



Data Monitoring GPS Antenna

BGS01C049M02
Ceramic Antenna

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Checked: Feidi Pei		Customer:	
Version	Changed Reason	Changed by	Date
01	Original version	Chris	20191206

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Features

- Stacked Patch antenna
- GPS L1 & L5 Band
- IRNESS Band Compatible
- Polarization: RHCP
- Compact size 25*25*8.16mm
- Low axial Ratio
- RoHS compliant product

Applications

Frequency range: 1575.42 & 1176.45 MHz

Typical Electrical Performance

GPS L1:

Characteristics	Specification	Unit	Conditions
Center Frequency	1575.42±2.0	MHz	Note: (1)
Zenith Gain	2.28 typ.	dBic	
Axial ratio	<3	dB	
S ₁₁	≤-10	dB	

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Polarization	RHCP		
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C to +85°C

GPS L5:

Characteristics	Specification	Unit	Conditions
Center Frequency	1176.45±2.0	MHz	Note: (1)
Zenith Gain	1.68 typ.	dBic	
Axial ratio	<3	dB	
S ₁₁	≤-10	dB	
Polarization	RHCP		
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C to +85°C

Note: Patch Antenna is located on 70x70 mm Ground

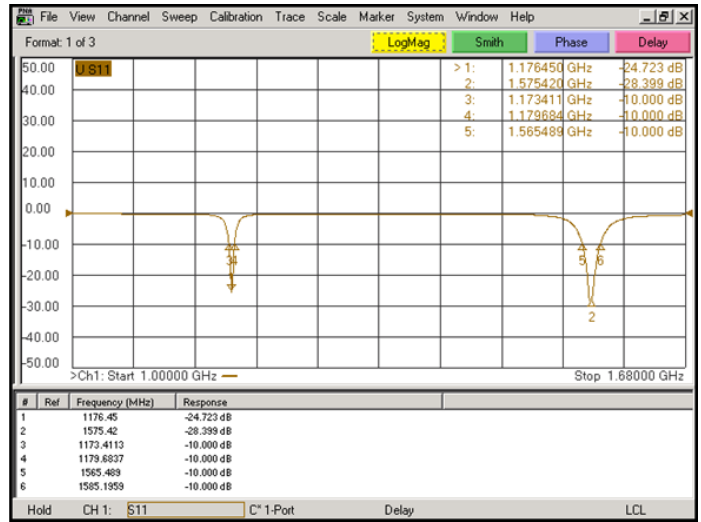
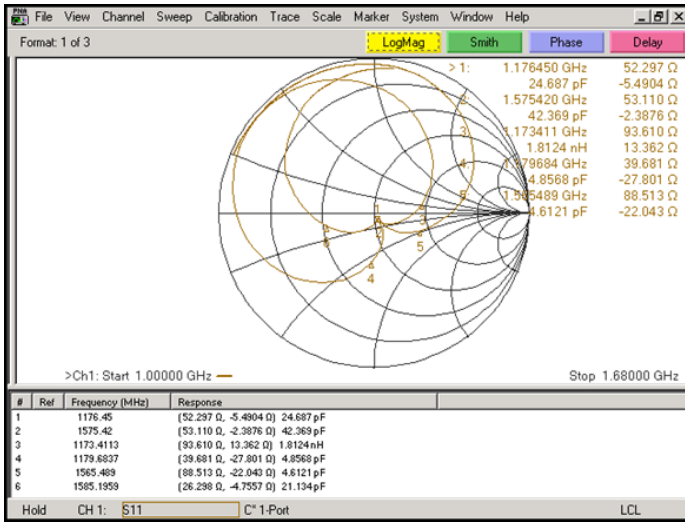
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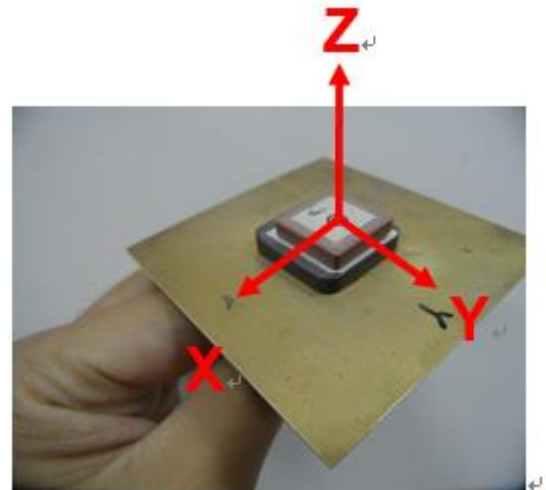
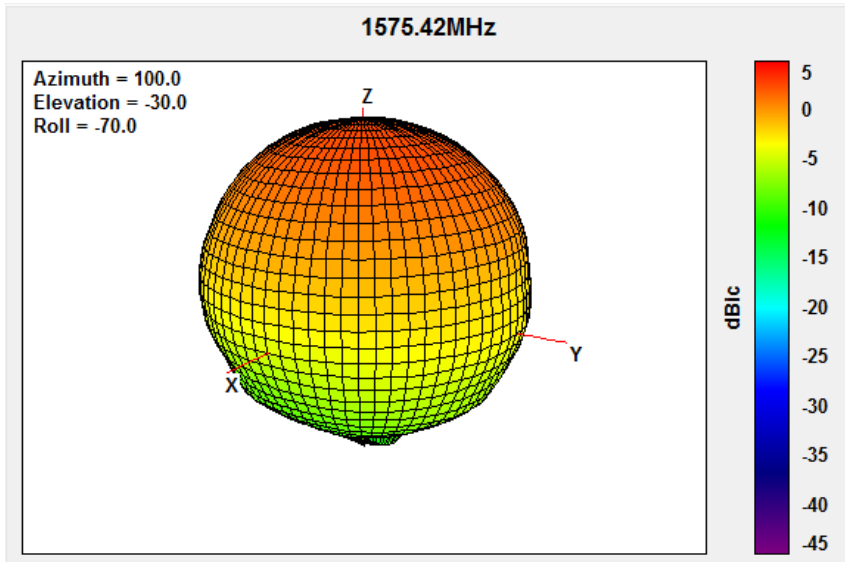
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S11 & Smith Chart



