

# Triple Balanced Mixer

# Model MM9xxN-1

Ultra-Broadband

RF 2.0 to 19.0 GHz

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

Parameter	Conditions			Specifications		
	RF (GHz)	LO (GHz)	IF (GHz)	Min	Typical	Max
<b>SSB Conversion loss:</b> <sup>(2) (3)</sup>	3.0-17.0	3.0-17.0	2.0-6.0		7.0 dB	9.5 dB
	3.0-19.0	3.0-19.0	2.0-8.0		7.5 dB	11.0 dB
	3.0-19.0	3.0-19.0	1.0-9.0		8.0 dB	12.5 dB
	2.0-19.0	2.0-19.0	1.0-9.0		8.0 dB	13.5 dB
<b>Isolation</b> LO to RF: LO to IF: RF to IF: IF to RF:		2.0-19.0		15 dB	24 dB	
		2.0-19.0		17 dB	30 dB	
	2.0-19.0				22 dB	
	2.0-19.0		1.0-9.0		25 dB	
<b>Input 1 dB Compression Point:</b>	2.0-19.0	2.0-19.0	1.0-9.0		+5 dBm +8 dBm +12 dBm +15 dBm	MM94 MM96 MM97 MM98
<b>Input Third Order Intercept Point:</b>	2.0-19.0	2.0-19.0	1.0-9.0		+14 dBm +17 dBm +21 dBm +24 dBm	MM94 MM96 MM97 MM98
<b>LO Power:</b> <sup>(4)</sup>	2.0-19.0	2.0-19.0	1.0-9.0		+10 dBm +13 dBm +17 dBm +21 dBm	MM94 MM96 MM97 MM98

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**LO Power** ←

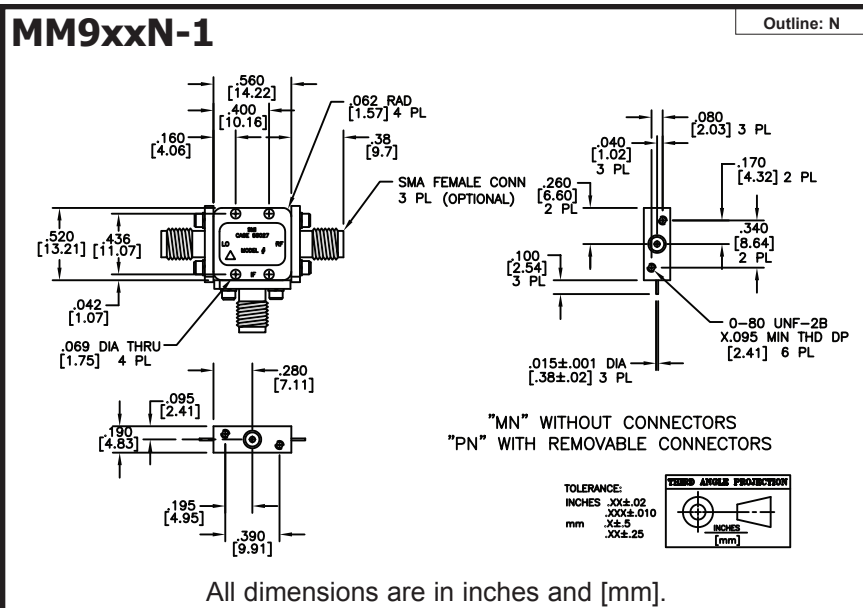
4 = +10 dBm  
6 = +13 dBm  
7 = +17 dBm  
8 = +21 dBm

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

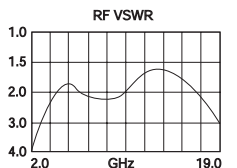
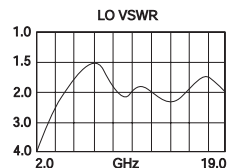
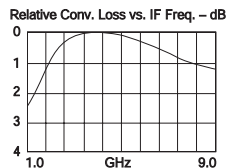
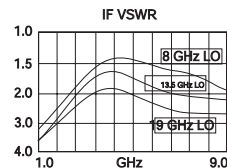
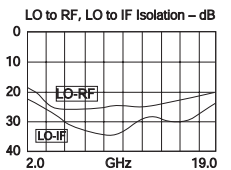
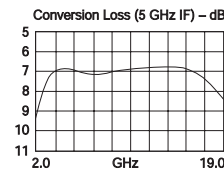
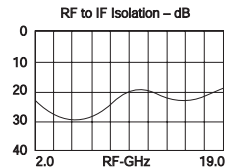
M = Module  
P = With Connectors

### 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



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REV A  
10/29/09

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