Double Balanced Mixer

Model MM4xMS-10
Model MM4xMS-17

Multi-Octave Band

RF 2.0 to 9.0 GHz

Electrical Specifications:[1]

Parameter	Conditions RF (GHz)	LO (GHz)	IF (MHz)	Specifications Typical	Max
SSB Conversion loss:[2] [3]	3.0-8.0	3.0-8.0	DC-500	5.0 dB	7.0 dB
	3.0-8.0	3.0-8.0	DC-1000	6.0 dB	8.0 dB
	3.0-8.0	3.0-8.0	DC-1500	7.0 dB	9.0 dB
	2.0-9.0	2.0-9.0	DC-1500	8.0 dB	10.5 dB
Isolation					
LO to RF:		2.0-9.0		36 dB	
LO to IF:		2.0-9.0		37 dB	
RF to IF:	2.0-9.0			20 dB	
Input 1 dB Compression Point:	2.0-9.0	2.0-9.0	DC-1500	+1 dBm	MM43
				+4 dBm	MM44
				+8 dBm	MM46
				+12 dBm	MM47
Input Third Order Intercept Point:	2.0-9.0	2.0-9.0	DC-1500	+11 dBm	MM43
				+14 dBm	MM44
				+18 dBm	MM46
				+22 dBm	MM47
LO Power:[4]	2.0-9.0	2.0-9.0	DC-1500	+7 dBm	MM43
				+10 dBm	MM44
				+13 dBm	MM46
				+18 dBm	MM47

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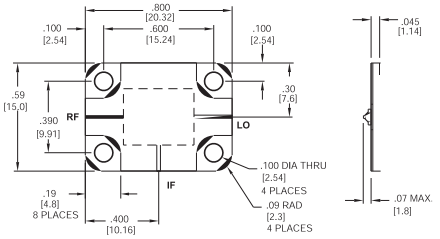
LO Power
3 = +7 dBm
4 = +10 dBm
6 = +13 dBm
7 = +18 dBm

Notes:
1. Specifications are guaranteed when tested as a downconverter in a 50 Ohm system at +25˚C with the nominal LO power. Specifications indicated as typical are not guaranteed.
2. Noise figure is typically within ±0.5 dB of conversion loss for IF frequencies greater than 10 MHz.
3. Conversion loss typically degrades less than 0.5 dB at +100˚C and improves less than 0.5 dB at -55˚C.
4. Usable LO drives are up to 2 dB below and 3 dB above nominal.

MM4xMS-10

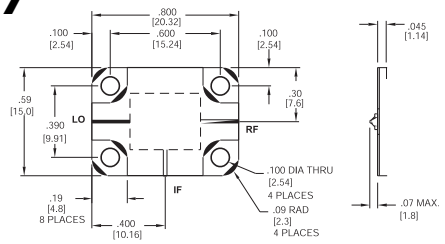
Outline: MS2TA



Microstrip Traces:
LO, RF, and IF traces are 0.02 inch wide copper suitable for solder attach.

MM4xMS-17

Outline: MS2TB



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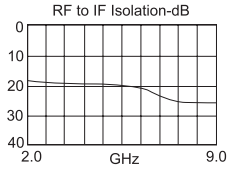
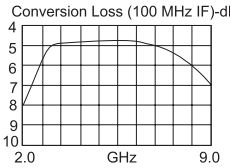
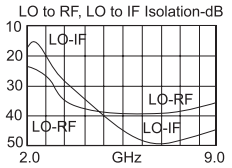
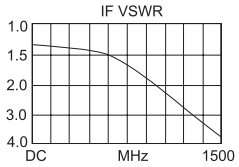
All dimensions are in inches and [mm].

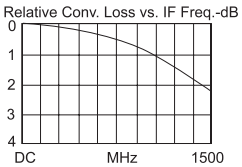
Typical Performance at 25˚C

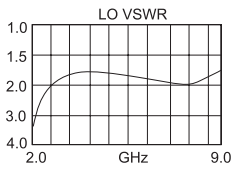


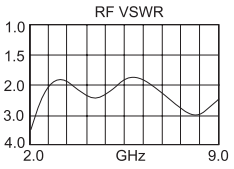












SPECTRUM MICROWAVE INC
A Spectrum Control Business

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

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