Supplier OSFP optical module NRZ

Article Overview

Amphenol, TE Connectivity, and LINK-PP are key manufacturers offering OSFP optical modules and cable assemblies compatible with NRZ signaling.

Key Manufacturers and Offerings

Amphenol provides OSFP cable assemblies that support 25G/lane NRZ signaling, delivering aggregate bandwidths of 200G, 400G, 800G, and up to 1.6T per cable assembly. Their products are available in passive, active, and loopback variants, optimized for high-speed data center interconnects with heat-dissipative designs to maintain signal integrity at high data rates . TE Connectivity (TE) offers OSFP connectors and cable assemblies supporting 28G NRZ and higher PAM4 signaling. TE's OSFP solutions provide aggregate data rates from 200 Gbps up to 1.6T, with integrated thermal management and broad system compatibility, making them suitable for high-density, high-power network environments . LINK-PP is a full-stack optical module manufacturer delivering OSFP optical modules for 400G, 800G, and 1.6T networks. Their modules support high-density interconnects with complete optical, electrical, and mechanical integration, and are designed for AI/ML workloads, hyperscale networks, and large-scale switch fabrics. LINK-PP emphasizes thermal efficiency and high-speed packaging for next-generation cloud and AI data centers .

Technical Highlights

o NRZ Support: Typically 25-28G per lane, suitable for 200G-400G OSFP modules.
o Aggregate Bandwidth: Modules can scale from 200G to 1.6T depending on lane count and signaling type.
o Form Factor Advantages: OSFP supports 8-lane architecture, wider thermal envelope, and improved airflow compared to QSFP-DD, critical for high-density deployments.
o Applications: Data center interconnects, TOR/spine switches, AI clusters, and cloud computing environments. These manufacturers provide a comprehensive ecosystem for OSFP deployment, including optical engines, copper and optical cable assemblies, and thermal management solutions, ensuring compatibility with modern high-speed Ethernet architectures. For procurement, Amphenol and TE Connectivity products are widely available through distributors like DigiKey and Mouser, while LINK-PP typically works directly with OEMs and system integrators.

Custom 400G / 800G QSFP-DD & OSFP MODULE Enterprise & Access Optics Engineered for enterprise networks and access layer

The OSFP optical module market is booming, driven by high-bandwidth demands in data centers and HPC. Explore

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Cisco QSFP-DD and OSFP 800G coherent optical modules are supported on Cisco switches

The OSFP packaged optical module market is a pivotal growth area for organizations prioritizing future-ready network strategies. As

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

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

Modern optical transport networks are the nervous system of digital infrastructure. As data demand continues to

Our active optical cable assembly portfolio provides improved cable flexibility and longer reach as compared to both traditional

Amphenol"s octal small-form-factor pluggable (OSFP) cable assemblies are compatible with 25 G/lane channel NRZ

Our Electronics Products "Product of the Year" award winning OSFP (Octal Small Form

With fewer components in the pluggable module, we can scale manufacturing volume and cost to the level of today"s

FS 800G/400G Coherent OSFP/QSFP-DD optical transceiver module solutions offer a range of OSFP/QSFP-DD modules

An optical module is a typically hot-pluggable optical transceiver used in high-bandwidth data communications applications. Optical

Designed for high thermal capacity, electrical scalability, and forward compatibility, OSFP modules now drive

Our portfolio includes benchmark breaking signal integrity connectors up to 112G-NRZ (!) This for pluggable module connectors of

FS provides 50/25/10/1G transceivers modules in SFP/SFP28/SFP56/QSFP28 form factor, supporting

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