Innovative Service Around the Globe YAGEO

DATA SHEET

WIRELESS COMPONENTS

Ceramic Chip Antenna

ANT1003LL15R1524A

2.4GHz AND GPS

1003 Series

YAGEO Phycomp

Product Specification –March 28, 2013 V.0

FEATURES

- Cover dual frequency bands in 2.4 & 1.575 GHz
- Compact size
- Omni-directional Radiation
- Tape & reel automatic mounting
- Reflow process compatible
- RoHS compliant

APPLICATIONS

- Tablet
- Navigation device
- Telematics box
- Fleet management
- 2.4 GHz WiFi device
- Bluetooth gadget
- Zigbee 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	**1003**	**L**	**L15**	**R**	**1524A**
(1)	(2)	(3)	(4)	(5)	(6)

(1) PRODUCT

ANT = Antenna

(2) SIZE

1003 = 10 x 3 mm

(3) ANTENNA TYPE

L,F,A = Chip Antenna

(4) SERIAL NO.

L15

(5) PACKING STYLE

R = Tape and Reel

(6) WORKING FREQUENCY

1524 = 1.575 / 2.4GHz

PHYCOMP CTC

CAN4311756151521K

12NC

431175615152

SPECIFICATION

Table 1

DESCRIPTION	VALUE
Centre Frequency	1.575 GHz / 2.45 GHz
Bandwidth	15 MHz (Typ.) / 84 MHz (Typ.)
Return Loss	6.49 dB min
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	1.15dBi / 2.90 dBi
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)	9.90±0.15
W (mm)	3.20±0.15
T (mm)	1.47±0.15
A (mm)	2.81±0.15
B (mm)	1.23±0.15
C (mm)	1.03±0.15
D (mm)	1.03±0.15
E (mm)	1.03±0.15
F (mm)	1.03±0.15
G (mm)	0.60±0.15
H (mm)	0.83±0.15
I (mm)	0.83±0.15
J (mm)	0.83±0.15
K (mm)	0.83±0.15
M (mm)	2.81±0.15
N (mm)	1.23±-0.15

OUTLINES

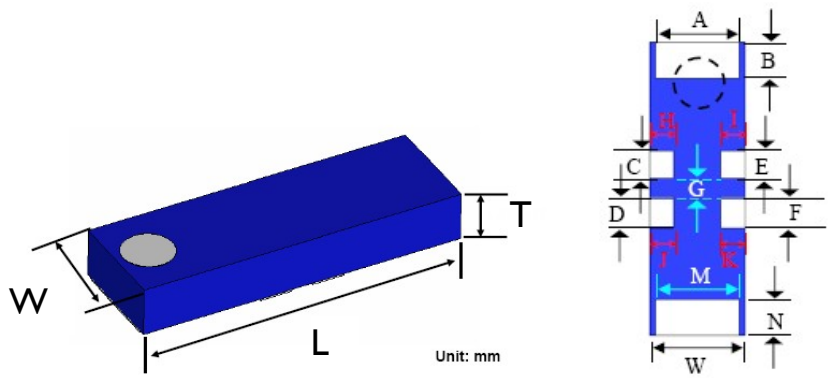

Fig. 1 Antenna outlines

Table 3 Termination configuration

TERMINAL NAME	FUNCTION	TERMINAL NAME	FUNCTION
A	Feed BT/GND	H	Ground
B	Feed BT/GND	I	Ground
C	Ground	J	Ground
D	Ground	K	Ground
E	Ground	M	Feed GPS/GND
F	Ground	N	Feed GPS/GND

