

# Double Balanced Mixer

# Model MM4xSMx-10 Model MM4xSMx-14

Multi-Octave Band

RF 2.0 to 8.0 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>	2.0-8.0	2.0-8.0	DC-500		5.0 dB	7.0 dB
	2.0-8.0	2.0-8.0	DC-1000		6.0 dB	8.0 dB
	2.0-8.0	2.0-8.0	DC-1500		7.0 dB	9.5 dB
<b>Isolation</b> LO to RF: LO to IF: RF to IF:		2.0-8.0			33 dB	
		2.0-8.0			37 dB	
	2.0-8.0				22 dB	
<b>Input 1 dB Compression Point:</b>	2.0-8.0	2.0-8.0	DC-1500		+1 dBm +4 dBm +8 dBm +12 dBm	MM43 MM44 MM46 MM47
	2.0-8.0	2.0-8.0	DC-1500		+11 dBm +14 dBm +18 dBm +22 dBm	MM43 MM44 MM46 MM47
	2.0-8.0	2.0-8.0	DC-1500		+7 dBm +10 dBm +13 dBm +18 dBm	MM43 MM44 MM46 MM47
	2.0-8.0	2.0-8.0	DC-1500		+7 dBm +10 dBm +13 dBm +18 dBm	MM43 MM44 MM46 MM47

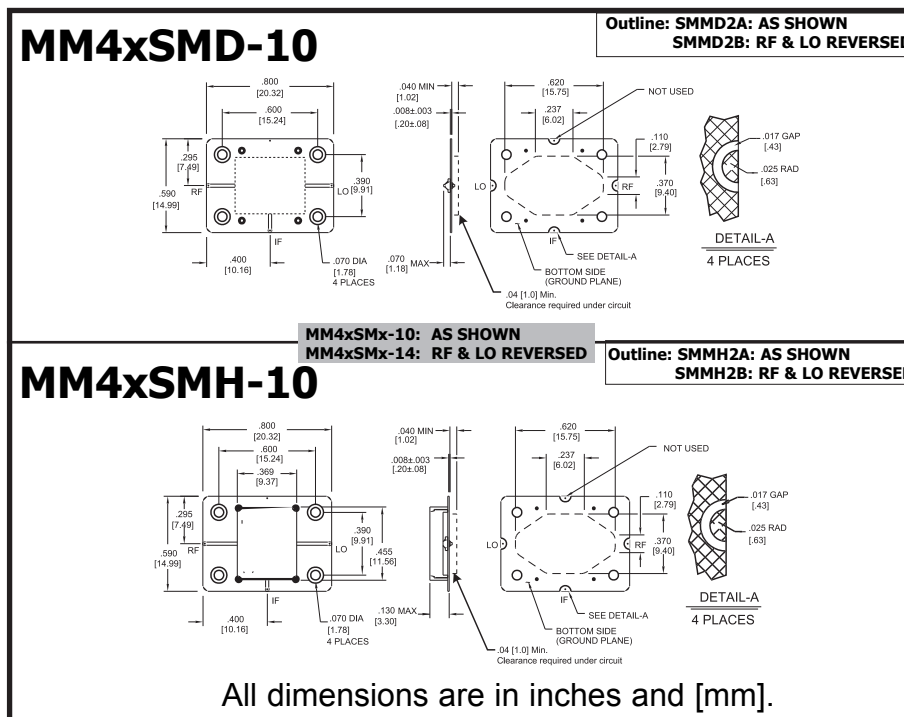
Model MM4xSMx-10  
Model MM4xSMx-14

→ **LO Power**  
3 = +7 dBm  
4 = +10 dBm  
6 = +13 dBm  
7 = +18 dBm

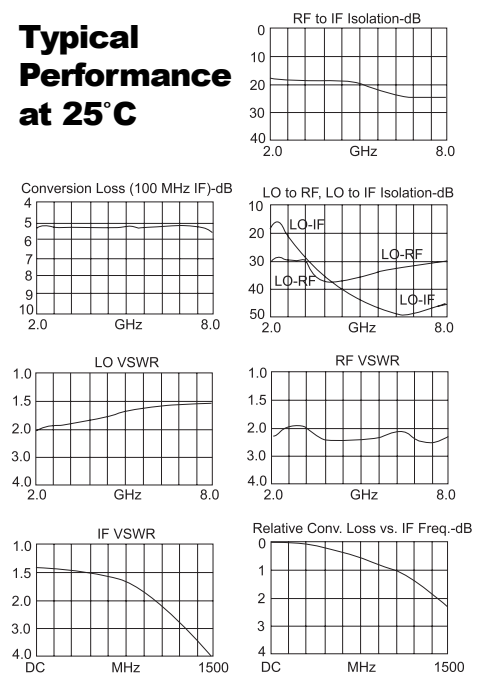
→ **D = No Cover**  
**H = With Cover**

### 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



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