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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
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Innovative Service Around the Globe YAGEO

DATA SHEET

WIRELESS COMPONENTS

Ceramic Chip Antenna

ANT2112A010B0918A

CELLULAR-BAND

2112 Series

YAGEO Phycomp

Product Specification –March 19, 2014 V.1

FEATURES

- Compact size
- High radiation efficiency
- Multi-band coverage
- Reflow process compatible
- RoHS compliant

APPLICATIONS

- Global cellular network devices
- Telematics
- Cellular broadband access
- M2M module

ORDERING INFORMATION

All part numbers are identified by the series, packing type, material, size, antenna type, working frequency and packing quantity.

PART NUMBER

ANT	**2112**	**A**	**010**	**B**	**0918A**
(1)	(2)	(3)	(4)	(5)	(6)

(1) PRODUCT
ANT = Antenna
(2) SIZE
2112=21×12 mm
(3) ANTENNA TYPE
L, F, A=Chip antenna
(4) SERIAL NO.
010
(5) PACKING STYLE
B = Bag
(6) WORKING FREQUENCY
0918 = 900 / 1800 MHz
PHYCOMP CTC
CAN43132841091818 / CAN43132180091818
12NC
431328410918

SPECIFICATION

Table 1

DESCRIPTION	VALUE
Centre Frequency	900/1800 MHz
Bandwidth	30 / 170 MHz (Typ.)
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	0.5~1 dBi (Typ.)
Impedance	50 Ω
Operating Temperature	- 40~105 ℃
Maximum Power	4W
Termination	Ag (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)	20.50 ± 0.25
W (mm)	11.8 ± 0.20
F (mm)	3.0 ± 0.25
C (mm)	1.00 ± 0.30
S1 (mm)	4.0 ± 0.35
S2 (mm)	2.8 ± 0.35
S3 (mm)	3.0 ± 0.35
T (mm)	0.5 ± 0.15

