Transceiver optical module models



Overview

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

Key Takeaways

Optical transceiver modules come in various models and form factors, including SFP, QSFP, OSFP, and CFP, supporting speeds from 100M to 800G and beyond for diverse networking applications. Common Form Factors and ModelsSFP (Small Form-factor Pluggable): Compact modules for 1G, 10G, and 25G networks, widely used in enterprise and data center switches.

QSF

P (Quad Small Form-factor Pluggable): Supports 40G, 50G, 100G, and 200G speeds; QSFP-DD (Double Density) extends to 400G.

OSF

P (Octal Small Form-factor Pluggable): Designed for high-speed 400G and 800G applications, often used in AI and high-performance computing data centers. CFP/CFP2/CFP4: Larger modules for 100G and 400G coherent transmission, suitable for long-haul and metro networks.

XFP and CX

P: Older or specialized modules for 10G–100G applications, sometimes used in legacy systems.

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Key Specifications

When selecting a module, consider: Data Rate: Modules range from 100M, 1G, 10G, 25G, 40G, 50G, 100G, 200G, 400G, to 800G. Wavelength: Short-range (850 nm multimode), long-range (1310 nm or 1550 nm single-mode), and coherent transmission for ultra-long distances. Connector Type: LC, SC, MPO/MTP, or proprietary interfaces depending on the module and network equipment.

Reach: Modules are designed for distances from a few meters (data center) to hundreds of kilometers (long-haul DWDM) with coherent or non-coherent optics. Power and Modulation: Coherent modules support advanced modulation formats and higher optical power for extended reach.

Applications

Data Centers: High-density QSFP-DD and OSFP modules for AI, ML, and HPC workloads. Enterprise Networks: SFP and QSFP modules for LAN, SAN, and campus networks. Telecommunications: CFP and coherent modules for metro, regional, and long-haul DWDM networks.

Fiber-to-the-

Premises (FTTP): SFP and QSFP modules for triple-play services and subscriber connectivity. Vendors and AvailabilityFS.com: Offers a wide range of modules from 100M to 800G, plug-and-play, with in-house testing for reliability. Cisco: Provides high-performance modules including QSFP-DD, OSFP, and coherent ZR modules for AI and data center networks.

Digi

Key: Stocks multiple form factors including SFP, QSFP, XFP, and CFP with various wavelengths and data rates for immediate shipping.

Fiber

Mall: Offers detailed guides and specifications to help select modules based on network requirements. Optical transceiver modules are highly standardized to ensure interoperability across vendors, but careful attention to form factor, speed, wavelength, and reach is essential for optimal network performance.

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Article Content

Cisco Transceiver Modules

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

Optics and Transceivers | Fiber Optical Transceivers

FS offers a growing portfolio of optical transceivers, with speed range from 100M, 1G, 10G, 25G, 40G, 50G, 100G, 200G, 400G to 800G and beyond. The fiber optic transceiver modules can work in any

Understanding Optical Transceiver Modules: A Comprehensive Guide

If you''re dealing with data centers, telecommunications, or AI networking, grasping the key parameters of an optical transceiver module is essential. This blog post dives deep into the

Optical module design resources | TI

View the TI Optical module block diagram, product recommendations, reference designs and start designing.

The Ultimate Guide to SFP Modules (2026): Types,

Read the definitive 2026 guide on SFP modules. We explain Single Mode vs Multimode, DDM diagnostics, and how to choose the right transceiver for Cisco,

FS Transceivers | Premium Optical Transceivers

We can manufacture fiber optic modules with specific wavelengths (CWDM, DWDM), extended temperature ranges, special distances, or proprietary form

Global AI Optical Transceiver Market to Reach US$26

TrendForce''s latest research indicates that the global market for AI-focused optical transceivers has entered a phase of rapid growth, with market

100G QSFP28 ER4 40KM LC Optical Transceiver (EML)

100G QSFP28 ER4 LC optical transceiver delivers reliable 100GbE transmission up to 40km on single-mode fiber, compliant with IEEE 802.3ba standards. This hot-pluggable module features low power

Optical Transceiver Module Wholesale,10g/25g/40g/100g SFP+ Optical ...

Fiber optic module manufacturer,ETU-Link supply full model optical transceivers,including standard 8g/10g/25g/40g/100g sfp+ optical modules and copper RJ45 transceiver,wholesale at factory price!

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Linear Pluggable Optics – An Overview

Comparison of proposed solutions: In response, several solutions such as Linear Receive Optics (LRO), Linear Pluggable Optics (LPO) and Co-Packaged Optics (CPO) have been proposed. Fig. 1

Opinion: optical transceivers at the chokepoint of AI growth and supply ...

As AI infrastructure accelerates at an unprecedented pace, optical connectivity has become one of the defining enablers and constraints of next-generation data centers. In this Opinion

Optical Transceivers | Coherent

Optical Transceivers Get the pluggable module performance you need from the manufacturer of choice for major networking equipment vendors worldwide.

Why 1.6T Optical Transceivers Overtake 800G in 2026

Why Are 1.6T Transceivers Becoming Mandatory for NVIDIA Blackwell AI Clusters in 2026? NVIDIA Blackwell GB200 NVL72 racks require 1.6T transceivers

Fiber Optic Transceiver Guide | PHILISUN

Fiber Optic Transceiver: What It Is and How It Works Learn what a fiber optic transceiver is and how it works. Explain how light-based modules convert data for high-speed networks.

Optical Transceiver Market Size, Share, Trends | Forecast

The global optical transceiver market size is projected to grow from $17.15 billion in 2026 to $46.12 billion by 2034, exhibiting a CAGR of 17.00%

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Small Form-factor Pluggable

Small Form-factor Pluggable (SFP) is a compact, hot-pluggable network interface module format used for both telecommunication and data communications applications. An SFP interface on networking

The Rise of Co-Packaged Optics (CPO) and Silicon Photonics in

As generative AI models scale, traditional pluggable optical transceivers face a power-performance wall. Co-packaged Optics (CPO) and Silicon Photonics address this by integrating

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