

## 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

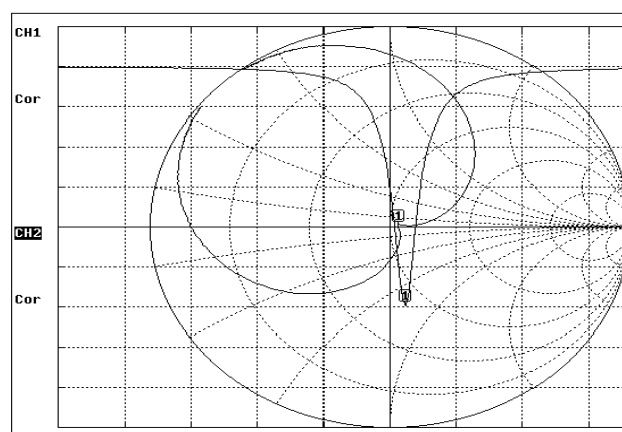
### 2、OVERALL PERFORMANCE(Antenna Element, LNA & Cable)

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) , RF Φ=1.13mm(Optional)
Connector	IPEX MHF,H=2.1mm (Optional)

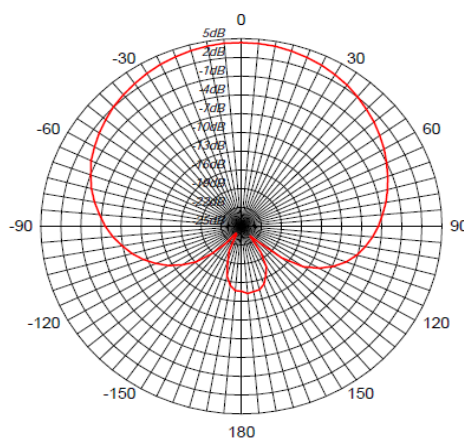
## 3.1 、 Patch antenna

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

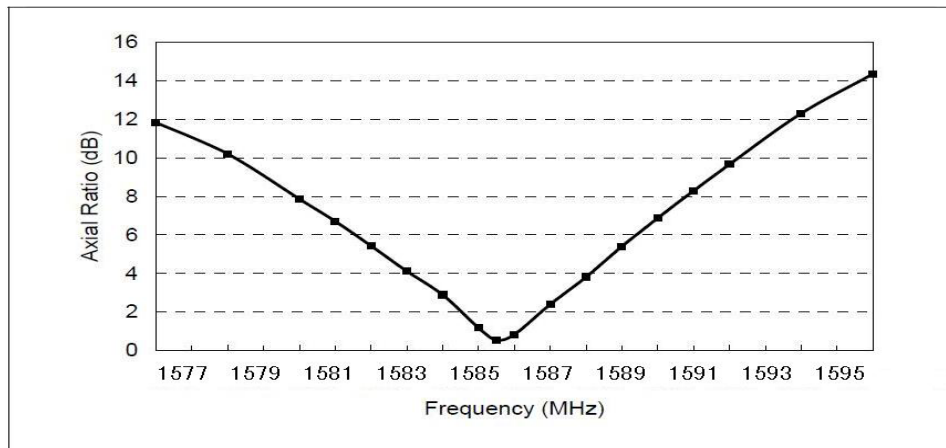


## 3.3 、 The Normalized Antenna Gain Chart



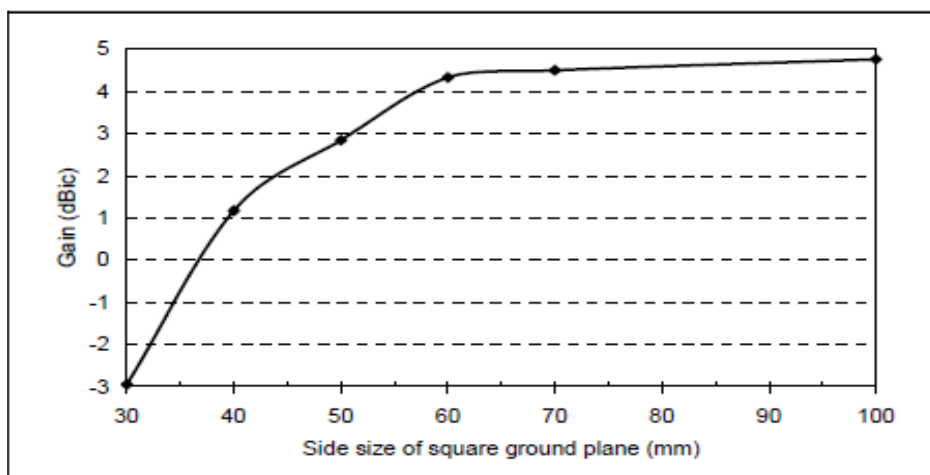
