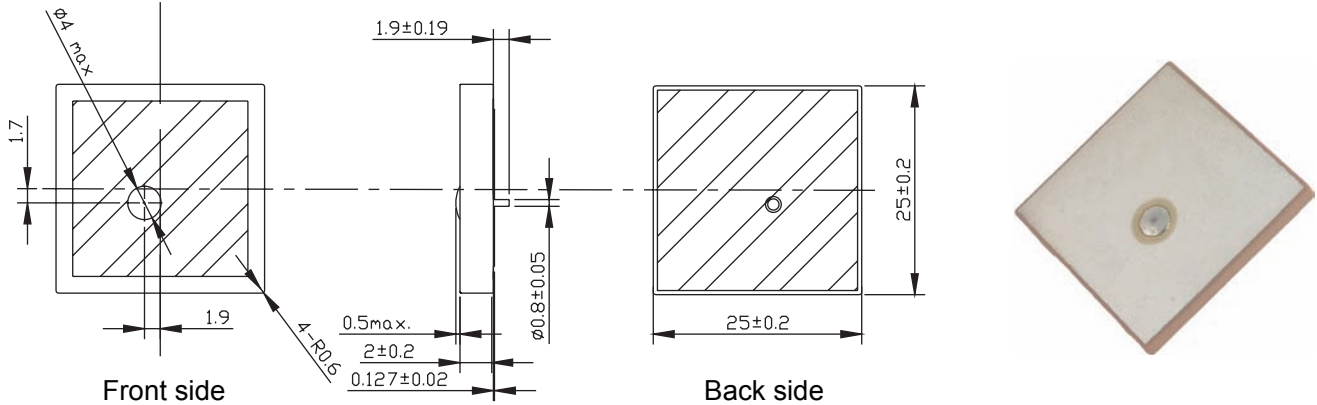


# AQ002 GPS Patch Antenna

## Passive Ceramic GPS Patch Antenna 25 x 25 x 2 mm

Product No. AQ00253GPS000

### Dimensions (unit: mm)



### Application

- Navigation systems or position tracking systems.
- Hand-held devices when GPS function is needed, e.g., Bluetooth GPS Receiver, Smart phone, Personal Digital Assistant (PDA), Portable Navigation Device (PND).

### Features

- Stable and reliable in performances
- Low temperature coefficient of frequency
- Compact size
- RoHS compliance

### Electrical Specification

#### Patch

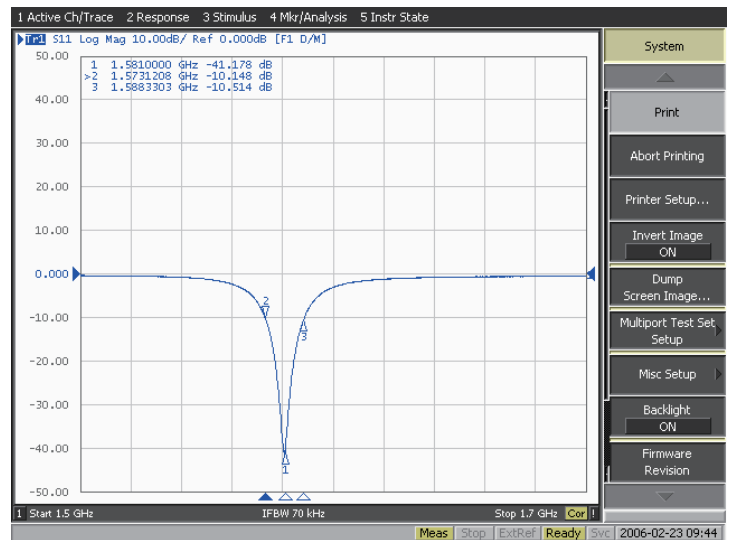
|                                      |                                        |
|--------------------------------------|----------------------------------------|
| Outline Dimensions                   | 25 × 25 × 2 mm                         |
| Ground Plane                         | 70 x 70 mm                             |
| Center Frequency*                    | 1581 ± 2 MHz                           |
| Bandwidth (10dB return loss)         | 10 MHz Min.                            |
| VSWR                                 | 1.5 Max.                               |
| Impedance                            | 50 Ω                                   |
| Polarization                         | R.H.C.P                                |
| Gain at Zenith                       | +4.5 dBic typ.                         |
| Gain at 10° elevation                | -3.0 dBic typ.                         |
| Axial Ratio                          | 3 dB typ.                              |
| Temperature Coefficient of Frequency | 0 ± 20 ppm/°C Max.<br>(at -40 ~ 80 °C) |

Center frequency will be offset to working frequency according to the conditions of user's ground plane and radome.

