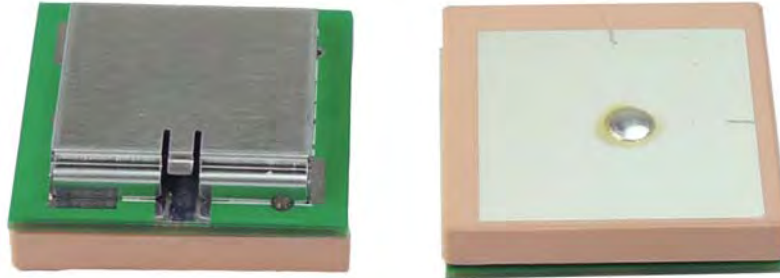


# AE001 GPS Module Antenna

## Active Patch Antenna with Embedded LNA Module

Product No. AE00153GPS000



## Application

- Navigation systems or position tracking systems
- Hand-held devices when GPS function is needed, e.g., PDA, Smart phone, PND.

## Features

- Stable and reliable in performances
- Low temperature coefficient of frequency
- Compact size
- RoHS compliance

## Physical Specification

Dimensions	25 x 25 x 8.8 mm
Weight	12.3 ± 1 g (typ)
Operating Condition	Temperature -40 °C ~ +90 °C
	Humidity 10 ~ 95% RH
Storage Condition	Temperature -40 °C ~ +90 °C
	Humidity 10 ~ 95% RH

## Electrical Specification

### Patch

Center Frequency	1575.42±1.023 MHz (when covered with a radome and measured on LNA ground plane)
Bandwidth (10dB return loss)	10 MHz min
Gain at Zenith	1 dBic typ
Gain at 10o elevation	- 5.0 dBic typ
Polarization	R.H.C.P
Axial Ratio	1.0 dB typ

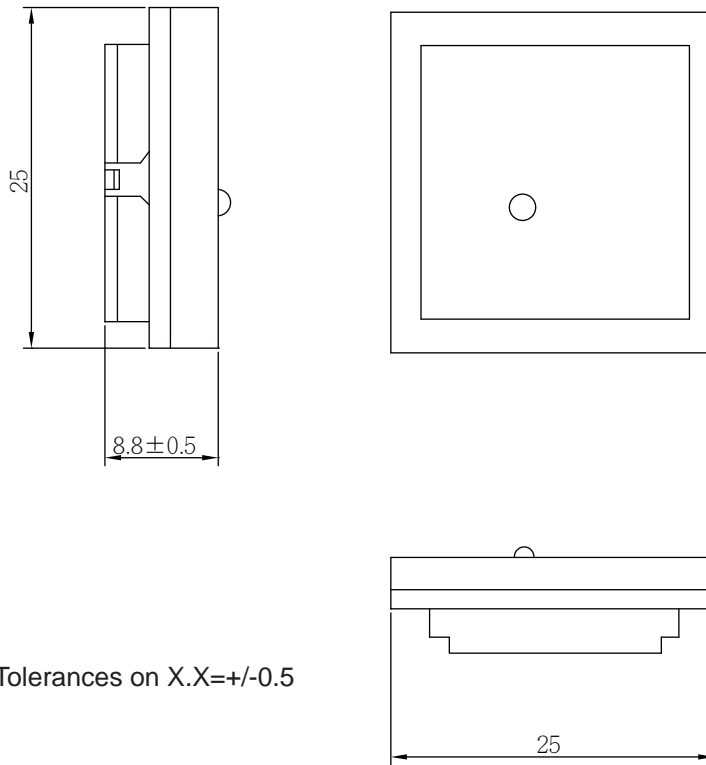
### Filter/LNA

Center Frequency	1575.42 ± 1.023 MHz
Gain	30 ~ 37dB (ps:3v / 32dB)
Noise Figure	1.4 dB typ (ps: 3v / 1.35dB)
Filter (Out of band attenuation)	Saw filter
	40dB typ fo ± 50MHz
	45dB min fo ± 100MHz (fo=1575.42MHz)
Output V.S.W.R	2.0 max
Voltage	DC = 2.5 ~ 5.5V
Current	DC = 8 ~ 23mA (ps: 3v / 10mA)

All value are defined at 25±15 °C ,65±20 % RH, power handling 1 μw, air pressure 960 ±100 HPA unless otherwise noted.



## Dimensions (unit: mm)



## Radiation Pattern (without LNA)

