

ST Single-mode Fiber Transceiver



AI Overview

Single mode fiber transceivers are essential components for high-speed, long-distance data transmission, utilizing single-mode fiber to achieve superior performance and reliability. What is a Single Mode Fiber Transceiver? A single mode fiber transceiver is a device that transmits and receives data over single-mode fiber optic cables. These transceivers are designed to work with fibers that have a small core diameter (typically 9 microns), allowing light to travel straight down the fiber without bouncing off the walls. This design minimizes signal loss and allows for longer transmission distances compared to multimode fibers.

Key Features and Specifications

Wavelengths: Single mode transceivers typically operate at wavelengths of 1310 nm and 1550 nm, which are optimized for long-distance communication.

Transmission Distance: They can support distances ranging from 2 km to over 120 km, depending on the specific module type and network requirements.

Data Rates: Many single mode transceivers support high data rates, making them suitable for applications in telecommunications, data centers, and industrial networks.

Types of Single Mode Fiber Transceivers

- 1000BASE-LX:** Suitable for distances up to 10 km over single-mode fiber.
- 1000BASE-EX:** Can operate over distances up to 40 km.
- 1000BASE-ZX:** Designed for long distances, supporting spans of up to 70 km or more.

Applications

Single mode fiber transceivers are widely used in various applications, including:

- Telecommunications:** For connecting different network nodes over long distances.
- Data Centers:** To facilitate high-speed data transfer between servers and storage systems.
- Industrial Networks:** In environments where electromagnetic interference is a concern, single mode fibers provide a reliable solution.

Advantages of Single Mode Fiber

- Higher Bandwidth:** Single mode fibers can carry more data over longer distances without degradation of signal quality.
- Reduced Attenuation:** The design of single mode fibers results in lower signal loss compared...

Article Content

TRENDnet 2-Pack 10G SFP+ Single Mode LC Module (10km)

TRENDnet's 2-Pack 10G SFP+ Single Mode LC Modules are compatible with standard SFP+ ports found on network switches and fiber converters. Each single mode 10G SFP+ transceiver is

1310 nm Fiber Optic Transceivers – Mouser

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

Multidyne VERSA/BRIX V4-3811-0X2L-B-ST 2 CH 3G-SDI Video Portable Fiber ...

V4-3811-0X2L-B-ST - Overview 3G-SDI Video Transport for Up to 18 Over One Fiber
The Multidyne VB-3811 is part of the versatile LightBrix line of compact, rugged fiber transport products designed for OB

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 over a reach of up to 20 km on duplex single-mode fiber optic cables.

Singlemode Transceivers Fiber Optic Transmitters, Receivers ...

Mouser offers inventory, pricing, & datasheets for Singlemode Transceivers Fiber Optic Transmitters, Receivers, Transceivers.

10GBASE-LR SFP+ Transceiver-Modul Cisco Kompatibel – TRINCOS

Dieses Modul ist perfekt für die Erweiterung Ihrer Netzwerkfunktionen, kompatibel mit Cisco-Geräten und für die effektive Abwicklung von 10GbE Single Mode Fiber-Verbindungen ausgelegt.

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Fiber Optic Pigtails | SC, LC, ST Single Mode & Multimode

High-quality fiber optic pigtails for terminating and splicing in any network environment. We stock a wide variety of pigtail fiber types, including single mode and multimode, with all major connector options

What is Optical Transceiver: A Beginner Guide (2024)

Classified by Fiber Mode Types Optical fibers are divided into: single mode fiber (SMF) and multi-mode fiber (MMF). As a result, optical transceivers

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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 single-mode optical fiber.

