

4G/LTE Ceramic Chip Antenna Evaluation Board

ACAR3705-S698-EVB

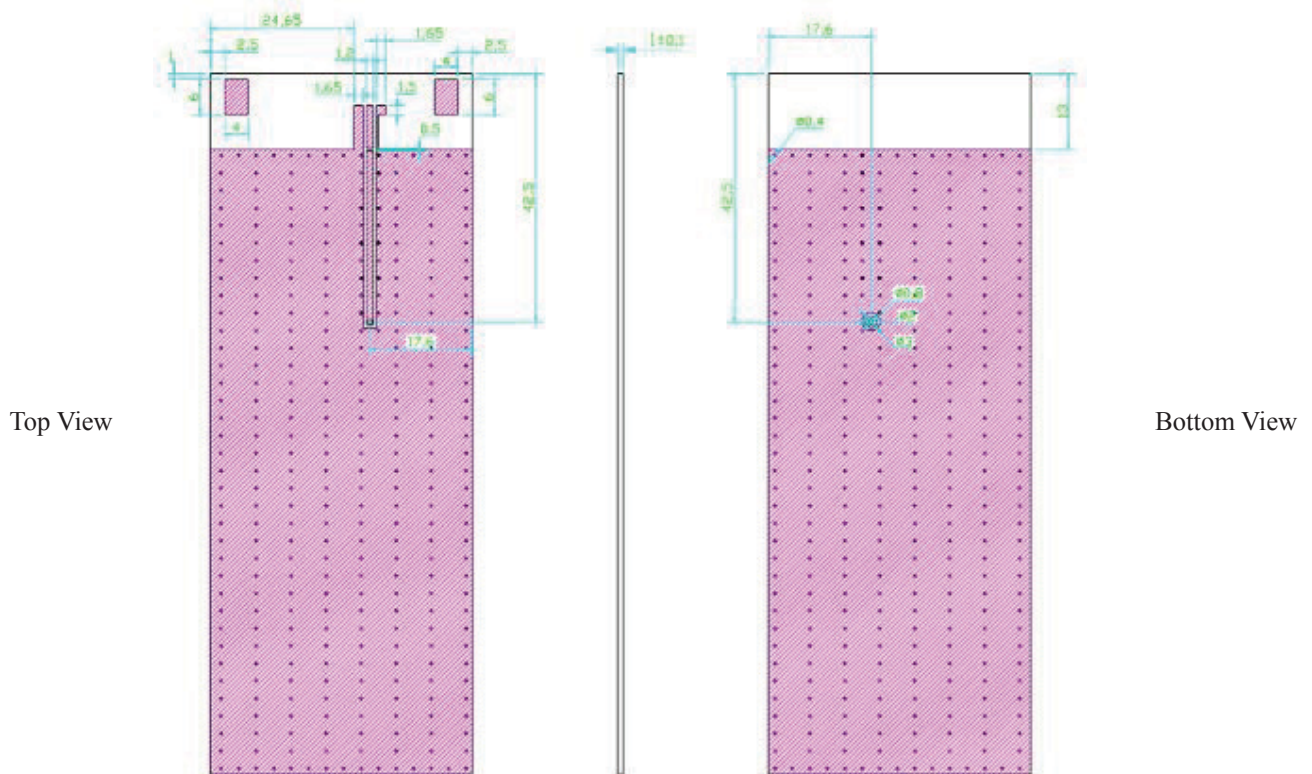
107.0 x 45.0 mm

Description

ACAR3705-S698-EVB Evaluation boards are designed to provide a means to facilitate engineering evaluation of the chip antenna : ACAR3705-S698-T. With a typical operating frequency range of 700~960 MHz / 1710~2170 MHz / 2500~2700 MHz, the chip can be used for 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



