

REPLACEMENT PART REFERENCE GUIDE:

AN-60-059

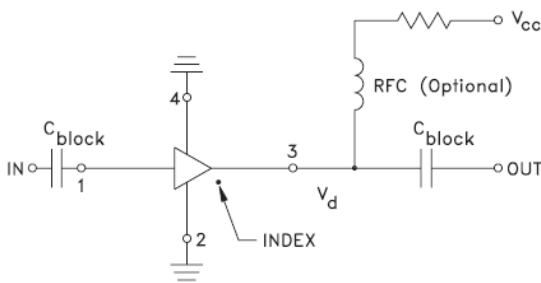
ORIGINAL PART: MAV-11SM+ (Mini-Circuits) & MSA-1105 (Avago Technologies)

REPLACEMENT PART: MAV-11BSM+

The MAV-11BSM+ has been designed by Mini-Circuits Engineering as a replacement for both the MAV-11SM+ (Mini-Circuits) and MSA-1105 (Avago Technologies)_{a,b,c,d}

APPLICATION CIRCUITS

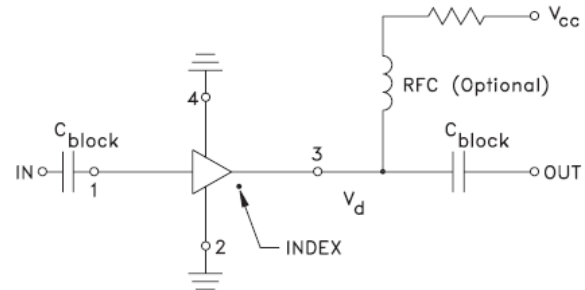
ORIGINAL PART:
MAV-11SM+ (Mini-Circuits) & MSA-1105 (Avago Technologies)



R BIAS	
Vcc	"1%" Res. Values (ohms) for Optimum Biasing
7	28.0
8	45.3
9	61.9
10	78.7
11	95.3
12	113
13	127
14	143
15	158

REPLACEMENT PART:

