optical module (10), projected to

MPM38222 – A Simple, Compact Power Solution for Optical Modules

Abstract High efficiency, excellent thermal performances, small footprint, and low emissions become challenges for power solutions

Optimizing Optical Module Performance

Learn how to boost optical module speed without infrastructure overhaul. Explore WDM (CWDM/LWDM/SWDM),

Cisco Transceiver Modules

Cisco Transceiver Modules - Learn product details such as features and benefits, as well as hardware and software specifications.

800G Optical Modules Explained: Standards, Types

Discover everything about 800G optical modules—standards, packaging, types &

800G Client Optics in the Data Center

The deployment of 400GE client optics was accelerated by the demand from hyperscale web players and service providers, along

QSFP-DD Optical Module Wiki

QSFP-DD (Quad Small Form Factor Pluggable-Double Density) is a new modular connector system that utilizes a

AuthenX to Unveil Detachable 2D FAU Technology at COMPUTEX

Attendees are invited to explore the future of low-power, high-density optical connectivity and learn how AuthenX is

What is 100G SFP-DD Optical Transceiver?

It is a dual-transmit and dual-receive optical module that supports two electrical lanes and is compatible with the SFP+

OSFP Transceivers: High-Density Optical Connectivity from 400G to

As hyperscale data centers shift toward AI-optimized fabrics and ultra-high-bandwidth switching platforms, the OSFP

Co Packaged Optics (CPO) – Scaling with Light for the Next Wave of ...

Co-Packaged Optics (CPO) has long promised to transform datacenter connectivity, but it has taken a long time for the

Optical Components and Modules

Passive Components Optical passive components from individual isolators, couplers and PM components, to multi-function

What Are The Differences Between 25G SFP28 SR and 10/25G Dual

The 10/25G dual-rate optical modules are switchable between 10Gbps and 25Gbps, giving them the flexibility to be

Comprehensive Guide to 400G/800G QSFP-DD Optical

The 400G/800G QSFP-DD optical modules leverage a double-density design to deliver

Cisco 400G QSFP-DD Cable and Transceiver Modules

The Cisco® family of QSFP-DD modules provide the industry's highest bandwidth density

Arista Optics Modules and Cables

Overview Arista's Optical Modules and Cable portfolio offer a wide variety of high-density and low-power 800G (dual 400G), 400G,

2x100G QSFP-DD Modules | Dual 100G Optical

High-density 2x100G QSFP-DD transceivers for 200G breakout applications. SR4, CWDM4, and LR4

Cisco 25GBASE SFP28 Modules Data Sheet

The Cisco 25GBASE SFP28 (Small Form-Factor Pluggable) portfolio offers customers a wide variety of high-density

SFP-DD: The Future of Optical Transceiver Technology

Learn about SFP-DD module and connector system for high-speed optical transceivers,

XPO: Redefining Pluggable Optics for AI Networking

By combining a dual-paddle mechanical architecture, integrated liquid-cooling cold plate, clean linear electrical channel, and high

A Simple Compact Power Solution for Optical Modules

High-speed, high-density optical modules are widely adopted as interfaces that connect

Contact Us

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