REFERENCE DESIGN OF EVALUATION BOARD

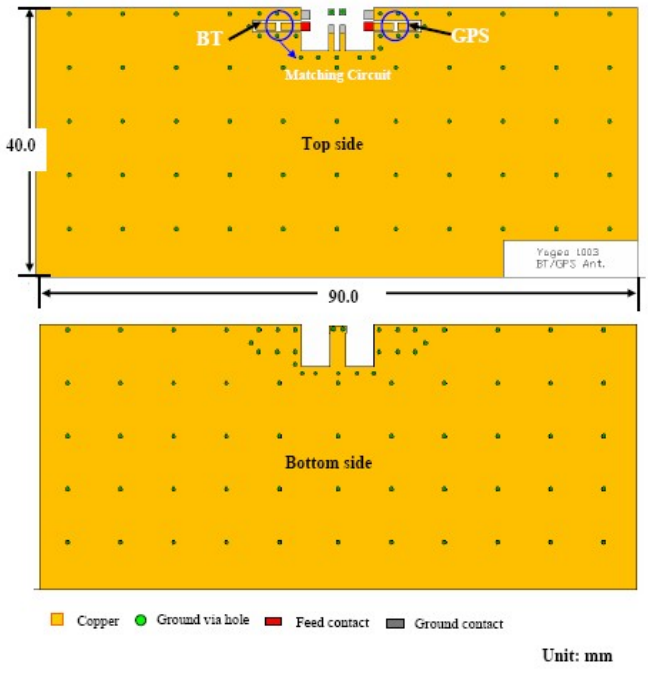

Fig. 2 Outlook and dimension of evaluation board

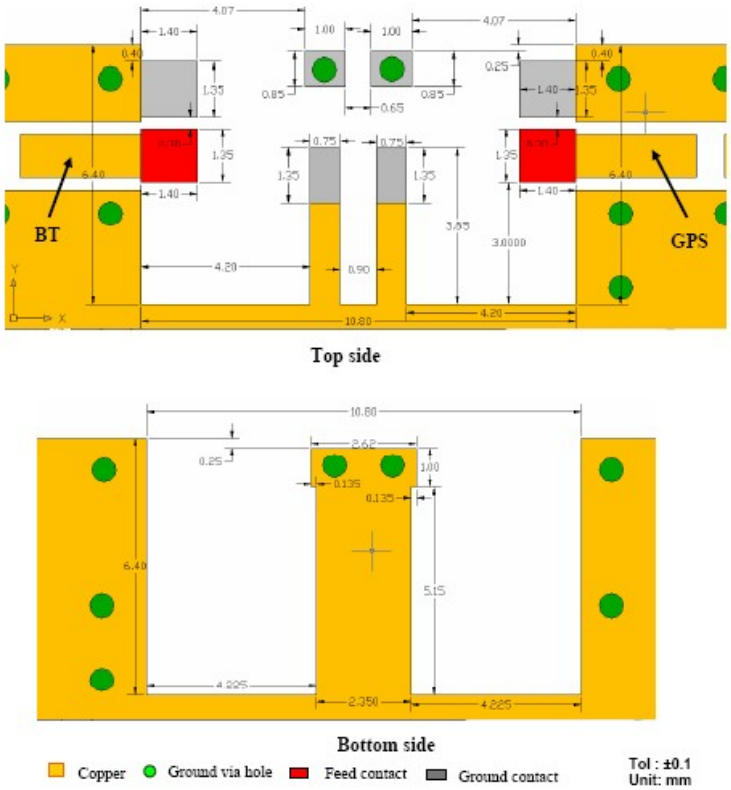

Fig. 3 Details of soldering Pad

ELECTRICAL PERFORMANCES

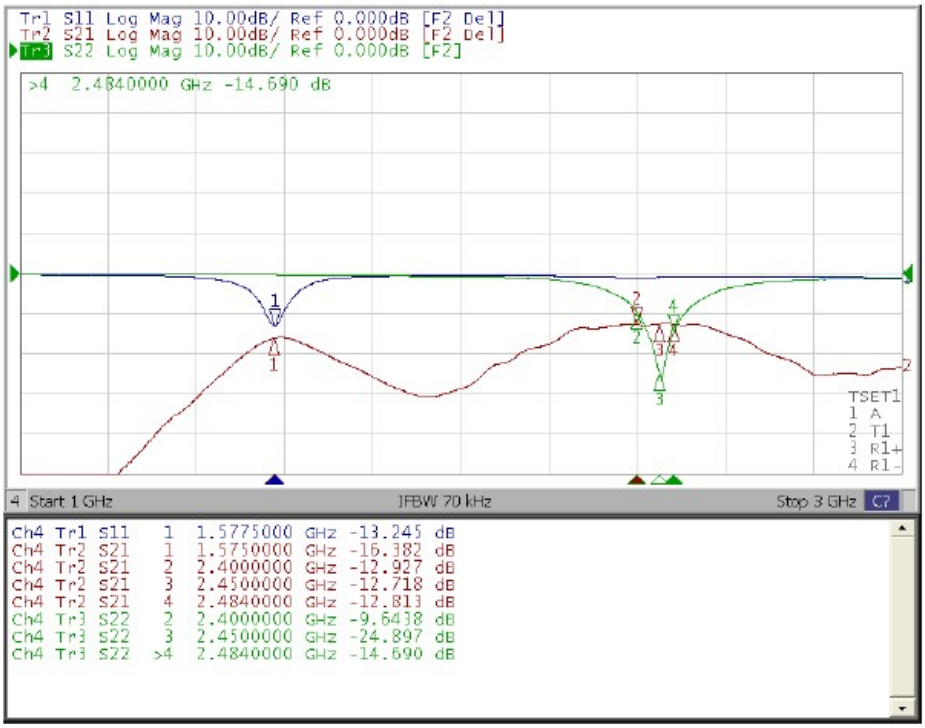

