

# 868 MHz Ceramic Chip Antenna Evaluation Board



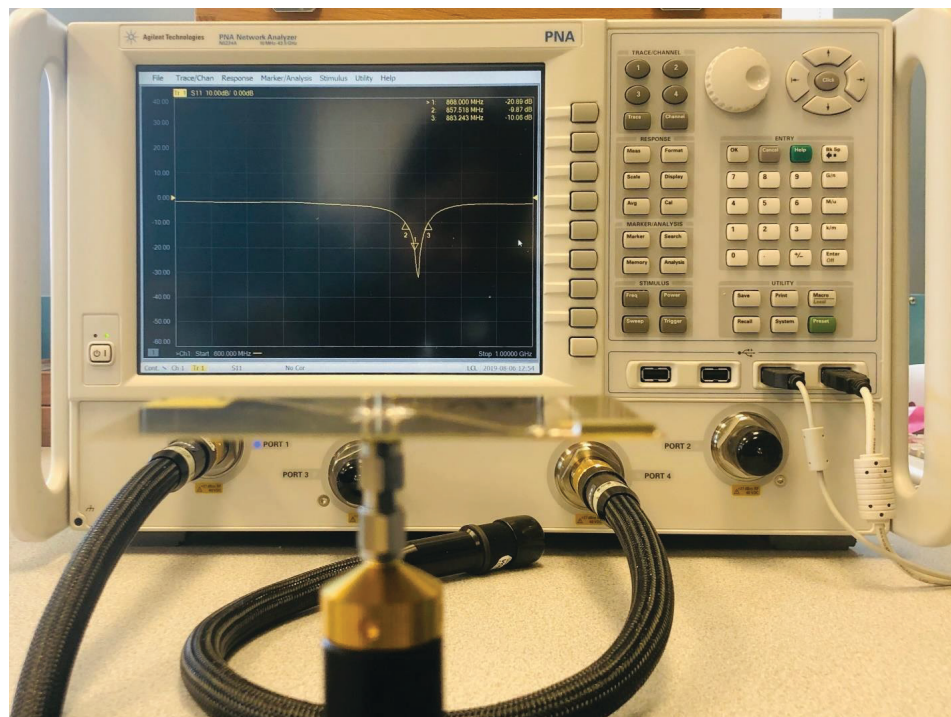
ACAG1204-868-EVB

90.0 x 50.0 mm

## Description

ACAG1204-868-EVB Evaluation boards are designed to provide a means to facilitate engineering evaluation of the chip antenna : ACAG1204-868-T working at 868 MHz. With a typical bandwidth of 20 MHz, the chip can be used for LPWA applications.

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.



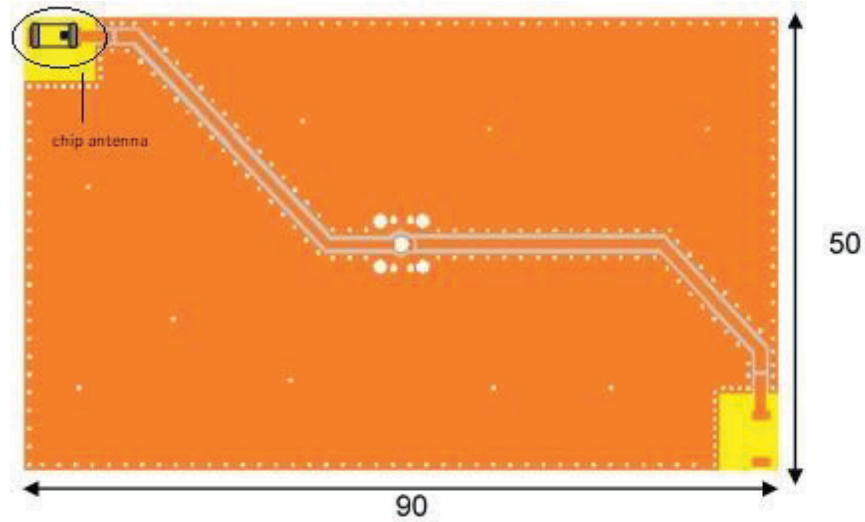
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ACAG1204-868-EVB

