

# Triple Balanced Mixer

# Model MM4xxN-1

Multi-Octave Band

RF 1.5 to 9.0 GHz

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

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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	10-2000		6.3 dB	7.5 dB
	2.0-8.0	2.0-8.0	10-4500		7.3 dB	8.5 dB
	1.5-9.0	1.5-9.0	10-4500		8.0 dB	10.5 dB
<b>Isolation</b>	<b>LO to RF:</b>	1.5-4.5		10 dB	17 dB	
		4.5-9.0		20 dB	27 dB	
	<b>LO to IF:</b>	1.5-9.0		20 dB	30 dB	
	<b>RF to IF:</b>	1.5-9.0			23 dB	
<b>IF to RF:</b>	1.5-9.0	10-4500		25 dB		
<b>Input 1 dB Compression Point:</b>	1.5-9.0	1.5-9.0	10-4500		+5 dBm	MM44
					+8 dBm	MM46
					+12 dBm	MM47
					+15 dBm	MM48
<b>Input Third Order Intercept Point:</b>	1.5-9.0	1.5-9.0	10-4500		+14 dBm	MM44
					+17 dBm	MM46
					+21 dBm	MM47
					+24 dBm	MM48
<b>LO Power:</b> <sup>(4)</sup>	1.5-9.0	1.5-9.0	10-4500		+10 dBm	MM44
					+13 dBm	MM46
					+17 dBm	MM47
					+21 dBm	MM48

#### LO Power

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

#### Drop-In

Module or With SMA(F) Connectors

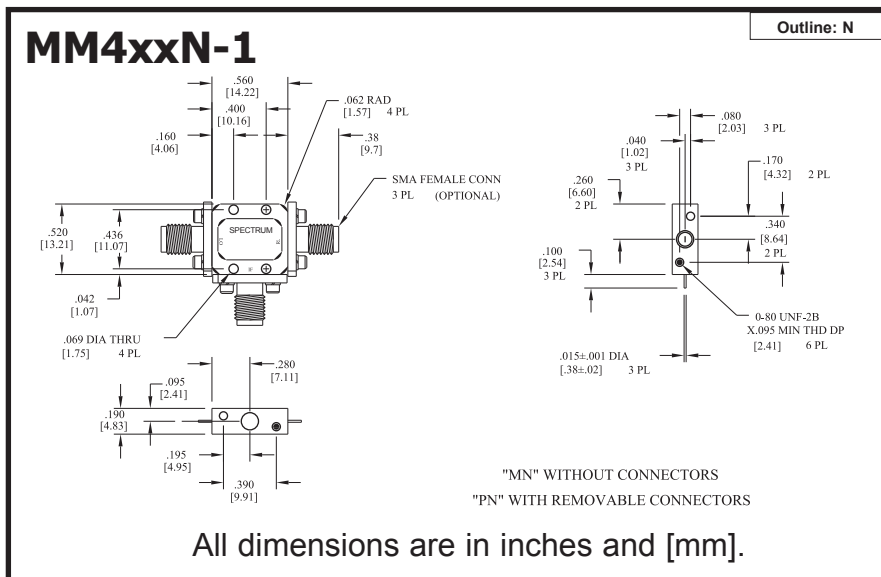
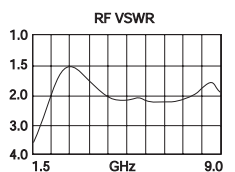
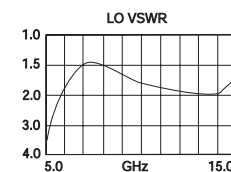
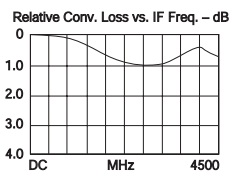
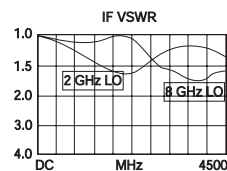
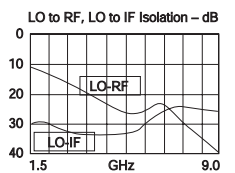
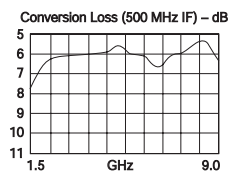
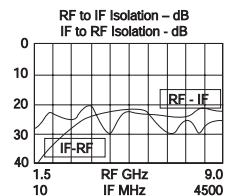
M = Module

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  $\pm 0.5$  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



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