

QSFP28 Optical Module SFP Technical Specifications



Overview

The QSFP28-100G-ZR4-S Module is designed for use in 100GBASE Ethernet throughput up to 80km over single mode fiber (SMF) using a wavelength of 1310nm via duplex LC connectors. Taking BOX+FPC+PCBA separate design, it has great reliability, airtightness and heat dissipation. The FS® 100GBASE Quad Small Form-Factor Pluggable (QSFP28) portfolio offers customers a wide variety of high-density and low-power 100 Gigabit Ethernet connectivity options for data center, high-performance computing networks, enterprise core and distribution layers, and service provider. Optical modules are classified by their packaging forms, with common types including SFP, SFP+, SFP28, QSFP+, QSFP28, QSFP56, QSFP-DD, QSFP112, and OSFP. Huawei offers a comprehensive series of pluggable optical modules in the Huawei portfolio. The Cisco QSFP28 100G ZR module expands the portfolio of digital coherent optics (DCO) modules to connect QSFP28. Intel® Ethernet QSFP28 Optic delivers high-performing computing interconnect for deployments of 100GbE Intel® Ethernet QSFP28 Optic Overview Intel® Ethernet QSFP28 Optics are an excellent choice for fiber systems in high-speed communications equipment. Both short range and long-range transceiver. Amphenol's 100G QSFP28 optical modules include SR4, AOC, AOC break out, CWDM4, LR4, ER4 Lite, ER4 and ZR4 series, which adopt LC or MPO optical ports and are compatible with IEEE802. 3bm, SFF-8636 and other standards; With low power consumption and small size, it is mainly used in 100G data center. This guide provides the definitive roadmap for selecting, deploying, and troubleshooting QSFP28 transceivers while bypassing the painful trial-and-error phase. Below, you will find comprehensive module comparisons, realistic market pricing, and precise vendor compatibility protocols to ensure a.

Article Content

Jun 29, 2025

SFP+, SFP28, QSFP+, QSFP28, QSFP56, QSFP-DD,

Initial Published: February 19, 2022 The optical transceiver plays a crucial role in modern fiber networking. Various high-speed transceiver types are

Aug 15, 2025

Small Form-factor Pluggable

Small Form-factor Pluggable Small Form-factor Pluggable connected to a pair of fiber-optic cables Small Form-factor Pluggable (SFP) is a compact, hot-pluggable

Aug 02, 2025

SFP28 AND QSFP28 OVERVIEW

QSFP28 BiDi TRANSCEIVERS ... 1) This transceiver has inbuilt FEC so host system shall not activate FEC.

Nov 21, 2025

Models, specifications, and compatibility

Models, specifications, and compatibility Gigabit SFP optical transceiver modules use LC connectors. The specifications for Revision D transceiver products are the same as the specified Revision A, B,

Jan 01, 2026

Huawei QSFP-DD-400G-SR4 400G Optical Transceiver Module

A: QSFP-DD offers excellent backward compatibility with QSFP28 and QSFP+ ports, allowing for a smoother migration path. It also provides high port density, enabling 36 ports of 400G in a 1U switch

Jul 31, 2025

SFP SFP+ SFP28 QSFP+ QSFP28: Fiber Module Form Factor Guide

This guide explains the key characteristics, speed capabilities, physical designs, and typical deployment scenarios of SFP, SFP+, SFP28, QSFP+, and QSFP28 optical modules.

Jan 26, 2026

Intel® Ethernet QSFP28 Optic

The QSFP28 SR4 transceiver is a high-performing module for SR optical links over OM4 MMF, and is ideal for short-range, multi-lane data communication, and interconnects applications.

Nov 29, 2025

SFP Optical Module Specifications: Standards & Performance

These modules, including SFP, SFP+, and SFP28, are widely used in enterprise networks, data centers, and carrier-grade deployments to ensure high-speed, reliable connectivity.

Nov 14, 2025

QSFP28 Transceiver: Complete 100G Connectivity Guide (2026)

QSFP28 transceiver guide covering module types, pricing, compatibility, and deployment. Learn how to choose, deploy, and troubleshoot 100G QSFP28 optics.

Feb 14, 2026

Huawei QSFP28-100G-LR4 Optical Module Datasheet

The transmitting end of an optical module converts electrical signals into optical signals, while the receiving end converts optical signals back into electrical signals. Optical modules are classified by

Apr 23, 2026

What is an Optical Module?

