

DATA SHEET

WIRELESS COMPONENTS

Ceramic Patch Antenna

ANT1818B00FT1575S

GPS

PIN 18 × 18 × 4 mm



FEATURES

- High radiation efficiency
- Pin-solder process
- 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 00F T 1575S
 (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.

00F

(5) PACKING STYLE

T = Tray

(6) WORKING FREQUENCY

1575= 1.575 GHz

PHYCOMP CTC

CAN43934240F1581B

I2NC

43934240F158

SPECIFICATION

Table 1

| DESCRIPTION | VALUE |
|-----------------------|----------------------------------|
| Centre Frequency | 1580 ± 3MHz |
| Bandwidth | 10 MHz (Typ.) |
| Gain | 4 dBic (Typ.) |
| VSWR | 1.5 Max. |
| Polarization | Right Hand Circular Polarization |
| Axis Ratio | ≅ 3 dB |
| Beam Width | > 120 degrees |
| Impedance | 50Ω |
| Operating Temperature | -40~105 °C |

NOTE

1. Based on 50×50 mm² 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.

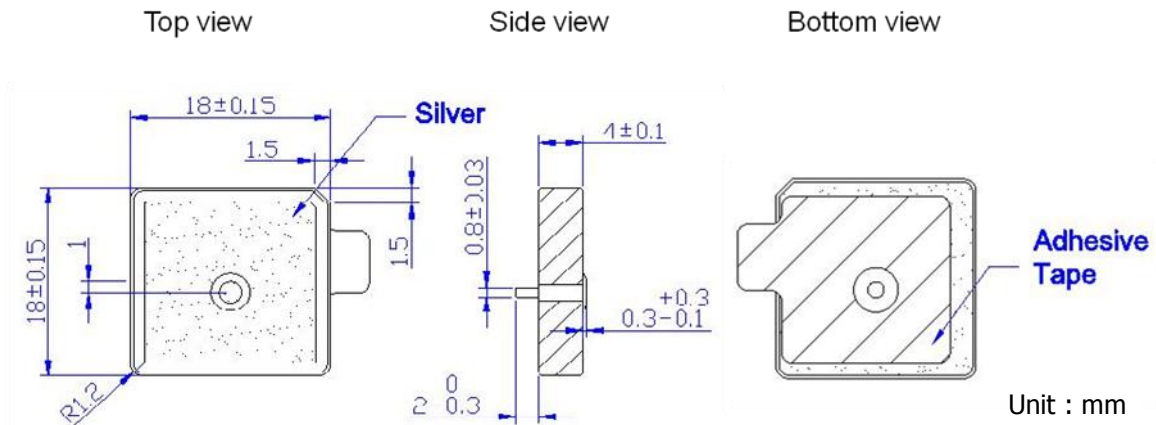


Fig. 1 Mechanical Data

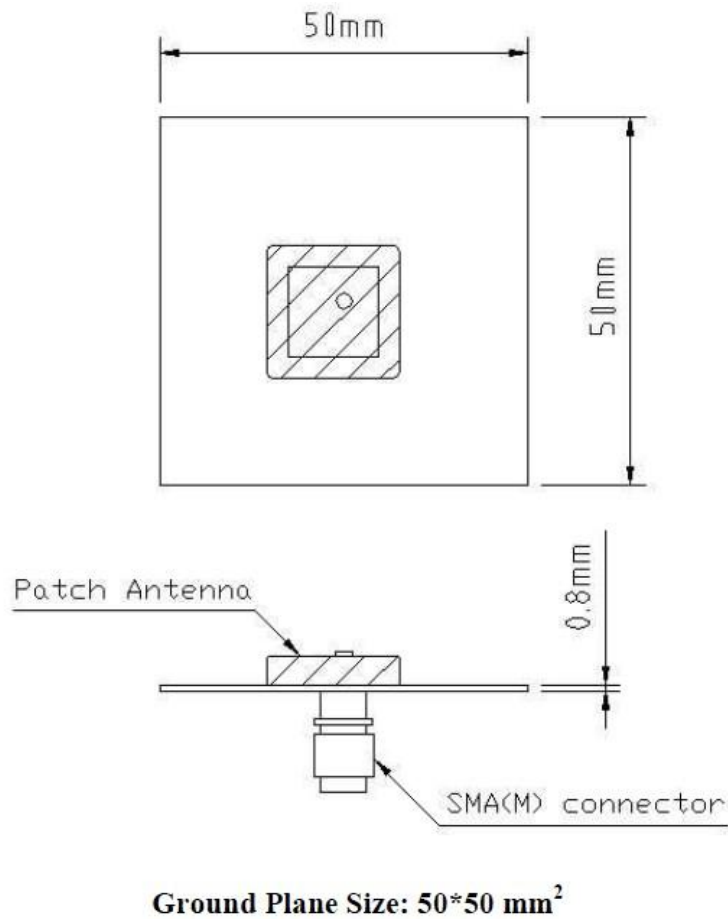
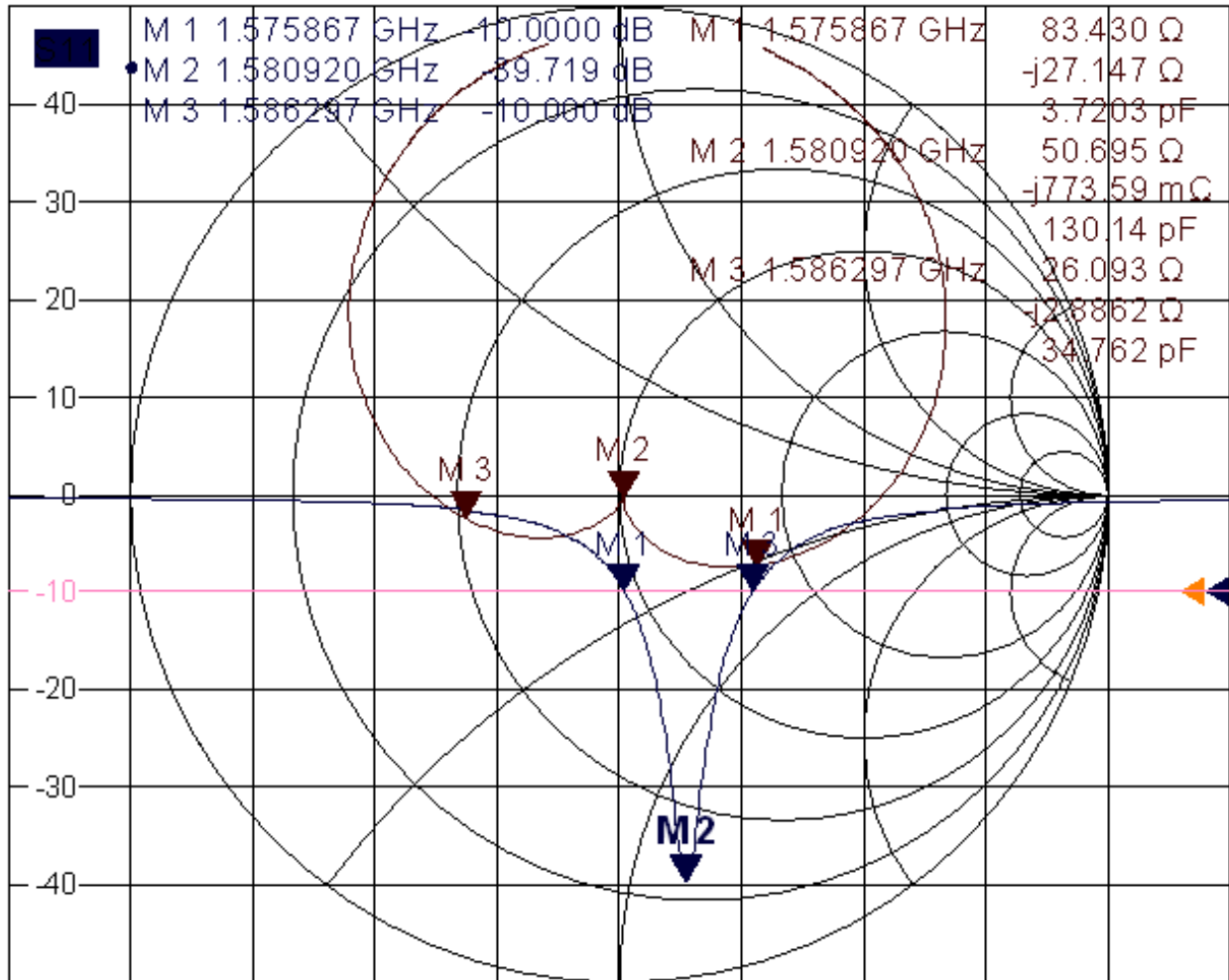


