Double Balanced Mixer

Multi-Octave Band

Model MM9xMS
Model MM9xMS-14

RF 1.5 to 19.0 GHz

Electrical Specifications: (1)

Parameter	Conditions RF (GHz)	LO (GHz)	IF (MHz)	Specifications Min	Typical	Max
SSB Conversion loss: (2) (3)	2.0-18.0	2.0-18.0	2.0-5.0		6.8 dB	9.0 dB
	2.0-18.0	2.0-18.0	0.5-6.5		7.8 dB	11.0 dB
	1.5-19.0	1.5-19.0	0.5-6.5		8.0 dB	11.5 dB
Isolation						
LO to RF:		1.5-4.0		17 dB	23 dB	
		4.0-19.0		20 dB	31 dB	
LO to IF:		1.5-19.0		20 dB	25 dB	
RF to IF:	1.5-19.0				27 dB	
IF to RF:			0.5-6.5		20 dB	
Input 1-dB Compression Point:	1.5-19.0	1.5-19.0	0.5-6.5		+5 dBm	MM94
					+8 dBm	MM96
					+12 dBm	MM97
					+15 dBm	MM98
Input Third Order Intercept Point:	1.5-19.0	1.5-19.0	0.5-.6.5		+14 dBm	MM94
					+17 dBm	MM96
					+21 dBm	MM97
					+24 dBm	MM98
LO Power: (4)	1.5-19.0	1.5-19.0	0.5-6.5		+10 dBm	MM94
					+13 dBm	MM96
					+17 dBm	MM97
					+21 dBm	MM98

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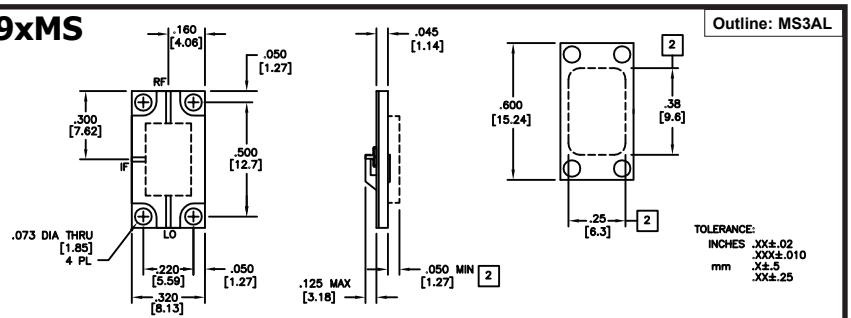
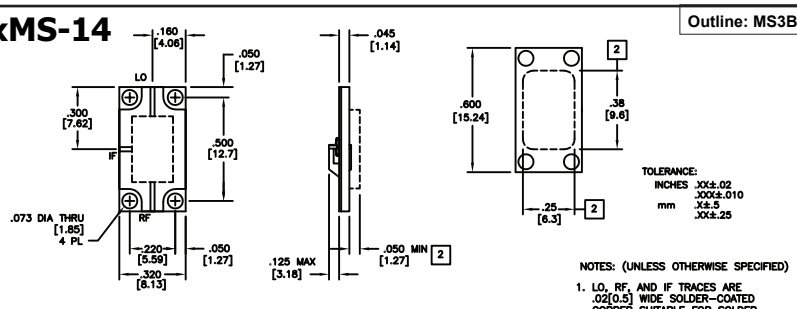
LO Power
4 = +10 dBm
6 = +13 dBm
7 = +17 dBm
8 = +21 dBm

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.

MM9xMS — Outline: MS3AL



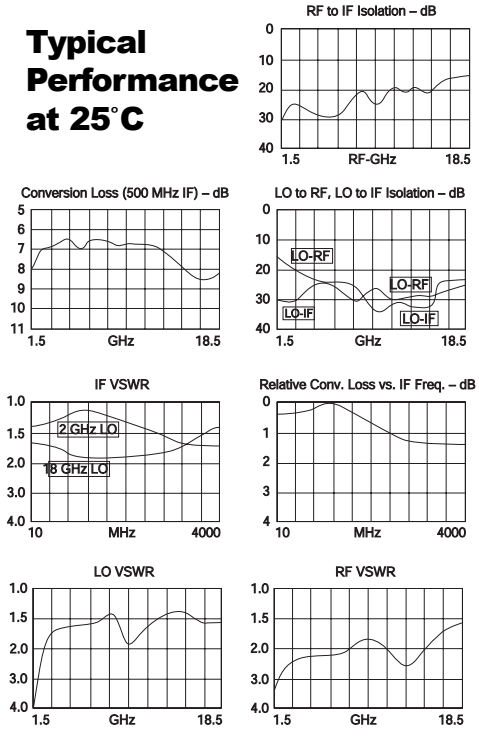
MM9xMS-14 — Outline: MS3BL



NOTES: (UNLESS OTHERWISE SPECIFIED)
1. LO, RF, AND IF TRACES ARE .02[0.5] WIDE SOLDER-COATED COPPER SUITABLE FOR SOLDER ATTACH.
2 RELIEF ON MOUNTING SURFACE REQUIRED FOR COMPONENT CLEARANCE.

All dimensions are in inches and [mm].

Typical Performance at 25˚C



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