

# 100G QSFP28 LR4 Dual LC SMF DDM

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## Variants

10km 20km 40KM 80km 60km

## Details

# 100G QSFP28 ER4 Optical Transceiver – LC Singlemode

The **100G QSFP28 ER4 Optical Transceiver** is a high-performance and long-distance optical module designed for **100G Ethernet, telecom backbone, ISP networks, data centers, cloud infrastructure, and enterprise optical transmission systems.**

This module supports **100Gbps transmission over singlemode fiber up to 40KM** using **LAN-WDM DML lasers and APD receiver technology.** It provides stable long-distance optical connectivity with low power consumption and high reliability.

## Key Features

|   |
|---|
| Supports 100Gbps high-speed transmission            |
| Up to 40KM transmission over singlemode fiber       |
| QSFP28 hot-pluggable form factor                    |
| LAN-WDM DML laser technology                        |
| APD receiver for long-distance optical transmission |
| Duplex LC optical interface                         |

|  |
|--|
| Integrated Digital Diagnostic Monitoring (DDM/DOM)         |
| Low power consumption design                               |
| Compatible with multiple switch and router brands          |
| Supports telecom, enterprise, and data center applications |

## Applications

|                                |
|--------------------------------|
| 100GBASE-ER4 Ethernet          |
| 100G Data Center Interconnect  |
| Telecom Backbone Networks      |
| ISP Long Distance Transmission |
| 100G 4WDM-40 Networks          |
| Cloud & Enterprise Networking  |

## Technical Specifications

| Parameter                    | Specification                  |
|------------------------------|--------------------------------|
| <b>Form Factor</b>           | QSFP28                         |
| <b>Maximum Data Rate</b>     | 103.125 Gb/s                   |
| <b>Lane Bit Rate</b>         | 25.78125 Gb/s × 4              |
| <b>Transmission Distance</b> | Up to 40KM                     |
| <b>Fiber Type</b>            | 9/125µm Singlemode Fiber (SMF) |
| <b>Connector Type</b>        | Duplex LC                      |

| Parameter                    | Specification                           |
|------------------------------|---|
| <b>Laser Type</b>            | LAN-WDM DML                             |
| <b>Receiver Type</b>         | APD                                     |
| <b>Center Wavelength</b>     | 1295nm / 1300nm / 1304nm / 1309nm       |
| <b>Electrical Interface</b>  | CAUI-4                                  |
| <b>Monitoring</b>            | Digital Diagnostic Monitoring (DDM/DOM) |
| <b>Power Supply</b>          | Single +3.3V                            |
| <b>Power Consumption</b>     | Commercial: 4.5W / Industrial: 5.5W     |
| <b>Operating Temperature</b> | Commercial: 0°C to +70°C                |
| <b>Storage Temperature</b>   | -40°C to +85°C                          |
| <b>Compliance</b>            | QSFP28 MSA, IEEE 802.3ba, RoHS          |

## Optical Performance

| Optical Parameter                    | Value     |
|--------------------------------------|-----------|
| <b>Receiver Sensitivity</b>          | ? -16 dBm |
| <b>Extinction Ratio</b>              | ? 4.5 dB  |
| <b>Side Mode Suppression Ratio</b>   | ? 30 dB   |
| <b>Optical Return Loss Tolerance</b> | 20 dB     |
| <b>Damage Threshold</b>              | 5.5 dBm   |

**Note:** Proper optical power budget calculation, clean LC connectors, and quality singlemode fiber are recommended for stable 100G long-distance transmission up to 40KM.

[Download PDF data sheet of 100G Dual 40km](#)

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