Innovative Service Around the Globe YAGEO

DATA SHEET

WIRELESS COMPONENTS

FPCB type antenna

ANTX100F113B24003

2.40 ~ 2.50GHz

YAGEO Phycomp

Product Specification – April 20, 2016 V.0



FEATURES & BENEFITS

- Miniature design allows users to save required space
- Double-side adhesive tape makes it easy to install in device
- Ranges of types of connector and cable provide a flexible design options
- Halogen free and RoHS compliant

APPLICATIONS

- Tablet / Desktop PC
- Internet TV / STB / Game console / Camera
- WiFi network devices (IEEE 802.11b/g/n)
- Bluetooth / ZigBee devices
- Car Infotainment
- Smart meter
- Lighting control

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)

ANT	**X100**	**F**	**113**	**B**	**2400**	**3**
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) FAMILY

ANT = Antenna products

(2) CONNECTOR & CABLE LENGTH (MM)

X = I-PEX
100 = 100mm

(3) ANTENNA TYPE

F=FPCB

(4) SERIAL NUMBER

113 = SERIAL NUMBER 113

(5) PACKAGE TYPE

B = Bulk

(6) WORKING FREQUENCY

2400 = 2.40 ~ 2.50 GHz

(7) CABLE TYPE

3 = 1.13mm diameter Mini-Coaxial Cable

SPECIFICATIONS

Table 1

DESCRIPTION	VALUE
Working Frequency	2.40 ~ 2.50 GHz
VSWR	2.5:1 max
Peak Gain	2.9 dBi
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50 Ω Nominal
Operating Temperature	–40 °C to 85 °C
Maximum Power	1 W
Dimension	30mm x 5mm x 0.15mm
Radio Connector	I-PEX (20278-112R-13)
Cable Diameter / Length / Color	1.13mm / 100mm / Black
Mounting	Adhesive Tape (3M 467MP)

DIMENSIONS

Table 2 Mechanical Dimension

DIMENSION	VALUE
L (mm)	100 ±3.00
W (mm)	30 ± 0.30
H (mm)	5 ± 0.30
T (mm)	0.15 ± 0.15
A (mm)	1.90 Max

