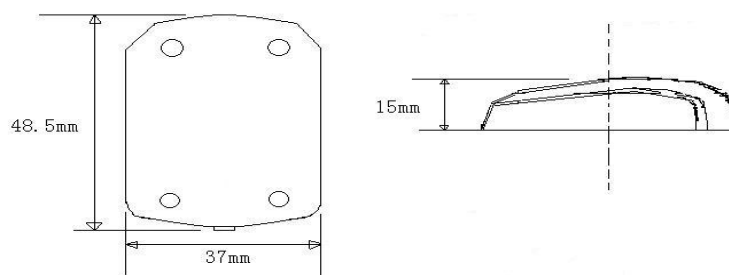


## GPS Active Antenna

Part Number: VTGPSA-9



### 1 Dimension (Unit: mm)



### 2 Electrical Characteristics

## 3.1 LNA/Filter

Form 1

No.	Item	Specifications	Post Environmental Tolerance
1	Center Frequency	1575.42 MHz	±1 MHz
2	Band Width (Return Loss≤-10dB)	≥10MHz	±0.5 MHz
3	V.S.W.R (in Center Frequency)	1.5 : 1	±0.5
4	Gain (Zenith) (dBi typ) (With 70mm Square GND Plane)	5.0dB	±0.5 dB
5	Polarization	RHCP	—
6	Impedance	50 Ω	—

## 3.2 Mechanical

Form 2

No.	Item	Specifications	Post Environmental Tolerance
1	LNA Gain	28±2 dB	±2 dB
2	Noise Figure	≤2dB	—
3	Filter Out Band Attenuation	12dB Min f0+50MHz 16dB Min f0-50MHz	±1.0 dB
4	DC Voltage	3~5 V	
5	DC Current	14±1 mA	

## 3.3 Mechanical

Form 5

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

## 3 Reliability

Condition: Temperature: 40±5°C

Load: DC=5V±0.5 V

Quantity: 2000pcs

Sustained Time: 480h

## 4 Environmental Specifications

Condition:

Post Environmental Tolerance (Refer to the form 1)

Temperature range 25±3°C

Relative Humidity range 55~75%RH

# V.TORCH

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.

## 5 Weatherproof

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