

DATA SHEET

WIRELESS COMPONENTS

PCB type antenna
ANTX100P001B15163

GPS/ GLONASS/ BDS



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

- Automotive
- Tablet
- Mobile phone
- Industrial computing
- Agriculture
- Tracking asset
- Fleet tracking

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 001 B 1516 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

001 = SERIAL NUMBER 001

(5) PACKAGE TYPE

B = Bulk

(6) WORKING FREQUENCY

1575 = 1.559~1.612 GHz

(7) CABLE TYPE

3 = 1.13mm diameter Mini-Coaxial Cable

SPECIFICATIONS

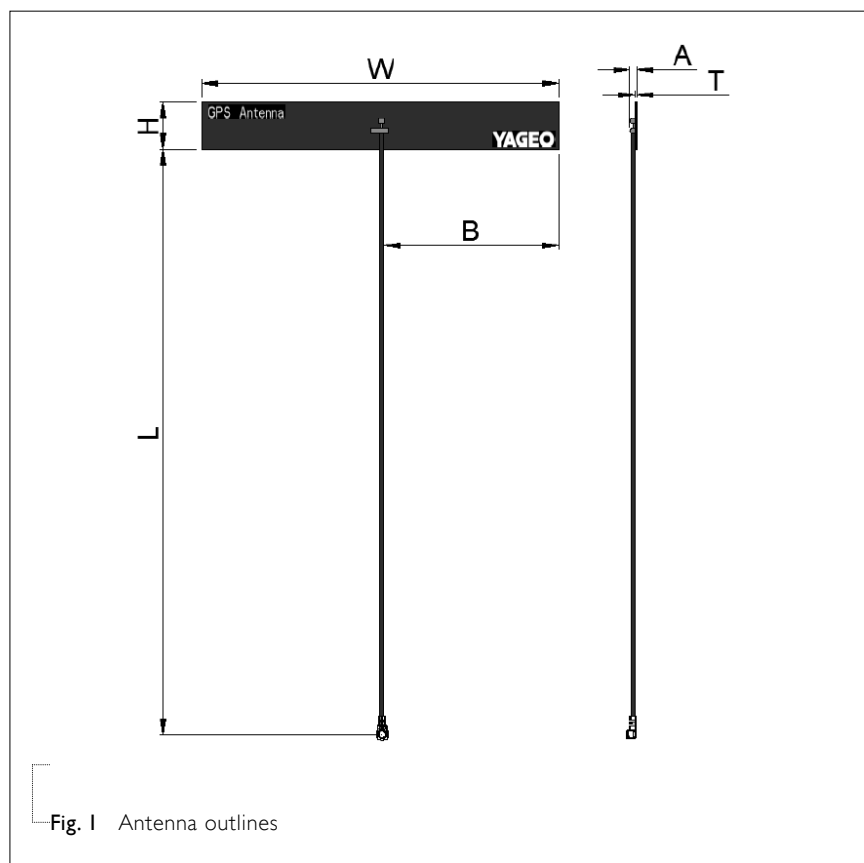
Table 1

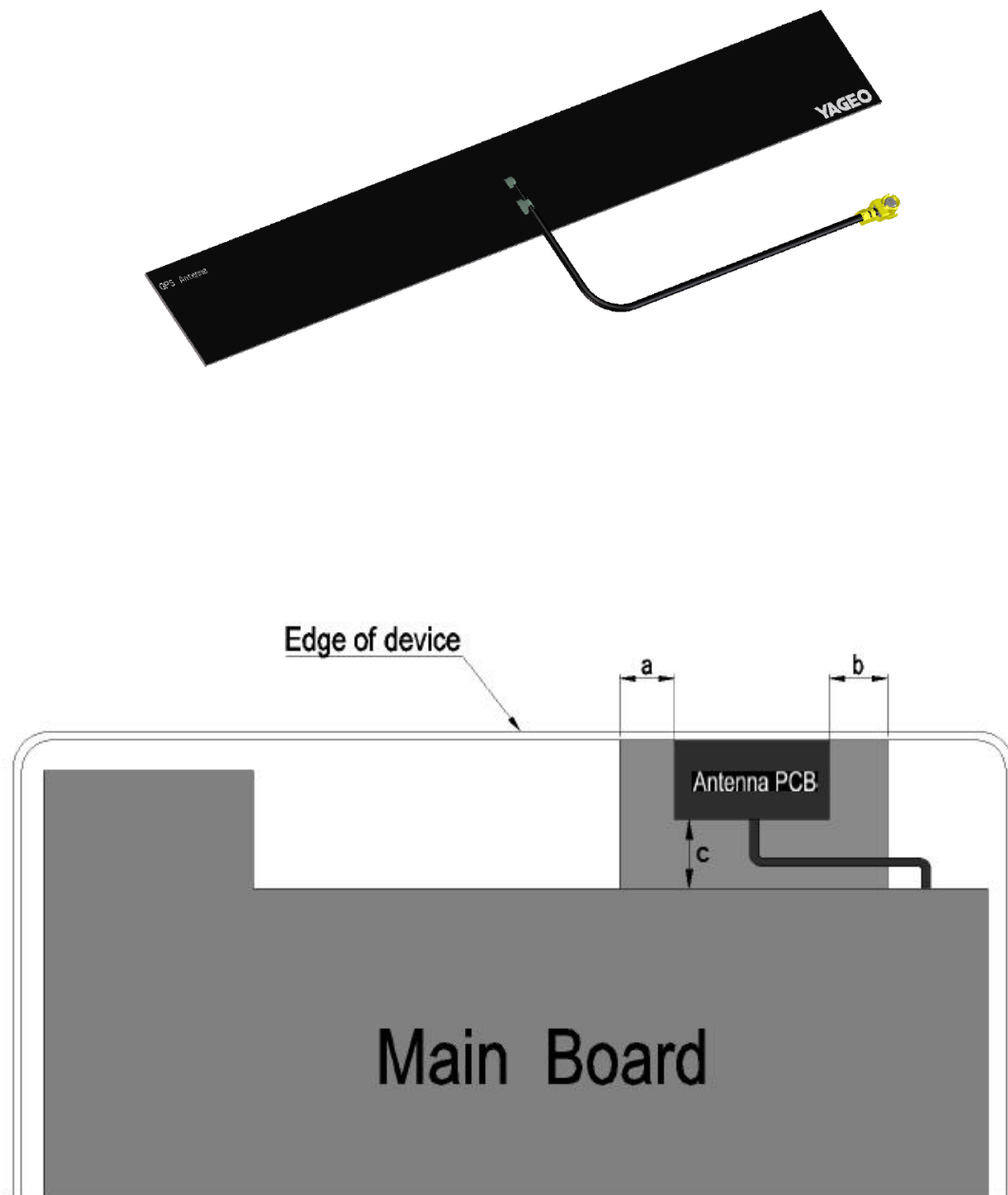
DESCRIPTION	VALUE
Working Frequency	1.559 ~ 1.612 GHz
VSWR	2.5:1max
Peak Gain	3.08 dBi
