SFP Optical Module Network Card 10 Gigabit



Overview

This data sheet describes the benefits, specifications, and ordering information for the Cisco 10GBASE SFP+ Modules Data Sheet.

Key Takeaways

10 Gigabit SFP+ network cards support a wide range of optical modules, including multimode, single-mode, and bidirectional (BIDI) SFP+ transceivers.

Compatibility Overview

Most modern 10GbE SFP+ network cards feature open SFP+ slots that accept any MSA-compliant module or direct attach cable (DAC), providing flexibility for different network deployments (StarTech). These cards can interface with: Multimode fiber (MMF) modules for short-range connections, such as 10GBASE-SR, typically up to 300–400 meters depending on fiber type (OM3/OM4) (Cisco). Single-mode fiber (SMF) modules for long-distance links, such as 10GBASE-LR (1310nm) or 10GBASE-ER (1550nm), supporting distances from 10 km up to 40 km or more depending on module specifications (Huawei, Cisco).

Bidirectional (BIDI) modules, which use a single fiber for both transmit and receive, must be paired correctly (e.g., SFP-10G-BXD1 with SFP-10G-BXU1) to function properly (Huawei). Copper SFP+ modules for short-range connections over Cat6a/Cat7 cables, typically up to 30 meters (Cisco). Module Types and Use CasesSR (Short Reach): Multimode fiber, ideal for intra-rack or data center connections, cost-effective and low power consumption (L-P).

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L

R (Long Reach): Single-mode fiber, suitable for inter-building or campus networks, operates at 1310nm (L-P). ER/ZR/EZR: Extended reach modules for metropolitan area networks or telecom backhaul, operating at 1550nm with distances up to 40 km or more (L-P).

BID

I: Single-fiber modules for duplex communication over one fiber, requiring matched pairs (Huawei).

Practical Considerations

Ensure the SFP+ card supports the module type (most open SFP+ cards do, but vendor-specific firmware may restrict some modules). Check distance and wavelength requirements to match your network infrastructure.

For BID

I modules, always use the correct transmit/receive pair to avoid link failure. 10G SFP+ modules are hot-pluggable, allowing easy upgrades or replacements without powering down the system (L-P). In summary, 10 Gigabit SFP+ network cards are highly versatile, supporting a broad range of optical modules for short- and long-distance fiber connections, as well as copper links, making them suitable for data centers, enterprise networks, and service provider environments.

Article Content

10G SFP+ Optical Transceivers | Transceiver Module

FS 10GbE SFP+ module solutions provide a wide variety of 10 Gigabit Ethernet connectivity options for data centers, enterprise wiring closets, Internet Service

Cisco 10GBASE SFP+ Modules Data Sheet

This data sheet describes the benefits, specifications, and ordering information for the Cisco 10GBASE SFP+ Modules Data Sheet.

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.

Solo10ZG SFP+ v2 PCIe Card

Solo10G SFP+ V2 PCIe Card includes a short-range multi-mode fiber SFP+ transceiver to enable easy connection to your optical 10GbE network at

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10G PCIe SFP+ Card, Open SFP+ Port, MSA

WIDE COMPATIBILITY: This PCIe network card has an open SFP+ slot that can accept any MSA-compliant module or direct attach cable (DAC). It is compatible

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

Intellinet 10 Gigabit Fiber SFP + (LC) Single-Mode

The Intellinet 10 Gigabit Fiber SFP Optical Transceiver Module (model 507479) is fully hot-pluggable, and that allows you to install the module

10GbE SFP+ Transceivers

10GbE SFP+ transceivers are essential components for high-speed data transfer and reliable network connectivity in modern enterprise environments. Designed to support 10-gigabit Ethernet

SFP vs SFP+ vs SFP28 vs QSFP+ vs QSFP28 vs QSFP-DD vs

SFP, or small form-factor pluggable, is a compact transceiver that connects fiber optic cables to devices like switches, routers, and network cards. It''s also called a “mini-GBIC ” (gigabit

SFP Module Transceivers, Manufacturer & Supplier

The SFP-25G-LR optical module boasts stable performance, low power consumption, and strong compatibility, making it ideal for use in 25G Ethernet

Optic Modules Datasheet

4 Optic Modules Data Sheet ... SFP (form factor) = small form-factor pluggable transceiver SMF (media) = single-mode fiber-optic MMF (media) = multimode fiber-optic XFP (form factor) = 10-gigabit small

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

SFP 1.25G 1310nm 10km Gigabit Optical Transceiver Module

Shop the SFP 1.25G 1310nm 10km Gigabit Optical Transceiver Module for reliable single-mode fiber networking. Compatible with standard SFP slots. Order now!

Optical Modules Market Research Report 2034

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Optical modules, which encompass transceivers, cables, amplifiers, splitters, and associated components, serve as the backbone of high-speed data transmission across data centers,

fiber optic network interface cards | Newegg

PCIe X4 giga-bit Single Port SFP Fiber Optic Network Card 1.25G Ethernet Converged Server Adapter NIC with I350 Chip (I350-F1) (with a Piece Multi Mode Optical Module) Model #: 6908955135

XFP transceiver

XFP modules use an LC fiber connector type to achieve higher density. Principal applications include 10 Gigabit Ethernet, 10 Gbit/s Fibre Channel, synchronous optical networking (SONET) at OC-192

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

Overview The 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

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

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This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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