

DATA SHEET

WIRELESS COMPONENTS

Ceramic Chip Antenna

ANT2012LL13R2400A

2.4 – 2.5 GHz

2012 Series



FEATURES

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

APPLICATIONS

- 2.4 GHz WiFi device
- Bluetooth gadget
- Zigbee device
- 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 2012 L L13 R 2400A**

(1) (2) (3) (4) (5) (6)

(1) PRODUCT

ANT = Antenna

(2) SIZE

2012 = 2.0 × 1.2 mm

(3) ANTENNA TYPE

L,F,A = Chip Antenna

(4) SERIAL NO.

L13

(5) PACKING STYLE

R = Tape and Reel

(6) WORKING FREQUENCY

2400 = 2.400 GHz

PHYCOMP CTC

CAN4311714132454K

I2NC

431171413245

SPECIFICATION

Table 1

DESCRIPTION	VALUE
Centre Frequency	2.45 GHz
Bandwidth	85 MHz (Typ.)
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	2.72 dBi (Typ.)
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

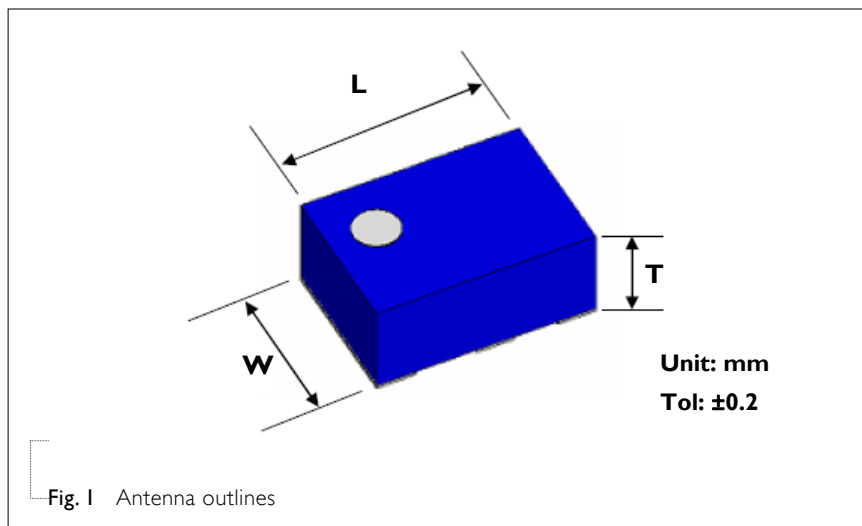
1. The specification is defined on Yageo evaluation board