Explore the world of optical modules, essential components in optical fiber communication. Learn about the different types of optical modules, their

Aug 05, 2025

100G QSFP28 Cable and Transceiver Modules Data Sheet | FS

This module contains 4-lane optical transmitter, 4-lane optical receiver and module management block including 2 wire serial inter-face. The optical signals are multiplexed to a single-mode fiber through

Sep 28, 2025

How to Choose the Right Optical Transceiver Module

□□ Introduction: Why Optical Transceiver Selection Is Crucial in 2025 As networks scale to support AI, cloud computing, and 5G edge workloads, choosing the right optical transceiver module

Nov 07, 2025

100GBASE QSFP-100G Modules Data Sheet

QSFP-100G Optical modules Features and benefits of Cisco QSFP modules Hot-swappable input/output device that plugs into a 100G Gigabit

Dec 15, 2025

The 2026 Network Architect's Guide to Adapter Converter Modules

Smaller modules (like SFP) use a single lane. The adapter physically routes the electrical traces from the switch's Lane 0 to the contacts of the inserted module. Protocol and management

Aug 16, 2025

SFP+, XFP, QSFP+, DAC Twinax Cable 10Gtek Transceivers Co., Ltd

DAC Twinax Cable Maker. CE, FCC, RoHS, ISO9001 Certified. Professional Manufacturer focusing on SFP+ Cables, QSFP+ Cables, MiniSAS Cables, QSFP Cables, XFP Cables, CX4 Infiniband Cables

Apr 30, 2026

Understanding Optical Modules

Huawei S series devices support optical modules of the following encapsulation types: CFP, QSFP+, QSFP28, XFP, SFP, eSFP, and SFP+. All optical modules are hot swappable.

Jun 16, 2026

SFP vs SFP+ vs SFP28 vs QSFP: Výber správneho tvarového faktora

Compare SFP, SFP+, SFP28 and QSFP by speed, density, power, reach and cost. Practical guidance for access, server, and spine links plus WOLON optics options.

Feb 09, 2026

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

Oct 27, 2025

Complete Guide to QSFP-DD, QSFP28, QSFP56,

Whether you're scaling up a data center or deploying edge connectivity for telecom, selecting the right optical transceiver is crucial. Understanding the specifications

Mar 07, 2026

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

Confused by SFP vs SFP+? Read the definitive 2026 guide on SFP modules. We explain Single Mode vs Multimode, DDM diagnostics, and how to choose the right

Apr 02, 2026

What Are the Key Parameters of Optical Modules

Understand the key parameters of optical modules, including transmission rate, distance, wavelength, and fiber compatibility, for better network

Jan 20, 2026

How Optical Modules Power the Evolution of 5G Networks

Optical modules enable high-speed, low-latency 5G networks by converting signals for fast, reliable data transfer, supporting seamless

Oct 14, 2025

China High-Speed 100Gbps QSFP28 100GBASE-SR4 Optical

China High-Speed 100Gbps QSFP28 100GBASE-SR4 Optical Transceiver With 850nm VCSEL & , Find details about China Fibre Channel Switch from High-Speed 100Gbps QSFP28 100GBASE-SR4

Aug 29, 2025

100Gb/s QSFP28 Transceivers

Amphenol's 100G QSFP28 optical modules include SR4, AOC, AOC break out, CWDM4, LR4, ER4 Lite, ER4 and ZR4 series, which adopt LC or MPO optical ports and are compatible with IEEE802.3bm,

May 22, 2026

Complete Guide to QSFP-DD, QSFP28, QSFP56,

Understanding the specifications of QSFP-DD, QSFP28, QSFP56, SFP56, and SFP28 helps you build high-performance, future-ready networks. For reliable and

Oct 01, 2025

100GBase-LR4-QSFP28 Spec Sheet

The QSFP28-100GBase-LR4 is a 103/112 Gbps transceiver module designed for optical communication applications compliant to 100GBASE-LR4 of the IEEE P802.3ba standard and OUT-4.

Feb 28, 2026

Cisco QSFP28 100G ZR Digital Coherent Optics Module Data Sheet

Cisco ® QSFP28 100G ZR extends 100GbE coherent links from QSFP28 ports reaching up to 80km over dark fiber and up to 300km over amplified Dense Wave Division Multiplexing

Contact Us

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