

# 4G/LTE Ceramic Chip Antenna Evaluation Board

ACAR4008-S698-EVB

120.0 x 45.0 mm

## Description

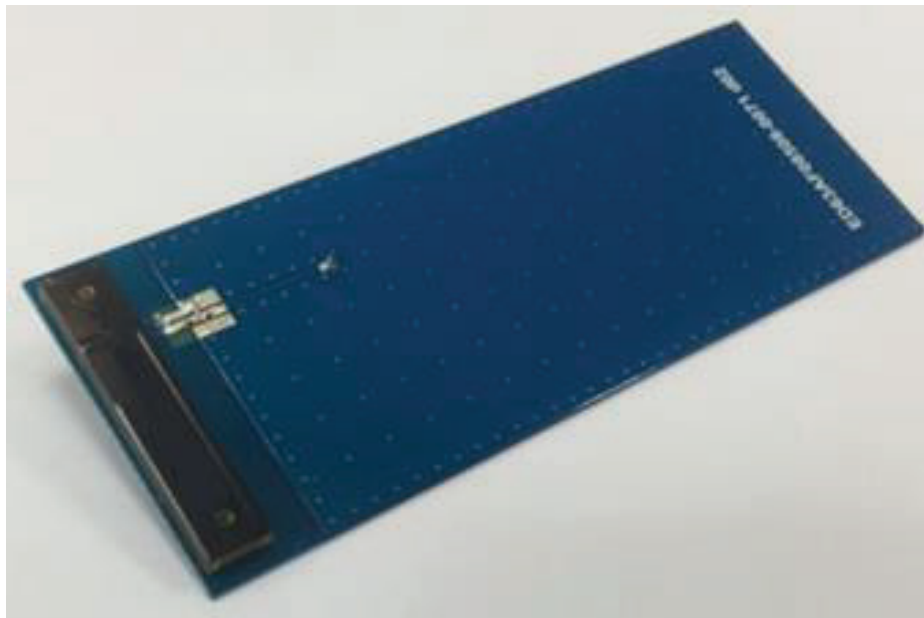
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ACAR4008-S698-EVB Evaluation boards are designed to provide a means to facilitate engineering evaluation of the chip antenna : ACAR4008-S698-T. With a typical operating frequency between 700 and 2700 MHz, the chip can be used for 2G/3G/GSM/4G/LTE applications.

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.

## Evaluation Board with Matching Circuits

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Evaluation Board dimension : 120 x 45 mm

