

Single-mode 1310 fiber optic interface



Article Overview

A single-mode 1310nm fiber optic interface is an optical transceiver designed for transmitting and receiving data over single-mode fiber using a 1310-nanometer wavelength, ideal for short-to-medium distance network links.

Overview

A 1310nm single-mode fiber optic transceiver converts electrical signals from network devices into optical signals for transmission over single-mode fiber (SMF) and converts incoming optical signals back into electrical form at the receiving end. This wavelength is widely used because it balances transmission distance, signal stability, and cost efficiency, making it suitable for enterprise, data center, and telecom networks.

Key Features

- Wavelength: 1310 nm, positioned between short-reach multimode (850 nm) and long-reach single-mode (1550 nm) solutions.
- Fiber Type: Single-mode fiber, which has a small core diameter (~9 μm) and low attenuation, allowing longer distances than multimode fiber.
- Data Rates: Commonly supports Gigabit Ethernet, 10 Gigabit Ethernet, and lower-speed industrial applications (e.g., 10 Mb/s).
- Connector Types: LC, SC, ST, FC, or pigtail interfaces depending on the module and application.
- Form Factors: SFP, SFP+, or 1x9 SIP packages for compatibility with switches, routers, NICs, and media converters

Article Content

Jan 26, 2026

SFP+ Transceiver – 10G SFP+ 1310nm Single-mode – 10KM

10G SFP+ 1310nm single mode transceiver with 10KM range. Designed for long-distance fibre connections in enterprise and telecom

Feb 28, 2026

Huawei SFP-GE-LX-SM1310 1GE 1310nm 10km SFP Optical

The Huawei SFP-GE-LX-SM1310 is a carrier-grade optical transceiver designed for Gigabit Ethernet over single-mode fiber.

Jan 22, 2026

Singlemode Transceivers 1310 nm Fiber Optics – Mouser

Singlemode Transceivers 1310 nm Fiber Optics No Results Found. Try modifying your search term below or visit our Help Center.

Jan 16, 2026

Applications of 1310nm Optical Modules in Modern Networks

Beyond traditional data networking, specialized formats such as SDI (serial digital interface) broadcasting leverage

Mar 25, 2026

SFP-7040-31-IDD 1000Base-LX Singlemode 40km 1310nm SFP

Explore the SFP-7040-31-IDD hardened Gigabit LX transceiver for 40km. DDM support - buy for extreme environments!

Apr 30, 2026

SFP-7020-31 1000Base-LX Gigabit SFP transceiver singlemode

The fiber standard for SFP-7020-31 is 1000Base-LX, same as for the SFP-7010-31. Transceiver includes Digital Diagnostic

Oct 17, 2025

XG-SFP-LR-SM1310 10GBASE-LR SFP+ 1310-nm 10-km DOM

The XG-SFP-LR-SM1310 is aligned to IEEE 10GBASE-LR optical specifications and supports a link length of up to 10 kilometers

Sep 18, 2025

1300nm and 1310nm wavelengths in Fiber Optic Communications

850nm and 1300nm light wavelengths are produced by LEDs and are standards for multimode fiber. 1310nm and

Feb 16, 2026

Gigabit Singlemode Fiber to Ethernet Media Converter, SC, 1310 nm,

Convert your copper Ethernet signal to fiber and extend your Gigabit connection up to 12 miles. This lightweight media converter

Jun 03, 2026

10Mb/s Single Mode 1310nm 10km SC/FC/ST 1x9 TTL Optical

The transceivers are high-performance, cost-effective modules with a TTL data interface that supports a data rate of 10Mbps and a

Nov 02, 2025

SFP-10G-LR Compatible | 10GBASE-LR SFP+ Optical Transceiver

Standard 10GBASE-LR SFP+ transceiver. Supports 10 Gbps data links up to 10km on Single Mode Fiber at 1310nm. Features DDM

Mar 14, 2026

Single Mode vs. Multimode Fiber: Core Differences and Selection Guide

How do you choose between single mode and multimode fiber? Compare their differences in core size, light source,

Jun 09, 2026

Singlemode SFP Transceivers 1310 nm Fiber Optic Transmitters,

Mouser offers inventory, pricing, & datasheets for Singlemode SFP Transceivers 1310 nm Fiber Optic Transmitters, Receivers,

Mar 22, 2026

1310nm Single Mode Fiber Optical Transceivers Explained

In short, a 1310nm single mode fiber optical module serves as the interface between network hardware and the fiber infrastructure,

