

DATA SHEET

WIRELESS COMPONENTS

Ceramic Antenna
ANT4010F000RWPENA

LTE-BAND
4010 Series



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 4010 B 000 F WPENA
(1) (2) (3) (4) (5) (6)

(1) PRODUCT

ANT = Antenna

(2) SIZE

4010 = 40 × 10 mm

(3) ANTENNA TYPE

L,F,A = Chip Antenna

(4) SERIAL NO.

000

(5) PACKING STYLE

R = Reel

(6) WORKING FREQUENCY

WPEN=0.824~0.960 / 1.71~2.17 GHz

PHYCOMP CTC

CAN431104300PEN1K

I2NC

431104300PEN

SPECIFICATION

Table 1

DESCRIPTION	VALUE
Working Frequency	824~960 / 1710~2170 MHz
Bandwidth	136 / 460 MHz (Typ.)
VSWR	3.0 dB max
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	3.3 dBi(Typ.)
Impedance	50 Ω
Operating Temperature	- 40~105 °C
Maximum Power	1 W
Termination	Ni/Au
Resistance to Soldering Heats	260°C , 5sec.

NOTE

I. The specification is defined on Yageo evaluation board

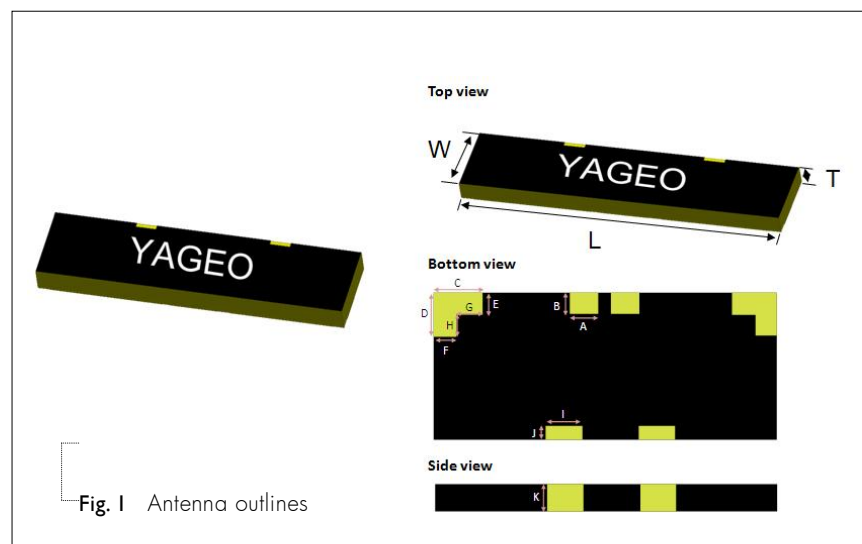
DIMENSIONS**OUTLINES**

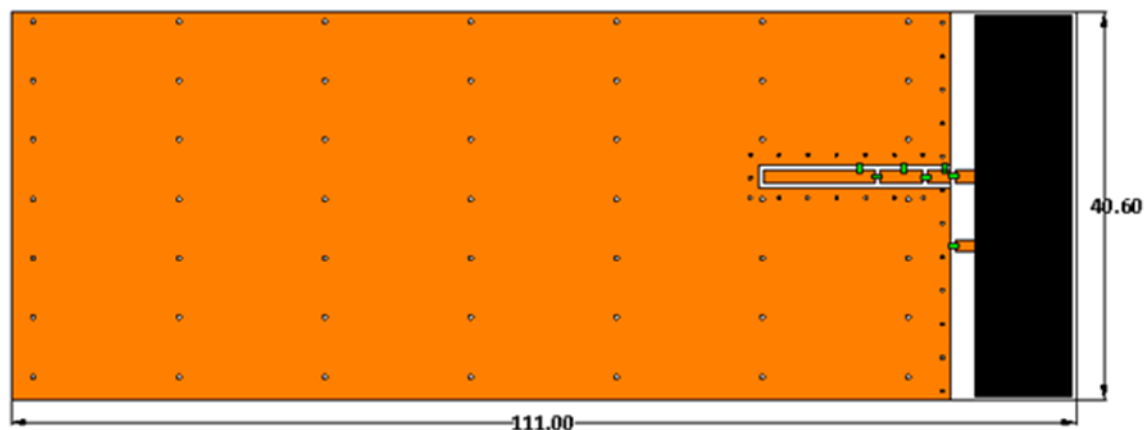
Table 2 Mechanical Dimension

MARK	DIMENSION
L (mm)	40.0 ±0.30
W (mm)	10.3 ±0.30
T (mm)	3.40±0.30
A (mm)	1.50±0.20
B (mm)	1.00±0.20
C (mm)	1.50±0.20
D (mm)	1.50±0.20
E (mm)	1.00±0.20
F (mm)	1.00±0.20
G (mm)	0.50±0.20
H (mm)	0.50±0.20
I (mm)	2.70±0.20
J (mm)	0.90±0.20
K (mm)	3.20±0.20

