# Dual Band WiFi Chip Antenna Evaluation Board

ACAR0301-SW2-EVB

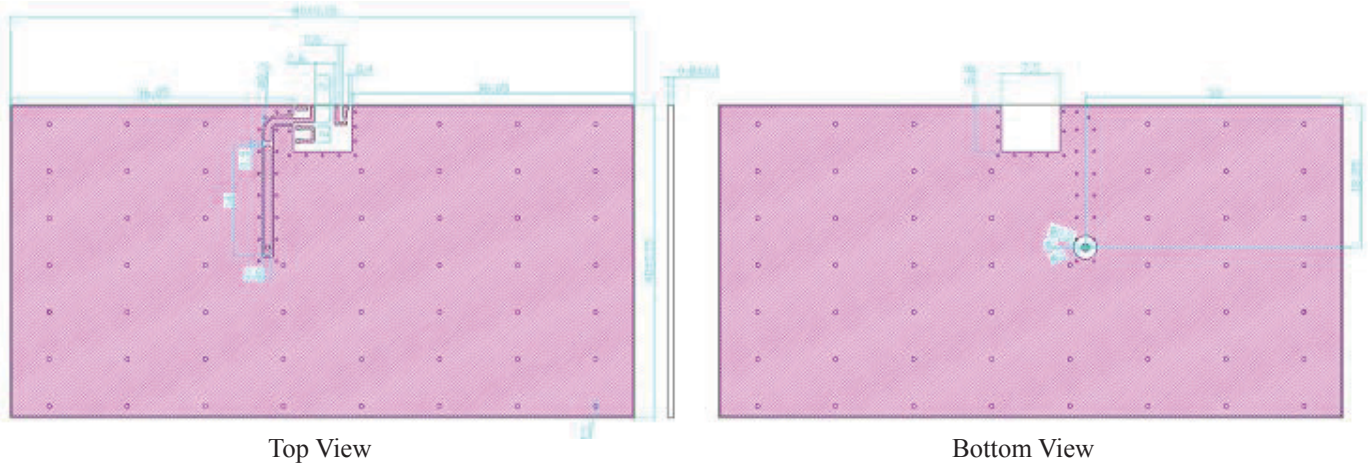
**80.0 x 40.0 mm**

## Description

ACAR0301-SW2-EVB Evaluation boards are designed to provide a means to facilitate engineering evaluation of the dual band chip antenna : ACAR0301-SW2-T. With a typical bandwidth of 100 MHz and 675 MHz at 2400 MHz and 5500 MHz, the chip can be used for applications including but not limited to Wi-Fi, Bluetooth, BLE and ISM.

To evaluate the performance of antenna, calibrate the Vector Network analyzer (VNA) for the testing frequency band and connect the evaluation board to the calibrated port using the given SMA connector on the board.

## Evaluation Board with Matching Circuits



Top View

Bottom View

Evaluation Board dimension : 80 x 40 mm

**Unit: mm**

ABRACON LLC

5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
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**REVISED: 09-2-19**

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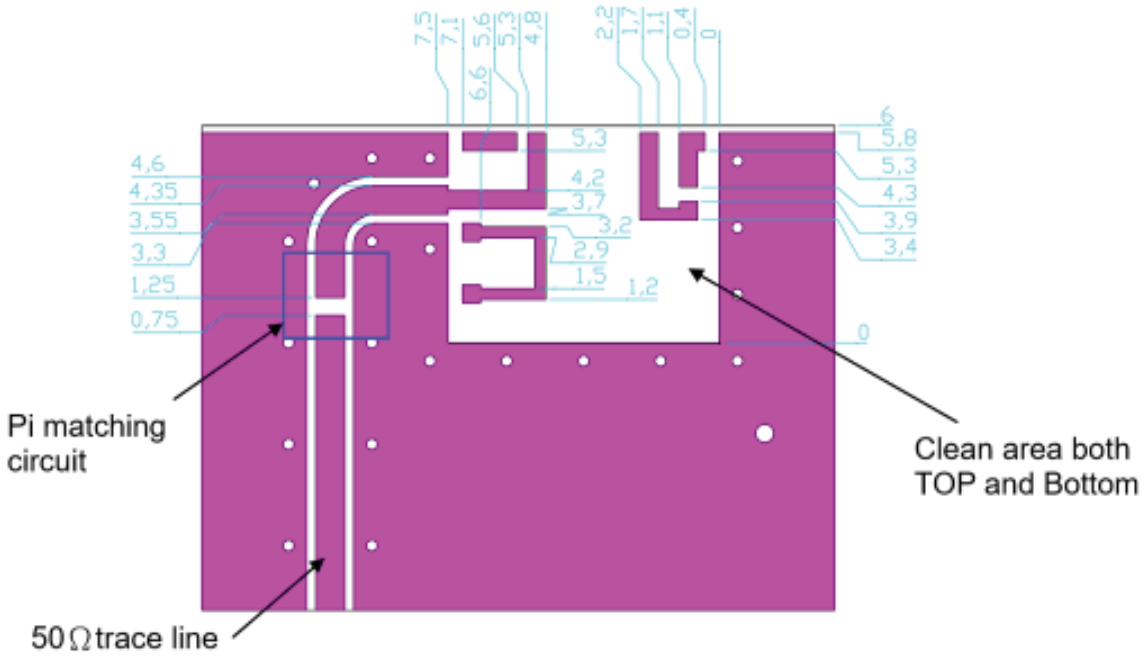
## Chip Antenna Layout

