

# DATA SHEET

## WIRELESS COMPONENTS

FPCB type antenna  
ANTX100F1 13B24003  
2.40 ~ 2.50GHz



**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

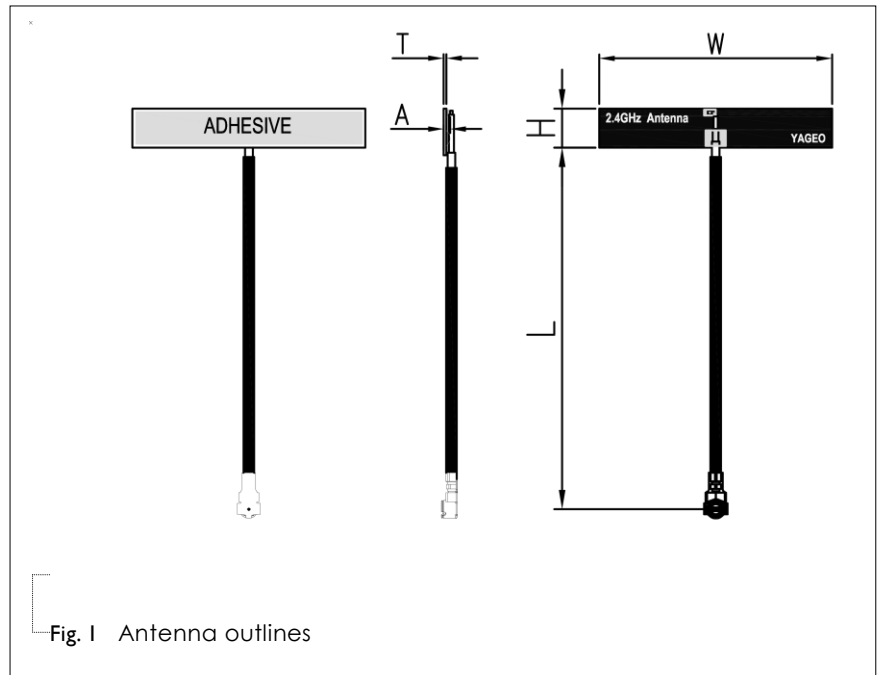
DESCRIPTION	VALUE
Working Frequency	2.40 ~ 2.50 GHz
VSWR	2.5:1 max
Peak Gain	2.9 dBi
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50 Ω Nominal
Operating Temperature	-40 °C to 85 °C
Maximum Power	1 W
Dimension	30mm x 5mm x 0.15mm
Radio Connector	I-PEX (20278-112R-13)
Cable Diameter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



