

Optical module with a long range of over 850 meters



Overview

Long-distance variants, typically referred to as LX, EX, ZX, or ER/LR SFPs, are engineered with higher optical power budgets and longer wavelength lasers (e., 1310nm, 1550nm), enabling transmission distances from 10 km up to 80 km or more over single-mode fiber (SMF). For example, a 10G SFP+ SR. SFP (Small Form-factor Pluggable) modules are standardized network transceivers that support a range of data rates (1G, 10G, 25G) and fiber types. This is why two modules with the same form factor can have dramatically different ranges—some limited. Choosing the right optical wavelength is one of the quickest ways to determine how far a Transceiver can reliably carry data. Engineers decide among 850 nm, 1310 nm and 1550 nm based on reach, fiber type, cost and the physical limits that affect signal fidelity. This article explains why wavelength. SX- Short Wavelength - these transceivers are optimized for transmission via multimode fiber (MMF) via the 850 nm wavelength over short distances of up to 550 meters and are used in LAN and data center applications. Durable and Reliable: Constructed with metal materials and certified by CE, FCC, and RoHS, this product guarantees.



Article Content

Unlocking the Potential of the QSFP28 SR4 Optical

QSFP28 SR4 transceiver is a small quad form-factor pluggable module meant for high-speed data communication and networking. It has the

Common Optical Wavelengths: 850nm, 1310nm,

Optical fiber communication systems use specific wavelength windows in the electromagnetic spectrum to transmit data over fiber optic cables.

SFP+ 10G SR to HP/Aruba 850nm LC DDM MMF 300m

SFP+ 10G SR optical module for HP/ARUBA devices The LightOptics LO-HPSP-10G-SR transceiver is an advanced 10G SFP+ SR module designed to work with HP, Aruba and 3Com devices. This fiber

Siemens SFP992-1 SFP 1000Base-SX Multimode

The SFP992-1 1000Base-SX LC Duplex SFP compatible with Siemens has a receiving function (receiver with 850nm) and a transmitting function

Short Range SFP Module: What It Is and How Far It Works

Most short-range SFP modules operate at an 850 nm wavelength and use VCSEL (Vertical-Cavity Surface-Emitting Laser) technology. This design allows efficient data transmission

Ruijie XG-SFP-SR-MM850 Optical Transceiver

Ruijie XG-SFP-SR-MM850 Optical Transceiver Ruijie XG-SFP-SR-MM850 Optical Transceiver Module - 10GBASE-SR Available Ruijie XG-SFP-SR-MM850 optical transceiver module offers a reliable and

850 nm optical components for 25 Gb/s optical fiber data

850 nm optical components for 25 Gb/s optical fiber data communication links over 100 m at 85°C We report on the development of 25Gb/s 850nm VCSEL and PD components for efficient

SFP Wavelength Guide: 850nm vs. 1310nm vs. 1550nm

SFP wavelength refers to the nominal center wavelength of the laser transmitter inside a Small Form-factor Pluggable (SFP) optical transceiver. It

SFP Optical Transceiver Modules for Long Distance: A

Overview: Why Long-Range SFP Modules Matter in Modern Networks In an era where enterprises are rapidly expanding their network

StarTech Gigabit 850nm Multi Mode SFP Fiber Optical

The Startech Gigabit 850nm Multi Mode SFP Fiber Optical Transceiver - LC 550m allows you to add, replace, or upgrade SFP modules on gigabit fiber equipment.

How Wavelength (850/1310/1550nm) Affects Optic

Learn how 850 nm, 1310 nm and 1550 nm wavelengths change transceiver reach. Compare attenuation, modal and chromatic dispersion, standard reaches

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

Understand short-range and long-range 10G optical modules in terms of distance, budget, energy use, and scalability to make the right choice.

SR SFP Module: Specs, Compatibility, and Selection Guide

An SR (Short-Range) SFP/SFP+ module is a multimode optical transceiver designed for short-distance Ethernet links, typically operating at 850 nm over MMF. It is widely deployed in

Global Leader in Materials, Networking, and Lasers

Communications Transform global communications networks with our comprehensive portfolio of coherent transceivers and modules, lasers, amplifiers,

10G SFP+ Multimode Optic 850nm – Broadata

The 10G SFP+ Multimode Optic is a cost-effective solution for high-speed 10 Gigabit Ethernet transmission over multimode fiber (MMF). Operating at an 850nm

10Gb/s 850nm 300m SFP

The 10Gb/s 850nm 300m SFP+ Optical Transceiver Module delivers a powerful combination of speed, reliability, and compliance, making it an excellent choice for short-range

10G 25G SFP Module 850/1270/1310/1330/1490/1550nm Optical

Long-Range Transmission: With a distance of up to 60km, this SFP module enables reliable and efficient data transmission over long distances, making it ideal for FTTH (Fiber-to-the-Home) applications.

PerkinElmer | Science with Purpose

We believe in the power of science to transform our world. Together with scientists and operators worldwide, we empower progress by providing trusted insights

Optical Transceiver eSFP GE Multi-Mode 850nm LC

The Optical Transceiver eSFP GE Multi-Mode 850 nm 0.55 km LC module delivers stable and efficient Gigabit Ethernet connectivity over multi-mode fiber.

Cisco 10GBASE SFP+ Modules Data Sheet

The Cisco SFP-10G-LR-X is a multirate 10GBASE-LR, 10GBASE-LW, and OTU2/OTU2e module for extended operating temperature range. It supports

800G OSFP 850nm Optical Transceiver

It is a high-performance module for short-range data communication and interconnect use. The transceiver integrates eight data lanes in each direction,

Guide to Optical Transceiver Standards

LR – Long Range Transceivers – are optimized for longer distances from 10 km to 40 km over singlemode fiber using the 1310 nm wavelength and are used for

XG-SFP-SR-MM850 10GBASE-SR SFP+ 850-nm 300-m DOM Duplex LC MMF Optical ...

The XG-SFP-SR-MM850 is aligned to IEEE 10GBASE-SR optical specifications and supports a link length of up to 300 m (984.25 ft., with OM3 optical cables) or 400 m (1312.34 ft., with OM4 optical

Future of 850nm MMF Optical Modules in Data Centers:

850nm Modules in Multimode Fiber Data Centers For short-reach distances (typically up to 100–150 meters depending on OM3/OM4/OM5 fiber

SFP Distance Explained: Real-World Range, Limits, and Optics

Understand SFP distance, fiber optic range, and real-world limits of SR/LR modules. Learn how wavelength, fiber type, and optics affect performance.

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

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://jrsekwele.co.za>

Email: info@jrsekwele.co.za

Phone: +31-20-794-2536

Address: Herengracht 47, 1015 BB Amsterdam, Netherlands

This document is for informational purposes only. Specifications subject to change without notice.

