



GPS1: GPS Antenna

The GPS1 is a low cost, but effective GPS antenna with a magnetic mount. It is supplied free of charge with some of our frequency standards.

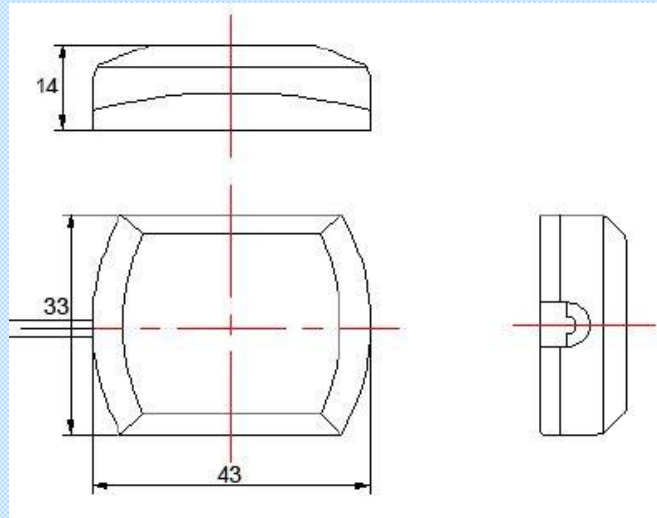


The antenna is an active type with a magnetic mount. Therefore, it can easily be attached to any steel surface.

It has a built in low noise amplifier with 28 dB of gain. The amplifier is powered by supplying 3 to 5 V up the inner lead of the coaxial cable. Normally this voltage is supplied by our frequency standards.

Specifications:

Gain:	28 dB $\pm$ 3 dB
Noise Figure:	1.5 dB
Filter Attenuation:	14 dB Min at 1625 MHz 18 dB Min at 1525 MHz 30 dB Min at 1475 MHz 42 dB Min at 1675 MHz
DC Supply Voltage:	3 - 5VDC
DC Current:	8 - 15 mA
Cable:	5m of RG174 with straight BNC Plug.
Plastic Housing:	Black, 100% waterproof against rain, wind etc.
Mounting:	Magnetic
Temperature Range:	-40 °C to 85 °C
Physical Dimension:	Dimensions in mm are shown below.



Reliability Testing:

Moisture Proof

The device satisfies the electrical characteristics specified above 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 conditions.

Vibration Resist

The device satisfies the electrical characteristics specified above after vibration is applied to the antenna with vibration of 10 to 55Hz and amplitude of 1.5mm for 2 hours each in X , Y and Z directions.

Drop Shock

The device satisfies the electrical characteristics specified above after dropping onto the hard wooden board from the height of 30cm for 3 times each facet of the 3 dimensions of the device.

High Temperature Endurance

The device satisfies the electrical characteristics specified above after exposed to a temperature of $80 \pm 5^\circ\text{C}$ for 24 ± 2 hours and 1~2 hours recovery time under normal temperature.

Low Temperature Endurance

The device satisfies the electrical characteristics specified above 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.

Temperature Cycle Test

The device satisfies the electrical characteristics specified above 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.

Weatherproof

The antenna is placed in 1m deep water for 12h, and is 100% waterproof

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Full specifications available from www.ptsyst.com. Specifications and features subject to change without notice (160816)