

# MACOM's Newest Wideband Low Noise Amplifier Delivers Exceptional Noise Figure in a Surface Mount Package

- MAAL-011141 LNA supports wideband operation from DC to 28 GHz, with low noise figure of 1.4 dB at 8 GHz
- New packaged version facilitates ease of manufacturing assembly through use of standard pick and place technology
- New solution will be showcased at EuMW 2018 in booth #271

Lowell, Massachusetts, September 25, 2018 – MACOM Technology Solutions

Inc. ("MACOM"), a leading supplier of semiconductor solutions, today announced a new packaged version of its MAAL-011141 wideband low noise amplifier (LNA) optimized to provide low noise figure performance across the DC to 28 GHz frequency range. Now available in 5 mm industry standard AQFN packaging for pick and place assembly, the MAAL-011141 delivers wideband performance for a broad range of applications, including test and measurement, EW, ECM and radar applications.

This wideband LNA provides flat gain response across the whole band with typical gain of 17.5 dB. The input and output are fully matched to  $50~\Omega$  with typical return loss, across the band, of >15 dB. The MAAL-011141 enables ease of use by using positive gate bias, eliminating the need for a negative voltage supply. This amplifier employs an active termination circuit to achieve superior noise figure performance at the lower end of the frequency range.

"We are releasing this packaged version of the MAAL-011141 in response to the tremendous market success of the bare-die format released earlier this year. We believe that this packaged version will allow us to service customers who use standard SMT manufacturing flows," said Graham Board, Senior Director of Product Marketing, MACOM. "The packaged MAAL-011141 is expected to provide customers with high performance that is comparable to the bare-die version, while simultaneously reducing the cost and complexity of the assembly process, thereby helping to accelerate time to market."

For over 60 years, MACOM's design and applications experts have spearheaded innovation in the RF, microwave and millimeterwave domain, developing the industry's broadest portfolio of MMICs and components spanning the entire RF signal chain. Leveraging advanced, proprietary technologies, MACOM's heterogeneous semiconductor and packaging strategy ensures that each individual RF system function is fully optimized to deliver maximum performance at the appropriate cost. MACOM remains firmly committed

to delivering true competitive advantage to our customers, providing superior technology, expertise, cost structures and supply chains – without compromises.

MACOM's MAAL-011141 LNAs are available to customers today, in bare-die and packaged formats. For assistance identifying MACOM products optimized to substitute or replace offerings from other vendors, visit MACOM's Cross Reference tool.

MACOM will showcase its industry leading RF technology portfolio at European Microwave Week (EuMW) 2018, Booth #271 in Madrid, Spain, September 25<sup>th</sup> – 27<sup>th</sup>. MACOM's booth will feature new product solutions optimized for 5G, wireless basestations, radar, test and measurement, and industrial, scientific and medical (ISM) applications. To make an appointment, contact your local sales representative. For more information about MACOM's RF technology solutions, please visit: www.macom.com

#### **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 and Asia.

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For more information about MACOM, please visit www.macom.com follow @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, Quarterly Reports on Form 10-Q and other 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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Any express or implied statements in MACOM product announcements are not meant as warranties or warrantable specifications of any kind. The only warranty MACOM may offer with respect to any product sale is one contained in a written purchase agreement between MACOM and the purchaser concerning such sale and signed by a duly authorized MACOM employee, or, to the extent MACOM's purchase order acknowledgment so indicates, the limited warranty contained in MACOM's standard Terms and Conditions for Quotation or Sale, a copy of which may be found at: http://www.macom.com/partner-login.

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