

# Double Balanced Mixer

# Model MM8xMS-3 Model MM8xMS-14

Multi-Octave Band

RF 5.0 to 15.0 GHz

## Electrical Specifications:<sup>(1)</sup>

Parameter	Conditions			Specifications		
	RF (GHz)	LO (GHz)	IF (MHz)	Min	Typical	Max
<b>SSB Conversion loss:</b> <sup>(2) (3)</sup>	6.0-14.0	5.5-14.5	DC-500		5.2 dB	7.0 dB
	5.0-14.0	4.0-15.0	DC-1000		6.5 dB	8.5 dB
	5.0-14.0	3.0-16.0	DC-2000		7.0 dB	9.5 dB
	5.0-15.0	3.0-17.0	DC-2000		8.5 dB	10.0 dB
<b>Isolation</b>						
	<b>LO to RF:</b>	3.0-7.0		16 dB	24 dB	
	<b>LO to IF:</b>	7.0-17.0		23 dB	32 dB	
<b>RF to IF:</b>	3.0-7.0		15 dB	18 dB		
<b>RF to IF:</b>	7.0-17.0		25 dB	39 dB		
<b>Input 1 dB Compression Point:</b>	5.0-15.0	3.0-17.0	DC-1500		+2 dBm +5 dBm +8 dBm	MM83 MM84 MM86
<b>Input Third Order Intercept Point:</b>	5.0-15.0	3.0-17.0	DC-1500		+11 dBm +14 dBm +18 dBm	MM83 MM84 MM86
<b>LO Power:</b> <sup>(4)</sup>	5.0-15.0	3.0-17.0	DC-1500		+7 dBm +10 dBm +14 dBm	MM83 MM84 MM86

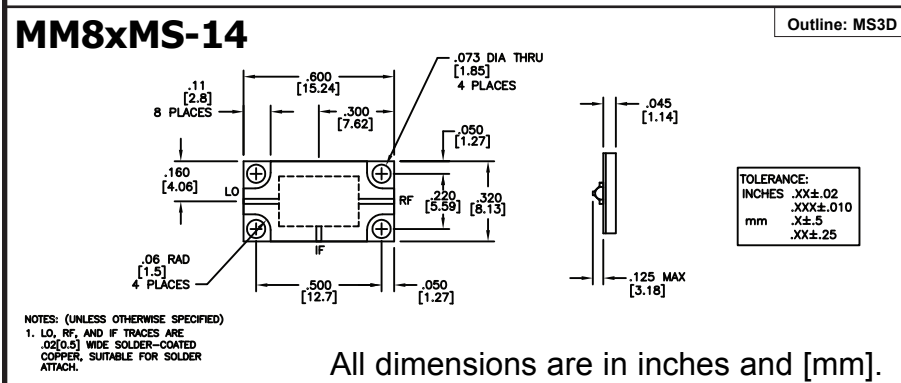
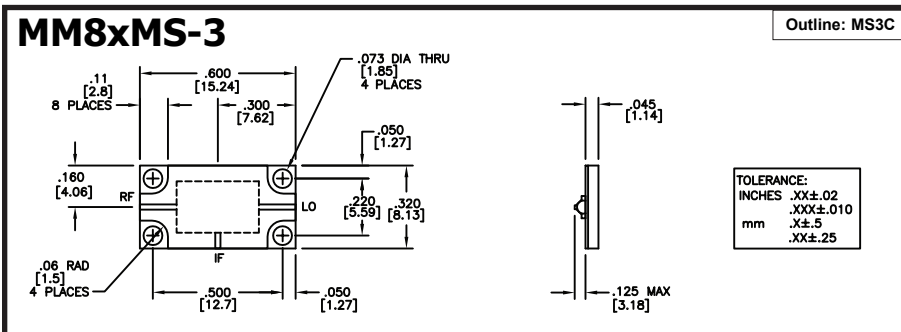
Model MM8xMS-3  
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### LO Power

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

