10 Gigabit Optical Module Equipment Types

Overview

Learn everything about 10GB SFP modules, including types, specifications, compatibility, and how to choose the right 10G SFP+ transceiver for your network.

Key Takeaways

Here is a list of commonly used 10 Gigabit Ethernet optical modules across different form factors and specifications. 10 Gigabit Optical ModulesSFP-10G-SR – Short-range multimode fiber module, LC connector, up to 300m on OM3 fiber, widely used in data centers (Cisco). SFP-10G-LR – Long-range single-mode fiber module, LC connector, up to 10km, suitable for enterprise and campus networks (Cisco).

SFP-10G-ER – Extended-range single-mode fiber module, LC connector, up to 40km, ideal for long-distance links (Cisco). SFP-10G-LRM – Long-reach multimode fiber module, compatible with OM1/OM2/OM3 fibers, up to 220m, often used in legacy multimode deployments (Cisco). SFP-10G-BX – Bidirectional single-fiber module, requires a pair (e.g., SFP-10G-BXD1 with SFP-10G-BXU1), supports 10GbE over a single fiber strand (Huawei).

XFP-10G-SR – Small form-factor pluggable module for short-range multimode fiber, LC connector, primarily used in routers and high-performance switches. XFP-10G-LR – XFP module for long-range single-mode fiber, LC connector, up to 10km, suitable for service provider networks.

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X2-10

G – Legacy 10GbE module, SC connector, limited market adoption, mainly Cisco platforms. XENPAK-10G – Original 10GbE pluggable module, SC connector, larger form factor, used in early 10GbE deployments. 10GBase-CX1 (SFP+ DAC) – Direct attach copper cable with integrated SFP+ ends, up to 10m, low latency and power consumption, ideal for server-to-switch connections.

Notes on SelectionForm Factor: SFP+ is the most common today due to its small size and flexibility, supporting both 1G and 10G ports.

XF

P, X2, and XENPAK are older or specialized form factors. Fiber Type: Modules are available for multimode (MMF) and single-mode (SMF) fibers.

BID

I modules allow 10GbE over a single fiber strand. Distance: Choose modules based on required link length, e.g., SR for short distances, LR/ER for long distances. Compatibility: Ensure the module matches the switch or router port type; some modules require vendor-specific validation.

This list covers a broad spectrum of 10GbE optical modules suitable for data centers, enterprise networks, and service provider environments.

Article Content

10GB SFP Module Guide: Types, Specs, and How to Choose

Learn everything about 10GB SFP modules, including types, specifications, compatibility, and how to choose the right 10G SFP+ transceiver for your network.

Explained: 10 Gigabit Ethernet Optical Modules Standards,

They vary by form factor (such as SFP+, XFP, and QSFP+), wavelength, fiber type, and transmission distance. Understanding the different types helps in selecting the right module for specific network

Cisco 10GBASE SFP+ Modules Data Sheet

The Cisco® 10GBASE SFP+ modules (Figure 1) give you a wide variety of 10 Gigabit Ethernet connectivity options for data center, enterprise wiring closet, and service provider transport applications.

10 Gigabit Ethernet

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There are two basic types of optical fiber used for 10 Gigabit Ethernet: single-mode (SMF) and multi-mode (MMF). In SMF light follows a single path through the

10G Transceivers: Types, Distances & Buying Guide

Choosing the right 10G module affects reach, cost, power, and compatibility. This guide summarizes the common 10G transceiver types, clarifies practical distance and cabling expectations, and gives

A Simple Guide to SFP-10G-SR and Its Practical Uses

When it comes to cost-effective 10 Gigabit Ethernet over short to medium distances, the SFP-10G-SR optical transceiver remains a cornerstone technology. This comprehensive guide dives

10G SFP+ Transceiver Guide: Types, Compatibility, Uses & Buying Tips

Your complete guide to 10G SFP+ modules. Understand the differences between SR, LR, ER & ZR types, check compatibility with Cisco, Dell, HPE, and get expert buying advice.

Optical Module-Main types of 10 Gigabit Ethernet

10 Gigabit Ethernet is 10 times faster than gigabit Ethernet, with a data rate of 10 Gbit/s. The following are referenced in the description of our Transceiver

Ortronics Cisco SFP+ Module

C2g SFP-10G-BX60U-I-A for $166.60 - Ortronics Cisco Sfp+ Module - For Optical Network, Data Networking - 1 X Lc Duplex 10gbase-bx Networ Sfp10gbx60uia at CompSource

XGSPON ONU SFP+ 1270nm-TX/1577nm-RX 9.953G-TX/9.953G-RX

OverviewThe XGS-SFP-ONT-MAC-I is a high-performance optical transceiver module designed for 10-Gigabit-capable passive optical network (XGS-PON) deployments. It functions as an integrated

10G BiDi SFP+ 20km Tx1270/Rx1330

The BIDI-10G-SFP-20A (Tx1270/Rx1330) will pair with any SFP+ MSA-compliant Tx1330/Rx1270 BiDi module that meets the 9 dB budget and 20km reach class, which is common when one end of the

Cisco SFP and SFP+ Transceiver Module Installation Notes

This installation note provides the installation instructions for the Cisco small form-factor pluggable (SFP) and SFP+ transceiver modules. These transceiver modules are hot-swappable

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Ubiquiti Compatible XGSPON ONU SFP+ 1270nm-TX/1577nm-RX

Overview The XGS-SFP-ONT-MAC-I is an SFP+ transceiver module engineered for 10-Gigabit capable symmetric passive optical network (XGS-PON) systems. It utilizes bidirectional transmission over a

SFP+ Transceiver CBO SFP-10G-BX-D 10G | AiO.lv

CBO SFP-10G-BX-D 10G Fiber Optic Single-Mode Bidirectional is an SFP+ transceiver module engineered for 10 Gigabit Ethernet links over single-mode fiber. The module supports bidirectional

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European manufacturer of high-quality passive fiber optic equipment and FTTH network components, operating since 1992. We specialize in providing reliable, certified solutions for...

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

Confused by SFP vs SFP+? Read the definitive 2026 guide on SFP modules. We explain Single Mode vs Multimode, DDM diagnostics, and how to choose the

Complete Guide to Fiber Optic Home Networking | BroadbandSearch

For power users on 10 Gbps plans: some ONTs support a direct SFP+ (Small Form-factor Pluggable) connection instead of an Ethernet handoff. SFP+ is a fiber-optic module that plugs directly

croatia+wholesale+2.5g+optical+core+routers

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