

## GPS/GNSS External Active Antenna

### 1. Product Information

Product Name : **ATG4638** (Adhesive Mount)  
**ATG4638M** (Magnetic Mount)



### 1.1 Features:

1. Extra-high Gain and Low Noise
2. All Voltage (2.8V~5 V) can be available in one.
3. Extra-low current consumption in low voltage.
4. Small size and no radome type are available.
5. Variable connector and cable length are available.
6. Adhesive mount or Magnetic mount
7. Various accessories are available.

### 2. Applications:

For antenna units used with or in Handheld system, Automobile, Recreational, Marine, etc.

### 3. Parts Numbering :

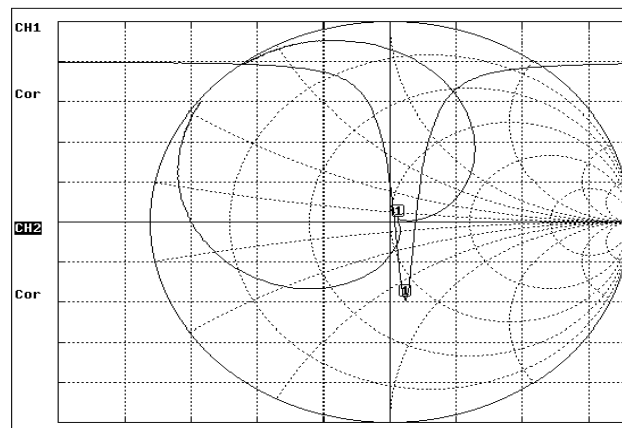
ATG	Type	LLWW Dimension of PCB,(mm)	Model name	Connector	Coaxial Cable Type	Length of Cable (mm)
	Blank : GPS	4638 : 46*38	Blank : Adhesive mount	SMA : SMA Straight , Male	Blank : RG174	1 : 1000 ± 100mm
	G : GPS & GLONASS		M : Magnetic mount	SMAR : SMA Right Angle , Male	:	2 : 2000 ± 100mm
	B : GPS & BDS(BeiDou)			SMB : SMB Straight , Male	:	3 : 3000 ± 100mm
				SMBR : SMB Right Angle , Male	:	:
				MCX : MCX	:	:
				BNC : BNC	:	:
				:	:	:
				:	:	:

## 4. Electrical Specification :

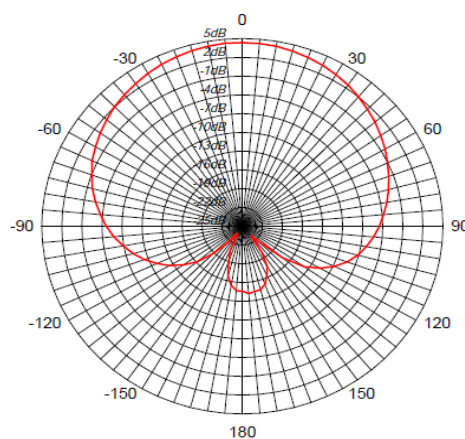
### 4.1. Ceramic Path Specification:

Operating Frequency	1575.42 ± 1.023 MHz
Bandwidth	10 MHz min. at -10 dB
VSWR	2.0 Max
Impedance	50Ω
Polarization	R.H.C.P.
Axial Ratio	3.0 dB Typ

