

Single-mode fiber optic transceiver 20km range

Article Overview

Single-mode SFP transceivers for 20 km support 1-1.25 Gbps data rates over 1310 nm wavelength fiber, ideal for long-distance Gigabit Ethernet links.

Key Specifications

- o Data Rate: Typically 1 Gbps (1000BASE-LX) or 1.25 Gbps for high-performance modules .
- o Wavelength: 1310 nm, using Fabry-Perot (FP) or distributed feedback (DFB) lasers for stable long-distance transmission .
- o Fiber Type: Duplex single-mode fiber (9/125 um SMF) is standard for 20 km reach .
- o Connector Interface: LC duplex connectors are commonly used for secure and reliable connections .
- o Hot-Pluggable: Most modules are SFP form-factor and hot-swappable, allowing installation or replacement without shutting down network equipment .
- o Standards Compliance: IEEE 802.3, SFP MSA, and RoHS compliance ensures interoperability across switches, routers, and other network devices .
- o Power Consumption: Low power operation, typically under 1 W, suitable for energy-efficient deployments .
- o Optional Features: Some modules include Digital Optical Monitoring (DOM) for real-time monitoring of transmit/receive power, temperature, and voltage .

Applications

- o Enterprise Networks: Campus networks and long-distance LAN links.
- o Metropolitan Access Networks: Connecting switches and routers across city-scale infrastructure.
- o Data Centers: High-speed interconnects between racks or buildings.
- o ISP Networks: Long-range optical links for subscriber connectivity.
- o Infrastructure Monitoring: Remote monitoring systems requiring reliable long-distance communication .

Deployment Considerations

- o Ensure the transceiver is compatible with the host device (switch, router, or access point). Many 20 km SFPs are MSA-compliant and compatible with major brands, including Cisco-equivalent modules .
- o Verify fiber type and connector match the existing cabling infrastructure.
- o Consider modules with DOM if network monitoring and diagnostics are required.
- o For bidirectional (BiDi) applications, specialized 20 km BiDi SFPs allow single-fiber operation, reducing cabling complexity . Single-mode 20 km SFP transceivers provide a cost-effective, reliable solution for medium-to-long distance Gigabit Ethernet transmission, combining compact design, hot-swappability, and standards compliance for flexible network deployment .



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FS gigabit ethernet transceiver solutions provide fibre or copper options including 1000BASE-SX, 1000BASE-LX/LH, 1000BASE-T

10GBASE-BX20 10G BiDi SFP+, 20km single fiber, Tx1270/Rx1330nm, 9dB budget, DOM. Matched-pair module. EU stock + lifetime

Generic SFP-1G-LX Compatible 1000BASE-LX/LH SFP 1310nm 10km-20km Transceiver supports 1G

TRENDnet's 100Base-FX SFP Single-Mode LC Module is compatible with standard SFP slots found on network switches and fiber

It supports a link distance of 10km to 20km on SMF fiber, or 550m on MMF fiber (need to be used along

The SFP-10G-LR-20km Compatible transceiver offers extended range for 10 Gigabit Ethernet networks. Transmitting at 1310nm over

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

TRENDnet's SFP Dual Wavelength Single Mode LC Modules are compatible with standard SFP slots found on network switches and

Product Description Brand: Syrotech Syrotech 20KM 1.25G 1310 Single Mode Single Fiber SFP Module -

Typically any optic (sfp) that is rated for 10km will work for short distance. Think of it as a range... 0-10km, 10-20km, 20-30 and so on.

This hot-swappable SFP transceiver delivers reliable 1 Gigabit Ethernet connectivity for extended-distance single-mode fiber

A two-fiber optical transceiver with an SFP form factor for 1G Ethernet, complies with the 1000Base-LX standard. Designed to work in

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

This is a standard SFP optical module. It uses a single mode optical fiber and the speed rate can up to



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1.25Gbps, transmission

10G SFP+ module SM 20KM 40KM 80KM TX/RX 1270/1330nm, single fiber Bidi, LC port DDM SFP transceiver The SFP transceivers

Explore the SFP-1020-LR a 10G LR SFP+ transceiver for single-mode 20Km. Compatible with major switches - buy now for reliable

Web: <https://www.millstraining.co.za>

