Fibre Channel FC Optical Module



Overview

Fibre Channel Transceivers: Speed, Reliability & SAN What Is a Fibre Channel Transceiver?

A Fibre Channel (FC) transceiver is a specialized optical module.

Key Takeaways

Fibre Channel optical modules are specialized transceivers that enable high-speed, low-latency, and lossless data transmission in storage area networks (SANs).

Overview

Fibre Channel (FC) optical modules, also called FC transceivers, are key components in enterprise storage networks, providing reliable optical data transfer between servers, storage arrays, and FC switches. They act as the interface between FC devices and optical fiber cabling, supporting full-duplex communication essential for mission-critical storage operations. These modules are protocol-specific and cannot be used in standard Ethernet ports.

Technical Specifications

Data Rates: FC optical modules support a wide range of speeds, from legacy 1Gbps and 2Gbps to modern standards like 8Gbps, 16Gbps, 32Gbps, 64Gbps, 128Gbps, and emerging 256Gbps and 512Gbps. Form Factors: Common form factors include SFP, SFP+, SFP28, SFP56, and QSFP28, chosen based on network speed and deployment requirements. Media Types: Primarily designed for optical fiber, but some modules can operate over copper cabling for short distances.

© 2026 METRA FIBER MARKET - All rights reserved

Features: Many FC modules support hot-plugging, digital diagnostics, optical loopback, and circuit loopback tests, enabling easy maintenance and monitoring of network health. ApplicationsFC optical modules are widely used in SAN environments to connect: Servers to storage arraysHost bus adapters (HBAs) to FC switchesSwitch-to-switch links within data centers They are critical for high-performance workloads, including databases, virtualization, backup systems, and NVMe storage networks. Their deterministic performance ensures predictable latency, guaranteed delivery, and strong data integrity, which is essential for enterprise storage operations.

Advantages

Availability: Ensures continuous access to storage data without interruption. Performance: Supports high bandwidth and low-latency communication for demanding applications. Scalability: Facilitates network expansion and higher storage capacity as business needs grow.

Reliability: Provides lossless transmission and robust error detection, maintaining data integrity across the SAN.

Summary

Fibre Channel optical modules are specialized, high-performance transceivers designed for storage networks. They combine high-speed data transfer, low latency, and reliability to meet the demanding requirements of modern enterprise SANs, supporting a variety of speeds, form factors, and diagnostic features to optimize storage network deployment and maintenance.

Article Content

Fibre Channel Transceivers: Speed, Reliability & SAN

What Is a Fibre Channel Transceiver? A Fibre Channel (FC) transceiver is a specialized optical module designed to provide high-speed,

2G/4G/8G/10G/16G/32G/64G/128G Fibre Channel

Fibre channel transceivers are suitable for Fiber Channel storage networks and Ethernet applications. The characteristics of small size and low power

The difference between fibre channel optical module and Ethernet ...

Learn the key differences between Fibre Channel (FC) and Ethernet optical modules: protocol,speed,reliability,compatibility,application,and how to choose.

32G Fiber Channel SFP28 SR 850nm 100m

Featuring a built-in Semtec chip and reliable VCSEL/DFB laser + PIN receiver from global leaders, the 32G Fibre Channel SFP28 module delivers low

© 2026 METRA FIBER MARKET - All rights reserved

Fiber Channel SFP: A Complete Guide for Storage Networks

A Fiber Channel SFP is an optical transceiver module purpose-built for Fiber Channel (FC) networks, enabling dedicated, high-reliability communication between servers, switches, and storage systems

Fibre Channel

The Fibre Channel physical layer is based on serial connections that use fiber optics to copper between corresponding pluggable modules. The modules may have a

8G/16G/32G FC SFP+/SFP28 Transceiver Modules | FiberMall

Fiber Mall''s fibre channel transceiver series includes 8G, 16G, 32G optical modules. Compatible with BROCADE, HPE, IBM, Cisco, Juniper Networks, H3C, Huawei and other brands of Fibre Channel

Differences Between Fiber Channel and Ethernet

The choice between fiber channel (FC) and Ethernet optical transceiver modules is crucial for optimizing performance, reliability, and

A Quick Guideline to FC Optical Transceiver

Fiber Channel (FC) optical modules are used for fiber channel storage network links in data centers. Including transmission, reception, clock

8G/16G/32G FC SFP+/SFP28 Transceiver-Module | FiberMall

Die Fibre-Channel-Transceiver-Serie von Fiber Mall umfasst 8G, 16G, 32G optische Module. Kompatibel mit BROCADE, HPE, IBM, Cisco, Juniper Networks, H3C, Huawei und andere Marken von Fibre

Secure & Reliable Fiber Optic Connectivity Solutions

Versiton specializes in designing and manufacturing copper-to-fiber connectivity solutions tailored for data, voice, and video applications across diverse industries. Our products are backed by a lifetime

Fiber Optic Cables | Fiber Patch Cables | Patch Cords,

Fiber Patch Cables, Multimode & Singlemode Duplex Fiber Optic Cables, Secure Order Fiber Patch Cords, Preferred Mil. Edu. Gov. Pricing, Same Day Shipping

Global Leader in Materials, Networking, and Lasers

Learn how Coherent empowers innovations and breakthrough technologies for the industrial, communications, electronics, and instrumentation markets.

F-SFP1G-MM

© 2026 METRA FIBER MARKET - All rights reserved

1GBASE-SX SFP 850NM 550M DOM TRANSCEIVER — MULTIMODE FIBER – 1EA The F-SFP1G-MM multi-mode transceivers are small form factor pluggable module for bi-directional serial optical data

Brocade 57-0000088-01 16G FC SFP+ 850nm 2km Multi Mode Short Wave Fibre ...

Brocade 57-0000088-01 16G FC SFP+ 850nm 2km Multi Mode Short Wave Fibre Channel Switch Transceiver Fiber Optic Module

EGUAR EGDCRM-40M-A Coherent Receiver Module for Distributed Fiber Optic ...

Overview The EGUAR EGDCRM-40M-A Coherent Receiver Module is an engineered optical front-end component designed specifically for amplitude-demodulated distributed fiber optic vibration sensing

TTL UAV-Specific FC Optical Transceiver 1-Channel Video

TTL UAV-Specific FC Optical Transceiver 1-Channel Video UART/SBUS to Fiber Optic Module Sky-to-Ground Embedded System

SFP Modules: The Unsung Heroes of Modern Networks

KEY VARIANTS OF SFP MODULES 1□ SFP (1G) The original standard, supporting up to 1.25 Gbps. Common in Legacy Telecom technologies, Ethernet, and Fibre Channel networks. 2□ SFP+ (10G)

Contact Us

Continue your research online:

Website: https://metramarket.es
Technical inquiry: https://metramarket.es/contact.html

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

© 2026 METRA FIBER MARKET - All rights reserved