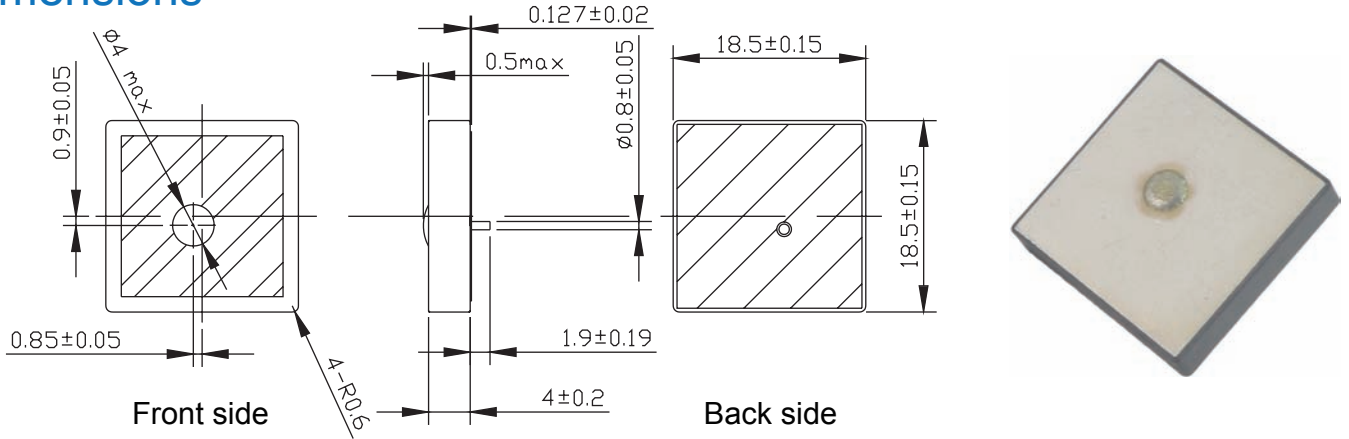


# AQ003 GPS Patch Antenna

## Passive Ceramic GPS Patch Antenna 18.5 x 18.5 x 4 mm

Product No. AQ00353GPS000

### 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

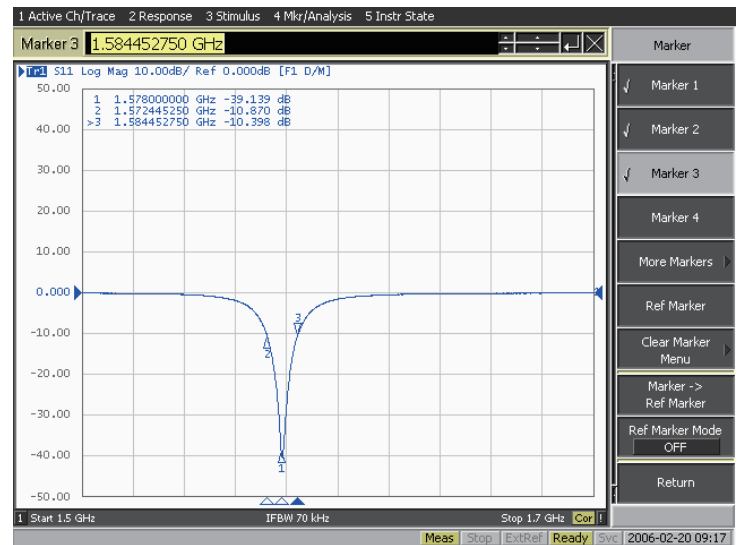
Outline Dimensions	18.5 × 18.5 × 4 mm
Ground Plane	50 x 50 mm
Center Frequency*	1578 ± 2 MHz
Bandwidth (10dB return loss)	9 MHz Min.
VSWR	1.5 Max.
Impedance	50 Ω
Polarization	R.H.C.P
Gain at Zenith	+2.5 dBic typ.
Gain at 10° elevation	-4 dBic typ.
Axial Ratio	3 dB typ.
Temperature Coefficient of Frequency	0 ± 20 ppm/°C Max. (at -20 ~ 80 °C)

