Innovative Service Around the Globe YAGEO

DATA SHEET

WIRELESS COMPONENTS

Ceramic Chip Antenna

ANT2012LL00R2400A

2.4 – 2.5 GHz

2012 Series

YAGEO Phycomp

Product Specification – February 22, 2013 V.0

FEATURES

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

APPLICATIONS

- 2.4GHz 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	L00	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.

L00

(5) PACKING STYLE

R = Tape and Reel

(6) WORKING FREQUENCY

2400 = 2.4GHz

PHYCOMP CTC

CAN431171400245K

12NC

431171400245

SPECIFICATION

Table 1

DESCRIPTION	VALUE
Centre Frequency	2.45 GHz
Bandwidth	370 MHz (Typ.)
Return Loss	10 dBi min
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	3.77 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)	2.00 ±0.20
W (mm)	1.25 ±0.20
T (mm)	1.10 ±0.10
A (mm)	0.15 ±0.10

Table 3 Termination configuration

TERMINAL NAME	FUNCTION
S1	Feeding Point
S2	Soldering Point

OUTLINES

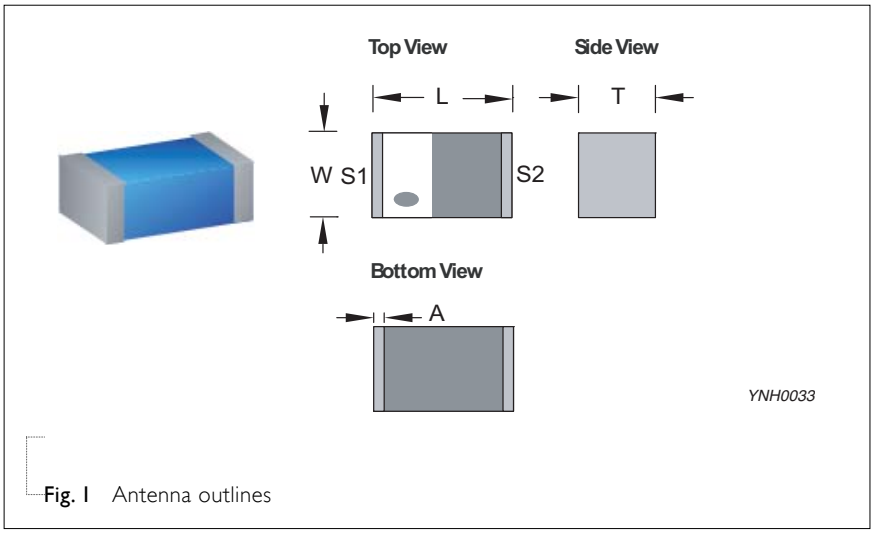


Fig. 1 Antenna outlines

REFERENCE DESIGN OF EVALUATION BOARD

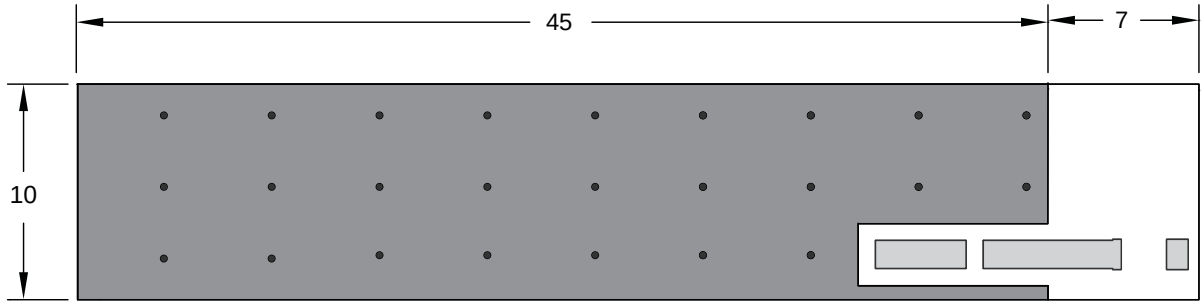


Fig. 3 Outlook and dimension of evaluation board

Unit : mm

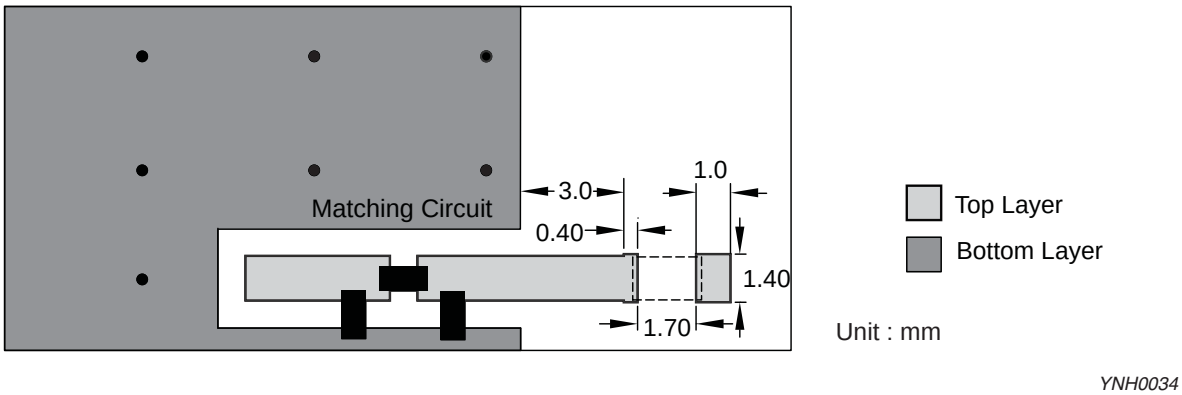
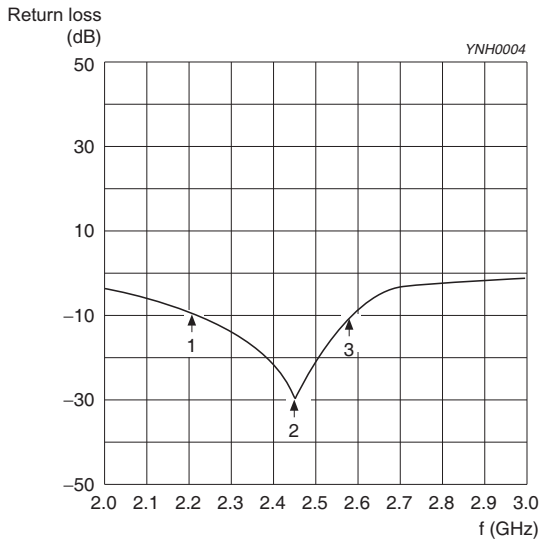


Fig. 4 Details of soldering Pad

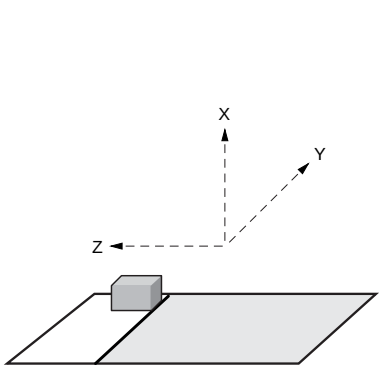
ELECTRICAL PERFORMANCES



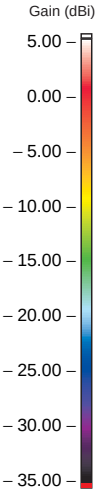
Marker data

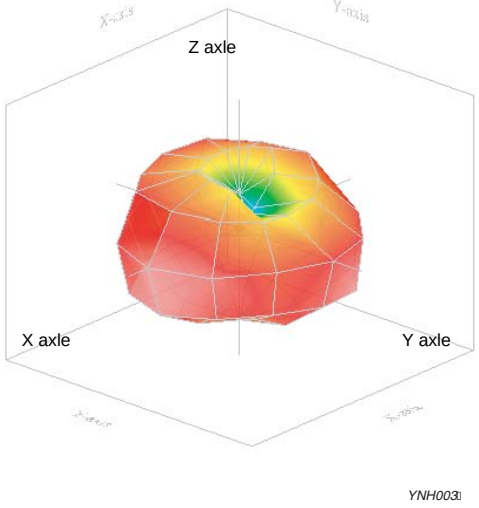
1. 2.21GHz, -10dB
2. 2.45GHz, -28.5dB
3. 2.58GHz, -10dB

Fig. 5 Return loss



Evaluation board and XYZ direction





Frequency = 2.45 GHz
Max gain = 3.77 dBi, at (90,240)
MEG (mean effective gain)= -193 dBi
Directivity (dB) = 4.61
Efficiency = -0.84 dB, 82.93 %

Fig. 6 Radiation pattern

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Feb. 22, 2013	-	- New data sheet for SMD type antenna, 2.45GHz application, 2012 series