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MACOM Adds to Expanding High-Performance MMIC Portfolio with New Family of Amplifiers Designed Specifically for Wired Broadband Applications

Covering 5-1218 MHz this family of 75 Ω Amplifiers is designed specifically for DOCSIS3.1 CATV infrastructure applications requiring high gain, superior linearity and low noise figure

LOWELL, Mass.--(BUSINESS WIRE)-- MACOM Technology Solutions Inc. ("MACOM"), a leading supplier of high-performance analog RF, microwave and optical semiconductor products, today introduced five NEW high-performance MMIC amplifiers. All five parts cover the downstream 45 - 1218MHz cable band with two of the five parts, MAAM-011162 and MAAM-011163, also covering the upstream band from 5 - 1218MHz. These devices, designed specifically for DOCSIS 3.1 Infrastructure applications, are a subset of MACOM's NEW high-performance MMIC portfolio scheduled for launch during this year's European Microwave Week (EuMW) show in London.

MACOM, one of the few remaining pure-play RF, microwave and millimeterwave suppliers, designed these amplifiers to meet customers demanding requirements for small to medium signal, 75 Ω Amplifiers in new and legacy HFC (hybrid fiber Coax) Networks. With the addition of these five parts, MACOM continues with its commitment of providing best-in-class MMIC solutions to the CATV market, solving customers' most demanding technical and packaging challenges.

The **MAAM-011220** is an 18.5dB Gain, high linearity, low noise figure gain block operating from 45-1218 MHz. This amplifier is delivered in an industry standard 3lead SOT-89 plastic package and can be biased at either 8 or 5 volts depending on available voltage rails and system requirements.

The **MAAM-011194**, is a differential, 3 stage, VGA (Variable Gain Amplifier), delivered in a 5 x 7 mm PQFN package and operating from 45-1218 MHz. This VGA delivers 36dB gain, 2.5dB noise figure and excellent ACPR at output levels of +7 dB above Cable Labs downstream radio frequency interference (DRFI) specifications.

The **MAAM-011162** is a single-ended high linearity, low noise figure amplifier covering both up and downstream bands of 5-1218MHz. This device is assembled in a 3lead SOT-89 plastic package and provides 18 dB of flat gain in both up and downstream applications.

The **MAAM-011163** is a differential amplifier covering both upstream and downstream band 5-1218 MHz . Assembled in a SOIC-8EP plastic package, this device has 19dB Gain, excellent S11 and S22 match, high linearity and 1.4 dB at noise figure at 45 MHz.

The **MAAL-011136** is a broadband, ultra-low Noise figure amplifier operating from 45-1218 MHz. This device provides 20dB of flat gain, low distortion with 16dB S22 making it ideally suited as input stage for low cost fiber-to-the-X(FTTX) optical receivers and other 75 Ω infrastructure applications.

"We're tremendously excited to be launching these new high-performance, broadband, 75 Ω amplifiers targeted at next generation wired broadband infrastructure networks," said Graham Board, Senior Director, Multi-Market Products, at MACOM. "We continue to aggressively invest in the development of new, best-in-class products that are designed to help solve our customers' most technically challenging system designs."

Parameter	Units	MAAM-011220	MAAM-011162	MAAL-011136	MAAM-011163	MAAM-011194
Frequency	MHz	45-1218	5-1218	45-1218	5-1218	45-1218
Gain	dB	18.5	18	20	19	36
Noise Figure	dB	2.4	1.6	1.2	2	2.5
IRL/ORL	dB	20/24	20/20	10/16	20/20	18/17
OIP2	dBm	66	50	43	66	80
OIP3	dBm	38	36	32	43	48

P1dB	dBm	24	19	17.5	25	28.5
Voltage	V	5-8	5	3-5	5	5-6
Current	mA	110-130	110	53	290	800-930
Package		Lead-Free SOT-89 Plastic Package	Lead-Free SOT-89 Plastic Package	Lead-Free SOT-89 Plastic Package	Lead-Free SOIC-8EP Plastic Package	Lead-Free 5x7mm PQFN-40L

Samples and reels of the **MAAM-011220, MAAM-011194, MAAM-011163, MAAM-011162 and MAAL-011136** are now available. Additional product information can be obtained from the MACOM website at: www.macom.com.

MACOM is showcasing its new portfolio of high-performance MMICs at EuMW 2016 in London. Attendees can visit MACOM at stand #207. For more information on MACOM's high-performance MMICs, please visit: www.macom.com/mmics.

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, Asia and Australia.

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