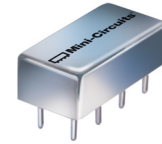


Plug-In Frequency Mixer

SBL-11+

Level 7 (LO Power +7 dBm) 5 to 2000 MHz



CASE STYLE: A06

Maximum Ratings

| | |
|---|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| RF Power | 50mW |
| IF Current | 40mA |
| Permanent damage may occur if any of these limits are exceeded. | |

Pin Connections

| | |
|-------------|---------|
| LO | 8 |
| RF | 1 |
| IF | 3 |
| GROUND | 2,5,6,7 |
| CASE GROUND | 2,5,6,7 |
| NOT USED | 4 |

Features

- broadband 5 to 2000 MHz
- good conversion loss, 7.08 dB typ.
- rugged welded construction

Applications

- VHF/UHF
- GPS
- defense & satellite communications

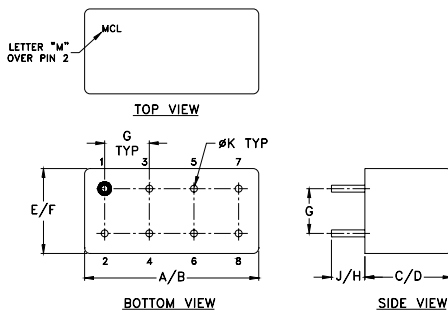
+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications

| FREQUENCY (MHz) | | CONVERSION LOSS (dB) | | | | LO-RF ISOLATION (dB) | | | | | | LO-IF ISOLATION (dB) | | | | | |
|-----------------|--------|----------------------|----------|-------|------|----------------------|------|------|------|------|------|----------------------|------|------|------|------|------|
| LO/RF | IF | Mid-Band | | Total | L | | M | | U | | L | | M | | U | | |
| f_L - f_U | | \bar{X} | σ | Max. | Max. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. | Typ. | Min. |
| 5-2000 | 10-600 | 7.08 | .11 | 8.5 | 9.0 | 50 | 45 | 35 | 25 | 30 | 20 | 45 | 40 | 30 | 20 | 25 | 15 |

1 dB COMP.: +1 dBm typ. L = low range [f_L to $10 f_L$] M = mid range [$10 f_L$ to $f_U/2$] U = upper range [$f_U/2$ to f_U]
m = mid band [$2 f_L$ to $f_U/2$]

Outline Drawing



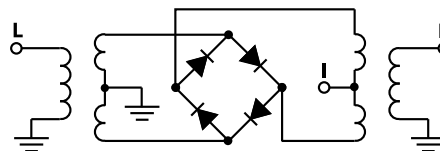
Outline Dimensions (inch/mm)

| | | | | | |
|-------|-------|------|------|-------|-------|
| A | B | C | D | E | F |
| .770 | .800 | .285 | .310 | .370 | .400 |
| 19.56 | 20.32 | 7.24 | 7.87 | 9.40 | 10.16 |
| G | H | J | K | wt | |
| .200 | .20 | .14 | .031 | grams | |
| 5.08 | 5.08 | 3.56 | 0.79 | 5.2 | |

Typical Performance Data

| Frequency (MHz) | | Conversion Loss (dB) | Isolation L-R (dB) | Isolation L-I (dB) | VSWR RF Port (:1) | VSWR LO Port (:1) |
|-----------------|---------|----------------------|--------------------|--------------------|-------------------|-------------------|
| RF | LO | LO +7dBm | LO +7dBm | LO +7dBm | LO +7dBm | LO +7dBm |
| 5.00 | 35.00 | 5.85 | 46.19 | 67.00 | 3.19 | 3.03 |
| 10.00 | 40.00 | 5.88 | 46.23 | 67.00 | 2.54 | 2.69 |
| 20.00 | 50.00 | 6.11 | 46.26 | 67.00 | 2.45 | 2.70 |
| 50.00 | 80.00 | 6.37 | 45.89 | 67.00 | 2.62 | 2.61 |
| 100.00 | 70.00 | 6.25 | 44.70 | 64.66 | 2.96 | 2.46 |
| 200.00 | 170.00 | 6.62 | 41.17 | 55.90 | 3.21 | 2.31 |
| 311.92 | 281.92 | 6.71 | 38.72 | 50.11 | 3.31 | 2.27 |
| 465.39 | 435.39 | 7.06 | 37.94 | 46.15 | 3.42 | 2.13 |
| 618.85 | 588.85 | 7.40 | 38.38 | 45.38 | 3.19 | 2.08 |
| 772.31 | 742.31 | 7.53 | 38.07 | 45.67 | 2.96 | 1.93 |
| 849.04 | 819.04 | 7.22 | 37.13 | 43.78 | 2.41 | 1.73 |
| 1000.00 | 970.00 | 7.05 | 36.28 | 38.27 | 2.10 | 1.58 |
| 1156.00 | 1126.00 | 6.76 | 35.18 | 43.23 | 1.86 | 1.45 |
| 1386.20 | 1356.20 | 7.53 | 41.65 | 38.52 | 2.12 | 1.17 |
| 1462.90 | 1432.90 | 7.62 | 41.43 | 41.57 | 2.27 | 1.17 |
| 1500.00 | 1470.00 | 7.48 | 41.94 | 42.71 | 2.19 | 1.32 |
| 1616.40 | 1586.40 | 6.96 | 43.41 | 43.97 | 2.08 | 1.39 |
| 1800.20 | 1770.00 | 6.79 | 41.03 | 38.23 | 1.87 | 1.59 |
| 1923.30 | 1893.30 | 6.64 | 38.49 | 30.27 | 1.79 | 1.70 |
| 2000.00 | 1970.00 | 6.69 | 39.35 | 27.98 | 1.67 | 1.74 |