MAV-11BSM+



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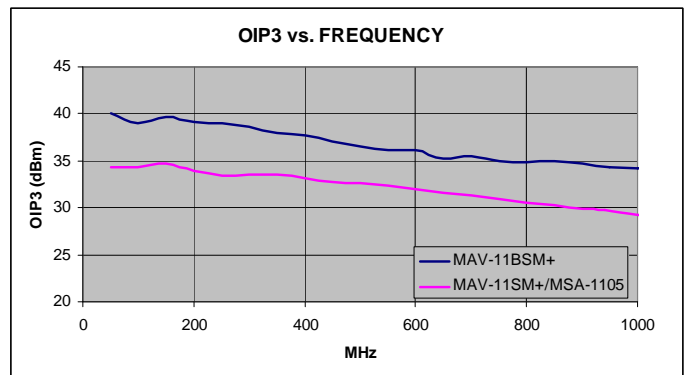
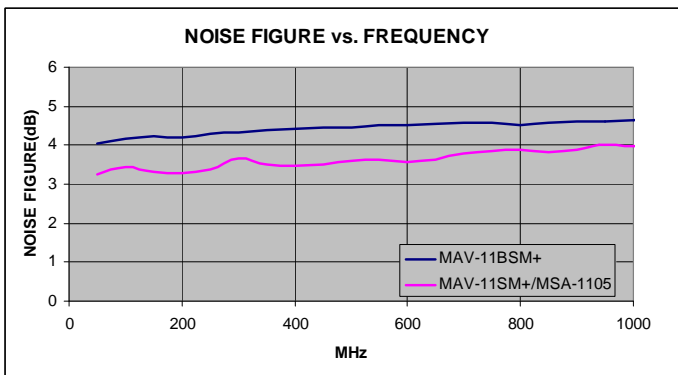
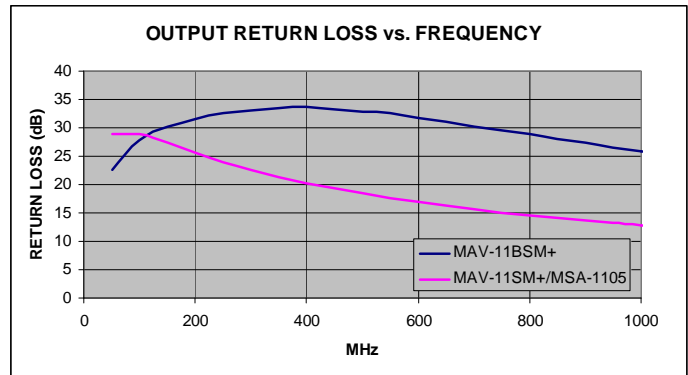
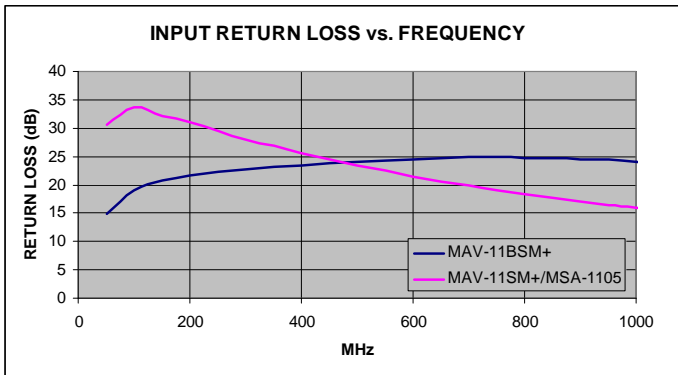
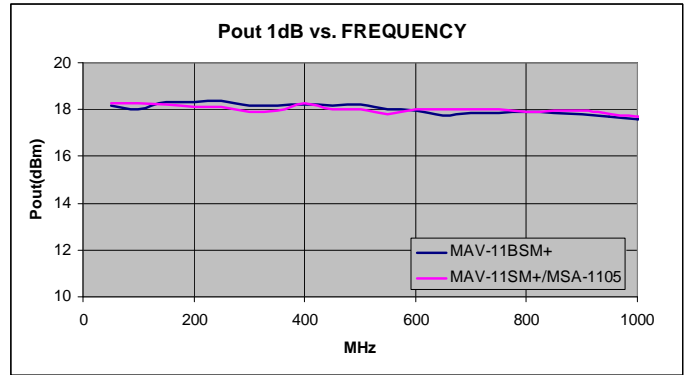
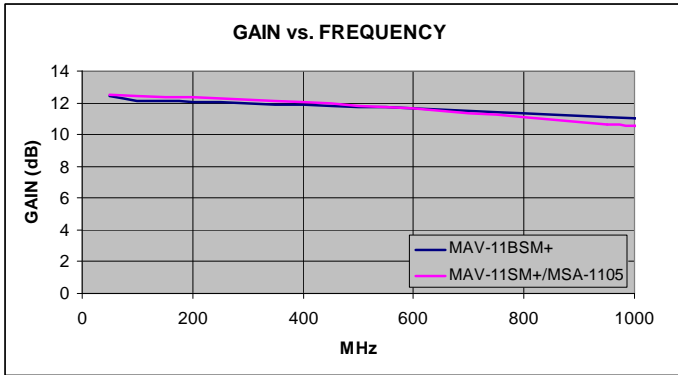
CONCLUSION:

- 1) **FORM-FIT-FUNCTIONAL COMPATIBLE:** Same Circuit
- 2) Typical Performance Comparison _{a,b}:

Performance	Condition(GHz)	MAV-11SM+/MSA-1105	MAV-11BSM+
Gain (dB)	1.0	10.5	11.3
Noise Figure (dB)	0.5	3.6	4.4
Pout 1dB (dBm)	0.5	17.5	18.2
Output IP3 (dBm)	0.5	+30	+36.5
Input Return Loss (dB)	0.05-1	14	14-24
Output Return Loss (dB)	0.05-1	11.5	22
Operating Voltage (V)	---	See table above	See table above
Operating Current (mA)	---	60	60
Status	---	Qualified, last time buy	Qualified, in production

Notes:
a. Suitability for model replacement within a particular system must be determined by and is solely the responsibility of the customer based on, among other things, electrical performance criteria, stimulus conditions, application, compatibility with other components and environmental conditions and stresses.
b. The MSA-1105 part number is used for identification and comparison purposes only.
c. Avago Technologies is a trademark of Avago Technologies and is in no way affiliated with Mini-Circuits
d. Data for the MSA-1105 was taken from Avago Technologies published data sheet.

COMPARISON PERFORMANCE CURVES:



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