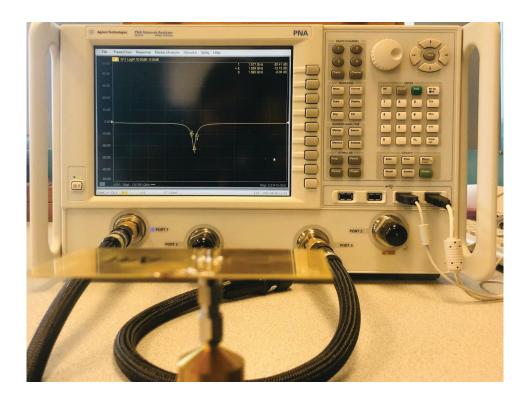
ACAG0301-1575-EVB

90.0 x 50.0 mm

#### **Description**

ACAG0301-1575-EVB Evaluation boards are designed to provide a means to facilitate engineering evaluation of the chip antenna: ACAG0301-1575-T working at 1575 MHz. With a typical bandwidth of 40 MHz, the chip is suitable for GPS 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.

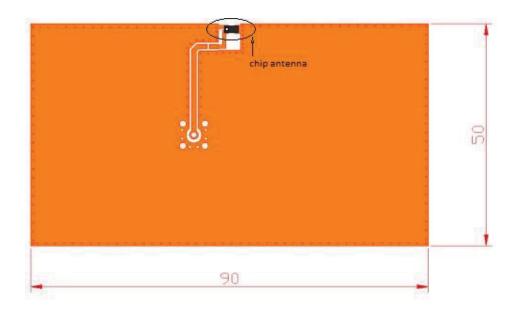




ACAG0301-1575-EVB

90.0 x 50.0 mm

### **Evaluation Board with Chip Antenna Layout**



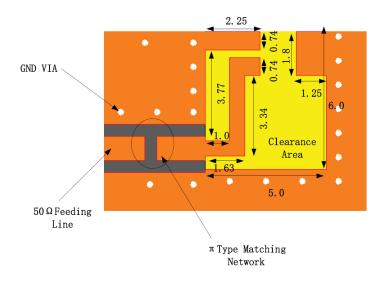
Evaluation Board dimension: 90 x 50 mm Unit: mm



ACAG0301-1575-EVB

90.0 x 50.0 mm

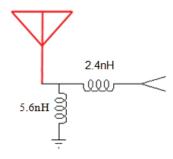
#### **Chip Antenna Layout**



Unit: mm

#### **Matching Network on EVB:**

Antenna matching network is designed using a combination of inductors (2.4 nH and 5.6 nH) near the input terminal as shown in the above figure.



#### Note:

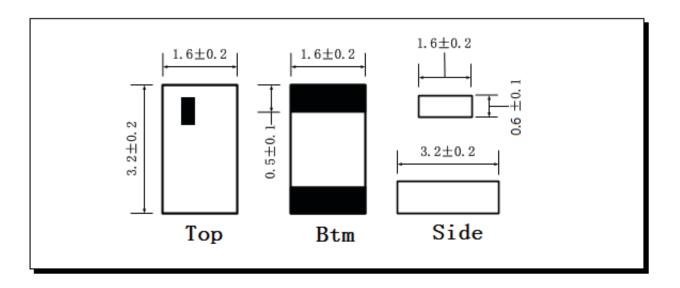
- 1. Yellow highlighted space represents the ground clearance area around the chip antenna.
- 2. Desired clearance area: 6.0 x 5.0 mm
- 3. Width of the 50  $\Omega$  line is designed in accordance with the PCB thickness and material considered.
- 4. Matching network (Pi network) provided is in accordance with the EVB layout and matching will differ in the actual customer PCB depending on the layout.



ACAG0301-1575-EVB

90.0 x 50.0 mm

#### **Chip Antenna**



Unit: mm

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.

