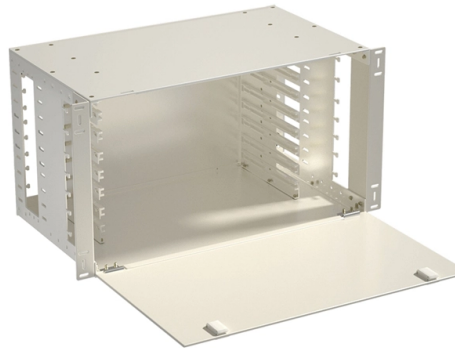


ODM Optical Line Terminal OSFP



Article Overview

OSFP (Octal Small Form Factor Pluggable) modules are high-speed, thermally optimized optical transceivers supporting up to 1.6Tbps aggregate bandwidth, ideal for hyperscale and AI-driven data center applications.

Overview

OSFP is an open standard pluggable optical transceiver interface defined by the OSFP Multi-Source Agreement (MSA), designed for high-density, high-speed networking. Unlike QSFP-DD, OSFP modules are slightly larger to accommodate higher power dissipation (up to 15–20W) and provide native 8-lane connectivity for 400G and 800G Ethernet applications. Each lane can operate at speeds up to 100G PAM4, enabling total module bandwidths of 400G or 800G, with scalability to 1.6Tbps in multi-lane configurations.

Key Features

- **High Data Rates:** Supports 56G, 112G, and 224G PAM4 per lane, with aggregate rates up to 1.6Tbps.
- **Thermal Management:** Integrated heatsink technology in the plug and cage design ensures efficient heat dissipation, maintaining signal integrity at high speeds.
- **Form Factor & Compatibility:** Slightly larger than QSFP-DD, OSFP supports single- or dual-port, 8- or 16-lane connectivity, and is compatible with DAC, AOC, ACC, and optical modules.
- **Electrical & Mechanical Standards:** Complies with IEEE standards and OSFP MSA specifications, ensuring interoperability across vendors

Article Content

OSFP OCTAL SMALL FORM FACTOR PLUGGABLE MODULE

Abstract: This specification defines the electrical connectors, electrical signals and power supplies, mechanical and thermal

Fiber Terminal Box

Fiber Terminal Boxes GAO Tek's fiber terminal boxes are devices used in fiber optic networks to terminate and manage fiber optic

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

OSFP | High Speed Interconnects | Amphenol

The OSFP connector is a high-speed, 8-lane pluggable interface designed for 400G, 800G, and 1.6T systems. Compared to QSFP

Optical line termination

An optical line termination (OLT), also called an optical line terminal, is a device which serves as the service provider endpoint of a

OSFP Connectors & Cable Assemblies

Combined with strong electrical performance and broad system compatibility, TE OSFP connectors and cable assemblies deliver a

OSFP Connectors & Cable Assemblies

TE's OSFP connectors and cable assemblies address next-generation data center needs by supporting aggregate data rates of

Optical Line Solutions

Cost-effective OEM/ODM ROADM solutions are tailor-made for customer-specific applications. Solutions are available in various

List of OSFP Models & Products | TE Connectivity

Search our portfolio of OSFP products and select your specifications. We offer a wide array of reliable and cost-effective products

OSFP Connector System

OSFP connectors are slightly larger than QSFP-DD connectors but offer increased thermal performance and signal integrity at high

800G Client Optics in the Data Center

When hyperscale data center operators start deploying a new generation of client optics, they immediately require massive volumes

What is OSFP Octal Small Form Factor Pluggable?

The long-awaited public launch of efforts to develop the Octal Small Form Factor Pluggable (OSFP) optical transceiver module for

FAQ about OSFP Octal Small Form Factor Pluggable?

Q: What is the OSFP (Octal Small Form Factor Pluggable)? A: The OSFP is a new pluggable form factor with eight high speed

OSFP MSA Rev 5

The OSFP module contains a PCB with contact pads (i.e., module PC board; paddle card) that mate with a connector as specified in

Optical terminals

Adtran's optical terminals incorporate tunable interfaces, software-defined optics, and flexgrid technology to support a range of

Contact Us

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