



DOUBLE-BALANCED MIXERS INTEGRATED LO-DOUBLER

M1D-0212



Features

- RF 2.0 to 12.0 GHz
- LO 1.0 to 6.0 GHz
- IF DC to 2.0 GHz
- 5.5 dB Typical Conversion Loss
- 38 dB Typical 2LO to RF Isolation
- Integrated LO-Doubler
- Ultra-Broadband LO and RF

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)	1.0-6.0 1.0-6.0	2.0-12.0 2.0-12.0	DC-1.0 1.0-2.0		5.5 6.5	7.5 8.5	
Isolation (dB)							
LO-RF	1.0-6.0	1.0-6.0		25	35		
2LO-RF	2.0-12.0	2.0-12.0		30	38		
LO-IF	1.0-6.0	1.0-6.0			25		
2LO-IF	2.0-12.0	2.0-12.0			42		
RF-IF	2.0-12.0	2.0-12.0			25		
Input 1 dB Compression (dBm)	1.0-6.0	2.0-12.0			+2		L (+18 to +20)
Input Two-Tone Third Order Intercept Point (dBm)	1.0-6.0	2.0-12.0			+12		L (+18 to +20)

Part Number Options

Please specify diode level and package style by adding to model number.	
Package Style(s) ¹	Example
A , B , C , E , EZ , P	M1D-0212 <u>L</u> <u>A</u>

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

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Visit www.markimicrowave.com for typical performance data and additional product information.

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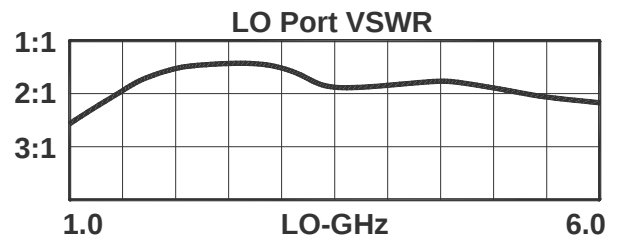
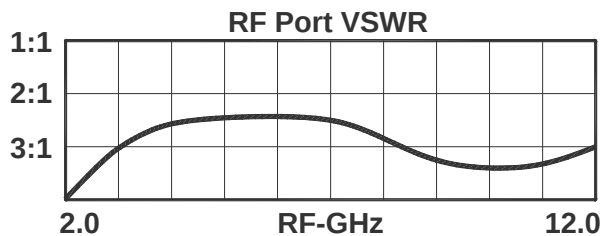
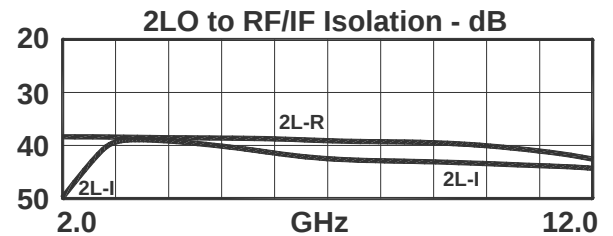
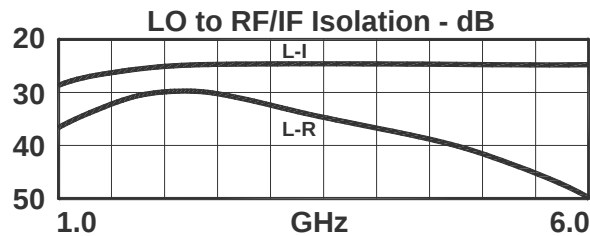
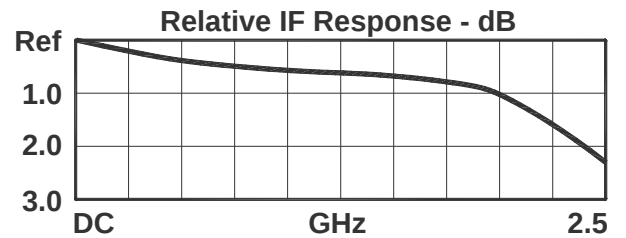
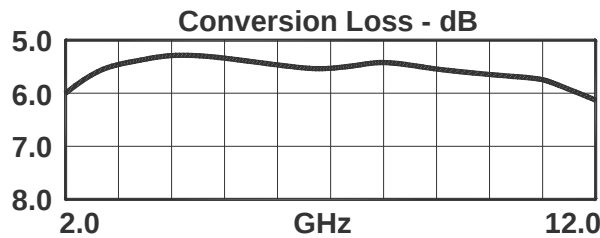
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Page 2

M1D-0212

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LO 1.0 to 6.0 GHz
IF DC 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 +23 dBm at +25°C, derated linearly to +20 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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