

Triple Balanced Mixer

Model MM9xxL-15

Ultra-Broadband

RF 2.0 to 18.0 GHz

Electrical Specifications: ⁽¹⁾

Parameter	Conditions			Specifications		
	RF (GHz)	LO (GHz)	IF (GHz)	Min	Typical	Max
SSB Conversion loss: ⁽²⁾ ⁽³⁾	3.0-17.0	2.0-18.0	2.0-8.0		7.5 dB	10.0 dB
	2.0-18.0	2.0-18.0	2.0-8.0		8.5 dB	10.5 dB
Isolation						
	LO to RF:	2.0-18.0		15 dB	25 dB	
	LO to IF:	2.0-18.0		17 dB	23 dB	
RF to IF:	2.0-18.0				22 dB	
Input 1 dB Compression Point:	2.0-18.0	2.0-18.0	2.0-8.0		+5 dBm +8 dBm +12 dBm +15 dBm	MM94 MM96 MM97 MM98
Input Third Order Intercept Point:	2.0-18.0	2.0-18.0	2.0-8.0		+14 dBm +17 dBm +21 dBm +24 dBm	MM94 MM96 MM97 MM98
LO Power: ⁽⁴⁾	2.0-18.0	2.0-18.0	2.0-8.0		+10 dBm +13 dBm +17 dBm +21 dBm	MM94 MM96 MM97 MM98

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

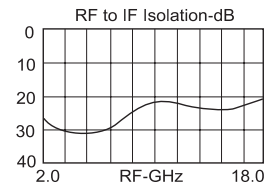
Drop-In Module or With SMA(F) Connectors

M = Module
 P = With Connectors

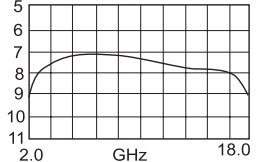
Notes:

- Specifications are guaranteed when tested as a downconverter in a 50 Ohm system from -55°C to +100°C with the nominal LO power. Specifications indicated as typical are not guaranteed.
- Noise figure is typically within ±0.5 dB of conversion loss.
- 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.

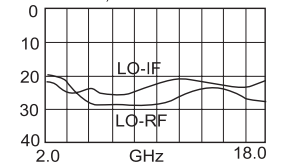
Typical Performance at 25 °C



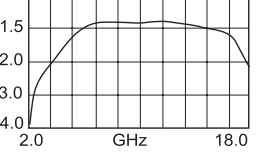
Conversion Loss (2GHz IF)-dB



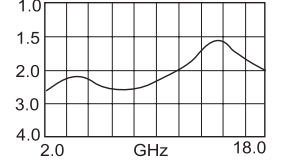
LO to RF, LO to IF Isolation-dB



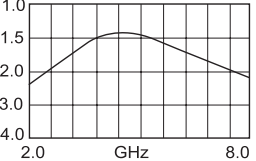
LO VSWR



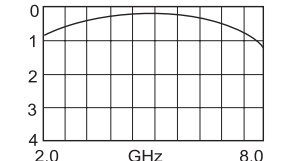
RF VSWR



IF VSWR



Relative Conv. Loss vs. IF Freq.-dB



"ML" WITHOUT CONNECTORS
 "PL" WITH REMOVABLE CONNECTORS

