



NEWS RELEASE

# Lumentum Announces R64 Optical Circuit Switch for AI Data Centers

2025-09-24

- *Expands OCS portfolio with R64 platform for lower port count applications*
- *Leverages Lumentum's proven MEMS technology optimized for high reliability, performance, and scalability*

SAN JOSE, Calif.--(BUSINESS WIRE)-- Lumentum Holdings Inc. ("Lumentum"), a global leader in optical and photonic technology, today announced the expansion of its Optical Circuit Switch (OCS) product line with the new R64 platform. Based on Lumentum's proven MEMS technology, the device will launch as a 64x64-port product for lower-port-count applications within AI data centers. The company will feature the new product at the ECOC exhibition in Copenhagen, Denmark, from September 29-October 1.

"The market reception to our R300 OCS 300x300 port product has been extremely strong," said Peter Roorda, Lumentum general manager, Cloud & Networking. "The R64 now brings our proven MEMS technology in a smaller scale to help bring the advantages of OCS to even more applications within AI data center networks. This will help hyperscale operators further reduce power consumption and improve network reliability and performance."

The Lumentum R64 OCS complements the high-port count R300 OCS, and leverages decades of in-house engineering expertise in MEMS technology used widely in telecom applications. With a deep patent portfolio and more than one trillion field mirror operating hours, the OCS is designed to provide unmatched performance and high reliability for AI data centers.

## **Key Advantages of the R64 OCS**

- Low Power Consumption: At less than 150 W for a switch capable of carrying over 100Tbps of optical traffic, the R64 changes how an AI data center can scale by offering 80% power reduction compared to packet-based switches.
- Exceptional Optical Performance: MEMS technology does not require light to pass through any active medium, giving exceptionally low insertion loss and almost no polarization dependence.
- Flexible Optical Design: The R64 platform allows scaling to 72x72 ports, uni- or bi-directional operation, and full any-to-any fiber connectivity which removes typical OCS connectivity restrictions for bi-directional applications.

- Wide Band Operation: The R64 is optimized for today's O-band applications and brings exceptional performance in the C-band, thanks to the future-proof, bandwidth-agnostic MEMS technology.
- Ultra Stable: Lumentum's proprietary MEMS design is inherently stable over product lifetimes, requiring no feedback mechanism. This avoids control loop dither noise from being introduced to the optical signal while reducing overall system complexity.
- Compact Footprint: The compact design packs in all required features into a 2RU form factor, including redundant power supplies and cooling fans.

The R64 OCS adds to Lumentum's growing portfolio of innovative photonic solutions aimed at improving AI data center scalability. Systems will begin sampling with customers in calendar Q4 2025, with general availability expected in the second half of 2026.

## About Lumentum

Lumentum (NASDAQ: LITE) is a market-leading designer and manufacturer of innovative optical and photonic products enabling optical networking and laser applications worldwide. Lumentum optical components and subsystems are part of virtually every type of telecom, enterprise, and data center network. Lumentum lasers enable advanced manufacturing techniques and diverse applications, including next-generation 3D sensing capabilities. The company is headquartered in San Jose, California, with R&D, manufacturing, and sales offices worldwide. For more information, visit [www.lumentum.com](http://www.lumentum.com).

**Category:** Financial

**Media:** Victoria McDonald, +1.408.404.0636, [media@lumentum.com](mailto:media@lumentum.com)

**Investors:** Kathy Ta, +1.408.750.3853; [investor.relations@lumentum.com](mailto:investor.relations@lumentum.com)

Source: Lumentum