

# DATA SHEET

WIRELESS COMPONENTS

Ceramic Chip Antenna

ANT1204LL17R0870A

870 MHz

1204 Series



FEATURES

- Compact size
- Omni-directional Radiation
- Tape & reel automatic mounting
- Reflow process compatible
- RoHS compliant

APPLICATIONS

- Smart meter
- Industrial remote control
- ISM band equipment

ORDERING INFORMATION

All part numbers are identified by the series, packing type, material, size, antenna type, working frequency and packing quantity.

**PART NUMBER**

**ANT 1204 L LI7 R 0870A**  
 (1) (2) (3) (4) (5) (6)

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**(1) PRODUCT**

ANT = Antenna

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**(2) SIZE**

1204 = 12 x 4 mm

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**(3) ANTENNA TYPE**

L,F,A = Chip Antenna

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**(4) SERIAL NO.**

LI7

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**(5) PACKING STYLE**

R = Tape and Reel

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**(6) WORKING FREQUENCY**

0870 = 870 MHz

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**PHYCOMP CTC**

CAN4311759170871K

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**I2NC**

431175917087

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**SPECIFICATION**

Table 1

DESCRIPTION	VALUE
Centre Frequency	870 MHz
Bandwidth	15 MHz (Typ.)
Return Loss	6.49 dB min
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	1.05dBi
Impedance	50 Ω
Operating Temperature	- 40~105 °C
Maximum Power	1 W
Termination	Ni / Sn (Environmentally-Friendly Leadless)
Resistance to Soldering Heats	260°C , 10sec.

**NOTE**

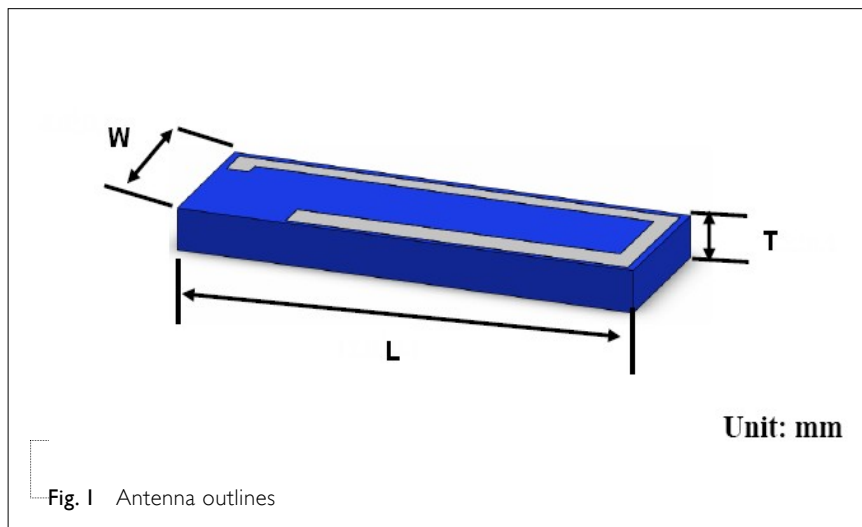
I. The specification is defined on Yageo evaluation board

