

# DATA SHEET

WIRELESS COMPONENTS

Ceramic Chip Antenna

ANT5320LL24R2455A

2.4 AND 5 GHZ

5320 Series



**FEATURES**

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

**APPLICATIONS**

- 2.4 & 5 GHz 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 L24 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.**

L24

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**(5) PACKING STYLE**

R = Tape and Reel

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**(6) WORKING FREQUENCY**

2455 = 2.45/ 5 GHz

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**PHYCOMP CTC**

CAN431175324252K

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**I2NC**

431175324252

**SPECIFICATION**

Table 1

DESCRIPTION	VALUE
Centre Frequency	2.45/ 5 GHz
Bandwidth	120M / 900 MHz (min)
Return Loss	10 dB min
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	2.17 / 3.51 dBi (Typ.)
Impedance	50 Ω
Operating Temperature	-40~105 degree
Maximum Power	1 W
Termination	Ag (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)	5.30 ± 0.10
W (mm)	2.00 ± 0.10
T (mm)	1.15 ± 0.10
A (mm)	0.82 ± 0.10
B (mm)	0.83 ± 0.10
C (mm)	0.46 ± 0.10
D (mm)	2.33 ± 0.10

**OUTLINES**

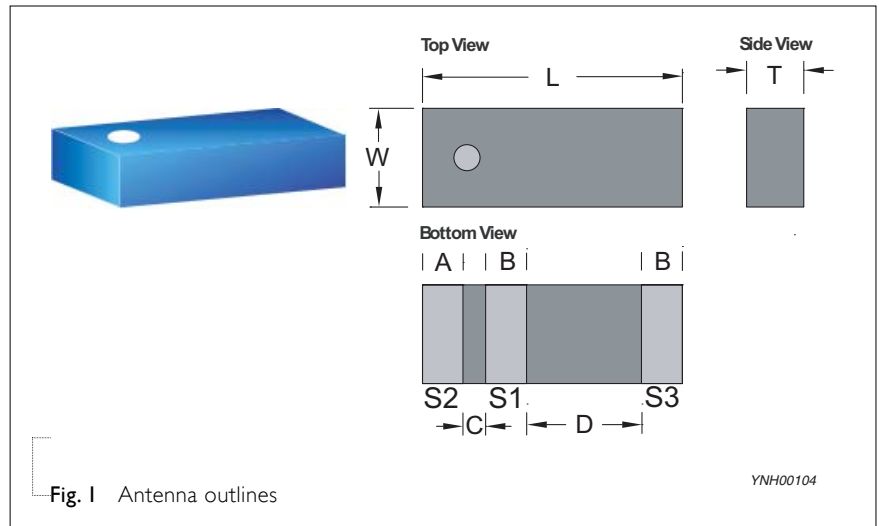


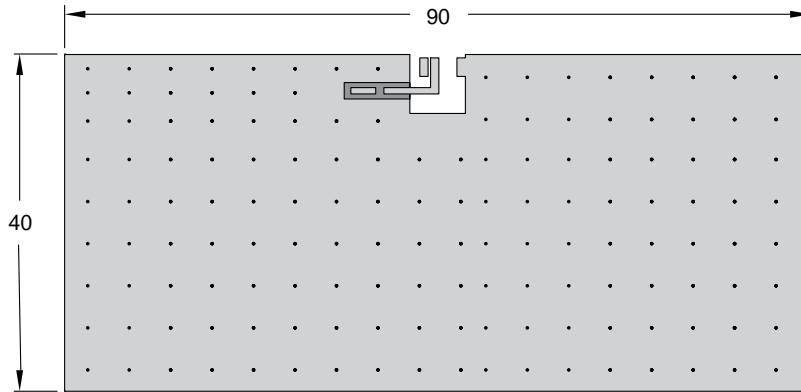
Fig. 1 Antenna outlines

YNH00104

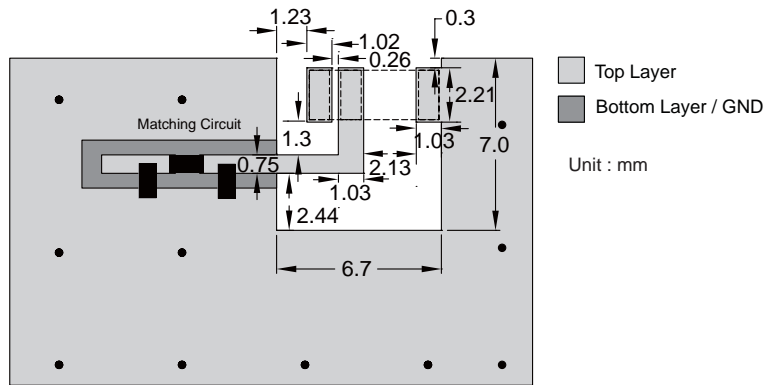
Table 3 Termination configuration

TERMINAL NAME	FUNCTION
S1	Feeding Point
S2	Soldering Point
S3	GND

**REFERENCE DESIGN OF EVALUATION BOARD**



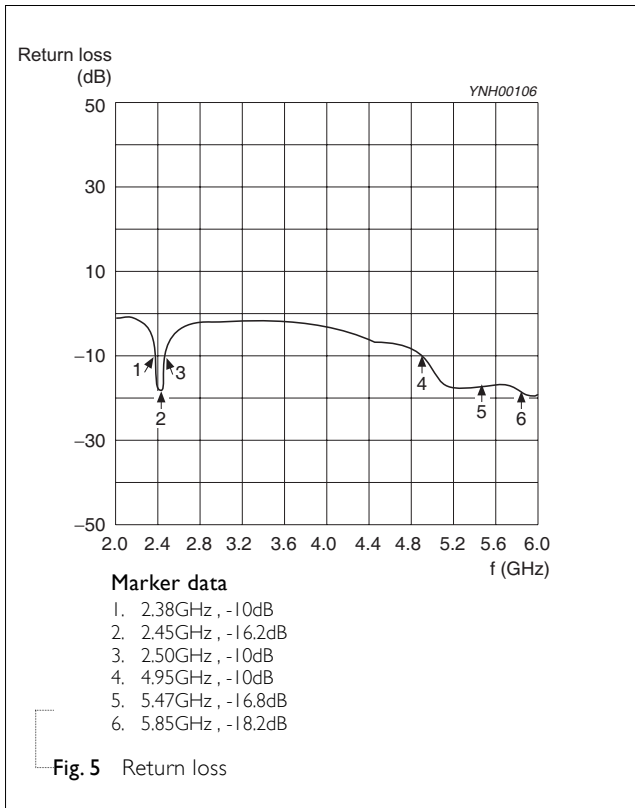
**Fig. 3** Outlook and dimension of evaluation board

