

DATA SHEET

WIRELESS COMPONENTS

Ceramic Patch Antenna

ANT1818B00AT1575A

GPS
SMD 18 x 18 x 2 mm



FEATURES

- Compact size
- High radiation efficiency
- Tape & reel automatic mounting
- Reflow process compatible
- RoHS compliant

APPLICATIONS

- Navigation device
- Telematics box
- Fleet management

ORDERING INFORMATION

All part numbers are identified by the series, packing type, material, size, antenna type, working frequency and packing quantity.

PART NUMBER

ANT 1818 B 00A T I575A
(1) (2) (3) (4) (5) (6)

(1) PRODUCT

ANT = Antenna

(2) SIZE

1818 = 18 × 18 mm

(3) ANTENNA TYPE

B = Bulk antenna

(4) SERIAL NO.

00A

(5) PACKING STYLE

T = Tray

(6) WORKING FREQUENCY

I575 = 1.575GHz

PHYCOMP CTC

CAN43134240A1581B

I2NC

43134240A158

SPECIFICATION

Table I

DESCRIPTION	VALUE
Centre Frequency	1580 \pm 2 MHz
Bandwidth	6 MHz (Typ.)
Gain	2 dBic (Typ.)
VSWR	2.0 Max
Polarization	Right Hand Circular Polarization
Axis Ratio	\leq 3dB
Beam Width	> 120 degrees
Impedance	50 Ω
Operating Temperature	-40~105 degree

NOTE

1. Based on 50*50mm² square ground plane.
2. Centre frequency will be offset to working frequency while changes of customer's housing and ground plane.
3. Please contact local sales if you need customized design to gain optimum antenna performance.

