

## Description: 8010 GPS 1.5GHz Chip Antenna

**PART NUMBER: ANT8010LL05R1575A**

### Features:

- Size : 8.0x1.0x1.0 mm
- High radiation efficiency
- Reflow process compatible (SMD only)
- RoHS compliant



### Applications:

- Tablet (for chip)
- Navigation device
- Telematics box
- Fleet management

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

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**ELECTRICAL SPECIFICATIONS**

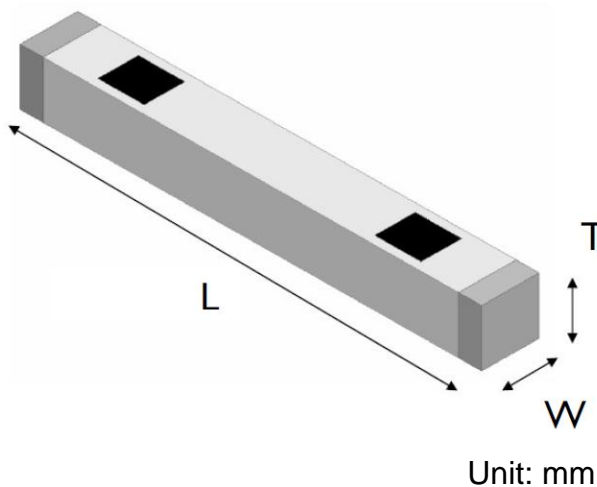
<b>Centre Frequency</b>	1.575 GHz
<b>Bandwidth</b>	50 MHz (Typ.)
<b>Return Loss</b>	10 dB Min
<b>Polarization</b>	Linear
<b>Azimuth Beamwidth</b>	Omni-directional
<b>Peak Gain</b>	0.67 dBi(Typ.)
<b>Impedance</b>	50 Ω
<b>Operating Temperature</b>	- 40~105 °C
<b>Maximum Power</b>	1 W
<b>Termination</b>	Ni / Sn (Environmentally-Friendly Leadless)
<b>Resistance to Soldering Heats</b>	260°C , 10sec.

NOTE

1. The specification is defined on Pulse evaluation board

**MECHANICAL DRAWING**

	<b>Dimension</b>
L (mm)	8.00 ±0.20
W (mm)	1.00 ±0.20
T (mm)	1.00 ±0.20



Antenna outlines

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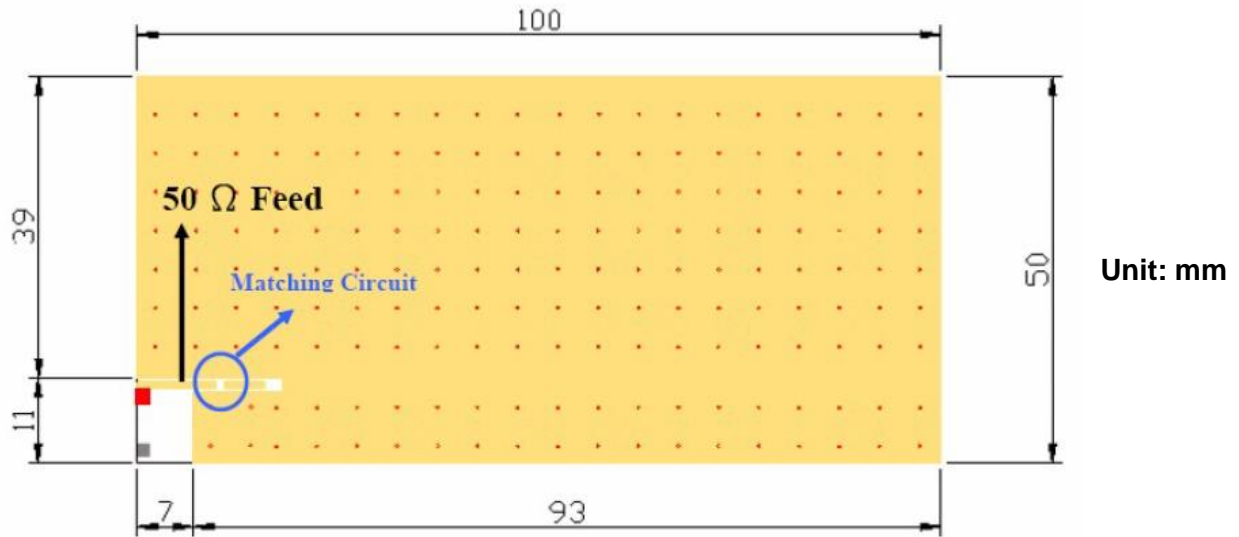
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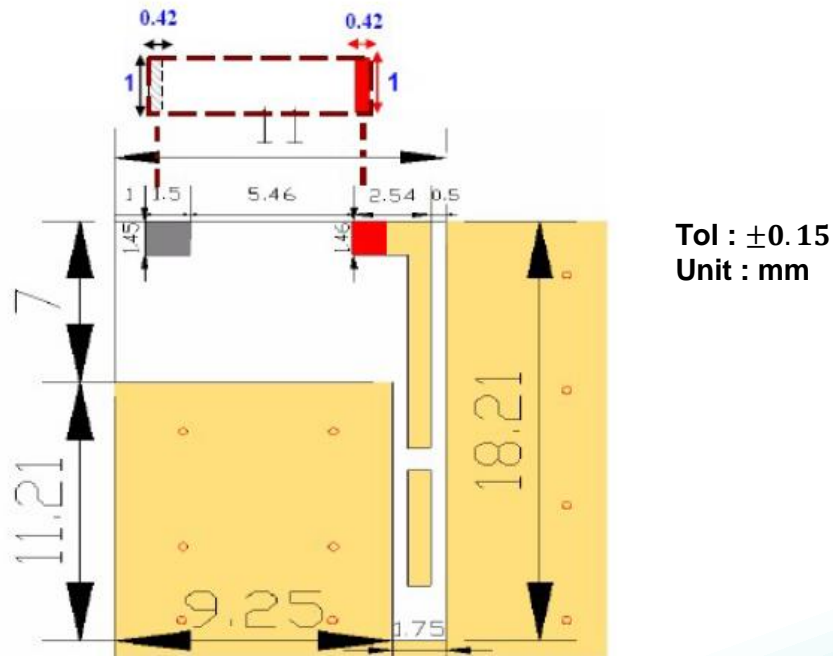
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**REFERENCE DESIGN OF EVALUATION BOARD**



