

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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## ACAG1204-868-T



### **FEATURES**

- Uses Low Temperature Co-Fired Ceramic (LTCC) Technology
- Gain of 2.63 dBi
- Omni-directional
- VSWR of  $\leq 2.0$

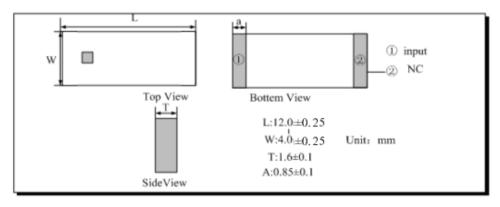
### **APPLICATIONS**

- ISM applications
- LORA
- Sigfox
- RFID

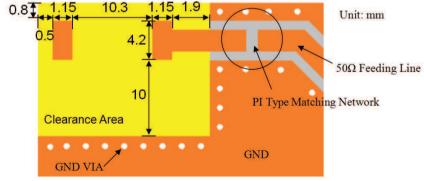
### **ELECTRICAL SPECIFICATIONS**

| Item                        | Specification    |
|-----------------------------|------------------|
| Frequency                   | 868MHz           |
| Bandwidth                   | 20MHz typ        |
| VSWR                        | ≤2.0             |
| Impedance                   | 50Ω              |
| Gain                        | 2.63dBi          |
| Azimuth                     | Omni-directional |
| Polarization                | Linear           |
| Operating Temperature range | -40°C ~+ 85°C    |

### **DIMENSIONS**



### **Layout Dimensions**



Unit: mm



5101 Hidden Creek Ln Spicewood TX 78669 Phone: 512-371-6159 | Fax: 512-351-8858 For terms and conditions of sales, please visit: www.abracon.com **REVISED: 06.21.2018** 

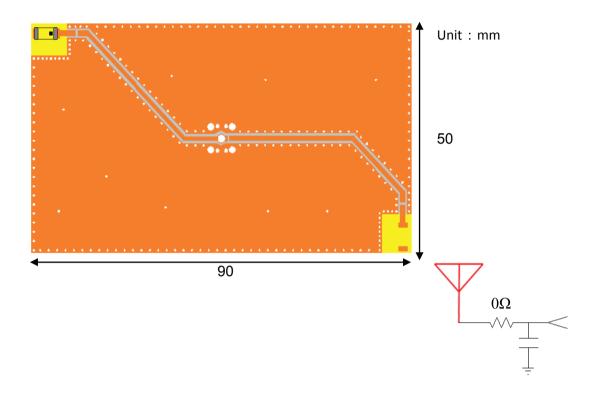
ABRACON IS ISO9001-2015 CERTIFIED



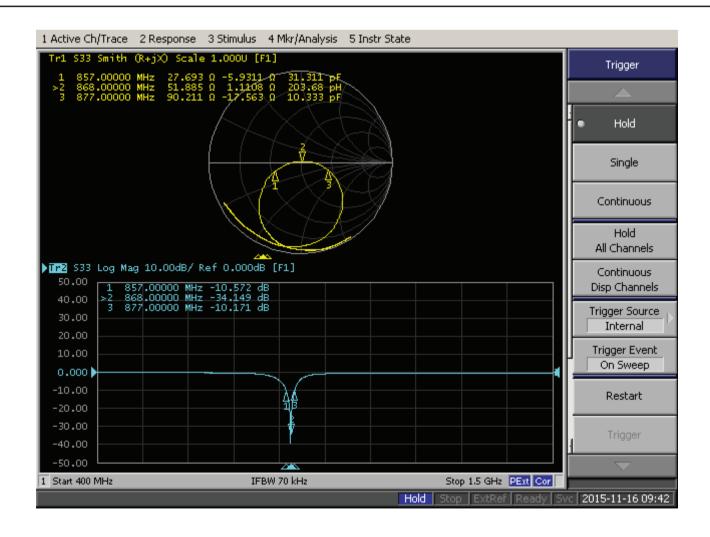
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### **EVALUATION BOARD AND MATCHING CIRCUITS**



