



Partners from RF to Light

March 13, 2018

## MACOM and ColorChip Announce a 100G Single-Lambda QSFP28 Module for Cloud Data Center Applications

- | Leverages 53Gbaud PAM4 technology with MACOM's PRISM™ and SystemOnGlass™ technology from ColorChip
- | Solution to deliver requisite cost to enable mainstream 100G Single-Lambda PAM-4 deployment
- | 100G Single-Lambda QSFP28 Solution to demo at OFC 2018 at ColorChip Booth #2529

LOWELL, Mass.--(BUSINESS WIRE)-- [MACOM Technology Solutions Inc.](#) ("MACOM"), together with ColorChip today announced a full bi-directional 100G Serial QSFP28 Module leveraging the patented MACOM PRISM™ PAM4 PHY.

Sampling today, the MACOM PRISM is a highly integrated PAM4 PHY that converts 100 Gigabit Ethernet traffic from four lanes running at 25Gb/s to a single 100Gb/s lane. Requiring only a single set of optical components in a 100GE module will allow customers to achieve the requisite cost points for next generation 100G links. By integrating features such as IEEE 100GBASE-DR compliant forward error correction and a linear modulator driver, the PRISM device is expected to ease the burden on module designers and allow for seamless integration with today's existing 100G switch ports.

As 100G technology reaches maturity in 2018, optical suppliers are seeking a competitive advantage by intensifying their efforts to reduce module costs and increase system density. [Single lambda PAM-4 modulation](#) is critical to these efforts, enabling the delivery of 100G throughput over a single fiber. This can reduce the number of lasers from four to one in an optical transceiver module, and the associated cost and density benefits can be significant. For data center operators, single lambda PAM-4 is widely expected to become the de facto standard for 100G connectivity going forward, with deployment commencing later this year.

- | For more information on samples of MACOM's PRISM Chip, please contact your local sales representative.
- | ColorChip will demonstrate their 100G Single-Lambda QSFP28 solution at OFC 2018 booth #2529.

"Working with an industry pioneer like ColorChip, we have been able to show the performance and cost benefits of our PRISM Chip at 100G serial line rate," said Chris Collins, Director of Marketing, at MACOM. "This demonstration validates the R&D investment that MACOM has made in 53Gbaud PAM4 and poises us to enable seamless integration with optical components for the next generation of Cloud Data Center deployment."

"ColorChip brings high speed data transmission to the world's top mega-data centers. We are the pioneering global leader of hyperscale single-mode solutions, leveraging our patented SystemOnGlass platform to deliver robust yet compact optical transceivers that support immense rates of data-intensive traffic," said Eli Arad, Vice President of R&D, at ColorChip. "MACOM was an early adopter of the Single-Lambda approach. Working with MACOM's PRISM Chipset, we are very proud to achieve this breakthrough performance in 100G Single-Lambda QSFP28. By developing a cost effective solution, while maintaining industry-leading performance, ColorChip believes we will enable the next generation of optics for 100G, 400G and beyond."

MACOM will showcase a complete portfolio of optical and lightwave components at OFC 2018, Booth #2613, March 13<sup>th</sup>-15<sup>th</sup>, in San Diego, California. To make an appointment, contact your local sales representative. For more information on MACOM's optical networking solutions visit: [www.macom.com](http://www.macom.com).

### ABOUT ColorChip:

ColorChip (<http://www.color-chip.com>) is a global provider of hyper-scale optical transceivers supporting the growing need for bandwidth scale. ColorChip is headquartered in Yokne'am, Israel, where it's fully owned, industrialized optics-based FAB is dedicated to the production of PLC based SystemOnGlass™, a dense, multi-lane, hybrid photonic integrated circuit used as the foundation of the company hyper scale Transceivers, providing a platform of scalability that seamlessly transitioned from 40G to 200G moving towards 400G and beyond as its natural horizons. ColorChip has a production facility in Thailand and offices in San Jose, California.

## **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 datacenters.

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, Asia and Australia.

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For more information about MACOM, please visit [www.macom.com](http://www.macom.com), follow [@MACOMtweets](https://twitter.com/MACOMtweets) on Twitter, join MACOM on [LinkedIn](#), or visit the MACOM [YouTube Channel](#).

## **SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS:**

This press release contains forward-looking statements based on MACOM's beliefs and assumptions and on information currently available to MACOM. These forward-looking statements reflect MACOM's current views about future events and are subject to risks, uncertainties, assumptions and changes in circumstances that may cause those events or our actual activities or results to differ materially from those expressed in any forward-looking statement. Although MACOM believes that the expectations reflected in the forward-looking statements are reasonable, it cannot and does not guarantee future events, results, actions, levels of activity, performance or achievements. Readers are cautioned not to place undue reliance on these forward-looking statements. A number of important factors could cause actual results to differ materially from those indicated by the forward-looking statements, including, but not limited to, those factors described in "Risk Factors" in MACOM's Annual Report on Form 10-K and Quarterly Report on Form 10-Q filings with the Securities and Exchange Commission. MACOM undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

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