



DOUBLE-BALANCED MIXERS

M8-0226



Features

- LO/RF 2.0 to 26.5 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) | 2.0-26.5 2.0-26.5 | 2.0-26.5 2.0-26.5 | DC-1.0 1.0-1.5 | | 6.5 7.0 | 9.5 10.0 | |
| Isolation (dB) | | | | | | | |
| LO-RF | 2.0-26.5 | 2.0-26.5 | | 20 | 35 | | |
| LO-IF | 2.0-26.5 | 2.0-26.5 | | | 15 | | |
| RF-IF | 2.0-26.5 | 2.0-26.5 | | | 15 | | |
| Input 1 dB Compression (dBm) | 2.0-26.5 | 2.0-26.5 | | | +3 +6 | | M (+10 to +13) N (+13 to +16) |
| Input Two-Tone Third Order Intercept Point (dBm) | 2.0-26.5 | 2.0-26.5 | | | +13 +16 | | M (+10 to +13) N (+13 to +16) |

Part Number Options

Please specify diode level and package style by adding to model number.

| Package Style(s) | Example |
|------------------|---------------------------|
| <u>A</u> | M8-0226 <u>M</u> <u>A</u> |

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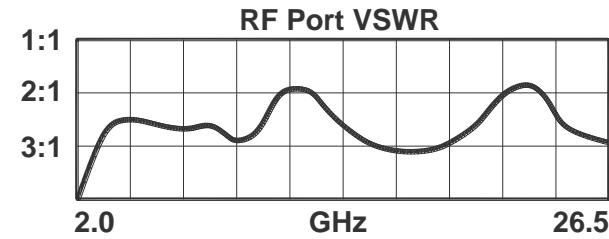
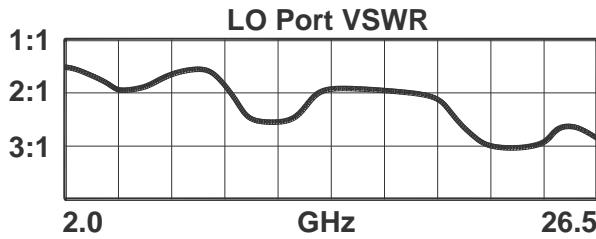
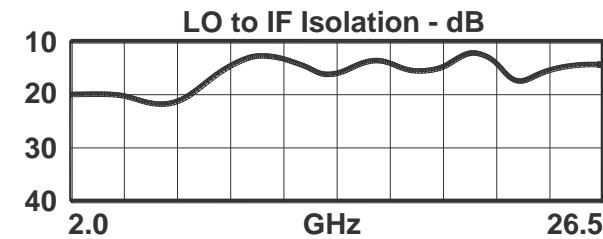
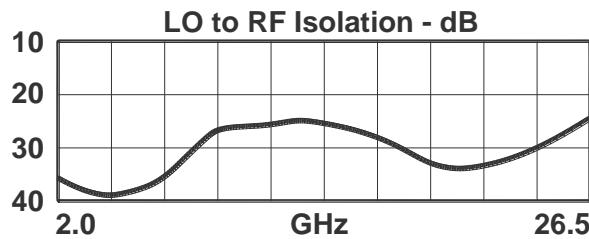
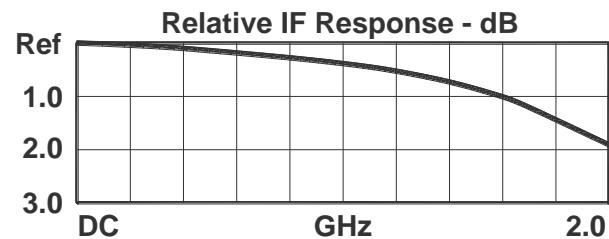
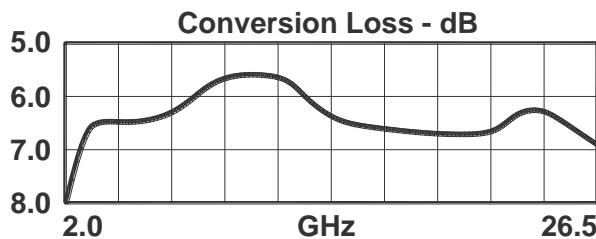
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IF DC to 1.5 GHz**

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 and B 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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