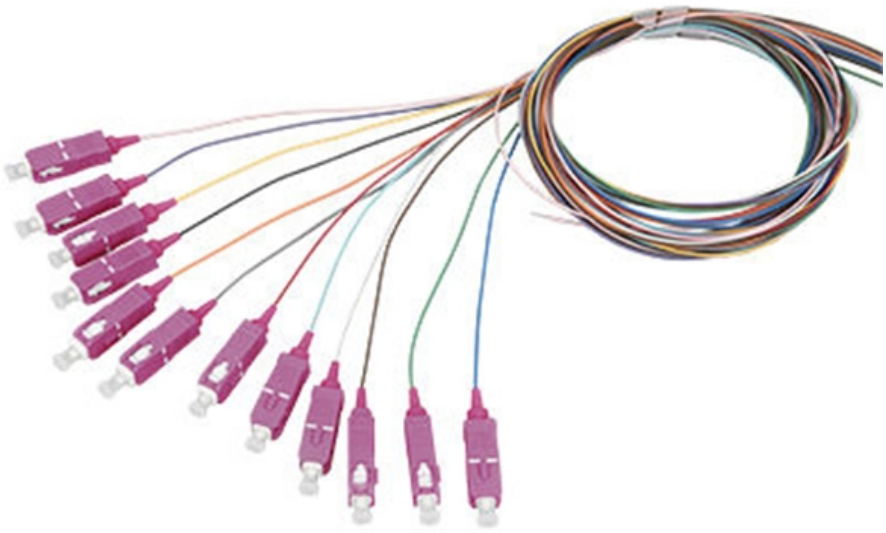
Adam Tas Corridor Energy

# Data Center Interconnect Linear Drive Pluggable Optical LPO



## Overview

One of the most groundbreaking network innovations driving transformations of data centers in 2025 is Linear Pluggable Optics (LPO)—a Digital Signal Processor (DSP)-free optical solution designed to optimize power, cost, and latency. To address this, Macom and NVIDIA first proposed Linear-drive Pluggable Optics (LPO) in 2022. LPO Solution without DSP Traditional high-speed optical modules rely heavily on Digital. (NASDAQ: MRVL), a leader in data infrastructure semiconductor solutions, today announced the general availability of a 200G per lane optimized transimpedance amplifier (TIA) and laser driver chipset, enabling 800 Gbps and 1.

# Data Center Interconnect Linear Drive Pluggable Optical LPO


## Semtech to showcase new linear pluggable optical links

Semtech announced the demonstration of 100Gbps/lane linear pluggable optical links featuring Semtech's PAM4 PMDs from its FiberEdge

## OSFP Transceivers: High-Density Optical Connectivity from 400G to

As hyperscale data centers shift toward AI-optimized fabrics and ultra-high-bandwidth switching platforms, the OSFP (Octal Small Form-Factor Pluggable) form factor has become central

## AI optical transceiver market to grow 57% to US$26bn in 2026

Traffic at hyperscale data centers in North America has sustained over 30% annual growth, prompting cloud giants such as Google, Microsoft and Meta to expand GPU and AI server

## Marvell Optical DSPs , Powering the Future of AI Infrastructure

Discover how Marvell's Optical DSPs enable high-speed, energy-efficient connectivity for AI

workloads, data center interconnects, and cloud infrastructure.

## Linear Pluggable Optics Save Energy In Data Centers

Linear pluggable optics (LPO) is garnering more attention as a way to quickly and efficiently move data in and out of server racks, but a lack of

## Deep, $TSEM: SiPho Capacity Inflection Drives Multi-Fold Growth

Within these environments, SiPho facilitates higher speeds while maintaining system scalability under strict thermodynamic limits. On February 5, NVIDIA and Tower Semiconductor

## $SMTC Please read! I wrote a quick thesis back in March on SS and I

Linear Pluggable Optics (LPO) The shift to LPO removes the DSP from the optical module to save power. For Semtech, this is a golden goose as it allows them to sell the modulator drivers in

## Linear pluggable optics for data centers

Customers have often singled out link accountability as a key impediment to adoption of LPO, and for good reasons

## MaxLinear Announces Availability of Washington 200G TIA for Next

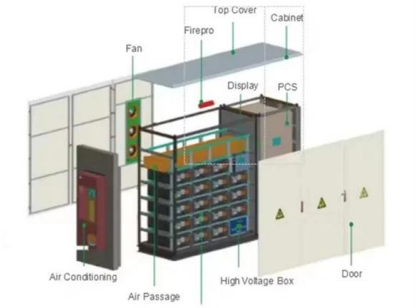
CARLSBAD, CA - (BUSINESS WIRE)- April 30, 2026 - MaxLinear, Inc. (Nasdaq: MXL), a leading provider of high-speed interconnect ICs for data center, metro, and wireless transport

