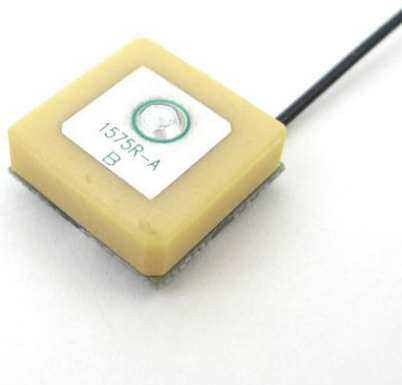


#### Key Features

- GPS Active
- LNA gain of 22dB
- Centre frequency of 1575.42MHz
- Small footprint: 15 x 15mm

#### Additional Considerations

- Built in LNA (Low Noise Amplifier) that produces high gain potential
- Ceramic filter to reduce noise
- Small footprint allows integration into tight spaces
- 1.13mm cable type



#### Quality Tests

##### Moisture Proof

The device should satisfy the electrical characteristics specified in specifications over page after exposed to the temperature  $40\pm 2^{\circ}\text{C}$  and the relative humidity 90~95  $\pm$  RH for 96 hours and 1~2 hours recovery time under normal conditions.

##### Vibration Resist

The device should satisfy the electrical characteristics specified over page after applied to the vibration of 10~55Hz with amplitude of 1.5mm for 2 hours in each X, Y and Z directions.

##### Drop Shock

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

##### Low Temperature Endurance

The device should also satisfy the electrical characteristics overpage after exposed to the temperature  $-40\pm 5^{\circ}\text{C}$  for  $24\pm 2$  hours and 1~2 hours recovery time under normal temperature.

##### Temperature Cycle Test

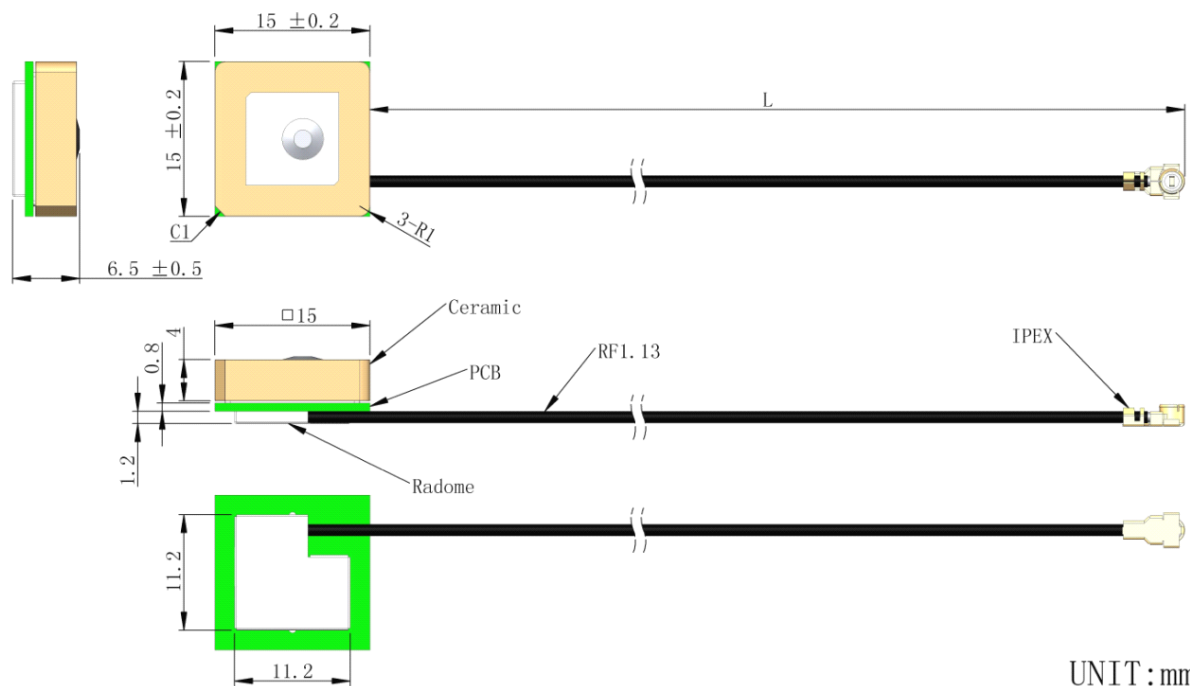
The device should also satisfy the electrical characteristics specified overpage after exposed to the low temperature of  $-25^{\circ}\text{C}$  and high temperature  $+85^{\circ}\text{C}$  for  $30\pm 2$  minutes each by 5 cycles and 1~2 hours recovery time under normal temperature.