Fig. 2 Evaluation Board

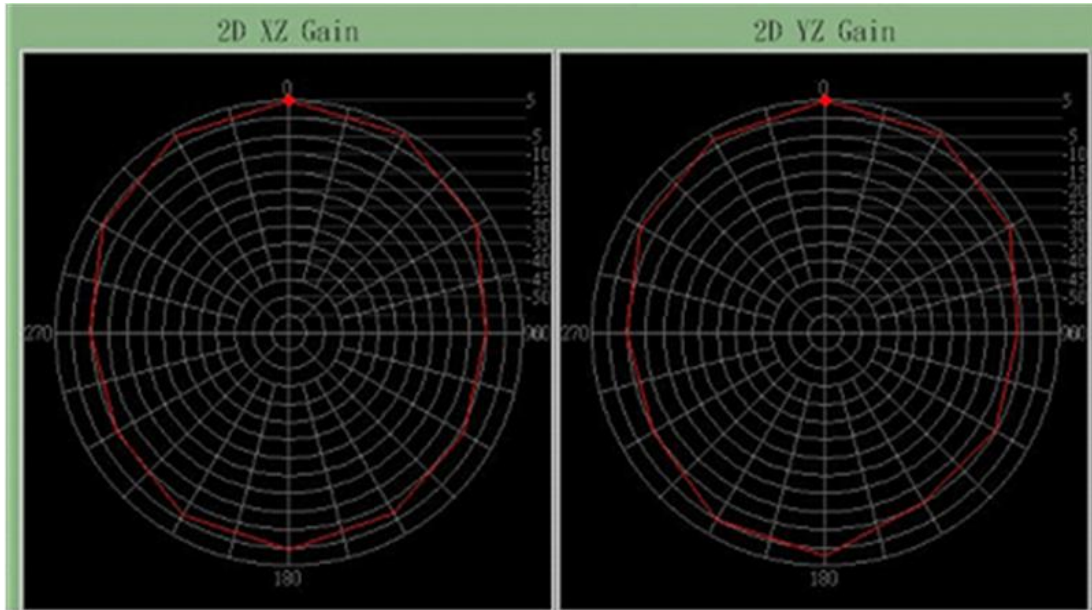
ELECTRICAL PERFORMANCES

| | | | | | |
|------------|---|--------|-------------------|-----------|--------------|
| Trc1 | S11 | dB Mag | 10 dB / Ref-10 dB | Cal | 1 of 1 (Max) |
| Trc2 | S11 | Smith | Ref 1 U | Cal | |
| Mem3[Trc1] | S11 | dB Mag | 10 dB / Ref-10 dB | Invisible | |
| Mem4[Trc2] | S11 | Smith | Ref 1 U | Invisible | |



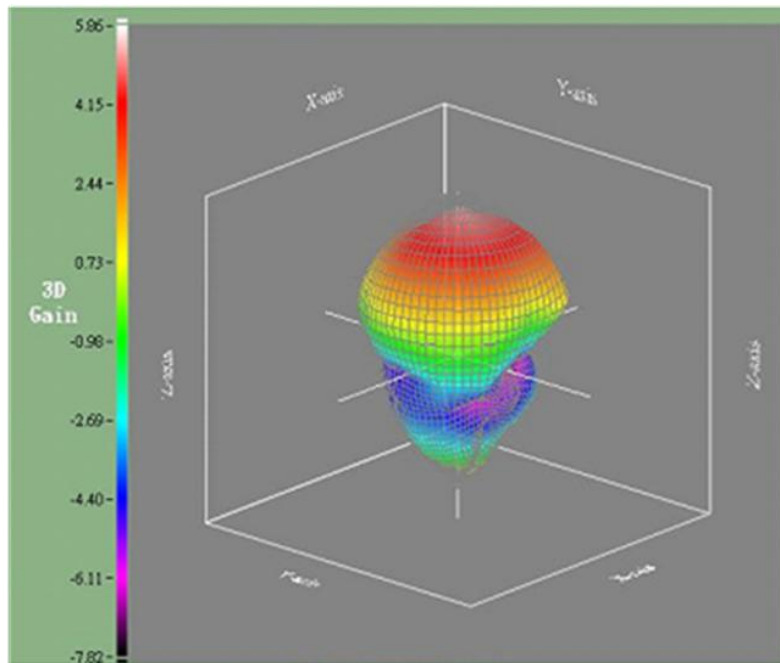
Ch1 Center 1.57542 GHz Pwr 0 dBm Span 100 MHz

Fig. 3 Return loss



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 | Dec. 30, 2014 | - | - New data sheet for Patch antenna, PIN Feed size 18×18×4 mm |
|-----------|---------------|---|--|