



Partners from RF to Light

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## MACOM Demonstrates "RF Energy Toolkit": Accelerates Customers' Time-to-Market with High Performance, Cost Effective GaN on Si-based RF Systems for Commercial Applications

- | *Hardware and software kit enables faster and easier solid-state RF system development*
- | *Optimized for use by commercial manufacturers of cooking, lighting, industrial heating/drying, medical/pharmaceutical and automotive ignition systems*
- | *Enables system designers to take advantage of GaN on Si performance at LDMOS price points*
- | *Live beta demonstration at IMS, with customer availability in Fall 2017*

LOWELL, Mass.--(BUSINESS WIRE)-- [MACOM Technology Solutions Inc.](#) ("MACOM") today unveiled a development kit targeted to help commercial OEMs quickly and easily adapt their product designs to incorporate GaN-based RF energy sources for a wide range of applications spanning cooking, lighting, industrial heating/drying, medical/pharmaceutical, automotive ignition systems and beyond. Leveraging solid-state RF energy as a highly efficient and precise energy source, commercial OEMs are poised to achieve new levels of performance and affordability for future product generations.

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MACOM's new RF Energy Toolkit, Beta version available today, helps system designers simplify and accelerate their product development cycles by making it easy for them to fine tune RF energy output levels to maximize efficiency and performance. Combining the benefits of MACOM's GaN on Si power transistors with intuitive, flexible software and signal control capabilities, MACOM's RF Energy Toolkit takes the guesswork out of the RF power source design and enables faster time to market.

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The MACOM GaN on Si power transistors supplied with the RF Energy Toolkit deliver

up to 10% greater power efficiency than comparably priced LDMOS-based transistors - this is a major benefit for continuous wave RF energy applications, where every incremental gain in power efficiency translates to less power consumption and lower operating costs over sustained usage. System designers can select from a range of MACOM power transistors to meet power level requirements spanning from 30W to 1000W, and the Toolkit supports coherent channel operation allowing multiple RF energy channels to be easily combined, for example 3x300W or 2x500W etc. Supported frequency bands range from 915MHz to 2.45GHz.

"Commercial OEMs are eager to seize the massive market opportunity for higher-performing RF energy-based systems enabled by GaN on Si, but they don't want to invest the resources to architect the RF power elements themselves," said Mark Murphy, Senior Director, RF Power at MACOM. "The RF Energy Toolkit lifts this design burden from the OEMs, and will help them get to market faster with their RF energy-based systems by providing an affordable, easy to use platform that streamlines system design and lowers development costs."

"The current RF Energy Toolkit offers the industry 'a first' in a number of ways: The kit is an easy-to-use, compact, very flexible controller that can run all alone based on a very fast, hardware based reflection coefficient optimization scheme," said Klaus Werner, Managing Director, pinkRF - a MACOM design partner. "Alternatively, the kit can run complex recipes alone or in conjunction with other controllers, programmed remotely or embedded with any number of RF vectors (power,

phase, frequency, time, energy) to control complex or variable processes. The tool hooks up to the power amplifier - no special integration is needed. I view it as an RF Energy engineer's 'Swiss army knife' to master, optimize and industrialize RF energy applications and their associated controllers."

Beta-version RF Energy Toolkits are available to qualified customers today, with broader availability planned in the Fall of 2017. MACOM will showcase its new RF Energy Toolkit and industry leading GaN on Si product portfolio this week at IEEE's International Microwave Symposium (IMS) 2017 in Honolulu, Hawaii. Attendees are invited to visit MACOM at booth #1312. For more information on MACOM's RF Energy initiatives, visit: <https://www.macom.com/rfenergy>

#### **ABOUT MACOM:**

MACOM is a new breed of analog semiconductor company — one that delivers a unique combination of high growth, diversification and high profitability. We are enabling 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 and 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 RF, microwave, millimeterwave and lightwave 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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