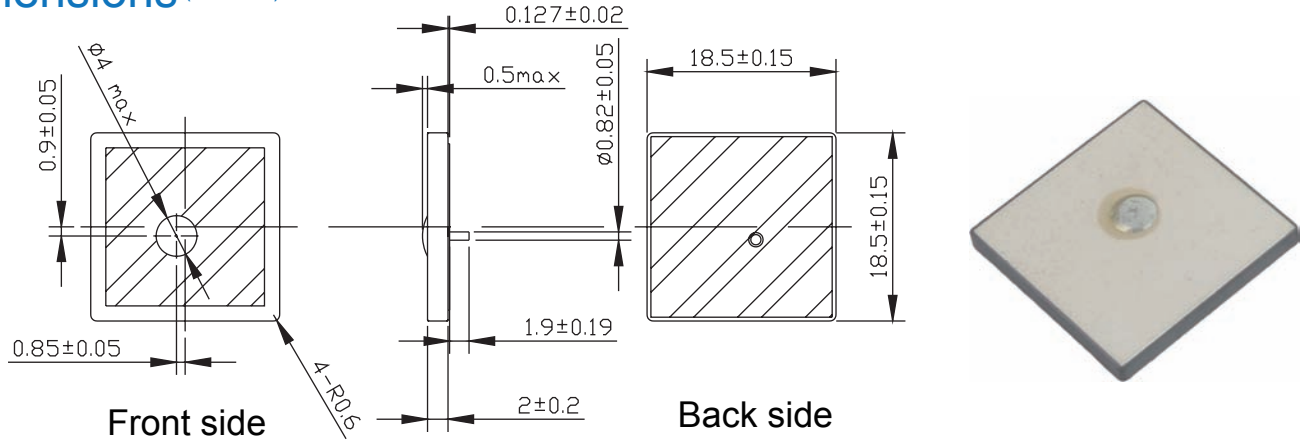


# AQ004 GPS Patch Antenna

## Passive Ceramic GPS Patch Antenna 18.5 x 18.5 x 2 mm

Product No. AQ00453GPS000

### Dimensions (unit: mm)



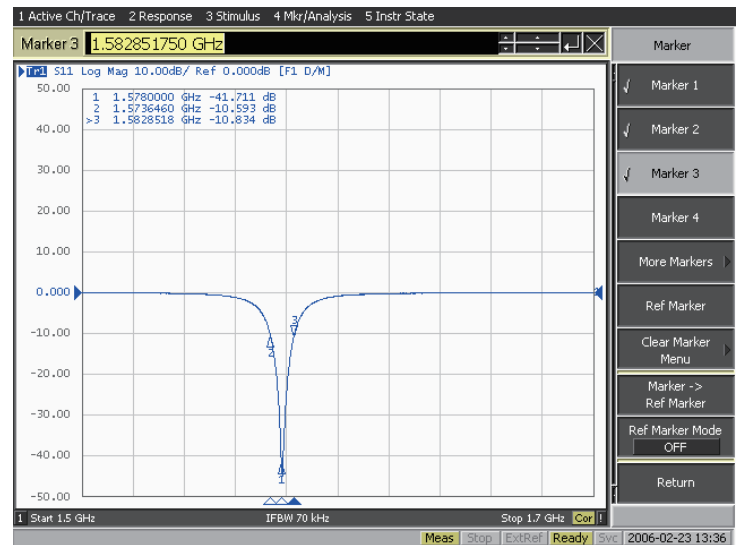
### Application

- 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).

### Test Report

Ground Plane in 50 x 50 mm

#### S11 Return Loss



### Features

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

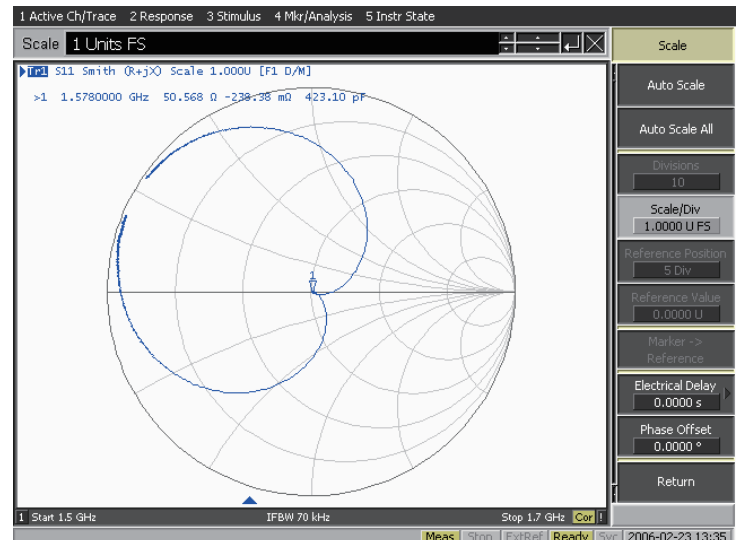
## Electrical Specification

### Patch

Outline Dimensions	18.5 × 18.5 × 2 mm
Ground Plane	50 x 50 mm
Center Frequency*	1578 ± 2 MHz
Bandwidth (10dB return loss)	7 MHz Min.
VSWR	1.5 Max.
Impedance	50 Ω
Polarization	R.H.C.P
Gain at Zenith	+1.0 dBic typ.
Gain at 10° elevation	-5.5 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.