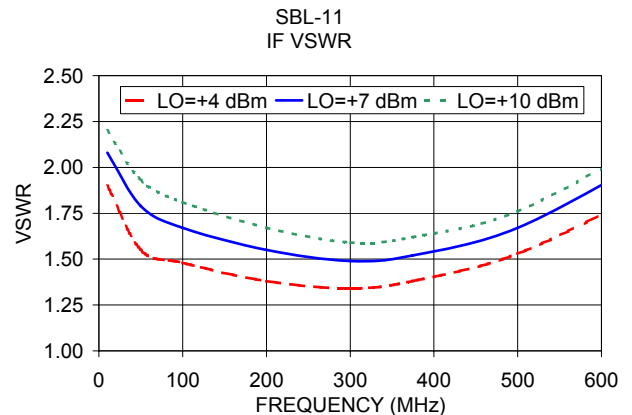
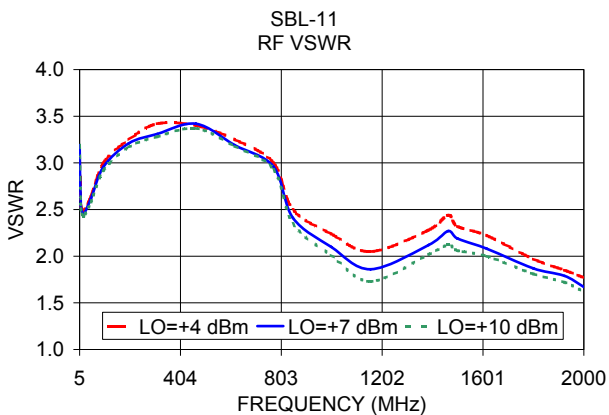
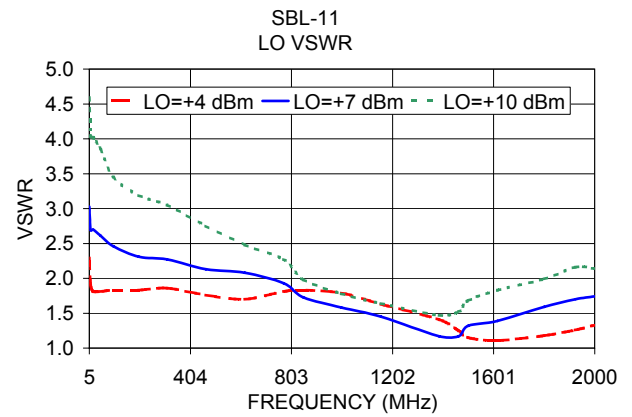
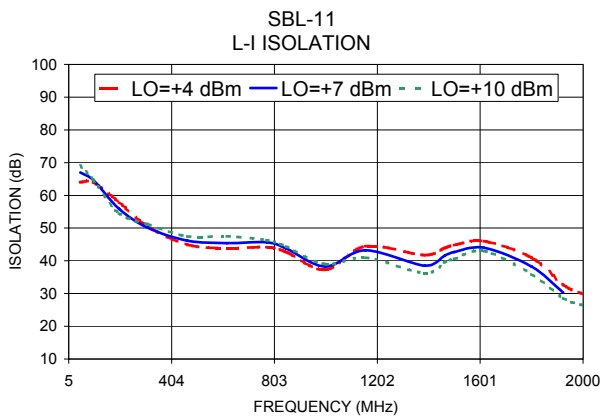
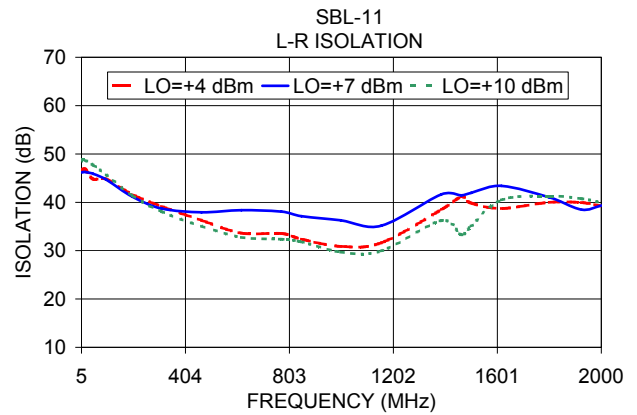
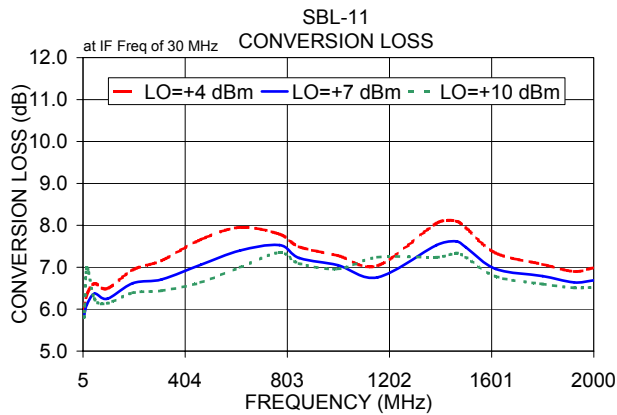
Electrical Schematic



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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