

Single-megabit single-mode single-fiber transceiver



Article Overview

A single-megabit single-mode single-fiber transceiver is an optical module that transmits and receives data over a single strand of single-mode fiber at low data rates, typically for long-distance serial or Ethernet communication.

Overview

Single-mode single-fiber transceivers are designed to convert electrical signals into optical signals and vice versa over a single strand of single-mode fiber (SMF), which has a small core diameter of approximately $9/125\text{ }\mu\text{m}$. These transceivers are optimized for long-distance communication with minimal signal loss, often supporting distances from 10 km up to 80 km, depending on the optical power budget and wavelength used. Unlike multimode transceivers, single-mode modules use laser-based transmission at wavelengths such as 1310 nm or 1550 nm to achieve reliable long-range connectivity.

Data Rate and Applications

For single-megabit applications, transceivers like the SEL-2830 support data rates up to 40 kbps to 1 Mbps, making them suitable for serial communication, industrial automation, protection systems, and instrumentation. These low-speed transceivers are ideal when electrical isolation, EMI/RFI immunity, and long-distance links are required. They are commonly used in EIA-232 or EIA-485 serial networks, connecting devices over distances that would be impractical with copper wiring...

Article Content

Apr 10, 2026

Single Mode Fiber Transceivers – Fiber Savvy

Single Mode Fiber Optic Transceivers are essential components in high-speed, long-distance data transfer networks. Their ability to

Jun 27, 2026

100 Mb/s Singlemode Transceivers Fiber Optic Transmitters,

100 Mb/s Singlemode Transceivers Fiber Optic Transmitters, Receivers, Transceivers are available at Mouser Electronics. Mouser

May 15, 2026

Altronix Products

Altronix P1SM10 are hot-pluggable SFP fiber transceiver modules and are readily usable with all Altronix Spectrum fiber optic

Sep 17, 2025

Single-mode vs. Multimode Transceivers: How Do You Choose?

Multimode fiber and singlemode fiber When comparing singlemode vs. multimode transceivers in terms of laser

Mar 26, 2026

Singlemode: Transceiver Lösungen & Einsatzbereiche

Entdecken Sie unsere vielfältige Auswahl an Singlemode Transceivermodulen, die speziell für langlebige, zuverlässige und

Jul 29, 2025

Singlemode Fiber Optics – Mouser

Singlemode Fiber Optics are available at Mouser Electronics. Mouser offers inventory, pricing, & datasheets for Singlemode Fiber

Oct 25, 2025

[Product Hub] Single Mode SFP Transceiver | Optcore

Single Mode SFP Module T he single mode SFP module is one of the most common SFP transceiver types; sometimes, we refer to it

Mar 02, 2026

100 Mb/s Singlemode Transceivers Fiber Optic Transmitters,

Mouser offers inventory, pricing, & datasheets for 100 Mb/s Singlemode Transceivers Fiber Optic Transmitters, Receivers,

Mar 21, 2026

1.25G BIDI SFP SC Single Fiber Transceiver

The SFP transceivers are high-quality and cost-effective modules that support transmission speeds of up to 1.25Gbps with both

Jul 27, 2026

What Is A Single-Fiber BiDi Transceiver?--ETU-LINK

When planning a fiber optic network, one key decision is choosing between single-fiber (BiDi) and dual-fiber optical transceivers. This

Dec 21, 2025

ipolex 1000Base-LX/LH SFP Transceiver, 1.25G SFP LC Fiber

Buy ipolex 1000Base-LX/LH SFP Transceiver, 1.25G SFP LC Fiber Module, Gigabit Single Mode Mini GBIC, 1310nm

Jul 27, 2026

Cisco MGE SFP Modules Cisco Small Business Network Accessories

easy-to-install modules that provide a simple way to add fiber connectivity or an extra Gigabit Ethernet port to your Cisco 100, 200,

Aug 11, 2025

Amazon : Single Mode Sfp

H!Fiber 10G Single Mode SFP+ LC Module, 10GBase-LR Fiber Transceiver for Cisco SFP-10G-LR, Meraki MA-SFP-10GB-LR,

Nov 20, 2025

Differences Between Single-mode & Multimode Fiber Optic Transceivers

The transmission distance of multimode fiber optic transceiver is less than that of the single-mode transceiver due to

Aug 28, 2025

Single -mode fiber transceiver

Single-mode optical fiber transceivers are an essential component in fiber optic communication systems, which transmit

Jul 15, 2026

Luminex Transceivers

Their wide temperature range ensures reliable operation in the most diverse applications. Available in

Sep 29, 2025

Cisco Transceiver Modules

Cisco Transceiver Modules - Learn product details such as features and benefits, as well as hardware and software specifications.

