

MACOM Announces Industry's First Analog CDR-Based PAM-4 Portfolio

May 7, 2019

- *Portfolio targeted for compliance with the newly formed Open Eye MSA enabling 50Gbps to 400Gbps optical modules*
- *Builds on MACOM's pre-eminent position in high-performance CDRs, drivers and TIAs, enabling lower cost, lower power and lower latency data center interconnects*
- *Companion 200G FR4 L-PICs to provide requisite performance at the cost comparable to current 100G CWDM4 solutions*
- *Production Samples available today, enabling a smooth migration to next generation connectivity*

LOWELL, Mass.--(BUSINESS WIRE)--May 7, 2019-- [MACOM Technology Solutions Inc.](https://www.businesswire.com/news/home/20190507005534/en/) ("MACOM"), a leading supplier of semiconductor solutions, today announced a complete analog and silicon photonics portfolio for seamless integration in 50Gbps, 100Gbps, 200Gbps and 400Gbps optical modules targeted for compliance with the newly formed Open Eye Multi-Source Agreement (MSA) www.openeye-msa.org.

This press release features multimedia. View the full release here: <https://www.businesswire.com/news/home/20190507005534/en/>



Optimized for volume-scale deployment in high-density Cloud Data Center links, MACOM's components will enable faster, lower cost and more power efficient optical modules as defined by the upcoming Open Eye MSA industry standard.

MACOM's end-to-end transmit and receive portfolio features low-cost, low-power extensions to its existing lineup of Clock and Data Recovery (CDRs), drivers and (Transimpedance Amplifiers (TIAs), adding a companion integrated 200G FR4 L-PIC optimized to reduce customers' module costs through dramatically improved ease of assembly, calibration and test. These components are designed to eliminate the need for expensive, power-hungry signal processing and 53Gbps EMLs, enabling streamlined optical module architectures targeted for 200G and 400G connectivity.

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MACOM's full CDR-based and L-PIC-based portfolio comprises the MAOM-38053 four-channel transmit PAM-4 CDR with an integrated driver, and an L-PIC transmitter and on the receive side, features a MATA-03819 quad TIA, MACOM BSP56B photodetectors and the MASC-38040 four-channel receive PAM-4

CDR. This approach is anticipated to deliver over 25% reduction in power consumption while simultaneously driving the cost per gigabit down as compared to today's CWDM4 and digital signal processing (DSP)-based PAM-4 solutions. Cloud customers can now double their link rate with only minor, incremental power and cost.

"MACOM is proud to be part of an ecosystem that enables seamless component interoperability among a broad group of industry-leading technology providers, including providers of electronics, lasers and optical components," said Preet Virk, Senior Vice President and General Manager, Networks, MACOM. "MACOM is committed to enabling the Open Eye MSAs charter, in part by leveraging our comprehensive portfolio of high-performance analog components and L-PICs to help customers achieve optimal performance, power efficiency and cost structures. We believe that our extensive application expertise and industry leadership in PAM-4 enabling technologies will help to ensure a seamless migration from 100G CWDM4 to industry-standard 200G and 400G PAM-4 module architectures."

The Open Eye MSA group aims to accelerate the adoption of data center interconnects scaling to 50Gbps, 100Gbps, 200Gbps and 400Gbps by expanding existing standards to enable optical module implementations using multiple technologies including optimized CDR-based architectures in addition to existing DSP architectures.

All of the MACOM products highlighted in this CDR and LPIC-based portfolio are sampling to customers today. For more information about MACOM's Cloud Data Center connectivity components, please visit <https://www.macom.com/data-center>.