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50 Ω Nominal
Operating Temperature	- 40 °C to 85 °C
Maximum Power	1 W
PCB Dimension	40mm × 7.5mm × 0.55mm
Radio Connector	I-PEX (20278-112R-13)
Cable 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)	40 ± 0.30
H (mm)	7.5 ± 0.30
T (mm)	0.55 ± 0.15
A (mm)	2.30 Max
B (mm)	20 ± 2.00

OUTLINES

APPLICATION INSTRUCTION

Antenna element element should be placed at the edge of device, has minimum clearance from metallic object:

a: 5 mm Min

b: 5 mm Min

c: 10 mm Min

Fig. 2 Application Instruction

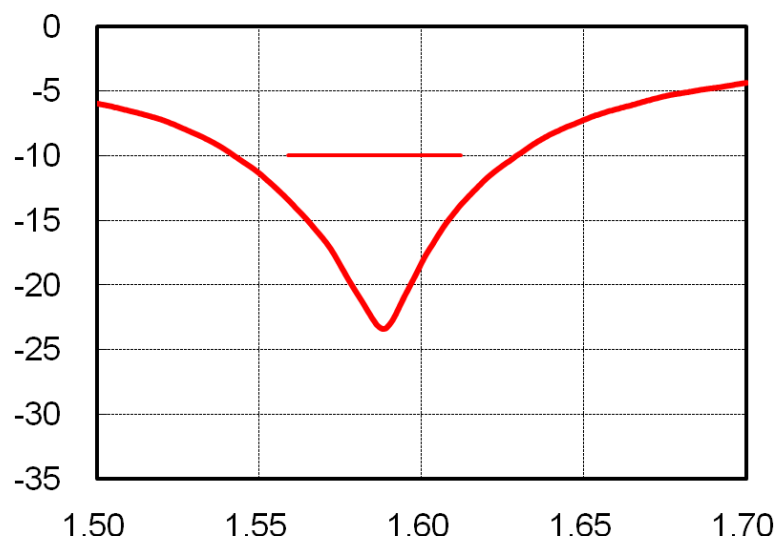
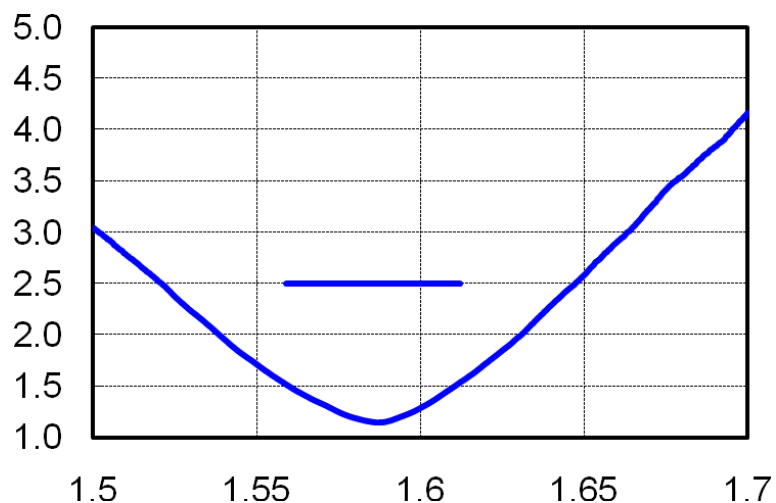
RETURN LOSS & VSWR**Return Loss (dB)****Frequency (GHz)****VSWR****Frequency (GHz)**

