

# Recommended 800G Optical Module



## Article Overview

For high-performance data centers, QSFP-DD and OSFP 800G optical modules are recommended, with selection based on distance, power, and thermal requirements.

### Key Considerations for Selecting 800G Modules

When choosing an 800G optical module, several factors should guide your decision:

- **Form Factor:** QSFP-DD and OSFP are the primary options. QSFP-DD offers backward compatibility with QSFP28/56 infrastructure, while OSFP provides superior thermal performance for higher power applications .
- **Transmission Distance:** Modules vary by reach:
  - SR8: Short-range, multimode fiber, up to 50 meters.
  - DR8/DR8L/XDR8: Single-mode fiber, 100 meters to 2 kilometers.
  - 2FR4: Single-mode, ~2 kilometers.
  - 2LR4/PLR8: Long-range, 10 kilometers or more, suitable for inter-data center or metropolitan area networks .
- **Power Consumption and Thermal Management:** Most 800G modules consume 12-20W depending on reach and DSP design. Proper airflow, heat spreaders, or liquid cooling may be required for high-density deployments .
- **Standards Compliance:** Ensure modules comply with IEEE802.3, OIF, and 800G Pluggable MSA standards for interoperability and performance .
- **Compatibility:** Verify connector type, fiber type (single-mode or multimode), and switch/NIC compatibility to avoid integration issues ....

## Article Content

### Juniper 800G Optical Transceivers and Cables Guide

Use this guide to learn about the Juniper Networks® 800G optical transceivers and cables, their specifications, and how to install,

### A Deep Dive into 800G Optical Modules

Explore the technical advantages and key applications of 800G OSFP optical modules. LSOLINK offers a comprehensive product

### Cisco Transceiver Modules

Cisco Transceiver Modules - Learn product details such as features and benefits, as well as hardware and software specifications.

### 800G 2×DR4 OSFP Transceiver Module

Lumentum's 800G 2×DR4 OSFP transceiver provides high-speed, energy-efficient optical connectivity for AI and cloud data centers.

### FS 800G& 400G Transceiver Acceptance Testing Guide | FS

In building a high-performance InfiniBand network, OSFP-800G-SR8 and OSFP-SR4-400G-FL InfiniBand optical modules serve as

### Demystifying 800G Transceiver: Types, Applications, and FAQs

In this article, we will provide an overview of the various types of 800G optical modules, discuss their applications, and

### FS Launches 800G LPO Module: A Power Efficiency and Latency

Designed for AI/ML applications, this advanced 800G DR8 OSFP finned top LPO module enables high-speed data transmission with

### Understanding 800G Optical Modules: Types, Applications, and

Understanding 800G Optical Modules: Types, Applications, and Solutions by Optech  
As the demand for faster data transmission

### How to Choose the Right 800G tranaceiver for Data Center□

Explore guide to 800G optical transceivers—compare OSFP vs. QSFP-DD, key specs, deployment best practices, and future trends

### 800G Optical Transceivers – Architectures, Progress & Trends

800G optical transceivers push module power toward 14–18 W. OSFP form factors offer better cooling headroom compared to QSFP

### How to Choose the Right 800G Optical Module for Data Centers?

When choosing a suitable 800G optical module, there are some key factors to consider, including transmission distance, connector

## Contact Us

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