

# WiFi + GPS Multiband Ceramic Chip Antenna Evaluation Board



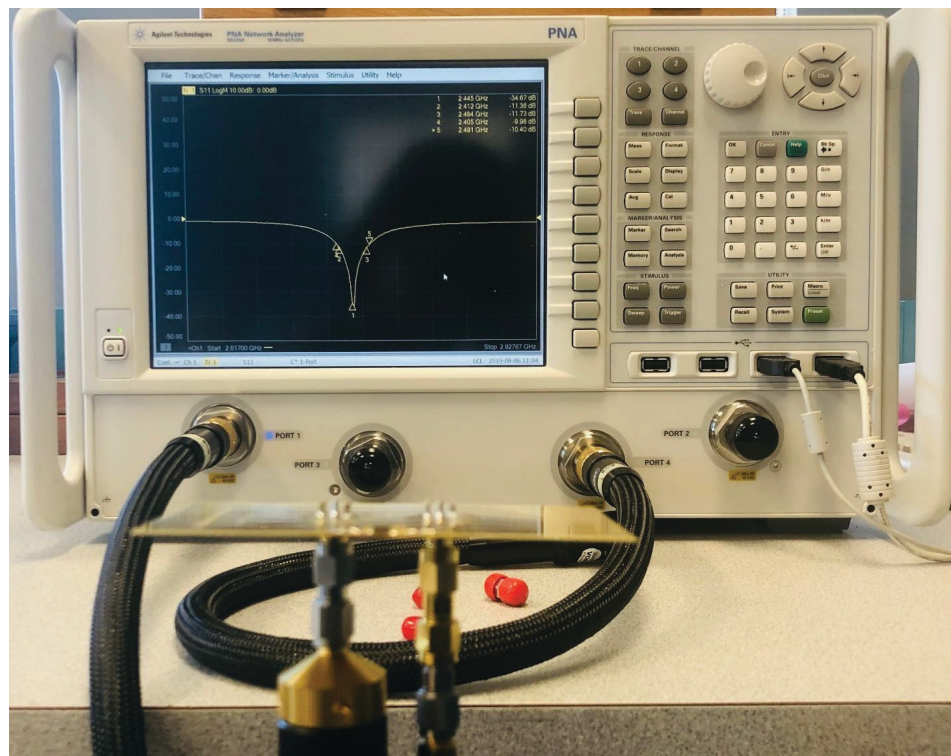
ACAG0301-15752450-EVB

90.0 x 50.0 mm

## Description

ACAG0301-15752450-EVB Evaluation boards are designed to provide a means to facilitate engineering evaluation of the chip antenna : ACAG0301-15752450-T working at 1575 MHz and 2450 MHz. With a typical bandwidth of 20 MHz and 100 MHz in the GPS and Wi-Fi respectively, the chip can be used for applications including but not limited to GPS, 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.



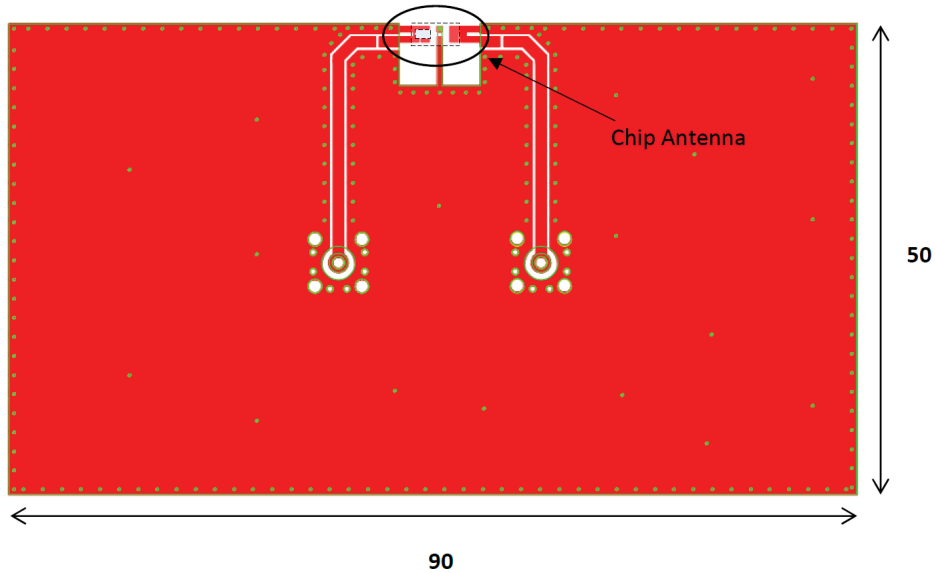
# WiFi + GPS Multiband Ceramic Chip Antenna Evaluation Board