**DIMENSIONS**

Table 2 Machinical Dimension

	DIMENSION
L (mm)	12.0±0.10
W (mm)	4.0±0.10
T (mm)	1.20±0.10

**OUTLINES**



REFERENCE DESIGN OF EVALUATION BOARD

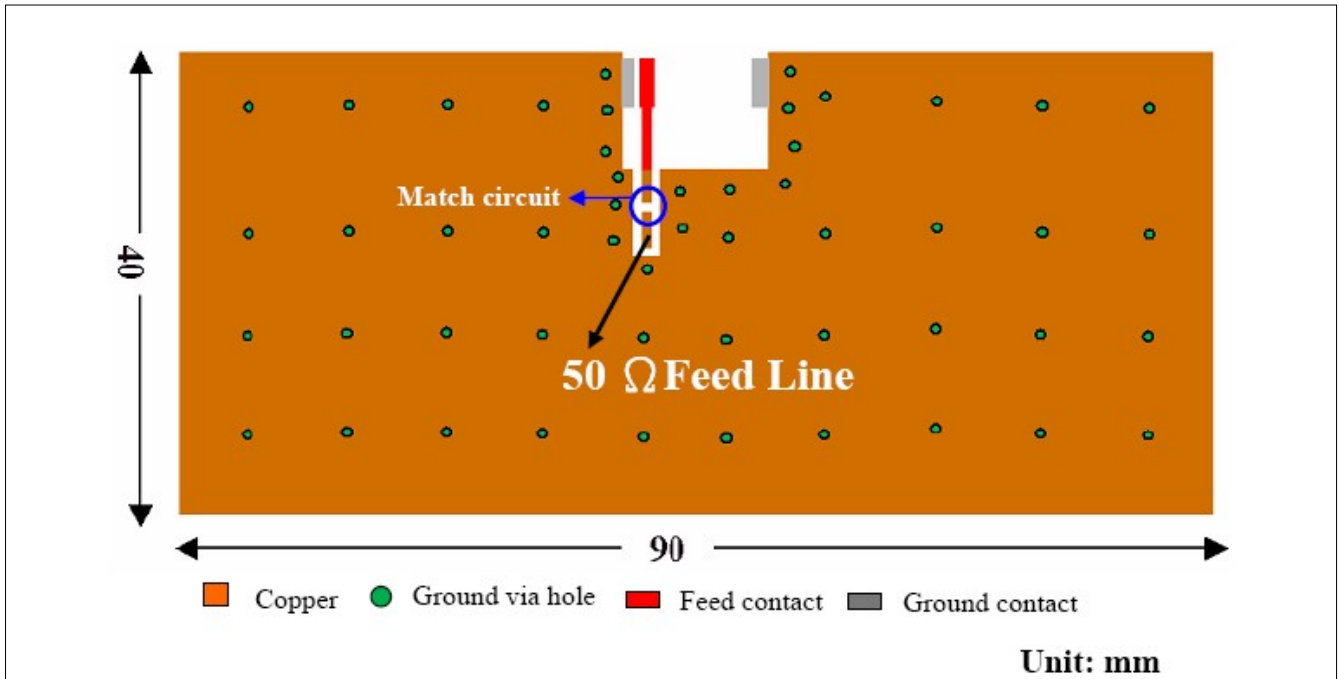


Fig.2 Outlook and dimension of evaluation board

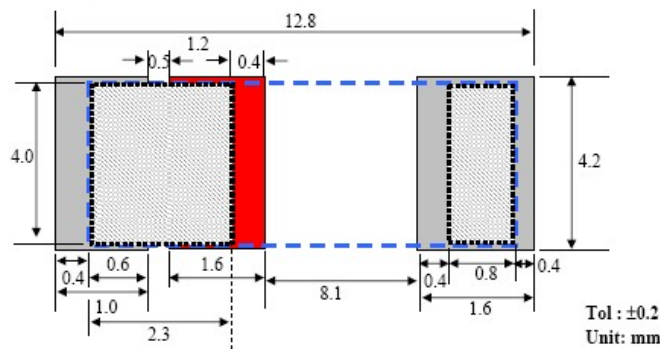
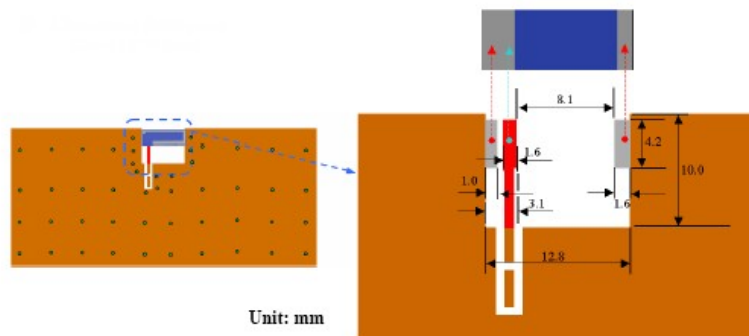
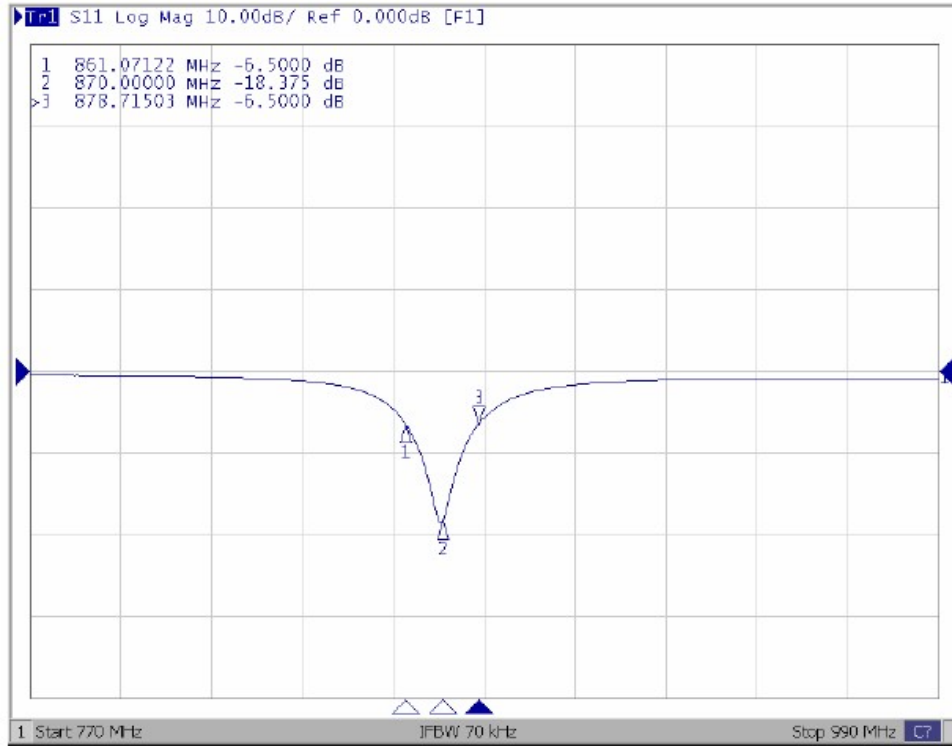


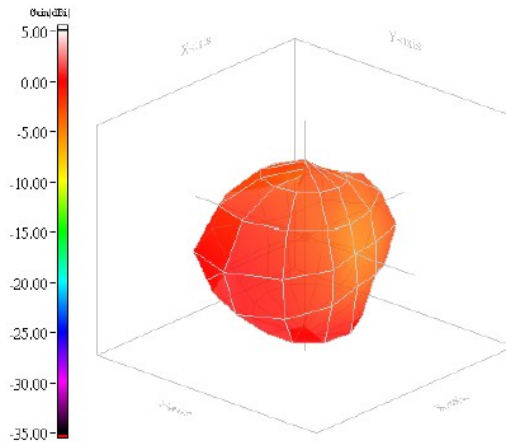
Fig.3 Details of soldering Pad

**ELECTRICAL PERFORMANCES**



**Fig. 4** Return loss

Model name:  Test mode:   
 Test frequency / Polarization:  Test date:



Max gain= 1.05dBi, at (180, 120)  
 MEC(mean effective gain)= -1.80dBi  
 Directivity(dB)= 3.38  
 Efficiency= -2.33dB, 58.49%

**Fig. 5** Radiation pattern

REVISION HISTORYREVISION   DATE   CHANGE NOTIFICATION   DESCRIPTION

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Version 0	Mar. 28, 2013	-	- New data sheet for Ceramic Chip Antenna, 870MHz, size 12 × 4 mm
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