

Can a single-mode fiber optic cable transmit 100g



Overview

100G OS2 Single-Mode Fiber Cables are the highest performing fiber optic cables currently available, with further distances than multimode specifications. OS2 fiber can transport data at 100G for up to 10km using a 1310nm transceiver, or up to 40km using a 1550nm transceiver. The Cisco 100GBASE Quad Small Form-Factor Pluggable (QSFP) 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. The performance and usefulness of 100GB fiber optic cables in high-speed data communication are characterized by several critical features. This module is small and easy to swap. You can change it without turning off your network. The QSFP28-100G-ZR4 uses LAN-WDM technology.



Article Content

Jan 13, 2026

100G Transceivers and Cables

100GBASE-PSM4 QSFP28 transceiver is a parallel 100G single-mode optical transceiver with an MTP/MPO fiber ribbon connector. It uses 8 fibers (4 transmit and 4 receive), each transmitting at 25 ...

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100G Single-Fiber Optical Module: New Choice for High-Bandwidth ...

100G single-fiber optical modules, with their core advantage of enabling bidirectional transmission over a single fiber, are becoming a key device for conserving fiber resources and ...

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QSFP28 Transceiver: The Ultimate 100G Optical Module Guide

As a leading player in this transformation, the QSFP28 optical transceiver delivers exceptional performance to meet the challenges of 100G Ethernet networks. So, why is the QSFP28 ...

Feb 20, 2026

100GBASE QSFP-100G Modules Data Sheet

The Cisco QSFP-100G-ERL-S Module supports link lengths of up to 25 km over a standard pair of G.652 Single-Mode Fiber (SMF) with duplex LC connectors. The 100 Gigabit ...

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What Distance Can 100G QSFP28 Transceiver Support?

Whether you're using multimode or single-mode fiber, there's a 100G QSFP28 transceiver that fits your needs. By leveraging these advanced optical transceivers, network engineers can ...

Jun 11, 2026

A Deep Dive into the QSFP28-100G-ZR4 Optical Transceiver

QSFP28-100G-ZR4 transceiver enables 100G data transmission up to 80km using single-mode fiber, ideal for long-distance, high-speed network connections.

Apr 23, 2026

100G QSFP28 Single Fiber (BiDi) Modules: Technology, Benefits ...

Single fiber QSFP28 modules (commonly called BiDi transceivers) enable full-duplex 100G communication over a single optical strand. They do this by using Wavelength Division ...

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Understanding the World of 100GB Fiber Optic Cables ...

There are two main types of fiber optic cables that can handle 100GB: single-mode and multimode. A small core diameter, typically around 9 microns, characterizes single-mode fiber optic ...

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40G/100G single -mode single -core optical fiber module application

A 40G/100G single-mode single-core optical fiber module is a high-speed optical transceiver that is designed to transmit and receive data at speeds of 40Gbps or 100Gbps over a ...

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100G OS2 Single-Mode Fiber Optic Patch Cables

100G OS2 Single-Mode Fiber Cables are the highest performing fiber optic cables currently available, with further distances than multimode specifications. OS2 fiber can transport data at 100G for up to ...

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