StarTech Cisco QSFP-40GE-LR4 Compatible QSFP+ Module,

Hardware Networking Transceivers & Multiplexers Optical Transceivers StarTech Cisco QSFP-40GE-LR4 Compatible QSFP+ Module, 40GBASE-LR4, 40GbE Single Mode (SMF) Fiber SMF Optic

StarTech SFP-10G-BXD-I-ST Cisco SFP-10G-BXD

The SFP-10G-BXD-I-ST is a Cisco SFP-10G-BXD-I compatible downstream fiber SFP transceiver which pairs with StarTech 's SFP-10G-BXU-I-ST. They are

12G-SDI/ST2110 over IP Gateway Transceiver

The transceiver unit allows 12G-SDI equipment to be extended up-to many miles over an IP network. This Gateway Converter supports the ST-2110 AV over IP protocol standard for Broadcast applications.

1.25G 1310nm 20km 1x9 SC/ST/FC Optical Transceiver

They are suitable for Gigabit Ethernet and 1x Fibre channel long-reach applications. This series of 1x9 optical transceivers provide a 20km transmission distance

Fiber Patch Cable Selection Guide 2026: How to Choose the Right

Which fiber patch cable fits your network? Compare OS2, OM3 & OM4 specs, match fiber to distance and speed, avoid costly mistakes. Expert guide for data centers.

Fiber Patch Cords: Types and How to Choose the Right One | Weunion

The “mode” of a fiber patch cord refers to how light travels through the fiber core. This is one of the most critical distinctions, as it directly impacts transmission distance, bandwidth, and

10 Best Fiber Optic Media Converters (May 2026) Expert Reviews

Discover the best fiber optic media converters in 2026. Our experts tested 10 top models for reliability, performance, and value. Complete buying guide included.

Altronix Products

Small Form-Factor Pluggable (SFP) Single Mode Transceiver Altronix P1SM10 are hot-pluggable SFP fiber transceiver modules and are readily usable with all Altronix Spectrum fiber optic equipment for

BiDi SFP: The Complete Guide to Bidirectional SFP Transceivers and ...

A BiDi SFP is a specialized optical transceiver that enables bidirectional communication over a single strand of optical fiber. Unlike standard duplex SFPs that require two fibers—one for

3G/HD/SD-SDI Fiber Optic Transceiver | Fiber Optics

The NBX-TRX-3G-ST from MultiDyne provides a miniature solution to transmit and receive 3G/HD/SD-SDI signals over single-mode fiber optic cable using ST fiber

Single-Mode Fiber-Optic Transceiver for Medium-Distance Links

SEL-2830 Single-Mode Fiber-Optic Transceiver Electrically isolated, EIA-232 full-duplex communications for 80 km (50 miles) at up to 40,000 bits per second using ST connectors and single

StarTech LX-ST Palo Alto Networks LX Compatible SFP Module ...

The LX-ST is a Palo Alto Networks PAN-SFP-LX compatible fiber transceiver module that has been designed, programmed and tested to work with Palo Alto Networks brand switches and routers. It

1-Channel 3G-SDI to Single-Mode ST Fiber Transmitter

FiDO-T-ST offers unmatched flexibility and cost efficiency for SDI to Fiber conversion, allowing for long cable runs up to 10 km (32,808 ft) with electrical isolation - useful for eliminating ground loop problems.

1.25-Gbps LX Compatible, LC | Fiber SFP Module

100% PALO ALTO NETWORKS LX COMPATIBLE SFP TRANSCEIVER: Designed, programmed and tested to work with compatible Palo Alto Networks switches and routers to deliver reliable 1GbE

1000BASE-ZX GBIC Transceiver Compatible With D-Link

This product requires a 5 day lead time. 1000BASE-ZX GBIC Transceiver Compatible With D-Link - DGS-708

Single Mode vs Multimode Fiber Adapters: 2025 Guide

Compare single-mode and multimode fiber adapters. Learn how core size, bandwidth, and distance impact performance to choose the right fiber adapter for your needs.

Multidyne VERSA/BRIX V4-3811-2LX0-A-ST 2 Ch 3G-SDI Video Portable Fiber ...

The MultiDyne V4-3811-0X2L-B-ST is part of the versatile LightBrix line of compact, rugged fiber transport products designed for OB operators and anyone who needs to trunk multiple

Contact Us

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

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