

# DATA SHEET

WIRELESS COMPONENTS

Ceramic Chip Antenna

ANT5320L04R2455A

2.4 AND 5GHZ

5320 Series



**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)

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**(1) PRODUCT**

ANT = Antenna

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**(2) SIZE**

5320 = 5.3 × 2.0

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**(3) ANTENNA TYPE**

L,F,A = Chip Antenna

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**(4) SERIAL NO.**

L04

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**(5) PACKING STYLE**

R = Tape and Reel

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**(6) WORKING FREQUENCY**

2455 = 2.4/5GHz

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**PHYCOMP CTC**

CAN4311753042522K

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**I2NC**

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 °C
Maximum Power	1W
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)	5.30 ± 0.20
W (mm)	2.00 ± 0.20
T (mm)	1.40 ± 0.30
A (mm)	0.40 ± 0.20

**OUTLINES**

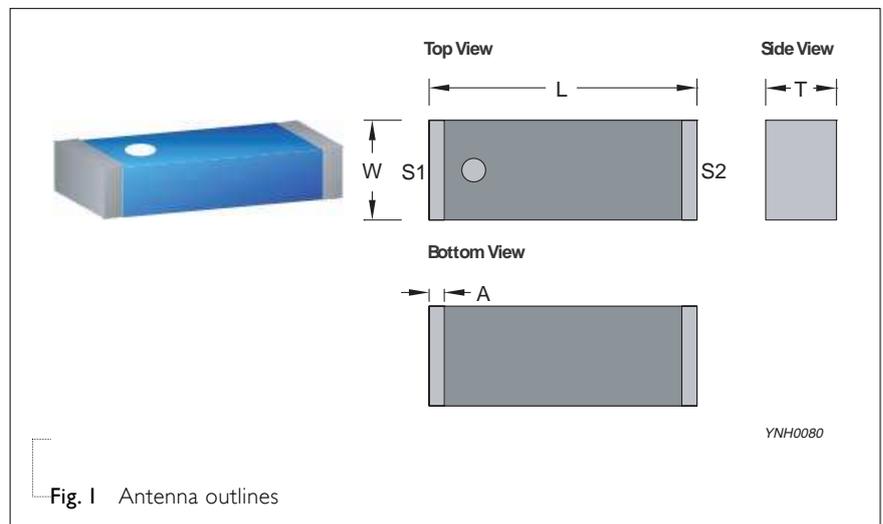


Fig. 1 Antenna outlines

Table 3 Termination configuration

TERMINAL NAME	FUNCTION
S1	Feeding Point
S2	Soldering Point

**REFERENCE DESIGN OF EVALUATION BOARD**

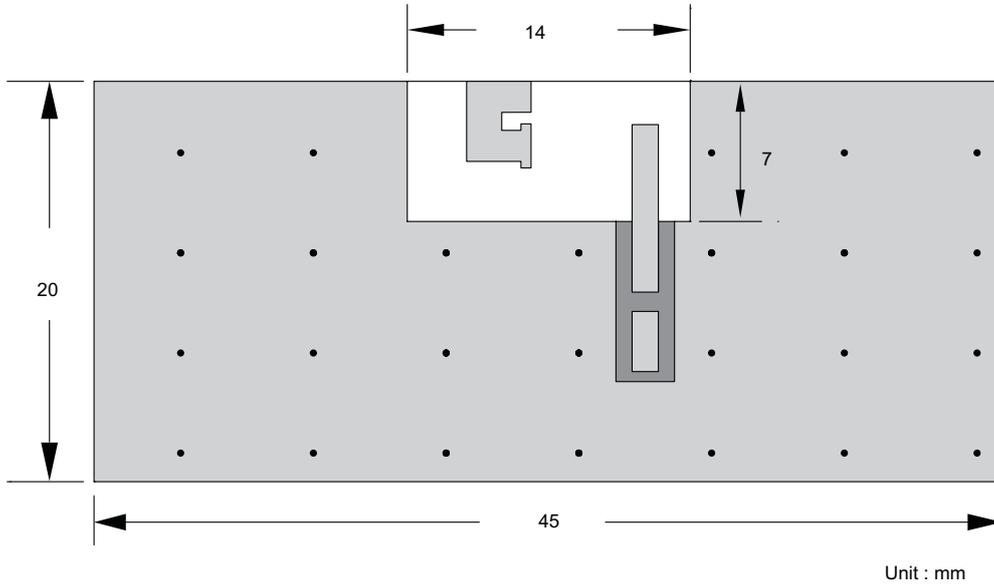


Fig. 3 Outlook and dimension of evaluation board

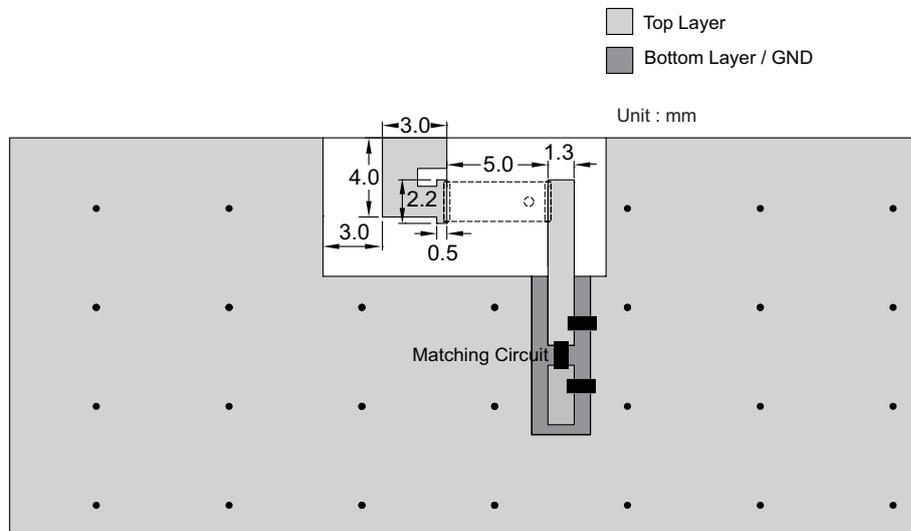
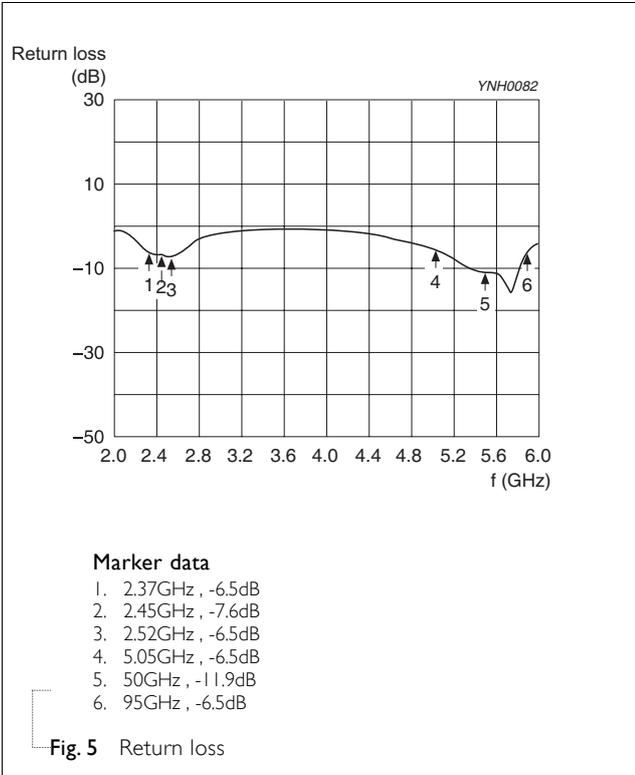
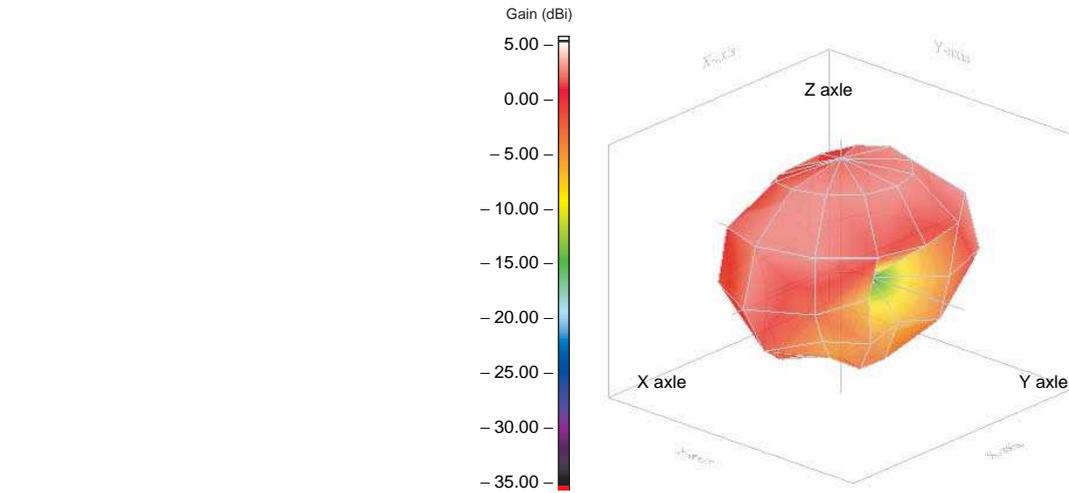


Fig. 4 Details of soldering Pad

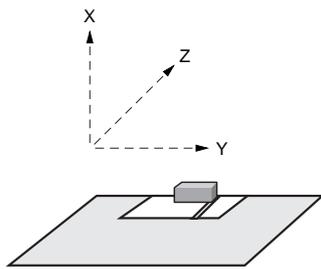
YNH0081

**ELECTRICAL PERFORMANCES**

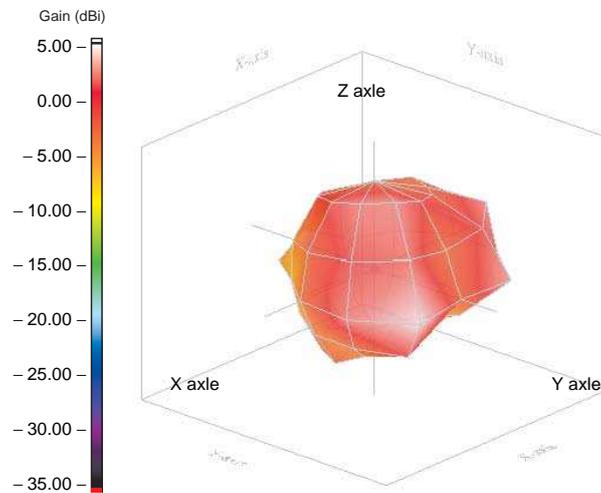




Frequency= 2.45 GHz  
 Max gain = 2.09 dBi, at (60, 150)  
 MEG (mean effective gain)= -1.18 dBi  
 Directivity (dB) = 3.58  
 Efficiency = -1.49 dB, 71.01 %



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 %

YNH008

**Fig. 6** Radiation pattern

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