

## TRIPLE-BALANCED MIXERS

M2-0219

#### **Features**

- LO/RF 2.0 to 19.0 GHz
- IF .001 to 6.0 GHz
- 7.0 dB Typical Conversion Loss
- 25 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)	<b>RF</b> (GHz)	<b>IF</b> (GHz)	Min	Тур	Max	Diode Option LO drive level (dBm)
Conversion Loss (dB)	2.0-19.0	2.0-19.0	.001-1.0		7.0	9.5	
	2.0-19.0	2.0-19.0	1.0-3.0		7.5	10.0	
	2.0-19.0	2.0-19.0	3.0-6.0		8.0	10.5	
Isolation (dB)				_			
LO-RF	2.0-4.0	2.0-4.0		12	20		
LO-RF	4.0-19.0	4.0-19.0		16	25		
LO-IF	2.0-19.0	2.0-19.0			25		
RF-IF	2.0-19.0	2.0-19.0			30		
Input 1 dB Compression (dBm)	2.0-19.0	2.0-19.0		1	+5		L (+10 to +13)
					+8		M (+13 to +16)
					+11		N (+16 to +19)
					+14		H (+19 to +22)
Input Two-Tone Third Order	2.0-19.0	2.0-19.0			+15		L (+10 to +13)
Intercept Point (dBm)					+18		M (+13 to +16)
					+21		N (+16 to +19)
	7				+24		H (+19 to +22)

# **Part Number Options**

Please specify diode level and package style by adding to model number.				
Package Style(s) <sup>1</sup>	Example			
<u>R</u> , <u>S</u> , <u>Z</u>	M2-0219 <u>L</u> <u>R</u>			

<sup>&</sup>lt;sup>1</sup>Connectorized test fixtures available for most carrier and surface mount packages. Consult factory.

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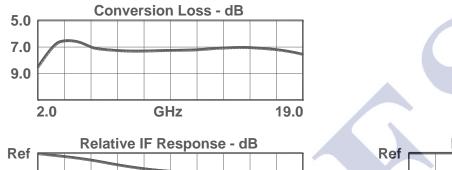
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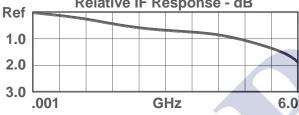
M2-0219

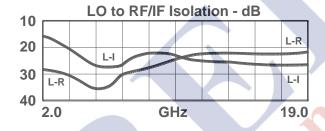
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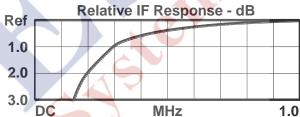
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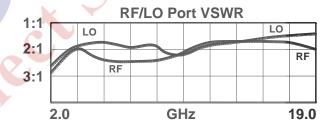
Typical Performance











#### 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. Catalog mixer circuits are continually improved. Configuration control requires custom mixer model numbers and specifications.

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