

MACOM Introduces 3.2T Chipset Solution for High Speed Optical Connectivity

Lowell, MA, September 17, 2026 – [MACOM Technology Solutions Inc.](https://www.macom.com) ("MACOM"), a leading supplier of semiconductor products, today announced a front end chipset solution for 3.2T applications, designed to accelerate the development of next generation optical interconnects for AI infrastructure, cloud data centers and high speed networking applications.

The solution is designed to support new optical architectures, delivering up to 3.2T throughput through eight channels operating at 448 Gbps PAM-4. This solution combines MACOM's new high performance transimpedance amplifiers (TIAs) and photodiodes in a receiver platform with its previously introduced 448 Gbps PAM-4 drivers on the transmit side. By offering key transmit and receive building blocks from a single supplier, MACOM helps customers simplify development, accelerate time-to-market and optimize overall link performance.

"MACOM's 3.2T chipset solution has been engineered and optimized as a platform, helping customers optimize link performance while reducing development and qualification efforts," said Stephen G. Daly, President and Chief Executive Officer, MACOM.

Optimized for 448 Gbps PAM-4 Optical Links

MACOM's receive-side solution combines advanced photodiodes and TIA technologies engineered to work together in demanding 448 Gbps PAM-4 optical applications.

This solution includes MACOM's [MATA-42754](#) and [MATA-41754](#) quad linear TIAs, designed to support the bandwidth requirements of next-generation optical links. The devices incorporate RSSI functionality for photo alignment and power monitoring, as well as digital control of bandwidth, output amplitude, peaking, gain and loss-of-signal thresholds.

The TIAs are paired with **MACOM's** [MARP-BP224](#) backside-illuminated PIN photodiode, optimized for 448 Gbps PAM-4 receiver applications. The photodiode features greater than 100 GHz bandwidth and ultra-low parasitics to maximize performance and signal integrity in high speed optical links. Leveraging a proprietary design for high coupling efficiency, the device is available in multiple layouts to support a variety of optical interface implementations. Together, these components provide a scalable building block approach for transceivers supporting eight channels at 448 Gbps PAM-4 and aggregate data rates reaching 3.2T.

The new receive-side solution complements MACOM's previously announced [MAOM-025408](#) and [MAOM-022404](#) driver solutions, which support 448 Gbps PAM-4 optical transmit architectures. By combining drivers, photodiodes and TIAs within a single portfolio, MACOM is providing customers with a comprehensive set of technologies for next-generation optical module development.

Availability

All products within the 3.2T chipset solution are readily available. Please visit www.macom.com or contact your local MACOM sales representative for more information. The products will also be on display at MACOM's Booth 1055 at ECOC2026 from September 21 to 23, 2026 in Málaga, Spain.

About MACOM

MACOM designs and manufactures semiconductor products for telecommunications, industrial and defense and data center applications. Headquartered in Lowell, Massachusetts, MACOM has design centers and sales offices throughout North America, Europe and Asia. MACOM is certified to the ISO9001 international quality standard and ISO14001 environmental management standard. To learn more, visit <https://www.macom.com/>.

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