

# GPON device 800G



## AI Overview

800G optical transceivers are high-speed modules capable of delivering up to 800 Gbps, suitable for data centers, AI/ML workloads, and high-capacity optical networks.

### Overview of 800G Devices

800G transceivers are designed to handle ultra-high data rates of 800 Gbps, doubling the capacity of 400G modules. They achieve this using 8 lanes of 100G each with PAM4 (Pulse Amplitude Modulation 4-level) modulation, allowing efficient transmission over optical fibers. These devices support multiple transmission rates and breakout modes, enabling flexible deployment:

- 1x800G: Single 800G port
- 2x400G: Two 400G ports via breakout
- 4x200G or 8x100G: Multiple lower-speed ports for compatibility with existing infrastructure

### Types and Standards

800G transceivers come in various form factors, including OSFP (Octal Small Form Factor Pluggable) and QSFP-DD, and support standards such as IEEE 802.3ck, IEEE 802.3cu, and CMIS 5.3. They are compatible with single-mode fiber (SMF) and can cover distances from 100 meters up to 2 km, depending on the module type and optical technology used. Some modules, like 2DR4, provide two physically distinct 400G links without requiring breakout cables ....

## Article Content

May 06, 2026

### Gigabyte Passive Optical Network (GPON)

How GPON Works A GPON network is capable of transmitting ethernet, TDM (Time Division Multiplexing) as well as ATM traffic. A GPON network consists of OLT (Optical Line Terminals), ONU

Jan 04, 2026

### The Rise of 800G Ethernet: FS 800G AI Switches for

Discover 800G Ethernet technology and FS 800G AI switches, delivering ultra-high

Jun 09, 2026

### 800G OSFP DR8/DR8+ Optical Transceiver

The 800G optical transceiver pinout is compliant with the OSFP MSA specifications. The figure below shows the module connector

Jul 16, 2026

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

This article will provide an overview of the various types of 800G transceivers, discuss their applications, and address some FAQs to help make a better choice when selecting 800G

Jul 19, 2026

### A Comprehensive Guide to 800G Optical Transceivers

An in-depth guide to 800G and OSFP transceivers, explaining form factors, core features, key advantages, application scenarios, FAQs, and their critical role in building high

Mar 30, 2026

### GPON OLT Basics and Beyond: A Comprehensive Introduction

Learn how GPON OLT works, its features, and how to choose the right device for efficient fiber network deployment.

Jan 02, 2026

### 800G Client Optics in the Data Center

The next key development is 800G, and the industry is already gearing up to deploy this next generation of client optics in hyperscale data centers. Developments in three distinct areas are needed for 800G

Aug 18, 2025

Gpon Equipment overview

Gpon Equipment overview: Huawei MA5600T, MA5603T, MA5608T OLT, Huawei PON SFP Module Huawei Echolife HG850a ont, EchoLife HG8010

Jun 27, 2026

Embracing 400G and 800G

Arista's 800G optical modules can be configured as two distinct 400G interfaces or broken out to eight 100G interfaces. The choice of OSFP or QSFP-DD form-factors, and the easy breakout to already

Mar 08, 2026

800GE routing | Nokia

800GE routing helps operators to optimally meet increasing traffic demands on their IP network within the constraints of their available space and power.

Jan 08, 2026

800G OSFP DR8/DR8+ Optical Transceiver

800G OSFP DR8/DR8+ Optical Transceiver Jabil 800Gb/s OSFP DR8/DR8+ (Data Center Reach 8-lane) Optical Transceiver is a small form-factor, high speed, and low power consumption product

Aug 22, 2025

ICE-X 800G ZR/ZR+

ICE-X 800G ZR/ZR+ marks a significant evolution in coherent pluggable optical engines providing a cost-effective and power-efficient solution to meet the most

Jul 19, 2026

Cisco OSFP 800G Transceiver Modules Data Sheet

The Cisco® OSFP 800G transceiver modules provide 800 Gigabit Ethernet (GE), 2x 400GE, 4x 200GE, and 8x 100GE connectivity options, complying with the Octal Small Form Factor Pluggable (OSFP)

Jan 18, 2026

The Rise of 800G Ethernet: FS 800G AI Switches for Data Centers, AI ...

800G Ethernet is a next-generation networking standard delivering data rates of 800 Gigabits per second (Gbps). Doubling the throughput of 400G Ethernet, it provides the speed and

Nov 02, 2025

How to Choose the Right 800G transceiver for Data Center

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

Jan 23, 2026

800G Optics

Juniper's qualified 800G pluggable optics and 800G platforms allow WAN and data center networks to leverage advanced high-speed transport solutions.

Jul 09, 2026

Huawei EchoLife HG8546M GPON Terminal SC/UPC HGU Price

Huawei HG8546M Overview The Huawei EchoLife HG8546M is a high-performance HGU (Home Gateway Unit) GPON terminal designed to deliver reliable and fast internet connectivity. Equipped

Sep 06, 2025

FS 800G Transceivers and Cables Complete Guide

For example, two FS 800G OSFP SR8 transceivers (dual-port configuration) connected via two straight-through multimode fiber cables enable 800G switches interconnection. While the

Aug 13, 2025

Cisco OSFP 800G Transceiver Modules Data Sheet

The OSFP 800G transceiver modules are Cisco's new generation of pluggable transceiver modules based on the OSFP specification. They offer flexible connectivity, with options for 800GE,

Jul 23, 2026

Juniper 800G Transceivers | Juniper Networks

Juniper's 800G transceivers cater to data center and AI-ML cluster applications for routing and switching solutions. To support the multi-vendor network environment, Juniper 800G

Oct 05, 2025

GPON device 800G

Know Your 800G Transceiver | Juniper Networks E7-2\_GPON-4r2 Demystifying 800G Transceiver: Types, Applications, GPON ONT perfect for industrial/outdoor data backhaul 800G Transceivers and

Jun 25, 2026

800 Gbps Optical Modules

MACOM delivers industry widest portfolio of chip-sets for 800Gbps (8x106Gbps) optical modules. These devices are typically used with VCSEL lasers and Photodectors for optical transmission over multi

Jun 15, 2026

Passive optical network

A fiber optic cable assembly with SC APC connectors, as commonly used to link optical network terminals to passive optical networks A passive optical network

Aug 31, 2025

Know Your 800G Transceiver | Juniper Networks

An 800G transceiver uses multiple lanes of optical signals and advanced modulation techniques to achieve higher capacities. 800G transceivers employ multiplexing using multiple fibers. These

Sep 21, 2025

The Rise of 800G Ethernet: FS 800G AI Switches for

Discover 800G Ethernet technology and FS 800G AI switches, delivering ultra-high bandwidth, low latency, and lossless performance for AI/ML

Oct 17, 2025

Cisco OSFP 800G Transceiver Modules Data Sheet

The Cisco ® OSFP 800G transceiver modules provide 800 Gigabit Ethernet (GE), 2x 400GE, 4x 200GE, and 8x 100GE connectivity options,

Apr 04, 2026

800G OSFP DR8/DR8+ Optical Transceiver

The 800G optical transceiver pinout is compliant with the OSFP MSA specifications. The figure below shows the module connector pad layout, and the table below lists and describes all the electrical pins

Jan 05, 2026

Cisco GPON SFP Data Sheet

This data sheet describes the benefits, specifications, and ordering information for the Cisco GPON SFP.

## Contact Us

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