2.45 GHz Ceramic Chip Antenna

ACAG0301-2450-T

Features

- Low VSWR
- High gain of 5.19 dBi
- Bandwidth of 100MHz
- Omnidirectional pattern
- Linear polarization

Applications

- WiFi
- Bluetooth
- ISM
- Wearables
- IoT
- AR/VR
- Drones

Electrical Specifications

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Frequency (No matching)</td>
<td>2875</td>
<td></td>
<td></td>
<td>MHz</td>
</tr>
<tr>
<td>Center Frequency (After matching)</td>
<td>2450</td>
<td></td>
<td></td>
<td>MHz</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>100</td>
<td></td>
<td></td>
<td>MHz</td>
</tr>
<tr>
<td>VSWR</td>
<td>≤ 2.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impedance</td>
<td>50</td>
<td></td>
<td></td>
<td>Ω</td>
</tr>
<tr>
<td>Gain</td>
<td>5.19</td>
<td></td>
<td></td>
<td>dBi</td>
</tr>
<tr>
<td>Azimuthal Beam width</td>
<td>Omni-directional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polarization</td>
<td>Linear</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Environmental Characteristics

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +105°C</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>55 ~ 75 %</td>
</tr>
</tbody>
</table>
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Product Dimensions (Unit: mm)

Top View

Bottom View

Side View

Input

NC

L: 3.2 ±0.2
W: 1.6 ±0.2
T: 1.2 ±0.1
a: 0.5 ±0.1

Unit: mm
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Evaluation Board and Matching Circuits

Unit: mm

Clearance Area

50Ω Feeding Line

PI Type Matching Network

GND VIA

GND

1.8nH

6.2nH

Unit: mm

90

50
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Return Loss and Impedance Characteristics

Marker 3  2.524012000 GHz

3.2 x 1.6 x 1.2 mm
RoHS/RoHS II Compliant
MSL = N/A

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Radiation Pattern

3.2 x 1.6 x 1.2 mm
RoHS/RoHS II Compliant
MSL = N/A
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Radiation Pattern

2D – Pattern

XZ- Plane

YZ- Plane
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Radiation Pattern

2D – Pattern

XY- Plane

Legend

- 2400 MHz
- 2450 MHz
- 2500 MHz
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Radiation Patterns

3D – Pattern

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Average Gain (dBi)</th>
<th>Peak Gain (dBi)</th>
<th>Efficiency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2400</td>
<td>-0.23</td>
<td>4.98</td>
<td>70</td>
</tr>
<tr>
<td>2450</td>
<td>-0.36</td>
<td>5.19</td>
<td>71.2</td>
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<tr>
<td>2500</td>
<td>-0.51</td>
<td>4.55</td>
<td>69</td>
</tr>
</tbody>
</table>
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Reflow Soldering Standard Condition

Ref 0°C  250°C ± 10°C  220°C  180°C

5sec (Peak 255°C)

60~120sec  30~40sec

3.2 x 1.6 x 1.2 mm
RoHS/RoHS II Compliant
MSL = N/A

For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 12.26.2019

ABRACON IS
ISO9001-2015
CERTIFIED
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Packaging

There are 3000 pcs/Reel.

Unit: mm

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