Surface Mount

Frequency Mixer

Level 7 (LO Power +7 dBm)  200 to 3000 MHz

Maximum Ratings
Operating Temperature  -40°C to 85°C
Storage Temperature  -55°C to 100°C
RF Current  50mW
IF Current  40mA

Features
•  low conversion loss, 4.5 dB typ.
•  excellent L-R isolation, 35 dB typ.
•  low profile package
•  aqueous washable
•  protected by U.S. Patent 6,133,525

Applications
•  cellular
•  PCN
•  instrumentation
•  ISM

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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</thead>
<tbody>
<tr>
<td>LO</td>
<td>RF</td>
<td>200-3000 DC-1000</td>
<td>4.5</td>
<td>20</td>
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</table>

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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit’s applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, “Standard Terms”). Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits’ website at www.minicircuits.com/MCLStore/terms.jsp

PCB Land Pattern

Suggested Layout, Tolerance to be within ±0.002

Outline Dimensions (inch)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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<tbody>
<tr>
<td>.272</td>
<td>.310</td>
<td>.320</td>
<td>.100</td>
<td>.112</td>
<td>.055</td>
<td>.100</td>
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<table>
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<tr>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>wt</th>
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<tbody>
<tr>
<td>.030</td>
<td>.026</td>
<td>.065</td>
<td>.300</td>
<td>grams</td>
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<tr>
<td>.076</td>
<td>.066</td>
<td>.165</td>
<td>.762</td>
<td>.20</td>
</tr>
</tbody>
</table>

Demo Board MCL P/N: TB-03
Suggested PCB Layout (PL-052)

Electrical Schematic
Performance Charts

**ADE-30+**

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**Performance Charts**

- **ADE-30+ Conversion Loss**
- **ADE-30+ L-R Isolation**
- **ADE-30+ L-I Isolation**
- **ADE-30+ RF VSWR**
- **ADE-30+ LO VSWR**
- **ADE-30+ IF VSWR**