Innovative Service Around the Globe YAGEO

DATA SHEET

WIRELESS COMPONENTS

Ceramic Chip Antenna

ANT3216LL00R2400A

2.4 - 2.5 GHz

3216 Series

YAGEO Phycomp

Product Specification – March 27, 2013 V.0

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	**3216**	**L**	**L00**	**R**	**2400A**
(1)	(2)	(3)	(4)	(5)	(6)

(1) PRODUCT

ANT = Antenna

(2) SIZE

3216 = 3.2 × 1.6 mm

(3) ANTENNA TYPE

L,F,A = Chip Antenna

(4) SERIAL NO.

L00

(5) PACKING TYPE

R = Tape and Reel

(6) WORKING FREQUENCY

2400 = 2.4GHz

PHYCOMP CTC

CAN4311712002453K

12NC

431171200245

SPECIFICATION

Table 1

DESCRIPTION	VALUE
Working Frequency	2.4 - 2.5 GHz
Bandwidth	160 MHz
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	5.05 dBi (Typ.)
Impedance	50Ω
Operating Temperature	-40 ~105℃
Maximum Power	1W
Termination	Ni / Sn (Environmentally-Friendly Leadless)
Resistance to Soldering Heats	260℃ , 10sec.

NOTE

1. The specification is defined on Yageo evaluation board

DIMENSIONS

Table 2 Machinical Dimension

	DIMENSION
L (mm)	3.20 ±0.15
W (mm)	1.60 ±0.15
T (mm)	1.20 ±0.15
C (mm)	0.40 ±0.20

