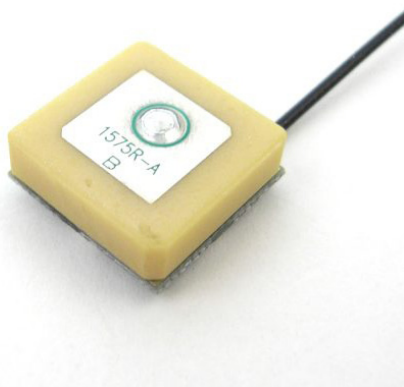


Key Features

- 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
- Variety of cable lengths available
- 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 ± 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 ± 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°C and high temperature $+85^{\circ}\text{C}$ for 30 ± 2 minutes each by 5 cycles and 1~2 hours recovery time under normal temperature.

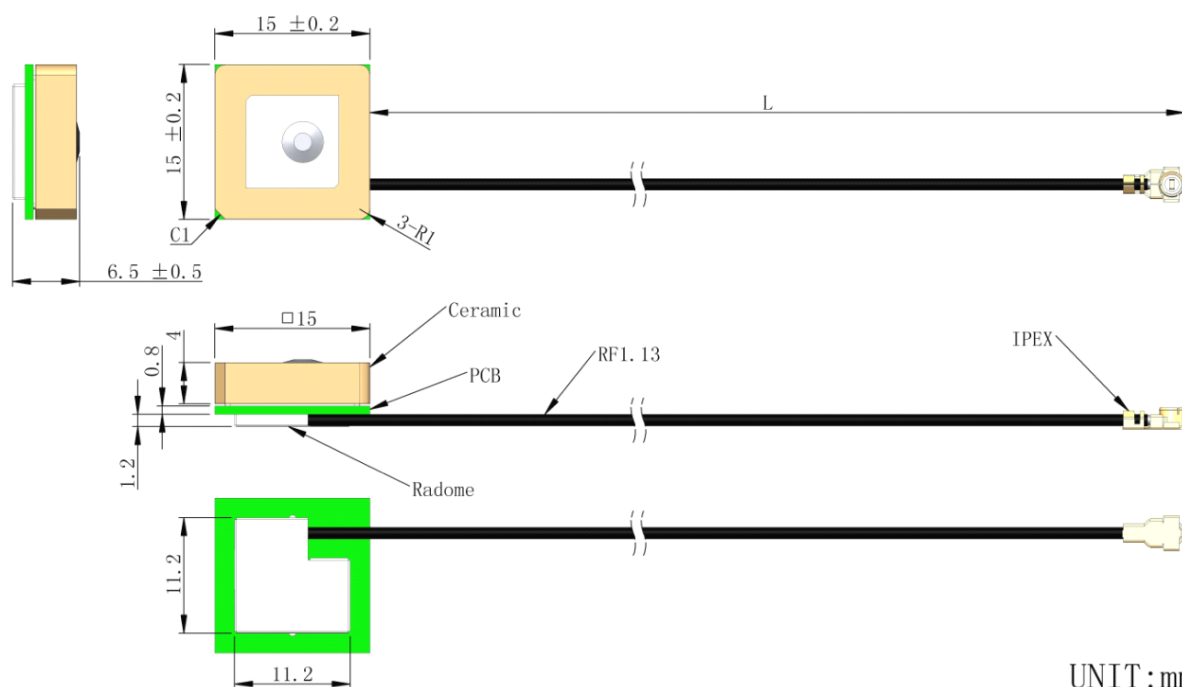
Rev 1.0

Key Specifications - Electrical

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

Key Specifications - Mechanical

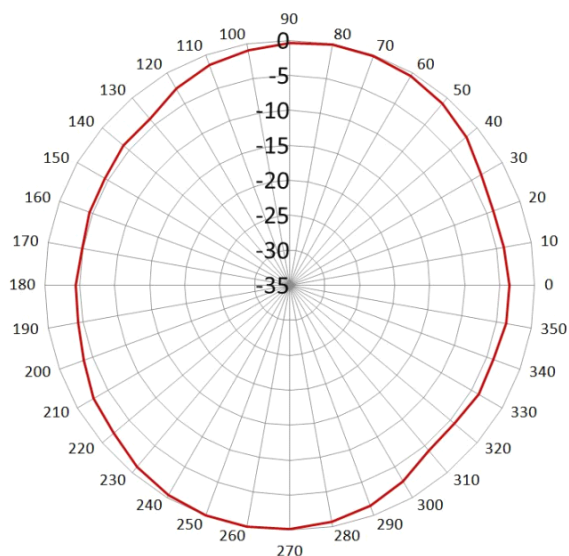
Dimensions:	15 x 15 x 4mm
Cable:	RG1.13 or others
Connector:	IPEX or others
Mounting:	Internal



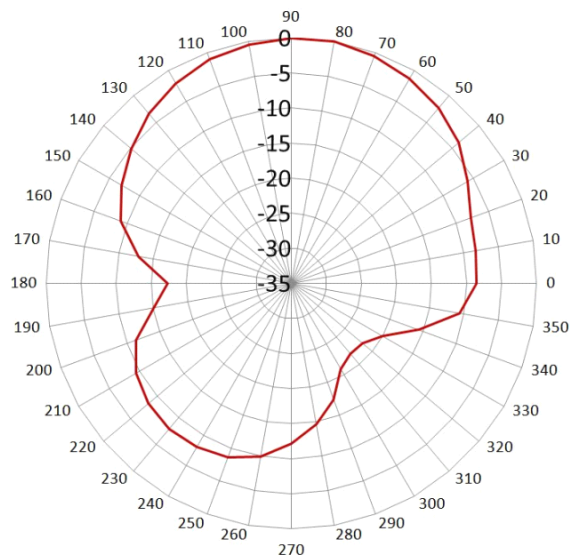
UNIT : mm

Radiation Patterns

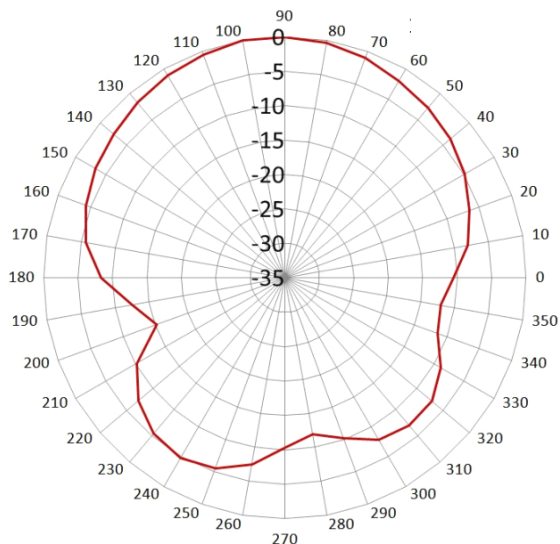
XY Plane



XZ Plane



YZ Plane



Ordering Details:

Part number	Description
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ECHO27/0.1M/IPEX/S/S/26

GPS Internal Active Antenna, 100mm Cable, IPEX Connector