ACAR3005-S824-EVB

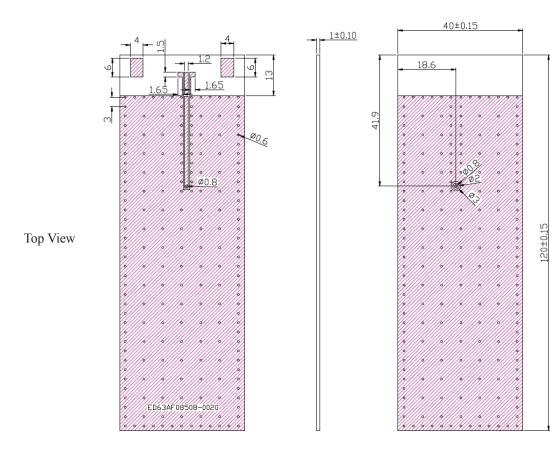
120.0 x 40.0 mm

#### **Description**

ACAR3005-S824-EVB Evaluation boards are designed to provide a means to facilitate engineering evaluation of the chip antenna: ACAR3005-S824-T. With an operating frequency of 824~960 MHz and 1710~2170 MHz, the chip can be used for applications including but not limited to 2G/3G/GSM.

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**



Bottom View

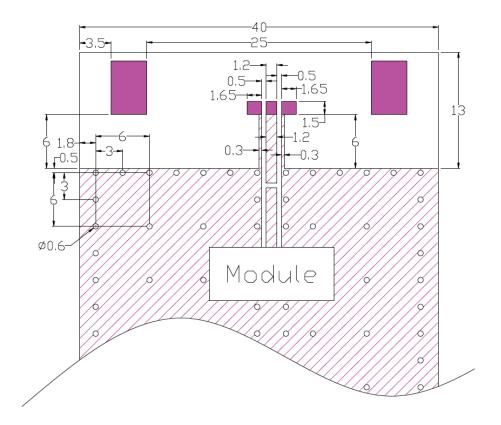
Evaluation Board dimension: 120 x 40 mm Unit: mm



ACAR3005-S824-EVB

120.0 x 40.0 mm

### **Chip Antenna Layout**



Unit: mm

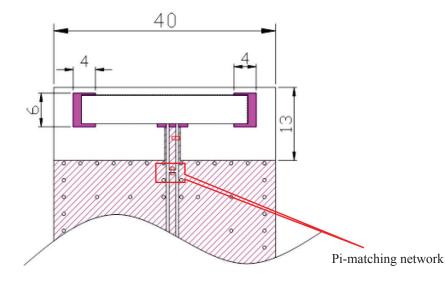


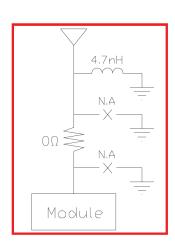
ACAR3005-S824-EVB

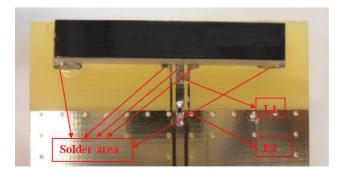
120.0 x 40.0 mm

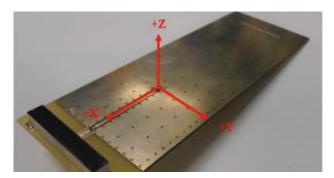
#### **Matching Network on EVB**

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









Circuit Symbol	Size	Description
L1	0402	4.7 nH
R1	0402	0 Ω

#### Note:

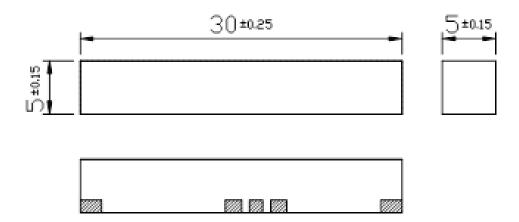
- 1. Yellow space around the chip antenna in "Matching Network on EVB" represents the ground clearance area.
- 2. Desired clearance area: 40 x 13 mm
- 3. Width of the 50  $\Omega$  line is designed in accordance with the PCB thickness and material considered.
- 4. Matching network (Pi network) provided is in accordance with the EVB layout and matching will differ in the actual customer PCB depending on the layout.



ACAR3005-S824-EVB

120.0 x 40.0 mm

### **Chip Antenna Dimension**



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.



## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

**ABRACON:** 

ACAR3005-S824-EVB