

Maximum Distance of 10km Optical Module



Overview

10G SFP+ LR is a standardized 10G optical transceiver designed for single-mode fiber transmission up to 10km using a 1310nm wavelength. It follows the SFP+ Multi-Source Agreement (MSA) and is widely used to build stable medium-distance 10G links between switches, routers, and servers. When comparing short-range and long-range options, the choice depends heavily on deployment environments. The maximum distance supported by SFP 10G LR can vary based on factors such as the quality of the optical components, the type and. The Cisco ® 10GBASE SFP+ modules (Figure 1) give you a wide variety of 10 Gigabit Ethernet connectivity options for data center, enterprise wiring closet, and service provider transport applications. Cisco 10GBASE SFP+ modules offer the following features and benefits. Understanding the basic differences between each module is important to prevent an expensive misconfiguration and provide you with the best network.

Article Content

10G SFP+ LR Explained: Specs, Distance, and Use Cases

In 10G SFP+ modules, "LR" stands for Long Reach and specifically refers to a standardized transmission distance of up to 10km over single-mode fiber. It is not a marketing label, but a distance

BlueOptics 10G SFP+ Transceiver | How to Achieve Maximum Distance!

In this article, we'll show you 10 simple yet extremely effective rules to help you get the maximum range from your SFP+ connections. From choosing the right module and the right fiber to

10G Optical Modules: Short-Range vs. Long-Range Comparison Guide

A 10G SFP+ LR module, for instance, can support links of up to 10 kilometers. These modules are well-suited for interconnecting buildings, campus networks, or metropolitan area

What is an SFP Optical Module? The Complete Guide

The complete technical guide to SFP optical modules (SFP, SFP+, SFP28). Understand the core function, compare data rates (1G to 25G), learn

4K Fiber KVM Extender up to 550m for Remote PC

Fiber Optic Transmission with Zero Latency With the advanced fiber optic technology, this 4K KVM extender provides anti-electromagnetic interference

TP-Link TL-SM321A LC Single Mode SFP Module

TP-Link TL-SM321A LC Single Mode SFP Module SFP (mini-GBIC) transceiver module, Plug-in module, Data Transfer Rate 1.25 Gbps, Gigabit Ethernet, Max Transfer Distance 10 km,

Ubiquiti 10 Gbps UACC-OM-SM-10G-S-2 | Cendirect Canada

Ubiquiti 10 Gbps Bidirectional Single-Mode Optical Module - For Data Networking, Optical Network - 1 x LC Simplex 10GBase-BiDi Network - Optical Fiber - Single-mode - Gigabit Ethernet - 10GBase-X - 10

F5 Networks SFP+ Module

F5 Networks SFP+ Module - For Data Networking, Optical Network - 1 x LC Duplex 10GBase-LR Network - Optical Fiber - Single-mode - 10 Gigabit Ethernet - 10GBase-LR10 km (6.21 Mile)

SFP+ SR, LR, and ER Modules: Your Definitive Guide

LR (Long Reach) modules operate with a wavelength of 1310nm and require single-mode fiber to extend the effective distance to roughly 10 km.

10Km SFP+ Optical Module

- Maximum link length of 10Km on SMF.
- Low power consumption.
- All-metal housing for superior EMI performance.
- Advanced firmware allow customer

ECI Networks IBM SFP+ Module 8960-F24-2612-ECI | Cendirect

ECI Networks IBM SFP+ Module - For Data Networking, Optical Network - 1 x 16GBase-LW Network - Optical Fiber 16 Gigabit Ethernet - 16GBase-LW - 16 Gbit/s - 10 km (6.21 Mile) Maximum Distance

Huawei OSX010000 SFP+ 10G Single Mode Optical

Huawei OSX010000 SFP+ 10G transceiver for single-mode fiber, 1310nm wavelength, 10km range. Compliant with 10Gbase-LR standard.