OUTLINES

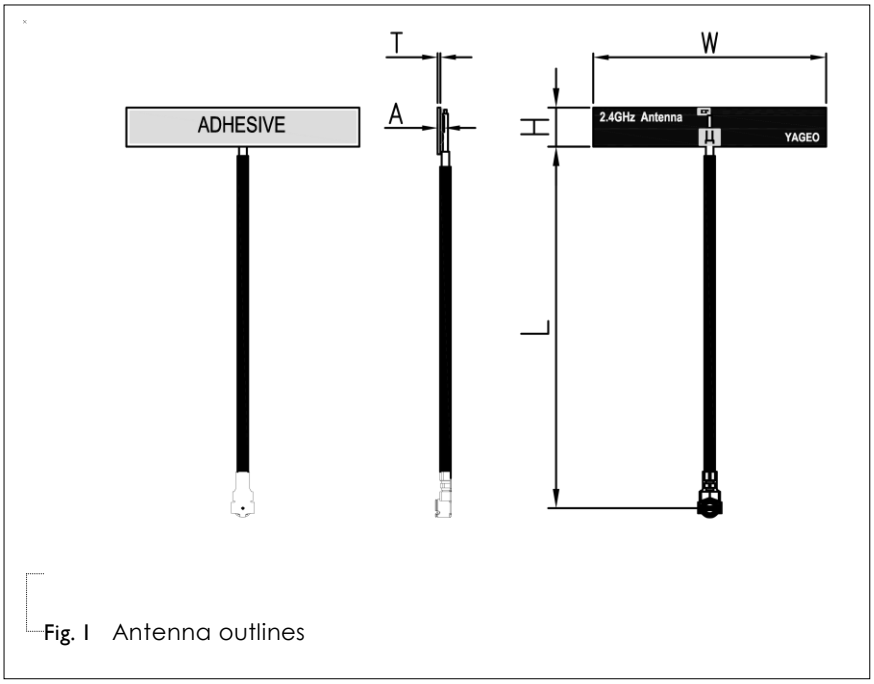


Fig. 1 Antenna outlines

RETURN LOSS & VSWR

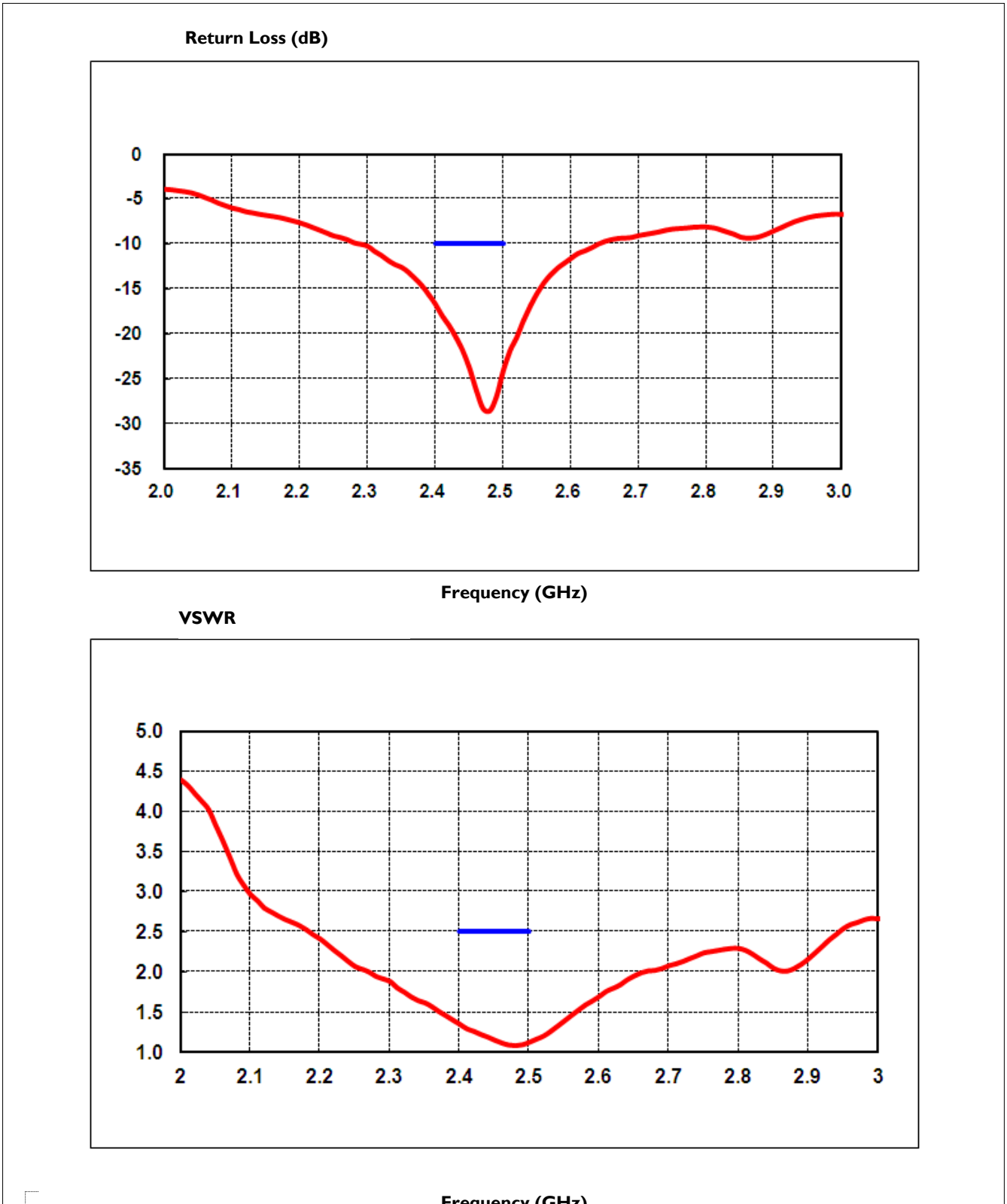


Fig. 2 Return loss & VSWR Measurement

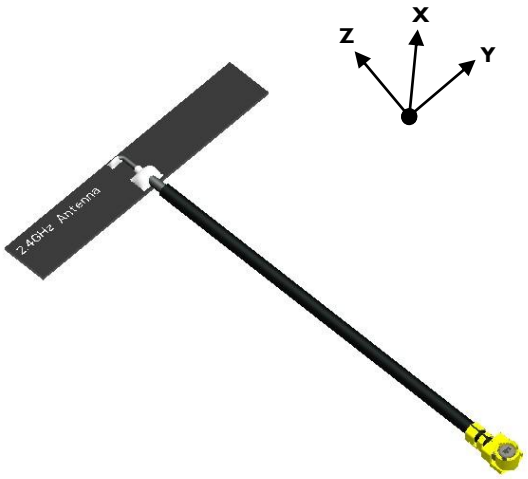
ANTENNA GAIN & EFFICIENCY

Table 3

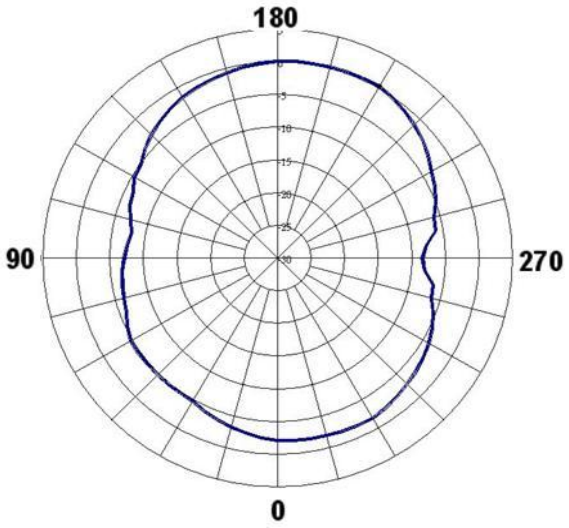
FREQUENCY (GHz)	AVERAGE GAIN (dBi)	EFFICIENCY (%)	PEAK GAIN (dBi)
2.40	-1.1	77.7	2.7
2.45	-0.9	80.8	2.9
