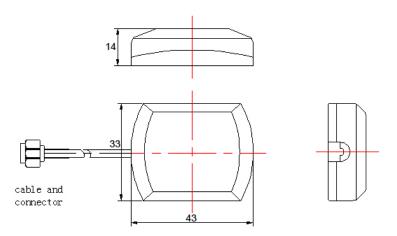


# **GPS Active Antenna**

Part Number: VTGPSA-4



1 Dimension (Unit: mm)



2 Electrical Characteristics

## 3.1 LNA/Filter

Form 1

| No. | Item                        | Specifications   | Post Environmental Tolerance |  |
|-----|-----------------------------|--|------------------------------|--|
| 1   | LNA Gain                    | 28±3 dB  | ±2.5 dB                      |  |
| 2   | Noise Figure                | 1.5 dB   | —                            |  |
| 3   | Filter Out Band Attenuation | 14dB Min f0+50MHz<br>18dB Min f0-50MHz<br>30dB Min f0+100MHz<br>42dB Min f0-100MHz | ±1.0 dB                      |  |
| 4   | DC Voltage                  | 3~5V   |                              |  |
| 5   | DC Current                  | 8-   | ~15mA                        |  |



## 3.2 Mechanical

Form 2

| No. | ltem            | Specification         |  |
|-----|-----------------|-----------------------|--|
| 1   | Cable           | RG174 3m/5m or others |  |
| 2   | Connector       | SMA/SMB/MCX or others |  |
| 3   | Plastic Housing | Black                 |  |
| 4   | Mounting        | Magnetic/Stick        |  |

#### 4 Reliability

Condition: Temperature: 40±5℃

Load: DC=5V±0.5 V Quantity: 2000pcs

Sustained Time: 480h

5 Environmental Specifications

Condition:

Post Environmental Tolerance (Refer to the form 1)

Temperature range 25±3℃

Relative Humidity range 55~75%RH

Operating Temperature range -40  $^\circ\!\mathrm{C}$  ~+85  $^\circ\!\mathrm{C}$ 

Storage Temperature range -40°C~+100°C

### 5.1 Moisture Proof

The device should satisfy the electrical characteristics specified in form 1 after exposed to the temperature  $40\pm2$ °C and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition.

#### 5.2 Vibration Resist

The device should satisfy the electrical characteristics specified in form 1 after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X , Y and Z directions.

#### 5.3 Drop Shock

The device should satisfy the electrical characteristics specified in form 1 after dropping onto the hard wooden board from the height of 30cm for 3 times each facet of the 3 dimensions of the device.

## 5.4 High Temperature Endurance

The device should satisfy the electrical characteristics specified in form 1 after exposed to temperature  $80\pm5^{\circ}$ C for  $24\pm2$  hours and  $1\sim2$  hours recovery time under normal temperature.

#### 5.5 Low Temperature Endurance

The device should also satisfy the electrical characteristics specified in form 1 after exposed to the temperature -40°C±5°C for 24±2 hours and to 2 hours recovery time under normal temperature.

#### 5.6 Temperature Cycle Test

The device should also satisfy the electrical characteristics specified in form 1 after exposed to the low temperature  $-25^{\circ}$ C and high temperature  $+85^{\circ}$ C for  $30\pm2$  min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.

## 6 Weatherproof

Put the antennas in 1m deep water for 12h, and find 100% waterproof.