Innovative Service Around the Globe YAGEO

DATA SHEET

WIRELESS COMPONENTS

FR4 Chip Antenna

ANT1204F005R0915A

UHF (915MHz)

1204 Series



YAGEO Phycomp

Product Specification – September 23, 2013 V.0



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FEATURES

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

APPLICATIONS

- Smart meter
- Industrial remote control

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 F 005 R 0915 A
(1) (2) (3) (4) (5) (6)

(1) PRODUCT

ANT = Antenna

(2) SIZE

1204=12 × 4 mm

(3) ANTENNA TYPE

L, F, A=Chip antenna

(4) SERIAL NO.

005

(5) PACKING STYLE

R = Tape and Reel

(6) WORKING FREQUENCY

0915 = UHF 915MHz

PHYCOMP CTC

CAN431105905091IK

12NC

431105905091

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SPECIFICATION

Table 1

DESCRIPTION	VALUE
Centre Frequency	915MHz
Bandwidth	30 MHz (Typ.)
Return Loss	10 dB min
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	1.59 dBi (Typ.)
Impedance	50Ω
Operating Temperature	- 40~85 ℃
Maximum Power	1 W
Termination	Cu / Au (Environmentally-Friendly Leadless)
Resistance to Soldering Heats	260°C / 10 sec

NOTE
The specification is defined on Yageo evaluation board

DIMENSIONS

Table 2 Machinical Dimension

	DIMENSION
L (mm)	12.20±0.20
W (mm)	4.00±0.20
T (mm)	1.60±0.20

Table 3 Termination configuration

TERMINAL NAME	Function
S1	Feeding Point
S2	Soldering Point

OUTLINES

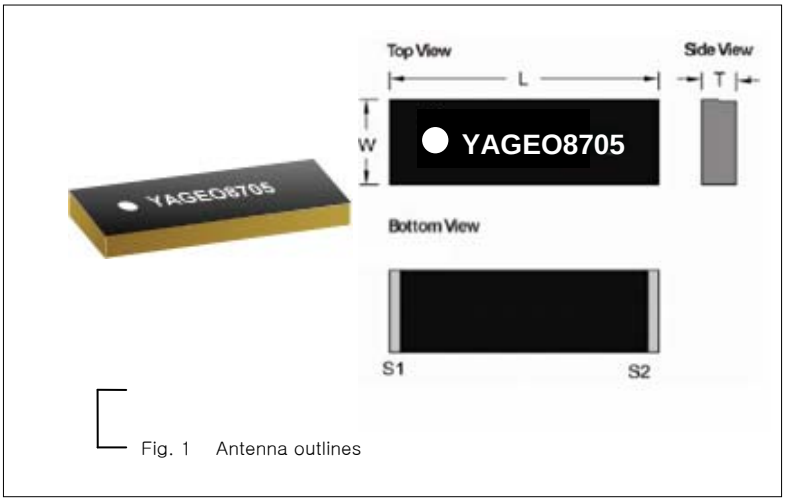
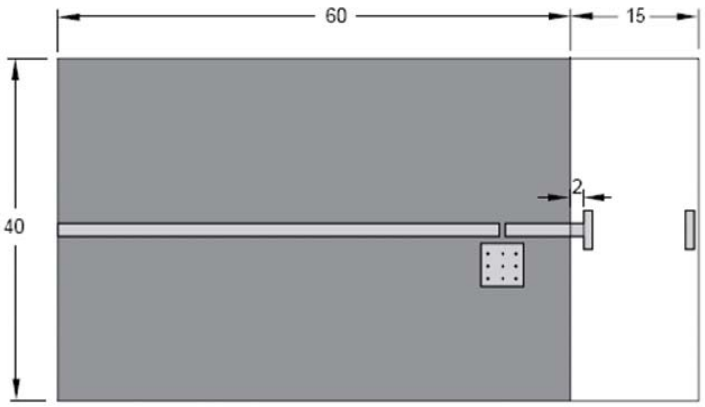


Fig. 1 Antenna outlines

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REFERENCE DESIGN OF EVALUATION BOARD



