

## GPS & GLONASS External Active Antennas

Product Number : ATGG46015-BP

### 1. Picture



## 2. Electrical Characteristics

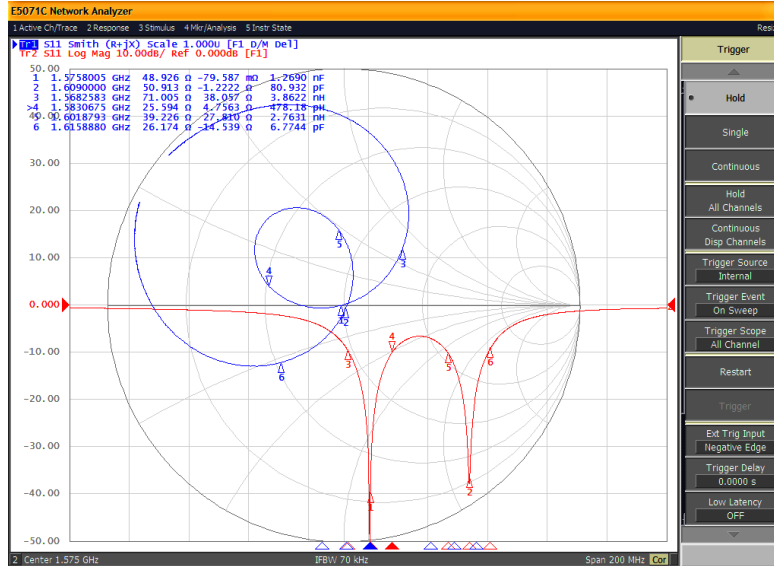
<b>Antenna</b>		
1	Antenna model	2520A ( 25mm*25mm*2mm )
2	Frequency Range	GPS : 1575.42MHz±1.023MHz
		GLONAS : 1609.3 MHz±5MHz
3	V.S.W.R	2.0 MAX
4	Band With@10dB	GPS : 5MHz MIN
		GLONAS : 10MHz MIN
5	Gain	GPS : 3.0 dB typ @70mm*70mm groundplane
		GLONASS : 4.0 dB typ @70mm*70mm groundplane
6	Impedence	50Ω
7	Polarization	RHCP
<b>LNA</b>		
1	Frequency Range	GPS : 1575.42MHz±1.023MHz
		GLONASS : 1609.3 MHz±5MHz
2	DC Voltage	3.3±0.3V
3	DC current	12±2mA(@3.0V)
4	Gain	GPS :26±3dB(without cable @25°C±10°C)
		GLONASS :26±3dB(without cable @25°C±10°C)
5	Output VSWR	2.0 MAX
6	Noise Figure	2.2 MAX

## 3. Environment Condition

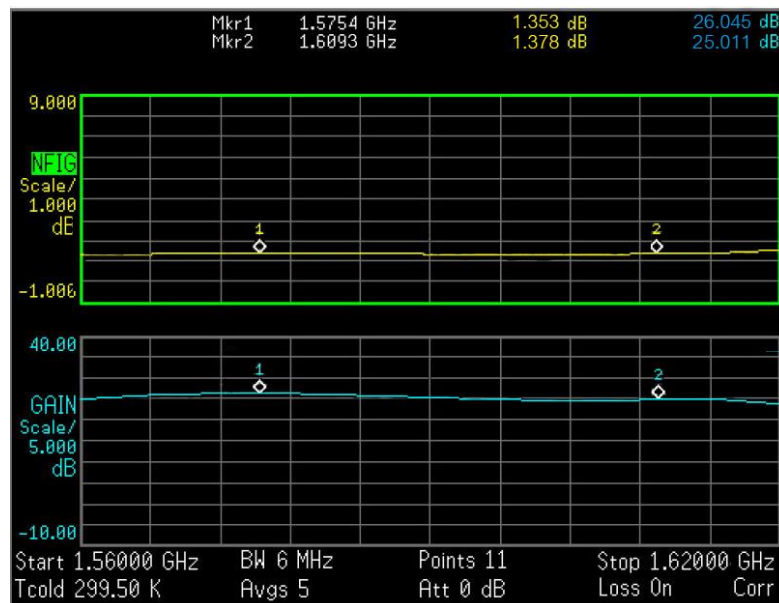
1	Working Temp	-40°C ~ +85°C , 10%~95% RH
2	Storage Temp	-55°C ~ +100°C , 10%~95% RH
3	Vibration	Sine sweep @ 1.5mmAM 10~55Hz each Axis
4	Waterproof	IP66

