

# Function of SFP Gigabit Single-Mode Single-Fiber Optic Module



## Overview

A gigabit SFP module (1G SFP module) is a Small Form-factor Pluggable (SFP) transceiver designed to support 1Gbps Ethernet transmission by converting electrical signals from a network device into optical or electrical signals suitable for the selected transmission medium. The hot-swappable input/output device plugs into a Gigabit Ethernet port or slot. The SFP+ specification was first published on May 9, 2006, and version 4. This technology has continuously evolved, scaling from the original 1G SFP up to 10G SFP+ and the modern 25G SFP28, which is crucial for 100G aggregation. As data. Evidence boundary: family labels such as SR, LR, BiDi, CWDM, industrial, SMF, or MMF do not create universal reach, loss, power, cost, temperature, or compatibility results. Procurement boundary: verify exact product and component PIDs, standards, host support, software, licenses, media, distance.



## Article Content

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

1G Ethernet and FC SFP – Gigabit Ethernet (GbE) and 1G FC SFP transceivers for cost-effective optical

What Is an SFP and How It Works Explained

For those getting started with SFP's, it is important to understand how frequently SFP modules can be used to bridge

Single Mode SFP Fiber Module

Single Mode SFP Fiber Module is a cost effective way to connect a single network device to a wide variety of fiber cable distances

Single-mode vs Multimode SFP: What's the Difference?

Single-mode SFP and multimode SFP are the two main types of hot-pluggable optical transceivers used in fiber optic

What Is an SFP Optical Module? Guide | PHILISUN

Understand the core function, compare data rates (1G to 25G), learn critical compatibility rules, and follow our 5-step

What Is an SFP Module and How to Choose One?

If you have a multimode fiber cabling structure, then choose the multimode SFP. If you have single-mode fiber

What is SFP Module? An Ultimate Guide (2024)

An SFP module is a small, pluggable optical transceiver that fits into the SFP port of a networking switch or other

What Is an SFP Module? Types, Uses & Compatibility (2025)

Learn what an SFP module is, how SFP transceivers work, common types (SX/LX/SFP+), single-mode vs multimode, and how to

What is the SFP Module? 2024 Best SFP Transceiver Guide

An SFP module is a small form factor pluggable optical transceiver that fits into the SFP port of the networking switch or other device.

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

Single-mode vs Multimode SFP 2026: Fiber Types and distances

A guide to single-mode vs multimode SFP modules. Covers fiber types, wavelengths, distances, BiDi, CWDM/DWDM,

1G SFP Modules: A Deep Dive into Specs & Types

At their core, 1G SFP modules are small optical or electrical transceivers that conform to 1000BASE

Small Form-factor Pluggable

Quad Small Form-factor Pluggable (QSFP) transceivers are available with a variety of transmitter and receiver types,

SFP-1G-SX Explained: The Essential Guide to 1G Gigabit Multimode ...

The SFP-1G-SX module is a proven, reliable, and cost-effective solution for 1 Gigabit short-range fiber optic

Single Mode SFP vs Multimode SFP: Exploring the Differences

Single-mode SFP (Small Form-factor Pluggable) and multimode SFP are two types of optical transceivers used in fiber optic

Single Mode SFP Transceiver: Complete Guide Explained

A single mode SFP transceiver is a hot-swappable optical module designed to transmit and receive data over single mode fiber

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

SFP (Small Form-factor Pluggable) is a compact, hot-pluggable network interface module used to connect network devices

Cisco SFP Modules for Gigabit Ethernet Applications

The 1000BASE-ZX SFP operates on standard single-mode fiber-optic link spans of up to approximately 70 km in length. The SFP

Overview of SFP Gigabit Optical Module

The SFP (Small Formfactor Pluggable) gigabit optical module is a critical component in optical communication

## Contact Us

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