### Key Specifications - Electrical

Operating temperature:	-40 to +85°C
Relative humidity:	Up to 75%
Impedance:	50 ohm
Gain:	22dB ± 2dB
VSWR:	<1.5 (min)
Supply voltage:	3.3V DC
Current consumption:	9mA
Centre frequency:	1575MHz ± 3MHz
Bandwidth:	CF ± 5MHz
Polarization:	RHCP
Noise figure:	<1.5
Ex-band attenuation:	30dB@CF ± 40MHz
Vibration:	10 to 55Hz with 1.5mm amplitude 2hrs
Environmentally friendly:	RoHS compliant

### Key Specifications - Mechanical

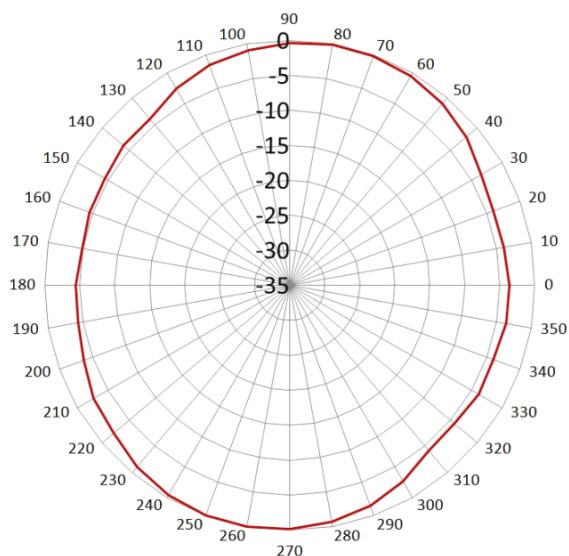
Dimensions:	15 x 15 x 4mm
Mounting:	Internal



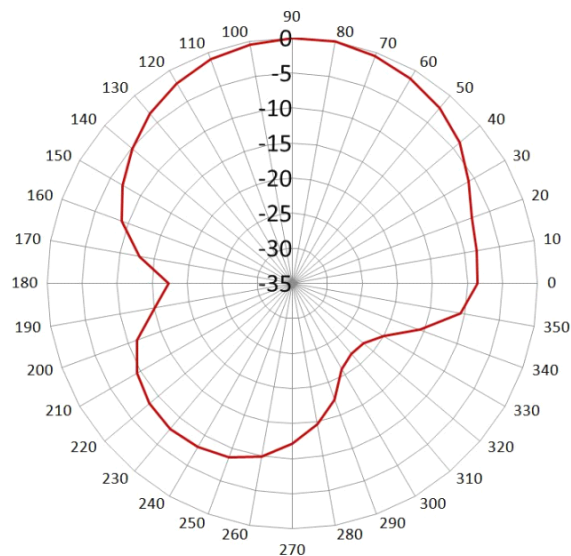
UNIT : mm

### Radiation Patterns

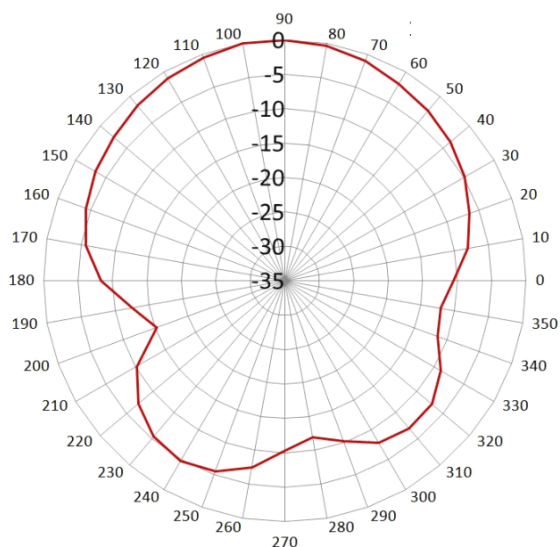
XY Plane



XZ Plane



YZ Plane



### Ordering Details:

Part number	Description
ECHO27/0.1M/IPEX/S/S/26	GPS Internal Active Antenna, 100mm Cable, IPEX Connector