

DATA SHEET

WIRELESS COMPONENTS

PCB type antenna
ANTX100P1 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 P 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

P=PCB

(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 | 2.8 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 0.55mm |
| Radio Connector | I-PEX (20278-112R-13) |
| Cable Diameter / Length / Color | 1.13mm / 100mm / Black |
| Mounting | Adhesive Tape (HF-DS) |

DIMENSIONS

Table 2 Mechanical Dimension

| DIMENSION | VALUE |
|-----------|-------------|
| L (mm) | 100 ±3.00 |
| W (mm) | 30 ± 0.30 |
| H (mm) | 5 ± 0.30 |
| T (mm) | 0.55 ± 0.15 |
| A (mm) | 2.30 Max |

OUTLINES

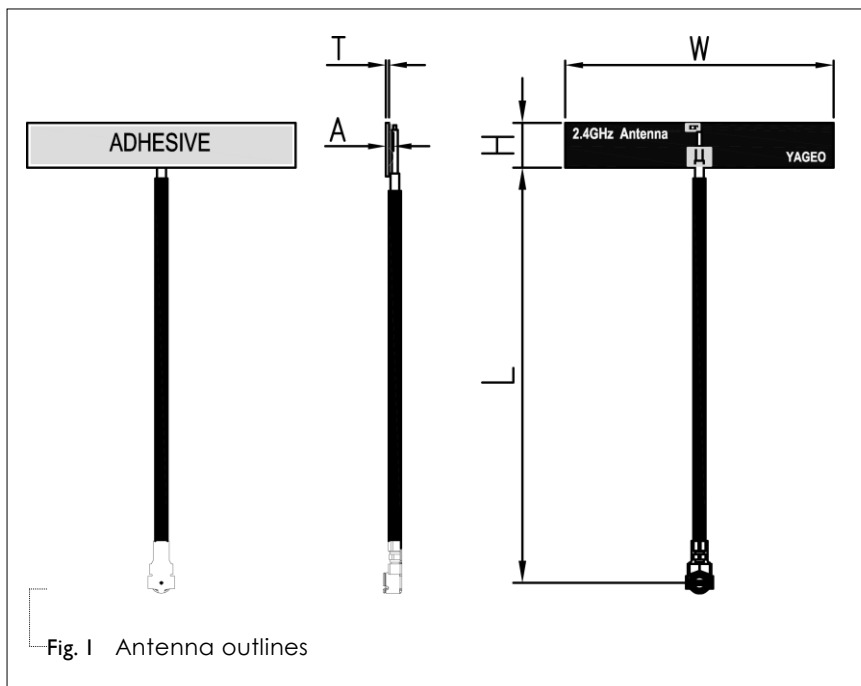
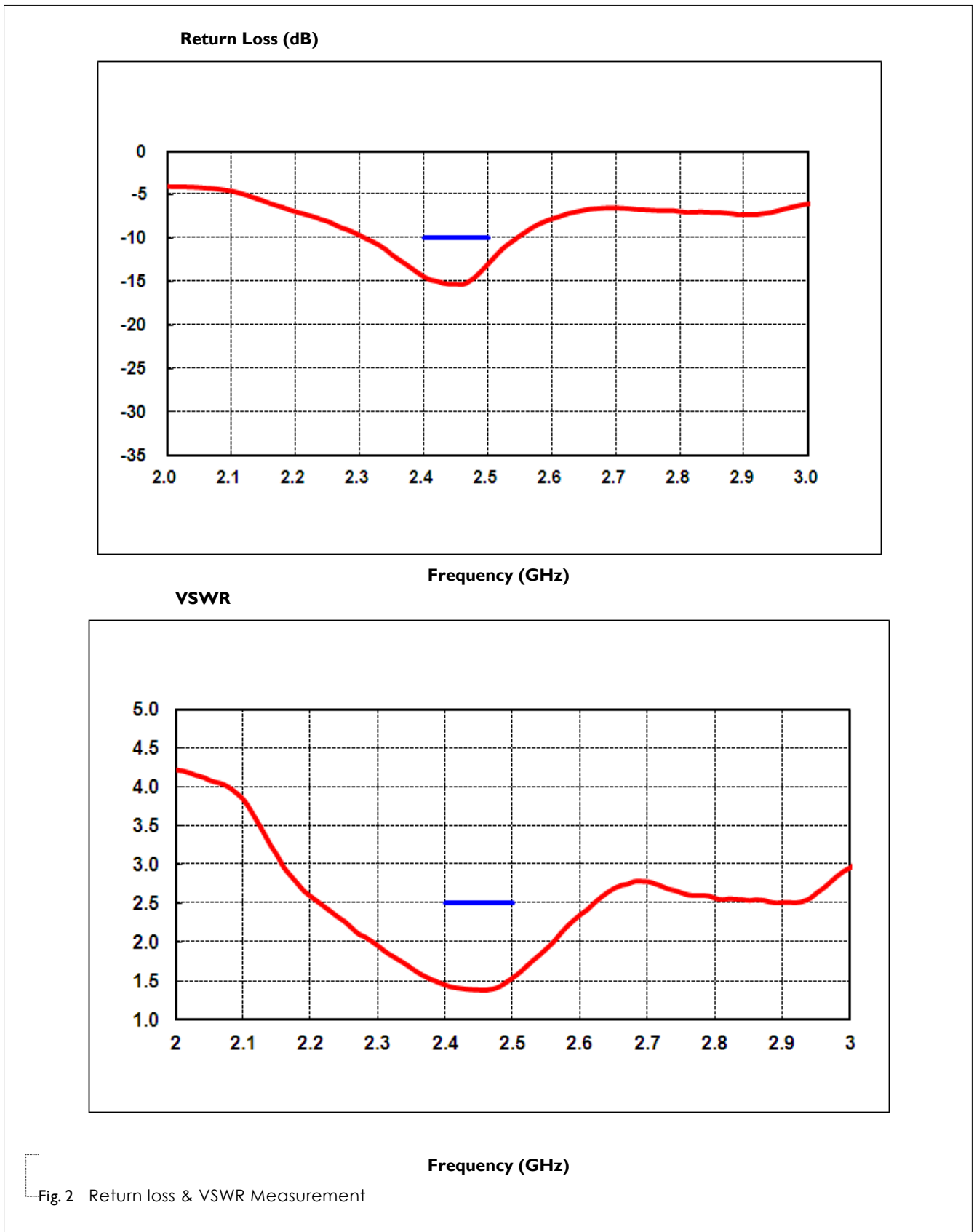


