

## GPS / GNSS Internal Antenna

**Product Number:ATIG2540**

### 1、SCOPE

This specification shall cover the characteristics of the GPS/GNSS internal antenna with the type ATIG2540

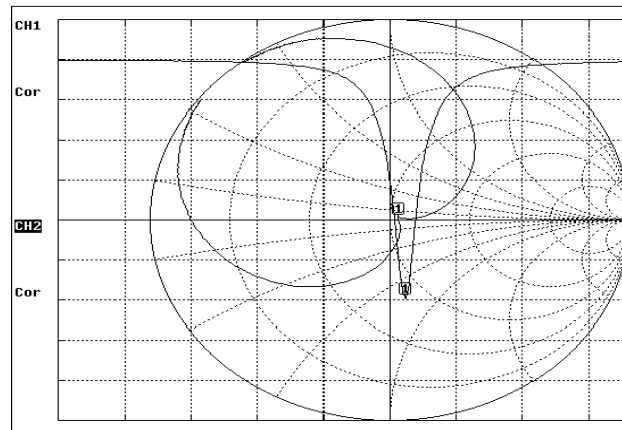
### 2、OVERALL PERFORMANCE(Antenna Element, LNA & Cable)

CHARACTERISTICS	SPEC
Center Frequency	1575.42±1.023MHz(When the antenna are placed on the customer's device inside)
Voltage	DC 2.7 – 5V
Current	12mA max
Gain	25dB typ
Noise Figure	2.0dB max
Bandwidth(10dB return loss)	10MHz min
Output VSWR	2.0 max
Output Impedance	50ohm
Dimensions	25mm(L)×25mm(W)×7.5mm(H) typ
Weight	10±2g(typ)
Cable	60±1mm (Optional) , RFΦ=1.13mm(Optional)
Connector	IPEX MHF,H=2.1mm (Optional)

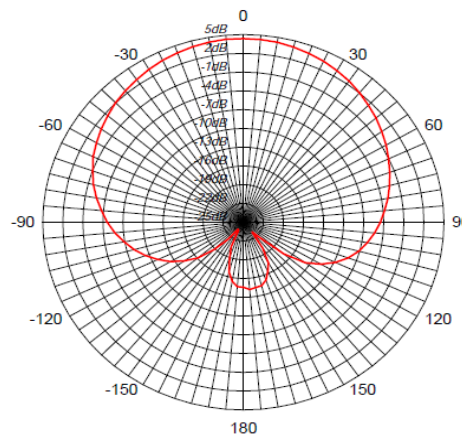
### 3.1 · Patch antenna

CHARACTERISTICS	SPEC
Dimensions	25mm(L)×25mm(W)×4mm(H) typ
Center Frequency	1575.42±1MHz(50mm(L)×50mm(W) Ground)
Bandwidth(10dB return loss)	10MHz min
Peak Gain	3dB typ
Output V.S.W.R	2.0dB max
Output Impedance	50ohm
Polarization	R.H.C.P

