



**Product Name:** External One Port GNSS Antenna

**Part Number:** EG-6AB-AS-A01

**Features:**

- 40\*40\*4mm/ 50\*50\*6mm Dual patch + Dual Feed Embedded
- Support GPS L1/ L2 /L5, GLONASS, BEIDOU, GALILEO Bands
- Excellent Out of Band Rejection up to 65dB
- SMA Male Connector
- RoHS & REACH Compliant
- Cable Length & Connector are customizable

**Applications:**

- Car Navigation
- Portable GPS Tracking
- Security Surveillance

# External One Port GNSS Antenna

## MODEL: EG-6AB-AS-A01

WI-RD-D-274 V1.1

### I. Specifications:

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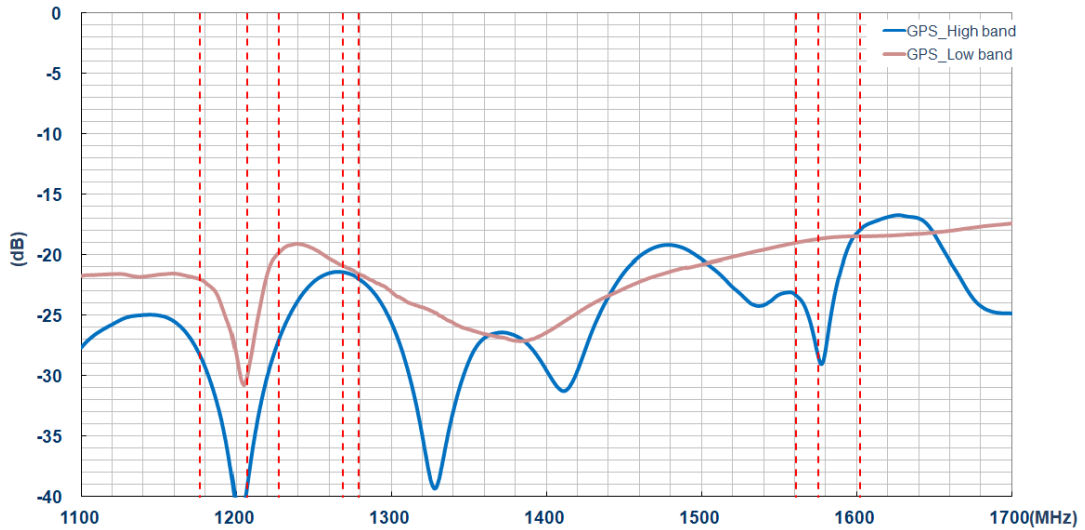
Items		Specifications							
<b>Passive Antenna Performance</b>									
<b>Application</b>		GPS	BeiDou	GPS	BeiDou	Galileo	BeiDou	GPS	GLONASS
<b>Bands</b>		L5	B2I	L2	B3	E6	L1	L1	L1
<b>Frequencies (MHz)</b>		1176.45	1207.14	1227.60	1268.52	1278.75	1561.00	1575.42	1602.00
<b>Efficiency (%)</b>	<b>High Band</b>	-	-	-	-	-	41.40	46.03	38.46
	<b>Low Band</b>	17.38	47.53	34.28	10.14	7.52	-	-	-
<b>Average Gain (dBi)</b>	<b>High Band</b>	-	-	-	-	-	-3.83	-3.37	-4.15
	<b>Low Band</b>	-7.60	-3.23	-4.65	-9.94	-11.24	-	-	-
<b>Peak Gain (dBi)</b>	<b>High Band</b>	-	-	-	-	-	1.86	2.31	1.93
	<b>Low Band</b>	-0.47	3.62	1.72	-3.09	-4.40	-	-	-
<b>V.S.W.R</b>		< 2							
<b>Return Loss (dB)</b>		< -10							
<b>Impedance (<math>\Omega</math>)</b>		50							
<b>Polarization</b>		R.H.C.P. (Right-Handed Circular Polarization)							

Active Antenna Performance				
Application Bands	GPS L5	GPS L2	GPS L1	GLONASS L1
Frequencies (MHz)	1176	1227	1575.42 ± 1.023	1602 ± 5
Gain (dB)	35	34	38	34
Noise Figure(dB)	1.99	2.3	2.22	2.74
Current Consumption (mA)	25.21 ± 2			
Output Impedance (Ω)	50			
Out Of Band Rejection				
Application Bands	GPS L1		GPS L2 / L5	
Frequencies (MHz)	600 ~ 1520	1650 ~ 3000	600 ~ 1100	1350 ~ 3000
Out Of Band Rejection (dB)	65	65	60	60
ESD Protection				
Contact Discharge (KV)	± 8			
Air Discharge (KV)	± 15			
Cable and Connector				
Cable / Length	1 meter H100			
Connector	SMA (Male)			
Physical Condition				
Dimension (mm)	φ 80(D) x 90(L) x 25.4(H)			
Environmental Conditions				
Operation Temperature	-40 ~ +85 °C			
Storage Temperature	-40 ~ +85 °C			
Relative Humidity	95% non-condensing			

