

Delivery timeframe for low-power optical modules 400G



Article Overview

Low-power 400G optical modules are currently in broad production, with typical delivery lead times ranging from a few weeks to several months depending on volume and supplier capacity.

Current Market Availability

Low-power 400G modules, such as 400GBASE-FR4 QSFP-DD, are widely standardized under IEEE 802.3cu and supported by multiple vendors, making them readily available for deployment in data centers and metro networks . These modules typically consume only a few watts, making them suitable for dense port deployments without exceeding thermal limits . The combination of PAM4 modulation, multi-lane architectures, and compact form factors has enabled manufacturers to scale production efficiently .

Production and Shipment Trends

Recent market reports indicate that unit shipments of 400G modules have more than tripled year-over-year, with total shipments expected to surpass 20 million units in 2024 . Leading suppliers, including Innolight and Nvidia (via Fabrinet), are actively producing low-power 400G modules, and hyperscale operators continue to adopt them for large-scale data center builds . This growth suggests that supply is increasingly robust, though high-volume orders may still experience lead times of several weeks to a few months, depending on the supplier and customization requirements.

Factors Affecting Delivery Time

Article Content

TechnicalWhitePaper onSingle-Wavelength400GLH OpticalTransport

herent detection become the mainstream trend in the industry. The powerful digital signal processing (DSPs) is used to compensate

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

400G Optical Modules 2026 Guide: DR4 vs. FR4 vs.

Our CCIE/HCIE team shares lab-tested benchmarks for DR4, FR4, and LR8, focusing on

FS 800G& 400G Transceiver Acceptance Testing Guide | FS

This manual provides specifications and usage instructions for optical modules in building high-performance InfiniBand networks and

Optimized Design of 400G Optical Transceiver Module

Optimized 400G optical transceiver module design: Achieves 10-15% higher coupling

BRKOPT-2699

Lower power half of DSP used. Reduces ability of host Tx ASIC serdes" to optimize the full end-to-end link performance.

The Evolution of Optical Modules: Powering the Future

Enter optical modules, which leverage the power of light to transmit data efficiently over long

Application Scenarios and End Customers of 400G Optical Modules

400G optical modules are being used in both front-haul and back-haul of 5G networks. Supports high-density traffic aggregation and

What is LPO Optical Module? | FiberMall

The Challenges of Optical Communication Evolution In fact, the technology iteration of

400G Optical Modules: Complete FAQ Guide for Deployment

What Are the Common Types of 400G QSFP-DD Optical Modules Available? The market offers several 400G QSFP

400G LPO QSFP112 Optical Transceiver Modules | AscentOptics

400G LPO QSFP112 Transceiver Modules are Linear-Drive Technology ensures low power, cost, and latency for superior AI

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.

AscentOptics Achieves Volume Delivery of 400G and 800G Optical

AscentOptics begins mass delivery of 400G and 800G optical modules, supporting global CSPs and AI infrastructure

How 400G Optical Transceivers Are Reshaping Data Center

Explore how 400G optical transceivers are transforming data centers in 2025. Learn about standards, architectures,

400G Optical Transceivers | OEM Compatibility | Carritech Optics

Discover the power of 400G QSFP-DD Optical Transceivers—ultra-fast, energy-efficient, and future-proof solutions.

400G Modules Compared: QSFP-DD, OSFP & QSFP112

Unsure which 400G module fits your data center? Compare QSFP-DD, OSFP, and

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

From a technological perspective, both 400G and 800G QSFP-DD modules benefit from

Comprehensive understanding of 400G optical modules

The 400G optical module is an optoelectronic conversion module with a transmission rate of micro-400G. It uses advanced PAM4

Micro LED CPO Goes Viral and Several LED Companies

Its 400G and 800G high-speed optical modules are expected to begin small-volume shipments in the second quarter

What is 400G optical networking? | Neos Networks

What is 400G optical networking? Learn how 400G optical connectivity can help you meet the rapidly growing data

Pushing the Limits of Connectivity: The Power of 400G CFP2 DCO in ...

As the demand for high-speed, low-latency data transmission continues to grow in modern networks, service

400G Optics – Technologies, Timing, and Transceivers

Caveats and Disclaimers This presentation is an investigation into three potential solutions for 400G optical transceivers given the

AscentOptics Achieves Volume Delivery of 400G and 800G Optical Modules ...

The 400G and 800G product series is intended to support both intra-data-center and inter-data-center connectivity. In

Cisco 400G QSFP-DD Ultra Long Haul Coherent Optics Module Data

The high performance and low power of the 400G QSFP-DD ULH module make it an optimal choice to extend Routed

Contact Us

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