

Double Balanced Mixer

Model MM9xMS-3 Model MM9xMS-13

RF 4.0 to 20.0 GHz

Multi-Octave Band

Electrical Specifications:⁽¹⁾

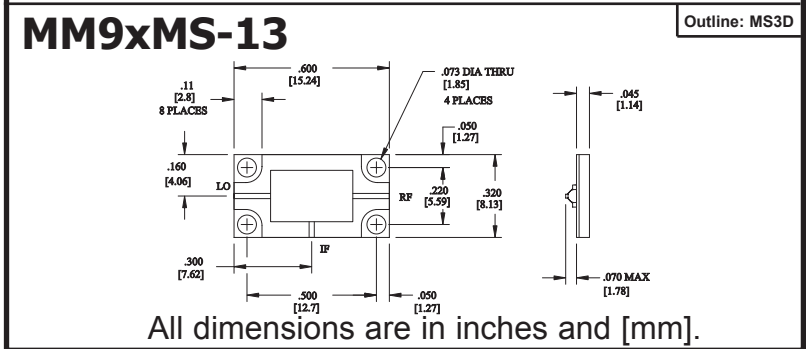
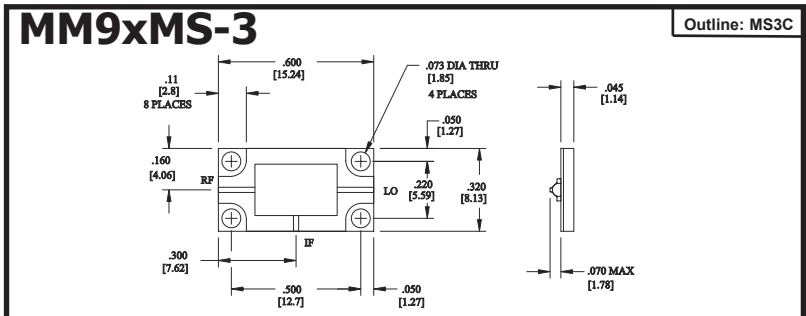
Parameter	Conditions			Specifications		
	RF (GHz)	LO (GHz)	IF (MHz)	Min	Typical	Max
SSB Conversion loss: ^{(2) (3)}	5.0-18.5	5.0-18.5	DC-500		6.5 dB	8.0 dB
	5.0-18.5	5.0-18.5	DC-2000		7.0 dB	8.5 dB
	5.0-18.5	5.0-18.5	DC-4000		8.0 dB	9.5 dB
	4.0-20.0	4.0-20.0	DC-500		7.0 dB	9.5 dB
	4.0-20.0	4.0-20.0	DC-2000		7.5 dB	10.0 dB
	4.0-20.0	4.0-20.0	DC-4000		8.5 dB	11.5 dB
Isolation		4.0-5.0 5.0-20.0 4.0-7.0 7.0-20.0		LO to RF:	20 dB	30 dB
				LO to IF:	25 dB	38 dB
				RF to IF:	16 dB	21 dB
Input 1-dB Compression Point:	4.0-20.0	4.0-20.0	DC-4000		+2 dBm	MM93
					+5 dBm	MM94
Input Third Order Intercept Point:	4.0-20.0	4.0-20.0	DC-4000		+8 dBm	MM96
					+12 dBm	MM97
					+11 dBm	MM93
					+14 dBm	MM94
LO Power: ⁽⁴⁾	4.0-20.0	4.0-20.0	DC-4000		+18 dBm	MM96
					+14 dBm	MM97
					+10 dBm	MM94
					+7 dBm	MM93

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LO Power ←

3 = +7 dBm
4 = +10 dBm
6 = +14 dBm
7 = +18 dBm

- Notes:
- Specifications are guaranteed when tested as a downconverter in a 50 Ohm system at +25° C with the nominal LO power. Specifications indicated as typical are not guaranteed.
 - Noise figure is typically within ±0.5 dB of conversion loss for IF frequencies greater than 10 MHz.
 - Conversion loss typically degrades less than 0.5 dB at +100° C and improves less than 0.5 dB at -55° C.
 - Usable LO drives are up to 2 dB below and 3 dB above nominal.



All dimensions are in inches and [mm].

Typical Performance at 25° C

