Surface Mount
Frequency Mixer

Level 7 (LO Power +7 dBm) 1 to 2500 MHz

Maximum Ratings
- Operating Temperature: -40°C to 85°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: 2
- RF: 1
- GROUND: 4, 5, 6

Outline Dimensions (inch)
- A: .38
- B: .50
- C: .23
- D: .0075
- E: .250
- F: .425
- G: .187
- H: .050
- J: .127
- K: .127

Outline Drawing

- Suggested Layout: Tolerance to be within ±.002

Outline Dimensions (mm)
- A: 9.65
- B: 12.70
- C: 5.84
- D: 0.51
- E: 1.63
- F: 3.10
- G: 8.00
- H: 1.27

Demoboard MCL P/N: TB-12
Suggested PCB Layout (PL-079)

Features
- Wideband: 1 to 2500 MHz
- Low conversion loss, 7.0 dB typ.
- Good isolation, 40 dB typ. L-R, 35 dB typ. L-I

Applications
- Cellular
- PCS
- Satellite distribution
- ISM/GPS

Electrical Specifications

<table>
<thead>
<tr>
<th>FREQUENCY (MHz)</th>
<th>CONVERSION LOSS (dB)</th>
<th>LO-RF ISOLATION (dB)</th>
<th>LO-IF ISOLATION (dB)</th>
<th>IP3 at center band (dBm)</th>
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<tbody>
<tr>
<td>LO/RF IF m</td>
<td>L</td>
<td>M</td>
<td>U</td>
<td>L</td>
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<tr>
<td>1-2500</td>
<td>10-600</td>
<td>7.0</td>
<td>.30</td>
<td>9.0</td>
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</table>

1 dB COMP.: +1 dBm typ.

Permanent damage may occur if any of these limits are exceeded.

Available Tape and Reel at no extra cost

REV. D
MINICIRCUITS
SYM-11+
+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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</table>

Typical Performance Data

- Voltage Standing Wave Ratio (VSWR):
  - RF Port: <1.00
  - LO Port: <1.00

Electrical Schematic

Notes:
A. 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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