

DATA SHEET

HIGH FREQUENCY
SMD type antenna
for WWAN application
824~960 MHz / 1710~2170MHz
3505 Series



FEATURES

- Omni directional radiation
- Compact size design
- Suitable for wave and reflow soldering
- RoHS compliant

APPLICATIONS

- 824~960 MHz / 1710~2170MHz
- WWAN
- Telecom

ORDERING INFORMATION-GLOBAL PART NUMBER, PHYCOMP CTC & I2NC

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

YAGEO BRAND ordering code
GLOBAL PART NUMBER (PREFERRED)

CAN43 13 4 49 00 918 1B
(1) (2) (3) (4) (5) (6) (7)

(1) FAMILY

CAN43 = Antenna products

(2) PACKING STYLE

13 = Bag

(3) MATERIALS

Material Code 4

(4) SIZE

49 = 35 * 5

(5) ANTENNA TYPE

00 = Type 00

(6) WORKING FREQUENCY

918 = 800/900/1800 MHz (WWAN)

(7) PACKING QUANTITY

1B = ≤ 1,000 pcs per bag

ELECTRICAL CHARACTERISTICS

Table 1

DESCRIPTION	VALUE
Working Frequency	824~960 M / 1710~2170 MHz
Bandwidth	140MHz / 460 MHz (Typ.)
Return Loss	6.26 / 5.03 dB min
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	1.72 / 4.35 / 1.67 dBi (Typ.)
Impedance	50 Ω
Operating Temperature	- 40 °C to +85 °C
Maximum Power	4 W
Termination	Ag (Environmentally-Friendly Leadless)
Resistance to Soldering Heats	260°C , 10sec.

NOTE

I. The specification is defined on Yageo evaluation board

DIMENSIONS

Table 2 Machinical Dimension

TYPE	DIMENSION
L (mm)	35.00 ±0.20
W (mm)	5.00 ±0.20
T (mm)	6.00 ±0.20
A (mm)	2.00 ±0.20
B (mm)	1.50 ±0.20
C (mm)	1.27 ±0.20

OUTLINES

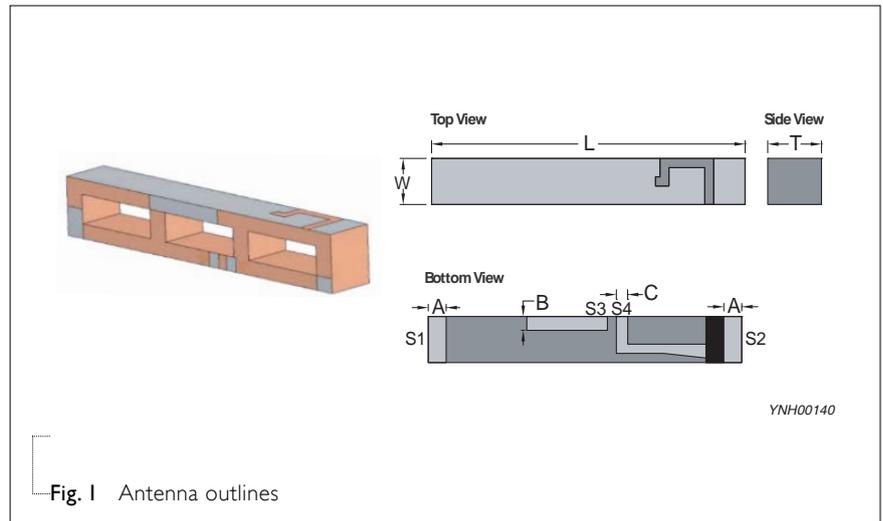
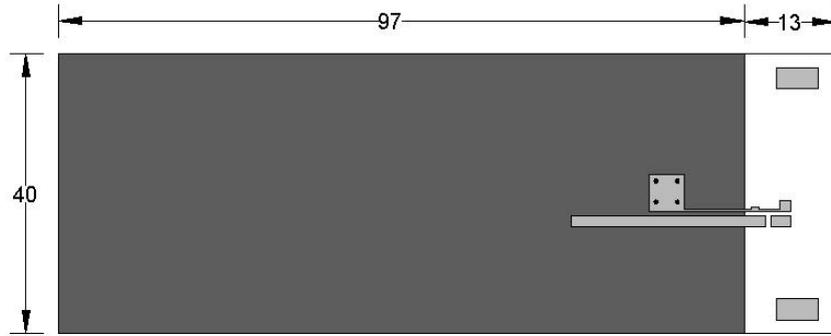


