

# SFP 100G BIDI QSFP28

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## Variants

LRR-20Km LRR-10Km ZR4 80km

## Details

# 100G QSFP28 BiDi LR1 Optical Transceiver

The **100G QSFP28 BiDi LR1 Optical Transceiver** is a high-performance 100G optical module designed for high-speed data center, telecom, and enterprise optical networking applications.

Featuring **PAM4 modulation**, **QSFP28 MSA compliance**, simplex LC connector, and support for transmission distances up to **10KM / 20KM** over single-mode fiber, this module delivers stable, low-power, and high-density 100G connectivity.

Form Factor

**QSFP28**

Data Rate

**100G**

Transmission Distance

**10KM / 20KM**

Connector

**Simplex LC**

## Key Features

QSFP28 MSA package with simplex LC connector

Compliant with 100G Lambda MSA 100G-LR1 optical specifications

Interoperable with IEEE 802.3cu

53.125GBd PAM4 lane signaling rate

High-speed electrical I/O interface

Digital Diagnostic Monitoring (DDM / DOM)

Supports KP4 FEC and KP4 FEC shutdown

Supports up to 10KM / 20KM transmission over SMF

Low power consumption under 4.5W

3.3V power supply

RoHS 2.0 compliant

Class 1 laser safety standard

## Applications

100 Gigabit Ethernet

Data Center Networks

Cloud Infrastructure

Enterprise Optical Networks

ISP Backbone Connectivity

## General Specifications

Parameter	Specification
<b>Product Type</b>	100G QSFP28 BiDi LR1 Optical Transceiver
<b>Form Factor</b>	QSFP28
<b>Connector Type</b>	Simplex LC
<b>Data Rate</b>	103.125Gbps to 106.25Gbps
<b>Modulation</b>	PAM4
<b>Fiber Type</b>	Single Mode Fiber (SMF)
<b>Transmission Distance</b>	Up to 20KM
<b>Power Supply</b>	3.3V
<b>Power Consumption</b>	Maximum 4.5W
<b>Operating Temperature</b>	0°C to +70°C

Parameter	Specification
<b>Compliance</b>	IEEE 802.3cu, QSFP28 MSA, RoHS2.0

## Optical Performance

Parameter	Value
<b>Transmitter Wavelength</b>	1264.5nm – 1277.5nm
<b>Receiver Wavelength</b>	1324.5nm – 1377.5nm
<b>Launch Power</b>	-1.4 dBm to 4.5 dBm
<b>Receiver Sensitivity</b>	-6.1 dBm
<b>Receiver Overload</b>	4.7 dBm
<b>Extinction Ratio</b>	3.5 dB
<b>Optical Return Loss Tolerance</b>	15.6 dB

## Related Products

QSFP 100G Dual LC SM DDM

SFP 400Gbs QSFP-DD

400G QSFP-DD SR8

SFP 100G SR4 850nm QSFP28

100G QSFP28 DCO DWDM C-Band LC Duplex SMF

QSFP+ 40G SR4 MPO MMF

**Note:** Use high-quality single-mode fiber and ensure proper optical cleaning procedures for stable 100G transmission performance.

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