Surface Mount Frequency Mixer

ADEX-10L

Features
- excellent L-R isolation, 60 dB typ.
- low conversion loss, 7.2 dB typ.
- flat conversion loss ±0.2 dB typ. over entire band
- good VSWR, 1.5:1 typ. for LO & RF, 1.8:1 Typ. for IF
- good performance to 1500 MHz
- aqueous washable
- protected by U.S. Patents 6,133,525 & 6,947,717

Applications
- cellular
- PCN

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: 6
- RF: 3
- IF: 2
- GROUND: 1, 4, 5

Outline Drawing

Outline Dimensions (inch)

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<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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<td>.272</td>
<td>.310</td>
<td>.320</td>
<td>.100</td>
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<td>6.91</td>
<td>7.87</td>
<td>5.09</td>
<td>2.54</td>
<td>2.84</td>
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Demo Board MCL P/N: TB-03

Suggested PCB Layout (PL-052)

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-Circuit’s 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-Circles’ website at www.minicircuits.com/MCLstore/terms.jsp
ADEX-10L+ Performance Charts

ADEX-10L+
CONVERSION LOSS

at IF Freq of 30 MHz

CONVERSION LOSS (dB)

FREQUENCY (MHz)

LO=+1 dBm
LO=+4 dBm
LO=+7 dBm

ADEX-10L+
L-R ISOLATION

FREQUENCY (MHz)

ISOLATION (dB)

LO=+1 dBm
LO=+4 dBm
LO=+7 dBm

ADEX-10L+
RF VSWR

VSWR

FREQUENCY (MHz)

LO=+1 dBm
LO=+4 dBm
LO=+7 dBm

ADEX-10L+
L-I ISOLATION

FREQUENCY (MHz)

ISOLATION (dB)

LO=+1 dBm
LO=+4 dBm
LO=+7 dBm

ADEX-10L+
LO VSWR

VSWR

FREQUENCY (MHz)

LO=+1 dBm
LO=+4 dBm
LO=+7 dBm

ADEX-10L+
IF VSWR

VSWR

FREQUENCY (MHz)

LO=+1 dBm
LO=+4 dBm
LO=+7 dBm

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