Fig. I Antenna outlines

Table 3 Termination configuration

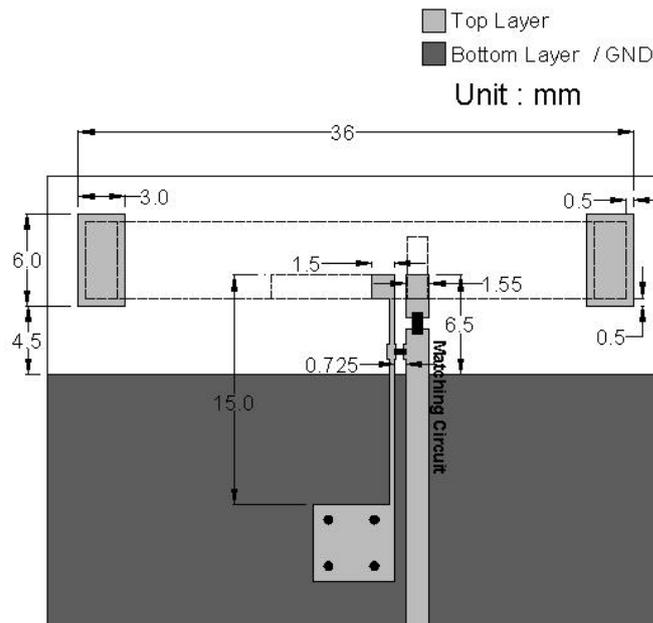
TERMINAL NAME	FUNCTION
S1	Soldering Point
S2	Soldering Point
S3	GND
S4	Feeding Point

FOOTPRINT DIMENSIONS



Unit : mm

Fig. 3 Outlook and dimension of evaluation board



Unit : mm

Fig. 4 Dimension of footprint

ELECTRICAL PERFORMERS

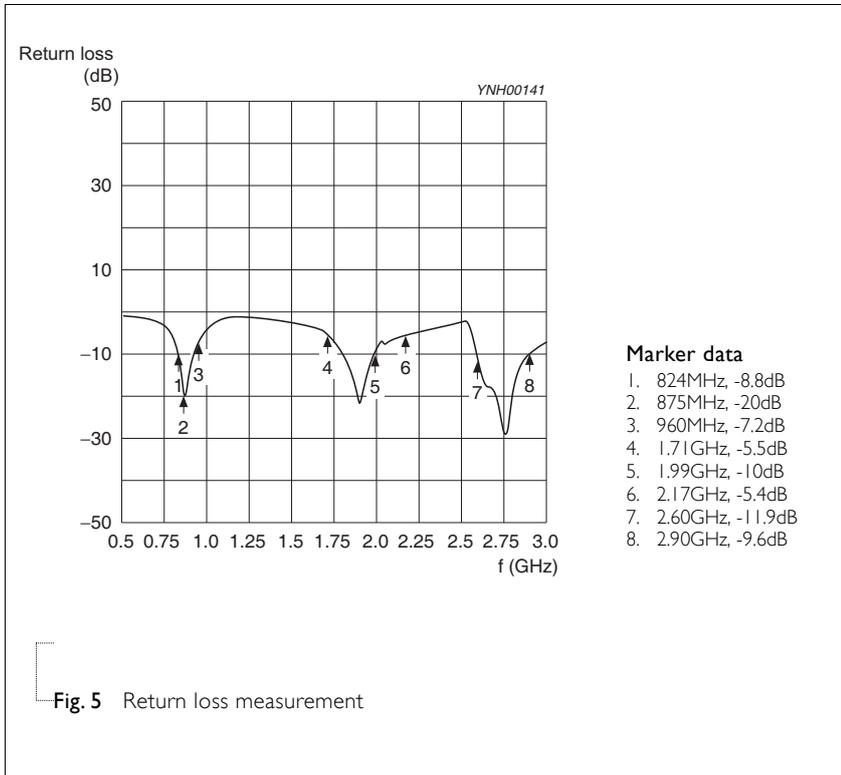
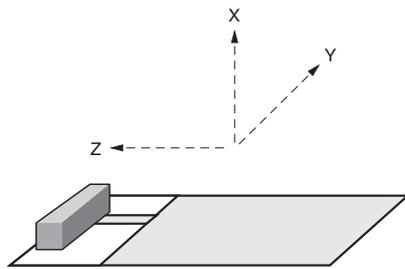
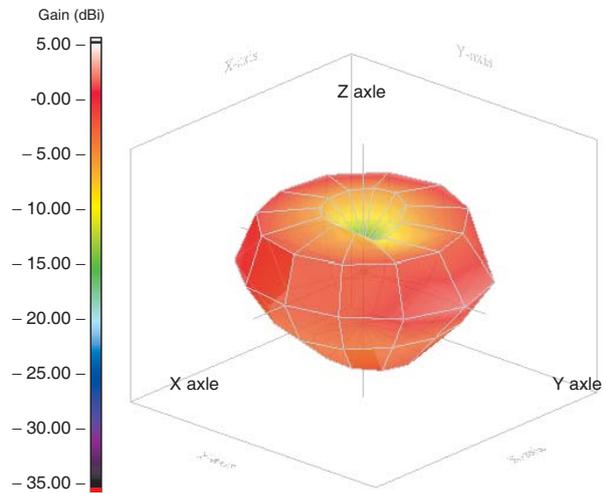