## 4. Testing Curve

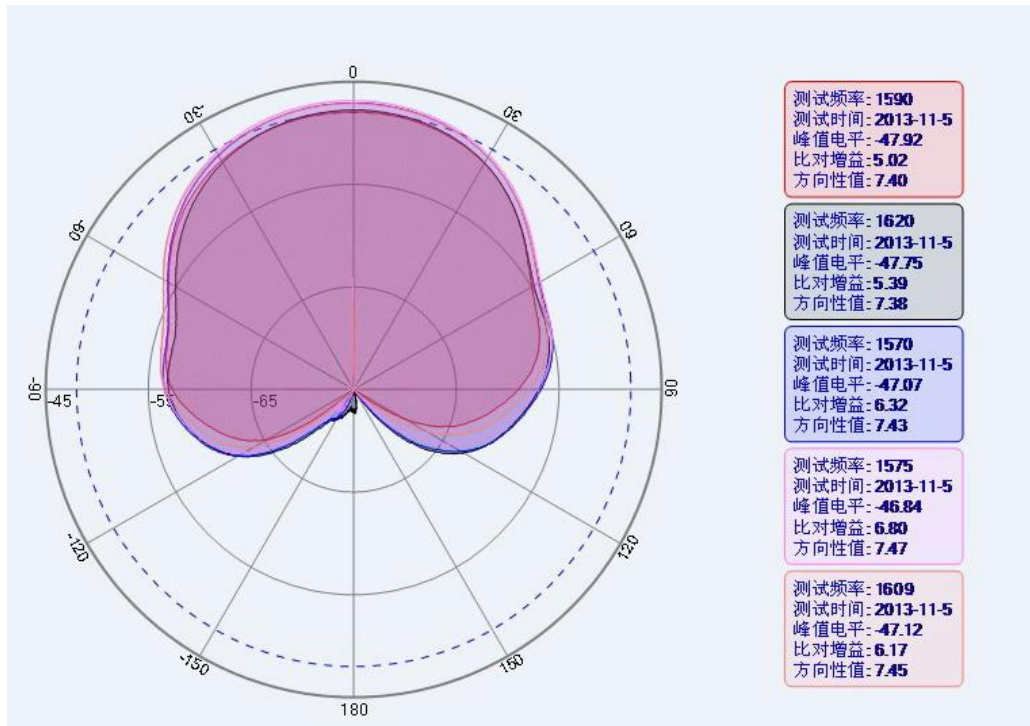
### 4.1 Patch Simth & VSWR



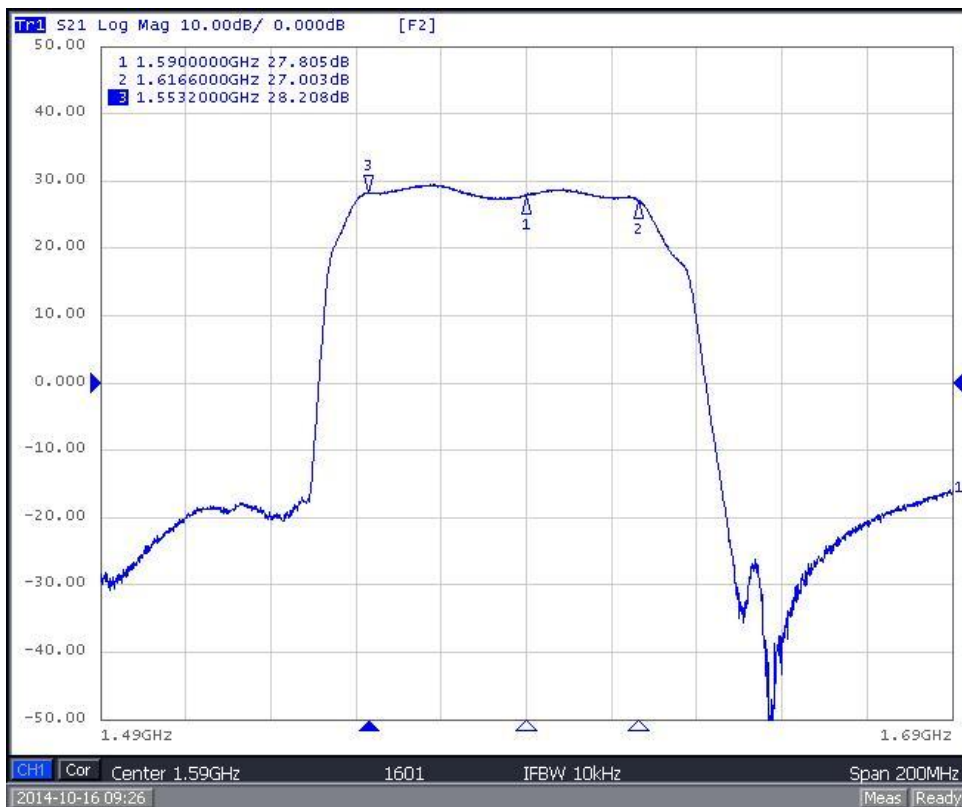
### 4.2 Noise Figure



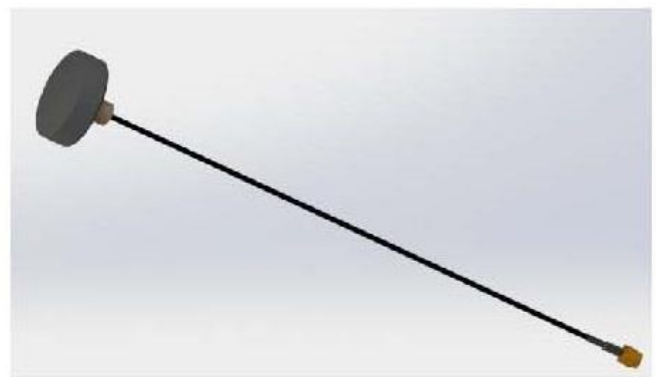
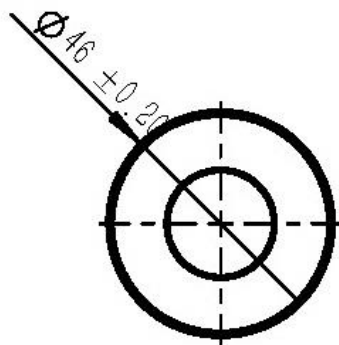
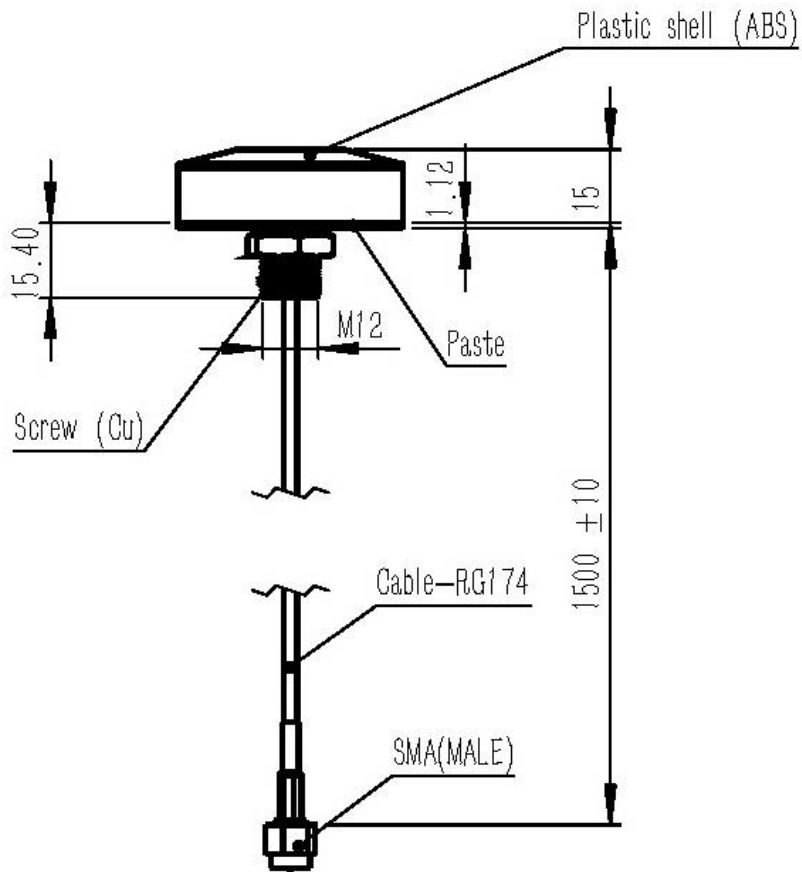
## 4.3 Patch Directional diagram



## 4.4 LNA Gain



## 5. Drawing



Unit:mm

## 6. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	MIL-STD-202G, 201A Amplitude: 0.03 inch (0.76mm); Freq: 10 to 55 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	Height: 1.5 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	MIL-STD-202G, 210F, cond. A Solder iron: 350±10°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	MIL-STD-202G, 211A, cond. A Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	MIL-STD-202G, 211A, cond. E Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	MIL-STD-202G, 101E, cond. B Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	MIL-STD-202G, 103B, cond. B Temp: 40°C; RH: >= 95%; Time: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	MIL-STD-202G, 108A, cond. A Temp: 85°C; Time: 96 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2002/95/EC
R2	PFOS	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
R3	PFOA	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

## 7. Note

**7.1 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.**

**7.2 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.**

**7.3 Electrostatic sensitive device.Observe precautions for handling.**