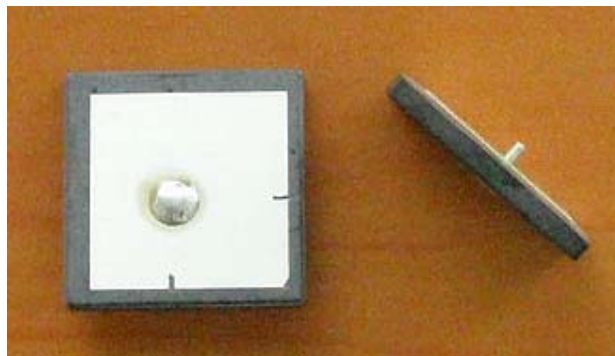




Specification

SPECIFICATION

Part No. : GP-1575-18-2-A-14
Product Name : **18.5mm*18.5mm*2mm GPS Patch Antenna**
Features : ROHS Compliant



REVISION STATUS

Version	Date	Page	Revision Description	Prepared	Approved
01	Apr 17 th 2008	All	New release	TW Product Centre	Zita Lin



Specification

1.0 Introduction

This miniaturized ceramic GPS patch antenna is based on smart **XtremeGain™** technology. It is mounted via pin and double-sided adhesive.

2.0 Key Antenna Performance Indicators

Original Patch Specification tested in custom housing and ground plane

No	Parameter	Specification
1	Reference Ground Plane	50mm x 50mm
2	Center Frequency	1578MHz ± 2 MHz*
3	Bandwidth (-10dB return loss)	min. 7MHz
4	VSWR	max 1.5
5	Gain at Zenith	typ. 1.0 dBiC
6	Gain at 10° elevation	typ -5.5 dBiC
7	Axial Ratio	typ. 3dB
8	Polarization	right hand circular polarization
9	Impedance	50 Ohms
10	Frequency Temperature Coefficient (τ_f)	0 ± 20ppm/°C @ -20°C to +80°C
11	Operating Temperature	-40°C to +105°C

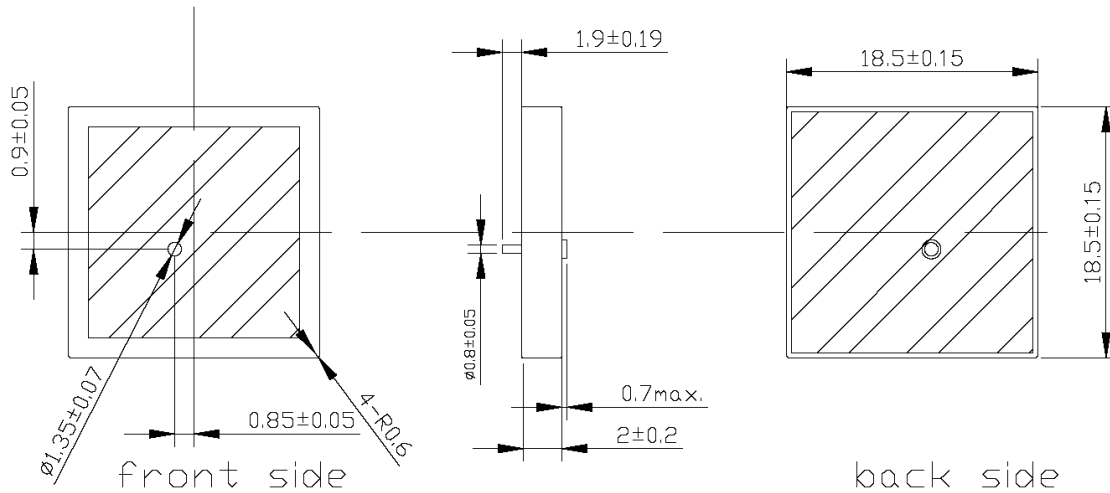
* Centre frequency will be offset to working frequency according to the conditions of user's ground plane and radome.



