100M Optical Module Specifications



Overview

100M SFP Transceiver Modules Data Sheet | FSFeaturing low power consumption, this industrial optic transceiver provides 100BASE Ethernet connectivity optio.

Key Takeaways

100M optical modules (SFP transceivers) provide Fast Ethernet connectivity over fiber or copper, supporting link distances from 100 meters to 10 kilometers depending on fiber type and module design.

Overview

A 100M optical module, also known as a 100BASE SFP transceiver, is a hot-pluggable device that converts electrical signals into optical signals and vice versa, enabling data transmission at 100 Mbps over fiber or copper networks. These modules are widely used in enterprise LANs, data centers, industrial networks, and legacy system upgrades. Key Specifications1.

Fiber Type and ReachMulti-mode fiber (MMF): Suitable for short distances, typically under 2 km. Example: 100BASE-SX modules operate at 850 nm wavelength and support up to 2 km over MMF. Single-mode fiber (SMF): Designed for long-distance links exceeding 2 km.

Example: 100BASE-LX/LH modules operate at 1310 nm and can reach up to 10 km. 2. Copper ModulesRJ-45 SFP transceivers: Support up to 100 meters over standard Cat5e/Cat6 copper cabling, ideal for short-range connections within buildings.

3. Connector TypesLC connectors: Common for both single-mode and multi-mode fiber modules.

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MP

O connectors: Used in high-density or parallel fiber applications. RJ-45: For copper-based SFP modules. 4.

Duplex vs. BiDiDuplex (dual-fiber): Uses two fibers, one for transmitting (Tx) and one for receiving (Rx), which is the most common configuration.

Bi

Di (single-fiber): Uses wavelength-division multiplexing to transmit and receive over a single fiber, useful when fiber availability is limited. 5. Power and Hot-SwapLow power consumption, typically under 1 W.

Hot-swappable, allowing replacement without shutting down the network port. 6.

Compatibility

Tested and certified for major switch brands including Cisco, Arista, Juniper, and Brocade. Ensure module matches the port type and network speed to avoid connectivity issues.

Selection Tips

Distance requirement: Choose MMF for short links (2 km). Fiber availability: Determine if duplex or BiDi is needed. Connector type: Match the module connector to your existing fiber infrastructure.

Device compatibility: Verify the module is supported by your switch or router. Budget and reliability: Consider MSA-compliant modules from reputable vendors for cost-effective and stable performance. By considering these specifications, you can select the appropriate 100M optical module for your network deployment, ensuring reliable Fast Ethernet connectivity over the required distance and media type.

Article Content

100M SFP Transceiver Modules Data Sheet | FS

Featuring low power consumption, this industrial optic transceiver provides 100BASE Ethernet connectivity options for Fast Ethernet, Telecom and Data Centers, suitable for both outdoor

100GBASE QSFP-100G Modules Data Sheet

The Cisco 100GBASE-SR4-S QSFP Module supports link lengths of up to 70m over OM3 and 100m over OM4 Multimode Fiber with MPO

Complete Guide to Choosing the Right 100M Optical Transceiver

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Choose the right 100M optical transceiver by checking compatibility, fiber type, wavelength, distance, data rate, connector, and reliability.

Cisco Transceiver Modules

Cisco Transceiver Modules - Learn product details such as features and benefits, as well as hardware and software specifications.

100BASE FX SFP: Complete Guide to 100Mbps Fiber Transceivers

Learn everything about 100BASE FX SFP, including specifications, transmission distance, fiber requirements, applications, and deployment best practices.

Arista Optics Modules and Cables

Arista''s Optical Modules and Cable portfolio offer a wide variety of high-density and low-power 800G (dual 400G), 400G, 200G, 100G, 50G, 40G, 25G, 10G, 1G, and 100M Ethernet connectivity options

100GBASE-SR4 QSFP28 850nm 100m Transceiver Datasheet | FS

IV. Mechanical Specifications The mechanical specifications are compliant to the QSFP28 transceiver module specifications.

100GBASE-SR4 QSFP28 Optical Transceiver

The 100GBASE-SR4 QSFP28 optical transceiver is a parallel 103.1Gbps quad small form-factor pluggable QSFP28 module for 100GBASE Ethernet. It provides

UniFi 100G SR4 Multi-Mode Optical Module

QSFP28 transceiver that supports 100G connections up to 100 m using multi-mode fiber with an MPO-12 Type B UPC connector.

100M/155M SFP 2□150km Optical Modules (Industrial

GIGALIGHT''s 100M SFP series optical transceiver modules are extensively used in Fast Ethernet (100M Ethernet) and are compatible with Synchronous Optical

eoguar EGCRM-100M-A Weak-Light Coherent Receiver Module

Overview The eoguar EGCRM-100M-A Weak-Light Coherent Receiver Module is an engineered optical front-end solution designed for high-sensitivity coherent detection of low-power optical signals in

Cisco 40GBASE QSFP Modules Data Sheet

Cisco QSFP-40G-CSR4 Cisco 40GBASE-CSR4 QSFP Modules extend the reach of the IEEE 40GBASE-SR4 interface to 300 and 400 meters on laser-optimized OM3, and OM4/OM5

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40Gbps QSFP+ Optical Modules

1Gbps eSFP Optical Modules 10Gbps SFP+ Optical Modules 40Gbps QSFP+ Optical Modules 100Gbps QSFP28 Optical Modules Cables Hardware Installation Maintaining the Hardware

100mW, 450nm Blue Alignment Laser Diode Module

Violet and Blue Alignment Laser Diodes used in monochromatic and visual-based vision systems and alignment and sensing applications are available at Edmund Optics.

An In-depth Guide to 25G SFP28 Optical Transceiver Modules

Discover the advantages, specifications, and applications of 25G optical transceiver solutions—for high-speed data center, enterprise, and telecom networks.

Global AI Optical Transceiver Market to Reach US$26 Billion in 2026 ...

TrendForce''s latest research indicates that the global market for AI-focused optical transceivers has entered a phase of rapid growth, with market size projected to expand from

Cisco 40GBASE QSFP Modules Data Sheet

Cisco QSFP-40G-SR4 The Cisco 40GBASE-SR4 QSFP Modules support link lengths of 100 meters and 150 meters, respectively, on laser-optimized OM3, and OM4/OM5 multimode fibers. It primarily

Why Arista''s New Optical Transceiver Is a Big Deal

It will also work with RF and microwave. And it will conform to the still-developing IEEE 802.3dj, a new version of Ethernet designed to run Ethernet at 200-Gb/s per lane, versus the current

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

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