
MACOM Extends High-Performance SATCOM Portfolio with the Addition of a 4-Watt Ka-Band Power Amplifier

- *MAAP-011250 is a balanced 4-watt power amplifier operating from 27.5 – 30 GHz making it well suited for SATCOM and VSAT applications*
- *Balanced design can enable consistent matching to 50 Ohms at the input and output*
- *Complements MACOM's portfolio of Ka-Band gain block amplifiers, drivers, mixers and PAs to deliver a complete chipset for high-performance wireless broadband data links*

Lowell, Massachusetts, June 4, 2019– [MACOM Technology Solutions Inc.](#) (“MACOM”), a leading supplier of semiconductor solutions, today announced an addition to its portfolio of high-linearity Ka-Band power amplifiers with the introduction of the [MAAP-011250](#). Ideally suited for next generation commercial VSAT outdoor units, the [MAAP-011250](#) utilizes a balanced design, giving system designers’ a consistent match regardless of their board impedance.

As the demand for high speed, broadband, data connectivity continues, MACOM is seeing changes in fixed wired networks, such as HFC and Fiber along with terrestrial wireless networks, and SATCOM, in order to meet this demand. As the requirements for increased data rates and bandwidth continue to drive higher power, higher frequency and higher linearity MMICs, MACOM is well positioned to provide both catalog and custom SATCOM solutions.

With the addition of the 4W amplifier, MACOM now offers 2, 2.3, 3, 4 and 7 W power output options spanning frequencies ranging from 27 to 31.5 GHz. These new GaAs-based Ka-Band PAs can provide strong linear gain, which is expected to enable customers to efficiently increase the power from the input to the output port with minimal tradeoffs.

The [MAAP-011250](#) is a balanced 4 W, 4-stage power amplifier assembled in a lead-free 5 mm 32-lead AQFN plastic package. This power amplifier operates from 27.5 to 30 GHz and provides 24 dB of linear gain, 4 W saturated output power and output IP3 of 41 dBm while biased at 6 V. The MAAP-011250 can be used as a power amplifier stage or as a driver stage in higher power applications. The amplifier complements MACOM’s portfolio of Ka-Band gain block amplifiers, drivers, mixers and PAs to deliver a complete chipset for high-performance wireless broadband data links.

MACOM will showcase its SATCOM portfolio at the International Microwave Symposium (IMS) 2019, Booth #532 in Boston, MA, U.S.A., June 4th – 6th. MACOM's booth will feature new product solutions optimized for 5G, wireless basestations, radar, test and measurement (T&M) 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.

Typical part number performance for MACOM's Family of SATCOM Amplifiers:

Parameter	Units	MAAP-011246	MAAP-011298	MAAP-011289	MAAP-011250	MAAP-011233	MAAP-011140
Power	W	2	2.3	3	4	4	7
Frequency	GHz	27.5-31.5	27.0-31.5	28.0-30.0	27.5-30.0	28.5-31.0	27.5-30.0
Gain	dB	24	24.5	24	24	25	24
P1dB	dBm	32	32.5	34	34.5	34.5	37.5
P _{SAT}	dBm	33	33.7	35	36	36	38.5
Power Added Efficiency	@P _{SAT}	29%	26%	23%	18%	27.5%	23%
Input Return Loss	dB	10	10	10	15	10	12
Output Return Loss	dB	14	10	14	15	10	12
IM3 Level	dBc	-25 @ 27 dBm	-17.5 @ 30 dBm	-18 @ 30 dBm	-23 @ 30 dBm	-27 @ 29 dBm	-24 @ 33 dBm

ABOUT MACOM:

MACOM designs and manufactures semiconductor products for Datacenter, Telecommunication and Industrial and Defense applications. Headquartered in Lowell, Massachusetts, MACOM has design centers and sales offices throughout North America, Europe and Asia. MACOM is certified to the ISO9001 international quality standard and ISO14001 environmental management standard.

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