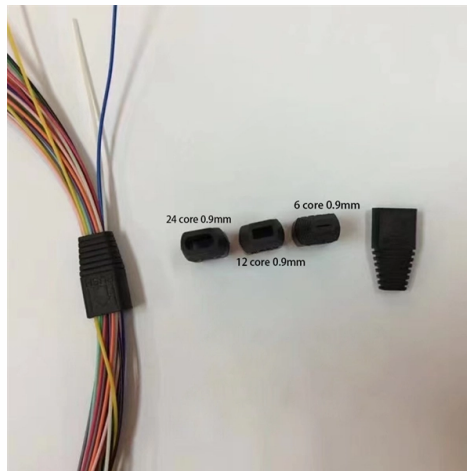


OSFP Optical Module OSFP



Article Overview

OSFP (Octal Small Form-factor Pluggable) modules are high-speed optical transceivers designed for 400G, 800G, and emerging 1.6T data rates, featuring an 8-lane architecture, advanced thermal management, and high-density deployment capabilities.

Overview

OSFP modules are pluggable optical transceivers developed to meet the growing demand for high-bandwidth, low-latency connectivity in modern data centers, AI clusters, and high-performance computing networks . The "Octal" designation refers to the eight individual optical lanes within a single module, allowing for parallel data transmission and higher aggregate bandwidth compared to traditional modules . Typical OSFP modules support data rates from 200G to 800G, with emerging designs targeting 1.6T .

Form Factor and Design

The OSFP form factor measures approximately 70mm x 18mm, providing a balance between high port density and ease of installation . The modules are designed for hot-swapping, enabling network upgrades without downtime. They include a PCB with contact pads that mate with a connector, and a latch release mechanism for secure insertion and removal . OSFP modules often feature integrated heat sinks or finned designs to manage higher power consumption and maintain signal integrity in dense deployments .

Optical and Electrical Features

Article Content

Small Form-factor Pluggable

Small Form-factor Pluggable Small Form-factor Pluggable connected to a pair of fiber-optic cables Small Form-factor Pluggable

OSFP MSA targets 400-Gbps optical transceiver module

The OSFP MSA will seek to develop specifications for an optical transceiver capable of supporting transmission rates up to 400

OSFP OCTAL SMALL FORM FACTOR PLUGGABLE MODULE

7.7.1 Duplex LC Optical Interface Figure 51 shows channel orientation of the optical connector when a duplex LC connector as in IEC

OSFP OCTAL SMALL FORM FACTOR PLUGGABLE MODULE

This specification defines the electrical connectors, electrical signals and power supplies, mechanical and thermal requirements of

OSFP MSA Rev 5.0

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Research and Design of 800Gbit/s OSFP Optical Module

It is the focus of optical transmission network construction in recent years and an important part of the development of high-speed

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

OSFP MSA Rev 5

A Type 3 OSFP module provides a maximum of 3.6mm of additional height in the front compared to a Type 2 module. Type 2 and

Contact Us

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