

10 Gigabit Optical Module Single-Mode Single-Fiber Optic Module



Article Overview

Single-mode fiber (SMF) 10G SFP+ modules support high-speed 10 Gigabit Ethernet over distances up to 10 km or more, available in both duplex and bidirectional (BiDi) configurations.

Duplex Single-Mode SFP+ Modules

Traditional 10G SFP+ modules for single-mode fiber use duplex LC connectors, requiring two fiber strands—one for transmitting and one for receiving. These modules typically operate at 1310 nm or 1550 nm wavelengths and support distances up to 10 km, making them suitable for data center interconnects, campus networks, and metro applications (Ubiquiti, ATEN) . Duplex modules are widely compatible with standard SFP+ ports and are hot-swappable, allowing easy installation without powering down switches .

BiDi (Bidirectional) Single-Mode SFP+ Modules

BiDi SFP+ modules provide a more fiber-efficient solution by enabling full-duplex communication over a single fiber strand using wavelength division multiplexing (WDM). Each module transmits and receives on different wavelengths, typically 1270/1330 nm or 1310/1490 nm, through a simplex LC connector. This approach reduces fiber usage by 50%, simplifies cabling, and lowers deployment costs while maintaining 10G full-duplex performance over distances commonly ranging from 10 km to 40 km depending on the module . BiDi modules integrate a DFB laser, PIN ph...

Article Content

H!Fiber 10G Single Mode SFP+ LC Module, 10GBase-LR Fiber

10GBase-LR SFP+: 10 Gigabit Ethernet Single Mode SFP+ Module, 10 Gb/s, 1310nm wavelength, Duplex Dual LC, SMF, link single

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,

10 Gigabit Fiber SFP+ Optical Transceiver Module

10 Gigabit Connectivity Intellinet Network Solutions 10GBase-LR Fiber SFP+ Optical Transceiver Module, model 507479, is the right

10GE SFP+ Optical Modules

10GE-CWDM SFP+ Optical Modules 10GE-DWDM SFP+ Optical Modules 40GE QSFP+ Optical Modules Industrial Optical Modules

UniFi 10G Single-Mode Optical Module

SFP+ transceiver that supports 10G connections up to 10 km using single-mode fiber with a duplex LC UPC connector.

SFP-10G-LR, Huawei SFP+ Optical Transceiver, 10G, 1310nm, 10km

Huawei SFP-10G-LR 10G SFP+ 1310nm 10km single-mode LC module for enterprise and carrier networks. Check real-time Huawei

SFP+ Single Mode LC Module (10km)

TRENDnet's SFP+ Single Mode LC Modules are compatible with standard SFP+ slots found on network

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

The Intellinet 10 Gigabit Fiber SFP Optical Transceiver Module (model 507479) is fully hot

10G SFP+ Optical Transceivers | Transceiver Module

FS 10GbE SFP+ module solutions provide a wide variety of 10 Gigabit Ethernet connectivity options for

Optic Modules Datasheet

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

CLT 10G SFP+ SM 1310nm 10km LC | CLT-SFP+SM-1310nm

10G SFP+ Single mode 1310nm 10km LC The CLT-SFP+SM-1310nm is a 10 Gigabit Ethernet SFP+ transceiver designed for single

SFP-10G-LR Compatible | 10GBASE-LR SFP+ Optical Transceiver

Reliable, high-speed connectivity with the SFP-10G-LR Compatible transceiver. Designed for 10 Gigabit networks, this module

SFP+ BiDi 10G Guide: Single Fiber 10G Optical Transceivers

Learn what SFP+ BiDi 10G is, how single-fiber 10G transceivers work, key specs, use cases, and how to choose the right BiDi module.

10 Gigabit Fiber SFP+ Optical Transceiver Module

The Intellinet Network Solutions 10 Gigabit Fiber SFP+ Optical Transceiver Module (model 507479) is fully

Optical Transceiver SFP+ 10G Single-Mode Module 1310nm 10km LC

The Optical Transceiver SFP+ 10G Single-Mode Module 1310nm 10km LC is a high-performance, compact

SFP 10G LR: High-Speed Long-Reach Fiber Transceivers

Designed to deliver stable 10Gbps performance over single-mode fiber up to 10 kilometers, SFP 10G LR modules form the backbone

What Is 10GBASE-LR? SMF 1310nm 10km SFP+ Explained

10GBASE-LR is a 10-gigabit Ethernet optical standard that operates at 1310 nm over single-mode fiber (SMF), supporting link

SFP Single Mode LC Module (10km)

The SFP Single Mode LC Modules are SFP transceivers compatible with standard SFP slots on network switches & fiber converters.

10 Gigabit single-mode single fiber optical module SFP-XG40

Ideal for enterprise networks, data centers, telecom infrastructure, and metro networks, this optical module is perfect for extending

SFP+ Optical Transceiver Modules (10G-SR/LR)

Amphenol SFP Optical Modules • SFP+ Optical Modules from Cables on Demand are Now Available in both Short Range (SR)

10G SFP+ ER SMF 1310nm 40km Transceiver Module

Generic SFP-10G-ER1310 Compatible 10GBASE-ER1310 SFP+ Transceiver Module (SMF, 1310nm, 40km, LC, DOM) This Generic

10G Bidirectional Single-Mode Optical Module

SFP+ transceiver that supports 10G connections up to 10 km using single-mode fiber with a simplex LC

Fiber Modules

Grandstream Network offers a wide variety of fiber modules. All of them are hot-pluggable small-form factor transceiver modules

Cisco 10GBASE SFP+ Modules Data Sheet

When shorter distances of single-mode fiber are used (<40km), an inline optical attenuator must be used to avoid

SFP+ 10GBase-LR 1310nm SingleMode Module, 10G LC SMF Fiber Optic ...

10Gbps 1310nm SFP to LC Single Mode Transceiver Module The SFP 10GBase-LR module stands out with its

10G BiDi SFP+ Modules: A Guide to Single-Fiber 10G Deployment

10G BiDi SFP+ modules are a game changer when it comes to network design and can support 10 Gigabit Ethernet over a single

10 Gigabit Singlemode SFP+ Fiber Optic Transceivers

The 10 Gigabit Singlemode SFP+ Transceivers provide high-performance, reliable connectivity for modern

SFP+ Single Mode LC Module (10km)

Each single mode 10G SFP+ transceiver is equipped with a duplex LC fiber connection interface, and supports high-speed data rates

4Pack SFP+ 10GBase-LR LC Module, SingleMode 1310nm, SMF

4Pack 10Gbps 1310nm SFP to LC Single Mode Transceiver Module The 4Pack SFP+ 10GBase-LR module stands

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