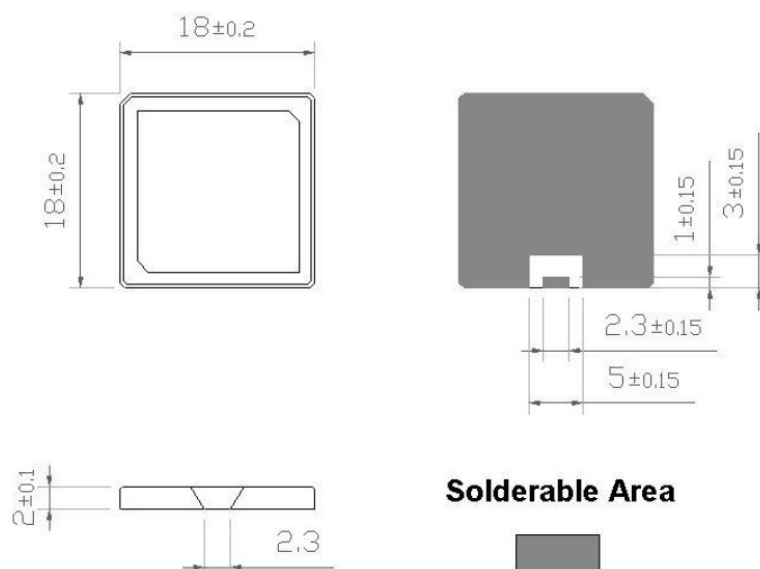


Fig. 1 Mechanical data

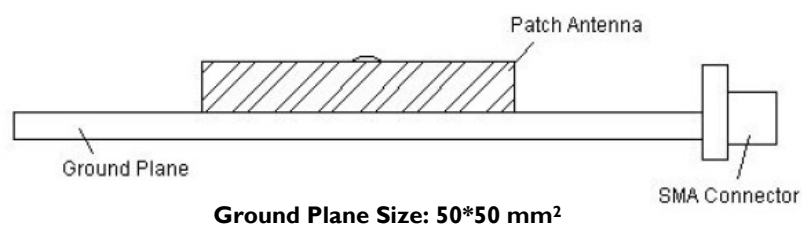


Fig. 2 Evaluation Board

ELECTRICAL PERFORMANCES

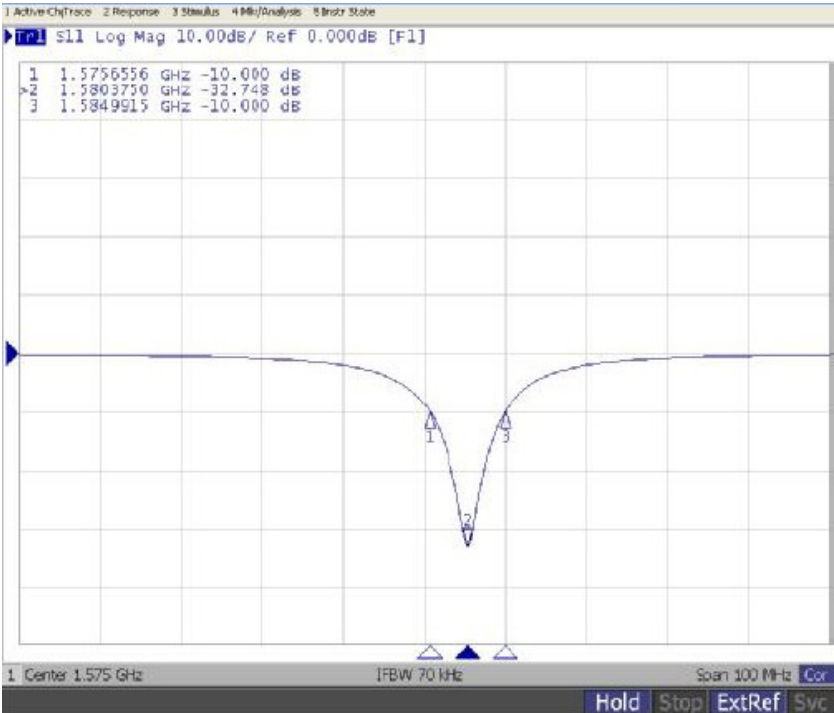


Fig. 3 Return loss

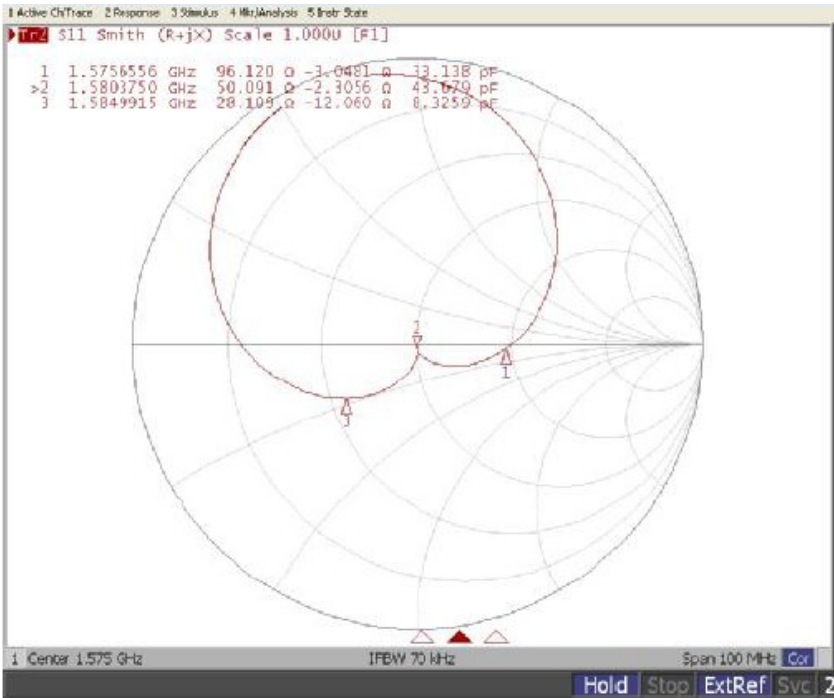


Fig. 4 Smith Chart

