



May 13, 2015

## MACOM Announces Fourth Generation GaN Technology

*Next-generation GaN on Silicon technology rivals performance of GaN on Silicon Carbide, offering greater than 70% efficiency and 19dB Gain at a cost structure below incumbent LDMOS technology*

LOWELL, Mass.--(BUSINESS WIRE)-- M/A-COM Technology Solutions Holdings, Inc. ("MACOM"), a leading supplier of high-performance analog RF, microwave, millimeterwave and photonic semiconductor products, today announced its fourth generation of Gallium Nitride on Silicon (GaN on Si) technology.

Delivering performance that rivals expensive GaN on Silicon Carbide (GaN on SiC) at a projected volume production cost structure below that of incumbent LDMOS technology, fourth generation GaN (Gen4 GaN) is positioned to break the final technical and commercial barriers to mainstream GaN adoption. MACOM's Gen4 GaN performance will be on display at booth #2839 at IMS 2015 in Phoenix, Arizona, May 19<sup>th</sup> - 21<sup>st</sup>, 2015.

Gen4 GaN delivers greater than 70% peak efficiency and 19 dB gain for modulated signals at 2.7 GHz, which is similar to GaN on SiC technologies, and more than 10 percentage points greater efficiency than LDMOS. It also delivers power density that is more than four times that of LDMOS. This breakthrough performance is expected to yield GaN-based devices that are half the semiconductor cost per watt of comparable LDMOS products and significantly lower cost than comparably performing GaN on expensive SiC wafers at volume production levels.

Gen4 GaN extends the innovation and commercialization trajectories of earlier generations of GaN on Si, which have demonstrated clear, field-proven reliability in harsh environmental conditions. To date, over one million devices have been operating for as long as five years in demanding military applications in Iraq and Afghanistan.

"Gen4 will unlock the full promise of GaN for mainstream commercial applications. We expect its impact on the RF & Microwave industry will be transformative," said John Croteau, President and CEO, MACOM. "Our GaN IP portfolio and strategic licensing agreements set the foundation for a sustainable, cost-efficient technology and supply chain model enabling GaN production at unprecedented economies of scale. These breakthroughs position MACOM as the preeminent supplier of compound semiconductors for RF & Microwave applications."

MACOM Gen4 GaN-based devices are expected to enter high volume production in 2016, and are sampling to customers today. For more information, visit [www.macom.com/gan](http://www.macom.com/gan).

### ABOUT MACOM:

M/A-COM Technology Solutions Holdings, Inc. ([www.macom.com](http://www.macom.com)) is a leading supplier of high-performance analog RF, microwave, millimeterwave and photonic semiconductor products that enable next-generation internet and modern battlefield applications. Recognized for its broad catalog portfolio of technologies and products, MACOM serves diverse markets, including high speed optical, satellite, radar, wired and wireless networks, automotive, industrial, medical, and mobile devices. A pillar of the semiconductor industry, we thrive on more than 60 years of solving our customers' most complex problems, serving as a true partner for applications ranging from RF to Light.

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

This press release contains forward-looking statements based on MACOM management's beliefs and assumptions and on information currently available to our management. Forward-looking statements include, among others, information concerning our expectations for Gen4 GaN, including any statements concerning its expected performance, production cost, price or performance competitiveness with LDMOS and GaN on SiC, its promise for mainstream commercial applications, impact on the RF & Microwave industry, as well as statements concerning our GaN IP portfolio and strategic licensing agreements, supply chain model, economies of scale and positioning in the industry. Forward-looking statements include all statements that are not historical facts and generally may be identified by terms such as "anticipates," "believes," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "seeks," "should," "will," "would" or similar expressions and the negatives of those terms.

Forward-looking statements contained in this press release 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 lack of adoption or delayed adoption by customers and industries we serve of GaN solutions offered by us, failures or delays in porting and qualifying GaN process technology to our Lowell, MA fabrication facility or third party facilities, our failure to realize the expected economies of scale, lowered production cost and other anticipated benefits of our GaN intellectual property licensing program, lower than expected demand in any or all of our primary end markets or from any of our large OEM customers based on seasonal effects, macro-economic weakness or otherwise, the potential for failures or delays by any customer in winning business or to make purchases from us in support of such business, lower than expected utilization and absorption in our manufacturing facilities, lack of success or slower than expected success in our new product development or capacity expansion efforts, loss of business due to competitive factors, product or technology obsolescence, customer program shifts or otherwise, lower than anticipated or slower than expected customer acceptance of our new product introductions, the potential for increased pricing pressure based on competitive factors, technology shifts or otherwise, the impact of supply shortages or other disruptions in our internal or outsourced supply chain, the expense, business disruption or other impact of any current or future investigations, administrative actions, litigation or enforcement proceedings we may be involved in, the potential loss of access to any in-licensed intellectual property or inability to license technology we may require on reasonable terms, and the impact of any claims of intellectual property infringement or misappropriation, which could require us to pay substantial damages for infringement, expend significant resources in prosecuting or defending such matters or developing non-infringing technology, incur material liability for royalty or license payments, or prevent us from selling certain of our products, as well as those factors described in "Risk Factors" in MACOM's filings with the Securities and Exchange Commission (SEC), including its Quarterly Report on Form 10-Q for the fiscal quarter ended January 2, 2015 as filed with the SEC on February 2, 2015. MACOM undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

**FOR SALES INFORMATION, PLEASE CONTACT:**

North Americas -- Phone: 800.366.2266

Europe -- Phone: +353.21.244.6400

India -- Phone: +91.80.43537383

China - Phone: +86.21.2407.1588

Photos/Multimedia Gallery Available: <http://www.businesswire.com/multimedia/home/20150513005241/en/>

M/A-COM Technology Solutions Inc.

Ozzie Billimoria, 978-656-2896

[ozzie.billimoria@macom.com](mailto:ozzie.billimoria@macom.com)

or

Rainier Communications

Colin Boroski, 508-475-0025 x142

[cboroski@rainierco.com](mailto:cboroski@rainierco.com)

or

embedded PR

Gerlinde Knoepfle, +49 (0)89 64913634-12

[gk@embedded-pr.de](mailto:gk@embedded-pr.de)

Source: M/A-COM Technology Solutions Holdings, Inc.