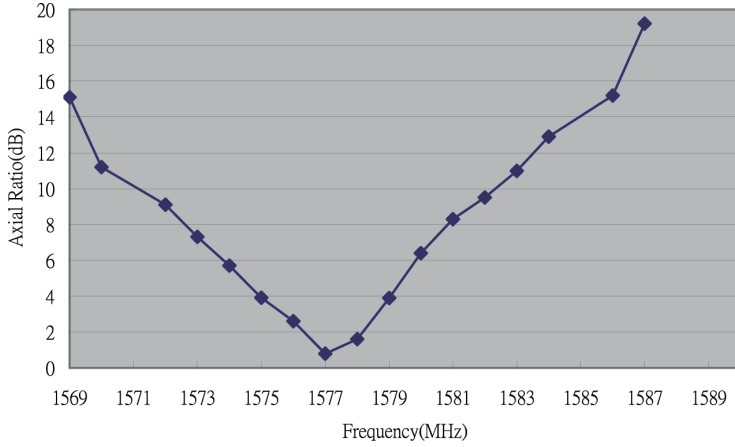
### Smith Chart



# Test Report

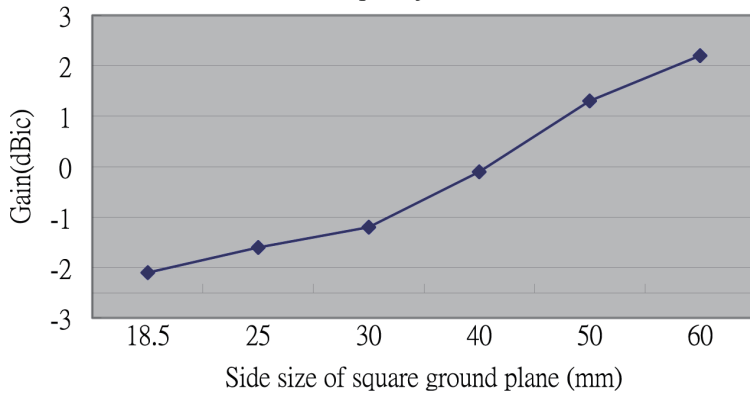
Ground Plane in 50 x 50 mm

## Axial Ratio

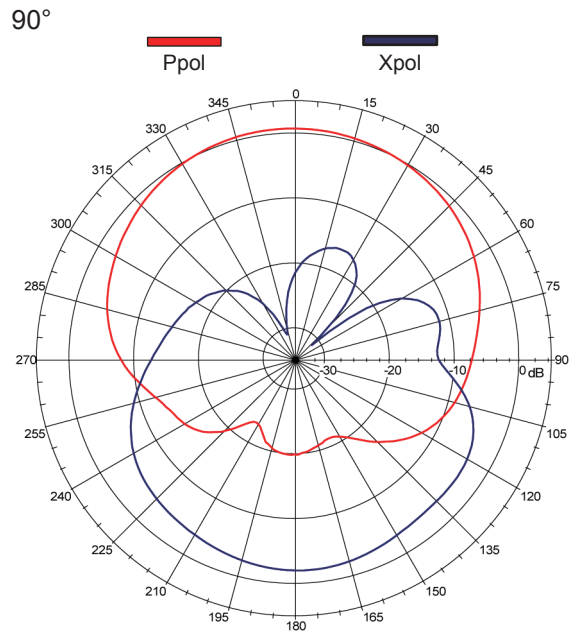
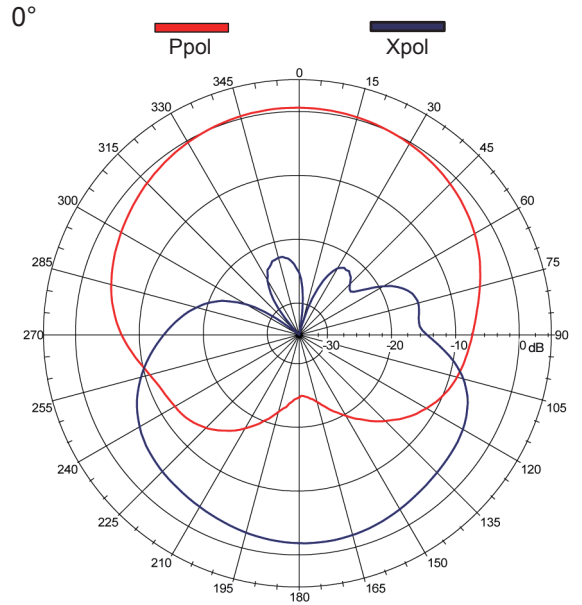


## Gain vs. Ground Plane Size

Frequency: 1578MHz



## Radiation Pattern



Right hand circular polarized signal  $f_0=1578\text{MHz}$