

Optical Module DR Specifications



Overview

100 Gb/s DR1 QSFP28 Optical Transceiver is a small form-factor, high speed, and low-power consumption product targeted use in optical interconnects for data communications applications. The high-bandwidth QSFP28 module supports 500 m links over single-mode fiber via LC connector. The 100G-DR-LPO specification by the LPO (Linear Pluggable Optics) MSA defines 100 Gb/s/lane 53. 125 GBd PAM4 optical interfaces, optical links using standard single-mode fiber with up to 500 m reach, and host-module electrical interfaces for hosts with DSP based SerDes and RS(544,514) FEC. It. First, let's clarify what VR, SR, DR, FR, LR, ER, and ZR stand for, so that we can understand and identify them: VR (Very Short Range): Transmission distance usually 0~100 meters, using multimode fiber for short data center connections.



Article Content

Sep 12, 2025

Comprehensive Guide to Optical Transceiver

Introduction Optical modules are critical components in fiber optic communications, enabling the conversion between electrical and optical signals.

Jan 13, 2026

Cisco QSFP-100G-DR-S Compatible 100GBASE-DR

The Cisco QSFP-100G-DR-S compatible 100GBASE-DR Single Lambda QSFP

Nov 11, 2025

Optical Modules in General-Purpose Computing Scenarios

Huawei offers a comprehensive portfolio of pluggable StarryLink optical modules for data center networks, with various models providing flexible plug-and-play solutions tailored to diverse interface

Jun 20, 2026

LPO MSA Specification

Normative specifications in this document shall be met by a system integrating an LPO module over the life of the product while the product operates within the manufacturer's range of environmental,

Dec 07, 2025

Global 400G Optical Module Market Growth 2026-2032

The global 400G Optical Module market size is predicted to grow from US\$ 1105 million in 2025 to US\$ 2057 million in 2032; it is expected to grow at a CAGR of 8.8% from 2026 to 2032. The

May 30, 2026

100G to 1.6T Optical Module PHY Product Selection Guide

Broadcom's Active Copper PHY portfolio enables DAC cable providers to build very low insertion-loss profile, ultra-low latency, ultra-low power cables for 100G/400G/800G/1.6T hyperscale/AI networks

Sep 17, 2025

Arista Optics Modules and Cables

Each module is optimized for different media and reach (ranging from 0.5 meters to 80 kilometers). All interface speeds, from 1G to 400GE have connectivity options that include Direct Attach copper

Apr 17, 2026

Intel® Silicon Photonics 100G DR/FR/LR QSFP28 Optical Transceiver

Intel® Silicon Photonics 100G DR/FR/LR QSFP28 Optical Transceiver quick reference with specifications, features, and technologies.

Dec 11, 2025

LPO MSA Announces Release of Specification for Linear Pluggable Optical ...

The specification defines the necessary optical and electrical requirements for a robust ecosystem of LPO-compatible switch, NIC and module products.

Nov 18, 2025

100G Optical Module: How to Choose Between SR4,

Continuing our discussion on 100G optical modules, let's explore the essential 100G transmission standards—SR4, DR1, DR4, BiDi SR, LR4,

Mar 21, 2026

100G QSFP28 DR1 Optical Transceiver

The 100 Gbps DR1 QSFP28 optical transceiver pinout is compliant with the QSFP specifications in SFF-8436. The table below lists and describes all of the electrical pins of the module.

May 10, 2026

Arista Optics Modules and Cables

25 Gigabit Ethernet SFP25 Optical Specifications ... When connecting 25G-MR-XSR/LR optics to legacy fixed rate 10G optics, attenuation may be required to ensure the optical input power to the 10G

May 19, 2026

100Gbps QSFP28 Optical Modules

QSFP-100G-CWDM4 QSFP28-100G-LR4 QSFP28-100G-SR4 QSFP-100G-4WDM-40
QSFP-100G-CWDM4-ISP QSFP-100G-CWDM4-Lite QSFP-100G-ER4 QSFP-100G-SWDM4
QSFP28-100G-1310

May 28, 2026

QSFP 100G DR Guide for High-Speed Data Center Connectivity

Unlike older multi-lane optical modules, QSFP 100G DR uses single-lambda PAM4 technology, which allows one optical wavelength to transmit 100Gbps efficiently. As a result, fewer

Jul 14, 2025

What Is an SFP Module? — Complete Guide to SFP, SFP+ & SFP28

Learn what an SFP module is, how it works, its types, specifications, compatibility, and use cases in modern networks, including updated standards and trends for 2026.

Aug 19, 2025

400G Optical Modules Explained: SR4 Vs. DR4 Vs. FR4 Vs. LR4

Key differences between SR4, DR4, FR4, and LR4 400G optical modules. Expert advice from Asterfusion engineers to optimize your data center network.

Jan 29, 2026

LPO MSA Announces Release of 400G-FR4-LPO Specification for

The specification defines the necessary optical and electrical requirements for a robust ecosystem of LPO-compatible switch, NIC and module products leveraging WDM infrastructure.

Dec 23, 2025

Understanding the Transmission Distance of Optical

In the complex world of network design, understanding the reach of optical modules is crucial. From ensuring fast, local connections with SR to

Aug 28, 2025

Optical Transceiver Market Price Trends 2026: TCO & Risks

Optical Transceiver Market Price Trends 2026: The 800G Shift Procurement forecasts frequently project aggressive price drops for 800G optics by 2026, ignoring the non-linear power

Feb 01, 2026

What are the 100G-DR, 100G-FR and 100G-LR QSFP

The 100G-DR, 100G-FR, and 100G-LR QSFP transceivers are optical modules that support 100 Gigabit Ethernet data rates over single-mode fiber.

Jun 02, 2026

Global AI Optical Transceiver Market to Reach US\$26 Billion in 2026 ...

TrendForce's latest research indicates that the global market for AI-focused optical transceivers has entered a phase of rapid growth, with market size projected to expand from

May 17, 2026

Overview of 400G DR4, FR4, LR4, and SR8 QSFP-DD

Similar to the DR4, FR4, and LR4 modules, the 400G SR8 is widely used in short-reach intra-data center applications. Conclusion Today, 400G optical transceivers

Dec 29, 2025

TI DLP® System Design: Optical Module Specifications (Rev. C)

This document focuses on projection optical modules that incorporate Texas Instruments' DLP Display chips and are designed to project an image onto a surface for a variety of applications, including

Dec 15, 2025

Optical Transceivers | Fiber Optic Transceivers | Form

Leveraging LPO technology, the module provides ultra-low-latency, power-efficient optical links tailored for AI, high-performance computing, and

Oct 25, 2025

FEATURES

Description This product is a transceiver module designed for 500m optical communication applications. The module incorporates one channel optical signal, on 1310nm center wavelength, operating at

Jan 13, 2026

Intel Silicon Photonics 100G DR, FR and LR QSFP28 Optical

Description The Intel® Silicon Photonics 100G DR, FR and LR (100G DR1, FR1/DR1+ and LR1) QSFP28 Optical Transceivers are small form-factor, high-speed, and low-power consumption

Aug 10, 2025

Cisco 10GBASE SFP+ Modules Data Sheet

The Cisco 10GBASE SFP+ modules give you a wide variety of 10 Gigabit Ethernet connectivity options for data center, enterprise wiring closet, and

Contact Us

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