

Single-mode fiber optic 10 Gigabit distance



Overview

10GBASE-LR is a 10-gigabit Ethernet optical standard that operates at 1310 nm over single-mode fiber (SMF), supporting link distances of up to 10 km. It is typically implemented using SFP+ transceivers and defined under IEEE 802. High-performance 10G LR modules for long-range, reliable network connectivity. The 10GBASE-LR SFP+ 1310nm 10km DOM Duplex LC/UPC SMF Optical Transceiver Module is a high-performance solution designed for long-range 10 Gigabit. SFP+ 10G SR (Short Range): Wavelength: 850 nm Fiber Type: Multi-mode fiber (MMF) Transmission Distance: Up to 300 meters on OM3 fiber and up to 400 meters on OM4 fiber Applications: Data centers, LANs, and short-distance connections 2. SFP+ 10G LR (Long Range): Wavelength: 1310 nm Fiber Type: SFP or Small Form Pluggable Optical Modules are compact, hot-swappable media connectors that allow for quick and easy network connectivity for a wide variety of networking equipment. These SFP modules can be installed in any Cisco or MSA SFF-8472 compliant port making them a great choice for. The L-com FXC-SFP1G-31-10 is an SFP form-factor transceiver, supporting Gigabit Ethernet data rates. The FXC-SFP1G-31-10 is an MSA-compliant transceiver, compatible with most switch and router. As of my last knowledge update in January 2022, the typical minimum distance for SFP 10G LR modules is around 2 meters. However, it's crucial to refer to the product documentation.

Article Content

Amazon : Fiber To Ethernet Converter

A Pair of Gigabit Single Mode LC Fiber Media Converter, with 2 Pcs SFP LX Modules, 1.25G/s Fiber to Ethernet Converter, 1000Base-LX to 10/100/1000base-TX, SFP to RJ45, SMF, 1310nm, up to 20km

Boost Connectivity with Reliable ethernet to fiber optic media ...

Because of their low attenuation, single-mode fibers are best for long-distance communication; multi-mode fibers fit shorter distances with higher data rates. Furthermore, take into account whether

SFP+ Single Mode LC Module (10km)

Fiber Mode/Distance Single mode 10G SFP+ transceiver spans distances up to 10km (6.21 mi.) at gigabit speeds.

StarTech HPE J9151E Compatible SFP+ Module

About the StarTech HPE J9151E Compatible SFP+ Module - 10GBASE-LR - 10GE Gigabit Ethernet SFP+ 10GbE Single Mode Fiber Optic Transceiver - 10km The J9151E-ST is a HP J9151E

Latest review (2025) | tp-link tl-fc111a/114b 100mbps fiber optic media ...

This article is a real-world test of the tp-link tl-fc111a/114b 100mbps fiber optic transceiver pair kit. it supports single-mode single-fiber sc connectors and features a 1 optical, 4 electrical

An introduction to SFP ports on a Gigabit switch

Like the earlier SFP model, SFP+ modules support both fiber and copper, but copper interconnects are limited to 10 m at 10 Gbps. The SFP+ specification supports single-mode fiber

Fiber optic cable Market Size, Share & Trends, 2033

Based on cable type, the non-armored fiber optic cables segment dominated the market with 45.1% share in 2024, supported by their cost-effectiveness and wide usage in telecom

What is the minimum distance on SFP 10G LR□

As of my last knowledge update in January 2022, the typical minimum distance for SFP 10G LR modules is around 2 meters. This means that the module is designed to work effectively for

Startech Dell EMC QSFP-40G-LR4 Compatible QSFP+ Module,

Buy Startech Dell EMC QSFP-40G-LR4 Compatible QSFP+ Module, 40GBASE-LR4, 40GbE Single Mode (SMF) Fiber SMF Optic Transceiver, 40GE Gigabit Ethernet QSFP+, LC Connector, 10km,

StarTech Single-Mode (SM) SC Fiber Media Converter for 10

Reliable and scalable network connectivity Supporting a maximum single-mode fiber cable distance of up to 10 km (6.2 mi.), the media converter delivers a simple and reliable solution for connecting

Cisco 10GBASE SFP+ Modules Data Sheet

The Cisco SFP-10G-LR10-I supports a link length of 10 kilometers on standard Single-Mode Fiber (SMF, G.652). The SFP-10G-LR10-I is for industrial operating temperature range.

Corning 144 Strand FastAccess Singlemode Loose

This Singlemode OS2 fiber optic cable is designed to handle long-distance, high-traffic environments such as large universities, industrial parks, and enterprise

5G Fiber Optic Cables: \$14.04B by 2025, 9.94% CAGR Growth

5G Fiber Optic Cables: \$14.04B by 2025, 9.94% CAGR Growth 5G Fiber Optic Cables by Application (Long-Distance Communication, FTTx, Local Mobile Metro Network, Other Local Access

StarTech HP JD119B Compatible SFP Transceiver Module

StarTech HPE JD119B Compatible SFP Module - 1000BASE-LX - 1GbE Single Mode (SMF) Fiber Optic Transceiver - 1GE Gigabit Ethernet SFP - LC 10km - 1310nm - DDM HPE 5900, 12500, 5500

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

These modules are designed to support data rates up to 10 Gbps, making them ideal for high-speed network applications. SFP+ modules connect network

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 distances of up to 10 km.

Fiber Optic Cable Supply | Buy Fiber Optic Products

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Approved Networks Accedian SFP+ Module

Optimize the network's performance with 10 Gigabit Ethernet connectivity Optical fiber cable compatible - Spans afar and provides speedy data transmission rates between servers and network components

FiberFix RJ45 to Fiber Optic Media Converter | Gigabit 10/100/1000M ...

FiberFix RJ45 to Fiber Optic Media Converter | Gigabit 10/100/1000M | Single Mode SC | 20KM Long Distance | A+B Pair : Amazon : Industrial & Scientific About this item Box Contents: 1 Pair of Fiber

Ortronics Extreme QSFP28 Module

Ortronics Extreme QSFP28 Module - For Optical Network, Data Networking - 1 x LC Duplex 100GBase-ZR4 Network - Optical Fiber - Single-mode - 100 Gigabit Ethernet - 100GBase-ZR4 - 100 Gbit/s - 80

Optimize Your Network with Fiber Optic Switching Solutions

Because of their low attenuation, single-mode fibers are best for long-distance communication; multi-mode fibers fit shorter distances with higher data rates. Furthermore, take into account whether fiber

SFP Transceiver Optical Fiber Single-Mode LC 1000Base-BX

MSA-compliant for compatibility with major switch manufacturers such as Cisco, Intellinet Network Solutions, ZyXEL, TP-Link, Ubiquiti, and others (see specifications) Must be used with the two-way

Fiber Modules

SFP modules support very low EMI and excellent ESD protection. Featuring low power consumption, these fiber modules are ideal for enterprise LAN networks and other optical links. Please select the

Versitron/Buy-MM-to-SM-Fiber-Optic-Media-Converter-for ...

The M720DA Multimode to Singlemode Fiber Optic Media Converter delivers reliable Gigabit communication for government, healthcare, and mission-critical infrastructure environments.

10g lr sfp Transceiver | 10km Single-Mode Fiber Module

Whether expanding network capacity or optimizing existing infrastructure, this module offers a reliable, high-performance optical solution for long-distance 10GbE connections.

SFP-10G-SR vs LRM vs LR: Which 10G Module Should

Compare SFP-10G-SR, LRM, and LR modules by distance, fiber type, and cost to find the right fit for your 10G network deployment.

Contact Us

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