



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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DATA SHEET

WIRELESS COMPONENTS

PCB type antenna

ANTX100P111B50003

5.150 ~ 5.875 GHz



FEATURES & BENEFITS

- The smallest PCB antenna in the market
- Miniature design allows users to save required space
- Double-side adhesive tape makes it easy to instal 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
- POS terminal
- Wireless Industrial Control

ORDERING INFORMATION – GLOBAL PART NUMBER, PHYCOMP CTC & 12NC

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 111 B 5000 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

111 = SERIAL NUMBER 111

(5) PACKAGE TYPE

B = Bulk

(6) WORKING FREQUENCY

5000 = 5.150 ~ 5.875 GHz

(7) CABLE TYPE

3 = 1.13mm diameter Mini-Coaxial Cable

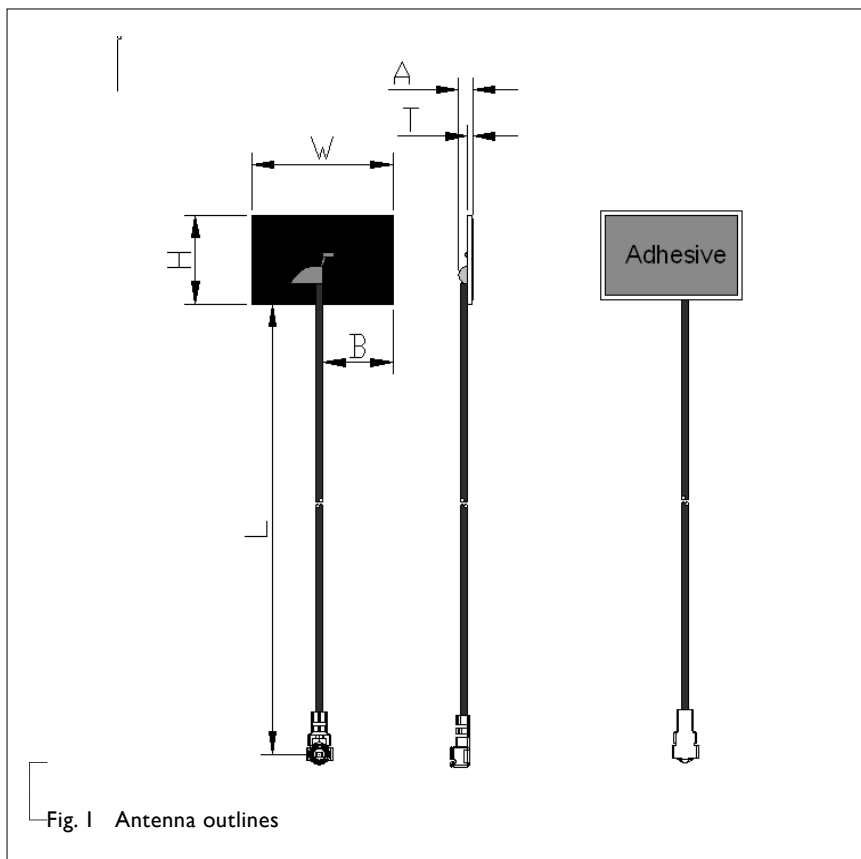
SPECIFICATIONS

DESCRIPTION	VALUE
Working Frequency	5.150 ~ 5.875 GHz
VSWR	2.5:1 max
Peak Gain	3.4 dBi
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50 Ω Nominal
Operating Temperature	- 40 °C to 85 °C
Maximum Power	1 W
PCB Dimension	16mm x 10mm x 0.55mm
Radio Connector	I-PEX (20278-112R-13)
Cable Diameter / Length / Color	1.13mm / 100mm / Black
Mounting	Adhesive Tape (HF-DS)

