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# MACOM Introduces New Wideband Double-Balanced Mixers for High-Performance Test and Measurement, Microwave Radio and Radar Applications

- New MAMX Series mixers provide broad RF and low oscillator (LO) frequency coverage, with high linearity performance and excellent isolation
- MACOM solutions span the full signal chain, reducing design and supply chain complexities
- New solutions will be showcased at IMS 2018 in booth #1125

LOWELL, Mass.--(BUSINESS WIRE)-- MACOM Technology Solutions Inc. ("MACOM"), a leading supplier of high-performance RF, microwave, millimeterwave and photonic solutions, today announced a new portfolio of wideband double-balanced mixers, covering the 8 - 43 GHz and 18 - 46 GHz frequency ranges. Delivering low conversion loss, high linearity and a wide intermediate frequency (IF) bandwidth, the new MAMX Series mixers are ideally suited to meet the performance requirements for next-generation Test and Measurement (T&M), Microwave Radio and Radar applications.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20180613005012/en/



The double-balanced circuit configuration of the new MAMX Series mixers provides excellent port isolation, while internal 50-ohm matching simplifies the application. In addition, the class 1B (500V - 1000V) electrostatic discharge (ESD) rating ensures high levels of ruggedness and reliability. Both devices - the MAMX-011036 and MAMX-011054 - are available in compact 3 mm, 12 lead QFN plastic packaging as well as bare die formats for flexible integration. (Photo: Business Wire)

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"MACOM is investing in key technologies across every stage in the signal chain,

aiming to cultivate product portfolios that enable significant gains in performance, reliability and ease of integration," said Graham Board, Senior Director of Product Marketing, MACOM. "The newest entries in the MAMX Series embody MACOM's sustained strategy to provide every component - from building block device to highly specialized solutions - to elevate the value of our customers' end designs."

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 - with no compromises.

The table below outlines typical component performance:

	MAMX-011036	MAMX-011036-DIE	MAMX-011054	MAMX-011054-DIE
Frequency Range (GHz)	8 to 43	8 to 43	18 to 46	18 to 46
Conversion Loss (dB)	8.5	8	6.5	6.5
Input IP3 (dB)	20	20	21	20
LO Power (dBm)	15	15	15	15

IF Bandwidth ()	0 - 10	0 - 10	0 - 20	0 - 20
Input P1dB (dB)	13	13	12	12
LO - RF Isolation (dB)	40	40	35	35
LO - IF Isolation (dB)	35	40	45	40
RF - IF Isolation (dB)	25	20	30	20
Size	3mm 12L AQFN	1.20 x 0.97 x 0.10 mm	3mm 12L AQFN	1.15 x 0.97 x 0.10 mm

MACOM's MAMX Series double-balanced mixers are available to customers today. 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 IEEE's International Microwave Symposium (IMS) 2018, Booth #1125 in Philadelphia, Pennsylvania, June 12th - 14th. MACOM's booth will feature new product solutions optimized for 5G connectivity, basestations, SATCOM, Test and Measurement, ISM and Radio communications. To make an appointment, contact your local sales representative. For more information about MACOM's RF technology solutions visit www.macom.com.

# **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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### 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 fillings 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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