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ABRACON IS ISO9001-2015 CERTIFIED

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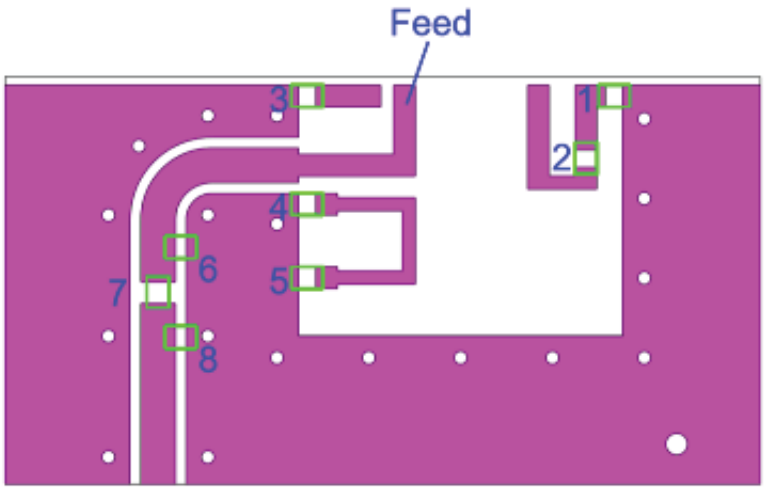
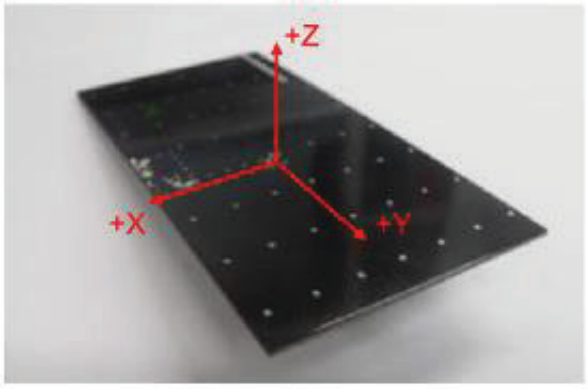
## Matching Network on EVB

Antenna matching network is designed using a combination of capacitors near the input terminal.




| Matching Components | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Value | 1.2 pF | 1.0 pF | NA | NA | NA | 1.2 nH | 1.0 nH | NA |

**Note :**

1. White space around the chip antenna in “Chip Antenna Layout” represents the ground clearance area.
2. Desired clearance area : 7.5 x 6.0 mm
3. Width of the 50 Ω line is designed in accordance with the PCB thickness and material considered.
4. Matching network (Pi - network) provided is in accordance with the EVB layout and matching will differ in the actual customer PCB depending on the layout.

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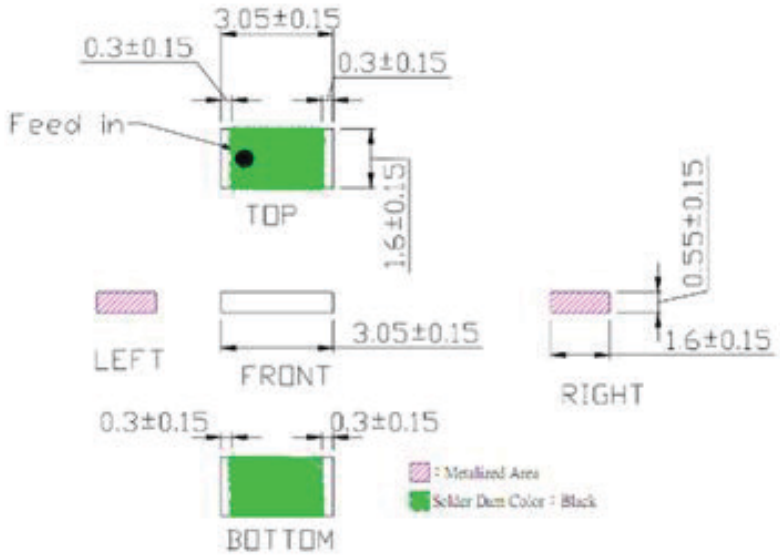
## Chip Antenna Dimension




**Unit: mm**



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