

Dual-mode fiber optic transceiver optical module



Overview

Dual fiber SFP modules are the commonly used 1G SFP module type. They operate on a bidirectional transmission mechanism and have two distinct channels or ports for transmission and reception of data. They use a thin fiber. SFP (Small Form-factor Pluggable) is a compact, hot-pluggable network interface module used to connect network devices (switches, routers, firewalls) to fiber optic or copper cables. Think of it as the “translator” for your network equipment, converting electrical signals into optical signals. The Cisco 100GBASE Quad Small Form-Factor Pluggable (QSFP) portfolio offers customers a wide variety of high-density and low-power 100 Gigabit Ethernet connectivity options for data center, high-performance computing networks, enterprise core and distribution layers, and service provider. Fiber optic transceiver modules are fiber cable adaptive housings that contain a light source for transmitting data via fiber optic cable as well as a photodiode for receiving fiber optic data. Mounting options include pluggable CXP, QSFP, SFF, SFP, and XFP, surface or through-hole, CFP, 1x9 SC. Samtec's FireFly™ Micro Flyover System™ embedded and rugged mid-board optical transceivers take data connection "off board" for up to 28 Gbps per lane with a path to 112 Gbps PAM4 via optical cable at greater distances, or copper for cost optimization. BIDI module only has 1 port, wave filtering through the filter of module, and finished the transmitting of 1310nm optical signal.

Article Content

The Difference Between Single/Dual Fiber and

Dual fiber modules use two separate fibers: one for transmitting (TX) and one for receiving (RX). This is the most common setup and is widely

The Ultimate Guide to SFP Modules (2026): Types, Speeds

Confused by SFP vs SFP+? Read the definitive 2026 guide on SFP modules. We explain Single Mode vs Multimode, DDM diagnostics, and how to choose the right transceiver for Cisco, Juniper, and more.

100GBASE QSFP-100G Modules Data Sheet

The Cisco QSFP 40/100 Gb dual-rate Bi-Directional (BiDi) transceiver is a pluggable optical transceiver with a duplex LC connector interface for short-reach data communication and

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FireFly™ Mid-Board Optical Transceivers

Samtec's 14 Gbps FireFly™ FMC™ Module provides up to 140 Gbps full-duplex bandwidth over 10 channels from an FPGA to an industry-standard multi-mode fiber optic cable. The FireFly™ optical

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

Single fiber module also called BiDi transceiver or WDM module. It uses WDM technology to realize the bidirectional transmission of optical signals on one optical fiber.

SFP Dual Fiber

SFP Dual Fiber Opticonnect offers a range of SFP (Small Form-factor Pluggable transceivers) for communication over optical fiber at data speeds up to 4.25 Gbps and distances up to 160 km.

Multimode Fiber Optic Transmitters, Receivers, Transceivers

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

12G-SDI SFP+ 1310nm 20km Optical Transceiver

GIGALIGHT 12G-SDI SFP+ is a series of dual-fiber bidirectional transceiver integrated optical modules designed for high-definition video signal optical transmission applications, supporting SD-SDI, HD

Differences Between Dual Fiber SFP and Simplex SFP Modules

Dual fiber SFP modules are the commonly used 1G SFP module type. They operate on a bidirectional transmission mechanism and have two distinct channels or ports for transmission and

FTTH Solutions Optical Fibre 1.25G 20KM SM SC Connector SFP Transceiver ...

Type Fiber optoc adapter Use Indoor Model Number SM1014 Brand Name SMITON Place of Origin Guangdong, China Warranty Time 1 year Product name SM SC Connector SFP Transceiver

FTLC1151RDPL Finisar QSFP28 FTLC1151RDPL 100GBASE-LR4 Optical Modules ...

Fiber Optic Transceivers Connector Type LC Power Source AC 100-240V Use For 100G Ethernet Network Wired LAN, 4 G Model Number FTLC1151RDPL Brand Name Finisar Place of Origin

Omnitron 7015-0 network transceiver module 1000 Mbit/s SFP Gigabit ...

They support multimode dual fiber, single-mode dual fiber, single-mode single-fiber, Coarse Wave Division Multiplexing (see the CWDM Optical Transceiver Data Sheet) and Unshielded Twisted Pair

Multi-mode optical fiber

Multi-mode optical fiber is a type of optical fiber mostly used for communication over short distances, such as within a building or on a campus. Multi-mode links can

Gigabit Ethernet

Optical fiber transceivers are most often implemented as user-swappable modules in SFP form or GBIC on older devices. IEEE 802.3ab, which defines the widely

The Difference Between Single/Dual Fiber and Single/Multi-Mode Optical ...

Dual fiber modules use two separate fibers: one for transmitting (TX) and one for receiving (RX). This is the most common setup and is widely supported in standard optical networking.

10 Gigabit Ethernet

A Foundry Networks router with 10 Gigabit Ethernet optical interfaces (XFP transceiver). The yellow cables are single-mode duplex fiber optic connections.

China China Supplier 10g Lr SFP

Ang JHA3940D ay isang napaka-compact na 10Gb/s optical transceiver module para sa serial optical communication applications sa 10Gb/s. Kino-convert ng JHA3940D ang isang 10Gb/s serial electrical

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

