MACOM Achieves Breakthrough for Commercial RF Energy Applications with Introduction of New 300W Plastic-packaged GaN Power Transistor

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New MAGe-102425-300 delivers GaN performance and silicon cost structures at significantly greater power efficiency and density than LDMOS offerings

LOWELL, Mass.--(BUSINESS WIRE)-- MACOM Technology Solutions Inc. ("MACOM"), a leading supplier of high-performance analog RF, microwave, millimeterwave and photonic semiconductor products, today announced its new MAGe-102425-300, a 300W GaN on Silicon rugged power transistor in cost effective plastic packaging optimized for use in commercial scale solid-state RF energy applications. Based on MACOM's Gen4 GaN technology, the new MAGe-102425-300 delivers performance that defies the inherent power efficiency and density limitations of LDMOS at an equivalent price profile at scaled volume production levels.

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Providing 300W output power and 70% efficiency at 2.45GHz, the MAGe-102425-300 currently leads the industry in meeting the core technical requirements for next generation power amplifiers proposed by the RF Energy Alliance, a non-profit technical association dedicated to unlocking the full potential of RF energy. Meanwhile the cost structure and volume supply chain benefits achieved with MACOM's Gen4 GaN technology position the MAGe-102425-300 to meet aggressive cost targets on a par with LDMOS. (Photo: Business Wire)

The intersection of GaN performance and silicon cost structures - exemplified by the MAGe-102425-300 - opens a massive opportunity to leverage solid-state RF energy as a highly efficient and precise heat and power source for a wide range of commercial applications including microwave ovens, automotive ignition, lighting systems and industrial, scientific and medical (ISM) applications including RF plasma lighting, material drying, blood and tissue heating and ablation, and beyond. The RF devices that underpin these systems must strike an optimal balance of performance, power efficiency, small size, and reliability, at a price point that promotes mainstream commercial adoption.

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"Solid-state RF energy technology holds the promise to transform entire market

segments, providing wide-ranging benefits from consumer goods to ISM systems and infrastructure," said Mark Murphy, Senior Director of Marketing, MACOM. "The MAGe-102425-300 sets a new price and performance benchmark for RF power devices, affirms MACOM's GaN technology and application expertise, and signals a clear inflection point in the evolution toward mainstream RF energy adoption."

"The RF Energy Alliance recently published the RF Power Amplifier (PA) Roadmap, which sets parameters for future PA module generations that are viable alternatives to magnetron-based solutions," said Klaus Werner, Executive Director of the RF Energy Alliance. "The MAGe-102425-300's breakthrough in efficiency is in step with our PA Roadmap, enabling new markets for residential solid-state RF energy applications."

MACOM will be featuring the MAGe-102425-300 at the International Microwave Symposium 2016 (IMS), May 22nd-27th in San Francisco, California. Visit MACOM at booth #939 to see a solid state system demonstration, using the MAGe-102425-300. To make an appointment to see this private demonstration, contact your local sales representative.

Select products in MACOM's GaN power transistor portfolio for RF energy applications are sampling to qualified customers today. For more information about MACOM's GaN solutions for RF energy, visit www.macom.com/rfenergy.

ABOUT MACOM:

MACOM Technology Solutions Inc. (www.macom.com) supplies key enabling technologies for the Cloud Connected Apps Economy and Modern Networked Battlefield. Recognized for its broad catalog portfolio of technologies and products, MACOM provides high-performance analog RF, microwave, millimeterwave and photonic semiconductor products for diverse applications ranging from high speed optical, satellite, wired and wireless networks to military and civil radar systems. A pillar of the semiconductor industry, we thrive on more than 60 years of solving our customers' most complex problems as their trusted partner for solutions 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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