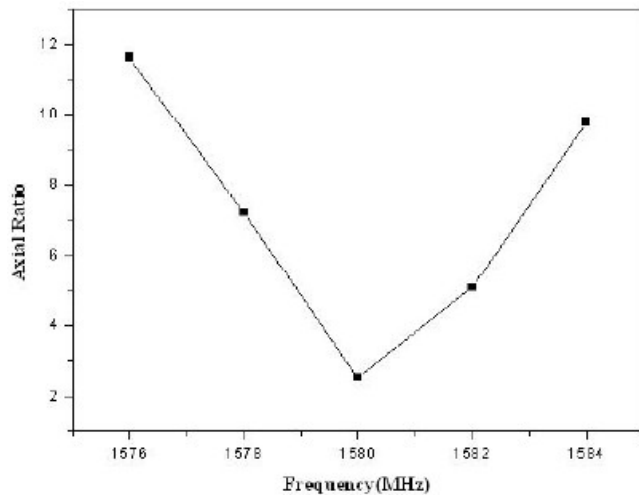


Fig. 5 Axial Ratio measurement

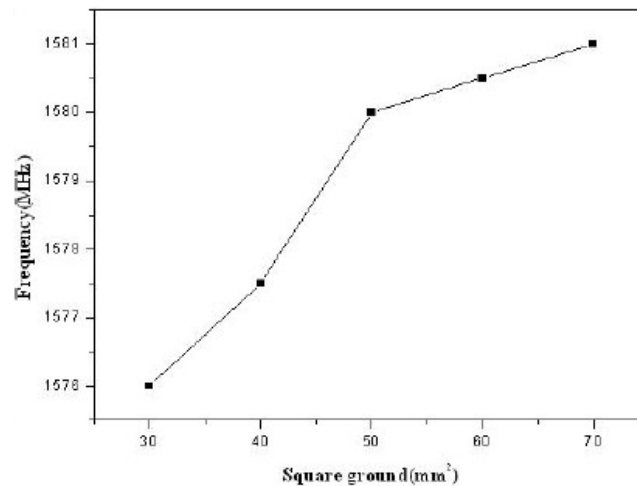


Fig. 6 Center Frequency V.S. Ground Plane

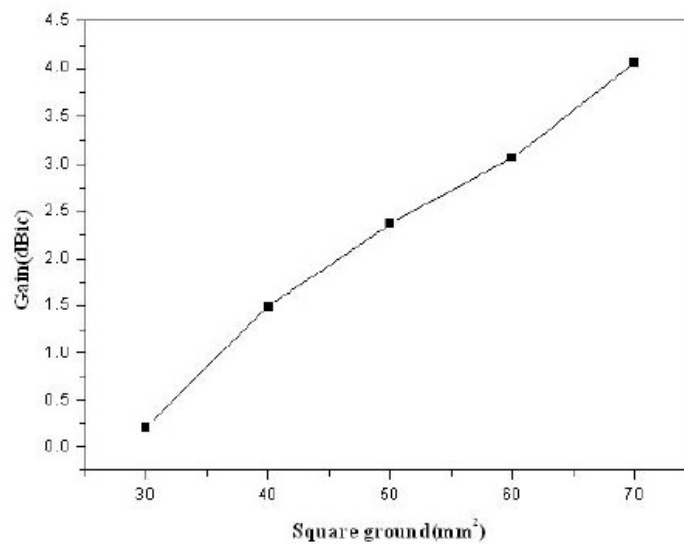
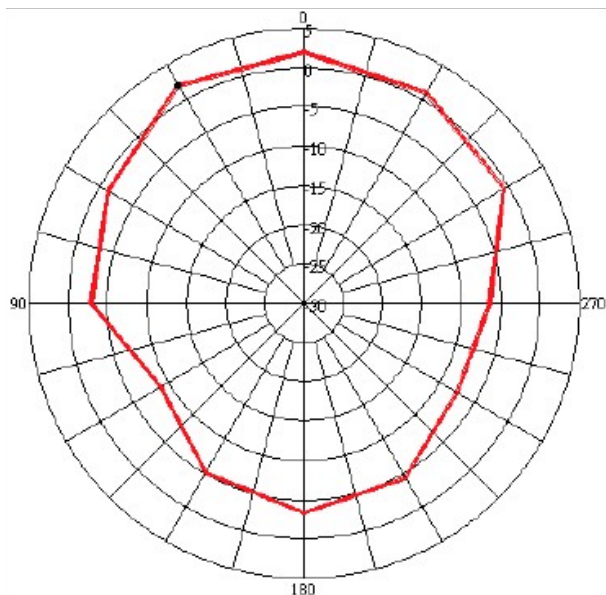
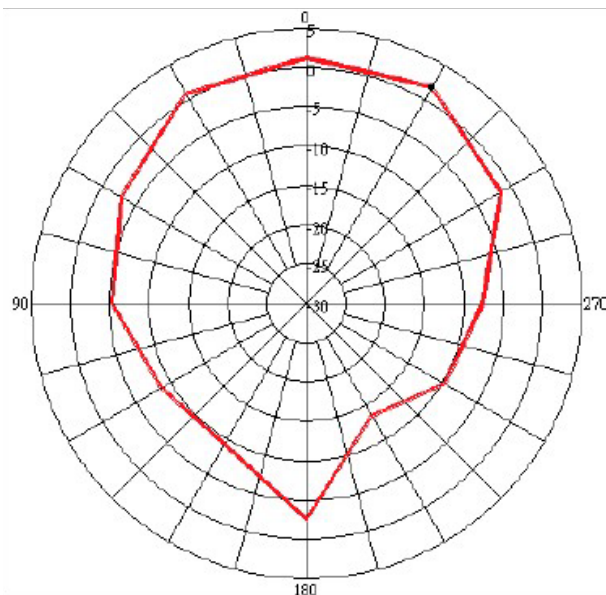


