LUMPED ELEMENT CIRCULATORS 5x5 mm

RADITEK Lumped element circulators offer a low cost inter-stage matching solution. These are available currently in the frequency bands shown; other bands can be offered for high volume applications. They are currently manufactured in 5x5 mm in lots of 2000 smaller quantities often available from stock.

Current Models

<table>
<thead>
<tr>
<th>Specifications:</th>
<th>Center Frequency (MHz)</th>
<th>Part Marking</th>
<th>Full Band width MHz</th>
<th>Insertion loss dB (max.)</th>
<th>Isolation dB (min.)</th>
<th>Return Loss dB (min.)</th>
<th>Power (Watts) Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part #</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>RLEC-902-928M-5mm-5WL/R</td>
<td>915</td>
<td>C915</td>
<td>26</td>
<td>0.85</td>
<td>13</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>RLEC-1840-1870M-5mm-5WL/R</td>
<td>1855</td>
<td>1C85</td>
<td>30</td>
<td>0.7</td>
<td>15</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>RLEC-1920-1980M-5mm-5WL/R</td>
<td>1950</td>
<td>1C95</td>
<td>60</td>
<td>0.7</td>
<td>15</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>RLEC-2110-2170M-5mm-5WL/R</td>
<td>2140</td>
<td>2C14</td>
<td>60</td>
<td>0.7</td>
<td>15</td>
<td>15</td>
<td>10</td>
</tr>
</tbody>
</table>

Order as: RLEC-F1-F2M-5mm-10W(L or R)
Packing: Tape and reel (2000 per reel, minimum order).
Operating temperature: -35 to +85 ºC.
Storage temperature: -40 to +90 ºC.
Survive 260 ºC for 30 seconds (for Reflow process).
Condition for Vibration Test:
- Frequency: 10~55Hz
- Amplitude: 1.5mm
- X,Y,Z each 2Hr
Impedence: 50 ohm

Standard Packaging:
5X5mm 2000 EA
New unit development requires a 10K piece commitment due to automated tooling and testing set.
**Materials and Plating**

The pads are made of nickel, and are plated silver.
The body is Phosphor Bronze plated silver

**Soldering Condition:**

- **Manual soldering** (by soldering iron)
  - Pre-heating Temperature: 120°C, 60 ~ 300 sec
  - Soldering Temperature: 340°C ± 5°C, 5 sec max per each terminal

**Reflow Profile**

![Reflow Profile Graph]

Note: the maximum reflow temperature is 260°C/10 sec
Parts withstand 2 cycles at 250°C for 10 seconds
The RLEC parts have a 2 character date code
First character: year (example -8 =2008)
Second character: month example -4 =April
(-1 to -9 January to September, // -O, N, D October, November, December

IN OUT
Gnd. [Gnd.
915MHz Gnd. 50ohm load]

5mm -L
( ccw)

5mm -R
( cw)

OUT IN
Gnd. [Gnd.
915MHz Gnd. 50ohm load]

IN OUT
Gnd. [Gnd.
915MHz Gnd. 50ohm load]

RLEC-