3D Circular Polarization Gain Pattern: RHCP (Unit: dBic)

GPS L1 (1575.42MHz)



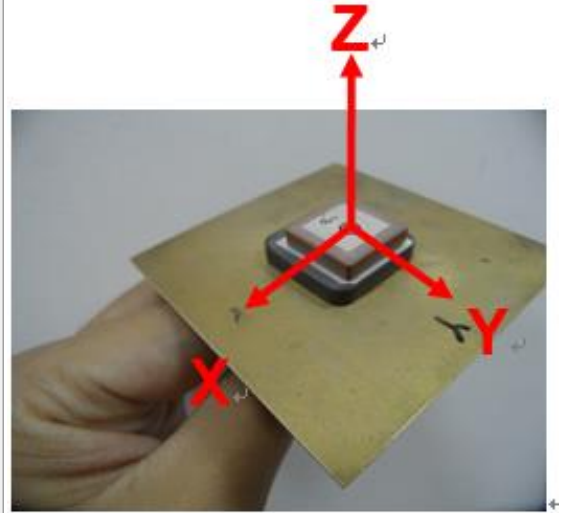
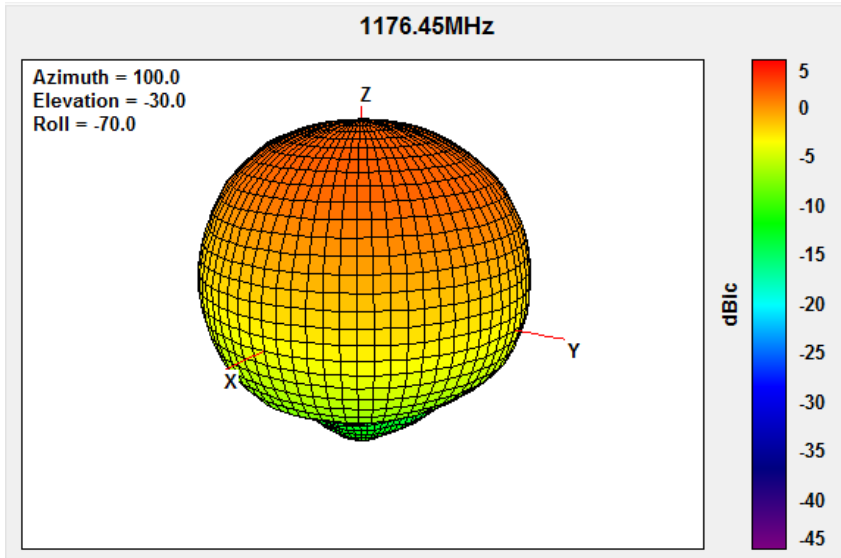
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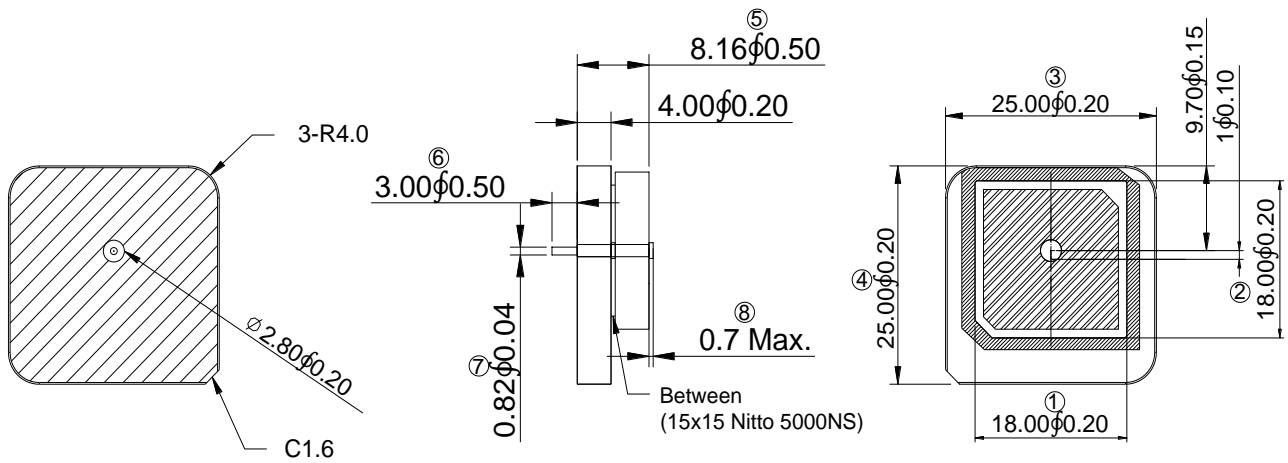
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GPS L5 (1176.45MHz)