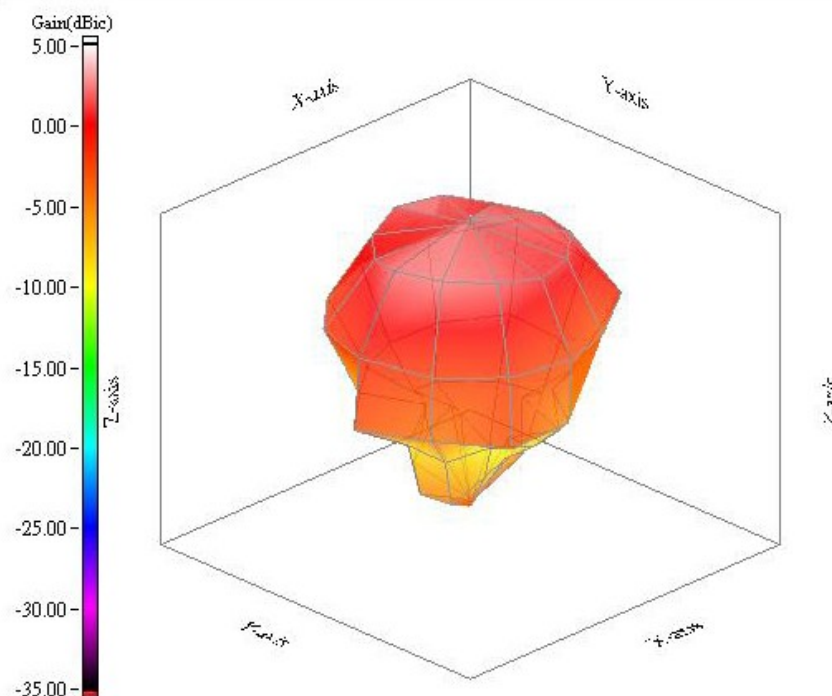
Fig. 7 Antenna Gain V.S. Ground Plane



2D x-z plane pattern



2D y-z plane pattern



3D radiation pattern

Fig. 8 Radiation Pattern (Frequency = 1580MHz)

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Feb. 05, 2013	-	- New data sheet for Patch antenna, SMD Feed size 18 × 18 × 2 mm

Mouser Electronics

Authorized Distributor

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Yageo:

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