Fig. 3 Return loss & VSWR Measurement

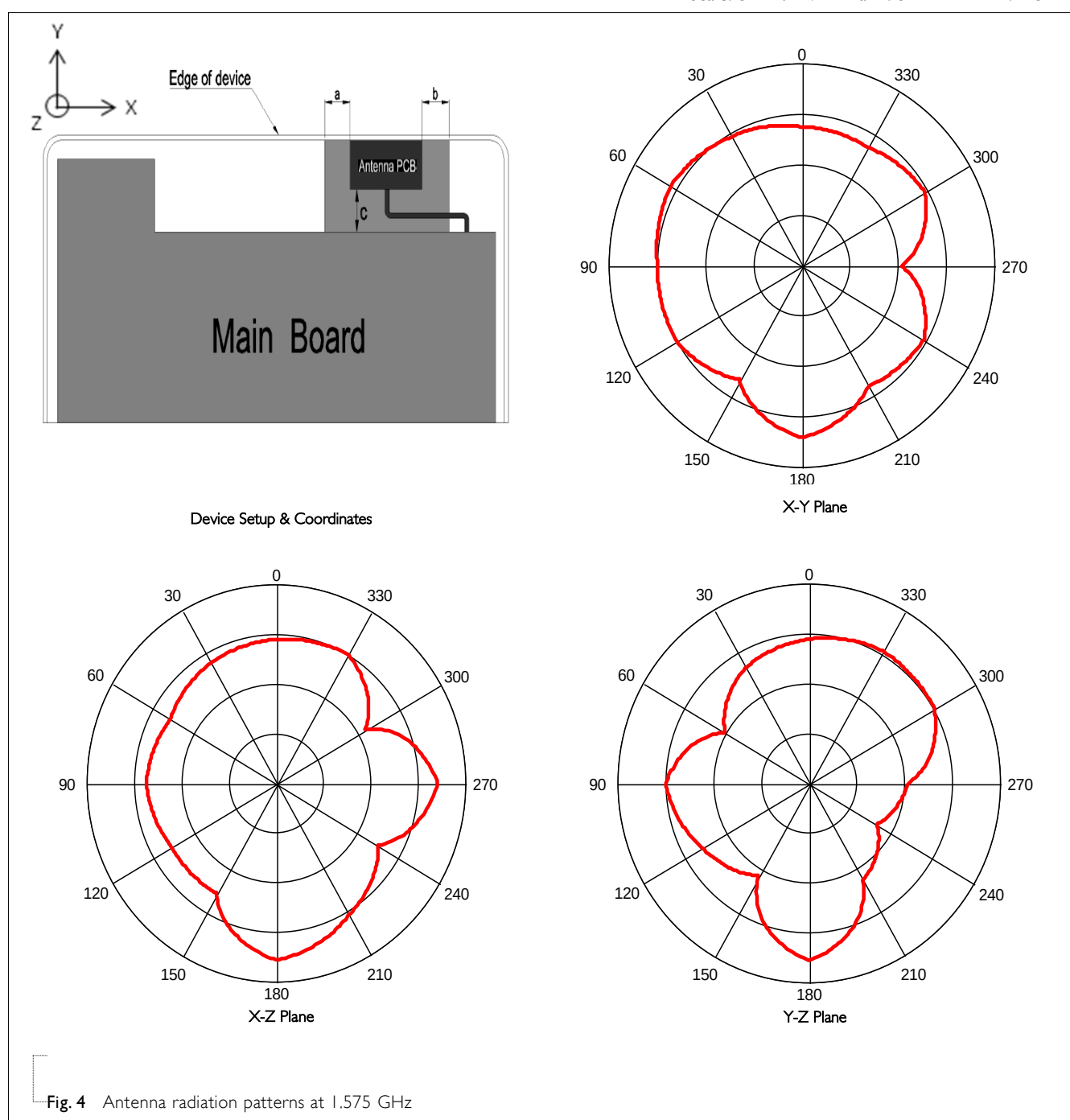
ANTENNA GAIN & EFFICIENCY

Table 3

FREQUENCY (GHz)	AVERAGE GAIN (dBi)	EFFICIENCY (%)	PEAK GAIN (dBi)
1.559	-1.31	74	3.08
1.575	-1.77	66	2.65
1.612	-1.92	64	2.17

ANTENNA RADIATION PATTERNS

Scale: 5 dBi / div Max : 5 dBi Min : -15 dBi



REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Apr. 23, 2014	-	- New data sheet for PCB type antenna, GPS/ GLONASS/ BDS

Mouser Electronics

Authorized Distributor

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Pulse:

[ANTX100P001B15163](#)