Note: Patch Antenna Performance and Characteristic Data on 70x70 mm Ground

Terminal Configuration and Dimensions



Bottom View

Side View

Top View

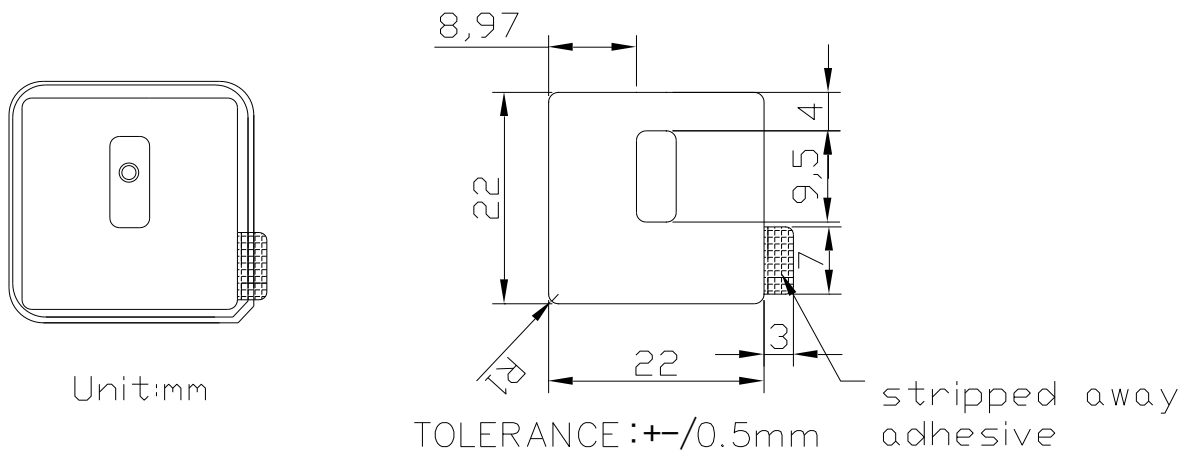
Unit : mm

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Note: These balloons are important dimension, the others are reference dimension.

For the electrical characteristics adjustment, silver electrode might be trimming,

This state is no problem in the quality.

Mechanical Specifications	
Dimensions-mm	25*25*8.16mm
Mounting Type	Adhesive + Pin
Type Size	22*22*0.16mm
Release Paper Thickness	0.1mm
Pin outside length	φ0.82*3mm
Operating temperature (°c)	-40oC to +85oC

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Others

Note: The product specification only for standard product

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