

# Double Balanced Mixer

# Model MO6xxG

Octave Band

RF 6.0 to 12.5 GHz

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

| Parameter                               | Conditions |          |          | Specifications |  |                              |
|---|------------|----------|----------|----------------|--|------------------------------|
|   | RF (GHz)   | LO (GHz) | IF (MHz) | Min            | Typical                                  | Max                          |
| SSB Conversion loss: <sup>(2) (3)</sup> | 6.0-12.5   | 5.0-15.0 | DC-1000  |                | 4.5 dB                                   | 7.0 dB                       |
|   | 6.0-12.5   | 5.0-15.0 | DC-2000  |                | 6.5 dB                                   | 8.5 dB                       |
|   | 6.0-12.5   | 5.0-15.0 | DC-2500  |                | 8.8 dB                                   | 11.0 dB                      |
| Isolation                               |            |          |          |                |  |                              |
|   |            | 5.0-15.0 |          | 25 dB          | 38 dB                                    |                              |
| LO to RF:                               |            | 5.0-15.0 |          |                | 38 dB                                    |                              |
| LO to IF:                               |            | 5.0-15.0 |          |                | 23 dB                                    |                              |
| RF to IF:                               | 6.0-12.5   |          |          |                |  |                              |
| Input 1-dB Compression Point:           | 6.0-12.5   | 5.0-15.0 | DC-2500  |                | +1 dBm<br>+3 dBm<br>+8 dBm<br>+12 dBm    | MO63<br>MO64<br>MO66<br>MO67 |
| Input Third Order Intercept Point:      | 6.0-12.5   | 5.0-15.0 | DC-2500  |                | +11 dBm<br>+13 dBm<br>+18 dBm<br>+22 dBm | MO63<br>MO64<br>MO66<br>MO67 |
| LO Power: <sup>(4)</sup>                | 6.0-12.5   | 5.0-15.0 | DC-2500  |                | +7 dBm<br>+10 dBm<br>+14 dBm<br>+19 dBm  | MO63<br>MO64<br>MO66<br>MO67 |

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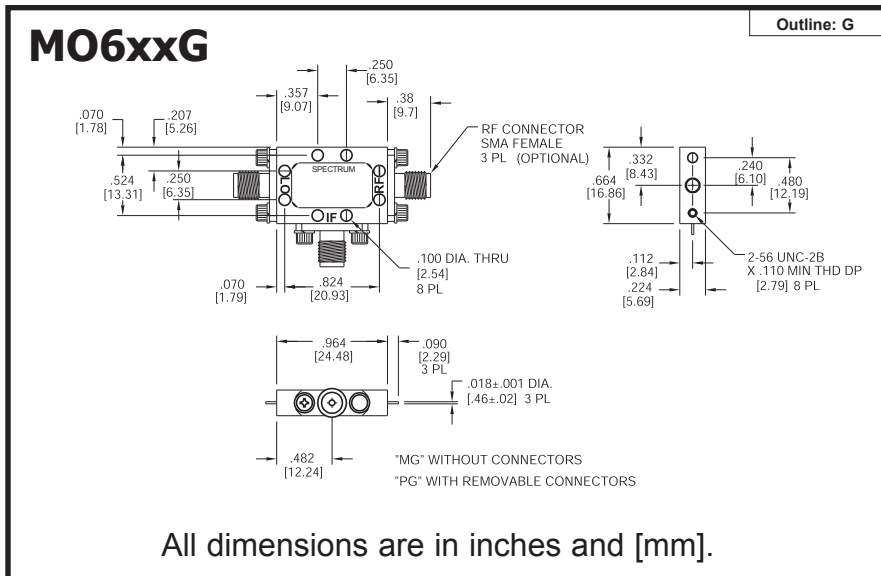
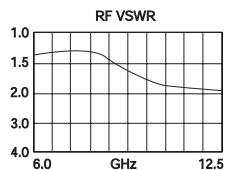
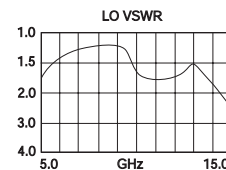
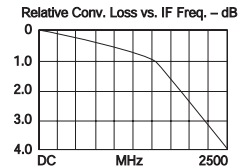
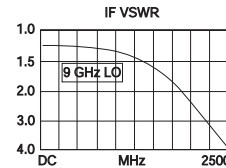
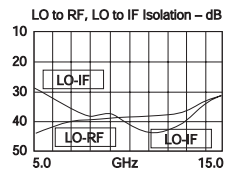
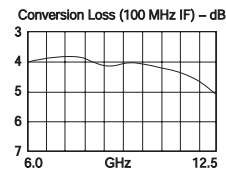
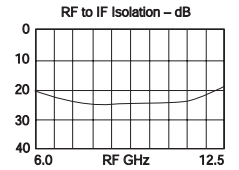
LO Power  
 3 = +7 dBm  
 4 = +10 dBm  
 6 = +14 dBm  
 7 = +19 dBm

Drop-In Module or With SMA(F) Connectors  
 M = Module  
 P = With Connectors

#### Notes:

- 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.
- Noise figure is typically within ±0.5 dB of conversion loss for IF frequencies greater than 10 MHz.
- Conversion loss typically degrades less than 0.5 dB at +100°C and improves less than 0.5 dB at -55°C.
- Usable LO drives are up to 2 dB below and 3 dB above nominal.

### Typical Performance at 25°C



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