Table 3 Termination configuration

MARK	FUNCTION
A	Feeding
B	Feeding

REFERENCE DESIGN OF EVALUATION BOARD



Unit : mm

Fig. 2 Outlook and dimension of evaluation board

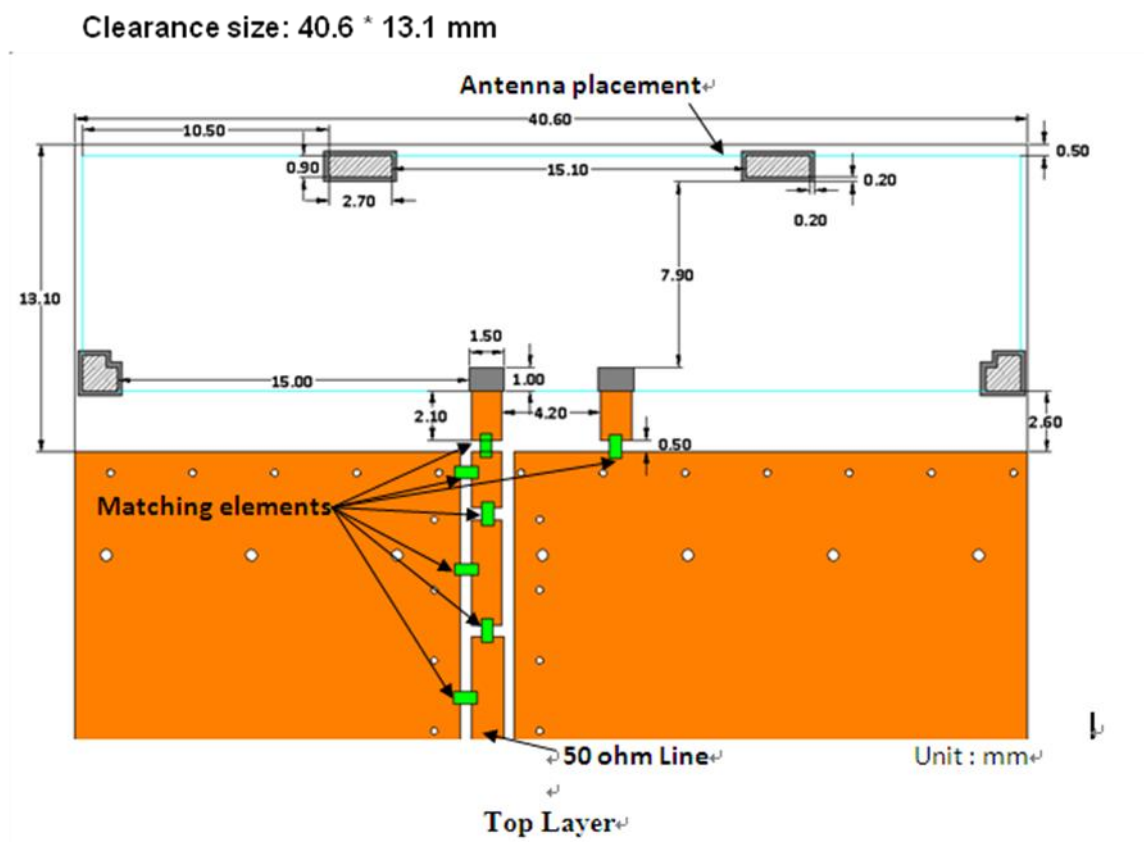


Fig. 3 Details of soldering Pad