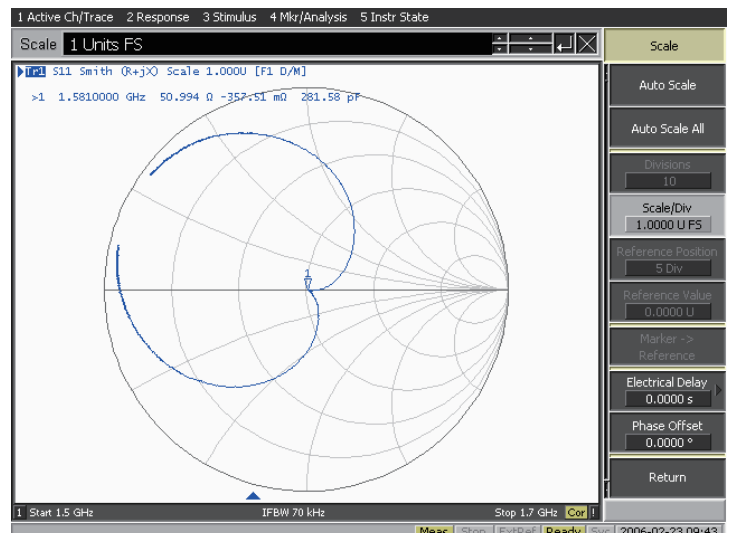
### Test Report

Ground Plane in 70 x 70 mm

#### S11 Return Loss



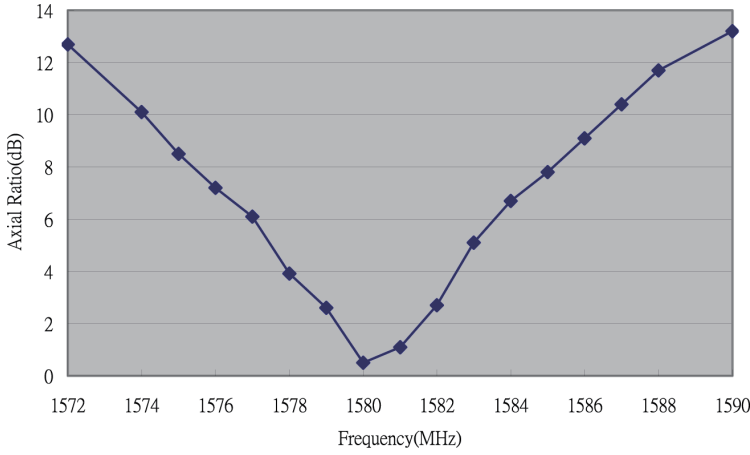
#### Smith Chart



# Test Report

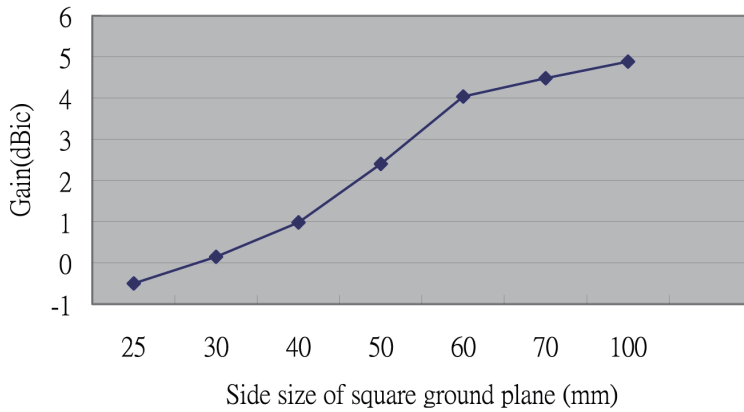
Ground Plane in 70 x 70 mm

## Axial Ratio

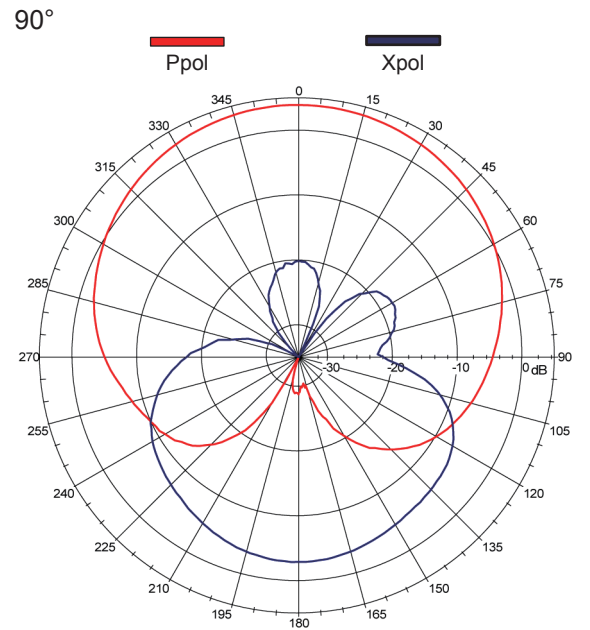
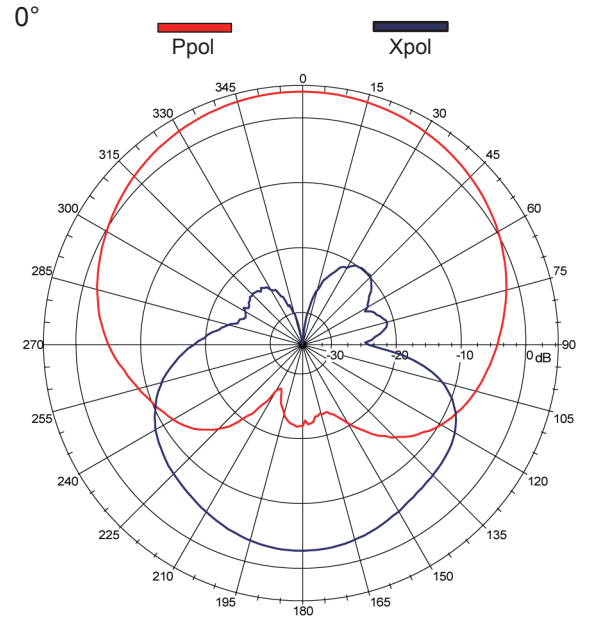


## Gain vs. Ground Plane Size

Frequency: 1581MHz



## Radiation Pattern



Right hand circular polarized signal  $f_0=1581\text{MHz}$