Surface Mount Bluetooth/WLAN Antenna (2470MHz)

AMCA72-2R470G-S1F-T

Moisture Sensitivity Level (MSL) – MSL = 1

FEATURES:
- 2470MHz, Bandwidth ≥200MHz
- Suitable for RoHS compliant reflow
- Gain 2.6dBi (Peak) / 0.7dBi (Average)
- VSWR <2:1
- Small size – 7.0 x 2.0 x 1.0mm (0.275 x 0.078 x 0.039inch)
- Non Ground Mounting type.
- Power Handling 3W Max
- Matched to 50 Ohm

APPLICATIONS:
- Wireless application – ISM band, including WiFi / Bluetooth
- High density applications
- Bluetooth headsets or ear pieces
- Computer mouse and keyboards
- PROFINET – Industrial automation
- Video Game systems
- Alternative to larger PCB solution

STANDARD SPECIFICATIONS

Maximum Ratings

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature Range</td>
<td>-40°C to + 85°C</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>-10°C ~ +40 and RH °C 70% (Max.)</td>
</tr>
</tbody>
</table>

Electrical Characteristics

<table>
<thead>
<tr>
<th>Item</th>
<th>Spec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>2470MHz</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>≥200 MHz</td>
</tr>
<tr>
<td>Peak Gain</td>
<td>2.7 dBi typ.</td>
</tr>
<tr>
<td>Average Gain</td>
<td>1.0 dBi typ</td>
</tr>
<tr>
<td>VSWR</td>
<td>&lt;2:1</td>
</tr>
<tr>
<td>Impedance</td>
<td>50 Ohm</td>
</tr>
<tr>
<td>Power Capability</td>
<td>3W max</td>
</tr>
</tbody>
</table>

PART IDENTIFICATION:

AMCA72-2R470G-S1F-T4

Packaging
Blank: Bulk or Cut Tape
T4 : T/R 4000pcs per reel
Surface Mount WLAN Antenna (2470MHz)

OUTLINE DIMENSIONS:

<table>
<thead>
<tr>
<th>Series</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMCA72</td>
<td>7.0±0.2</td>
<td>2.0±0.2</td>
<td>1.0±0.2</td>
<td>0.5±0.2</td>
<td>2.0±0.2</td>
<td>1.5±0.2</td>
<td>1.0±0.2</td>
<td>6.0±0.2</td>
<td>1.4±0.2</td>
</tr>
</tbody>
</table>

Recommended Land Pattern

REFLOW PROFILE:

- Preheat condition: 150 ~ 200 / 60 ~ 120°C sec.
- Allowed time above 217°C: 60 ~ 90 sec.
- Max temp: 260°C
- Max time at max temp: 10 sec.
- Solder paste: Sn/3.0Ag/0.5Cu
- Allowed Reflow time: 2x max

[Note: The reflow profile in the above table is only for qualification and is not meant to specify board assembly profiles. Actual board assembly profiles must be based on the customer's specific board design, solder paste and process, and should not exceed the parameters as the Reflow profile shows.]

MANUAL SOLDERING

Pre-heating Temperature: 120°C, 60°C ~ 300 sec.

- Iron soldering power: Max. 30W.
- Pre-heating: 150 / 60 sec. °C.
- Soldering Tip temperature: 350 Max. °C.
- Soldering time: 3 sec Max.
- Solder paste: Sn/3.0Ag/0.5Cu.
- Max 1 times for iron soldering.
- Soldering Temperature: 340°C±5°C, 5 sec max per each terminal.

[Note: Take care not to apply the tip of the soldering iron to the terminal electrodes.]
Surface Mount WLAN Antenna (2470MHz)

**AMCA72-2R470G-S1F-T**

RoHS / RoHS II Compliant

**7.0x 2.0 x 1.0mm**

**TAPE & REEL:**

Packaging: 4000 Units per reel

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### Reel Dimensions

<table>
<thead>
<tr>
<th>Type</th>
<th>Spec</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMCA72</td>
<td>13*16mm</td>
<td>W: 16.0±0.10, D0: 1.50±0.10, P1: 8.0±0.10, E: 1.75±0.10, F: 7.50±0.15, B0: 7.50±0.10</td>
</tr>
</tbody>
</table>

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### Mounting Direction of Tape on Reel

Note: The sprocket holes are to the right as the tape is pulled toward the user.

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