Innovative Service Around the Globe YAGEO

DATA SHEET

WIRELESS COMPONENTS

Ceramic Chip Antenna

ANT1204LL08R0870A

870MHz

1204 Series



YAGEO Phycomp

Product Specification –February 19, 2014 V.0



FEATURES

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

APPLICATIONS

- Smart meter
- Industrial remote control
- 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	**1204**	**L**	**L08**	**R**	**0870A**
(1)	(2)	(3)	(4)	(5)	(6)

(1) PRODUCT

ANT = Antenna

(2) SIZE

1204 = 12 × 4

(3) ANTENNA TYPE

L,F,A = Chip Antenna

(4) SERIAL NO.

L08

(5) PACKING STYLE

R = Tape and Reel

(6) WORKING FREQUENCY

0870 = 0.87GHz

PHYCOMP CTC

CAN4311759080871K

12NC

431175908087

SPECIFICATION

Table 1

DESCRIPTION	VALUE
Centre Frequency	870MHz
Bandwidth	34 MHz (Typ.)
Return Loss	10 dB min
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	1.51 dBi (Typ.)
Impedance	50 Ω
Operating Temperature	- 40~105 ℃
Maximum Power	1 W
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)	12.10 ±0.20
W (mm)	4.10 ±0.20
T (mm)	1.60 ±0.20
A (mm)	0.85 ±0.35