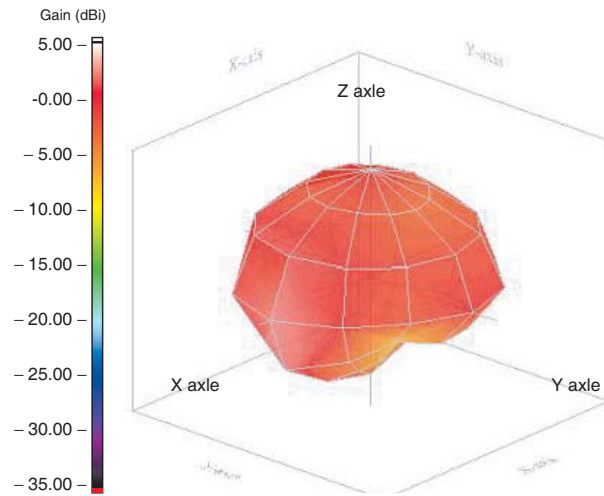
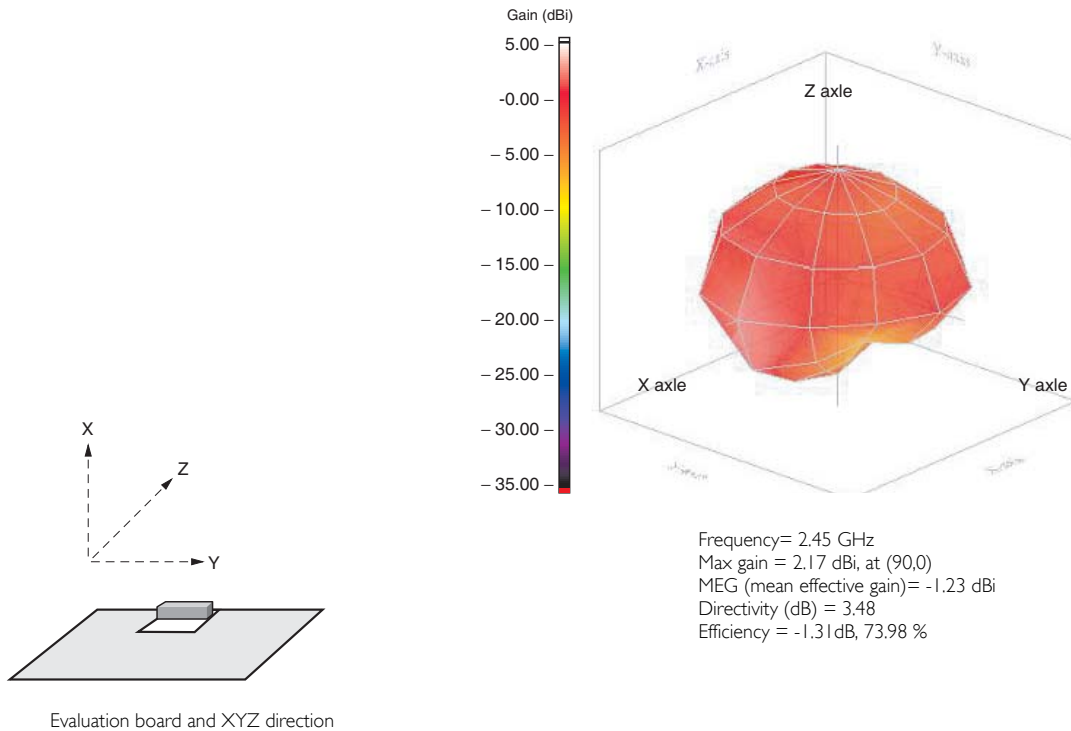


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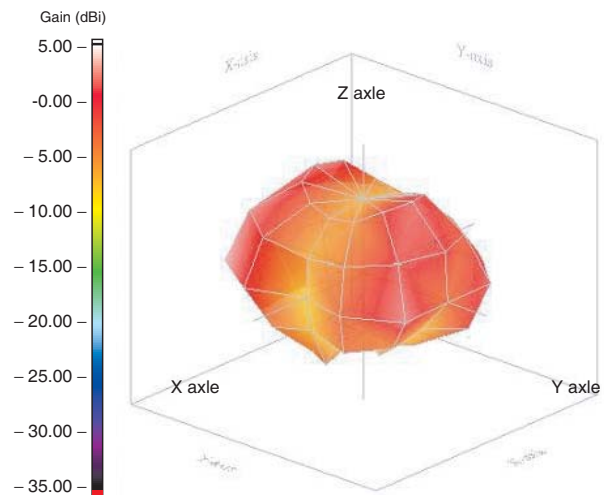
**Fig. 4** Details of soldering pad

**ELECTRICAL PERFORMANCES**





Frequency= 2.45 GHz  
 Max gain = 2.17 dBi, at (90,0)  
 MEG (mean effective gain)= -1.23 dBi  
 Directivity (dB) = 3.48  
 Efficiency = -1.31dB, 73.98 %



Frequency= 5.47 GHz  
 Max gain = 3.51 dBi, at (90,300)  
 MEG (mean effective gain)= -2.68 dBi  
 Directivity (dB) = 4.95  
 Efficiency = -1.44dB, 71.82 %

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**Fig. 6** Radiation pattern

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Jan. 30, 2013	-	- New data sheet for SMD type antenna, 2.4 / 5GHz application, 5320 series PIFA mode