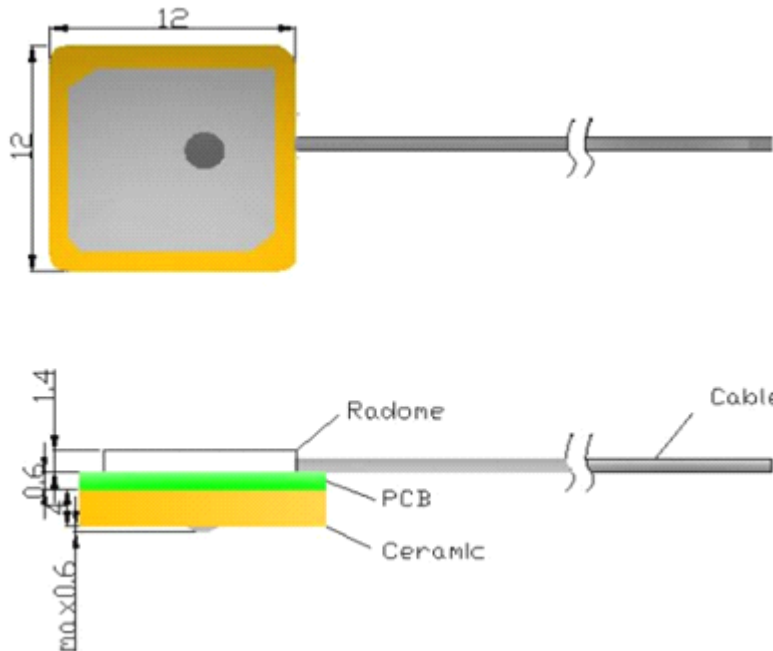


GPS Internal Active Antenna

Part Number: VTGPSIA12-1



1. Dimension (Unit: mm)



2. Electrical Characteristics

2.1 Dielectric Antenna

Form 1

No.	Item	Specifications	Post Environmental Tolerance
1	Center Frequency (MHz)	1575.42 MHz	±3 MHz
2	Band Width (MHz)	±5 MHz	±1 MHz
3	V.S.W.R (in BW)	1.5 : 1	—
4	Gain (Zenith)	3 dB	±0.5db
5	Polarization	RHCP	—
6	Impedance	50 Ω	—

2.2 LNA

Form 2

No.	Item	Specifications	Post Environmental Tolerance
1	LNA Gain	28±2 dB	±2.5dB
2	Noise Figure	1.5dB	—
	Filter Out Band Attenuation	14dB Min f0+50MHz 18dB Min f0-50MHz 30dB Min f0+100MHz 42dB Min f0-100MHz	±1.0 dB
3	DC Voltage	2.7~3.6V	
4	DC Current	10+1mA	

2.3 Mechanical

Form 3

No.	Item	Specification
1	Cable	RF1.13 / Other optional
2	Connector	IPEX / Other optional
3	Plastic Housing	
4	Mounting	Internal

3 Reliability

Condition: Temperature: 40±5℃

Load: DC=2.7-3.6V

Quantity: 2000pcs

Sustained Time: 480h

4 Environmental Specifications

Condition:

Post Environmental Tolerance (Refer to the form 1~2)

Temperature range 25±3℃

Relative Humidity range 55~75%RH

Operating Temperature range -40℃~+85℃

Storage Temperature range -40℃~+100℃

5.1 Moisture Proof

The device should satisfy the electrical characteristics specified in form 1~2 after exposed to the temperature 40±2℃ 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 1~2 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 1~2 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 1~2 after exposed to temperature 80±5℃ for 24±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 1~2 after exposed to the temperature $-40^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 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 1~2 after exposed to the low temperature -25°C and high temperature $+85^{\circ}\text{C}$ for 30 ± 2 min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.