RETURN LOSS & VSWR

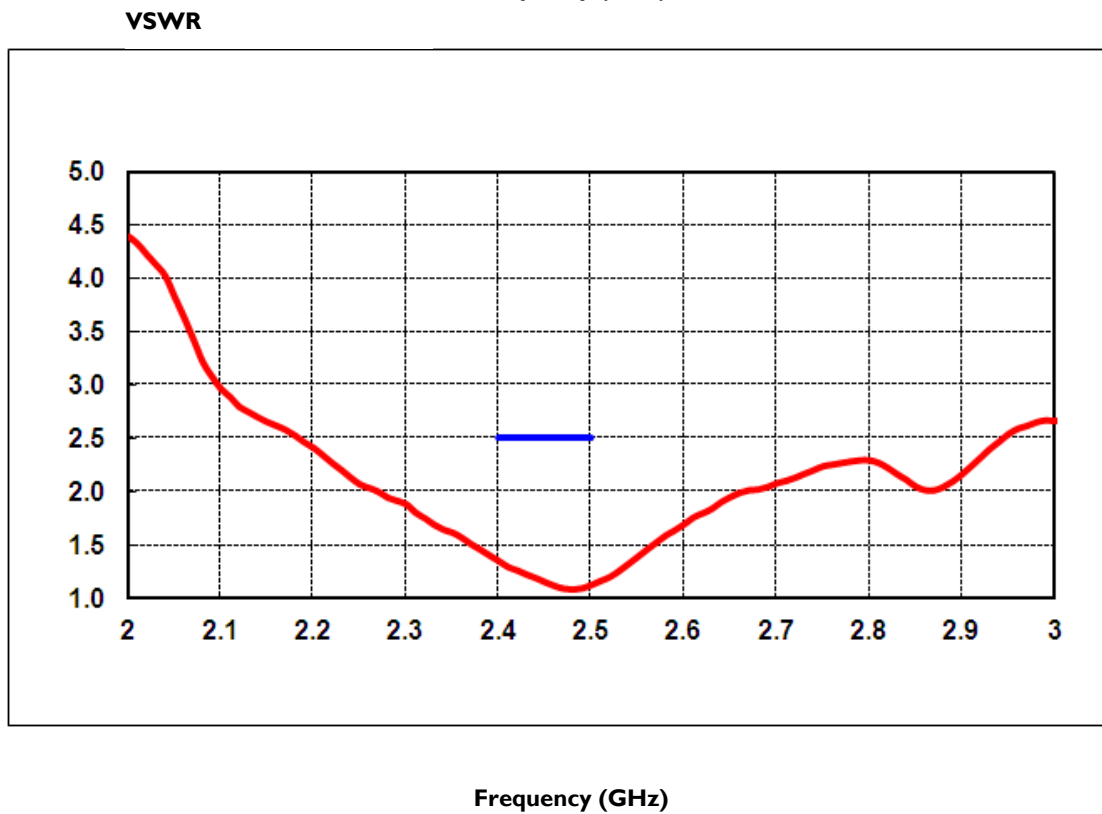
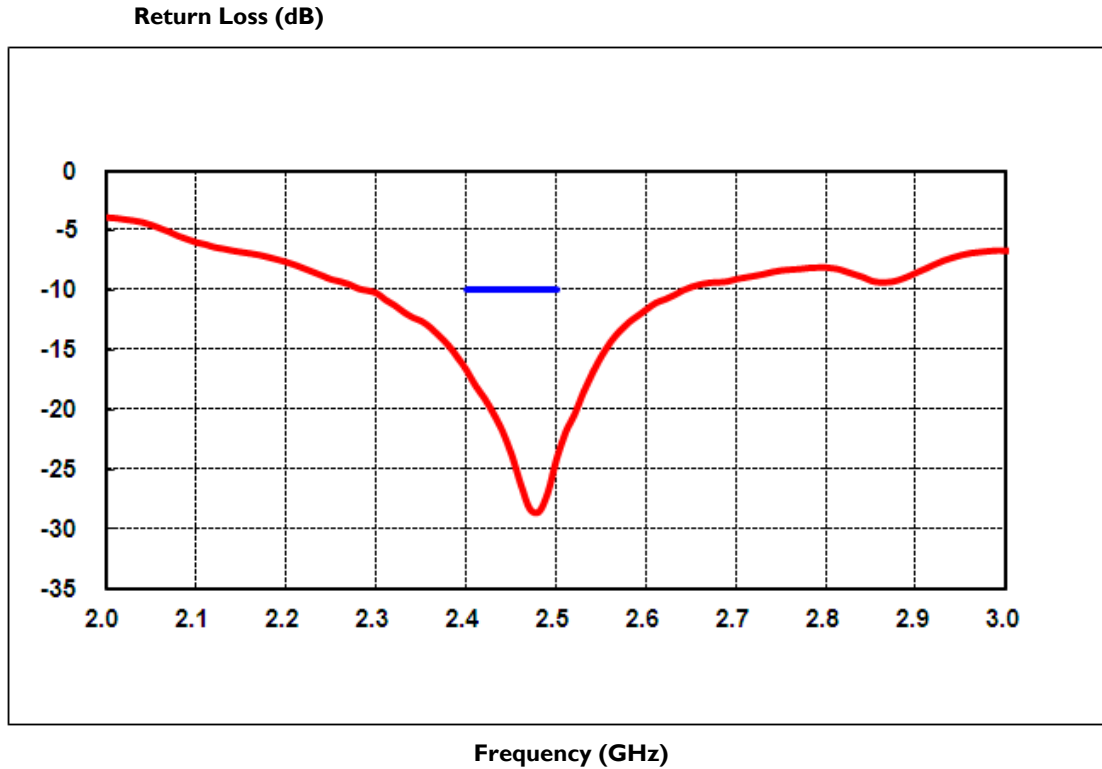