OUTLINES

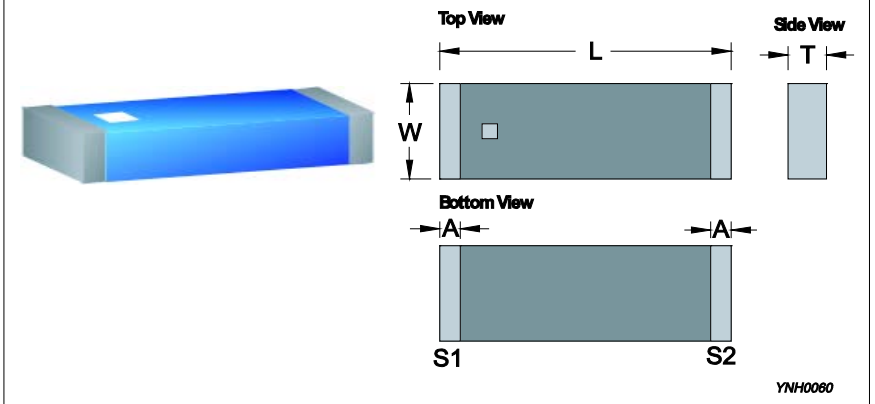


Fig. 1 Antenna outlines

Table 3 Termination configuration

TERMINAL NAME	FUNCTION
S1	Feeding Point
S2	Soldering Point

REFERENCE DESIGN OF EVALUATION BOARD

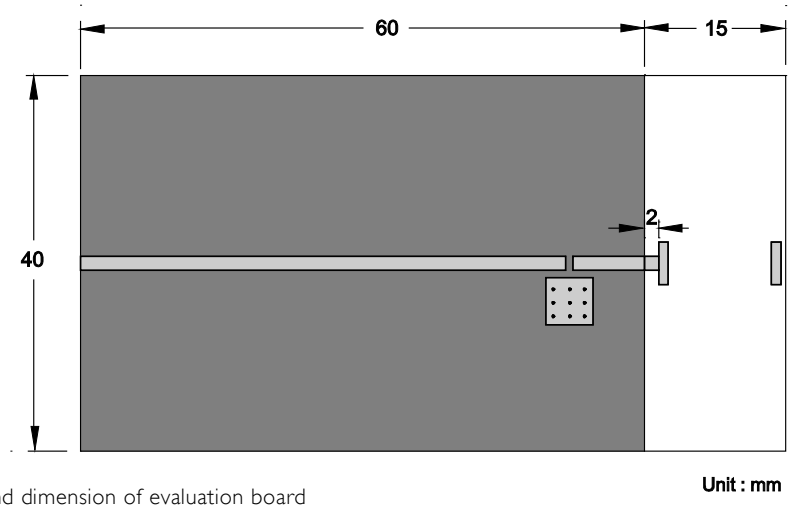


Fig. 3 Outlook and dimension of evaluation board

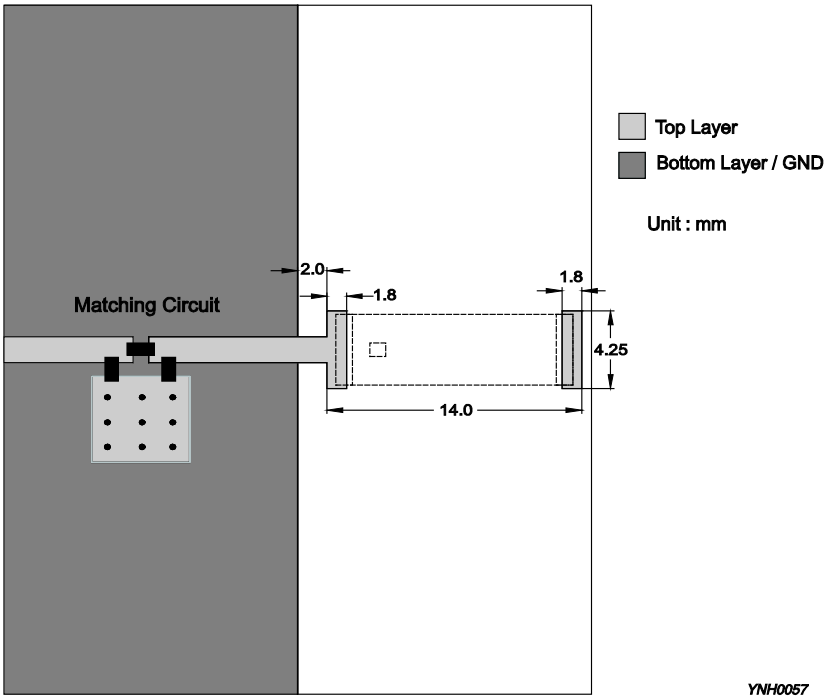
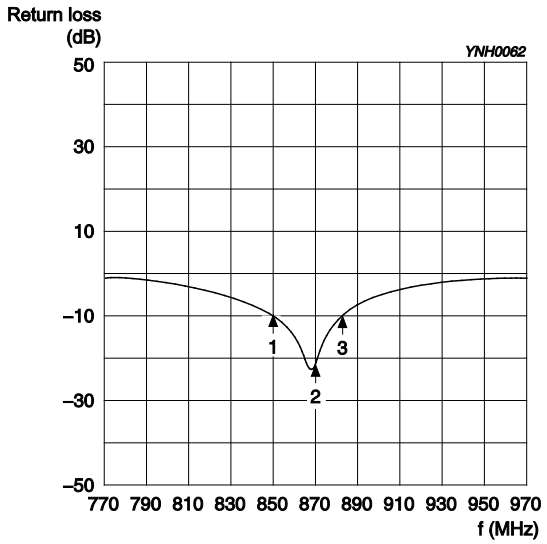


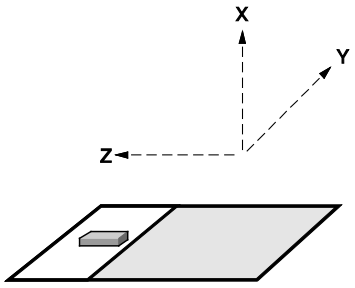
Fig. 4 Details of soldering Pad

ELECTRICAL PERFORMANCES

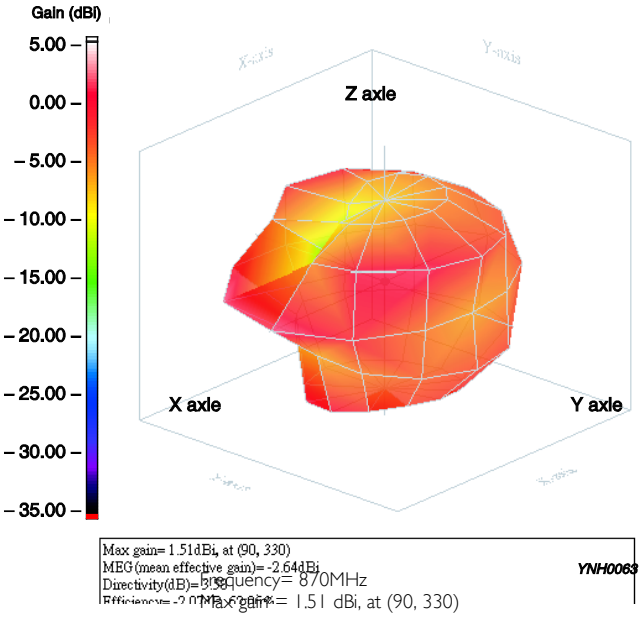


Marker data
1. 849MHz, -10dB
2. 870MHz, -21.6dB
3. 883MHz, -10dB

Fig. 5 Return loss



Evaluation board and XYZ direction



Frequency= 870MHz
Max gain= 1.51 dBi, at (90, 330)
MEG (mean effective gain)= -2.64 dBi
Directivity (dB) = 3.58
Efficiency = -2.07 dB, 62.06 %

Fig. 6 Radiation pattern

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Feb. 19, 2014	-	- New data sheet for SMD type antenna, 870MHz application, 1204 series