#### 4.1.1 Impedance Characteristic

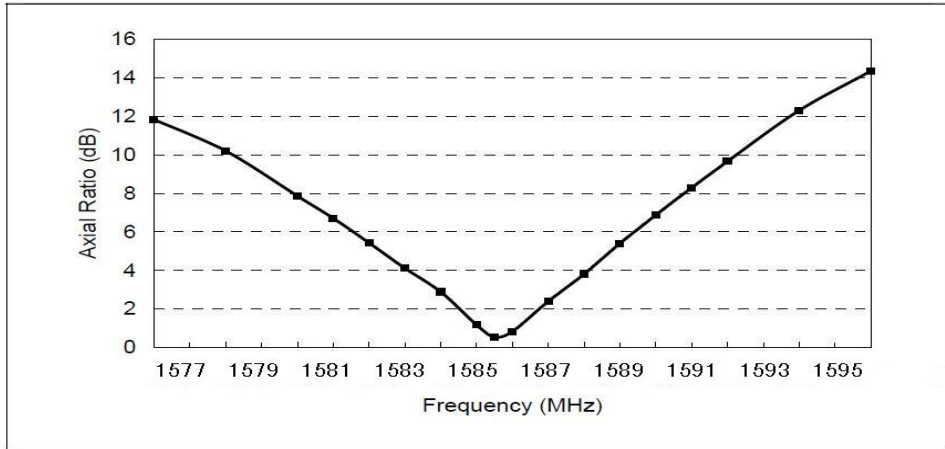


#### 4.1.2 The Normalized Antenna Gain Chart



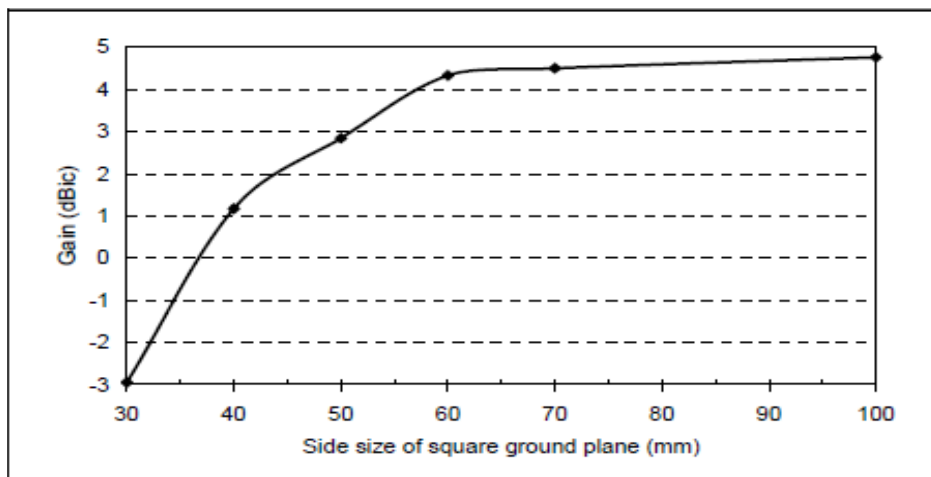
## 4.1.3 Measured Axial Ratio

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



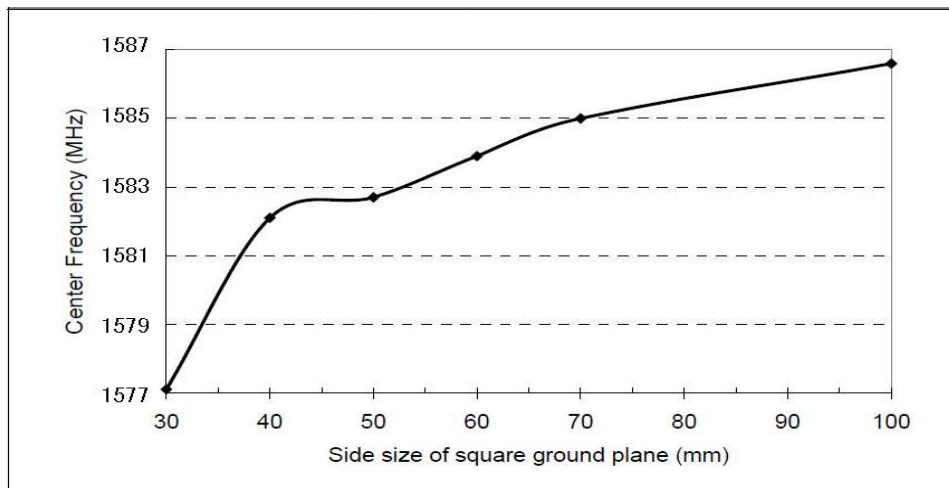
## 4.1.4 Antenna Gain vs. Ground Plane

(For Example:1585MHz)



## 4.1.5 Center Frequency vs. Ground

(For Example:1585MHz)



## 4.2. LNA Specification:

Operating Frequency	1575.42 ± 1.023 MHz
Gain	28 dB Typ
Noise Figure	1.2 Typ
Output VSWR	2.0 Max
Voltage	2.8 -5V
Current	3V: 10mA Typ

## 5. Appearance:

Antenna Unit ( with radome, connector, and cable)

Height : 13.0 ± 0.5mm; Width : 38.3 ± 0.5mm; Length : 46.5 ± 0.5mm

Weight:70g , with SMA connector and 3M RG174 cable

Color: dark black

## 6.Operating & Storage Condition:

Temperature : -40 ~ +90 °C

Humidity : 10 ~ 95% RH

## 7. Antenna Dimensions:

Item	Description	Dimension
1	Cable	Optional(3000mm,2000mm,...)
2	Length	46.5 ± 0.5mm
3	Width	38.3 ± 0.5mm
4	Thickness	13 ± 0.1
5	Connector	Optional (SMA, SMB,...)