

MACOM Supports PCIe and CXL Connectivity Over Optical Fiber with High Performance Chipset

LOWELL, MA, September 11, 2025 – [MACOM Technology Solutions Inc. \("MACOM"\)](https://www.macom.com), a leading supplier of semiconductor products, today announced the availability of a new chipset to overcome the distance limitations of traditional PCI Express (PCIe) and Compute Express Link (CXL) connectivity by enabling high speed, low latency communication over optical fiber. Designed to maintain signal integrity and reduce latency, the chipset consists of the [MATA-38794 transimpedance amplifier \(TIA\)](#) and the [MALD-38795 VCSEL driver](#). By consolidating sideband signaling into a single fiber pair, MACOM's solution reduces the cost and complexity of optical transceivers and cabling.

As data centers and high-performance computing environments demand increasing bandwidth and reach, MACOM's chipset enables PCIe extension up to 100 meters over multimode fiber. The chipset supports eight PCIe 6.0 lanes at 64 Gbps PAM4, while also transporting critical sideband signals including clock, reset, wake and communication channels like USB and Ethernet over an additional fiber. This ensures full PCIe bus transparency across extended distances.

PCIe is a key enabler for disaggregated computing, providing high bandwidth connections between components like GPU to GPU and CPUs to memory. Unlike traditional server architectures that rely on bundled hardware and layered network protocols, disaggregated computing uses photonic interconnects to link resources directly. This reduces latency, lowers power consumption and allows flexible scaling and can provide a faster, more efficient computing model.

"Extending PCIe over fiber is essential for next generation disaggregated computing infrastructure," said Stephen G. Daly, President and Chief Executive Officer, MACOM. "The MATA-38794 and MALD-38795, enable scalable, transparent PCIe connectivity that meets the demands of modern computing environments."

MACOM will demonstrate its new PCIe 6.0 solution at CIOE 2025 in Stand 11D31 from September 10 to 12, 2025 in Shenzhen, China as well as at ECOC 2025 in Booth C3419 from September 29 to October 1, 2025, in Copenhagen, Denmark. Samples are available now for the MATA-38794 TIA and MALD-38795 VCSEL Driver. For more information, visit www.macom.com.

About MACOM

MACOM designs and manufactures high-performance semiconductor products for the Telecommunications, Industrial and Defense, and Data Center industries. MACOM services over 6,000 customers annually with a broad product portfolio that incorporates RF, Microwave, Analog and Mixed Signal and Optical semiconductor technologies. MACOM has achieved certification to the IATF16949 automotive standard, the AS9100D aerospace standard, the ISO9001 international quality standard and the ISO14001 environmental management standard. MACOM operates facilities across the United States, Europe, Asia and is headquartered in Lowell, Massachusetts. To learn more, visit www.macom.com.

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