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90.0 x 50.0 mm

## Evaluation Board with Chip Antenna Layout



Evaluation Board dimension : 90 x 50 mm

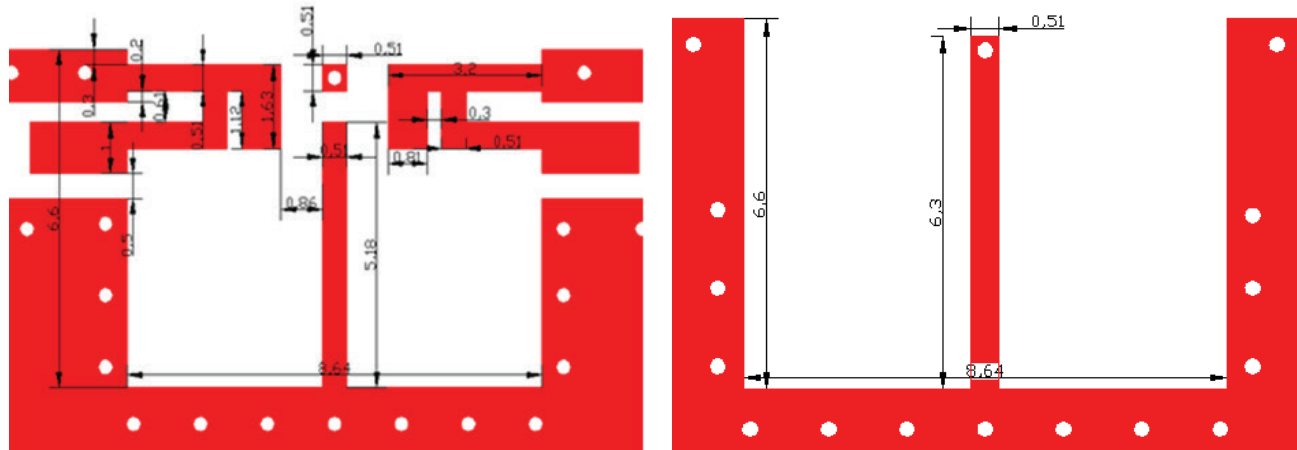
Unit: mm



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90.0 x 50.0 mm

## Chip Antenna Layout

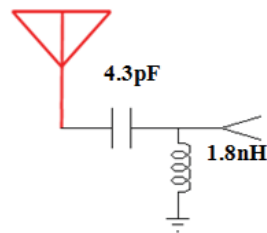


Unit: mm

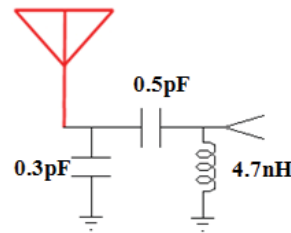
## Matching Network on EVB:

Antenna matching network is designed using a combination of inductor (1.8 nH) & capacitor (4.3 pF) for 1575 MHz and capacitors (0.3 pF and 0.5 pF) & inductor (4.7 nH) for 2450 MHz near the input terminal as shown in the above figure.

GPS



2.45G



## Note :

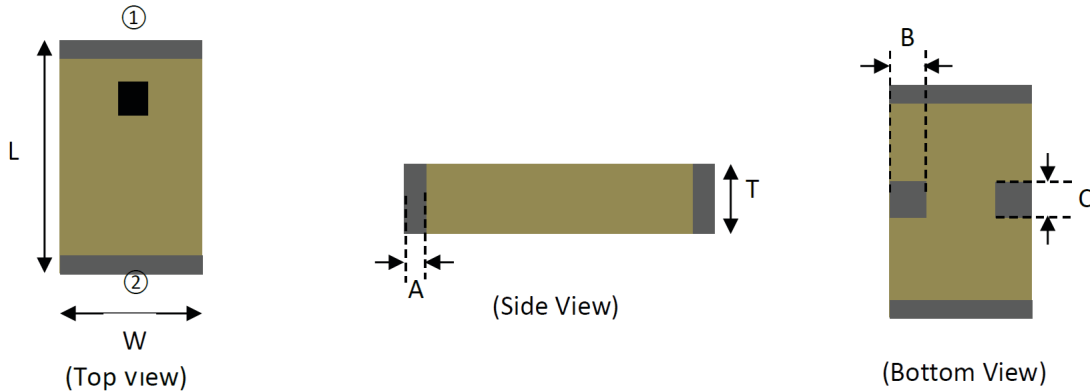
1. White space in the layout represents the ground clearance area around the chip antenna.
2. Desired clearance area : 8.64 x 6.6 mm
3. Width of the 50  $\Omega$  line is designed in accordance with the PCB thickness and material considered.
4. Matching network (Pi - network) provided is in accordance with the EVB layout and matching will differ in the actual customer PCB depending on the layout.



ACAG0301-15752450-EVB

90.0 x 50.0 mm

## Chip Antenna Dimension



Number	Terminal Name	Number	Terminal Name
1	INPUT-GPS	3	GND
2	INPUT-2.4GHz	4	GND

Symbol	L	W	T	A	B	C
Dimensions	3.2+/-0.2	1.6+/-0.2	1.2+/-0.15	0.2+/-0.15	0.5+/-0.15	0.47+/-0.15

Unit: mm

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