



DOUBLE-BALANCED MIXERS

M8-0220



Features

- LO/RF 2.0 to 20.0 GHz
- IF DC to 1.5 GHz
- 6.5 dB Typical Conversion Loss
- 35 dB Typical LO to RF Isolation
- Ultra-Broadband RF and LO

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)	2.0-20.0 2.0-20.0	2.0-20.0 2.0-20.0	DC-1.0 1.0-1.5		6.5 7.0	9.5 10.0	
Isolation (dB)				20			
LO-RF	2.0-20.0	2.0-20.0			35		
LO-IF	2.0-20.0	2.0-20.0			15		
RF-IF	2.0-20.0	2.0-20.0			15		
Input 1 dB Compression (dBm)	2.0-20.0	2.0-20.0			+3 +6 +9 +12		M (+10 to +13) N (+13 to +16) H (+16 to +19) S (+19 to +22)
Input Two-Tone Third Order Intercept Point (dBm)	2.0-20.0	2.0-20.0			+13 +16 +19 +22		M (+10 to +13) N (+13 to +16) H (+16 to +19) S (+19 to +22)

Part Number Options

<i>Please specify diode level and package style by adding to model number.</i>	
Package Style(s)	Example
A	M8-0220 <u>M</u> <u>A</u>

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215 Vineyard Court, Morgan Hill, CA 95037 | Ph: 408.778.4200 | Fax 408.778.4300 | info@markimicrowave.com



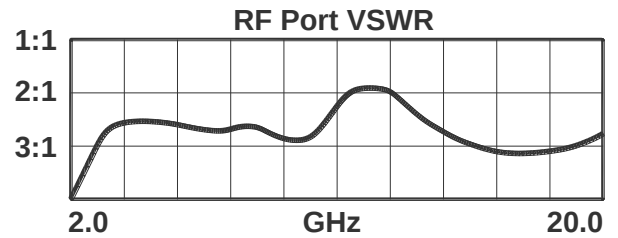
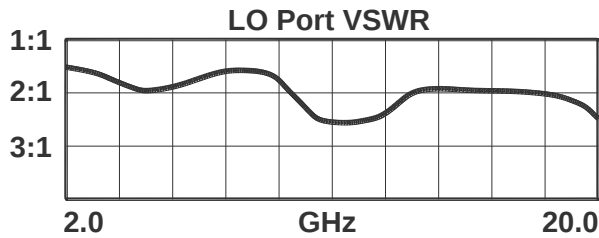
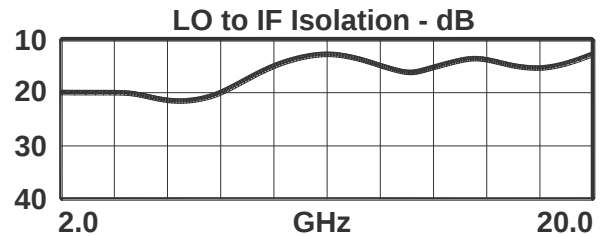
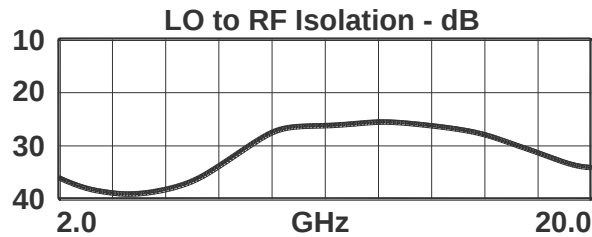
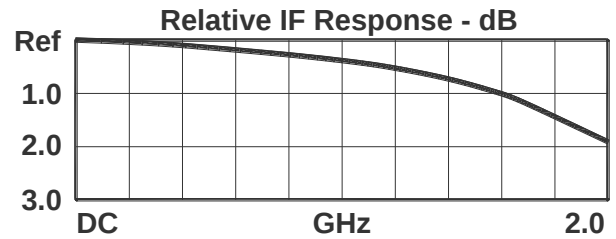
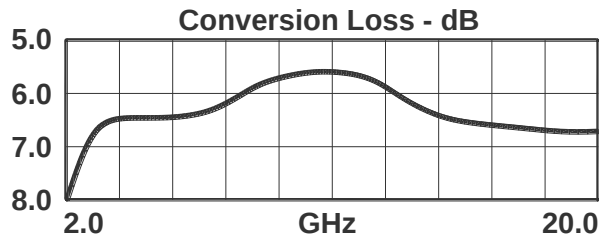
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IF DC to 1.5 GHz

Typical Performance



DATA SHEET NOTES:

1. Mixer Conversion Loss Plot is done with an IF frequency of 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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www.markimicrowave.com