### 3.2 · Impedance Characteristic

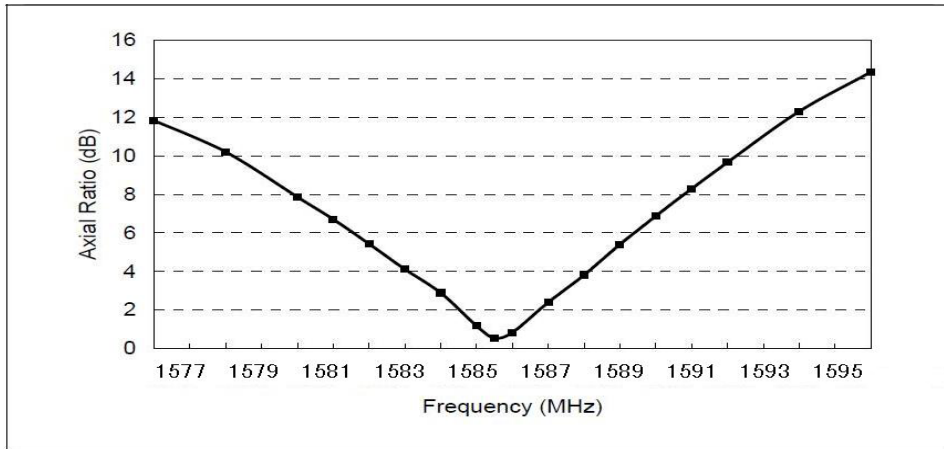


### 3.3 · The Normalized Antenna Gain Chart



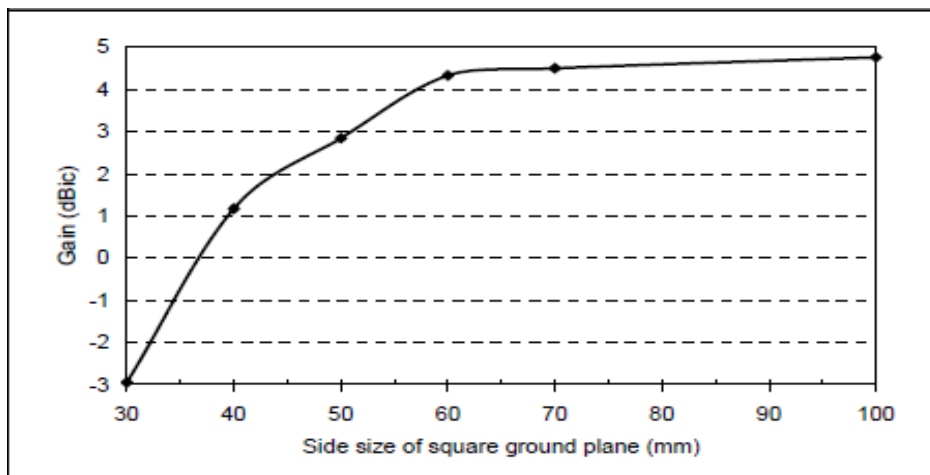
### 3.4 Measured Axial Ratio

(For Example:1585MHz, 70mm square ground plane)



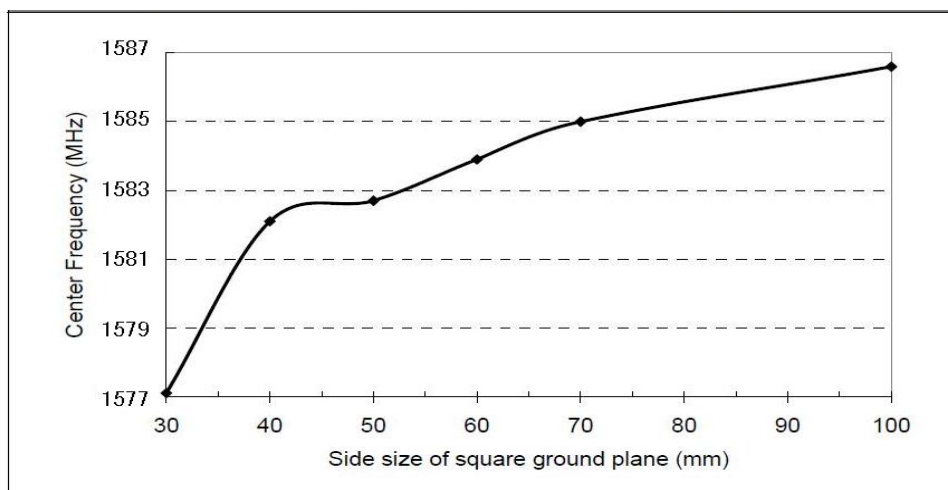
### 3.5 Antenna Gain vs. Ground Plane

(For Example:1585MHz)



