

# Double Balanced Mixer

## Multi-Octave Band

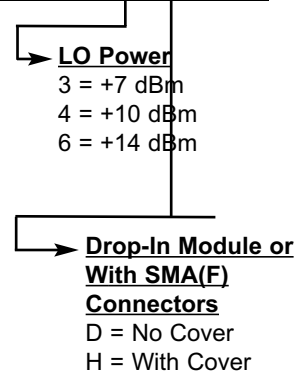
# Model MM9xSMx

## Model MM9xSMx-14

RF 6.0 to 18.0 GHz

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

Parameter	Conditions			Specifications		
	RF(GHz)	LO(GHz)	IF(MHz)	Min	Typical	Max
SSB Conversion loss: <sup>(2) (3)</sup>	6.0-18.0	6.0-18.0	DC-1300		5.7 dB	8.0 dB
	6.0-18.0	6.0-18.0	DC-2500		6.9 dB	9.0 dB
Isolation	6.0-18.0	6.0-13.0 13.0-18.0 6.0-18.0		LO to RF:	28 dB	32 dB
				LO to IF:	24 dB	28 dB
				RF to IF:		30 dB
Input 1-dB Compression Point:	6.0-18.0	6.0-18.0	DC-2500		+1 dBm +4 dBm +8 dBm	MM93 MM94 MM96
Input Third Order Intercept Point:	6.0-18.0	6.0-18.0	DC-2500		+11 dBm +14 dBm +18 dBm	MM93 MM94 MM96
LO Power: <sup>(4)</sup>	6.0-18.0	6.0-18.0	DC-2500		+7 dBm +10 dBm +13 dBm	MM93 MM94 MM96



### 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.
- See Application Note M112, for aid in selecting the outline and for mounting and installation information.

Mixers

## MM9xSMD

Outline: SMMC4A: AS SHOWN  
SMMC4B: RF & LO REVERSED

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## MM9xSMH

Outline: SMMT4A: AS SHOWN  
SMMT4B: RF & LO REVERSED

**NOTE: See PC board footprint - FP1 on page 3-64**

All dimensions are in inches and [mm].

### Typical Performance at 25°C