## MACOM PURE DRIVE(TM)

These high-performance parts have been leveraged in leading module and system level designs and enable highly efficient interconnect spanning both short reach

## Integrated Optics: Breaking the Bandwidth Bottleneck for

Innovative and readily deployable optical strategies are helping to overcome the limits of copper interconnects. Large-scale AI systems are flourishing. By Sunil




## What is an LPO Transceiver? A Beginner's Guide to Linear-drive

What is an LPO Transceiver LPO (Linear-drive Pluggable Optics) uses a completely different design idea from traditional optical modules. LPO mainly uses a Linear Driver and a Linear

## LPO vs NPO vs CPO: The Evolution of Optical Interconnects in AI

Among the emerging technologies, LPO (Linear Pluggable Optics), NPO (Near-Packaged Optics), and CPO (Co-Packaged Optics) represent three important stages in the evolution of next

## 2026 OFC Showcase

Welcome to the NextGenInfra OFC 2026 Showcase. With the recent AI boom, optical is hot again. This year's OFC saw close to 18,000 attendees from all over the world. NextGenInfra was on site at the

## Powering the Next Data Race: How 800G & 1.6T Optical

The company is heavily investing in Co-Packaged Optics (CPO) and Linear-Drive Pluggable Optics (LPO). Its demonstration of a Tomahawk5-based co-packaged

## What are linear pluggable optics?

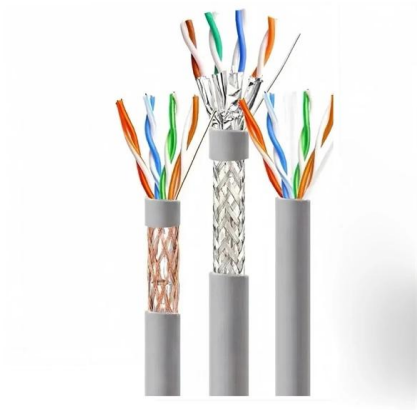
Learn how linear pluggable optics (LPOs) reduce power use, cost and latency by eliminating the DSP and enabling efficient AI, ML and GPU intra-data-center links.

## Data Center Linear-drive Pluggable Optics (LPO) Market

The Data Center Linear-drive Pluggable Optics (LPO) market is experiencing rapid growth, driven by the demand for high-speed, efficient data transmission

## XPO: Redefining Pluggable Optics for AI Networking

To address these challenges, Arista Networks, together with an ecosystem of more than 45 industry partners, introduces eXtra-dense Pluggable Optics (XPO) . XPO represents a new class of optical



## Optical Interconnect Technology Analysis: LPO, NPO, CPO

To address this, Macom and NVIDIA first proposed Linear-drive Pluggable Optics (LPO) in 2022. Its core concept is to remove digital processing

## Revolutionizing Data Centers with a Linear Pluggable

One of the most groundbreaking network innovations driving

## Semtech Showcases AI Interconnect Leadership with Live 1.6T

The system uses multi-vendor 1.6T optical OSFP transceivers -- including fully retimed optics (FRO), linear retimed optics (LRO) and linear pluggable optics (LPO) -- built on Semtech's

## Co Packaged Optics (CPO) - Scaling with Light for the

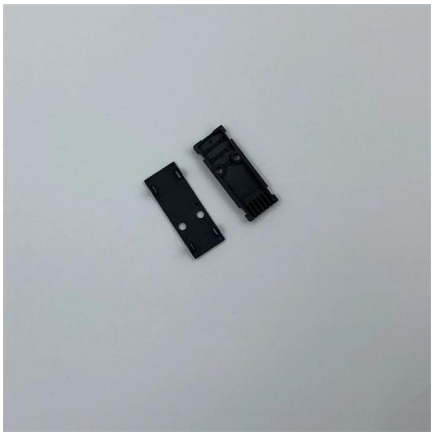
In Part 2: CPO Introduction and Implementation, we will dive deeper into how CPO works. This section will explore the evolution of the market from

## Marvell Introduces 1.6 Tbps LPO Chipset to Enable

The 1.6 Tbps LPO chipset, one of the latest additions to the Marvell interconnect portfolio, is optimized for specific use cases to help data centers maximize

## CPO vs LPO: Choosing the Right Path for Next-Gen

Enter two contenders vying to address these challenges: Co-Packaged Optics (CPO) and Linear Pluggable Optics (LPO). Understanding their differences



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