

# PATGPS-I6H10G-101-1ZM

## Engineering Specification

### 1. Features:

This product is suitable for high accuracy positioning application. There are 2 feeds, each feed has combined L1 and L2 signal together, and a hybrid coupler (or similar function circuit) is needed to connect these 2 feeds. Good axial ratio performance has been achieved for both L1 and L2 band.

### 2. Typical Electrical Properties :

#### L1 :

Characteristics	Specification	Unit	Conditions
General Receiving Frequency Range	1559-1610	MHz	Note : (1)
Center Frequency	1585	MHz	
S <sub>11</sub>	≤ -10	dB	
Zenith Gain	2.9 typ.	dBic	
Axial Ratio	3.0 typ.	dB	
Polarization	RHCP		Include coupler
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C to +85°C

#### L2 :

Characteristics	Specification	Unit	Conditions
General Receiving Frequency Range	1202-1252	MHz	Note : (1)
Center Frequency	1227	MHz	
S <sub>11</sub>	≤ -10	dB	
Zenith Gain	2.3 typ.	dBic	
Axial Ratio	3.0 typ.	dB	
Polarization	RHCP		Include coupler
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C to +85°C

Note : (1) Patch Antenna is located on 70x70 mm Ground

PATGPS-I6H10G-101-1ZM, G : Green parts (RoHS compliance)

-101 are the code of project number, -1ZM show of appendix

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=            X.X=            X.XX=

ANGLES=            HOLEDIA=

SCALE :            UNIT : mm

DRAWN BY: 王瑞娟            CHECKED BY: 馬敏勝

DESIGNED BY: 賴右城            APPROVED BY: 李守仁



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TITLE : PATGPS-I6H10G-101-1ZM  
ENGINEERING SPECIFICATION

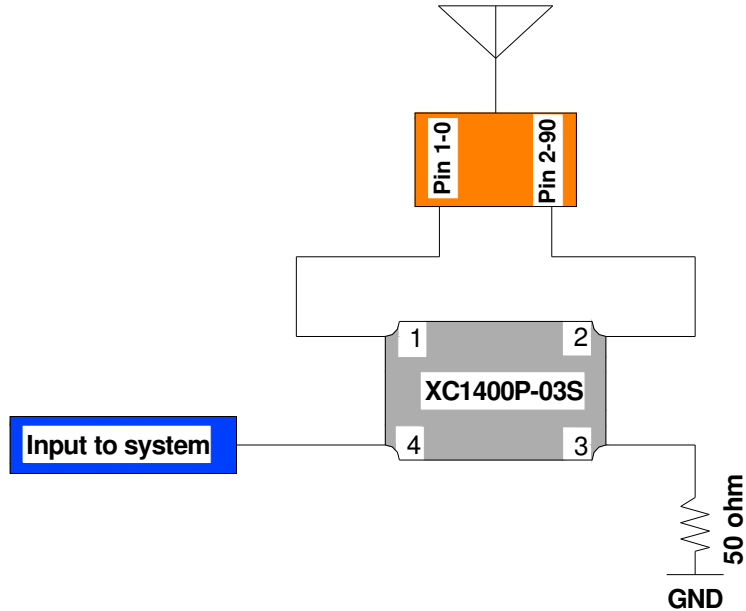
DOCUMENT  
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ENS000096390

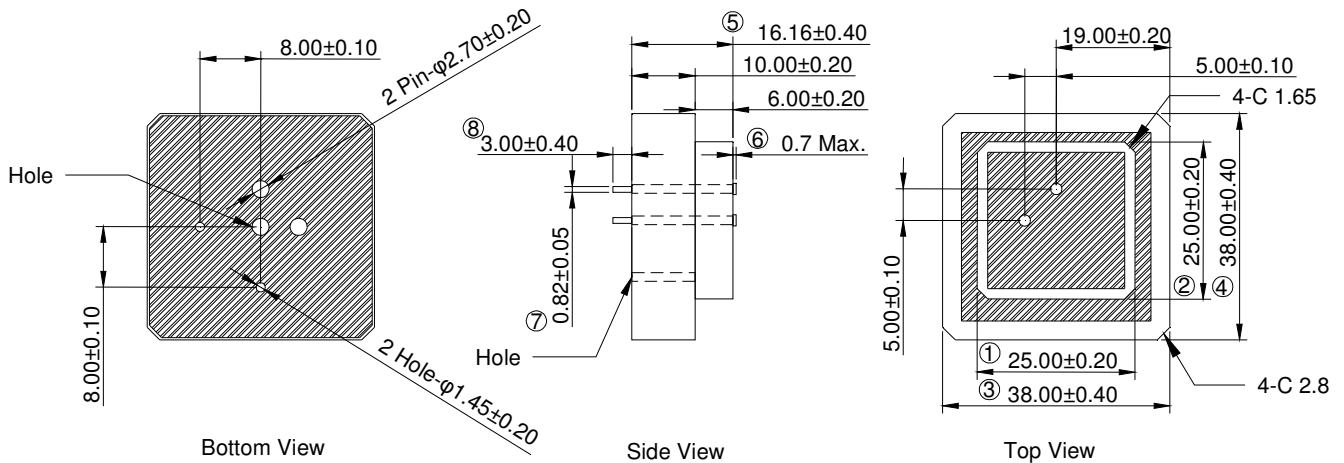
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### 3. Coupler Electrical Specifications and Circuit :