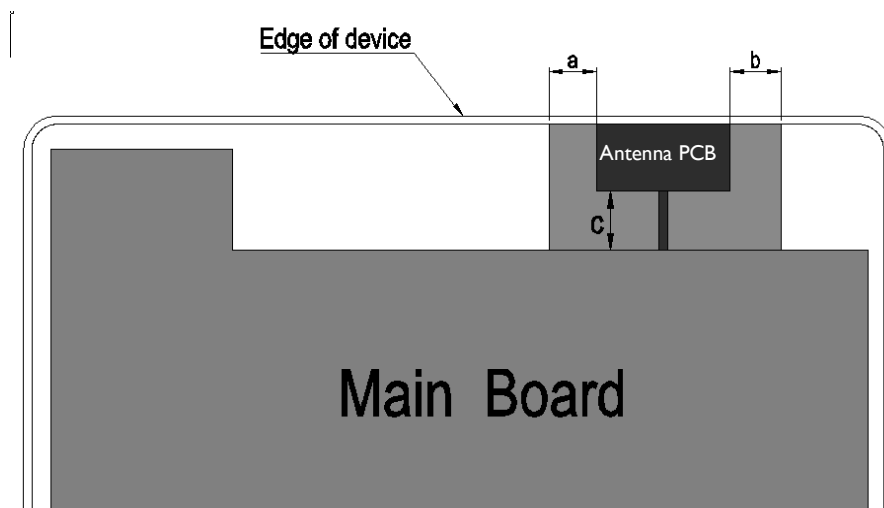
DIMENSIONS

DIMENSION	VALUE
L (mm)	100 ± 3.00
W (mm)	16 ± 0.30
H (mm)	10 ± 0.30
T (mm)	0.55 ± 0.15
A (mm)	2.30 Max
B (mm)	8 ± 1.00

OUTLINES



APPLICATION INSTRUCTION



Antenna element should be placed at the edge of device, has minimum clearance from metallic object:
 A: 10 mm Min
 B: 10 mm Min
 C: 10 mm Min

Fig. 2 Application Instruction

RETURN LOSS & VSWR

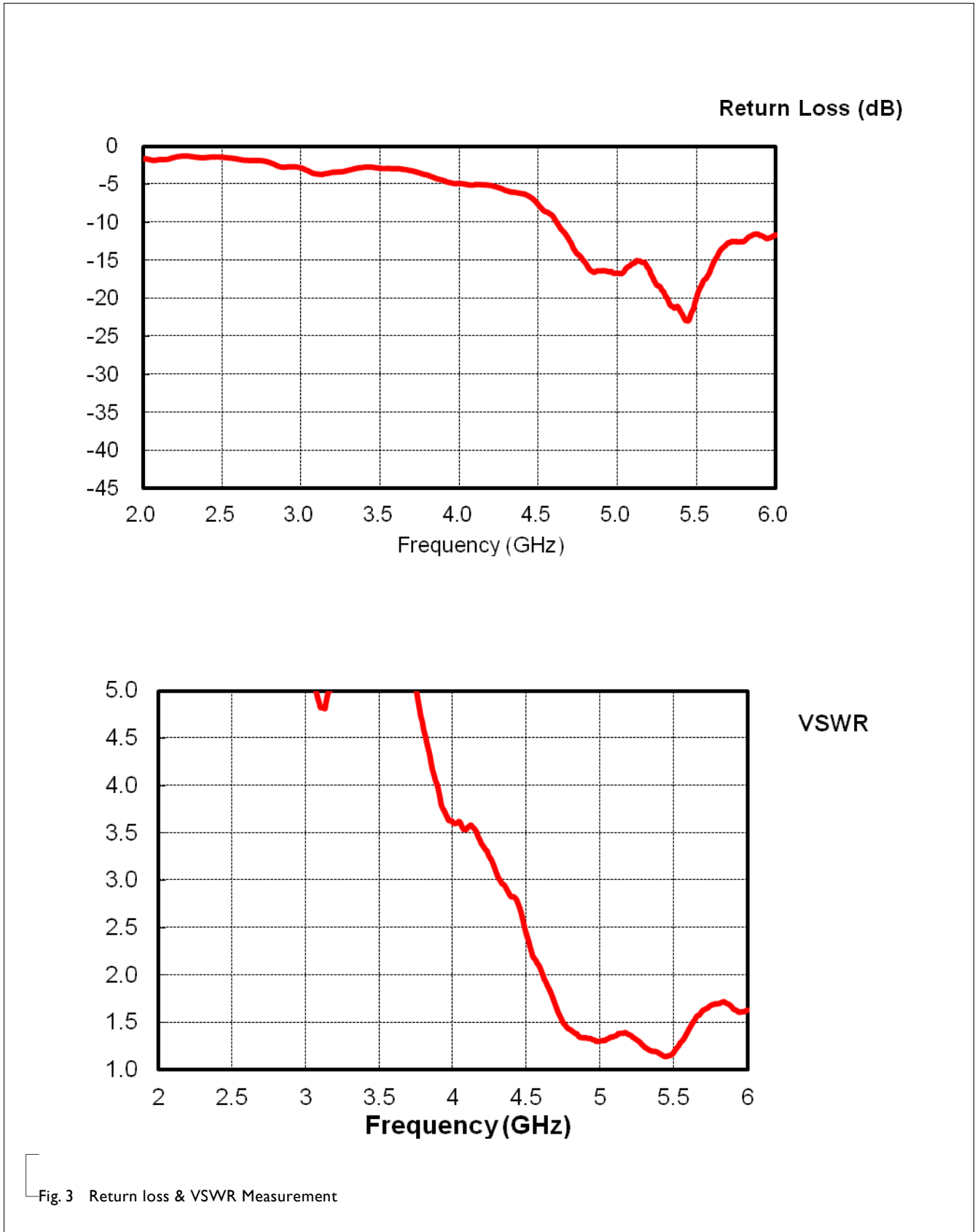


Fig. 3 Return loss & VSWR Measurement

ANTENNA GAIN & EFFICIENCY

Table 3

FREQUENCY (GHz)	AVERAGE GAIN (dBi)	EFFICIENCY (%)	PEAK GAIN (dBi)
5.150	-1.8	66.7	3.2
5.350	-1.9	64.2	3.4
5.475	-2.0	62.8	3.4
5.725	-2.2	60.0	3.1
5.875	-2.2	60.8	2.8

