Innovative Service Around the Globe YAGEO

DATA SHEET

WIRELESS COMPONENTS

Ceramic Chip Antenna

ANT5320LL04R2455A

2.4 AND 5GHZ

5320 Series



YAGEO Phycomp

Product Specification – January 25, 2013 V.0



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FEATURES

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

APPLICATIONS

- 2.4&5GHz WiFi 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	5320	L	L04	R	2455A
(1)	(2)	(3)	(4)	(5)	(6)

(1) PRODUCT

ANT = Antenna

(2) SIZE

5320 = 5.3 × 2.0

(3) ANTENNA TYPE

L,F,A = Chip Antenna

(4) SERIAL NO.

L04

(5)PACKING STYLE

R = Tape and Reel

(6) WORKING FREQUENCY

2455 = 2.4/5GHz

PHYCOMP CTC

CAN4311753042522K

12NC

431175304252

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SPECIFICATION

Table 1

DESCRIPTION	VALUE
Centre Frequency	2.45 G / 5.5 G Hz
Bandwidth	150M / 900M Hz (Typ.)
Return Loss	6.5 dB min
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	2.09 / 4.32 dBi (Typ.)
Impedance	50 ohm
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)	5.30 ± 0.20
W (mm)	2.00 ± 0.20
T (mm)	1.40 ± 0.30
A (mm)	0.40 ± 0.20

Table 3 Termination configuration

TERMINAL NAME	FUNCTION
S1	Feeding Point
S2	Soldering Point

OUTLINES

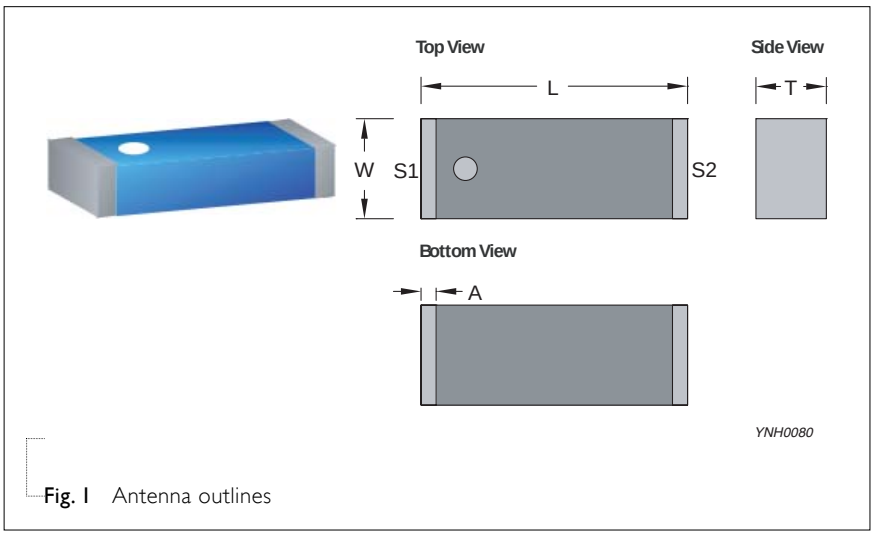


Fig. 1 Antenna outlines

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REFERENCE DESIGN OF EVALUATION BOARD

