

## DOUBLE-BALANCED MIXERS

M4-0265



#### **Features**

- RF 2.0 to 65.0 GHz
- LO 2.0 to 65.0 GHz
- IF DC to 100 MHz
- 8.0 dB Typical Fundamental Conversion Loss
- 20 dB Typical 3rd Harmonic Loss
- 2.40 mm RF/LO Connectors

#### 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> (MHz)	Min	Тур	Max	Diode Option LO drive level (dBm)
Conversion Loss (dB)	2.0-40.0	2.0-40.0	DC-100		8.0	12.0	
	2.0-65.0	2.0-65.0	DC-100		12.0	15.0	
Third Harmonic LO Conversion Loss (dB)	6.67-21.67	20.0-65.0	DC-100		20.0	25.0	
Isolation (dB)							
LO-RF	2.0-40.0	2.0-40.0			25		
LO-IF	2.0-40.0	2.0-40.0			25		
RF-IF	2.0-40.0	2.0-40.0			25		
Input 1 dB Compression (dBm)	2.0-40.0	2.0-40.0			+2		L (+10 to +17)
Input Two-Tone Third Order Intercept Point (dBm)	2.0-40.0	2.0-40.0			+12		L (+10 to +17)

### **Part Number Options**

Please specify diode level and package style by adding to model number.				
Package Style(s)	Example			
NVM	M4-0265 <u>L</u> <u>NVM</u>			

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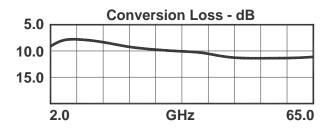


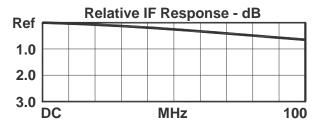
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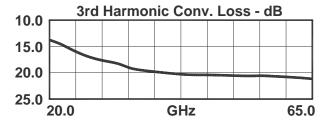
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LO/RF 2.0 to 65.0 GHz IF DC to 100 MHz

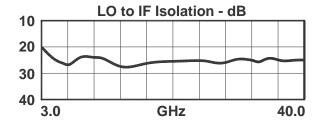
Typical Performance







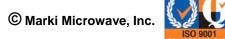




#### DATA SHEET NOTES:

- 1. Mixer Conversion Loss Plots are done with an IF frequency of 100 MHz unless otherwise specified.
- 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. Catalog mixer circuits are continually improved. Configuration control requires custom mixer model numbers and specifications.

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