90.0 x 50.0 mm

## Evaluation Board with Chip Antenna Layout



Evaluation Board dimension : 90 x 50 mm

Unit: mm

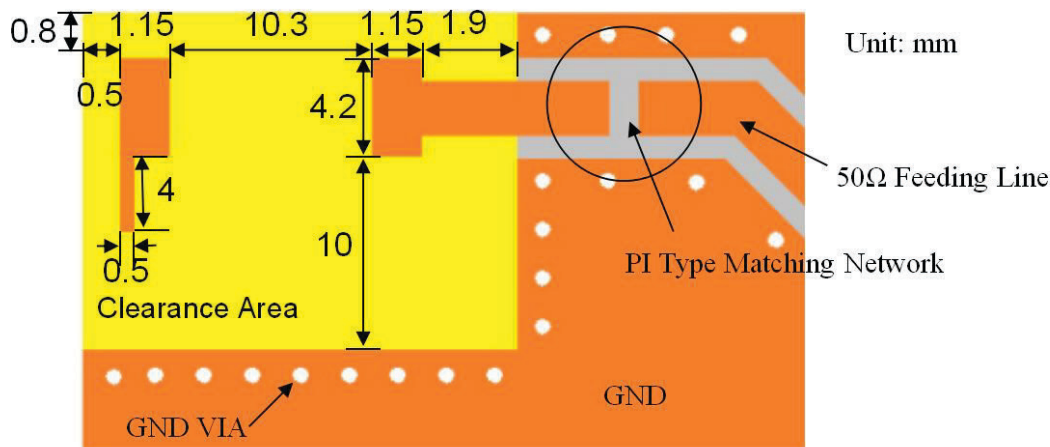
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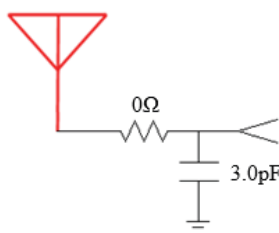
## Chip Antenna Layout



Unit: mm

### Matching Network on EVB:

Antenna matching network is designed using a combination of capacitor (3.0 pF) and resistor (0  $\Omega$ ) near the input terminal as shown in the above figure.



### Note :

1. Yellow highlighted space in the chip layout represents the ground clearance area around the chip antenna.
2. Desired clearance area : 15.3 x 15.0 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.

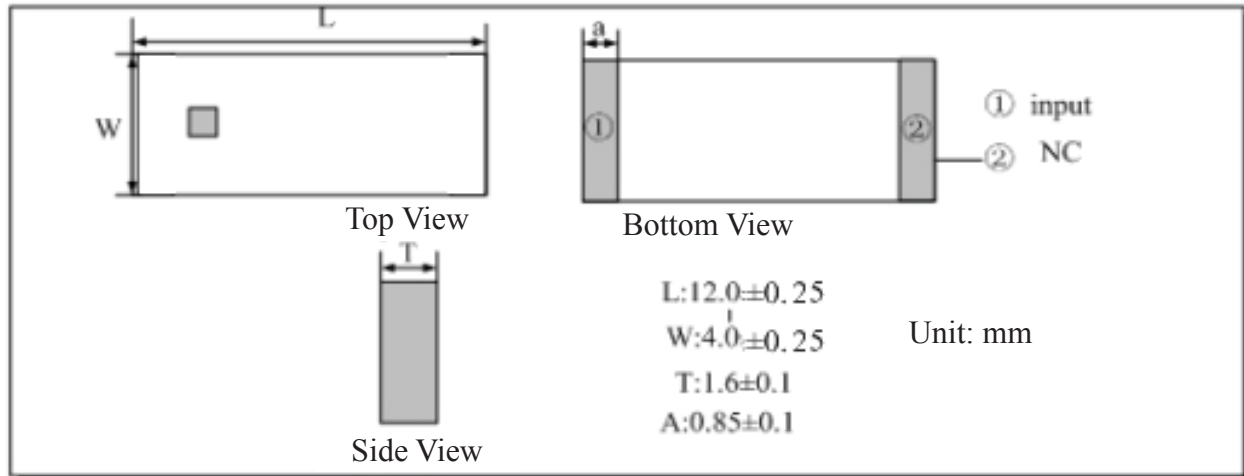
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ACAG1204-868-EVB

90.0 x 50.0 mm

## Chip Antenna Dimension



Unit: mm

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