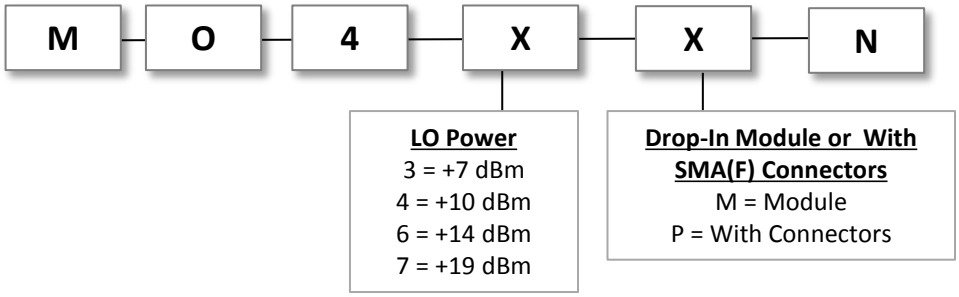
Double Balanced Mixer

Octave Band: RF 4.0 to 8.0 GHz

Technical Specifications

Parameter	Conditions RF (GHz)	LO (GHz)	IF (GHz)	Specifications Min	Typical	Max
SSB Conversion	4.0-8.0	3.5-8.5	DC-0.50		5.5 dB	7.0 dB
loss:(2) (3)	4.0-8.0	3.5-8.5	DC-1.5		6.0 dB	8.5 dB
	4.0-8.0	3.5-8.5	DC-2.0		6.7 dB	9.5 dB
Isolation						
LO to RF:	4.0-8.0	3.5-8.5		25 dB	33 dB	
LO to IF:		3.5-8.5		15 dB	22 dB	
RF to IF:					22 dB	
Input 1 dB	4.0-8.0	3.5-8.5	DC-2.0		+1 dBm	MO43
Compression Point:					+4 dBm	MO44
					+8 dBm	MO46
					+12 dBm	MO47
Input Third Order	4.0-8.0	3.5-8.5	DC-2.0		+11 dBm	MO43
Intercept Point:					+14 dBm	MO44
					+18 dBm	MO46
					+22 dBm	MO47
LO Power:(4)	4.0-8.0	3.5-8.5	DC-2.0		+7 dBm	MO43
					+10 dBm	MO44
					+14 dBm	MO46
					+19 dBm	MO47

Ordering Information

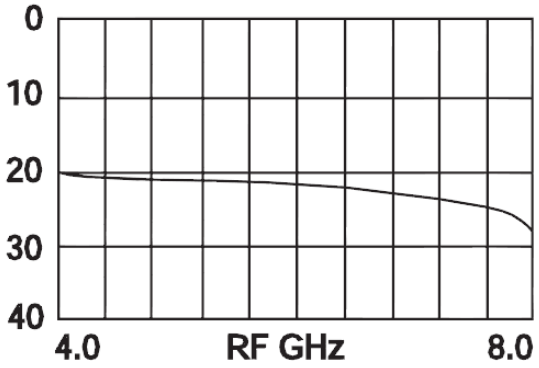


Notes:

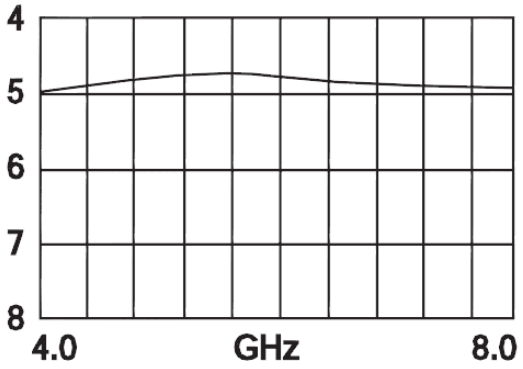
1. Specifications are guaranteed when tested as a downconverter in a 50 Ohm system from -55˚C to +100˚C with the nominal LO power. Specifications indicated as typical are not guaranteed.
2. Noise figure is typically within ±0.5 dB of conversion loss for IF frequencies greater than 10 MHz.
3. Conversion 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.

