

IMAGE REJECT DOUBLE-BALANCED MIXERS

IR-1545



Features

- LO/RF 1.5 to 4.5 GHz
- IF 50 to 90 MHz
- 5.5 dB Typical Conversion Loss
- 43 dB Typical LO to RF Isolation
- 25 dB Typical Image Rejection
- Open Carrier or Connectorized

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

Parameter	LO (GHz)	RF (GHz)	IF (MHz)	Min	Тур	Max	Diode Option LO drive level (dBm)
Conversion Loss (dB)	1.5-4.5	1.5-4.5	50-90		5.5	7.0	
Image Rejection (dB)	1.8-4.5	1.8-4.5	50-90	18	25		
	1.5-4.5	1.5-4.5	50-90	16	25		
Isolation (dB)							
LO-RF	1.5-4.5	1.5-4.5		37	43		
LO-IF	1.5-4.5	1.5-4.5			30		
RF-IF	1.5-4.5	1.5-4.5			30		
Input 1 dB Compression (dBm)	1.5-4.5	1.5-4.5			+4		L (+10 to +13)
					+6		M (+13 to +16)
Input Two-Tone Third Order	1.5-4.5	1.5-4.5			+14		L (+10 to +13)
Intercept Point (dBm)					+16		M (+13 to +16)

Part Number Options

Please specify diode level and package style by adding to model number.				
Package Style(s) ^{1,2}	Example			
<u>M</u> , <u>MP</u>	IR-1545 <u>L</u> <u>M-2</u>			

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

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^{-1 =} FL < FR; -2 = FL > FR. Higher LO drive levels are available. Many other IF bands are available.



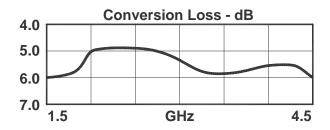
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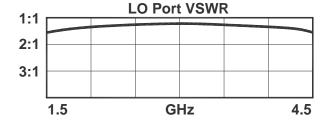
LO/RF 1.5 to 4.5 GHz IF 50 to 90 MHz

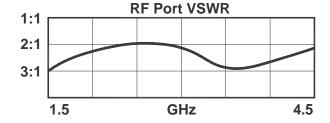
Typical Performance











DATA SHEET NOTES:

- 1. Mixer Conversion Loss Plot IF frequency is 70 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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