

Dual-fiber SFP optical module



Summary of Content

A dual-fiber SFP optical module uses two separate fibers—one for transmitting (TX) and one for receiving (RX)—to enable high-speed, reliable optical communication.

Overview

A dual-fiber SFP (Small Form-factor Pluggable) optical module is a transceiver designed for fiber optic networks that requires two fibers per link: one dedicated to transmitting data and the other for receiving data . This contrasts with single-fiber BiDi modules, which use WDM technology to transmit and receive over a single fiber by employing different wavelengths . Dual-fiber modules are widely used in enterprise, data center, and telecom networks where fiber availability is sufficient and simplicity of deployment is preferred.

Key Features

- Two Ports: One TX port for sending signals and one RX port for receiving signals .
- Wavelengths: Typically operate at standard wavelengths such as 850nm, 1310nm, or 1550nm depending on the fiber type (single-mode or multi-mode) and distance requirements .
- Data Rates: Available in multiple speeds, including 1G, 10G, and higher, supporting modern Ethernet and server connectivity .
- Distance: Can support short-range (multi-mode) or long-range (single-mode) links, with distances ranging from a few hundred meters to tens of kilometers .
- Compatibility: Dual-fiber modules do not require matched pairs like BiDi modules; any two compatible modules can be connected at each end of the link .

Article Content

Optical Module SFP

Single mode SFP module with single fiber, Tx/Rx in the same optical fiber Using different wavelengths in a fiber to

FS Community

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

The Difference Between Single/Dual Fiber and

Understanding the distinction between single vs. dual fiber and single-mode vs. multi-mode

SFP & SFP+ Modules for Fiber Optic Networks | WLAN-Shop24

High-speed via fiber optics! Find the right SFP and SFP+ modules for your switches and routers to run your network at the speed of

Bidirectional SFP Modules | Bidirectional SFP Transceivers | BiDi SFP ...

SFP Modules and Bidirectional SFP Transceivers VERSITRON offers a range of SFP and SFP+ optical transceivers for adding

300m SFP+ Optical Module

This is a standard SFP+ optical module. It uses two multi-mode optical fibers and the speed rate can up to 10Gbps, transmission

Optic Modules Datasheet

4 Optic Modules Data Sheet ... SFP (form factor) = small form-factor pluggable transceiver SMF (media) = single-mode fiber-optic

SFP Modules: Types, Selection Guide & Applications

Dual Media Support: Works with both fiber optic cables (single-mode and multimode) and copper cables (twisted-pair),

SFP Dual Fiber

Opticonnect offers a range of SFP and SFP+ (Small Form-factor Pluggable transceivers) for

Dual-Fiber

SFPs for the existing legacy units, adds an additional physical layer monitoring capability previously

Understanding SFP Modules: A Complete Guide for Business Solutions

SFP modules support various data rates, from legacy 1Gbps systems to cutting-edge 100Gbps deployments. The

SFP Optical Transceiver Module LC 1.25G-LR Dual

The 1.25G SFP transceiver module operates at a specific wavelength, typically around 1310nm, which is

SFP Dual Fiber

Standard Dual Fiber Optics (SFP) Opticonnect provides SFP transceivers for both MultiMode as

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

Optical Module SFP

Multi-mode SFP module with dual fiber, Tx/Rx in the different optical fibers Using same wavelength in different fibers

Dual-Fiber

Dual-Fiber Home / Modules / Small Modules / OZ200 Features Benefits The iDFC™ Configuration is the

Optical Data SFP Modules

The FiberPlex Technologies line of SFP Modules supports a host of data rates, wavelengths and power

Difference Between Single and Dual Fiber Optical Transceivers

Fiber optic technology has seen incredible growth over the past several years and will likely experience even more

What is the difference between single fiber optical

The single-fiber optical module is an optical module product with only one optical fiber port. It

How to Use SFP Optical Transceivers: A Comprehensive Guide

Harnessing the power of CWDM technology, the SFP optical transceiver allows the convergence of distinct wavelength

SFP Module: What's It and How to Choose It?

such as switches, NIC (network interface card), and media converters. It makes SFP module necessary in fiber optical

300m SFP+ Optical Module

This product need to use in pair and match up with fiber converter and optical Ethernet switch with SFP

SFP Optical Transceiver | SFP Optical Module | Perle

Perle SFP Optical Transceivers are hot-swappable, compact media connectors

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

What is an SFP? SFP (Small Form-factor Pluggable) is a compact, hot-pluggable network interface module

Contact Us

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