Unit: mm

Fig. 2 Outlook and dimension of evaluation board

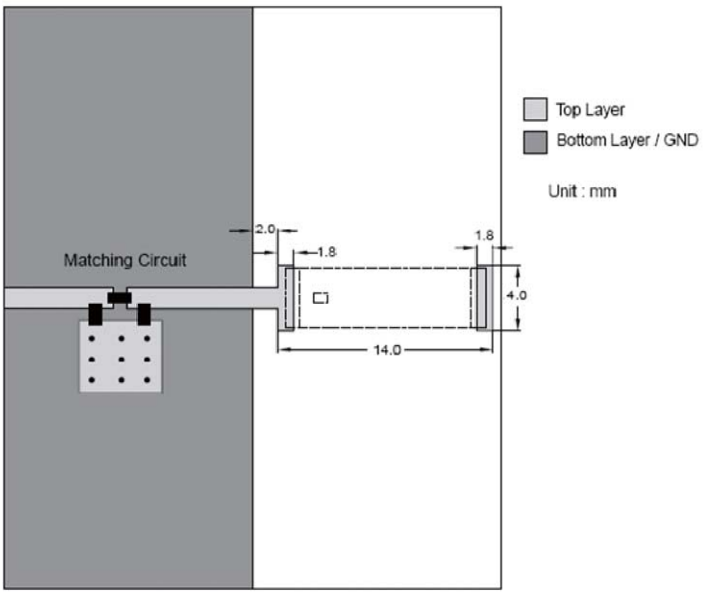
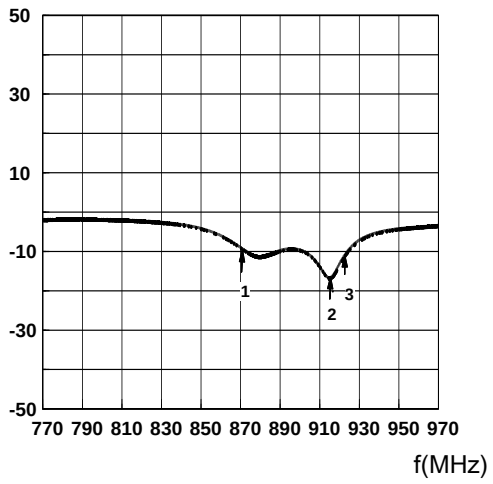


Fig. 3 Details of soldering Pad

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ELECTRICAL PERFORMANCE



Marker data

1.870MHz,-10dB

2.915MHz,-16.73dB

3.926MHz,-10dB

Fig. 4 Return loss

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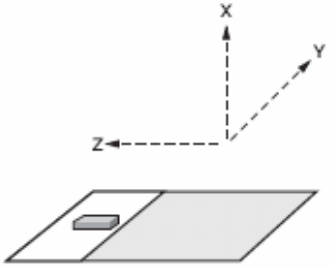


Fig. 2 PCB Design
Evaluation board and XYZ direction

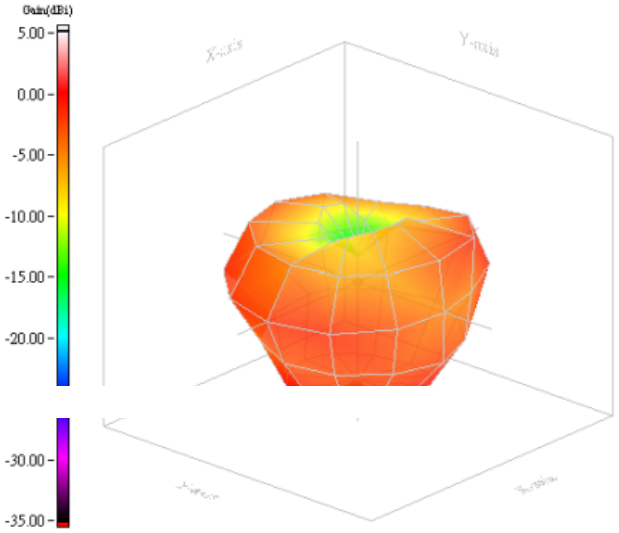


Fig. 5 Radiation pattern

Max gain= 1.59dBi, at (150, 180)
MEG (mean effective gain)= -3.56dBi
Directivity(dB)= 4.57
Efficiency= -2.98dB, 52%

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REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Preliminary	Sept. 11, 2013		- New data sheet antenna, 915MHz application, 1204 series

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