

# Double Balanced Mixer

# Model MM6xxG-10

Multi-Octave Band

RF 2.0 to 12.0 GHz

## Electrical Specifications:<sup>(1)</sup>

| Parameter                                      | Conditions       |          |          | Specifications |  |                              |
|--|------------------|----------|----------|----------------|--|------------------------------|
|  | RF (GHz)         | LO (GHz) | IF (MHz) | Min            | Typical                                  | Max                          |
| <b>SSB Conversion loss:</b> <sup>(2) (3)</sup> | 2.0-12.0         | 2.0-12.0 | DC-500   |                | 6.0 dB                                   | 8.0 dB                       |
|  | 2.0-12.0         | 2.0-12.0 | DC-1200  |                | 7.0 dB                                   | 9.5 dB                       |
|  | 2.0-12.0         | 2.0-12.0 | DC-1500  |                | 7.5 dB                                   | 10.0 dB                      |
| <b>Isolation</b>                               |                  |          |          |                |  |                              |
|  | <b>LO to RF:</b> | 2.0-7.5  |          | 25 dB          | 39 dB                                    |                              |
|  |                  | 7.5-12.0 |          | 20 dB          | 30 dB                                    |                              |
| <b>LO to IF:</b>                               | 2.0-3.0          |          | 18 dB    | 25 dB          |  |                              |
|  | 3.0-12.0         |          | 20 dB    | 35 dB          |  |                              |
| <b>RF to IF:</b>                               | 2.0-12.0         |          |          |                | 22 dB                                    |                              |
| <b>Input 1-dB Compression Point:</b>           | 2.0-12.0         | 2.0-12.0 | DC-1500  |                | +1 dBm<br>+4 dBm<br>+8 dBm<br>+12 dBm    | MM63<br>MM64<br>MM66<br>MM67 |
| <b>Input Third Order Intercept Point:</b>      | 2.0-12.0         | 2.0-12.0 | DC-1500  |                | +11 dBm<br>+14 dBm<br>+18 dBm<br>+22 dBm | MM63<br>MM64<br>MM66<br>MM67 |
| <b>LO Power:</b> <sup>(4)</sup>                | 2.0-12.0         | 2.0-12.0 | DC-1500  |                | +7 dBm<br>+10 dBm<br>+14 dBm<br>+19 dBm  | MM63<br>MM64<br>MM66<br>MM67 |

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**LO Power** ←

- 3 = +7 dBm
- 4 = +10 dBm
- 6 = +14 dBm
- 7 = +19 dBm

→ **Drop-In Module or With SMA(F)**

**Connectors**

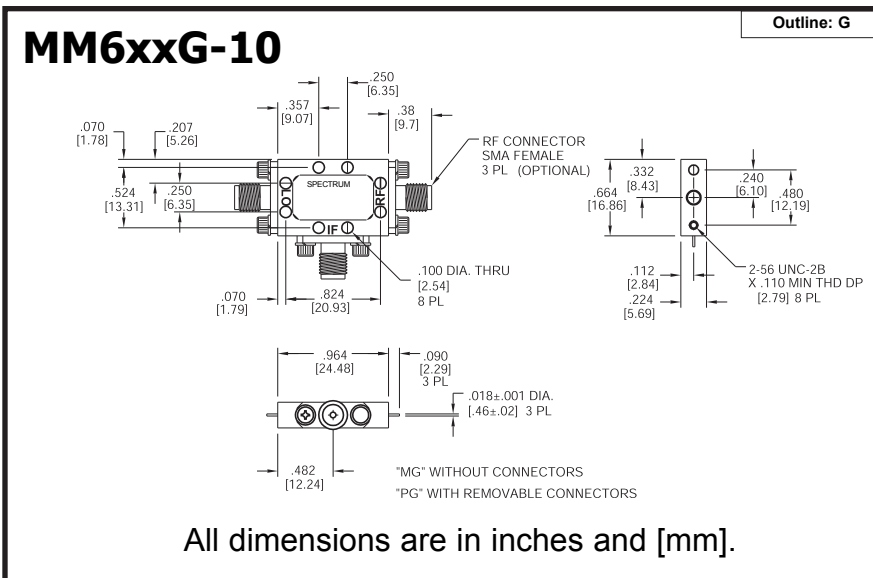
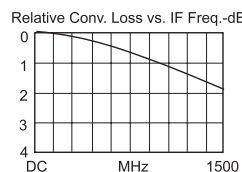
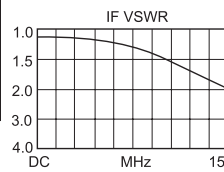
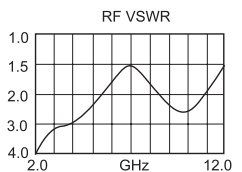
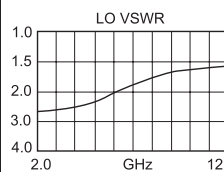
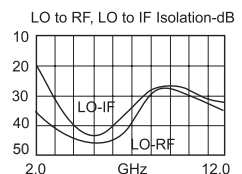
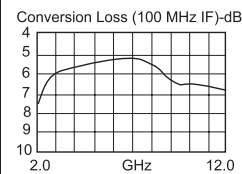
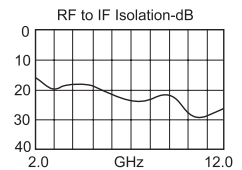
M = Module

P = With Connectors

**Notes:**

1. Specifications are guaranteed when tested as a downconverter in a 50 Ohm system from -55°C to +100°C with the nominal LO power. Specifications indicated as typical are not guaranteed.
2. Noise figure is typically within ±0.5 dB of conversion loss for IF frequencies greater than 10 MHz.
3. Conversion loss typically degrades less than 0.5 dB at +100°C and improves less than 0.5 dB at -55°C.
4. Usable LO drives are up to 2 dB below and 3 dB above nominal.

## Typical Performance at 25°C



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, FL 32905 · PH (888) 553-7531 · Fax (888) 553-7532

www.SpectrumMicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, PA 19154 · PH (215) 464-4000 · Fax (215) 464-4001