Specification

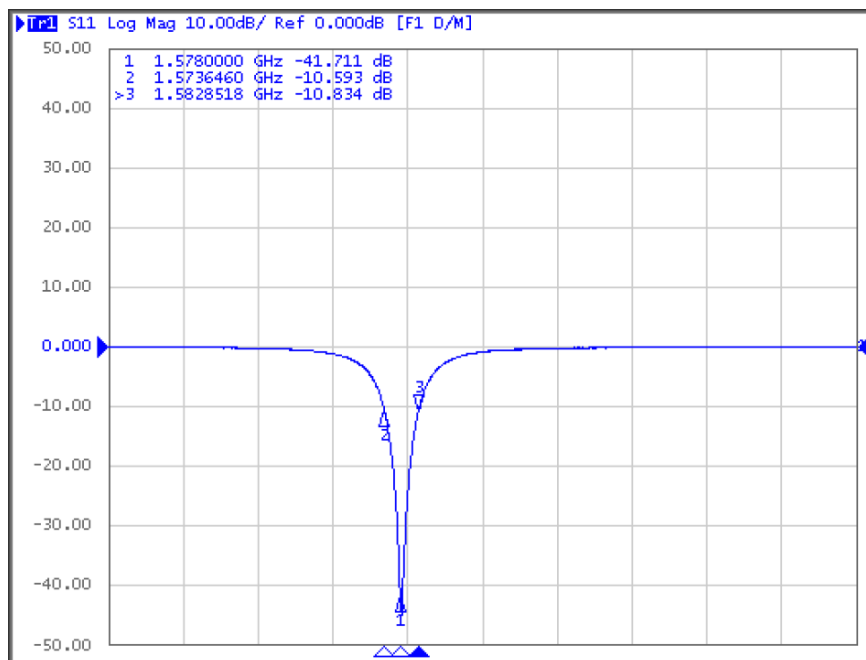
3.0 Mechanical Specifications

I. Dimensions and Drawing



4.0 Electrical Specifications

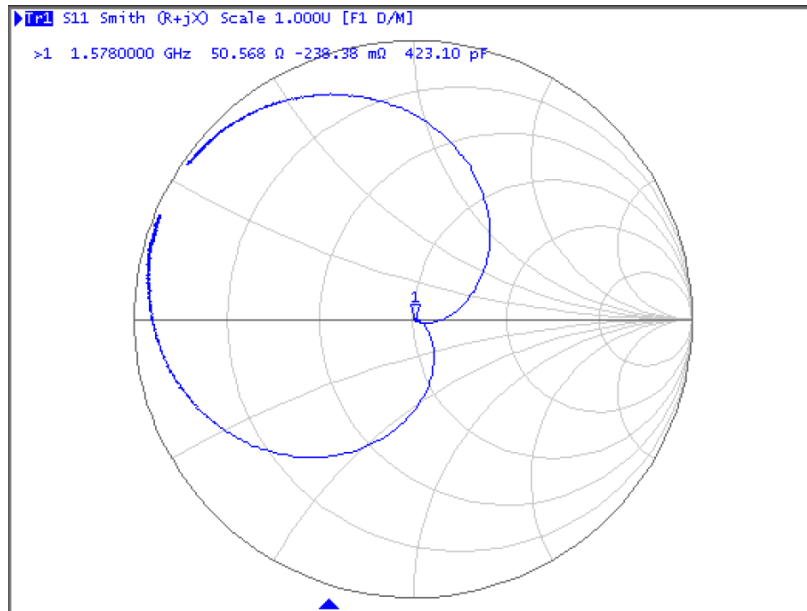
I. S11 Return Loss





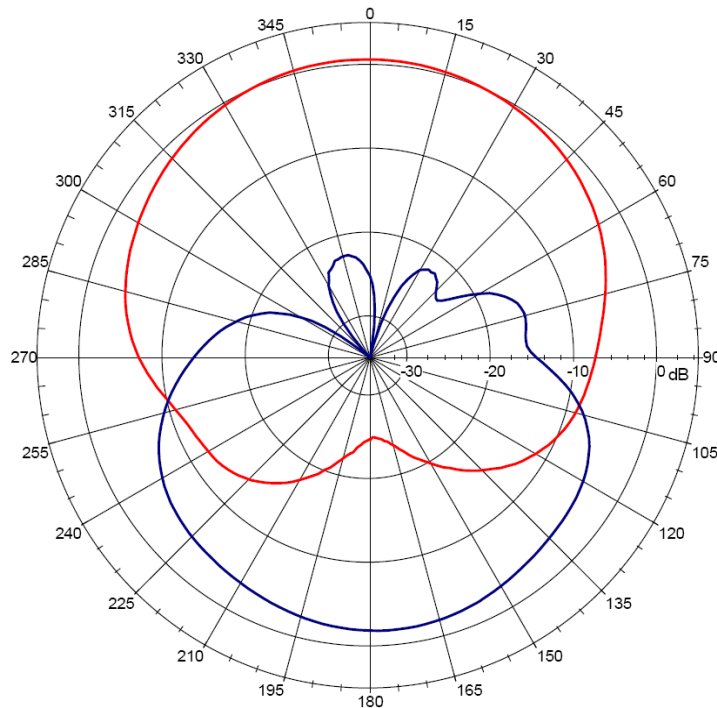
Specification

II. Smith Chart



III. Radiation Pattern (under custom housing and ground plane))

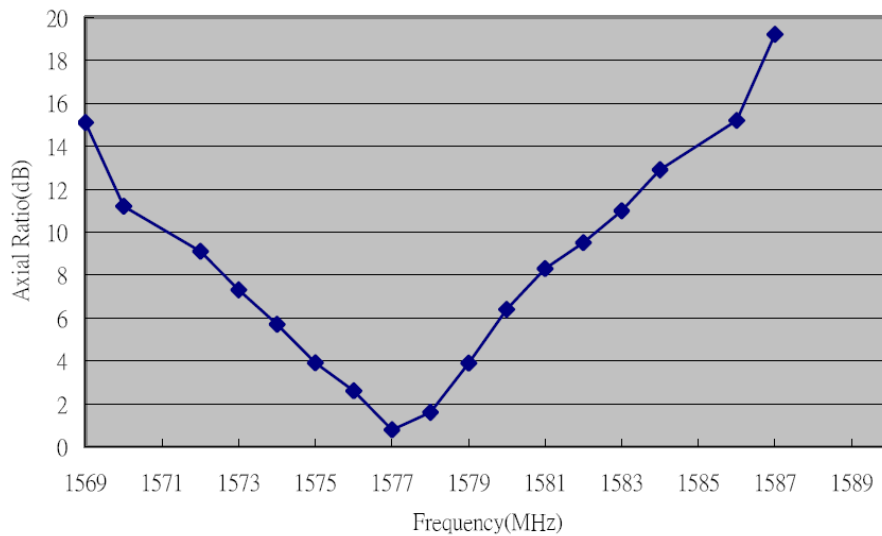
Far-field amplitude of gain chart for 1578MHz for 2mm 0.7.si





Specification

IV. Axial Ratio (50mm x 50mm Ground Plane)



V. Gain vs. Ground Plane Size

Frequency: 1578MHz

