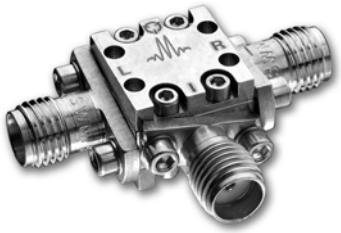
DOUBLE-BALANCED MIXERS M9-1840



Features

- RF 18.0 to 40.0 GHz
- LO 35.5/42.2 GHz
- IF 2.0 to 18.0 GHz
- 11 dB Typical Conversion Loss
- Octave Band RF and LO
- Multi-Octave IF Frequencies
- Available with 2.92 mm or 2.40 mm Connectors
- Open Carrier Version Available

Electrical Specifications - Specifications guaranteed from -55 to +100°C, measured in a 50-Ohm system.

Parameter	LO (GHz)	RF (GHz)	IF (GHz)	Min	Typ	Max	Diode Option **LO drive level** (dBm)
Conversion Loss (dB)	35.5 42.2	18.0-24.5 24.5-40.0	17.5-11.0 17.7-2.2		11.0 11.0	14.0 14.0	
Isolation (dB) LO-RF LO-IF RF-IF	 18.0-40.0 18.0-40.0 18.0-40.0	 18.0-40.0 18.0-40.0 18.0-40.0			 25 25 25		
Input 1 dB Compression (dBm)	18.0-40.0	18.0-40.0			+2 +6		L (+9 to +13) I (+13 to +17)
Input Two-Tone Third Order Intercept Point (dBm)	18.0-40.0	18.0-40.0			+12 +16		L (+9 to +13) I (+13 to +17)

Part Number Options

Please specify diode level and package style by adding to model number.	
Package Style(s)[1, 2]	**Example**
ES, N, NV	M9-1840 L N

[1]Connectorized test fixtures available for most carrier and surface mount packages. Consult factory.
[2]For non-connectorized packages, specify I-port configuration by adding –1 or –2 suffix to model number. Default is –2 configuration when not specified.

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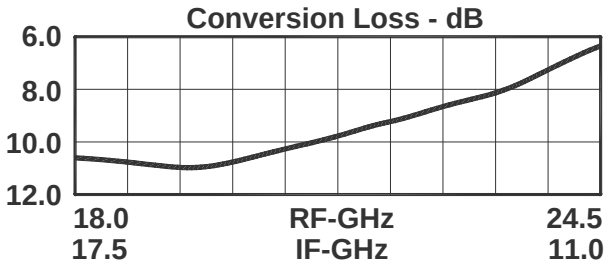
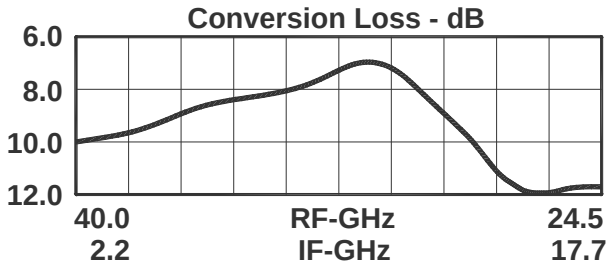
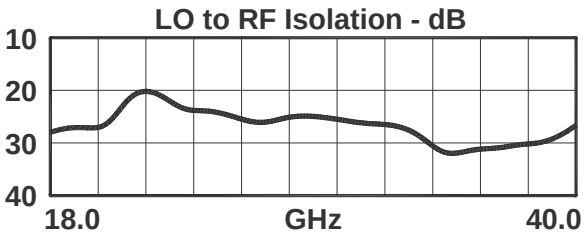
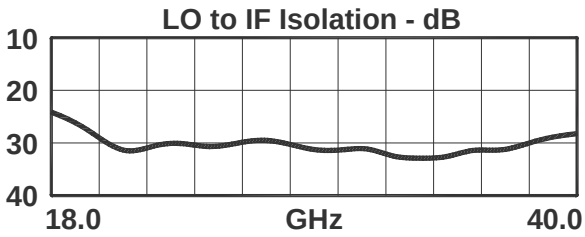
RF 18.0 to 40.0 GHz
LO 35.5 / 42.2 GHz
IF 2.0 to 18.0 GHz

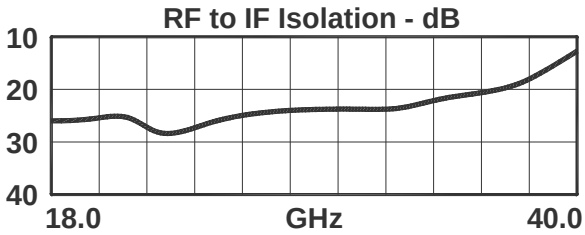
Typical Performance











DATA SHEET NOTES:

1. Mixer Noise Figure typically measures within +0.5 dB of conversion loss for IF frequencies greater than 5 MHz.
2. Conversion Loss typically degrades less than 0.5 dB for LO drives 2 dB below the lowest and 3 dB above highest nominal LO drive levels.
3. Conversion Loss typically degrades less than 0.5 dB at +100°C and improves less than 0.5 dB at -55°C.
4. Maximum input power is +23 dBm at +25°C, derated linearly to +20 dBm at +100°C.
5. Specifications are subject to change without notice. Contact Marki Microwave for the most recent specifications and data sheets.
6. Catalog mixer circuits are continually improved. Configuration control requires custom mixer model numbers and specifications.

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