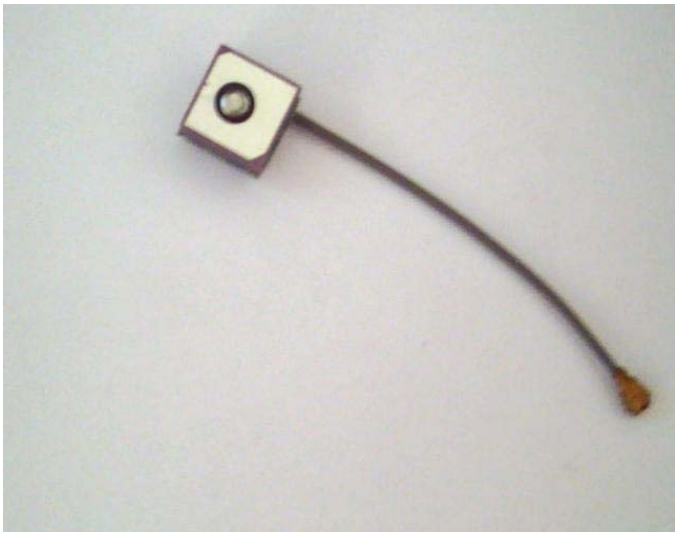
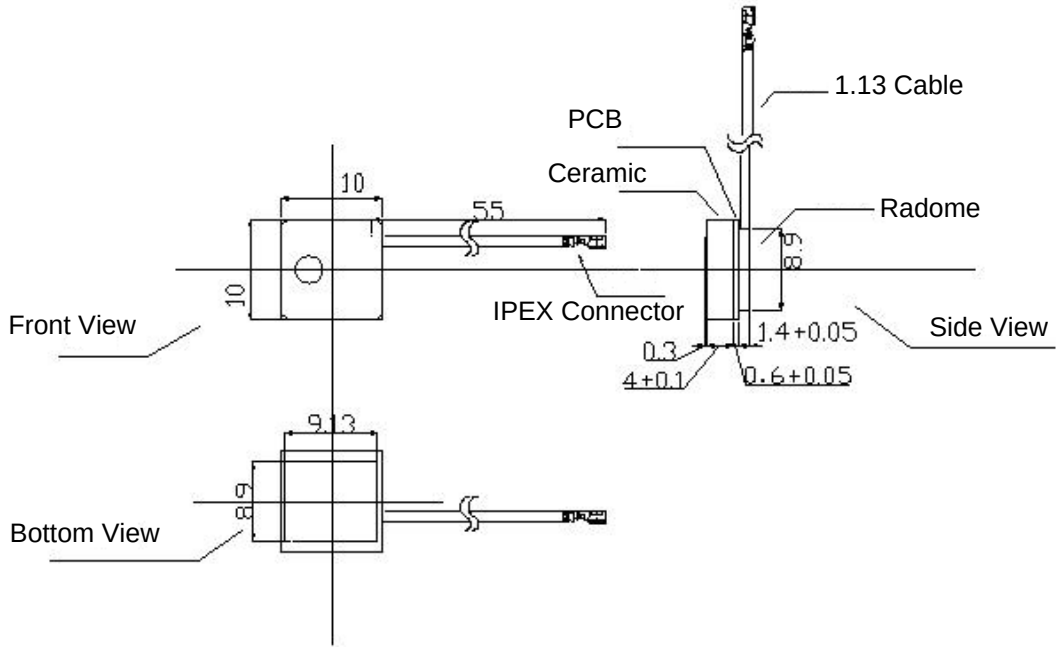
GPS Internal Active Antenna

Model：VTGPSIA02



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）	10 MHz	±1 MHz
3	V.S.W.R（in BW）	1.5：1	—
4	Gain（Zenith max direction）	0dB	—
5	Gain（Zenith 10° UP）	-5dB	—
6	Polarization	RHCP	—
7	Impedance	50 Ω	—

2.2 LNA/Filter

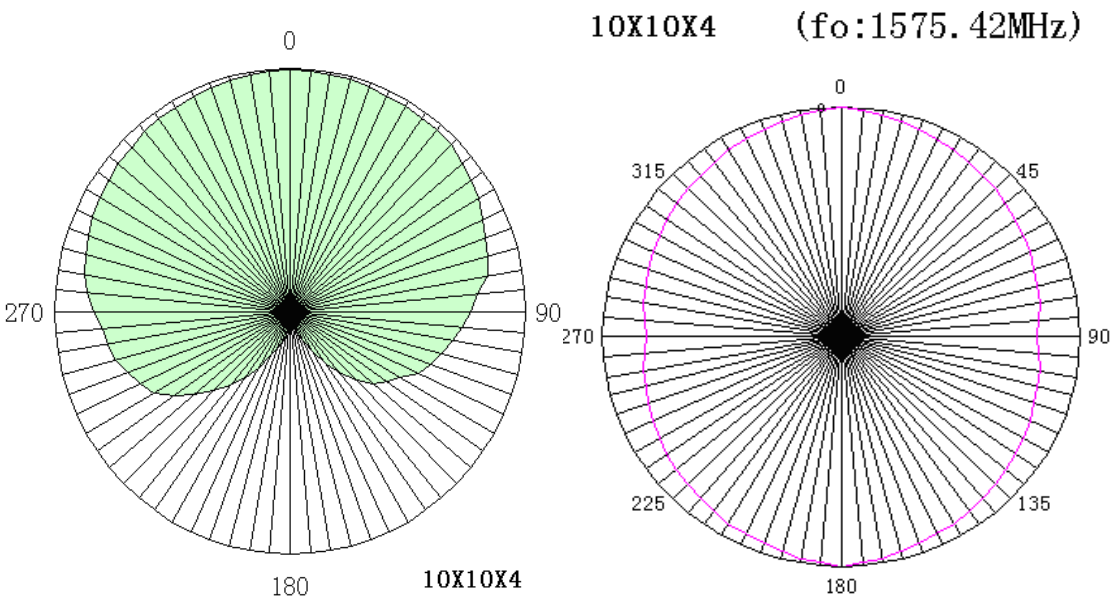
Form 2

No.	Item	Specifications	Post Environmental Tolerance
1	LNA Gain	16±1 dB	±1dB
2	Noise Figure	1.5 dB	—
3	V.S.W.R	1.5：1	—
4	DC Voltage	2.7~3.3 V	
5	DC Current	5~15 mA	

2.3 Mechanical

Form 3

No.	Item	Specification
1	Cable	RF1.13 55MM
2	Connector	IPEX
3.	Dimension	10×10×6.5mm



3. Reliability

Condition：Temperature: 40±5℃

Load: DC=5V±0.5 V

Quantity: 2000pcs

Sustained Time: 480h

4. Environmental Specifications

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

Condition：Temperature range 25±3℃

Relative Humidity range 10%~95%RH

Operating Temperature range -40℃~80℃

Storage Temperature range -45℃~85℃

4.1 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.

4.2 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.

4.3 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.

4.4 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.

4.5 Low Temperature Endurance

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

4.6 Temperature Cycle Test

The device should also satisfy the electrical characteristics specified in form 1~2 after exposed to the low temperature -25℃ and high temperature +85℃ for 30±2 min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.