Hybrid Coupler XC1400P-03S	Frequency	Isolation	Insertion Loss	VSWR
	1563-1588 MHz	23 dB	0.32 dB	1.20
	1215-1240 MHz	23 dB	0.23 dB	1.17



### 4. Dimension :



Unit: mm

**Note: These 1~8 balloons are important dimension, the others are reference dimension.**

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**DOCUMENT NO.**

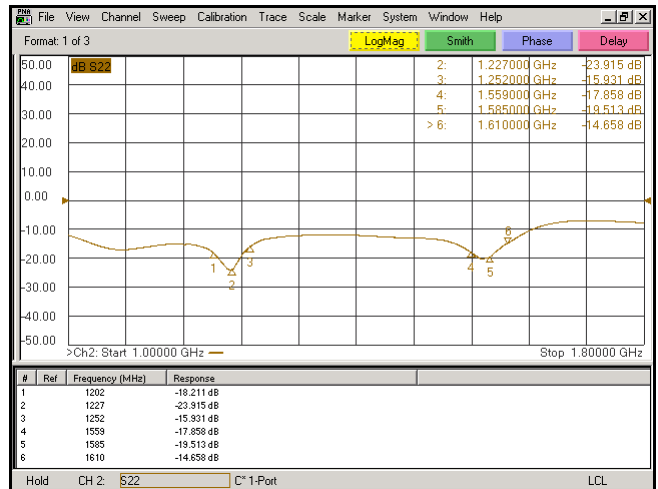
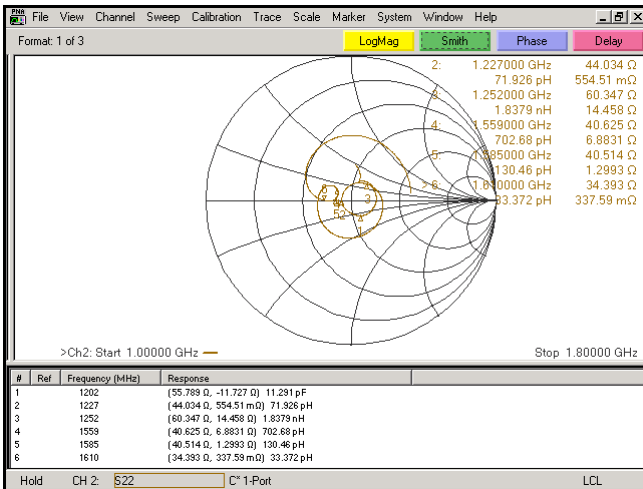
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## 5. Patch Antenna Performance and Characteristic Data on 70x70 mm

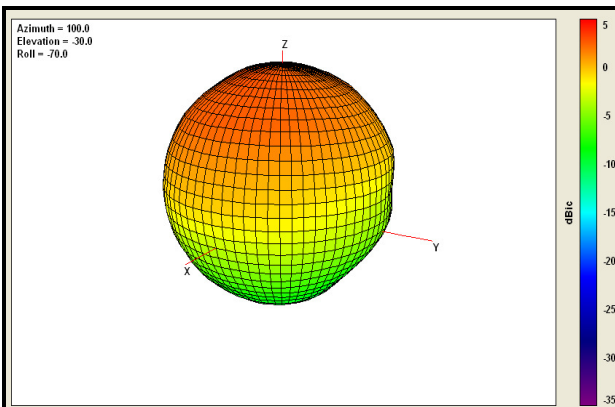
Ground :

### 5.1 Smith Chart/S<sub>11</sub> (Include Coupler)

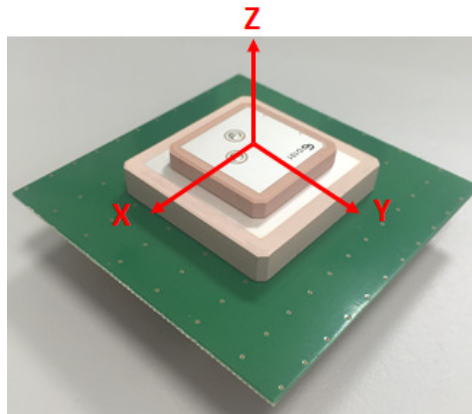
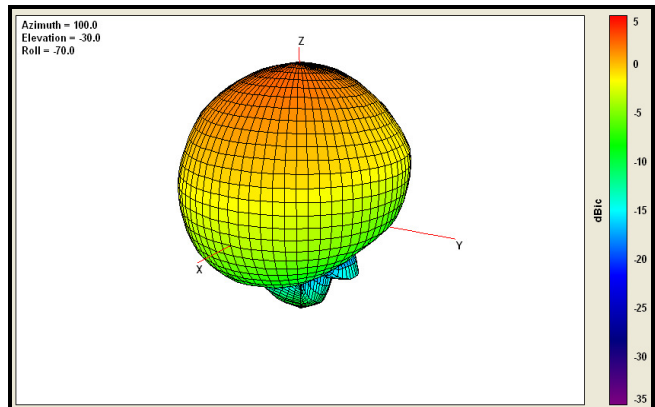


### 5.2 3D Circular Polarization Gain Pattern : RHCP (Unit: dBic)

L1 (Fc=1585MHz)



L2 (Fc= 1227MHz)



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