ANTENNA RADIATION PATTERNS

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

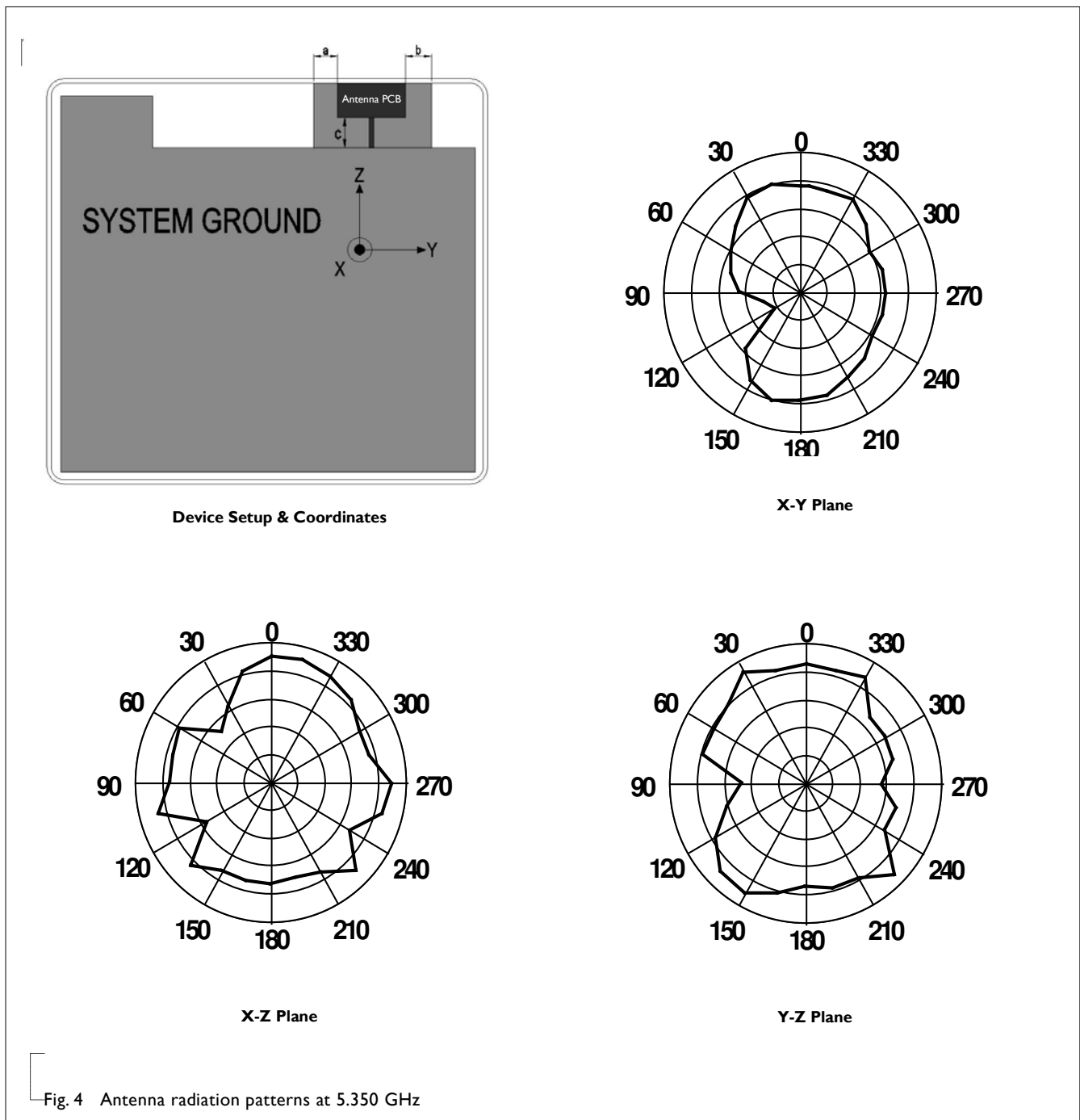


Fig. 4 Antenna radiation patterns at 5.350 GHz

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Mar. 20, 2015	-	- New data sheet for PCB type antenna, 5.150 ~ 5.875 GHz