

Double Balanced Mixer

Ultra-Broadband

Model MM9xMS-1

Model MM9xMS-17

RF 1.8 to 20.0 GHz

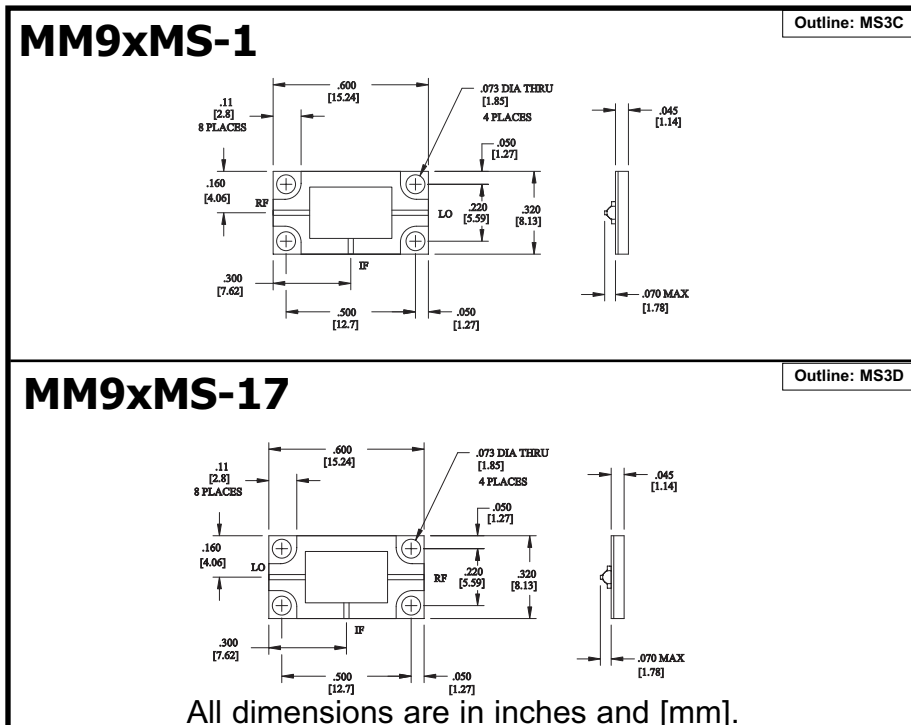
Electrical Specifications ⁽¹⁾:

Parameter	Conditions			Specifications		
	RF(GHz)	LO(GHz)	IF(MHz)	Min	Typical	Max
SSB Conversion loss: ^{(2) (3)}	3.0-19.0	3.0-19.0	DC-400		5.5 dB	7.5 dB
	1.8-20.0	1.8-20.0	DC-400		5.8 dB	8.5 dB
	1.8-20.0	1.8-20.0	DC-800		7.2 dB	10.5 dB
Isolation	LO to RF: LO to IF:	1.8-20.0		20 dB	28 dB	
		4.0-19.0		15 dB	23 dB	
		1.8-20.0		12 dB	22 dB	
	RF to IF: IF to RF:	1.8-20.0	DC-800		28 dB 40 dB	
Input 1-dB Compression Point:	1.8-20.0	1.8-20.0	DC-800		+2 dBm +5 dBm +8 dBm +12 dBm	MM93 MM94 MM96 MM97
Input Third Order Intercept Point:	1.8-20.0	1.8-20.0	DC-800		+11 dBm +14 dBm +17 dBm +23 dBm	MM93 MM94 MM96 MM97
LO Power: ⁽⁴⁾	1.8-20.0	1.8-20.0	DC-800		+7 dBm +10 dBm +14 dBm +18 dBm	MM93 MM94 MM96 MM97

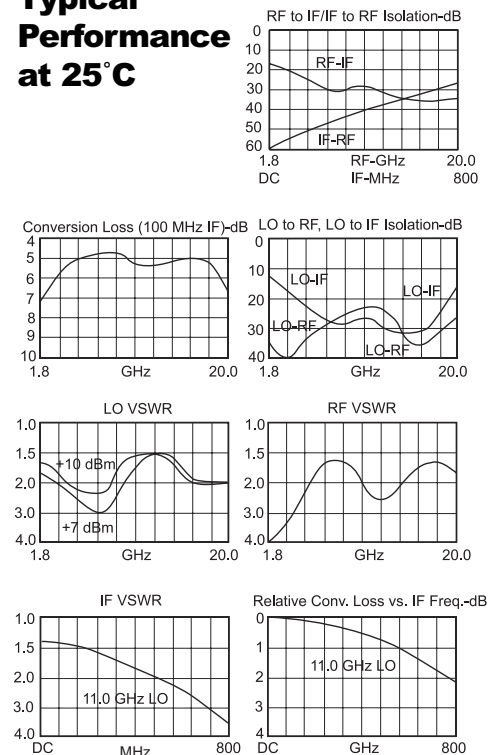
LO Power
 3 = +7 dBm
 4 = +10 dBm
 6 = +14 dBm
 7 = +19 dBm

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.
- See Application Note M112, for aid in selecting the outline and for mounting and installation information.



Typical Performance at 25°C



Mixers