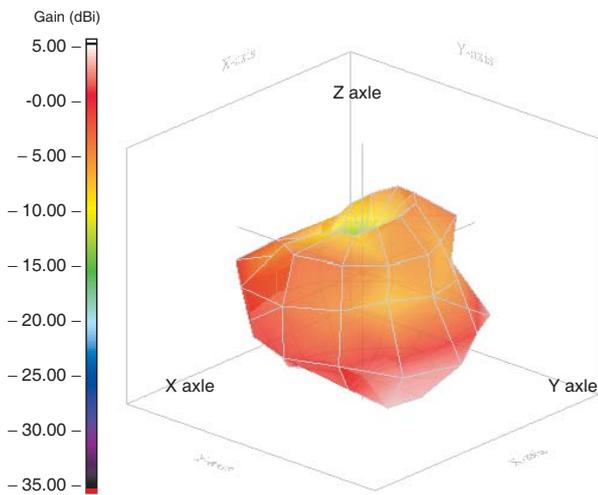
Fig. 5 Return loss measurement



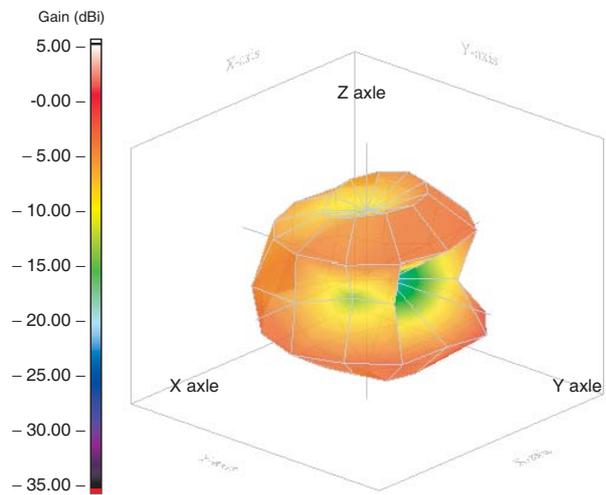
Evaluation board and XYZ direction



Frequency= 880 MHz
 Max gain = 1.72 dBi, at (60, 210)
 MEG (mean effective gain)= -2.99dBi
 Directivity (dB) = 3.08
 Efficiency = -1.36dB, 73.11%



Frequency= 1880 MHz
 Max gain = 4.35 dBi, at (150, 240)
 MEG (mean effective gain)= -1.20dBi
 Directivity (dB) = 5.35
 Efficiency = -1.00dB, 79.52%



Frequency= 2140 MHz
 Max gain = 1.67dBi, at (120, 240)
 MEG (mean effective gain)= -3.93dBi
 Directivity (dB) = 5.36
 Efficiency = -3.69dB, 42.75%

YNH00142

Fig. 6 Radiation pattern measurements

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Nov. 15, 2012	-	- New data sheet for SMD type antenna, WWAN application, 3505 series