

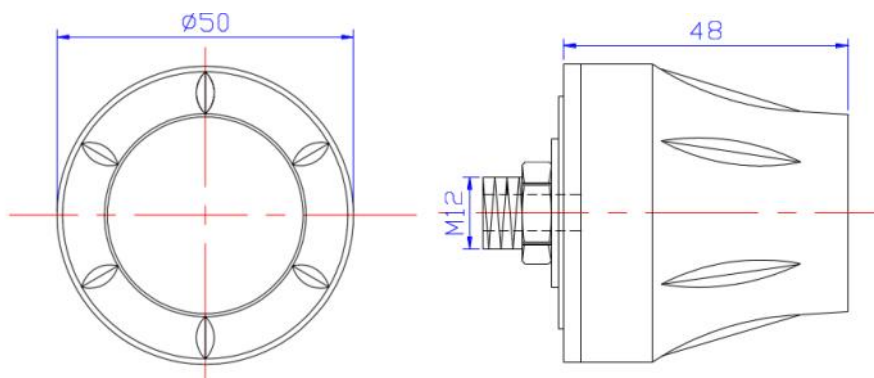


VCL-GPS-ANT-30DB

GPS ANTENNA



1. Dimension (Unit: mm)



2. Characteristics

2.1 Dielectric Antenna

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

2.2 LNA/Filter

No.	Item	Specifications	Post Environmental Tolerance
1	LNA Gain	28±2 dB	±2.5 dB
2	Noise Figure	1.5 dB	—
3	Filter Out Band Attenuation	12dB Min f0+50MHz 16dB Min f0-50MHz	±1.0 dB
4	DC Voltage	2.2~5 V	
5	DC Current	5~15 mA	

2.3 Mechanical

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

3. Reliability Condition

Temperature: 40±5 °C

- Load: DC=5V±0.5V
- Quantity: 2000pcs
- Sustained Time: 480h

4. Environmental Specifications

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

- Relative humidity range 55~75%RH
- Operating Temperature range -40 °C~+85 °C
- Storage Temperature range -40 °C~+100 °C Operational
- Ingress Protection—IP67 (excluding cable outlet)

4.1 Moisture Proof

The device should satisfy the electrical characteristics specified in form 1~2 after exposed to the temperature 40±2C 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 $80^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 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.

5. Weatherproof

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

Ordering Informations

Reference	Description
VCL-GPS-ANT-30DB	50 Ohm 30dB Gain Precision Timing GPS Antenna [HRNS1313, N-Type (F)] (Maximum cable length supported 90 meter)



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