

Certified Optical Line Terminal OSFP



Overview

OSFP (Octal Small Form Factor Pluggable) is a pluggable optical transceiver interface standard that supports eight electrical lanes (Tx/Rx) per module. Each lane can operate up to 100G PAM4, allowing total bandwidths of 400G or 800G depending on configuration. 6T, enabling data center architectures to scale with evolving bandwidth and performance requirements. Unlike the backward-compatible QSFP-DD, OSFP introduces a slightly larger mechanical form to. OSFP-XD MSA Rev 1. 11 Specification for OSFP-XD Octal Small Form Factor eXtra Dense Pluggable Module is posed in the specification section of the website, to correct the figure 4-11 in the OSFP-XD MSA Rev 1. and a disclaimer is added to the Other Documents section. 22:.

Amphenol's ExtremePort™ OSFP connector and cage family delivers a scalable, high-performance interconnect platform designed for next-generation data centers, high-density switch/router systems, and high-speed serial infrastructures. These input/output (I/O) solutions support aggregate data rates up to 1.



Article Content

Apr 22, 2026

OSFP Connectors 2025: Design, QSFP-DD

Key difference: OSFP is not physically compatible with QSFP-DD ports. They may interoperate optically/electrically if both run the same Ethernet

Jun 03, 2026

What are OSFP transceivers?

OSFP takes up more PCB space (32 OSFP ports can be mounted in the same space on a line card as 36 QSFP-DD ports). OSFP optic modules can handle up to 15

Jun 03, 2026

The Ultimate Guide to OSFP Transceivers: Unveiling

Dive into the complexities of OSFP transceivers for 400G optical connectivity with Fibermall's ultimate guide.

Jan 07, 2026

OSFP vs. QSFP vs. SFP: Which Is Right for You?

Confused about the differences between OSFP, QSFP, and SFP? This guide explains their distinct features, applications, and helps you choose the

Dec 24, 2025

OLTS: Optical Line Termination Systems Guide

Dive into OLTS (Optical Line Termination Systems) with our comprehensive guide. Explore this vital part of fiber optic networks.

Feb 12, 2026

OSFP Connectors & Cable Assemblies

Combined with strong electrical performance and broad system compatibility, TE OSFP connectors and cable assemblies deliver a balanced solution for today's

Sep 01, 2025

OSFP Connectors 2025: Design, QSFP-DD

While QSFP-DD remains common, the OSFP (Octal Small Form-Factor Pluggable) has emerged as a strong contender, designed from the ground

Sep 01, 2025

What Is an OSFP Module?

Discover the OSFP module: fast, scalable optical tech for modern networks. Find an OSFP module for sale and power up your connectivity!

May 27, 2026

OSFP OCTAL SMALL FORM FACTOR PLUGGABLE MODULE

Abstract: This specification defines the electrical connectors, electrical signals and power supplies, mechanical and thermal requirements of the OSFP Module, connector and cage systems. The OSFP

Apr 05, 2026

OSFP Connector: Ultimate Guide to Amphenol and TE

Discover the ultimate guide to Amphenol and TE Connectivity solutions for OSFP connectors and cage, cable assemblies, and interconnect

Jul 21, 2025

OSFP | High Speed Interconnects | Amphenol

EXTREMEPORT™ OSFP CONNECTOR AND CAGE SYSTEMS SUPPORTING 56G, 112G & 224G Amphenol's ExtremePort™ OSFP connector

Dec 16, 2025

OSFP MSA Rev 5

Abstract: This specification defines the electrical connectors, electrical signals and power supplies, and mechanical and thermal requirements of the OSFP and OSFP-RHS module, connector, and cage

Jan 03, 2026

Optical Line Terminals Information

Optical line terminals, also called optical line terminations (OLTs), serve as endpoints for passive optical networks (PONs). They convert electrical signals from

Jan 09, 2026

Arista Networks Announces Optical Line System for 400G

The OSFP-LS line system was purposely conceived and designed for the support of 400G ZR digital coherent optics. Customers building 400G-ZR DCI and metro networks achieve the

Mar 10, 2026

OSFP | High Speed Interconnects | Amphenol

Amphenol OSFP interconnect system has 60 contacts per port, with a 0.6mm contact pitch and 8 high speed channels. The OSFP footprint is optimized

Dec 18, 2025

Understanding the OSFP Standard: The Open 400G/800G Optical

The OSFP standard marks a pivotal step toward scalable 400G and 800G optical networking, designed from the ground up for AI, cloud, and HPC infrastructures. With open MSA

Feb 04, 2026

OSFP Cable Assemblies | High Speed Input Output

Amphenol leading the industry in OSFP cable development. Our Electronics Products Product of the Year award- winning OSFP (Octal Small

Dec 28, 2025

Discovering the World of OSFP: A Comprehensive Guide

The Octal Small Form-factor Pluggable (OSFP) represents a pivotal advancement in the world of networking technologies. It is designed to support

May 17, 2026

What is Optical Line Terminal? | RF Definition

Optical Line Terminal is a technical concept in RF and microwave engineering related to fiber & cable systems. It refers to a specific parameter, component, or methodology used in the design, analysis,

Jul 06, 2025

Guide to Optical Line Terminal (OLT) Classifications:

In modern communication networks, optical line terminal (OLT) is the core device to realize point-to-multipoint (P2MP) in passive optical network (PON)

May 13, 2026

OSFP Optical Transceiver MSA Spec

OSFP MSA Specification for OSFP OCTAL SMALL FORM FACTOR PLUGGABLE MODULE Rev 1.12 August 1 st, 2017 Abstract: This specification defines the electrical connectors, electrical signals and

Sep 28, 2025

400G OSFP

OSFP is designed to support the next generation of 800G optics modules that will use eight lanes of 100Gbps, and offers backwards compatibility with 100G QSFP.

Jan 14, 2026

400G and 800G OSFP transceivers | Smartoptics

OSFP was among the first form factors to support native 800G, making it a key enabler for ultra-high-speed deployments. It is fully compliant with 400ZR and 800ZR, ensuring energy-efficient, high

May 16, 2026

OSFP Connector Guide: 400G and 800G Modules,

The multi-fiber optic transceiver, called the OSFP connector, was made for data-heavy areas with high bandwidth requirements. It usually has eight

Sep 04, 2025

OSFP Connectors, Cages & Cable Assemblies

TE Connectivity's (TE) Octal Small Form Factor Pluggable (OSFP) Connectors, Cages, and Cable Assemblies meet the needs of next-generation

Oct 28, 2025

Welcome to OSFPmsa

A: The OSFP is a pluggable form factor with 8x high speed electrical lanes that support up to 400 Gbps (8x50G), 800 Gbps (8x100G), or 1.6 Tbps (8x200G). Up

Mar 27, 2026

OSFP interconnect: what is it?

OSFP, Octal Small Formfactor Pluggable, is a very new module and interconnect system in development that is targeted to support 400-G optical data.

May 16, 2026

OSFP OCTAL SMALL FORM FACTOR PLUGGABLE MODULE

Below sub-sections illustrate block diagrams for a sampling of optical physical medium dependent sublayers (PMDs) that can be realized in an OSFP form factor. These block diagrams are meant to

Jan 18, 2026

What is an Optical Line Terminal (OLT)?

Discover how an Optical Line Terminal (OLT) enables fiber-optic broadband, GPON, and XGS-PON networks for high-speed internet, IPTV, and VoIP services.

Sep 22, 2025

OSFP Connector System

OSFP connectors are slightly larger than QSFP-DD connectors but offer increased thermal performance and signal integrity at high data rates. The OSFP system

Contact Us

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