1. Specifications

1.1 Electrical Characteristics

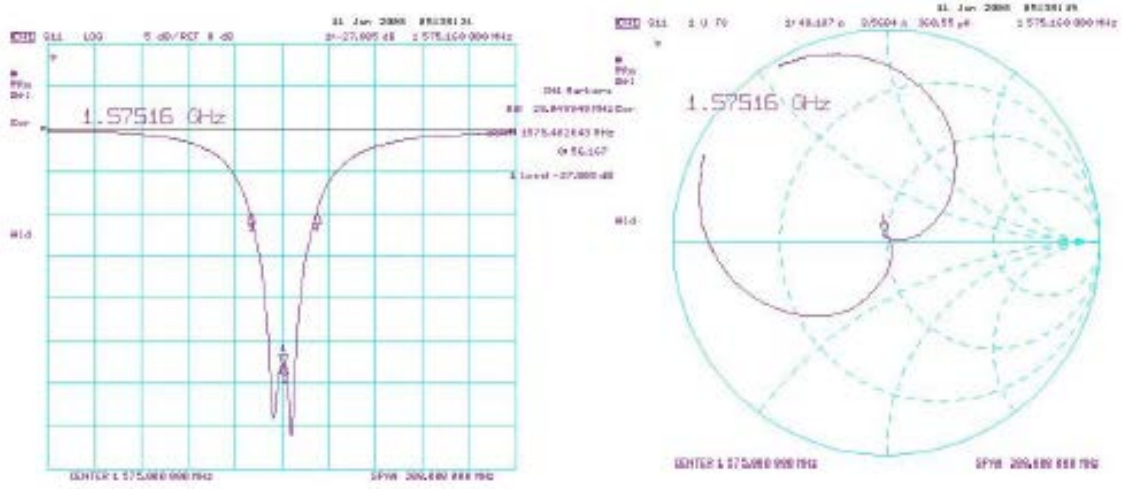
Item	Specification
Center frequency (MHz)	1575 ± 3 (1)
Return-Loss @ fc (dB)	Min. 15 (1), (2)
Axial Ratio (dB)	Typ. 3.0 (1)
Gain @ fc (dBic)	Typ. 5.0 @ zenith (1)
Polarization	R.H.C.P
Impedance (Ω)	Nominal 50

Notes

1. Measured on 70x70mm FR4 ground plane with adhesive tape.
2. fc is midpoint of loop/cusp in Smith chart.

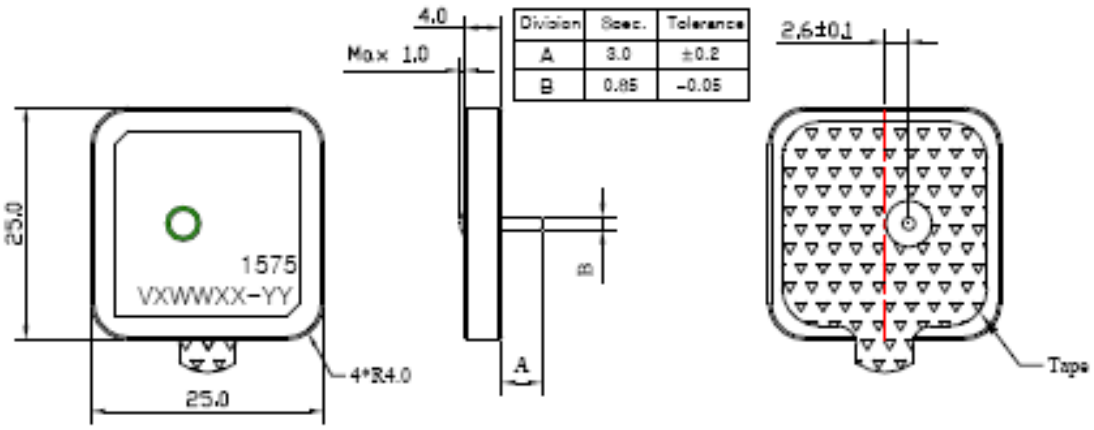
1.2 Typical Measurement Result (RL, Smith chart)

Measured on 70x70mm FR4 ground plane



2. Mechanical outline

2.1 Dimensions



All dimesions in mm
x.x: ±0.2
Chamfer <0.3 (all around, both sides)

2.2 Mechanical characteristics

Item	**Specification**
Dimensions (LxWxH)	25x25x4 mm
Unit weight	Typ. 9 g
Dielectric constant	45.0 ± 0.5
Electrodes	Silver
Operating Temperature (°C)	-40 / +90

3. Reliability Test

Item		Specification
Drop Test	1. Place antenna on set 2. 1.5m height 3. Drop 5 times	1. No visible damage 2. S_{11} satisfy
Vibration Test	5 – 55 – 5 Hz, 1 Octave/min Amp.= 1.5mm, acceleration=2gr Crossover freq.= 18Hz, Hold time= 2H,R	1. No visible damage 2. S_{11} satisfy
Humidity	60°C, 95% RH, 96Hr	1. No visible damage 2. S_{11} satisfy
Thermal Shock	1. +80°C (30min) → 5 min → -40°C (30 min) 2. 10 cycles	1. No visible damage 2. S_{11} satisfy
High Temperature Resistance	+90°C, 96Hr	1. No visible damage 2. S_{11} satisfy
Low Temperature Resistance	- 40°C, 96Hr	1. No visible damage 2. S_{11} satisfy
Adhesion Strength of Soldering	Use of pull-push gauge	Spec (min. 5kgf)

- The sample must satisfy requirement after 24 hours of test
- Ba\sed on IEC climatic category (IEC68-1)-40°C / +90°C / 56h

4. Soldering Condition

Wetability to IEC 68-2-58: ≥ 75% (after aging)
Manual iron soldering (Pb Free)
Soldering Temperature: 300 ±5°C, 5 sec max. (Solder Sn/Ag/Cu 96.5/3.0/0.5)
Must comply with above soldering condition to prevent from degradation of antenna performance