### ANTENNA RESPONSE – SMITH CHART AND RETURN LOSS S11





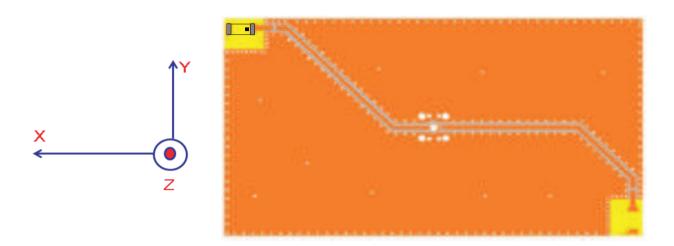
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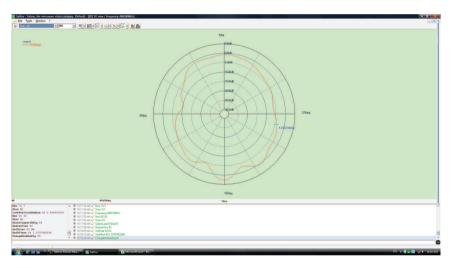
## ACAG1204-868-T



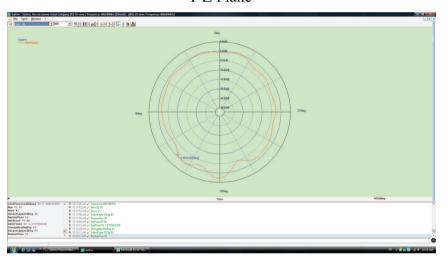
### **RADIATION PATTERNS**



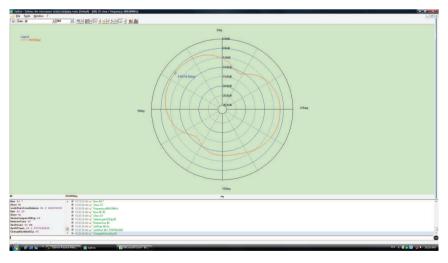
X-Z Plane

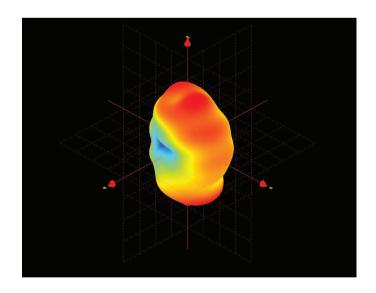


Y-Z Plane



X-Y Plane





| Frequency (MHz) | 858   | 868   | 878   |
|-----------------|-------|-------|-------|
| Avg. Gain (dBi) | -2.68 | -2.05 | -2.72 |
| Peak Gain (dBi) | 2.35  | 2.63  | 2.26  |
| Efficiency (%)  | 48    | 52    | 50    |



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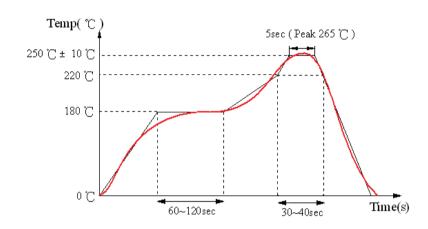
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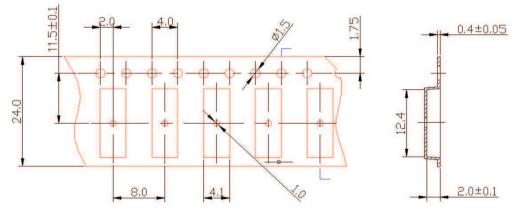
### **REFLOW PROFILE**



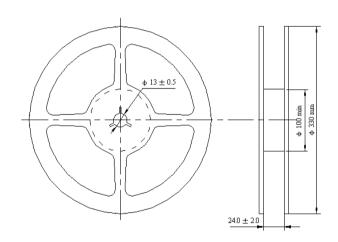
### **PACKAGING**

| Package Type       | Quantity/Size     |
|--------------------|-------------------|
| Inner Box          | 3000 pcs/reel     |
| Carton             | 15000 pcs/carton  |
| Size of the carton | 345 x 250 x360 mm |

Tape Dimensions (mm)



Reel Dimensions (mm)



Unit: mm

### **CAUTIONS**

### 1. Static voltage

Static voltage between signal & ground may cause deterioration & destruction of the component. Please avoid static voltage.

### 2. Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning.

### 3. Soldering

Only leads of the component may be soldered. Please avoid soldering to any other part of the component, such as on the patterns as this will change the performance of the antenna.



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