Fig. 2 Return loss & VSWR Measurement

**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

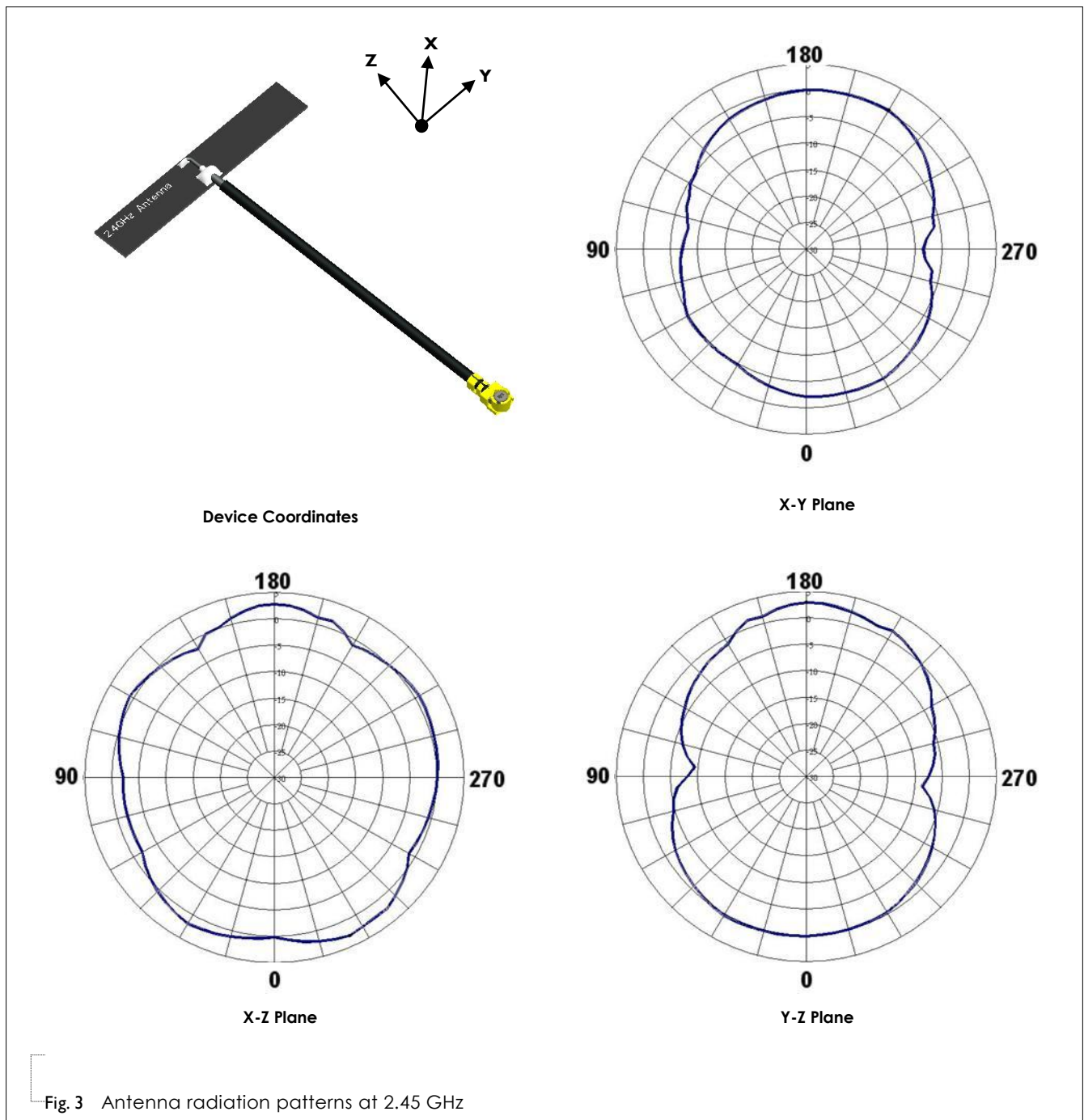


Fig. 3 Antenna radiation patterns at 2.45 GHz

REVISION HISTORY

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