**Copper**    
  **Ground via hole**    
  **Feed contact**    
  **Solder pad**

Outlook and dimension of evaluation board



**Position of the Chip Antenna**    
  **Soldering Pads of Chip Antenna**    
  **Footprint for Feeding**

Details of soldering Pad

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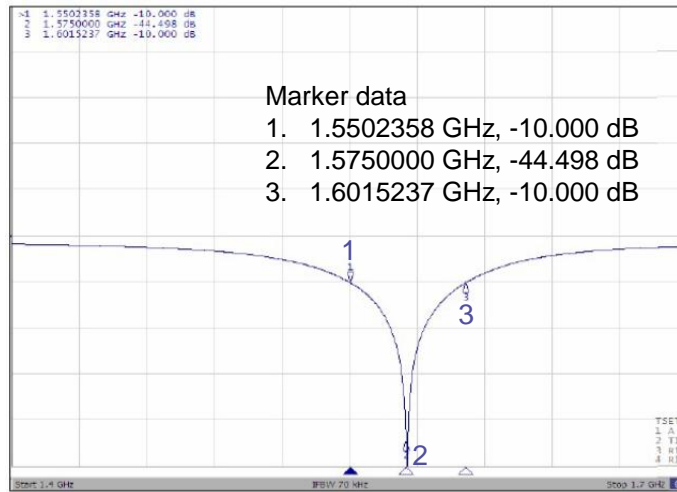
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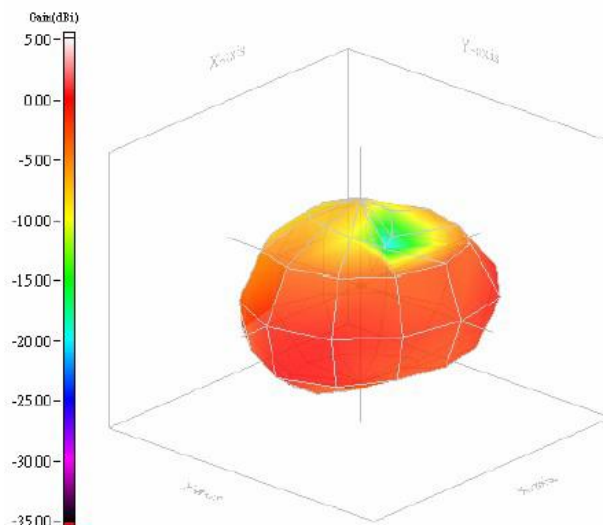
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**ELECTRICAL PERFORMANCES**



Return loss

Model name	8010	Test mode	3D
Test frequency / Polarization	1575.00 MHz / Vector	Test date	2012/8/22



Radiation pattern

Max gain= 0.67dBi, at (120, 150)  
MEG (mean effective gain)= -3.66dBi  
Directivity(dB)= 3.62  
Efficiency=-2.95dB, 50.72%

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MEG (mean effective gain) = -3.66dBi  
Directivity (dB) = 3.62  
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## REVISION HISTORY

Revision	Date	Description
Version 1	Feb. 18, 2020	- New issue for Pulse version.

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