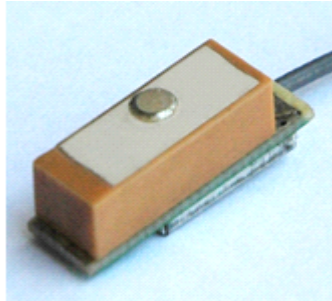
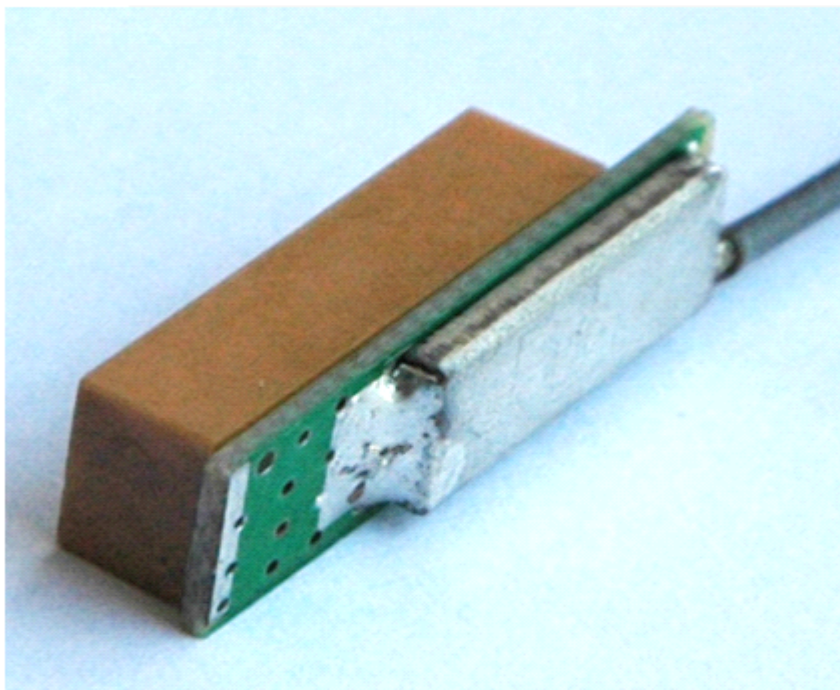
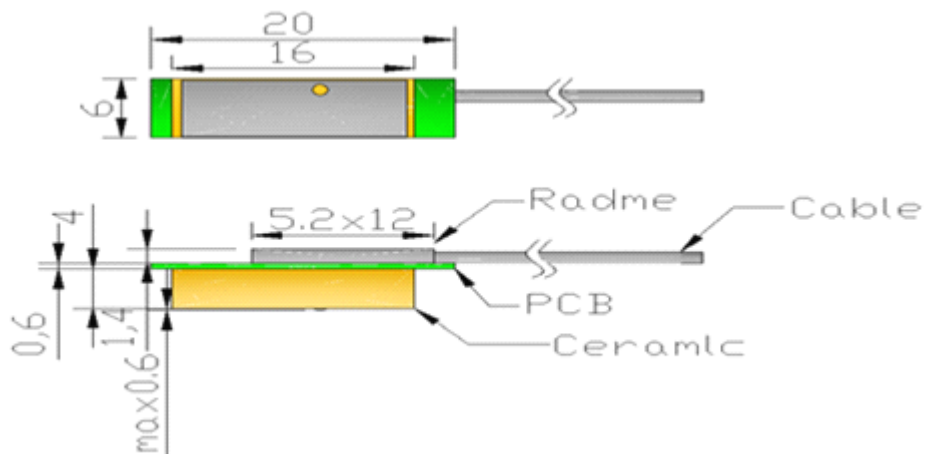


GPS Internal Active Antenna

Part Number: VTGPSIA20-3



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	17±1 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	6.5±1mA	

2.3

Mechanical

8~14 mA

Form 3

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

3 Reliability

Condition: Temperature: 40±5°C

Load: DC=2.7-3.6V

Quantity: pcs

Sustained Time: 480h

4 Environmental Specifications

Condition:

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

Temperature range 25±3°C

Relative Humidity range 55~75%RH

Operating Temperature range -40°C~+85°C

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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 1~2 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.

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