

Huijue Optical Module LR Transmission Distance



Overview

The Huawei Optical Transceiver SFP-10G-LR is a versatile and high-performance 10G SFP+ module. Designed for single-mode fiber, it offers reliable 10km transmission at 1310nm. Common distances are as follows: K stands for backplane. A link length of 300 m is supported on a multi-mode fiber. This product is highly beneficial for data centers and enterprise networks needing robust and long-range connectivity. Choosing the wrong optical module can lead to "performance surplus" or "insufficient distance"—both costly mistakes. As 5G, AI computing, and data center interconnect demands surge, understanding SR, LR, ER, and ZR optics is key to optimizing both network performance and budget. Do you really need a 10km module for a 300m connection?

Many customers unknowingly overspend by not matching transceiver distance with real needs.



Article Content

Mar 17, 2026

What is the difference between sfp module lr and sr?

The main difference between SFP module LR (Long Range) and SR (Short Range) lies in their transmission distances. SFP module LR is designed for long-range

Jun 23, 2026

Parallel Optics and WDM Optics Subassemblies for High-speed Optical ...

The common optical modules are divided into short distance(≤2km), middle distance(10~20km), long distance(≥30km). According to the typical transmission distance, optical

Jul 30, 2025

Wavelength and Transmission Distance of Optical

The price of the optical sources and signal converters that are paired with 850nm optical transceiver modules is far lower than the prices of 1310nm and 1550nm

Jul 04, 2025

100G LR4 Modules: Unleashing the Power of Long

The 100G LR4 (Long Range 4) module is a type of optical transceiver designed for high-speed data transmission over long distances. It operates at a

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“Understanding Transmission Distance: Short-Range vs

Do you really need a 10km module for a 300m connection? Many customers unknowingly overspend by not matching transceiver distance with real

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Huawei SFP-10G-LR 02310QDJ Optical

By incorporating the Huawei SFP 10G LR 02310QDJ Optical Transceiver into your network infrastructure, you can achieve high speed, reliable, and long distance data transmission, enhancing

May 29, 2026

Understanding the Transmission Distance of Optical

Have you ever wondered what the various distance acronyms like SR, DR, FR, LR, ER, and ZR really mean? How do these terms affect your

Jul 24, 2025

Transmission Distance of an Ethernet Module

LR stands for Long Reach. The maximum distance supported on a single-mode fiber is 10 km. ER stands for Extended Reach. The maximum distance supported on a single-mode fiber is 40 km. ZR

May 22, 2026

Optical module transmission distance and related classification

In the actual use of long-distance optical modules, in many cases, the maximum transmission distance of the module cannot be achieved. This is because the optical signal will have

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Understanding SR/LR Optical Designations and Distances

LR modules are designed for long-distance transmission over single-mode fiber. A standard LR module typically supports distances of up to 10km or 20km, though some extended LR variants (such as ER

Nov 12, 2025

SFP Optical Transceiver Modules for Long Distance: A

Discover everything you need to know about SFP optical transceiver modules for long-distance fiber transmission. Compare LX, EX, ZX models and

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How to Choose the Right 10G SFP+ Module: SR, LR, or

Deploying a 10G network requires careful selection of optical transceivers to ensure performance, cost efficiency, and compatibility. Among the

Oct 01, 2025

SR vs LR vs ER vs ZR: A Complete Guide to Optical Module

HCH is a professional optical module manufacturer in China supplying SR, LR, ER, ZR compatible optical modules. We provide a complete guide on optical module transmission distance and selection.

May 11, 2026

100G LR4 vs. Single Lambda 100G LR, What's the Difference?

Both Single Lambda 100GBASE-LR and 100GBASE-LR4 optical modules support a transmission distance of 10 kilometers and can meet various long-distance data transmission needs.

May 15, 2026

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

What Are Short-Range and Long-Range SFP Modules? In optical communication, SR and LR SFP modules are among the most widely used solutions, mainly distinguished by their

Dec 07, 2025

SFP-10G-LR, Huawei SFP+ Optical Transceiver, 10G,

The Huawei Optical Transceiver SFP-10G-LR is a versatile and high-performance 10G SFP+ module. Designed for single-mode fiber, it offers reliable 10km

Jan 03, 2026

How to Choose the Right 10G SFP+ Module: SR, LR, or

At the same time, if the transmission distance is between 300 meters and 2 kilometers, it is more appropriate to choose the SFP-10G-LRM2 optical

May 31, 2026

10G SR vs LR vs ER vs ZR - Optical Transceiver Distance

When deploying a 10G network, choosing the right optical transceiver is critical. The main difference between SR, LR, ER, and ZR modules lies in transmission distance, fiber type,

Sep 28, 2025

Transmission Distance of an Ethernet Module

Common distances are as follows: Table 3-1 Common transmission distance types ... The number following the letter R indicates the number of parallel fibers or WDM channels. For example:

Apr 20, 2026

10 Gbit/s SFP+ Optical Modules

10 Gbit/s SFP+ optical modules apply to 10 GE optical ports. The wavelength can be 850 nm, 1310 nm, or 1550 nm, and the transmission distance ranges from 0.5 km (0.31 mi) to 80 km (49.71 mi).

Contact Us

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