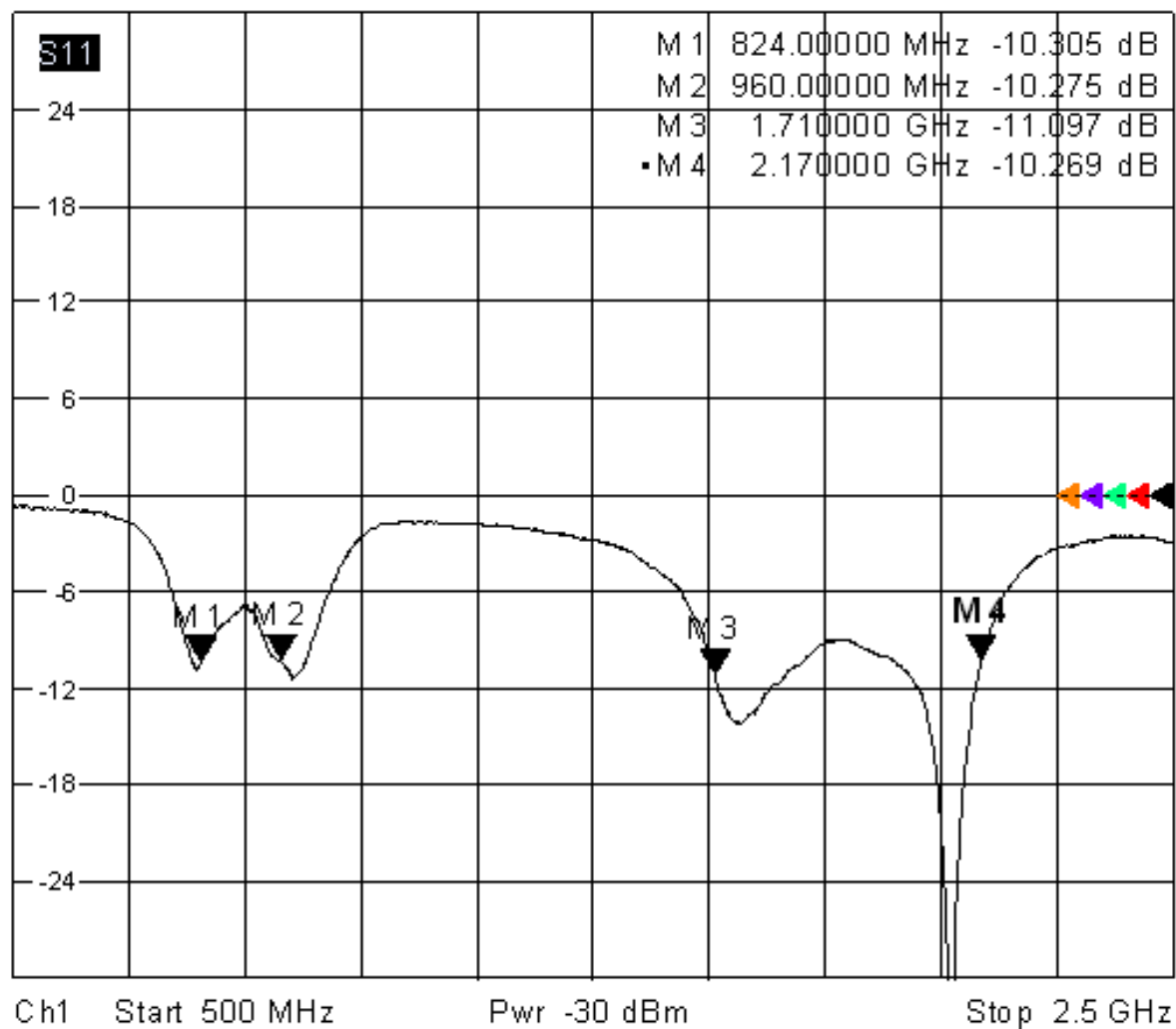
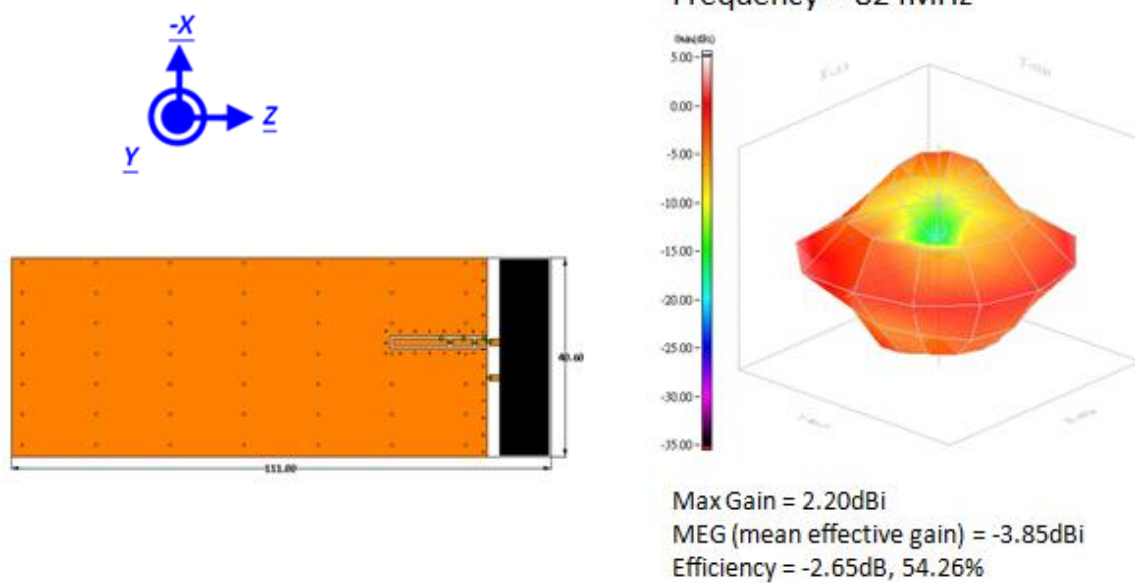
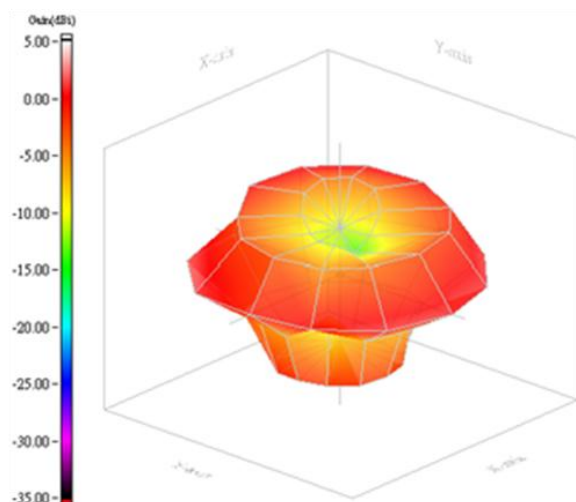
ELECTRICAL PERFORMANCES