Fig. 4 Return loss

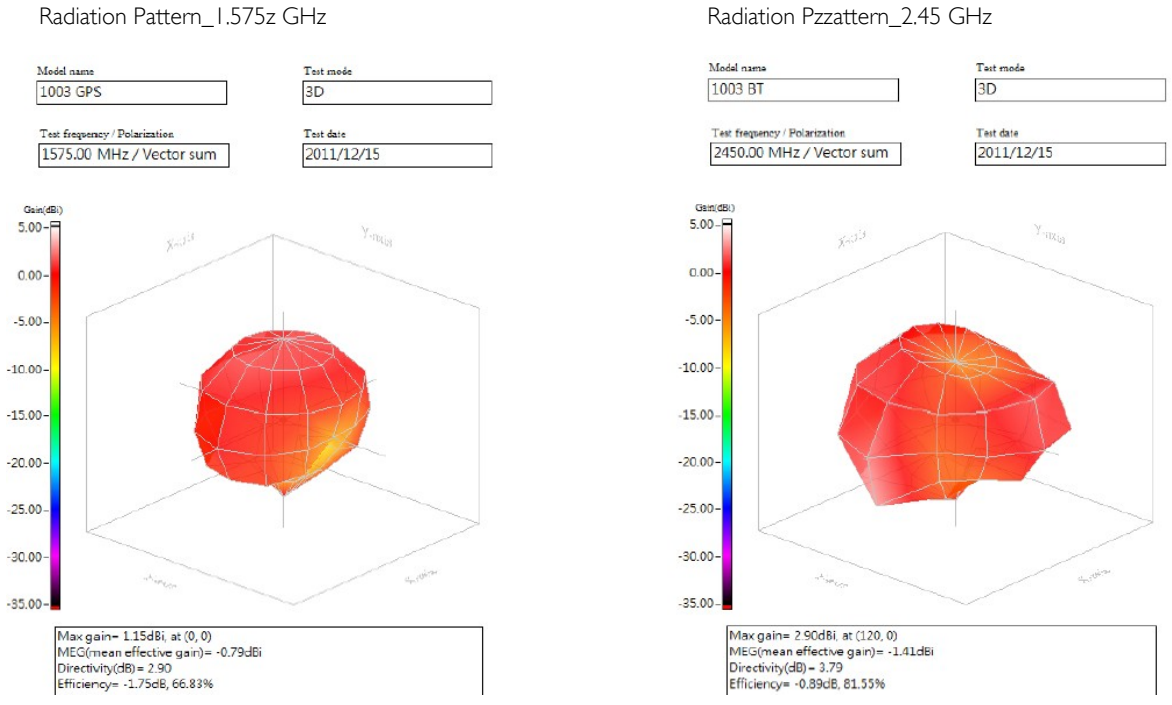

Fig. 5 Radiation pattern

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Mar. 28, 2013	-	- New data sheet for Ceramic Chip Antenna, 2.4 GHz and GPS, size 10 × 3 mm