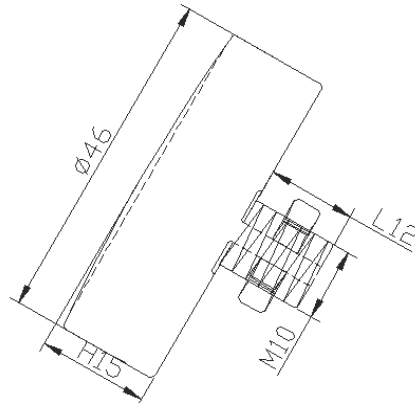


## GPS Active Antenna

Part Number: VTGPSA-3



### 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 18dB Min f0-50MHz 30dB Min f0+100MHz 42dB Min f0-100MHz	±1.0 dB
4	DC Voltage	3~5V	
5	DC Current	8~15mA	

## 3.2 Mechanical

Form 2

No.	Item	Specification
1	Cable	RG174 3m/5m or others
2	Connector	SMA/SMB/MCX or others
3	Plastic Housing	Black
4	Mounting	Screw

## 4 Reliability

Condition: Temperature:  $40\pm 5^{\circ}\text{C}$

Load:  $\text{DC}=5\text{V}\pm 0.5\text{V}$

Quantity: 2000pcs

Sustained Time: 480h

## 5 Environmental Specifications

Condition:

Post Environmental Tolerance (Refer to the form 1)

Temperature range  $25\pm 3^{\circ}\text{C}$

Relative Humidity range 55~75%RH

Operating Temperature range  $-40^{\circ}\text{C}\sim +85^{\circ}\text{C}$

Storage Temperature range  $-40^{\circ}\text{C}\sim +100^{\circ}\text{C}$

### 5.1 Moisture Proof

The device should satisfy the electrical characteristics specified in form 1 after exposed to the temperature  $40\pm 2^{\circ}\text{C}$  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  $80\pm 5^{\circ}\text{C}$  for  $24\pm 2$  hours and 1~2 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  $-40^{\circ}\text{C}\pm 5^{\circ}\text{C}$  for  $24\pm 2$  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  $-25^{\circ}\text{C}$  and high temperature  $+85^{\circ}\text{C}$  for  $30\pm 2$  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.