

Double Balanced Mixer

Model MC134xN-3

Communications Band

RF 17.0 to 24.0 GHz

Electrical Specifications:⁽¹⁾

Parameter	Conditions			Specifications		
	RF (GHz)	LO (GHz)	IF (MHz)	Min	Typical	Max
SSB Conversion loss: ^{(2) (3)}	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
Isolation				25 dB		
	LO to RF:	15.0-26.0			38 dB	
	LO to IF:	15.0-26.0			30 dB	
	17.0-24.0				40 dB	
Input 1-dB Compression Point:	17.0-24.0	15.0-26.0	DC-4000		+3 dBm	
Input Third Order Intercept Point:	17.0-24.0	15.0-26.0	DC-4000		+13 dBm	
LO Power: ⁽⁴⁾	17.0-24.0	15.0-26.0	DC-4000		+10 dBm	

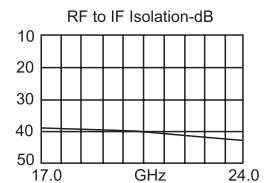
Model MC134xN-3

Drop-In Module or With SMA(F) Connectors
M = Module
P = With Connectors

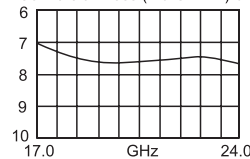
Notes:

- 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 ±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.

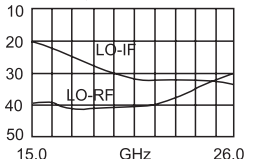
Typical Performance at 25°C



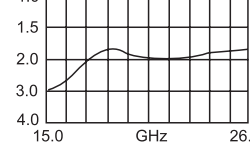
Conversion Loss (1.0 GHz IF)-dB



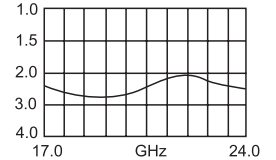
LO to RF, LO to IF Isolation-dB



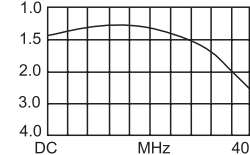
LO VSWR



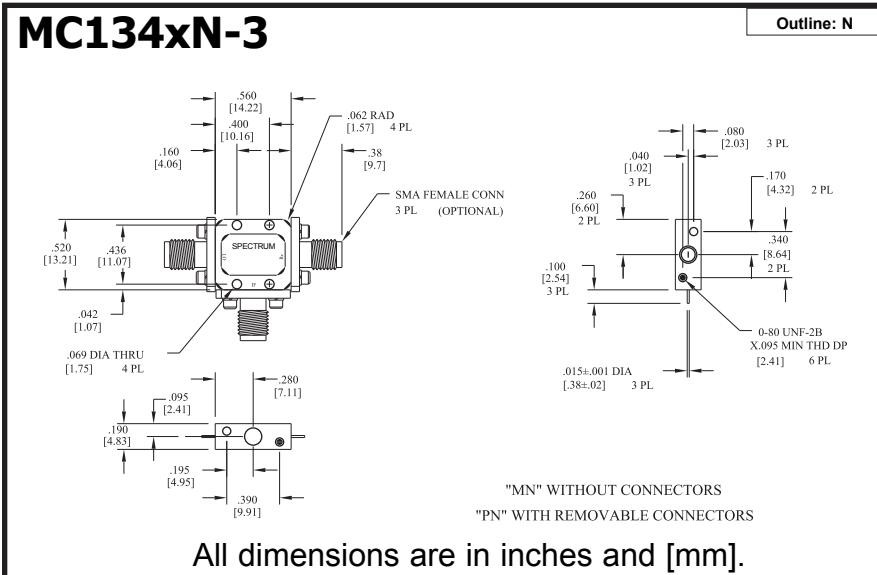
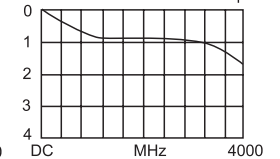
RF VSWR



IF VSWR



Relative Conv. Loss vs. IF Freq-dB



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