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## MACOM Delivers Best in Class Octave-Band Family of Voltage Controlled Oscillators Ideally Suited for Test and Measurement, Aerospace and Defense and Communications Systems

Combined, the MAOC-409000, MAOC -410100 and the MAOC-415000 cover the 6-20 GHz frequency range while maintaining excellent output power across frequency and over temperature

LOWELL, Mass.--(BUSINESS WIRE)-- MACOM Technology Solutions Inc. ("MACOM"), a leading supplier of highperformance analog RF, microwave, millimeterwave, photonic semiconductor products and components, today introduced three broadband voltage controlled oscillators (VCOs) that combined, cover the 6-20 GHz frequency range. These voltage controlled oscillators are ideally suited for Test and Measurement (T&M), Communication Systems and Aerospace and Defense (A&D).

This Smart News Release features multimedia. View the full release here: <a href="http://www.businesswire.com/news/home/20161003005123/en/">http://www.businesswire.com/news/home/20161003005123/en/</a>



These three VCOs maintain flat output power across frequency and over temperature making them ideal solutions for Test and Measurement, Communication Systems and Aerospace and Defense applications (Photo: Business Wire)

components. They come packaged in lead-free 4 mm 24-lead QFNs.

For over 60 years, MACOM's design and applications experts have spearheaded innovation in the RF, microwave and millimeterwave domain. Proven engineering and application support teams are continuing in this legacy with a next generation of wideband MMIC solutions designed for the most demanding customer applications.

These wideband VCOs have octave band tuning ranges while maintaining low phase noise across the band and low current consumption. The **MAOC-409000** operates in the 6-12 GHz frequency range, the **MAOC-410100** in the 7-14 GHz frequency range and the **MAOC-415000** in the 10-20 GHz frequency range. The family offers superior phase noise, single positive voltage bias of +5V, excellent tuning control and stable output power with +/- 2dB of variation over temperature.

These devices are all fully matched and do not require any additional external matching

"These three VCOs maintain flat output power across frequency and over temperature making them ideal solutions for Test and Measurement, Communication Systems and Aerospace and Defense applications," said Graham Board, Senior Director, Multi-Market Products, at MACOM. "We're tremendously excited to be launching these new, industry leading, Octave band VCOs. We will be showcasing the complete family, covering 2 to 20GHz, at the European Microwave show in London, along with hosting a live demo of the MAOC-415000 at our booth."

The table below outlines typical performance:

Parameters	Units MAOC-409000MAOC-410100MAOC-415000				
Frequency Range	GHz	6-12	7-14	10-20	

Output Power	dBm	1	1	3
SSB Phase Noise @100 kHz offsetdBc/Hz		-95	-95	-90
Second Harmonic	dBc	-15	-15	-15
Tuning Sensitivity @RF Port	MHz/V	400	500	600
Supply Voltage	V	5	5	5
Supply Current	mA	61	61	74
Tune Voltage	V	0 to 23	0 to 23	0 to 23

Samples of the **MAOC-409000**, **MAOC-410100** and **MAOC-415000** are now available. Additional product information can be obtained from the MACOM website at: <u>www.macom.com</u>.

MACOM is showcasing its new portfolio of high-performance MMICs at European Microwave Week (EuMW) 2016 in London from October 4<sup>th</sup>- 6<sup>th</sup>, 2016. Attendees can visit MACOM at stand #207. For more information on MACOM's high-performance MMICs, please visit: <u>www.macom.com/mmics</u>.

## 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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For more information about MACOM, please visit <u>www.macom.com</u>, follow @<u>MACOMtweets</u> on Twitter, join MACOM on LinkedIn, or visit the MACOM <u>YouTube Channel</u>.

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