Evaluation Board dimension : 107 x 45 mm

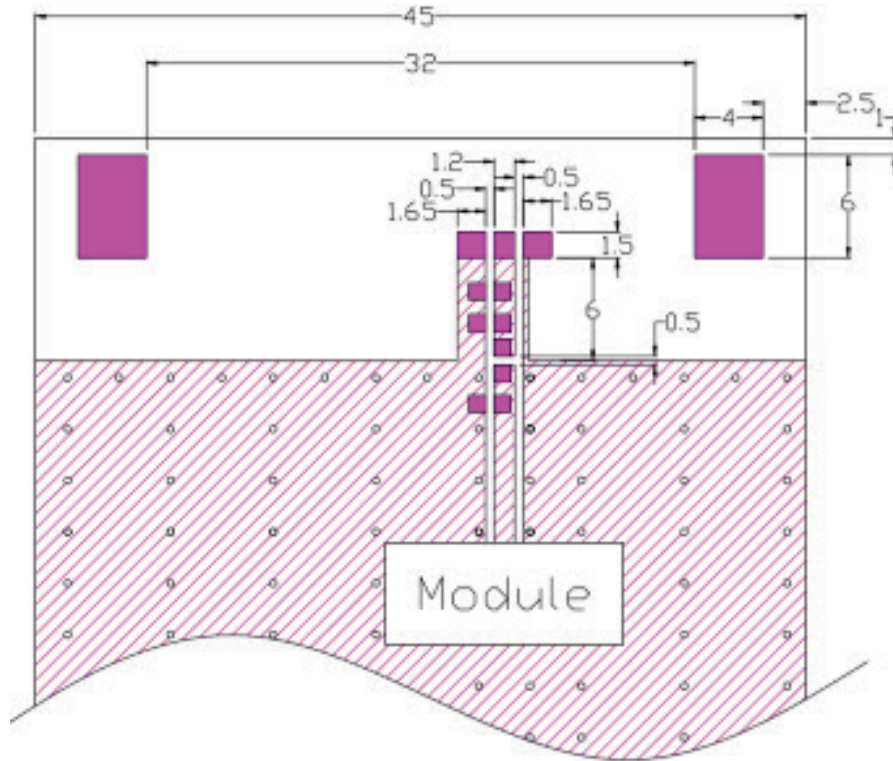
Unit: mm

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Chip Antenna Layout



Unit: mm

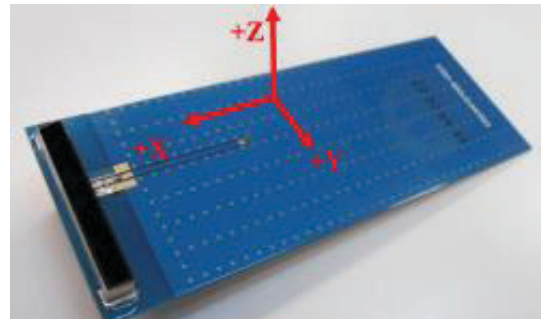
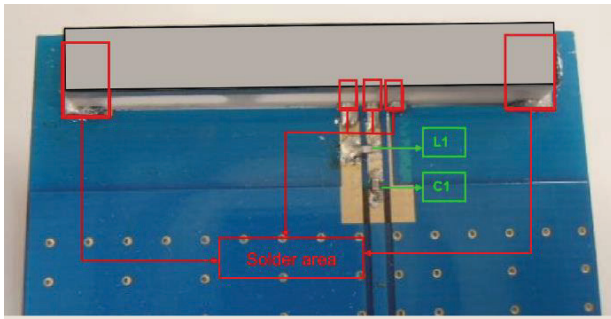
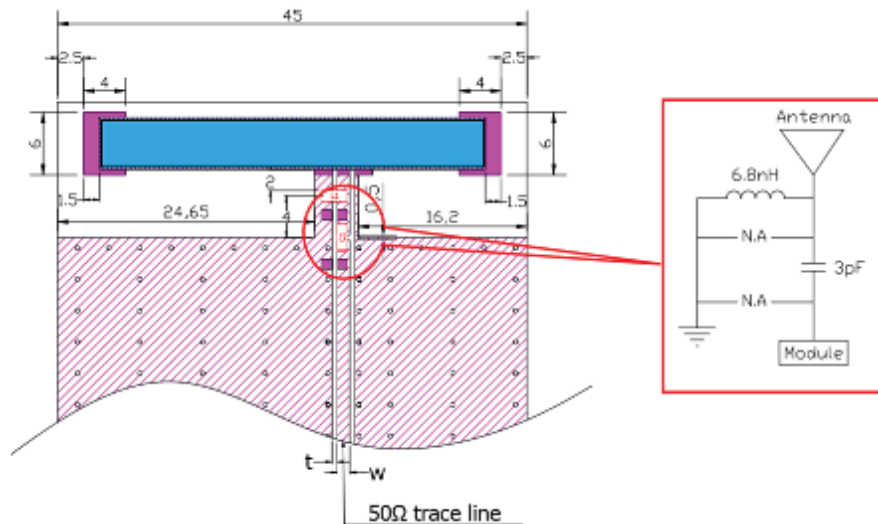
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Matching Network on EVB

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
R1	0402	3 pF

Note :

1. White space around the chip antenna in “Chip Antenna Layout” represents the ground clearance area.
2. Desired clearance area : 45 x 14.5 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.