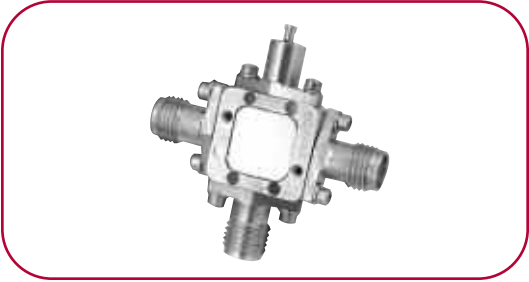


LO AMPLIFIED 26 TO 40 GHz DOUBLE-BALANCED MIXER

MODEL: MA2640W1

FEATURES

- RF/LO coverage 26 to 40 GHz
- IF operation DC to 12 GHz
- LO power 0 to +5 dBm
- Packaging Hermetically sealed



ELECTRICAL SPECIFICATIONS

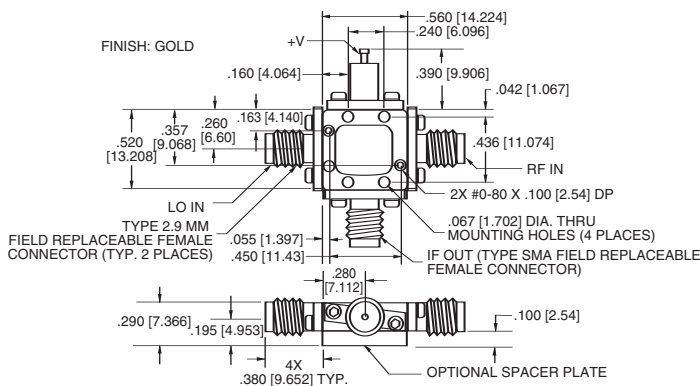
| INPUT PARAMETERS | CONDITION | UNITS | MIN. | TYP. | MAX. |
|--|------------|-------|------|--------|------|
| RF frequency range | | GHz | 26 | | 40 |
| RF VSWR (RF = -10 dBm) | LO = 0 dBm | Ratio | | 2.75:1 | |
| LO frequency range | | GHz | 26 | | 40 |
| LO power range | | dBm | 0 | | +5 |
| LO VSWR | LO = 0 dBm | Ratio | | 2.5:1 | |
| Bias | +15 volts | mA | | 200 | |
| TRANSFER CHARACTERISTICS | CONDITION | UNITS | MIN. | TYP. | MAX. |
| Conversion loss (IF = 1 GHz) | LO = 0 dBm | dB | | 10 | 12 |
| Single-sideband noise figure at 25°C | | dB | | 10.5 | |
| LO-to-RF isolation | | dB | 15 | 20 | |
| LO-to-IF isolation | | dB | | 15 | |
| RF-to-IF isolation | | dB | | 25 | |
| Input power at 1 dB compression point | LO = 0 dBm | dBm | | 0 | |
| Input two-tone third-order intercept point | LO = 0 dBm | dBm | | +18 | |
| OUTPUT PARAMETERS | CONDITION | UNITS | MIN. | TYP. | MAX. |
| IF frequency range at -3 dB bandwidth | LO = 0 dBm | GHz | DC | | 12 |
| IF VSWR | LO = 0 dBm | Ratio | | 3:1 | |

NOTE: Test data supplied at 25°C;
conversion loss and LO-to-RF isolation.

MAXIMUM RATINGS

Specification temperature +25°C
 Operating temperature -54 to +85°C
 Storage temperature -65 to +125°C

OUTLINE DRAWING



NOTE: All dimensions shown in brackets [] are in millimeters.

TYPICAL SINGLE-TONE (m) RF x (n) LO RELATIVE SPUR LEVEL (dBc) TO REF (RF = -10 dBm, LO = 0 dBm)

| RF HARMONIC (m) | LO HARMONIC (n) | | | |
|-----------------|-----------------|----|----|----|
| | 1 | 2 | 3 | 4 |
| 4 | | | 72 | 74 |
| 3 | | 71 | 69 | 70 |
| 2 | 68 | 56 | 66 | |
| 1 | REF | 40 | | |