Table 3 Termination configuration

TERMINAL NAME	FUNCTION
F	Feeding Point

OUTLINES

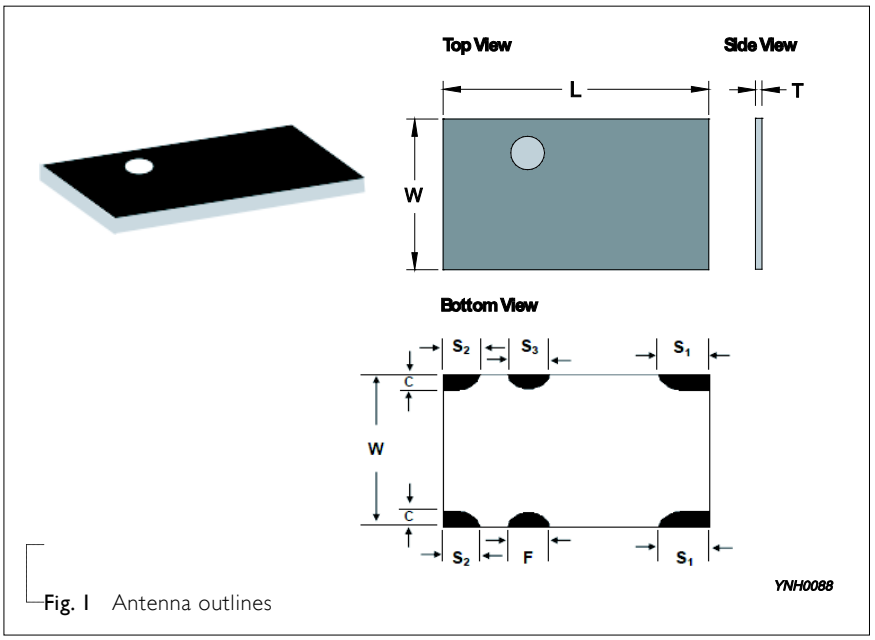


Fig. 1 Antenna outlines

REFERENCE DESIGN OF EVALUATION BOARD

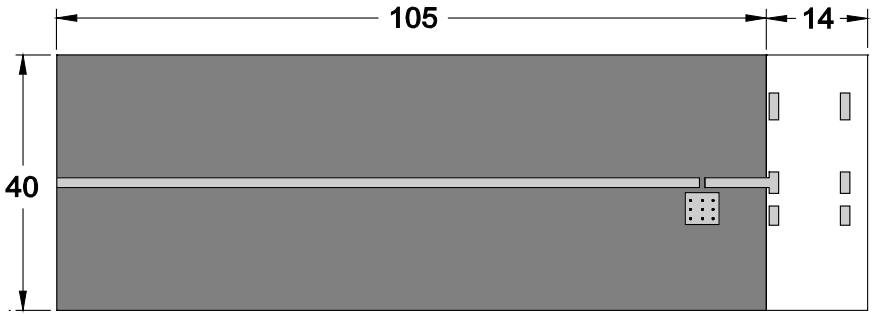


Fig. 2 Outlook and dimension of evaluation board

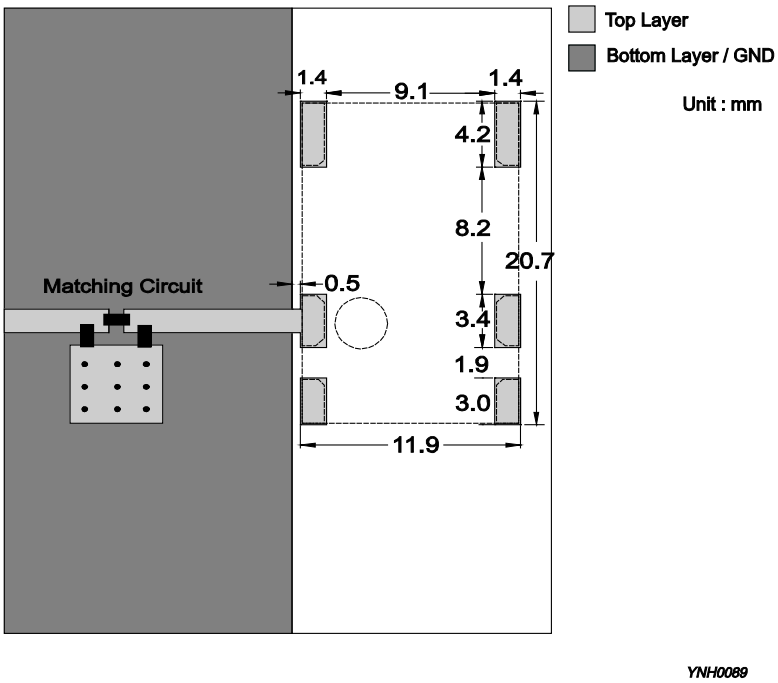


Fig. 3 Details of soldering Pad

ELECTRICAL PERFORMANCES

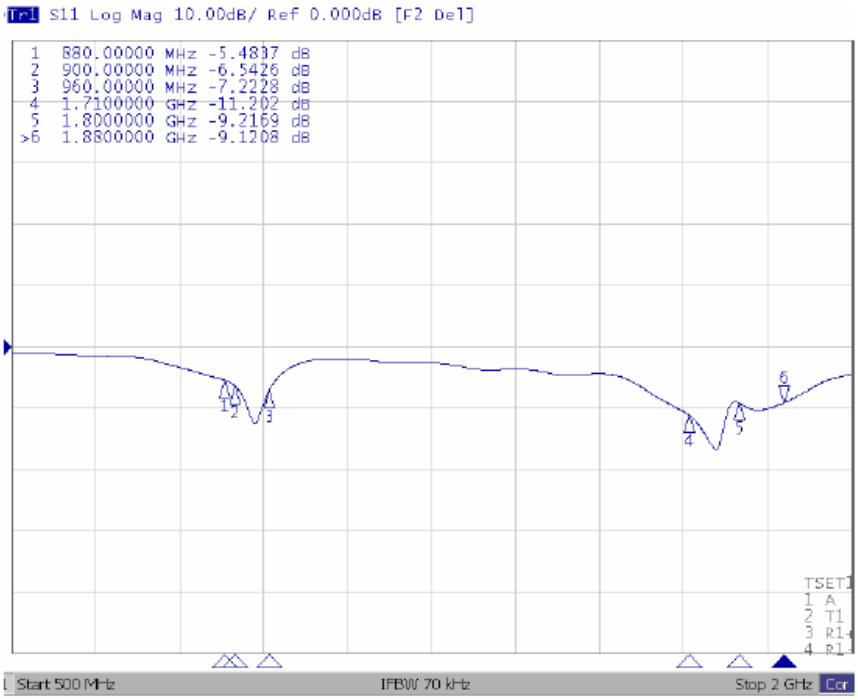
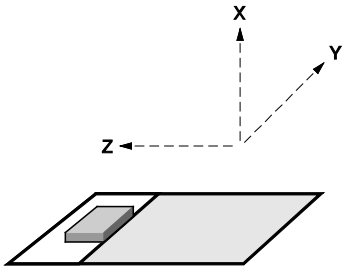
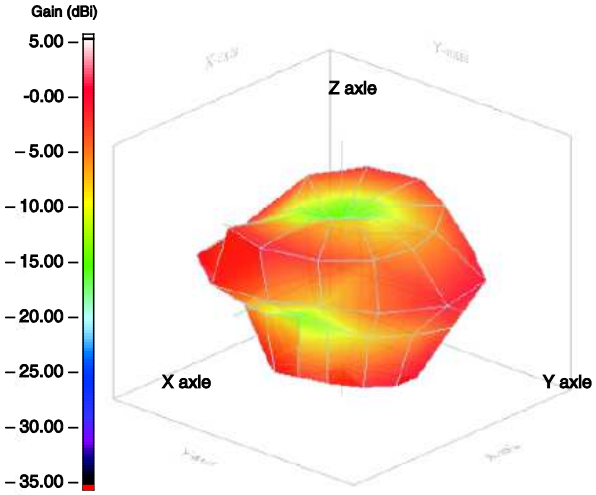


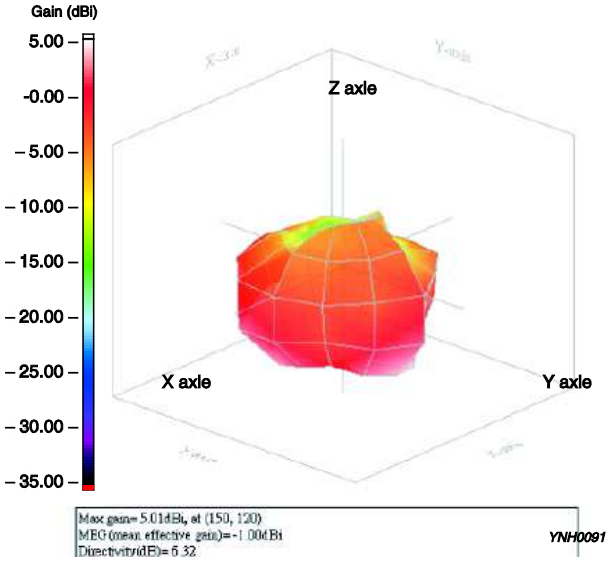
Fig. 4 Return loss



Evaluation board and XYZ direction



Frequency= 950 MHz
Max gain = 1.10dBi, at (150,150)
MEG= -4.01 dBi
Directivity (dB) = 4.69
Efficiency = -3.59dB, 43.77 %



Frequency= 1800 MHz
Max gain = 5.01dBi, at (150, 120)
MEG= -1.00 dBm
Directivity (dB) = 6.32
Efficiency = -1.31dB, 73.92 %

Fig. 5 Radiation pattern

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 1	Feb. 05, 2013	-	- Dimensions update
Version 0	Nov. 15, 2012	-	- New data sheet for SMD type antenna, 900 / 1800MHz application, 2112 series