

Single-core 10G optical module



Article Overview

A single-core 10G optical module is typically an SFP+ transceiver designed for 10 Gigabit Ethernet over single-mode fiber, supporting distances up to 10 km at 1310nm wavelength.

Overview

Single-core 10G optical modules, often in the SFP+ form factor, are hot-pluggable transceivers that convert electrical signals from switches or routers into optical signals suitable for single-mode fiber (SMF) transmission. They are widely used in data centers, enterprise networks, and telecom environments to provide reliable long-distance links with low latency and minimal signal loss .

Key Specifications

- Data Rate: 10 Gigabit per second (10G) for high-speed network connectivity .
- Wavelength: 1310 nm, optimized for long-distance single-mode fiber links .
- Reach: Up to 10 kilometers over single-mode fiber, suitable for campus or metro networks .
- Connector Type: LC duplex connectors, compatible with standard single-mode patch cords .
- Standards Compliance: IEEE 802.3ae (10GBASE-LR), SFF-8431, SFP+ MSA, and RoHS, ensuring interoperability across vendors .
- Power Consumption: Low, typically designed for energy-efficient operation .
- Digital Optical Monitoring (DOM): Provides real-time monitoring of optical output power, temperature, and voltage for proactive troubleshooting ...

Article Content

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10G Single-Mode/10KM Fiber SFP+ Module

The 2A-142G 10G Single-Mode/10KM Fiber SFP+ Module is designed for use in 10GbE Ethernet environment that allows you to

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SFP+ Transceiver 10G Single LC Module

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10GE SFP+ Optical Modules

Single-fiber bidirectional (BIDI) optical modules must be used in pairs. For example, SFP-10G-BXU1 must be used with SFP-10G-BXD1.

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SFP-10G-ER is a 10G SFP+ transceiver for up to 40km over single-mode fiber, featuring 1550nm wavelength, LC

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

Explore the features, applications, and selection guide for optical transceiver SFP+ 10G single-mode 1310nm 10km

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QSFP+ 40G LR4 optical module, single-mode, CWDM 4 aggregate 10G ...

Explore the QSFP-40G-LR4 a 40G LR4 single-mode module with CWDM for 10Km extension. Cisco compatible - buy now for high

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10G SFP+ Optical Transceivers | Transceiver Module

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

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2-Pack 10G SFP+ Single Mode LC Module (10km)

TRENDnet's 2-Pack 10G SFP+ Single Mode LC Modules are compatible with standard SFP+ ports found on network switches and

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Inventory Of 10G Optical Modules

SFP+ optical modules are widely used in 10G Ethernet due to their advantages of compact size, low cost and high

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Optic Modules Datasheet

Features and Benefits The following table lists the different pluggable optic modules and supported platforms, along with the

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10G Optical Module Selection Guide: LRM,SR,LR,ER,ZR

In the construction of high-speed networks, 10G optical modules are core components of data centers, enterprise

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10G BiDi SFP+ modules utilize a unique optical mechanism that enables full-duplex data transmission over a single

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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)

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Cisco 10GBASE SFP+ Modules Data Sheet

This data sheet describes the benefits, specifications, and ordering information for the Cisco

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SFP-10G-ER Explained: Powering 40km 10Gbps Optical Links

This comprehensive guide dives deep into the SFP-10G-ER optical transceiver module. Learn its technical

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10G SFP+ Fiber – SFP+ Single Mode LC Module

The single mode 10G SFP+ transceiver is equipped with a duplex LC fiber connection interface, and

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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

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Cisco 10GBASE SFP+ Modules Data Sheet

The Cisco® 10GBASE SFP+ modules (Figure 1) give you a wide variety of 10 Gigabit

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Single Mode 10G SFP+ Module: Price, Types & Buying Guide

Explore single mode 10G SFP+ modules, including LR, ER, and ZR types. Compare prices, distances, and compatibility to choose

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10G Bidirectional Single-Mode Optical Module

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

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SFP+10G 1310nm 10Km LC Optical Module Guide

Understanding SFP+ optical modules and their different types helps in selecting the right transceiver for your network needs. The

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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,

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Understanding the Cisco SFP-10G-ZR: A Reliable 10G Optical

Discover the Cisco SFP-10G-ZR, a robust 10G optical transceiver module designed for SMF 1550nm applications.

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UniFi 10G CWDM Single-Mode Optical Module

SFP+ transceiver for CWDM that supports 10G connections up to 20 km using single-mode fiber with a duplex LC UPC connector.

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optical transceiver sfp+ 10g single mode module

The 1310nm LC Interface 10G Singlemode Dual-fiber Optical Module is the workhorse of the modern

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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.

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Arista Optics Modules and Cables

Overview Arista's Optical Modules and Cable portfolio offer a wide variety of high-density and low-power 800G (dual 400G), 400G,

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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

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Best 10G BIDI SFP+ Module Optical Network

Explore the details, specifications and video of our 10G BIDI SFP+ Optical Transceiver Single Mode

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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.

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Ubiquiti 10G Single-Mode Optical Module UACC-OM-SM-10G-D-20 B& H

Complete your network installation with this 10G Single-Mode Optical Module 20-pack from Ubiquiti Networks. Featuring duplex LC

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10Gtek 10GBase-LR SFP+ Transceiver, 10G 1310nm

10Gtek 10GBase-LR SFP+ Transceiver, 10G 1310nm SMF SingleMode Fiber Optic Module, 10km, for

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Comprehensive Guide to FS 10G BiDi SFP Modules

Optimize your fiber utilization with FS 10G BiDi SFP+ modules. Single-fiber 10G transmission, lower costs, high

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.chromadecksigns-eastrand.co.za>

Email: sales@chromadecksigns-eastrand.co.za

Phone: +32 2 318 5792

Address: Avenue Louise 500, 1050 Brussels, Belgium

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