STARTECH

They are designed, programmed and tested to work with 1000Base-BX-U compatible Extreme Networks switches and routers. The SFP transceiver module supports a maximum distance of up to 10 km (6.2

Maximum Fiber Optic Range: Optical Budget, Distances 10G/40G

If the calculated distance is less than your need, several solutions exist: use a module with higher transmission power, switch to a more favorable wavelength window (1550 nm instead of

10GB SFP Module Guide: Types, Specs, and How to Choose

While traditional optical 10GB SFP modules offer maximum flexibility and distance, DAC and AOC solutions provide cost and simplicity advantages for short-range connections.

Aruba 10G I-Temp BiDi LC 10km-Upstream S6H21A | PC-Canada

Aruba 10G I-Temp BiDi LC 10km-Upstream SMF 1270/1330 Transceiver - For Data Networking, Optical Network - 1 x LC 10GBase-BiDi Network - Optical Fiber - Single-mode - 10 Gigabit Ethernet -

StarTech EW3Z0000587-ST Citrix EW3Z0000587 Compatible SFP Module ...

The EW3Z0000587-ST is a Citrix EW3Z0000587 compatible fiber transceiver module that has been designed, programmed and tested to work with Citrix brand switches and routers. It delivers

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.

LR4 40G QSFP+ Transceiver 1310nm 10km SMF Fiber Transceiver Module

40G QSFP+ LR4 1310nm 10km SMF Fiber Transceiver Module Description This product is a transceiver module designed for 2m-10km optical communication applications. The design is compliant to

Cisco SFP-10G-LR Module: 10km Range & Specifications

Complete guide to Cisco SFP-10G-LR module specs, 10GBASE-LR standard compliance, 1310nm laser operation, and EDGE Optic compatibility details.

Dell Emc Sfp-10g-bx40-u Compatible Sfp+ Module

They are designed, programmed and tested to work with 10GBase-BX40 compatible Dell EMC switches and routers. The SFP+ transceiver module supports a maximum distance of up to 40 km (24.8 mi)

QSFP28 Module Types: SR4, LR4, CWDM4 & Single-Lambda

Compare all QSFP28 module types: SR4, LR4, CWDM4, PSM4, ER4, ZR4, and single-lambda DR1/FR1/LR1. See real pricing, link budgets, and a selection framework.

1000BASE-SX, 1000BASE-LX, 1000BASE-ZX& BX

1000BASE-LX SFP supports 10km over single mode fiber. Some industry vendors also provide an extended distance of 20km, which is not

10GE SFP+ Optical Modules

If the SFP-10G-ER-1310 is connected to a 10Gbase-ER standard optical module (1550nm, 10GE, 40km), the maximum transmission distance is only 20km due to different specifications such as wavelength

StarTech J9151E-ST HP J9151E Compatible SFP

The J9151E-ST is a HP J9151E compatible fiber transceiver module that has been designed, programmed and tested to work with HP brand switches and routers.

What is the maximum distance for SFP 10G LR?

However, a common specification for the maximum distance of SFP 10G LR is approximately 10 kilometers (km) or 6.2 miles. It's important to note that the actual achievable

Lenovo Brocade SFP+ Module 4M27A65425 | Cendirect Canada

Lenovo Brocade SFP+ Module - For Data Networking, Optical Network - 1 x LC Fiber Channel Network - Optical Fiber64 Gigabit Ethernet - Fiber Channel0.10 km (0.06 Mile) Maximum Distance

Cisco 10GBASE SFP+ Modules Data Sheet

The Cisco 10GBASE SFP+ modules give you a wide variety of 10 Gigabit Ethernet connectivity options for data center, enterprise wiring closet,

MIKROTIK 100GbE QSFP28 Optical Transceiver Module 10km LC

High-performance 100Gbps QSFP28 fiber module for reliable long-range connectivity up to 10km. Features advanced digital diagnostics. Fast shipping to Latvia, Estonia, and Lithuania. 2-Year Warranty.

Contact Us

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