2.50	-1.3	73.6	2.2

ANTENNA RADIATION PATTERNS

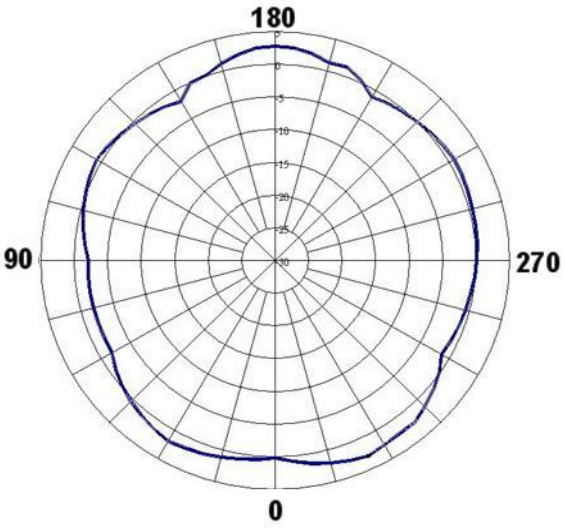
Scale: 5 dBi / div Max : 5 dBi Min : -20dBi



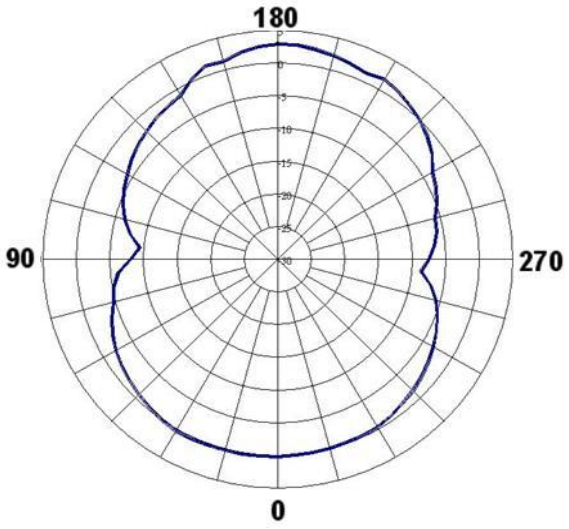
Device Coordinates



X-Y Plane



X-Z Plane



Y-Z Plane

Fig. 3 Antenna radiation patterns at 2.45 GHz

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Apr. 20, 2016	-	- Data sheet for FPCB type antenna, 2.40 ~ 2.50GHz