High Gain 7.29dBi Ceramic Chip Antenna (2450MHz)

**ACAG0801-2450-T**

### FEATURES
- High gain of 7.29 dBi
- Made using LTCC (low temperature co-fired ceramic) technology
- Compact 8.0 x 1.0 x 1.0mm
- High efficiency
- Omni-directional

### APPLICATIONS
- Wifi
- Bluetooth
- ZigBee
- ISM applications
- IoT and wearable
- Remote Technology
- M2M

### ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Item</th>
<th>Spec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centre Frequency (No matching)</td>
<td>2857 MHz</td>
</tr>
<tr>
<td>Centre Frequency (After matching)</td>
<td>2450 MHz</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>180 MHz typ</td>
</tr>
<tr>
<td>VSWR</td>
<td>&lt;2.0</td>
</tr>
<tr>
<td>Impedance</td>
<td>50Ω</td>
</tr>
<tr>
<td>Gain</td>
<td>7.29 dBi</td>
</tr>
<tr>
<td>Azimuth</td>
<td>Omni-directional</td>
</tr>
<tr>
<td>Polarization</td>
<td>Linear</td>
</tr>
<tr>
<td>Operating Temperature range</td>
<td>-40°C ~+ 85°C</td>
</tr>
</tbody>
</table>

### MECHANICAL DIMENSIONS

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sale, please visit: www.abracon.com

Revised: 06.21.2018

ABRACON IS ISO9001-2015 CERTIFIED
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EVALUATION BOARD AND MATCHING CIRCUITS

ANTENNA RESPONSE – SMITH CHART AND RETURN LOSS S11
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RADIATION PATTERNS

X-Z Plane

Y-Z Plane

X-Y Plane

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3D PATTERNS

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>2400</th>
<th>2450</th>
<th>2500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Gain (dBi)</td>
<td>-1.30</td>
<td>-1.15</td>
<td>-1.26</td>
</tr>
<tr>
<td>Peak Gain (dBi)</td>
<td>6.67</td>
<td>7.29</td>
<td>6.69</td>
</tr>
<tr>
<td>Efficiency (%)</td>
<td>72.6</td>
<td>74.5</td>
<td>72.8</td>
</tr>
</tbody>
</table>

REFLOW SOLDERING STANDARD CONDITION

Frequency (MHz) 2400 2450 2500
Avg. Gain (dBi) -1.30 -1.15 -1.26
Peak Gain (dBi) 6.67 7.29 6.69
Efficiency (%) 72.6 74.5 72.8
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Package Type | Quantity/Size
---|---
Inner Box | 1500 pcs/reel
Centre Frequency (After matching) | 15000 pcs/carton
Carton | 330 x 210 x 210 mm

Storage Temperature Range: <30 degree C, Humidity: <60%RH
MSL - 1
Oxidizable, 12 months in a vacuum sealed bag.
Once opened, please repack the unused items within 168 hours by re-seal package treatment.

CAUTIONS

1. **Static voltage**
   Static voltage between signal & ground may cause deterioration & destruction of the component. Please avoid static voltage.

2. **Ultrasonic cleaning**
   Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning.

3. **Soldering**
   Only leads of the component may be soldered. Please avoid soldering to any other part of the component, such as on the patterns as this will change the performance of the antenna.