

# GPS Active Antenna

## GPS-MS147-3.3-05-S-GAL

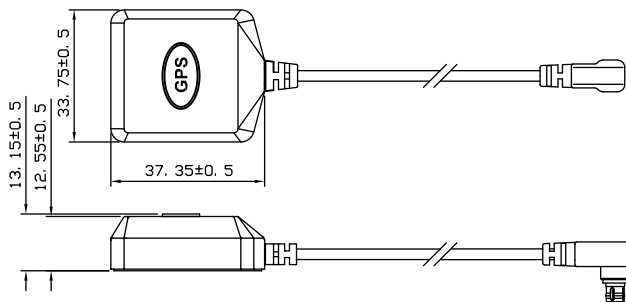
This application shall apply for antenna unit which shall be used with an engine for automotive, recreational, marine, handheld system (impedance  $50\Omega$ )

### Features

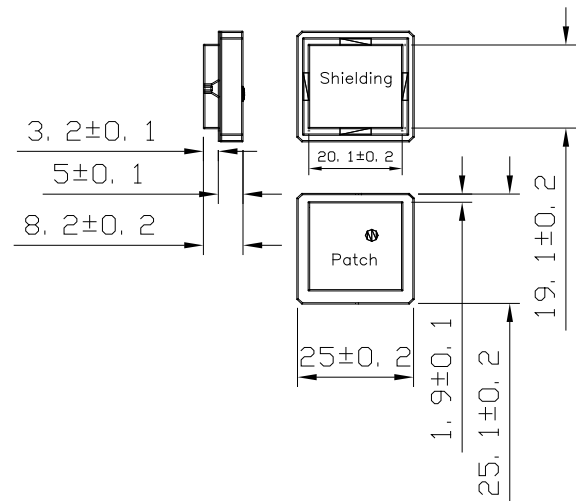
1. High Gain and low noise.
2. Small type and no radome type are available.
3. Low Current Consumption.
4. Variable cable length and connectors are available.
5. Both magnetic mounting and screw mounting hole Built-in are available.
6. Various accessories (chip, ground plane, etc.) are available.
7. RoHS compliance

### Dimensions

#### 1. Antenna



#### 2. LNA & Patch & Shielding



### Specifications

#### 1. Environmental

Item	Specification
Operating Temperature	-25 to +90.
Operating Humidity	10 to 95% RH
Storage Temperature	-25 to +90.
Storage Humidity	10 to 95% RH

#### 2. Electrical

\*All value are defined at  $25\pm 15^\circ\text{C}$ ,  $65\pm 20\%$  RH, power handling 1 u watt, air pressure  $960 \pm 100$  HPA unless otherwise noted.

\*Patch characteristics are measured with 70x70 mm ground plane in an anechoic chamber.

#### (1) Patch Antenna

Characteristics	Specification
Center Frequency	1575.42±1.023 MHz (when covered with a radome and measured by LNA ground plane)
Bandwidth (10dB return loss)	10 MHz min
Gain at Zenith	5.0 dBic typ
Gain at $10^\circ$ elevation	- 1.0 dBic min
Polarization	R.H.C.P
Axial Ratio	1.0 dB typ
Connector	MS-147-C(LP)-2
Cable Length	RG-174/U 5M

#### (2) Filter/LNA

Characteristics	Specification
Center Frequency	1575.42 ±1.023 MHz
Gain	27 dB typ
Noise Figure	1.2 dB typ, 1.5dB max
Filter Out band attenuation	Dielectric 7dB min fo 20MHz 20dB min fo 50MHz 30dB min fo 100MHz (fo=1575.42MHz)
Output V.S.W.R	2.0 max
Operation Voltage	DC =3.0V~5.0V
Consumption current	DC=3.3V  I=12.5mA ± 2mA DC=5.0V  I=21.5mA ± 2mA
Input P1dB	DC=3.0V -28 dBm DC=4.0V -26 dBm DC=5.0V -24 dBm