

MACOM Expands 400G PAM-4 Chipset Solution for Data Center Optical Connectivity with New Low Noise Transimpedance Amplifiers

March 4, 2019

- *New MATA-03820 and MATA-03819 TIAs deliver industry-leading low noise performance while supporting bandwidth up to 35 GHz*
- *Production version TIAs support wire bonding and flip chip assembly flexibility*
- *MACOM to host product demonstrations at OFC 2019 in the MACOM InnovationZone at booth #2739*

SAN DIEGO--(BUSINESS WIRE)--Mar. 4, 2019-- [MACOM Technology Solutions Inc.](http://www.businesswire.com/news/home/20190304005248/en/) ("MACOM"), a leading supplier of semiconductor solutions, today announced availability of production versions of its four-channel (4 x 100G) 56/106 Gbit PAM-4 linear transimpedance amplifiers (TIAs) optimized for use in 400G optical modules targeting Cloud Data Center applications. The new [MATA-03820](#) and the [MATA-03819](#) are available in flip chip and wire bonding packaging options, respectively, for fast, flexible deployment in single-lambda 400G-FR4 and DR4 format QSFP-DD and OSFP optical modules.

This press release features multimedia. View the full release here: <https://www.businesswire.com/news/home/20190304005248/en/>



Delivering industry-leading low noise performance less than 1.5 uA RMS typical and supporting bandwidth up to 35 GHz, MACOM's MATA-03820 and MATA-03819 TIA family supports high throughput optical data links in a very low power profile, optimal for use in high density optical Data Center interconnects. Features include RSSI for photo-alignment and power monitoring, and I2C management interface for control of bandwidth, output amplitude, peaking, loss of signal (LOS), gain and other key parameters.

"Molex is excited to collaborate with MACOM. Leveraging MACOM's technical support along with its broad portfolio of TIAs we are able to ensure the availability of industry leading 400G optical modules," said Adit Narasimha, Vice President and General Manager, Molex Optoelectronics. "The low noise performance of MACOM's TIA along with its flexible programmability, enable delivery of industry leading low bit error performance when implemented with a DSP for 400G modules."

"In the rapid evolution to single fiber 100G and parallel fiber 200G and 400G connectivity, we believe that MACOM has

The new MATA-03820 and the MATA-03819 are available in flip chip and wire bonding packaging options, respectively, for fast, flexible deployment in single-lambda 400G-FR4 and DR4 format QSFP-DD and OSFP optical modules. (Photo: Business Wire)

again affirmed its leadership position in delivering the high-performance, power-efficient optical components needed to maximize bandwidth density in the Cloud Data Center," said Marek Tlalka, Senior Director of Marketing, High-Performance Analog, MACOM. "MACOM's MATA-03820 and MATA-03819 TIA family, complemented by a comprehensive portfolio of seamlessly-interoperable MACOM components, is helping our customers accelerate this transition."

MACOM's MATA-03820 and MATA-03819 TIAs are available to customers today in production quantities. For more information about the products, visit-

<https://www.macom.com/products/product-detail/MATA-03820>
<https://www.macom.com/products/product-detail/MATA-03819>

For customers targeting APD applications, MACOM is now sampling its MATA-03921 (flip chip) and MATA-03919 (wire bonded) TIAs.

MACOM will be hosting demonstrations of their expanded PAM-4 chipset for 100G, 200G and 400G applications at OFC 2019, featuring the MATA-03820 and MATA-03819 TIAs in customer module implementations and a live 200G/400G ROSA demonstration. OFC 2019 attendees are invited to visit with MACOM at the San Diego Convention Center, California, in the MACOM InnovationZone at booth #2739. For more information

about MACOM's high-performance optical networking solutions for Cloud Data Centers, visit www.macom.com/data-center.

About Molex:

Molex brings together innovation and technology to deliver electronic solutions to customers worldwide. With a presence in more than 40 countries, Molex offers a full suite of solutions and services for many markets, including data communications, consumer electronics, medical, industrial, automotive, and commercial vehicle. For more information, please visit www.molex.com.

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ABOUT MACOM:

MACOM enables a better-connected and safer world by delivering breakthrough semiconductor technologies for optical, wireless and satellite networks that satisfy society's insatiable demand for information.

Today, MACOM powers the infrastructure that millions of lives and livelihoods depend on every minute to communicate, transact business, travel, stay informed and be entertained. Our technology increases the speed and coverage of the mobile Internet and enables fiber optic networks to carry previously unimaginable volumes of traffic to businesses, homes and Data Centers.

Keeping us all safe, MACOM technology enables next-generation radars for air traffic control and weather forecasting, as well as mission success on the modern networked battlefield. MACOM is the partner of choice to the world's leading communications infrastructure, aerospace and defense companies, helping solve their most complex challenges in areas including network capacity, signal coverage, energy efficiency and field reliability, through its best-in-class team and broad portfolio of analog RF, microwave, millimeterwave and photonic semiconductor products.

MACOM is a pillar of the semiconductor industry, thriving for more than 60 years of daring to change the world for the better, through bold technological strokes that deliver true competitive advantage to customers and superior value to investors.

Headquartered in Lowell, Massachusetts, MACOM is certified to the ISO9001 international quality standard and ISO14001 environmental management standard. MACOM has design centers and sales offices throughout North America, Europe and Asia.

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