

# Double Balanced Mixer

# Model MM9xxG-40

Ultra-Broadband

RF 0.5 to 18.0 GHz

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

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Parameter	Conditions			Specifications		
	RF (GHz)	LO (GHz)	IF (MHz)	Min	Typical	Max
SSBM Conversion loss: <sup>(2) (3)</sup>	1.0-18.0	1.0-18.0	DC-150		6.5 dB	8.5 dB
	1.0-18.0	1.0-18.0	DC-300		7.0 dB	9.0 dB
	0.5-18.0	0.5-18.0	DC-300		10.0 dB	11.0 dB
Isolation	LO to RF:	0.5-1.0		12 dB	20 dB	
		1.0-18.0		20 dB	30 dB	
	LO to IF:	0.5-1.0		5 dB	12 dB	
		1.0-2.5		10 dB	16 dB	
	RF to IF:	0.5-18.0		17 dB	31 dB	
Input 1 dB Compression Point:	0.5-18.0	0.5-18.0	DC-300		+2 dBm	MM93
					+5 dBm	MM94
Input Third Order Intercept Point:	0.5-18.0	0.5-18.0	DC-300		+8 dBm	MM96
					+12 dBm	MM97
					+11 dBm	MM93
					+14 dBm	MM94
					+18 dBm	MM96
LO Power: <sup>(4)</sup>	0.5-18.0	0.5-18.0	DC-300		+23 dBm	MM97
					+7 dBm	MM93
					+10 dBm	MM94
					+14 dBm	MM96
					+19 dBm	MM97

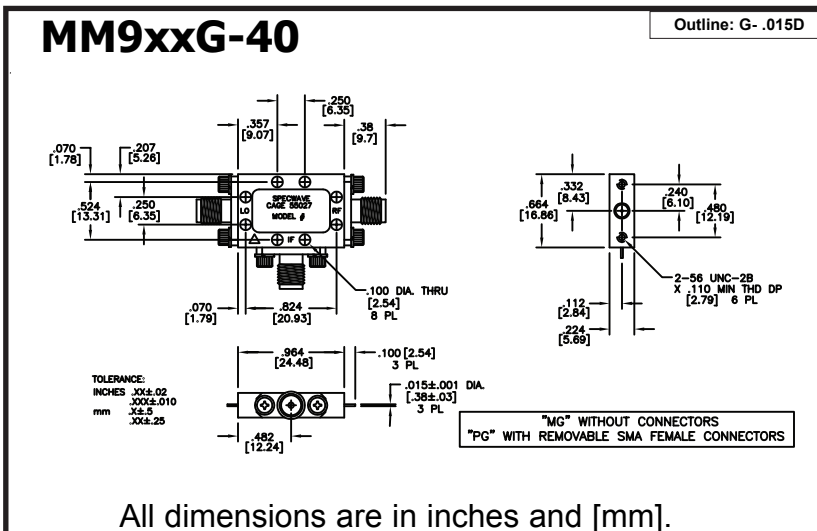
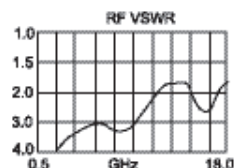
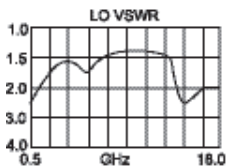
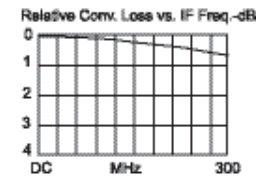
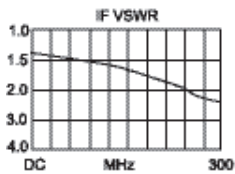
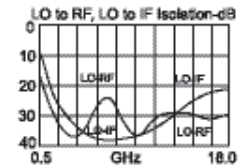
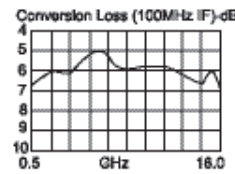
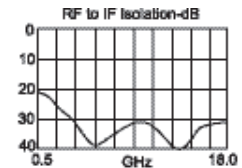
LO Power ←  
 3 = +7 dBm  
 4 = +10 dBm  
 6 = +14 dBm  
 7 = +19 dBm

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 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



All dimensions are in inches and [mm].



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