Sep 24, 2025

SFP-GE-CS-SM 1.25Gbps 1310nm Single-mode Simplex SC fiber

1.25Gbps 1310nm Single-mode Simplex SC fiber SFP Transceiver Compliant with SFF-8472 and DDM Function Small Form Factor

Dec 27, 2025

1.25G 20km Single Mode SFP Transceiver (LX, 1310nm, LC)

Powered by a high-efficiency 1310 nm wavelength Fabry-Pérot laser diode, the transceiver supports data rates of up to 1.25 Gbps

May 15, 2026

SFP-1020-LR: SFP+ 10G LR Transceiver Module Single-Mode 1310nm

The SFP-1020-LR is a long range singlemode 10G SFP+ optical module compatible with the 10GBase-LR specifications. It uses a

Mar 16, 2026

Everything You Need to Know About 1310nm Optical Modules

Applications of 1310nm Optical Module 1310nm optical modules are widely used across data centers, enterprise

Mar 06, 2026

Single-Mode vs Multimode Fiber and 1300nm/1310nm SFP

Learn the differences between single-mode (SMF) and multimode fiber (MMF), understand 1300nm vs 1310nm SFP transceivers,

Aug 16, 2025

Fiber Test Kit

Fiber Test Kit - Singlemode, 1310/1550nm Fiber optic test kit for measuring and diagnosing optical performance Item #: BC00231

Mar 29, 2026

Singlemode 1310 nm Fiber Optic Transceivers - Mouser

Singlemode 1310 nm Fiber Optic Transceivers are available at Mouser Electronics. Mouser offers inventory, pricing, & datasheets for

Aug 28, 2025

Black Box Universal Fiber Optic Line Driver Transceivers, 1310

Buy Black Box Universal Fiber Optic Line Driver Transceivers, 1310-nm Single-Mode: Transceivers - Amazon FREE DELIVERY

Aug 14, 2025

Single-mode optical fiber

In fiber optics, a quadruply clad fiber is a single-mode optical fiber that has four claddings. Each cladding has a refractive index

Jan 25, 2026

1000BASE-LX/LH 1G SFP Singlemode 1310nm 10km

42-GLCLHSMD is a 1000Base-LX SFP transceiver operating up to 10km over singlemode fiber (SMF) at a wavelength of 1310nm via

Jun 05, 2026

10Mb/s Single Mode 1310nm 10km SC/FC/ST 1x9 TTL Optical

10Mb Single Mode 1310nm 10km Duplex SC/FC/ST 1x9 TTL Optical Transceiver Manufacturer, Affordable Factory Price,5-Year

Apr 06, 2026

Single-Mode Fibers 1310/1550 nm Select Cutoff

1310/1550 nm Select Cutoff Single-Mode Fibers Coherent's 1310B-HP and 1310B-HP-V0 high-performance Select Cutoff single

Oct 06, 2025

FMC-1001S-WA02 Gigabit Ethernet WDM single strand SMF fiber

Discover the FMC-1001S-WA02 a Gigabit Ethernet WDM converter for single-strand SMF up to 2Km. Supports jumbo frames - buy

Apr 18, 2026

Singlemode 1310 nm Fiber Optics

Singlemode 1310 nm Fiber Optics No Results Found. Try modifying your search term below or visit our Help Center.

Dec 20, 2025

Optical Transceiver SFP+ 10G Single-Mode Module 1310nm 10km LC

Explore the features, applications, and selection guide for optical transceiver SFP+ 10G single-mode 1310nm 10km

Oct 28, 2025

Single-Mode Optical Fiber (SMF)

Draka Single-Mode Fiber (SMF) provides optimum performance in both the 1310 nm and 1550 nm wavelength operation ranges

Jun 25, 2026

Recommendation ITU-T G.652 (08/2024)

This document outlines the specifications for a single-mode optical fiber and cable designed for use around

Jul 21, 2026

SFP+ 10G 1310nm Singlemode Optical Transceiver

Applications 10GBase-LR/LW Ethernet / Fiber Channel Switch to Switch Interface
Router/Server Interface Other optical links

Contact Us

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

Website: <https://www.greatpremiersolutions.co.za>

Email: sales@greatpremiersolutions.co.za

Phone: +27 82 914 3675

Address: Unit 5, Silicon Heights, 22 Electron Avenue, Cape Town, 8001, South Africa

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