DIMENSIONS

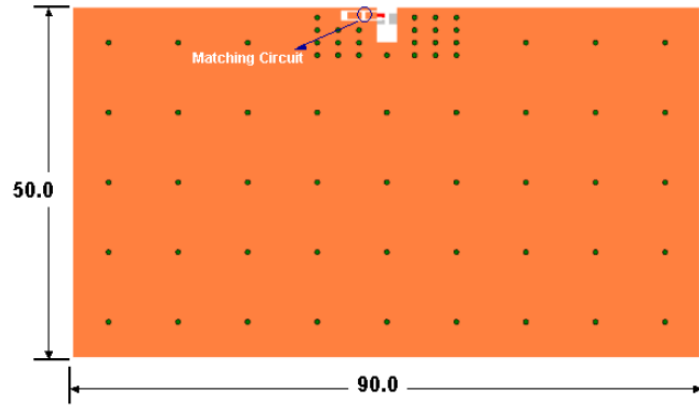
Table 2 Machinical Dimension

	DIMENSION
L (mm)	2 ±0.20
W (mm)	1.25 ±0.20
T (mm)	1.00 ±0.20

OUTLINES

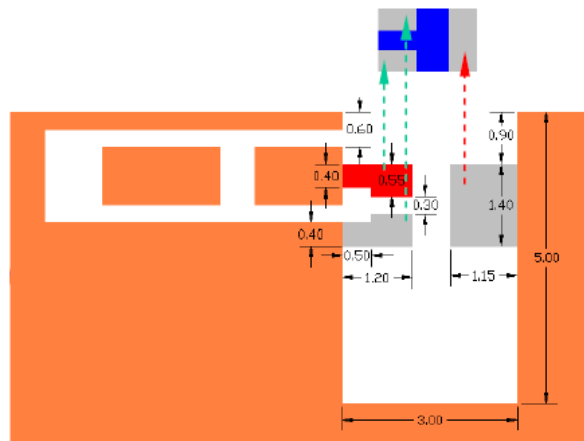


REFERENCE DESIGN OF EVALUATION BOARD



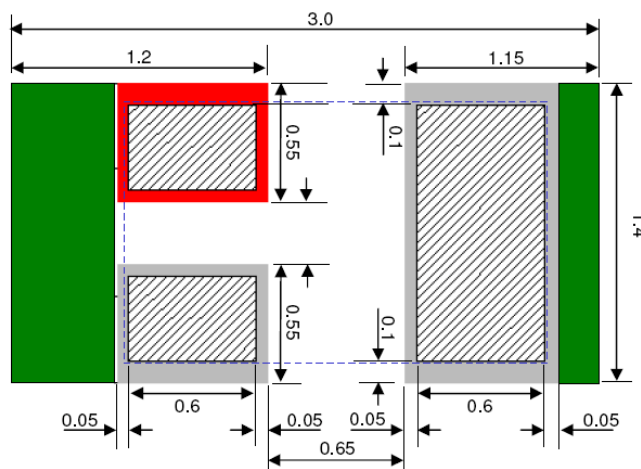
■ Copper
 ● Ground via hole
 ■ Feed contact
 ■ Ground contact
 Unit: mm

Fig. 2 Outlook and dimension of evaluation board



Unit: mm

Fig. 3 Dimension of footprint



Unit: mm
Tol: ±0.05

■ Covering Paint
 ■ Footprint for Feeding
 ■ Footprint (connect to ground)
 □ Position of the Chip Antenna
 ▨ Soldering Pads of Chip Antenna

Fig. 4 Details of soldering pad

ELECTRICAL PERFORMANCES

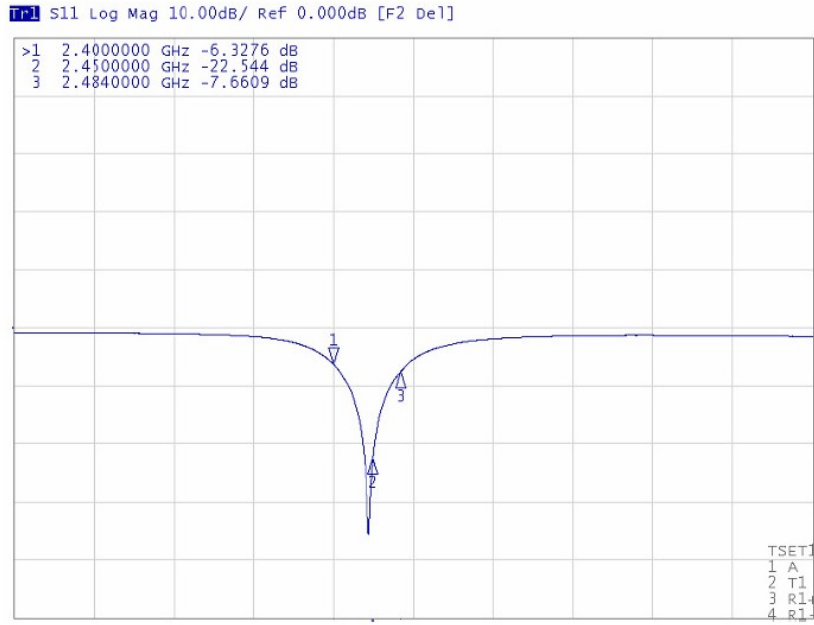
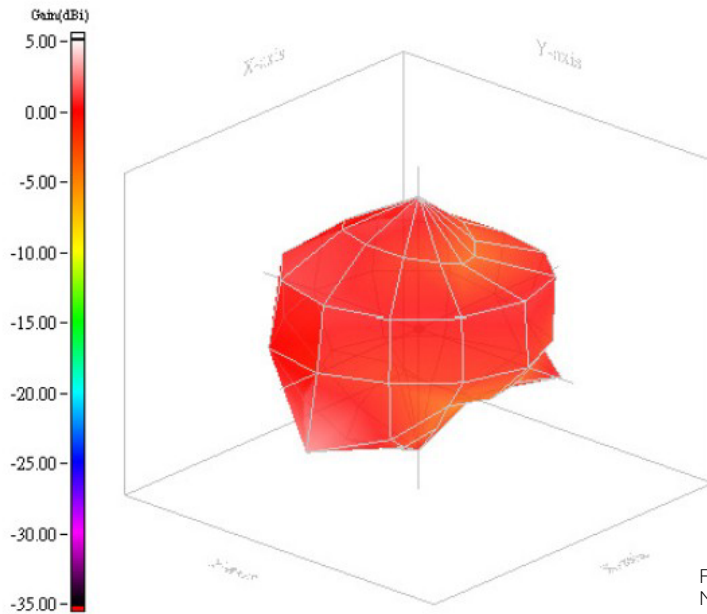


Fig. 5 Return loss



Frequency= 2.45 GHz
 Max gain = 2.72dBi, at (120,0)
 MEG (mean effective gain)= -0.69 dBi
 Directivity (dB) = 3.88
 Efficiency = -1.16dB, 76.56 %

Fig. 6 Radiation pattern

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Mar. 05, 2013	-	- New data sheet for SMD type antenna, 2.45GHz application, 2012 series.

Mouser Electronics

Authorized Distributor

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Yageo:

[ANT2012LL13R2400A](#)