



100G QSFP28 Optical Transceiver Module, Single-Mode 10 km

100GBASE-LR4 (LC) Single-Mode Port (SMF), 10 km (6.2 mi.), Wavelength 1310 nm, Cisco Compatible, MSA-compliant for Maximum Compatibility

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QSFP28 100G SMF Optical Transceiver for Long-Range Single-Mode Fiber Networks - Compatible with Cisco and MSA

The 100G QSFP28 Optical Transceiver Module from Intellinet Network Solutions is designed to deliver reliable high-speed connectivity for modern enterprise, campus, telecom, and cloud network environments. Supporting the IEEE 802.3ba 100GBASE-LR4 Ethernet standard, it enables data transfer rates up to 100 Gbps over single-mode fiber connections with transmission distances of up to 10 km (6.2 mi.). Its compact QSFP28 form factor makes it ideal for high-density network infrastructures requiring scalable and efficient 100G connectivity.

Optimized for Long-Distance 100G Ethernet Connectivity

Featuring one LC duplex single-mode fiber port and operating at a wavelength of 1310 nm, the transceiver is engineered for stable long-distance optical communication. The LR4 design uses advanced wavelength multiplexing technology to support high-bandwidth data transmission over standard duplex single-mode fiber, making it suitable for backbone, aggregation, and core network applications across large campuses, datacenters, and telecom infrastructures.

Broad Compatibility with Leading Network Platforms

The module is MSA-compliant to ensure seamless interoperability with a wide range of switches, routers, and networking equipment from leading manufacturers including Cisco, Intellinet Network Solutions, ZyXEL, TP-Link, Ubiquiti, and more. Equivalent to the Cisco QSFP-100G-LR4-S transceiver model, it provides a reliable and cost-effective solution for expanding or upgrading existing 100G network deployments while maintaining compatibility with established hardware ecosystems.

Advanced Monitoring and Reliable Operation with DDM / DOM

Integrated digital diagnostics monitoring (DDM) and digital optical monitoring (DOM) functions provide real-time access to critical operating parameters such as temperature, voltage, and optical signal levels. This allows administrators to monitor transceiver performance and simplify network maintenance and troubleshooting in demanding enterprise and datacenter environments.

Durable Design for Enterprise and Datacenter Environments

A fully metallic housing minimizes electromagnetic interference (EMI) and enhances durability for stable operation in high-performance networking applications. Hot-plug support allows the transceiver to be installed or replaced without shutting down connected equipment, reducing maintenance downtime and improving service continuity in mission-critical network infrastructures.

Features:

- Supports IEEE 802.3ba 100GBASE-LR4 Ethernet with data rates up to 100 Gbps
- One LC duplex single-mode fiber port
- MSA-compliant for compatibility with leading switch manufacturers such as Cisco, Intellinet Network Solutions, ZyXEL, TP-Link, Ubiquiti and more (see specifications)
- Supports fiber transmission distances up to 10 km (6.2 mi.)
- Wavelength: 1310 nm
- Equivalent to Cisco transceiver model QSFP-100G-LR4-S
- Supports digital diagnostics monitoring (DDM) / digital optical monitoring (DOM)
- Low EMI due to fully metallic housing
- Suitable for high operating temperatures up to 70°C (158°F)
- Supports hot-plugging
- Ideal for enterprise, campus, telecom, datacenter and cloud network deployments including backbone and aggregation networks
- Fully NDAA-compliant
- Three-year warranty

For more information on Intellinet products, consult your local dealer or visit www.intellinet-network.com.

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Specifications:

Standards and Certifications

- CE
- UKCA
- FCC
- RoHS
- REACH
- NDAA
- IEEE 802.3ba
- SFF-8636
- MSA
- CAUI-4

General

- Form factor: QSFP28
- Max. data rate: 103.125 Gbps (4 × 25.78 Gbps)
- Lane center wavelengths range: 1295 to 1310 nm
- Max. transmission distance: 10 km (6.2 mi.)
- Connector: duplex LC
- Media: SMF
- Transmitter type: 4 × LAN-WDM EML
- Receiver type: PIN
- TX power: -4.3 to 4.5 dBm
- Minimum receiver power: -10.6 dBm
- Power budget: 6.3 dB
- Receiver overload: 4.5 dBm
- Power consumption: 4.5 W (max.)
- Power requirement: 3.3 V
- Extinction ratio: >4 dB
- DDM/DOM: supported
- Modulation (electrical): 4 × 25G NRZ
- Modulation (optical): 4 × 25G NRZ
- CDR (Clock and Data Recovery): TX & RX Built-in CDR
- Bit Error Ratio (BER): 1E-12

Compatible Brands

• Cisco, Intellinet Network Solutions, ZyXEL, TP-Link, Ubiquiti, D-Link, Edimax, Allnet, Allied Telesis, Digitus, KTI Networks, LevelOne, PLANET, Tenda, TRENDnet, ZTE, Avaya, Mikrotik, Enterasys, Finisar, Dell Force10, Riverstone, Fortinet and more

Physical

- Dimensions (L x W x H): 72 x 18 x 14 mm (2.83 x 0.71 x 0.47 in.)
- Net weight: 40 g (1.41 oz.)
- Gross weight: 56 g (1.98 oz.)

Environmental

- Operating temperature: 0 to 70°C (32 - 158°F)
- Operating humidity: 0 to 85% RH, non-condensing
- Storage temperature: -40 to 85°C (-40 to 185°F)

Package Contents

- 100G QSFP28 Optical Transceiver Module