Typical Performance

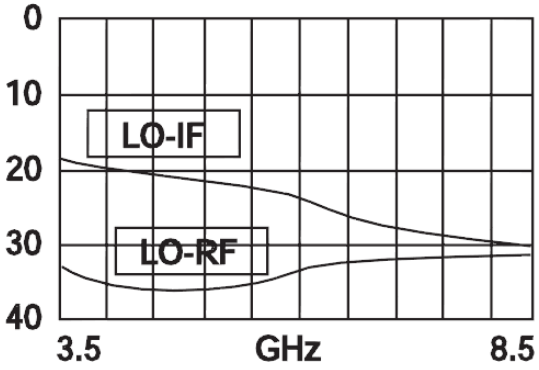
RF to IF Isolation – dB



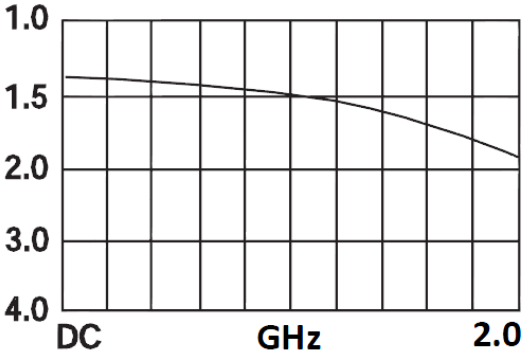
Conversion Loss (100 MHz IF) - dB



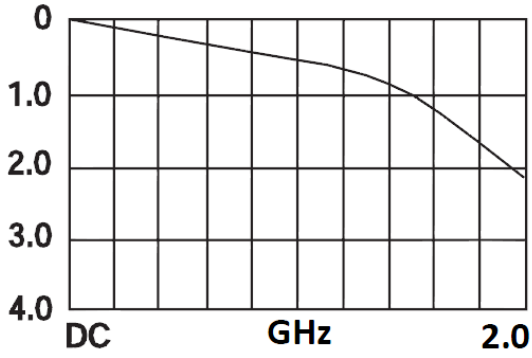
LO to RF, LO to IF Isolation – dB



IF VSWR

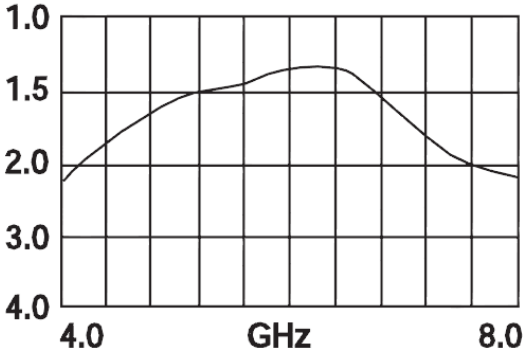


Relative Conv. Loss vs. IF Freq. – dB



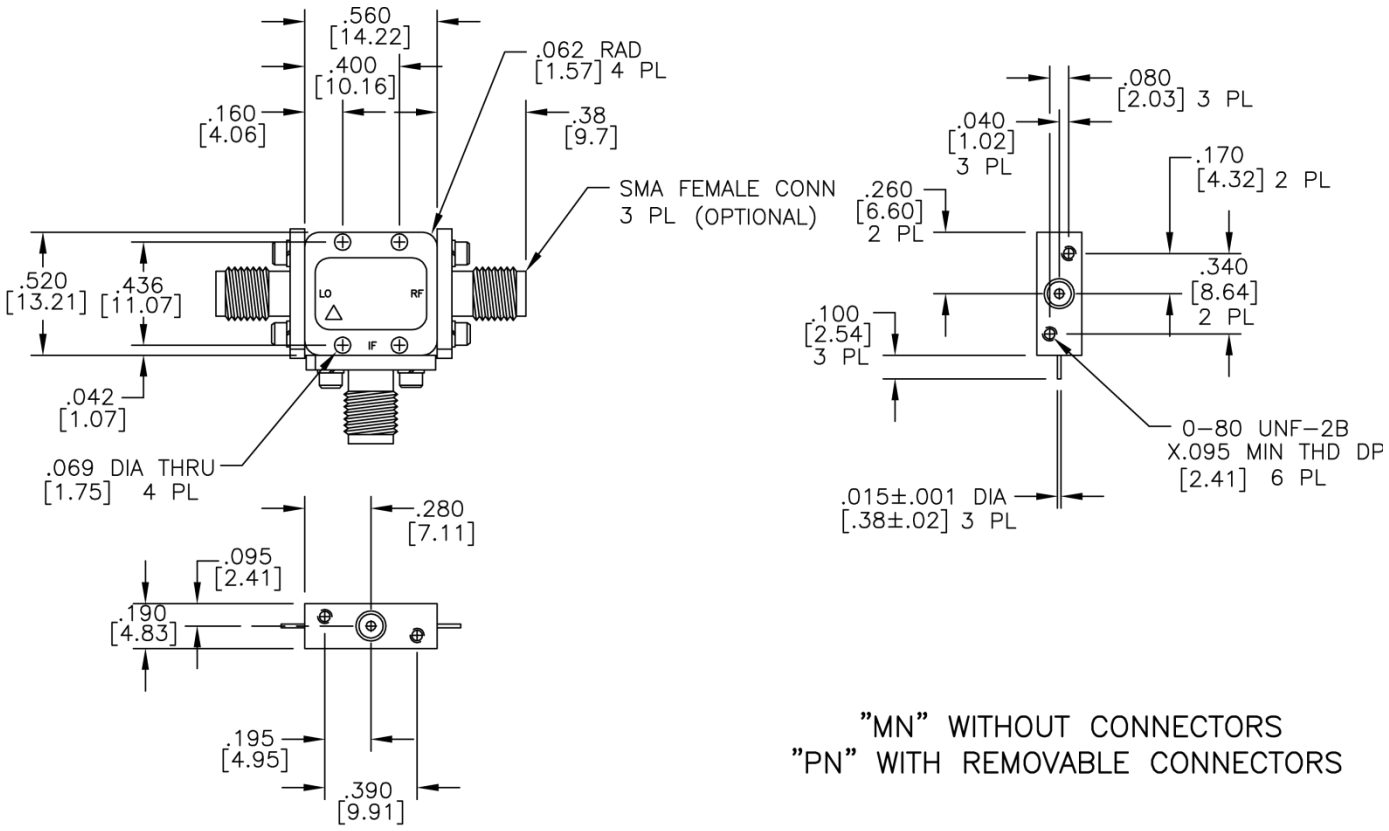
LO VSWR

RF VSWR



Outline Drawings

All dimensions are in inches and [mm].



"MN" WITHOUT CONNECTORS
"PN" WITH REMOVABLE CONNECTORS