Fig. 4 Return loss

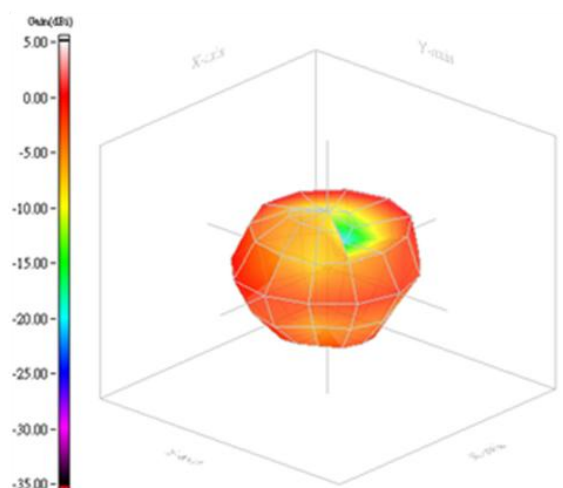


Frequency = 892MHz



Max Gain = 1.88dBi
MEG (mean effective gain) = -3.40dBi
Efficiency = -1.98dB, 63.43%

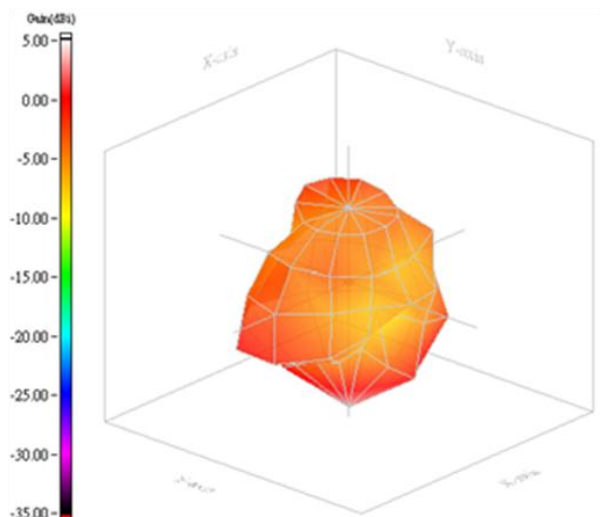
Frequency = 960MHz



Max Gain = 1.80dBi
MEG (mean effective gain) = -3.69dBi
Efficiency = -2.59dB, 55.06%

Fig. 5 Radiation Pattern

Frequency = 1710MHz

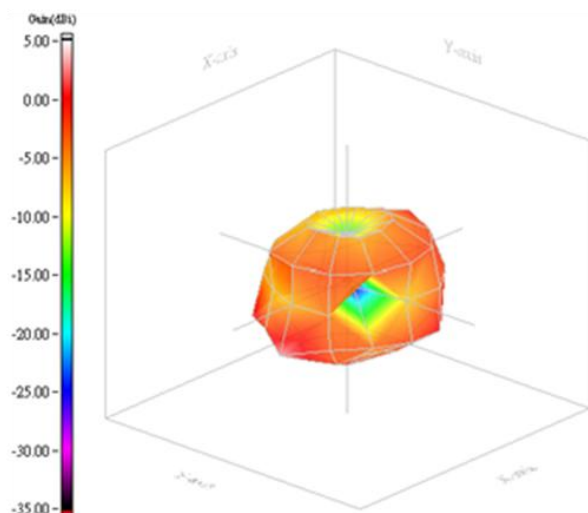


Max Gain = 2.80dBi

MEG (mean effective gain) = -1.46dBi

Efficiency = -2.89dB, 51.46%

Frequency = 1940MHz

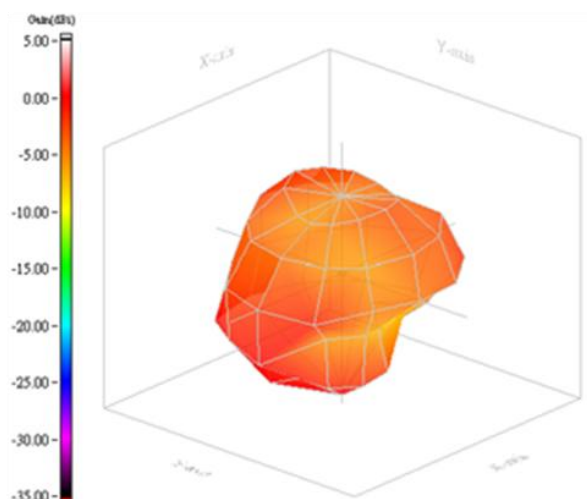


Max Gain = 2.83dBi

MEG (mean effective gain) = -2.11dBi

Efficiency = -2.18dB, 60.55%

Frequency = 2170MHz



Max Gain = 1.24dBi

MEG (mean effective gain) = -2.17dBi

Efficiency = -2.93dB, 50.97%

Fig. 6 Radiation Pattern

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Aug. 04, 2015-		New data sheet for SMD type antenna, WPENA application, 4010 series