Jan 01, 2026

Single Mode BiDi SFP+ Fiber Modules

Single Mode BiDi SFP+ Fiber Modules is a cost effective way to connect a single network device to a wide variety of fiber cable

Mar 25, 2026

Single-Mode Gigabit Fiber Transceiver SFP/Mini-GBIC

Cisco GLC-LH-SMD Compatible SFP Module - 1000BASE-LH - 1GbE Single Mode Fiber SMF Optic Transceiver - 1GE Gigabit

Aug 24, 2025

Single Fiber Bidirectional SFP Transceivers

Single Fiber Bidirectional SFP transceivers use simplex single-mode fiber to double the bandwidth, data rates up to 4G and

Dec 02, 2025

Singlemode transceiver modules buy online

Discover our high-quality singlemode transceiver modules at Fiber24. Available in many different models.

Sep 19, 2025

1 Gbit/s Singlemode SFP Transceivers | Westermo

High-bandwidth Westermo 1 Gbit/s singlemode SFPs for 9/125 µm fibre. Available in 10 to 110 km variants for industrial use. View

Jan 28, 2026

StarTech MSA Uncoded Compatible SFP Module

StarTech MSA Uncoded Compatible SFP Module - 100BASE-LX - 100MbE Single Mode Fiber (SMF) Optic Transceiver - 100Mb

Jun 12, 2026

Single Mode SFP Transceiver: Complete Guide Explained

In this guide, you will learn what a single mode SFP transceiver is, how it works, the key specifications and types available, and

Feb 07, 2026

SEL-2830 Single-Mode Fiber-Optic Transceiver/Modem

Improve safety, signal integrity, and reliability by using two optical fibers instead of wire to transfer bidirectional serial data using

Jul 05, 2026

SEL-2829 Single-Mode Fiber-Optic Transceiver/Modem

Single-Mode Fiber-Optic Transceiver/Modem Improve safety, signal integrity, and reliability by using two optical fibers instead of wire

May 27, 2026

Singlemode SFP Transceivers Fiber Optic Transmitters, Receivers ...

Singlemode SFP Transceivers Fiber Optic Transmitters, Receivers, Transceivers are available at Mouser Electronics. Mouser offers

Oct 12, 2025

1.25G Single-Mode/10KM Fiber SFP Module

The 2A-137G 1.25G Single-Mode/10KM Fiber SFP Module provides 1 GbE connectivity up to 10 kilometers. The transceiver can be

Feb 25, 2026

H!Fiber 10G Single Mode SFP+ LC Module, 10GBase-LR Fiber Transceiver ...

H!Fiber offers one-stop Datacenter solution and products, including SFP Transceivers, DAC Cables, Network Card,

Dec 16, 2025

Mini GBIC SFP transceiver LX Single-Mode (10km)

The LevelOne GVT-0301 SFP (Small form-factor pluggable) Transceiver provide flexibility for utilizing fiber Gigabit network

May 04, 2026

Single Mode SFP Transceiver: Complete Guide Explained

Learn what a single mode SFP transceiver is, how it works, key specs, common types, and real-world use cases for long-distance

Oct 31, 2025

Industrial SFP Transceivers - 100 Mbit/s to 10 Gbit/s | Westermo

Learn about key factors, end-to-end matching, and multimode vs singlemode. Optimize networks with Westermo SFPs: Multimode,

Contact Us

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

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

Email: sales@khanimamboguesthouse.co.za

Phone: +27 64 852 1973

Address: Unit 7, Greenway Business Park, 8 Innovation Drive, Centurion, 0157, South Africa

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

