

# Double Balanced Mixer

# Model MC134xN-3

Communications Band

RF 17.0 to 24.0 GHz

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

Parameter	Conditions			Specifications		
	RF (GHz)	LO (GHz)	IF (MHz)	Min	Typical	Max
<b>SSB Conversion loss:</b> <sup>(2) (3)</sup>	17.0-24.0	15.0-26.0	DC-2000		7.5 dB	9.5 dB
	17.0-24.0	15.0-26.0	DC-4000		8.5 dB	10.5 dB
<b>Isolation</b>						
		15.0-26.0		25 dB	38 dB	
	17.0-24.0	15.0-26.0			30 dB	
<b>Input 1-dB Compression Point:</b>	17.0-24.0	15.0-26.0	DC-4000		+3 dBm	
<b>Input Third Order Intercept Point:</b>	17.0-24.0	15.0-26.0	DC-4000		+13 dBm	
<b>LO Power:</b> <sup>(4)</sup>	17.0-24.0	15.0-26.0	DC-4000		+10 dBm	

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

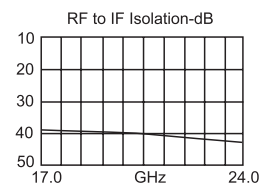
M = Module

P = With Connectors

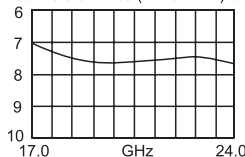
### Notes:

- Specifications are guaranteed when tested as a downconverter in a 50 Ohm system at +25°C with the nominal LO power. Specifications indicated as typical are not guaranteed.
- Noise figure is typically within  $\pm 0.5$  dB of conversion loss for IF frequencies greater than 10 MHz.
- 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.

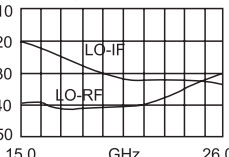
## Typical Performance at 25°C



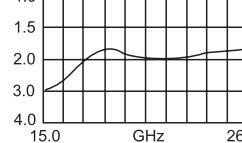
Conversion Loss (1.0 GHz IF)-dB



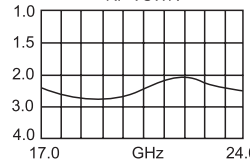
LO to RF, LO to IF Isolation-dB



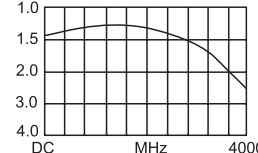
LO VSWR



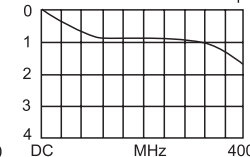
RF VSWR



IF VSWR

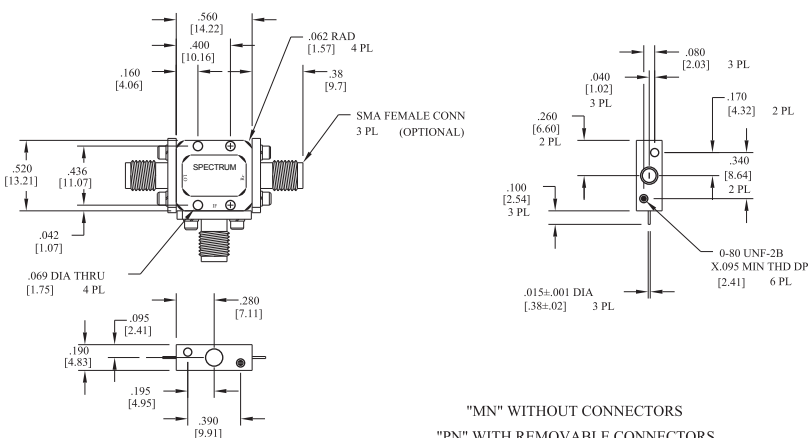


Relative Conv. Loss vs. IF Freq-dB



## MC134xN-3

Outline: N



"MN" WITHOUT CONNECTORS  
"PN" WITH REMOVABLE CONNECTORS

All dimensions are in inches and [mm].



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