## 3.4 、 Measured Axial Ratio

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



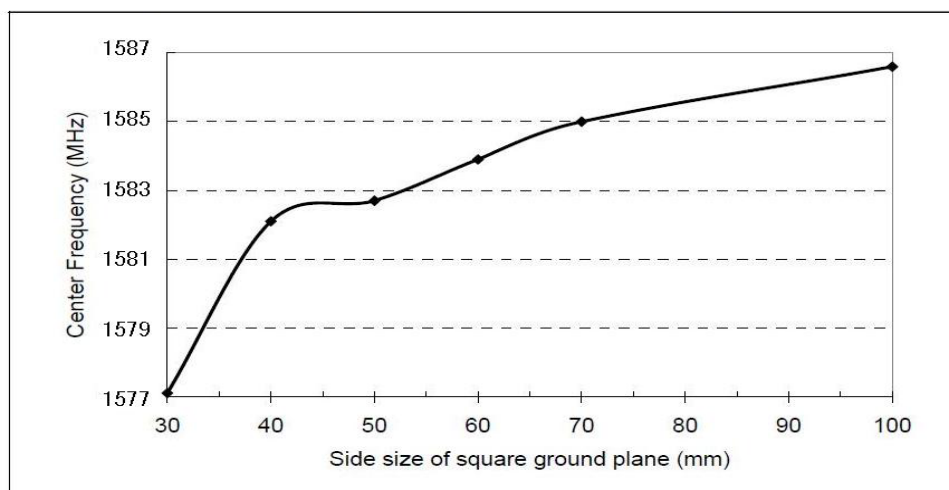
## 3.5 、 Antenna Gain vs. Ground Plane

(For Example:1585MHz)



## 3.6 、 Center Frequency vs. Ground

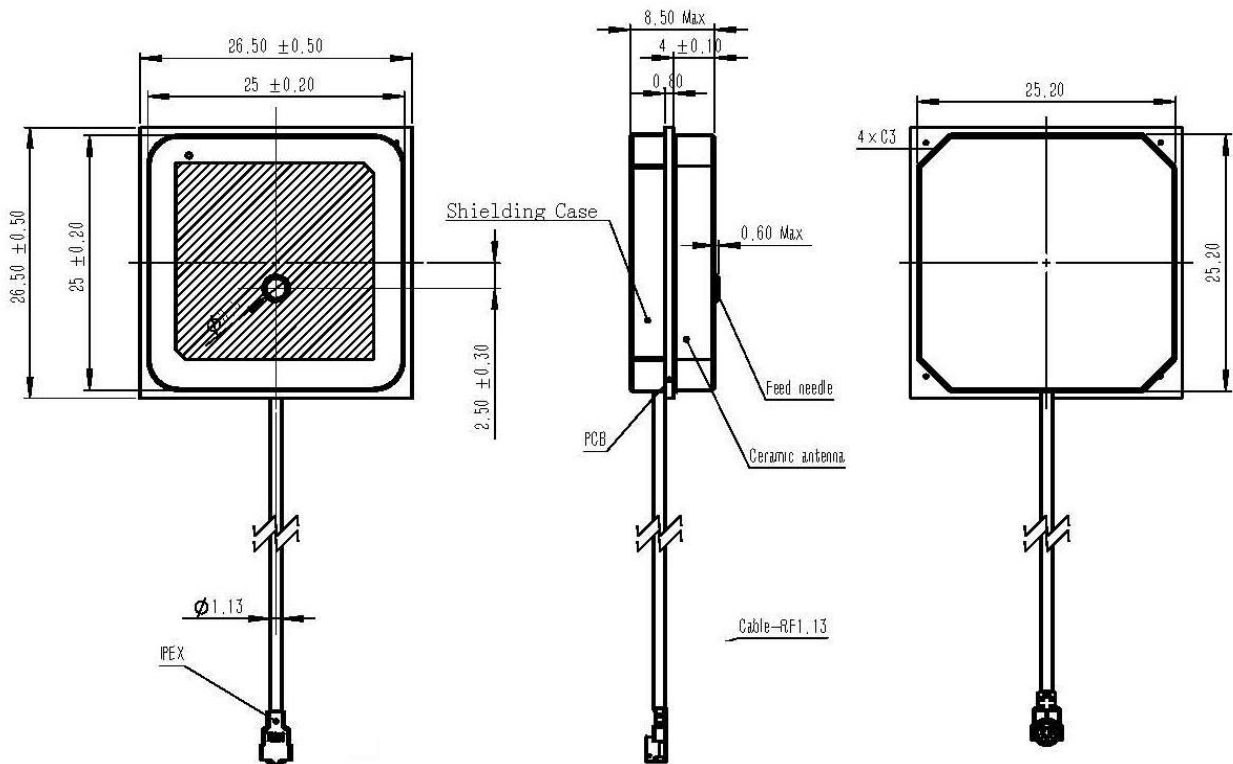
(For Example:1585MHz)



## 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℃ to +65℃
Humidity	10% to 95% RH

## 7 、 STORAGE CONDITION

Temperature	-20℃ to +70℃
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.