

Triple Balanced Mixer

Model MM4xxN-1

Multi-Octave Band

RF 1.5 to 9.0 GHz

Electrical Specifications:⁽¹⁾

Parameter	Conditions			Specifications		
	RF (GHz)	LO (GHz)	IF (MHz)	Min	Typical	Max
SSB Conversion loss: ^{(2) (3)}	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
Isolation						
		LO to RF:		10 dB	17 dB	
			4.5-9.0	20 dB	27 dB	
		LO to IF:		20 dB	30 dB	
		RF to IF:			23 dB	
	1.5-9.0	1.5-9.0	1.5-9.0		25 dB	
Input 1 dB Compression Point:	1.5-9.0	1.5-9.0	10-4500		+5 dBm	MM44
					+8 dBm	MM46
Input Third Order Intercept Point:	1.5-9.0	1.5-9.0	10-4500		+12 dBm	MM47
					+15 dBm	MM48
LO Power: ⁽⁴⁾	1.5-9.0	1.5-9.0	10-4500		+14 dBm	MM44
					+17 dBm	MM46
					+21 dBm	MM47
					+24 dBm	MM48

Model MM4xxN-1

LO Power

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

Drop-In

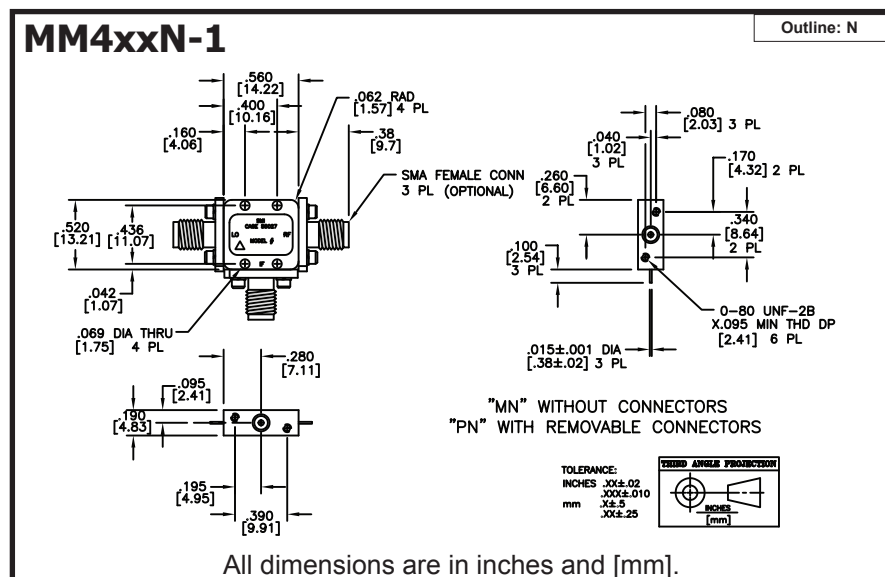
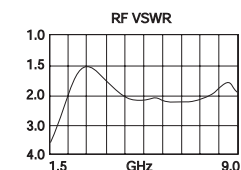
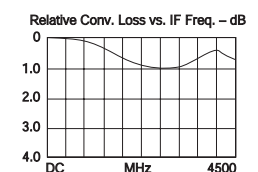
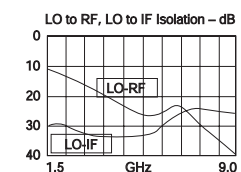
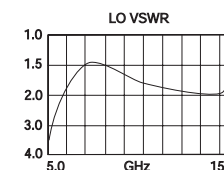
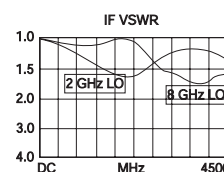
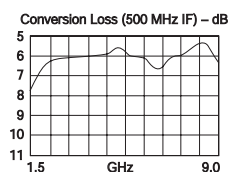
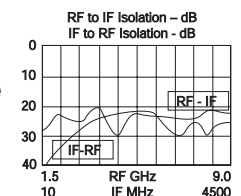
Module or With SMA(F) Connectors

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



All dimensions are in inches and [mm].



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, FL 32905 · PH (888) 553-7531 · Fax (888) 553-7532

www.SpectrumMicrowave.com Spectrum Microwave · 2707 Black Lake Place · Philadelphia, PA 19154 · PH (215) 464-4000 · Fax (215) 464-4001

REV A
10/28/09