



# Wide Out-of-Band Rejection Anti-jamming Lightning proof GPS TG-15AE-38A-02

## 1. GPS antenna technical specification:

- Frequency band: 1575.42 ±5MHz
- Gain: 38 ±2dBi
- Output VSWR: 2.5 max
- Polarization: Right Hand Circular Polarization
- Half-power beam width (°): 110 ±10°
- Axial ratio (dB): < 5 max
- Front-to-back ratio (dB): >10 min
- Out of band rejection:  $f_0=1575.42$  MHz
 

$f_0 \pm 30$ MHz	15dB min
$f_0 \pm 50$ MHz	35dB min
$f_0 \pm 100$ MHz	60dB min
- Output impedance: 50Ω
- DC supply voltage: DC 4V~6V (via RF cable, central conductor is “+”, outside conductor is “-”)
- Current consumption: DC <45mA
- Operating Temperature Range: -40 ~ +85°C
- Lighting Protection: 8/20 μs 5KA according to IEC61000-4-5 standard +/-5times each polarity
- MTBF: Mean Time Between Failures > 100000H
- ESD immunity: IEC6100-4-2 class 3
- Antenna connector: N type(Female)
- Environmental Sealing: IP67

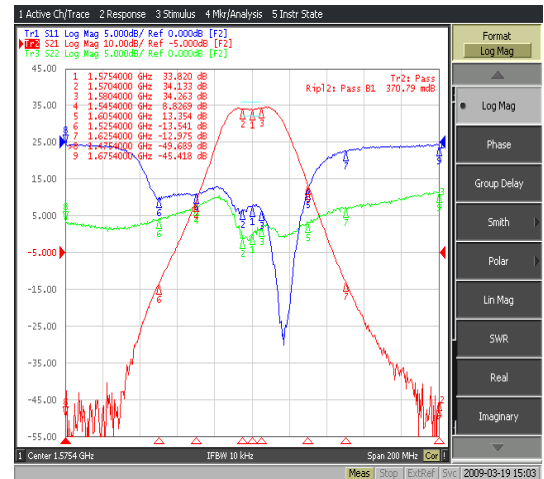
## 2. GPS antenna LNA technical specification

Note: GPS antenna LNA is the low noise amplifier PCB inside the antenna

- Frequency band: 1575 ±5 MHz
- Gain: 34 ±2 dB
- Passband Ripple:
 

1575.42 ±1.023 MHz:	<1dB
1575.42 ±5 MHz:	<2dB
- Noise figure: 1.8dB typ. 2.5dB max
- LNA output 1dB compression point: > 0dBm
- Out of band rejection:  $f_0=1575.42$  MHz
 

$f_0 \pm 30$ MHz	15dB min
$f_0 \pm 50$ MHz	35dB min
$f_0 \pm 100$ MHz	70dB min
- Jam rejection of large signal: at 100MHz off the passband, input 0dBm single frequency signal, the gain, degradation of GPS antenna LNA is less than 2dB, pass band gain, ripple, is less than 2dB, GPS antenna can work normally.



## 3. GPS passive antenna specification

- Frequency band: 1575.42 MHz
- Polarization: Right Hand Circular Polarization
- Control frequency: 1575.42 MHz
- Bandwidth: ≥10 MHz
- VSWR: ≤1.5
- Gain: 4.0 dBi
- Impedance: 50Ω

## 4. Mechanical Specification

- Radome material: ASA
- Dimensions: Φ100×112mm
- Weight: 0.2 Kg
- Working temperature(°C): -40 ~ +85
- Anti-wind (Km/h): 140
- Operation condition: Outdoor application

## 5. Attachments

- |                    |      |
|--------------------|------|
| 1.Screw M4×10      | 4pcs |
| 2.Spring washer φ4 | 4pcs |
| 3.Washer φ4        | 4pcs |

## 6. Accord RoHS

