



25G SFP28 Optical Transceiver Module, BiDi 1330/1270, Single-Mode 10 km

Bi-Directional 1330 nm TX/1270 nm RX, Must be Used with #509848, 25GBASE-LR (LC) Single-Mode Port (SMF), 10 km (6.2 mi.), Cisco Compatible, MSA-compliant for Maximum Compatibility

SKU: 509855 | EAN-13: 0766623509855 | UPC: 766623509855

SFP28 25G SMF BiDi Optical Transceiver for Long-Range Single-Mode Fiber Networks - Compatible with Cisco and MSA

The 25G SFP28 BiDi Optical Transceiver Module from Intellinet Network Solutions is designed to deliver reliable high-speed connectivity for modern enterprise, campus, telecom, datacenter, and cloud network environments. Supporting the IEEE 802.3by 25GBASE-LR Ethernet standard, it enables data transfer rates up to 25 Gbps over single-mode fiber connections with transmission distances of up to 10 km (6.2 mi.). Its compact SFP28 form factor makes it ideal for high-density network infrastructures requiring scalable and efficient 25G connectivity.

Optimized for Long-Distance 25G Ethernet Connectivity

Featuring one LC simplex single-mode fiber port, the transceiver supports bi-directional (BiDi) communication over a single fiber strand using complementary transmit and receive wavelengths of 1270 nm and 1330 nm. This advanced BiDi design helps maximize existing fiber infrastructure while supporting high-bandwidth data transmission for backbone, aggregation, and core network applications across campuses, datacenters, and telecom environments.

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 SFP-25G-BXU-I transceiver model, it provides a reliable and cost-effective solution for expanding or upgrading existing 25G 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 802.3by 25GBASE-LR Ethernet with data rates up to 25 Gbps
- One LC simplex single-mode fiber port
- Bi-directional (BiDi) transmission, must be used with Intellinet transceiver model #509848
- 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.)
- Wavelengths: 1330 nm TX / 1270 nm RX
- Equivalent to Cisco transceiver model SFP-25G-BXU-I
- 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

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

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- networks
- Fully NDAA-compliant
- Three-year warranty

Specifications:

Standards and Certifications

- CE
- UKCA
- FCC
- RoHS
- REACH
- NDAA
- IEEE 802.3by
- SFF-8472
- SFF-8431
- SFF-8432
- MSA

General

- Form factor: SFP28
- Max. data rate: 25.78 Gbps
- Wavelengths: 1330 nm TX / 1270 nm RX
- Max. transmission distance: 10 km (6.2 mi.)
- Connector: simplex LC
- Media: SMF
- Transmitter type: DML laser
- Receiver type: PIN/TIA
- TX power: -4 to 4 dBm
- Minimum receiver power: -11 dBm
- Power budget: 7 dB
- Receiver overload: 2 dBm
- Power consumption: 1.2 W (max.)
- Power requirement: 3.3 V
- Extinction ratio: >3.5 dB
- DDM/DOM: supported
- Modulation (electrical): 25G NRZ
- Modulation (optical): 25G NRZ
- CDR (Clock and Data Recovery): TX & RX Built-in CDR
- Bit Error Ratio (BER): 5E-5

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): 57 x 13.9 x 8.5 mm (2.24 x 0.55 x 0.33 in.)
- Net weight: 20 g (0.7 oz.)
- Gross weight: 45 g (1.59 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

- 25G SFP28 Optical Transceiver Module