### 3.6 Center Frequency vs. Ground

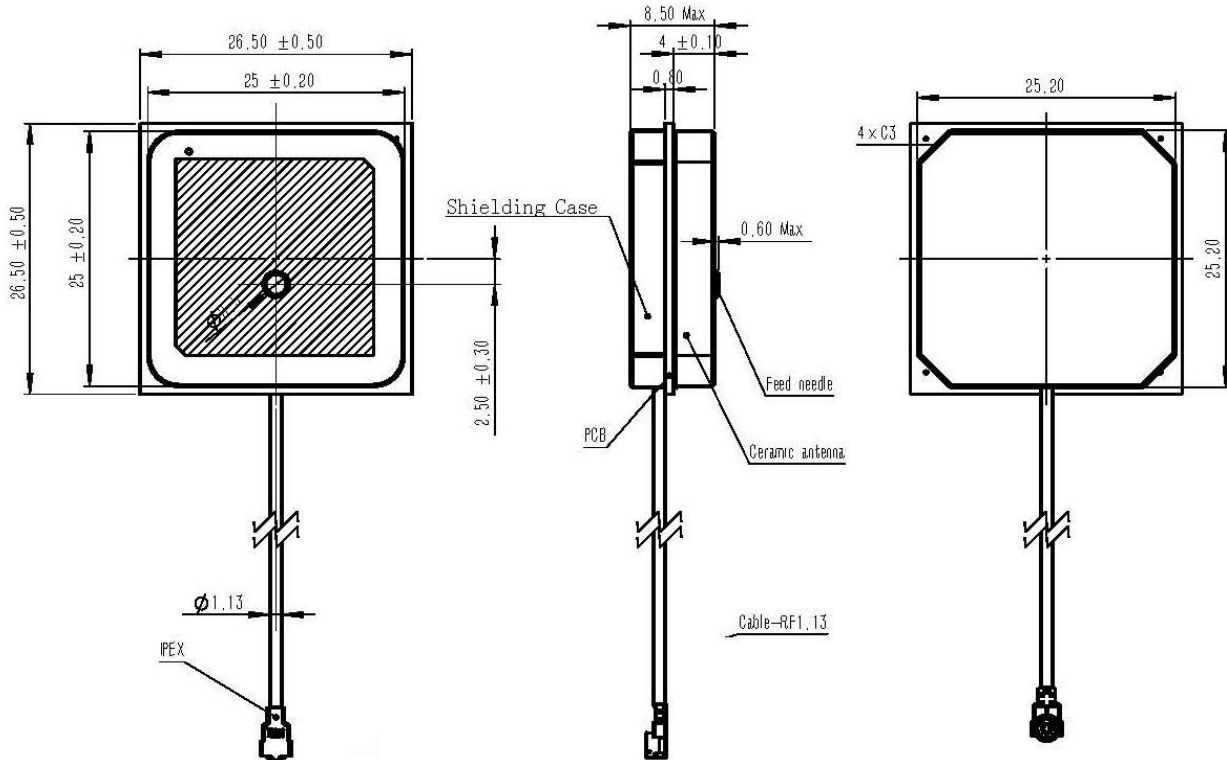
(For Example:1585MHz)



## 4 · LNA/Filter

CHARACTERISTICS	SPEC
Voltage	DC 3.0±0.3V
Current	12mA max
Center Frequency	1575.42±1MHz
Gain	27±2dB typ
Noise Figure	1.5dB max
Filter(Out of band attenuation)	SAW filter 30dB min fo±60MHz (fo=1575.42MHz)
Output V.S.W.R	2.0 max

## 5 · ANTENNA DIMENSIONS



Unit : mm

## 6、OPERATING CONDITION

Temperature	-20°C to +65°C
Humidity	10% to 95% RH

## 7、STORAGE CONDITION

Temperature	-20°C to +70°C
Humidity	10% to 95% RH

## 8、Note

8.1、This product specification guarantees the quality of our product as a single unit. Please make sure that your product is evaluated and confirmed against your specifications when our product is mounted to your product.

8.2、We cannot warrant against failure caused by any use of our product that deviates from the intended use as described in this product specification.

8.3、The product will get free warranty for one year since the date of purchase users operate in the correct way; users will have to pay cost of the materials and maintaining fee out of the condition.