

# Triple Balanced Mixer

# Model MM4xxG-1

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	0.01-3.0		6.3 dB	8.0 dB
	2.0-8.0	2.0-8.0	0.01-4.0		7.3 dB	9.5 dB
<b>Isolation</b> LO to RF: LO to IF: RF to IF:		2.0-8.0		16 dB	25 dB	
		2.0-8.0		23 dB	25 dB	
	2.0-8.0				27 dB	
<b>Input 1 dB Compression Point:</b>	2.0-8.0	2.0-8.0	0.01-4.0		+5 dBm +8 dBm +12 dBm +15 dBm	MM44 MM46 MM47 MM48
<b>Input Third Order Intercept Point:</b>	2.0-8.0	2.0-8.0	0.01-4.0		+14 dBm +17 dBm +21 dBm +24 dBm	MM44 MM46 MM47 MM48
<b>LO Power:</b> <sup>(4)</sup>	2.0-8.0	2.0-8.0	0.01-4.0		+10 dBm +13 dBm +17 dBm +21 dBm	MM44 MM46 MM47 MM48

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**LO Power** ←

4 = +10 dBm  
6 = +13 dBm  
7 = +17 dBm  
8 = +21 dBm

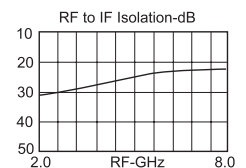
→ **Drop-In Module or With SMA(F) Connectors**

M = Module  
P = With Connectors

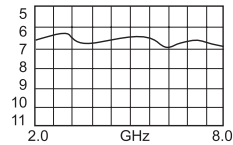
### Notes:

- Specifications are guaranteed when tested as a downconverter in a 50 Ohm system from -55°C to +100°C with the nominal LO power. Specifications indicated as typical are not guaranteed.
- Noise figure is typically within ±0.5 dB of conversion loss.
- 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.

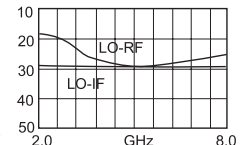
## Typical Performance at 25°C



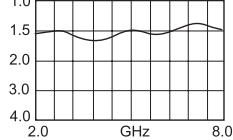
Conversion Loss (0.5 GHz IF)-dB



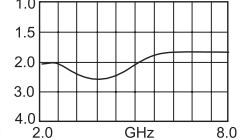
LO to RF, LO to IF Isolation-dB



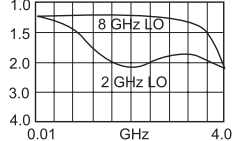
LO VSWR



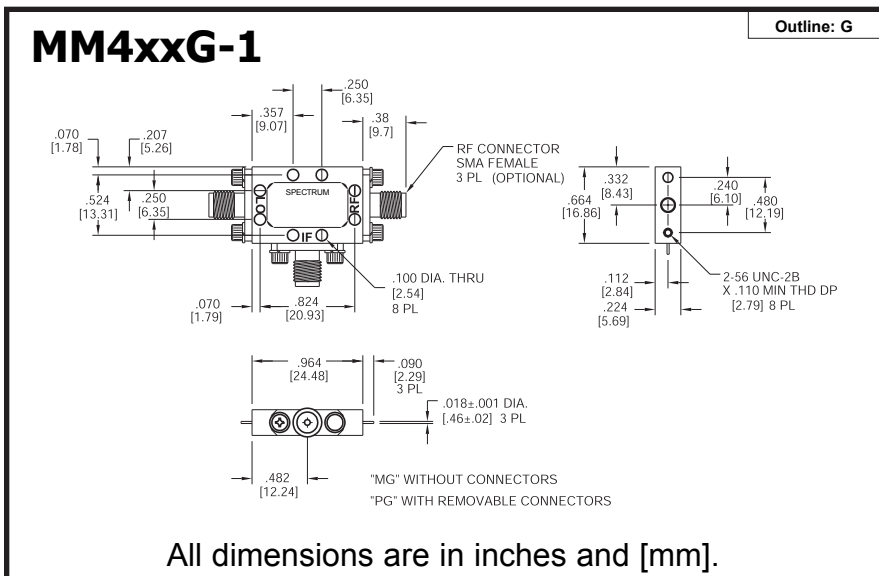
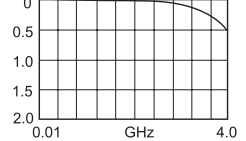
RF VSWR



IF VSWR



Relative Conv. Loss vs. IF Freq.-dB



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