ZITHA TECH SPECIALTY CABLES (Pty) Ltd

Custom Low-Power Optical Module LPO



Overview

LPO Series — EU-Tested Low-Power Optical Transceivers Next-generation 400G and 800G modules for data centers, AI clusters, and telecoms — validated in a European lab, ready to ship from Europe.

Key Takeaways

3 and OIF CEI-112G-LINEAR-PAM4 specifications. It enables Ethernet-like links with 1, 2, 4, or 8 lanes for data centers, using low power, high port density, low cost, and low latency pluggable transceiver modules in form factors such as QSFP . It builds on IEEE 802. The idea is simple: instead of a DSP (digital signal processor) inside the module – replacing it with transimpedance amplifier (TIA) and a driver chip with high linearity and EQ capability – LPO shifts signal processing into. New Castle, Delaware – FS, a trusted provider of ICT products and solutions, has launched its cutting-edge 800G Linear Pluggable Optics (LPO) module. 125 GBd PAM4 optical interfaces, optical links using standard single-mode fiber with up to 500 m reach, and host-module electrical interfaces for hosts with DSP based SerDes and RS(544,514) FEC. It. In a power-constrained AI cluster or data center, every Watt of power that is used by the network is a Watt of power that cannot be allocated to compute. Traditional optical transceivers, especially in 400G and 800G deployments, generate significant heat and demand substantial power just to keep the lights blinking. According to the 2024 Report on U.



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Article Content

LPO MSA Specification

It builds on IEEE 802.3 and OIF CEI-112G-LINEAR-PAM4 specifications. It enables Ethernet-like links with 1, 2, 4, or 8 lanes for data centers, using low power, high port density, low cost, and low latency

Linear Pluggable Optics (LPO) Europe | EU-Tested 400G/800G Modules

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Adtran sets intra-data center benchmark with all-new ultra-low-power ...

Adtran today launched LiteWave800™, an ultra-low-power 800Gbit/s DR8 linear pluggable optics (LPO) module engineered to help data centers address the power, latency, thermal

2026 Global Optical Module Selection Guide (Website Homepage

In 2026, driven by AI computing power, optical modules have entered a critical era of rate iteration, technological restructuring, and scenario segmentation. 800G has become the mainstream

Broadcom Advances Optical Connectivity for AI Infrastructure with ...

XPU-CPO: Industry''s first 6.4-Tbps optics attach for custom AI accelerator (XPU) enabling high bandwidth, long reach scale-up fabric connectivity for AI servers. Sian3: State-of-the

OFC 2025 unveils 1.6T networking innovations

The company also demonstrated its 1.6T silicon photonics light engine integrated into an LPO module for low-power, rack-scale interconnects in AI networks. The 1.6T light engine supports

CPO Optical Transmission inevitable is changing data transmission ...

Due to the supply shortage in AI data center construction, there''s also a shortage of CPO optical transmission modules. With few suppliers to begin with, market demand is booming and is

Understanding LPO Transceivers in Modern Data Centers

LPO transceivers cut power use, lower latency, and boost reliability in data centers, making them ideal for high-speed, energy-efficient optical links.

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LRO, LPO, and Silicon Photonics

Traditional optical modules require separate components for signal generation, modulation, and detection, all of which consume power. Silicon photonics allows

800G LPO Module: Enabling Low-Cost, Low-Latency Connectivity

LPO technology represents a critical evolution in optical transceiver design, directly tackling the core challenges of the AI and HPC era. FS is at the forefront of this transition, providing

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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Technical inquiry: https://zithatech.co.za/contact.html

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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