Fig. 1 Antenna outlines

RETURN LOSS & VSWR



ANTENNA GAIN & EFFICIENCY

Table 3

| FREQUENCY (GHz) | AVERAGE GAIN (dBi) | EFFICIENCY (%) | PEAK GAIN (dBi) |
|-----------------|--------------------|----------------|-----------------|
| 2.40 | -1.5 | 70.7 | 2.4 |
| 2.45 | -1.4 | 72.3 | 2.8 |
| 2.50 | -1.6 | 70.0 | 2.5 |

ANTENNA RADIATION PATTERNS

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

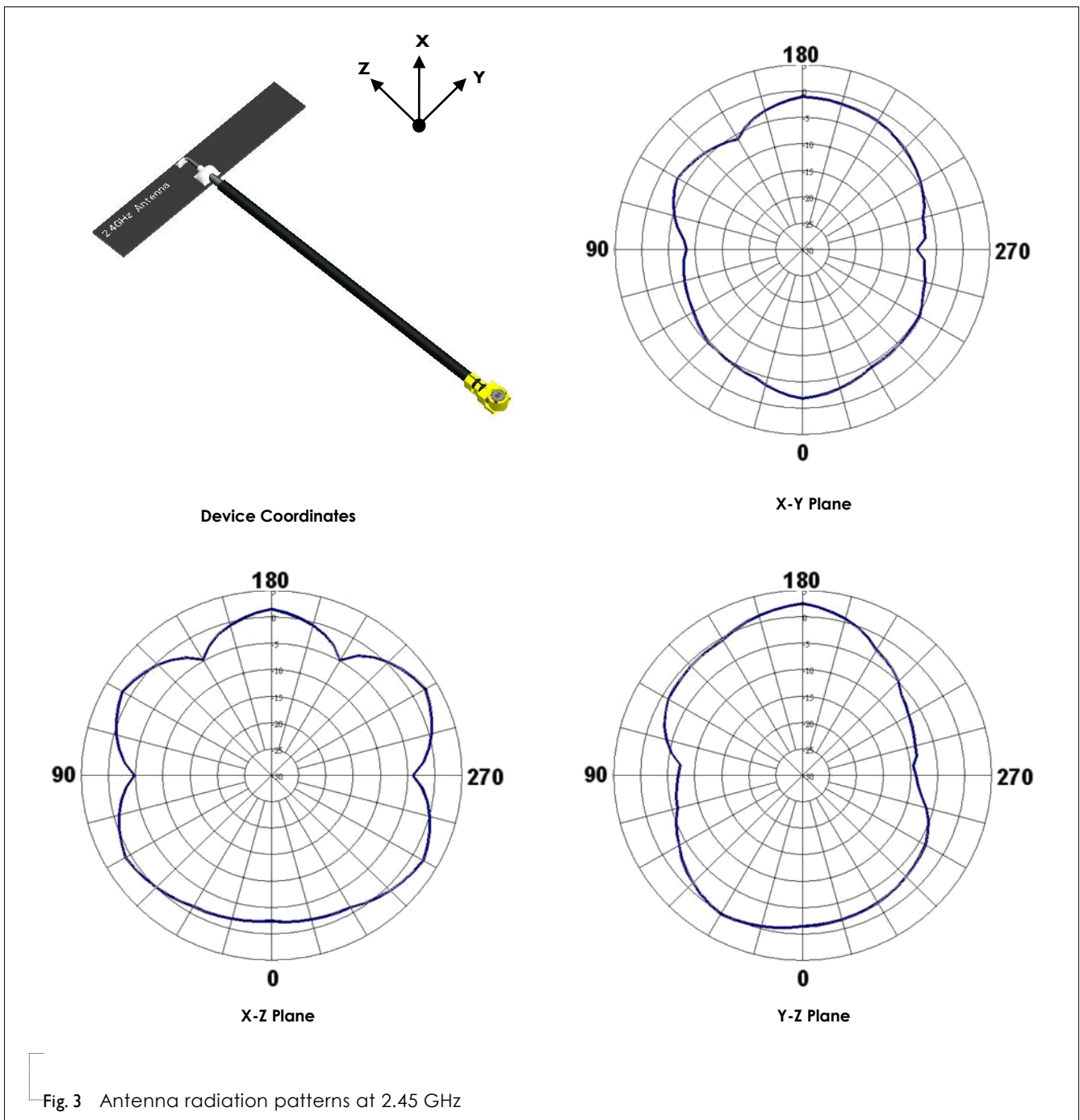


Fig. 3 Antenna radiation patterns at 2.45 GHz

REVISION HISTORY

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