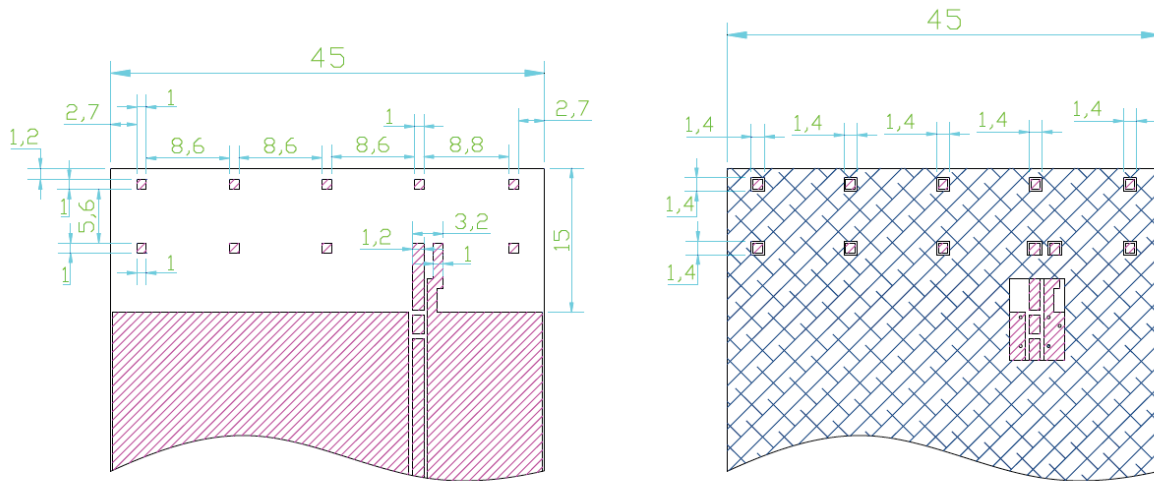
**Unit: mm**

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## Chip Antenna Layout



 Copper layer

Top layer

 Solder area

 Solder masker

Top layer

Tolerance :  $\pm 0.1$  mm, unless otherwise specified.  
t, w : Unique dimensioning according to your PCB

**Unit: mm**

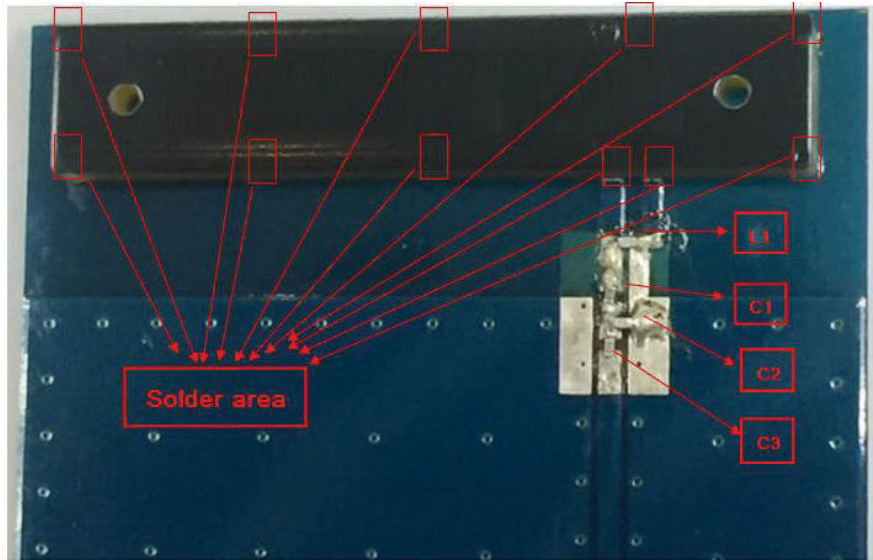
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## Matching Network on EVB

Antenna matching network is designed using a combination of inductor and resistor near the input terminal.



Circuit Symbol	Size	Description
L1	0402	6.8 nH
C1	0402	6.8 pF
C2	0402	1.2 pF
C3	0402	6.8 pF

### Note :

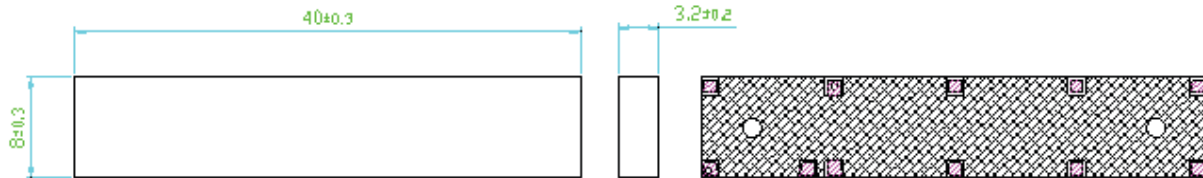
1. White space around the chip antenna in “Chip Antenna Layout” represents the ground clearance area.
2. Desired clearance area : 45 x 15 mm
3. Width of the 50  $\Omega$  line is designed in accordance with the PCB thickness and material considered.
4. Matching network (Pi - network) provided is in accordance with the EVB layout and matching will differ in the actual customer PCB depending on the layout.

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## Chip Antenna Dimension



Unit: mm

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REVISED: 09-3-19

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