Table 3 Termination configuration

TERMINAL NAME	FUNCTION
S1	Feeding Point
S2	Soldering Point

OUTLINES

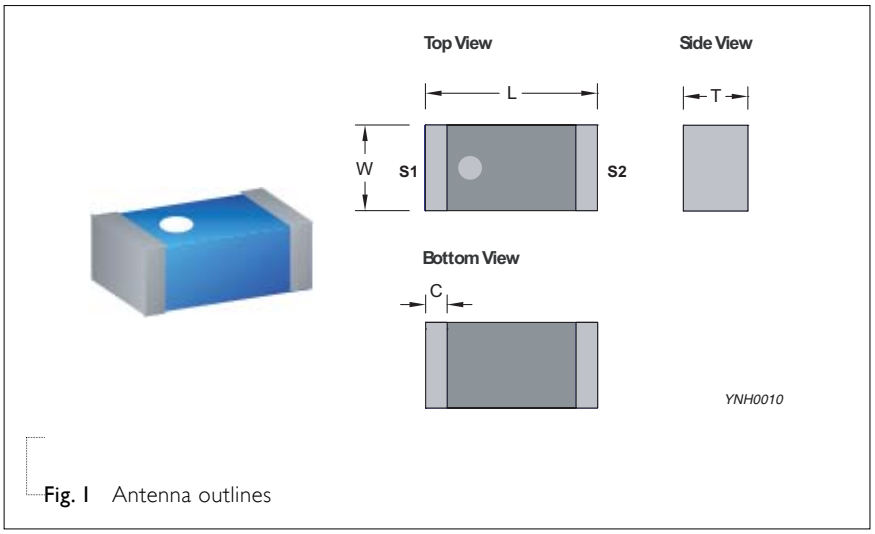


Fig. 1 Antenna outlines

REFERENCE DESIGN OF EVALUATION BOARD

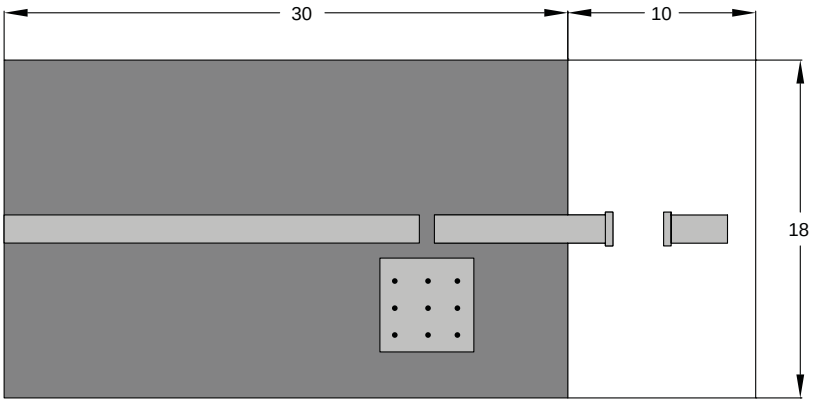


Fig. 2 Outlook and dimension of evaluation board

Unit : mm

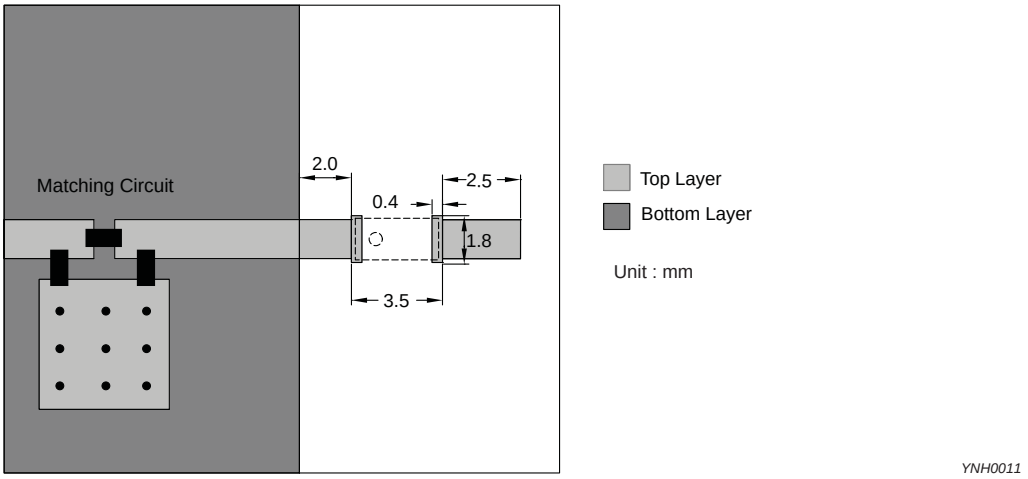
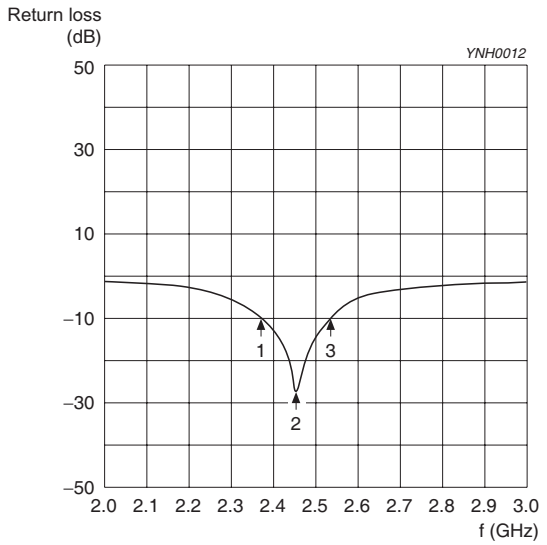


Fig. 3 Details of soldering Pad

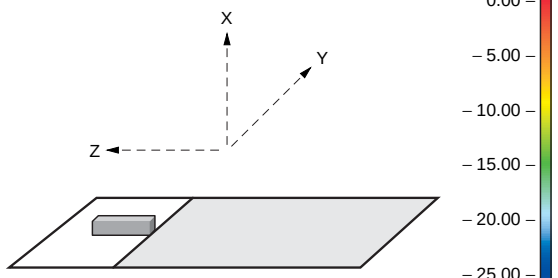
ELECTRICAL PERFORMANCES



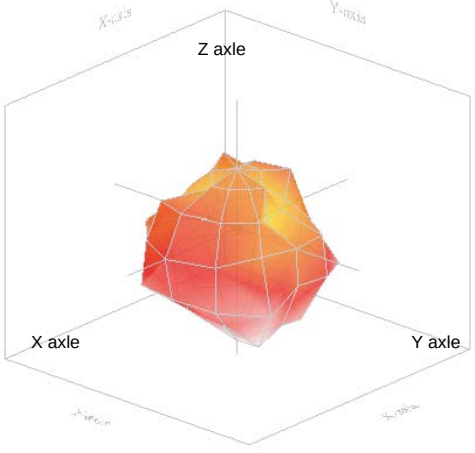
Marker data

1. 2.37GHz, -10dB
2. 2.45GHz, -27.3dB
3. 2.53GHz, -10dB

Fig. 4 Return loss



Evaluation board and XYZ direction



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Max gain = 5.05 dBi, at (180, 60)
MEG (mean effective gain)= 0.45dBi
Directivity (dB) = 7.15
Efficiency = -1.50dB, 70.74%

Fig. 5 Radiation pattern

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Mar. 27, 2013	-	- New datasheet for Ceramic Chip Antenna, 2.4-2.5 GHz application, size 3216 series

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