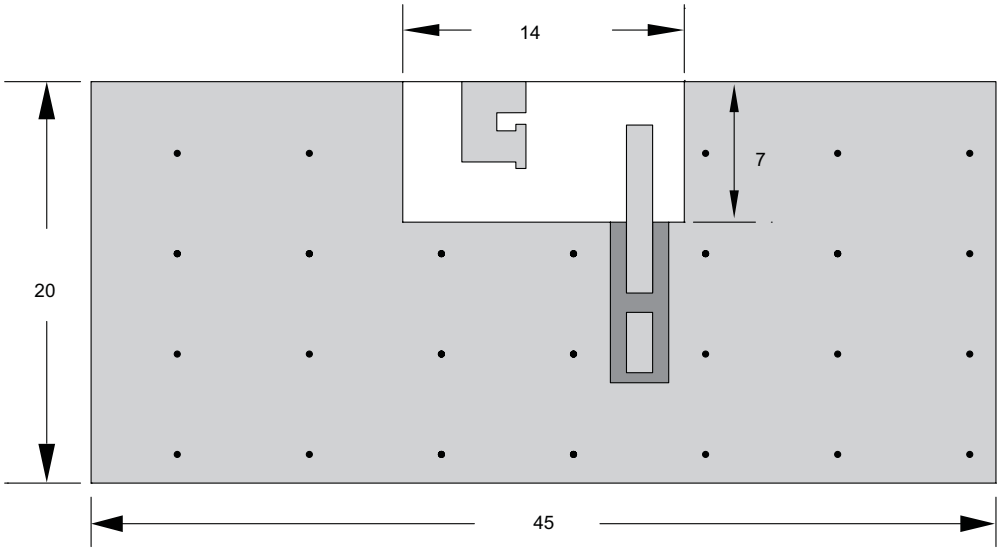


Fig. 3 Outlook and dimension of evaluation board

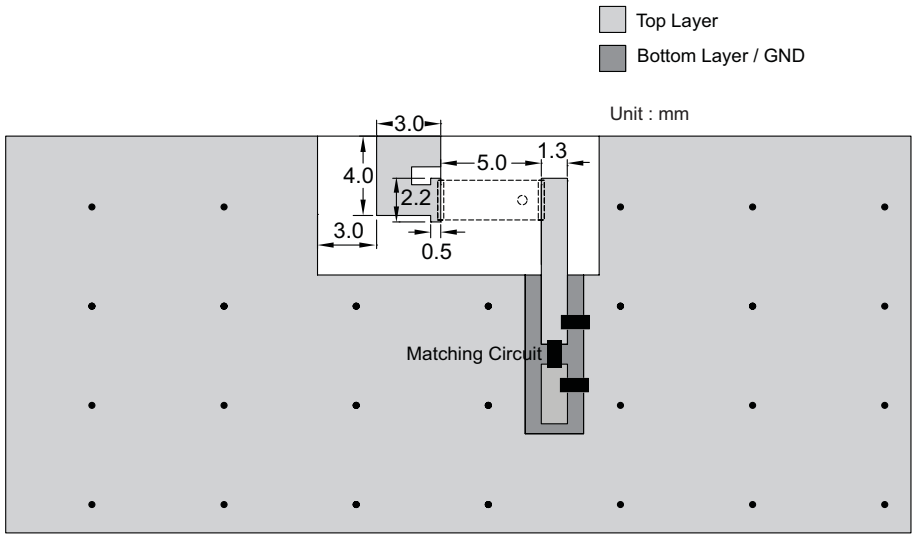
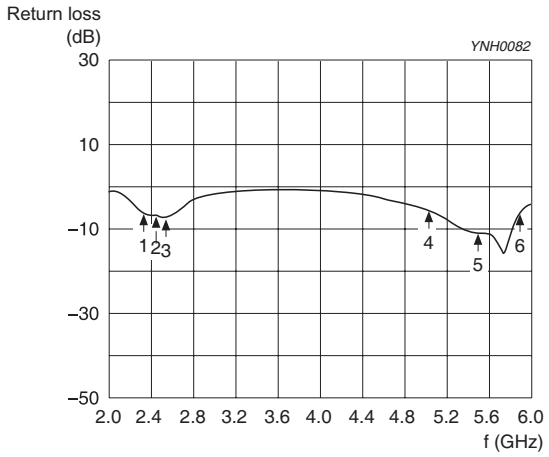


Fig. 4 Details of soldering Pad

YNH0081

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ELECTRICAL PERFORMANCES

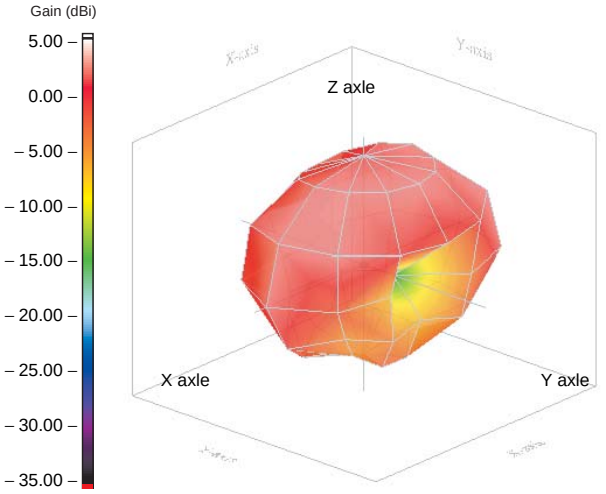


Marker data

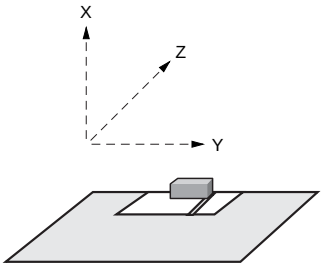
1. 2.37GHz , -6.5dB
2. 2.45GHz , -7.6dB
3. 2.52GHz , -6.5dB
4. 5.05GHz , -6.5dB
5. 50GHz , -11.9dB
6. 95GHz , -6.5dB

Fig. 5 Return loss

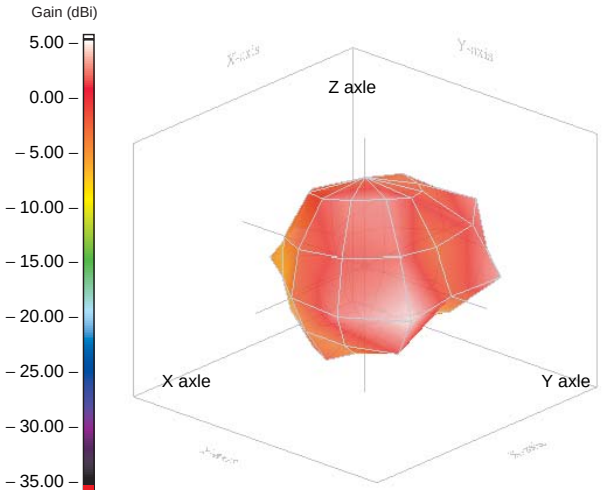
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Frequency= 2.45 GHz
Max gain = 2.09 dBi, at (60, 150)
MEG (mean effective gain)= -1.18 dBi
Directivity (dB) = 3.58
Efficiency = -1.49 dB, 71.01 %



Evaluation board and XYZ direction



Frequency= 5.5 GHz
Max gain = 4.32 dBi, at (90, 60)
MEG (mean effective gain)= -2.57 dBi
Directivity (dB) = 6.36
Efficiency = -2.04 dB, 62.52 %

Fig. 6 Radiation pattern

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REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Jan. 24, 2013	-	- New datasheet for SMD type antenna, 2.4/5 GHz application, 5320 series

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