

400G Broadband Optical Module



Overview

Cisco 400G QSFP-DD High-Power (Bright) Optical module's small size and low power make it an optimal choice for a wide range of DCI/Cloud, metro access/aggregation, wireless backhaul, and campus interconnect applications. Building upon its first-to-market 400G EML and PD debuted at OFC 2025, Broadcom is launching the Taurus BCM83640, the industry's first 400G/lane optical DSP optimized for 1.6T transceiver applications, at OFC 2026. The Taurus platform of DSPs will enable the next-generation 3.2PAM4 allows each symbol to represent two bits of information, effectively doubling the data rate compared to traditional NRZ (Non-Return-to-Zero) modulation 1. Multi-Mode Fiber (MMF):. Cisco is now expanding the range of 400G Digital Coherent QSFP-DD transceivers, introducing High Tx Power variants (+1dBm of Tx Power). Thanks to the miniaturization of the technology with a 7-nm manufacturing procedure and innovation in silicon photonic technology, it is now possible to also. From cloud data centers to metro and long-haul networks, 400G—particularly coherent variants like ZR and ZR+—is helping eliminate bandwidth bottlenecks and support the growing demands of AI, big data, and next-generation digital services. 400G. n the router-pluggable QSFP-DD format.



Article Content

Sep 10, 2025

What is the 400G Optical Module?

Nowadays, the progress of 400G optical module development and mass production is relatively satisfactory. In the current market background, the

Oct 30, 2025

400G ZR/ZR+ pluggable coherent modules

400G modules and applications in the router-pluggable QSFP-DD format. Developed by the Optical Internetworking Forum (OIF) and released in March 2020, 400ZR is profile-optimized for high-density

Mar 09, 2026

Plentisoft: AscentOptics Achieves Volume Delivery of 400G and 800G ...

Shenzhen, China--(Newsfile Corp. - January 26, 2026) - AscentOptics, a leading provider of optical transceiver solutions, today announced that its 400G and 800G AI optical modules have

Oct 21, 2025

Unlocking the Power of 400G Optical Networks: A Deep Dive into

The optical modules accommodate the 400G solutions and enable the transfer of large amounts of data over long distances without significant loss of signal strength, enabling the utilization

Oct 26, 2025

Marvell and Hisense Broadband Announce Production Availability of 400G ...

Marvell and Hisense Broadband Announce Production Availability of 400G OpenZR+ Pluggable Optical Modules for Carrier and Data Center Networks Expanding Ecosystem of Coherent

Oct 27, 2025

400G Optical Modules Explained: SR4 Vs. DR4 Vs. FR4

Key differences between SR4, DR4, FR4, and LR4 400G optical modules. Expert advice from Asterfusion engineers to optimize your data center

May 30, 2026

Optical Transceiver Market Size, Share, Industry Report

Optical Transceiver Market Size The global optical transceiver market was valued at USD 13.4 billion in 2025. The market is expected to grow from USD 15.4 billion in

Jul 02, 2025

Introduction to 400G Optical Modules · KAD

A clear, engineer-friendly overview of 400G optical modules, including standards, packaging formats, functions, and market outlook for next-generation

Jul 22, 2025

Optical module design resources | TI

Integrated circuits and reference designs help you create a smaller and faster optical module design used in high-bandwidth data communication applications. Whether you are creating a 100-Gbps or

Oct 26, 2025

Know Your 400G Transceiver | Juniper Networks

400 Gigabit Ethernet (400G) transceivers are optical modules capable of handling data rates of 400 Gbps. With a transmission rate of up to 400 Gbps, 400G transceivers offer double the capacity of

Nov 12, 2025

Understanding the 400G ZR: A Revolutionary Coherent

Discover the 400G ZR transceiver module, a cutting-edge coherent optical solution designed for 400Gb Ethernet transport over long DCI links with

Mar 08, 2026

Understanding the Latest in 400g Transceiver

Explore our complete guide to 400G transceiver technology, including QSFP-DD modules and cables designed for data centers. Discover high-density,

Sep 13, 2025

400G Coherent Optical Devices: Architecture, Applications & Trends

400G Coherent Optics is a complex system that integrates key photonic and electronic components to enable high-speed data transmission. These components are often housed within a

Mar 08, 2026

Optical Component Revenue Reaches Nearly \$25B in

Signal AI expects total datacom optical component revenue to grow at a 20%+ CAGR from 2024 through 2029, reaching nearly \$29 billion by the end of

Oct 04, 2025

Overview of 400G Optical Modules

With the advent of 400G, optical communication is entering a new era, moving from single-carrier modulation in low-end modules to polarization

Jun 25, 2026

Broadcom's 400G/lane Optical Solutions Pave the Path Toward 200T ...

Building upon its first-to-market 400G EML and PD debuted at OFC 2025, Broadcom is launching the Taurus BCM83640, the industry's first 400G/lane optical DSP optimized for 1.6T transceiver

Aug 03, 2025

AI drives ramp-up in datacom optics - report

Total shipments of leading-edge datacom optical modules are projected to tally over US\$9 billion for 2024, according to the latest Optical

Sep 29, 2025

400G Optical Transceiver Market Size, Share and

A 400G optical transceiver is a high-speed data transmission component designed to handle 400 gigabits per second of data, typically used in optical communication

Jun 25, 2026

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

Cisco 400G QSFP-DD High-Power (Bright) Optical module's small size and low power make it an optimal choice for a wide range of DCI/Cloud, metro access/aggregation, wireless backhaul, and

May 23, 2026

Key Differences Of 100G, 400G, And 800G Explained

optical modules with different rates have been launched one after another, among which 100G, 400G and 800G optical modules have become the

Oct 01, 2025

The Evolution of Optical Modules: 400G → 800G → 1.6T - A Strategic ...

Discover the evolution from 400G to 800G and 1.6T optical modules. Learn key technologies, CPO vs pluggable, and upgrade strategies for future-ready data centers.

Feb 03, 2026

800GbE Optics Shipments to Grow 60% in 2025

The datacom optical component market will grow 60%+ to reach over \$16B in revenue during 2025, based primarily on continued growth in 400G and

Jan 17, 2026

Overview of 400G Optical Modules

The development and mass production of 400G modules are advancing satisfactorily. In today's market, hyperscale data centers have an

May 25, 2026

400G Optical Modules Explained: SR4 Vs. DR4 Vs. FR4 Vs. LR4

Today, we have provided a definitive overview of the transmission standards for 400G optical modules. We are confident that this article will assist you in selecting the optimal standard.

Mar 17, 2026

400G vs 800G Optical Modules: Differences, Use Cases, and

Compare optical modules for data centers and AI clusters. Learn key differences in standards, power, cabling, and use cases.

Jan 28, 2026

How 400G Optical Modules Are Shaping Next-Gen

Discover key factors driving the rapid adoption of 400G optical transceivers, including AI, 5G, coherent optics, and market trends shaping next

Aug 18, 2025

Making long-haul large-capacity 400G optical network a reality

In this Review, we describe the key technologies necessary for long-haul large-capacity 400G optical transmission.

Apr 06, 2026

Understanding the New 400G QSFP-DD Pluggable

Discover the Acacia 400G QSFP-DD coherent optical module, a high-density solution designed for advanced optical interconnect links, including the

Mar 09, 2026

400G Optical Transceivers | OEM Compatibility

Our 400G optical transceivers are 100% compatible with leading OEM brands such as Cisco, Juniper, Arista, Huawei, Nokia, Dell, and more. This

Contact Us

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