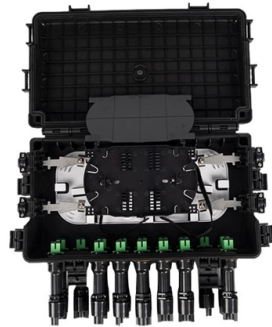


SFP optical module dual transmit and dual receive



Article Overview

Dual-receive, dual-transmit SFP modules are optical transceivers capable of simultaneously sending and receiving two independent optical signals, enabling higher bandwidth and efficient fiber utilization.

Overview

Dual-transmit (dual-TX) and dual-receive (dual-RX) SFP modules are specialized Small Form-factor Pluggable (SFP) transceivers designed to handle two optical channels within a single module. Unlike standard SFPs, which typically support one transmit and one receive channel, dual-TX/RX modules allow simultaneous bidirectional or multi-channel transmission, improving network efficiency and reducing fiber cabling requirements .

Key Specifications

- Bit Rate: Typically ranges from 50 Mbps up to 3 Gbps for SDI video applications, and up to 100 Gbps for high-speed SFP-DD modules .
- Wavelengths: Dual-TX modules may use separate wavelengths for each transmitter (e.g., 1310 nm and 1550 nm), while dual-RX modules can receive across a broad range (e.g., 1260-1620 nm), .
- Distance: Depending on the module type, transmission distances can range from 20 km for SDI video SFPs to 10 km or more for 100G SFP-DD modules over single-mode fiber

Article Content

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

What Is a Single Fiber SFP? A Complete Guide for Beginners

Single fiber SFP is an optical transceiver that transmits and receives data over a single strand of single-mode fiber by using two

Understanding Single-mode and Multi-mode SFP Optical Modules

A SFP single-mode optical modules and SFP multi-mode optical modules are incompatible. If you mix SFP single-mode optical

What is 100G SFP-DD Optical Transceiver?

It is a dual-transmit and dual-receive optical module that supports two electrical lanes and is compatible with the SFP+

SFP Optical Transceiver | SFP Optical Module | Perle

For example, by simply replacing the pluggable optical transceiver, a media converter that was originally used in a multimode

SFP modules – transceivers for 1/2/4G fibre channel

BiDi (Bidirectional) SFP – Single-fiber SFP modules for FTTH and fiber-efficient networking, allowing both transmit and receive

Small Form-factor Pluggable

Small Form-factor Pluggable Small Form-factor Pluggable connected to a pair of fiber-optic cables Small Form-factor Pluggable

Single Mode SFP Transceiver: Complete Guide Explained

How a Single Mode SFP Transceiver Works A single mode SFP transceiver operates using a simple yet efficient TX/RX (transmit

Optic Modules Datasheet

Features and Benefits The following table lists the different pluggable optic modules and supported platforms, along with the

Contact Us

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