

# Double Balanced Mixer

# Model MM9xxG-30

Multi-Octave Band

RF 6.0 to 18.0 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)</sup> <sup>(3)</sup>	6.0-18.0	4.0-18.0	DC-2000		5.5 dB	7.5 dB
	6.0-18.0	4.0-18.0	DC-3000		6.0 dB	8.0 dB
	7.0-16.0	7.0-18.0	DC-4000		6.2 dB	8.0 dB
	6.0-18.0	4.0-18.0	DC-4000		6.5 dB	8.5 dB
<b>Isolation</b>						
	<b>LO to RF:</b>		4.0-16.0	25 dB	40 dB	
	<b>LO to IF:</b>		4.0-18.0	20 dB	38 dB	
<b>RF to IF:</b>	6.0-18.0		4.0-18.0	20 dB	27 dB	
<b>Input 1 dB Compression Point:</b>						
	6.0-18.0	4.0-18.0	DC-4000		+2 dBm +5 dBm +8 dBm +12 dBm	MM93 MM94 MM96 MM97
<b>Input Third Order Intercept Point:</b>						
	6.0-18.0	4.0-18.0	DC-4000		+11 dBm +14 dBm +18 dBm +23 dBm	MM93 MM94 MM96 MM97
<b>LO Power:</b> <sup>(4)</sup>						
	6.0-18.0	4.0-18.0	DC-4000		+7 dBm +10 dBm +14 dBm +19 dBm	MM93 MM94 MM96 MM97

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**LO Power** ←

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

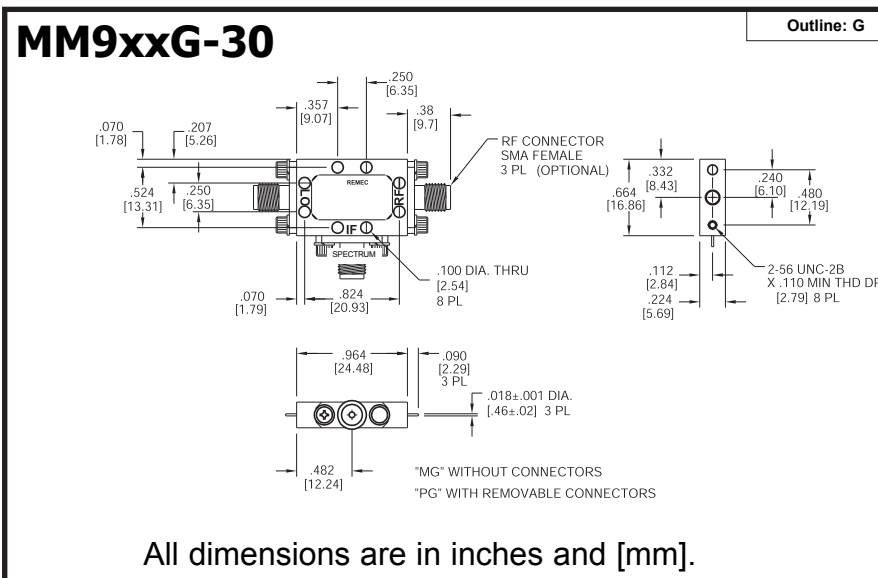
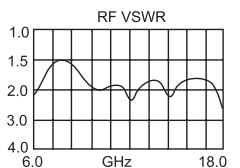
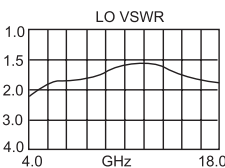
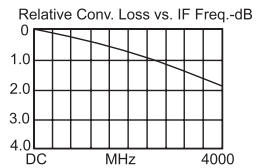
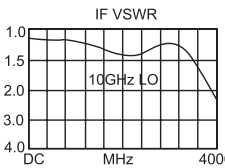
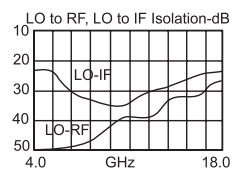
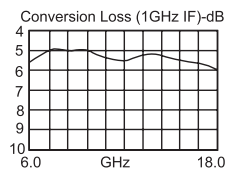
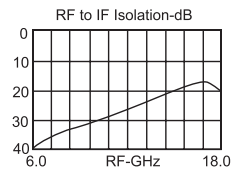
→ **Drop-In Module or With SMA(F) Connectors**

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 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.

## Typical Performance at 25 °C



All dimensions are in inches and [mm].

