



TRIPLE-BALANCED MIXERS

M2-0003



Features

- LO/RF .005 to 3.0 GHz
- IF .0002 to 2.0 GHz
- 6.5 dB Typical Conversion Loss
- 35 dB Typical LO to RF Isolation
- Ultra-Broadband RF, LO, and IF

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)	.005-3.0 .005-3.0	.005-3.0 .005-3.0	.0002-1.0 .0002-2.0		6.5 7.5	8.0 9.0	
Isolation (dB)							
LO-RF	.005-3.0	.005-3.0		25	35		
LO-IF	.005-3.0	.005-3.0			40		
RF-IF	.005-3.0	.005-3.0			35		
Input 1 dB Compression (dBm)	.005-3.0	.005-3.0			+5		L (+13 to +16)
Input Two-Tone Third Order Intercept Point (dBm)	.005-3.0	.005-3.0			+15		L (+13 to +16)

Part Number Options

Please specify diode level and package style by adding to model number.	
Package Style(s) ^{1, 2}	Example
A , B , C , E , EZ , P	M2-0003 <u>L</u> <u>A</u>

¹Connectorized test fixtures available for most carrier and surface mount packages. Consult factory.

²For 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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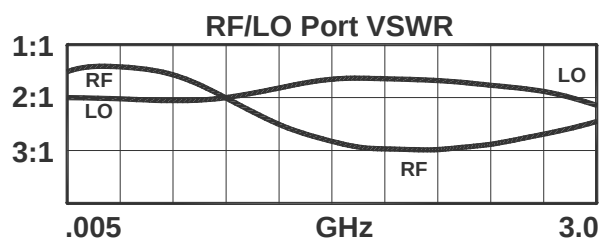
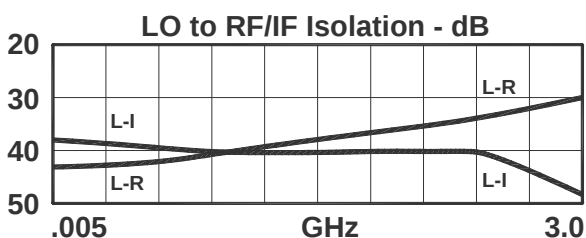
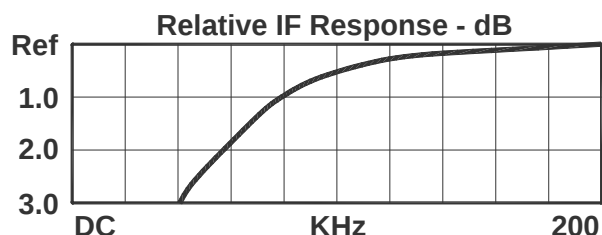
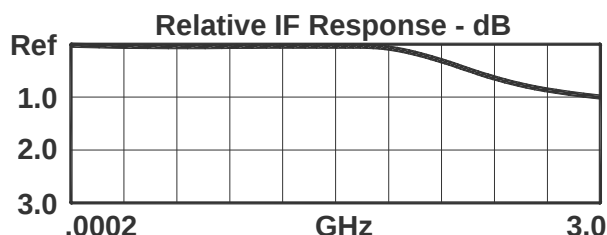
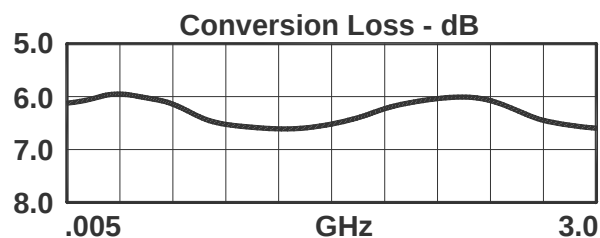
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IF .0002 to 2.0 GHz

Typical Performance



DATA SHEET NOTES:

1. Mixer Conversion Loss Plot IF frequency is 100 MHz.
2. Mixer Noise Figure typically measures within +0.5 dB of conversion loss for IF frequencies greater than 5 MHz.
3. 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.
4. Conversion Loss typically degrades less than 0.5 dB at +100°C and improves less than 0.5 dB at -55°C.
5. Maximum input power is +26 dBm at +25°C, derated linearly to +23 dBm at +100°C.
6. Specifications are subject to change without notice. Contact Marki Microwave for the most recent specifications and data sheets.
7. Standard configuration for A, B, and C outlines are with connectors and bottom spacer.
8. Catalog mixer circuits are continually improved. Configuration control requires custom mixer model numbers and specifications.

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