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

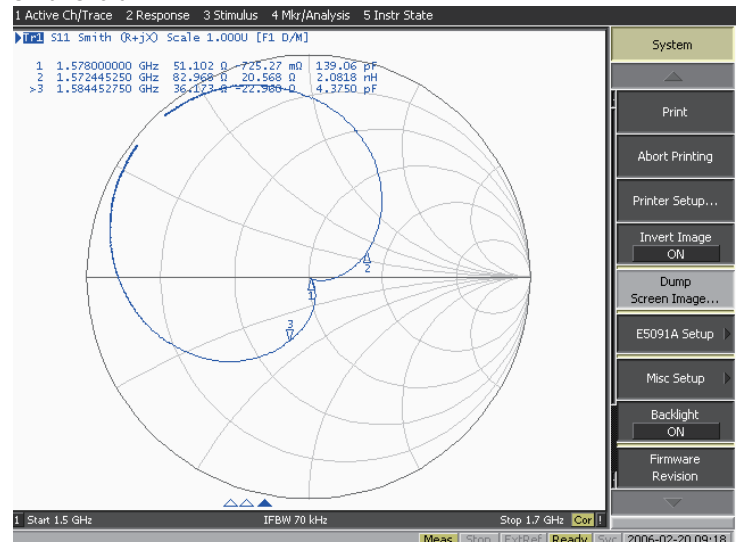
### Test Report

Ground Plane in 50 x 50 mm

#### S11 Return Loss



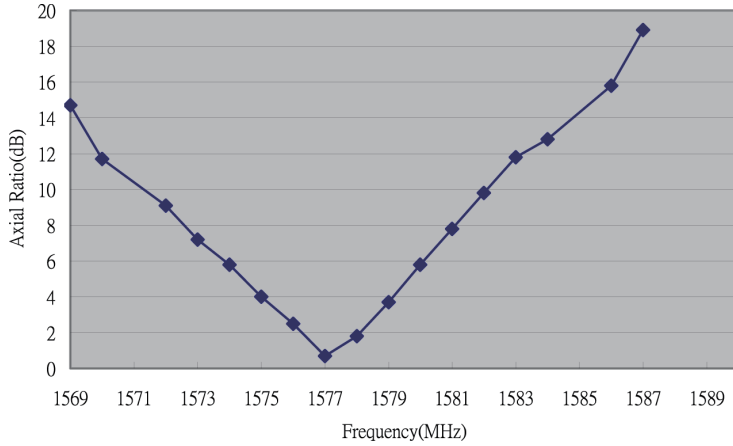
#### Smith Chart



# Test Report

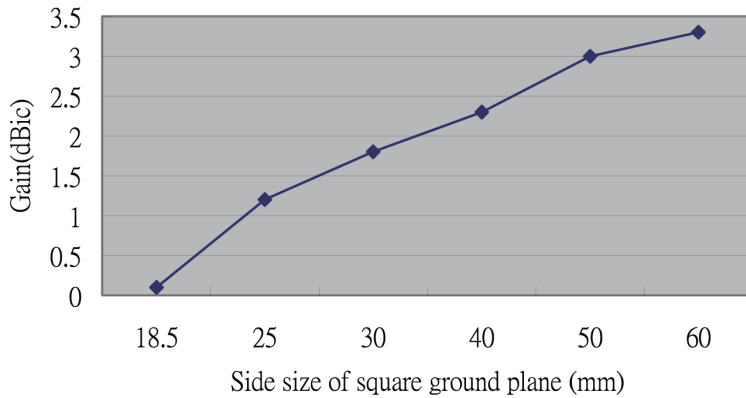
Ground Plane in 50 x 50 mm

## Axial Ratio

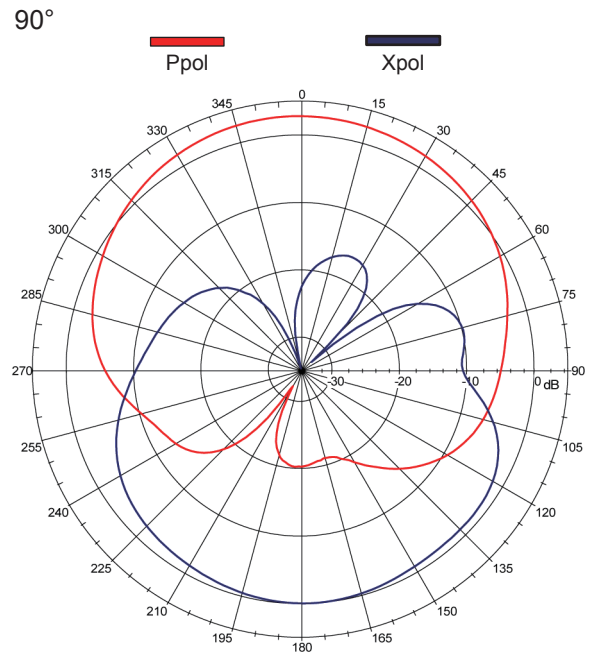
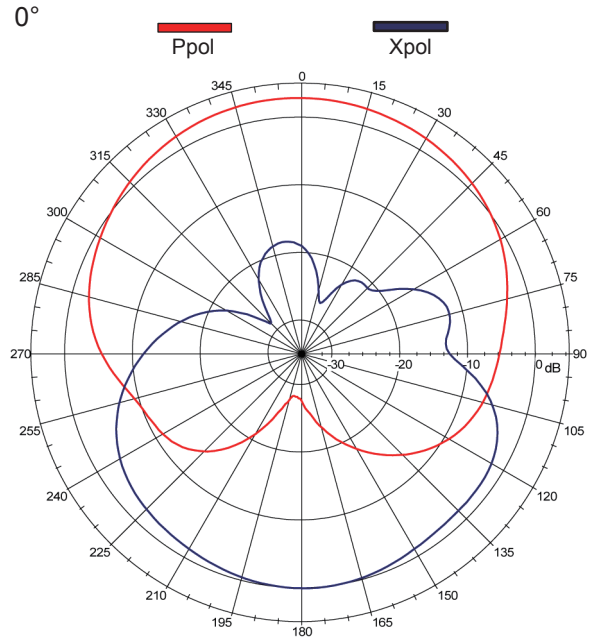


## Gain vs. Ground Plane Size

Frequency: 1578MHz



## Radiation Pattern


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