

SR optical module



Article Overview

SR (Short Reach) optical modules are designed for high-speed, short-distance data transmission over multimode fiber, typically up to 300–400 meters at 850nm wavelength.

Key Characteristics

Wavelength and Fiber Type: SR modules operate at 850nm and are compatible with multimode fiber (OM3 or OM4), which allows multiple light modes to propagate but limits the effective distance due to modal dispersion . **Distance:** They are optimized for short-range connections, generally supporting up to 300 meters, making them ideal for intra-building or data center links . **Data Rate:** SR modules are commonly used in 10G, 25G, or 40G Ethernet networks, providing reliable high-speed transmission within their designed reach . **Cost and Efficiency:** SR modules are less expensive than LR (Long Reach) or ER (Extended Reach) modules, making them cost-effective for dense, short-range deployments where long-distance transmission is unnecessary .

Applications

- **Data Centers:** Connecting servers, switches, and storage within the same building or rack.
- **Enterprise Networks:** Short intra-campus links where multimode fiber is already installed.
- **High-Density Environments:** SR modules are optimized for environments where short-distance scalability is more critical than long-distance flexibility

Article Content

Jan 29, 2026

Cisco 10GBASE SFP+ Modules Data Sheet

The Cisco SFP-10G-SR-X is a multirate* 10GBASE-SR, 10GBASE-SW and OTU2/OTU2e module for extended operating

Apr 02, 2026

SFP28 25G SR Optical Modules: High-Performance Network Solution

Explore the benefits of SFP28 25G SR optical modules for fast, cost-effective connectivity in data centers, enterprise

Jun 23, 2026

SR SFP Module: Specs, Compatibility, and Selection Guide

This guide explains SR SFP modules, including wavelength, fiber requirements, typical reach, compatibility issues,

Jul 24, 2026

What Is StarryLink Optical Module? Why Do We Need It?

The StarryLink optical module is a core component developed by Huawei for data center networks. It delivers ultra

Oct 25, 2025

10GBASE-SR SFP+ 850nm Fiber Optical Transceiver Module

GLSUNMALL's Cisco SFP-10G-SR compatible SFP+ transceiver module provides 10GBase-SR throughput up to 300m over

Jul 16, 2026

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

This article will introduce the differences between SFP-10G-LRM, SFP-10G-SR, and SFP-10G-LR optical modules,

Nov 27, 2025

One Minute to Understand: What Do SX, LX, EX, ZX, SR ...

☐☐ One Minute to Understand: What Do SX, LX, EX, ZX, SR, LR, ER, ZR, DR, FR, LR4 Mean? (Including 1.25G, 10G,

Jul 08, 2026

Understanding SR/LR Optical Designations and Distances

SR (Short Reach) and LR (Long Reach) are optical designations commonly used across various module types (such as SFP+)

Mar 30, 2026

Cisco 10GBASE SFP+ Modules Data Sheet

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

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QSFP28 Optical Transceiver Modules (100G-SR/LR)

Our QSFP28-SR Multi-Mode-Fiber (MMF) Optical Modules integrate a 12-lane MTP/MPO fiber receptacle (port) for 100G Ethernet

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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)

Feb 21, 2026

Intel® Ethernet SFP+ SR Optics and LR Optics

For instance, customers can remove the optical modules that come installed on the adapter and replace them with an Intel® Ethernet

May 13, 2026

Inventory Of 10G Optical Modules

The 10G SFP+ SR optical module operates at a wavelength of 850nm. When used with multimode fiber, it supports a

Jun 28, 2026

Intel® Ethernet SFP+ Optic

Overview For customers looking for Ethernet connections over 15 meters, Intel® Ethernet SFP+ Optics can extend the reach to 300

Apr 14, 2026

Introduction And Application Of SFP-10G-SR And SFP-10G-LR

The SFP-10G-SR optical module, where SR stands for Short Range, operates at a center wavelength of 850nm. It

Jun 26, 2026

Meaning of SR, LR, LRM, ER, and ZR in Transceiver Modules

SR stands for Short Range, these transceivers support link length of 300m over multi-mode fiber and use 850nm

Jun 09, 2026

100G Optical Module: How to Choose Between SR4, DR4, FR4

Continuing our discussion on 100G optical modules, let's explore the essential 100G transmission standards—SR4,

Dec 25, 2025

Unlocking the Reach of Optical Modules: What Do SR, DR, FR

Ever wondered what the acronyms SR, DR, FR, LR, ER, and ZR stand for? Understanding these terms is crucial for

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Optical module

An optical module is a typically hot-pluggable optical transceiver used in high-bandwidth data communications applications. Optical

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What Is an Optical Module and Its FAQs (V200)

What Is an Optical Module and Its FAQs (V200) Describes what an optical module is and FAQs, including the fundamentals,

Jul 03, 2026

What are the differences between 10G SR, LR, ER, and ZR optical modules?

10G SR, LR, ER, and ZR modules are respectively for short, medium, long, and ultra-long distance applications, and

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