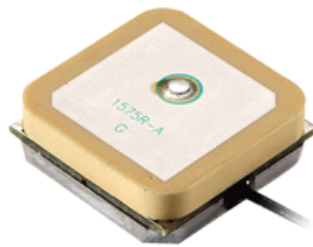
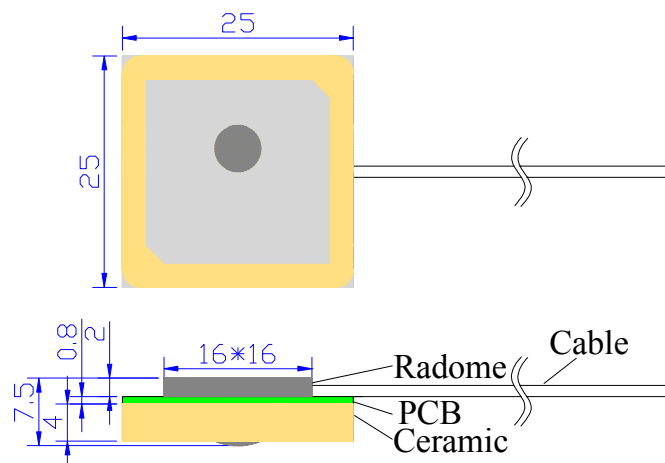


GPS Internal Passive Antenna

Part Number: VTGPSIP-9



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 | ± 1MHz |
| 3 | V.S.W.R (in BW) | 1.5 : 1 | — |
| 4 | Gain (Zenith) | 0 dB | ±0.5 dB |
| 5 | Polarization | RHCP | — |
| 6 | Impedance | 50 Ω | — |

2.2 Mechanical

Form 2

| No. | Item | Specification |
|-----|-----------|-------------------|
| 1 | Cable | RF 1.13 or others |
| 2 | Connector | IPEX or others |
| 3 | Mounting | Internal |

3 Reliability

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

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

Quantity: 2000pcs

Sustained Time: 480h

4 Environmental Specifications

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

Condition: 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 $-40^{\circ}\text{C}\sim +100^{\circ}\text{C}$

4.1 Moisture Proof

The device should satisfy the electrical characteristics specified in form 1~2 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.

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 $80\pm 5^{\circ}\text{C}$ 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 $-40^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 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°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.