

100KHz – 67.5GHz Wideband Distributed Amplifier MAAM-011238-DIE

The MAAM-011238 aims to deliver an effective broadband amplifier solution for 5G sub-6 GHz to mmW testing. The MAAM-011238 and MAAM-011238-DIE are available to customers today. MACOM will showcase its RF 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, T&M and industrial, scientific and medical (ISM) applications. The MAAM-011238 can be used as a power amplifier stage or as a driver stage in higher power applications. This device is ideally suited for VSAT and 28 GHz PtP applications.

The MAAM-011238 amplifier supports wideband operation from 100 kHz up to 50 GHz (67.5 GHz for the Bare-DIE version) with typical gain of 14 dB at 30 GHz. The input and output are fully matched at 50 Ω with typical return loss of 10 dB across the band. The overall ease of use for customers is enhanced utilizing a positive gate bias, thereby eliminating the need for a negative voltage supply and bias sequencer. The MAAM-011238's integrated power detector further simplifies system designs while preserving valuable board space.

Typical part number performance: (* at 6V, 30GHz)

Parameters	MAAM-011238	MAAM-011238-DIE
Frequency	100 kHz – 50 GHz	100 kHz – 67.5 GHz
*Gain (dB)	14	15
*P1dB (dBm)	17	18
*P3db (dbm)	18.5	20
*OIP3 (dBm)	26	26
*NF (dB)	6	5.5
Bias Voltage (V)	4-6	4-6
Bias Current (mA)	125-150	125-150
Package	5mm 12-Lead SMT	2.1mm x 1.05mm

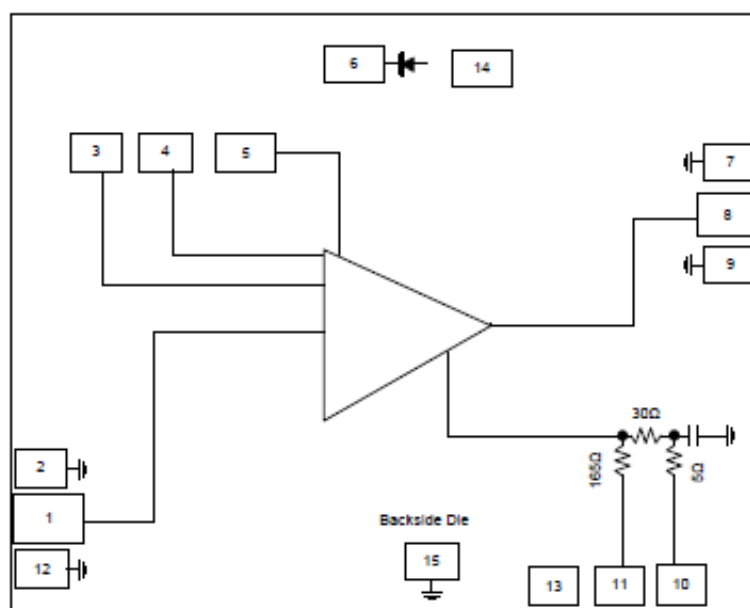
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Functional Schematic



Pin #	Pin Name	Description
1	RF _{IN}	RF Input / Gate Voltage
2, 7, 9, 11, 12, 15	GND	DC & RF Ground to Backside Via
3	V _{G2}	Gate Voltage 2
4	V _{DD}	Drain Voltage
5	V _{AUX}	Auxiliary Drain Voltage
6	V _{DET}	Detector Voltage
8	RF _{OUT}	RF Output / Drain Voltage
10	V _{G1}	Gate Voltage 1
13, 14	NC	Not Connected

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