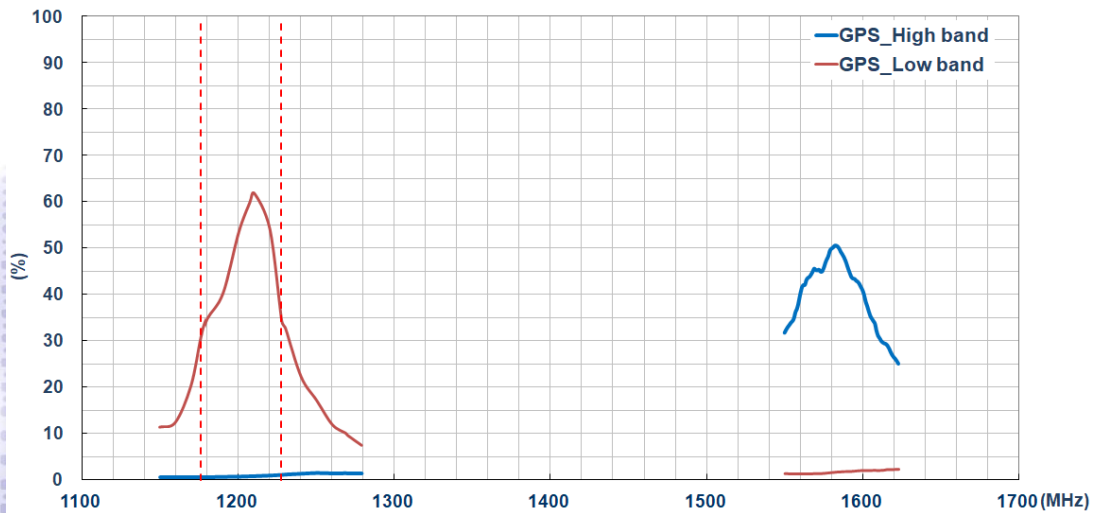
## II. Antenna Technical Parameters:

- **Passive Antenna Performance**

S11 (dB)

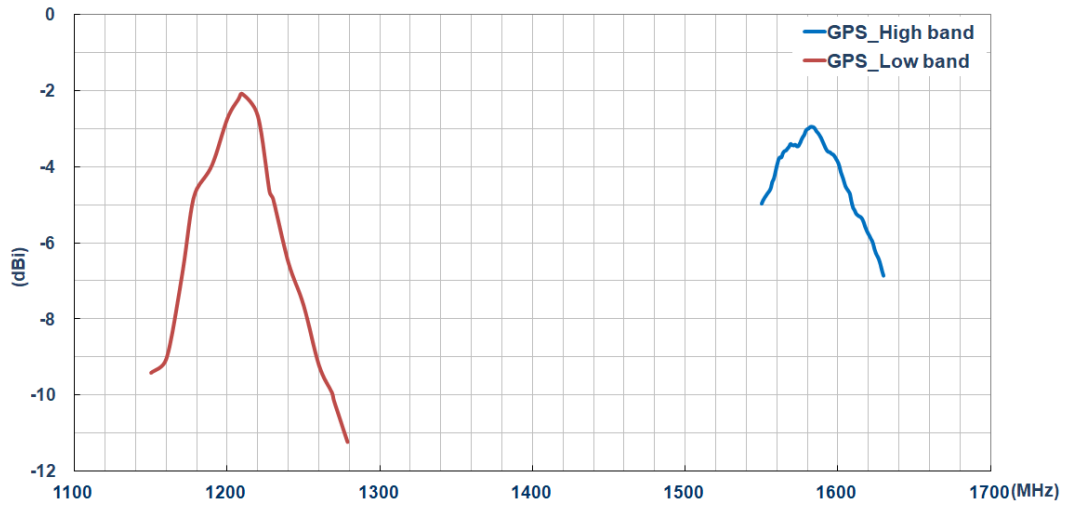


Efficiency (%)

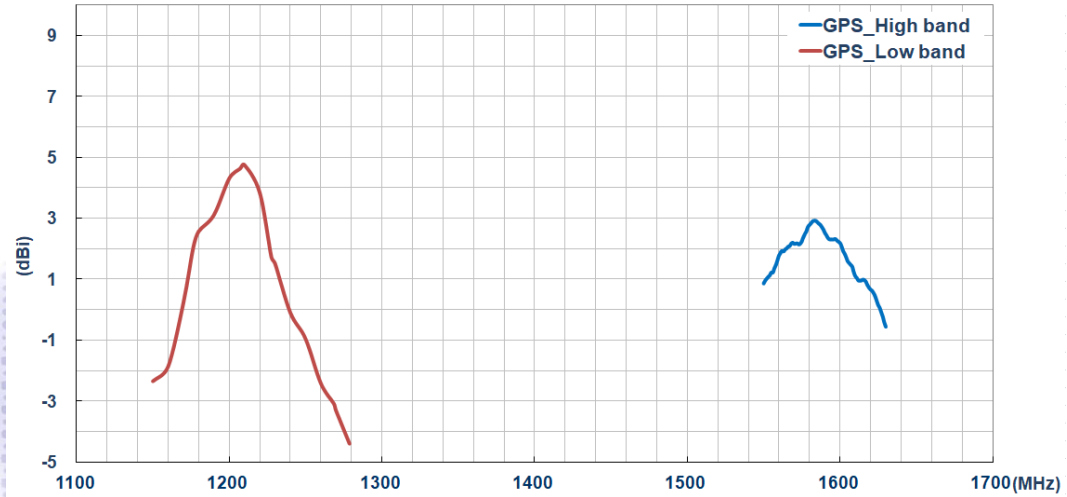


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Average Gain (dBi)



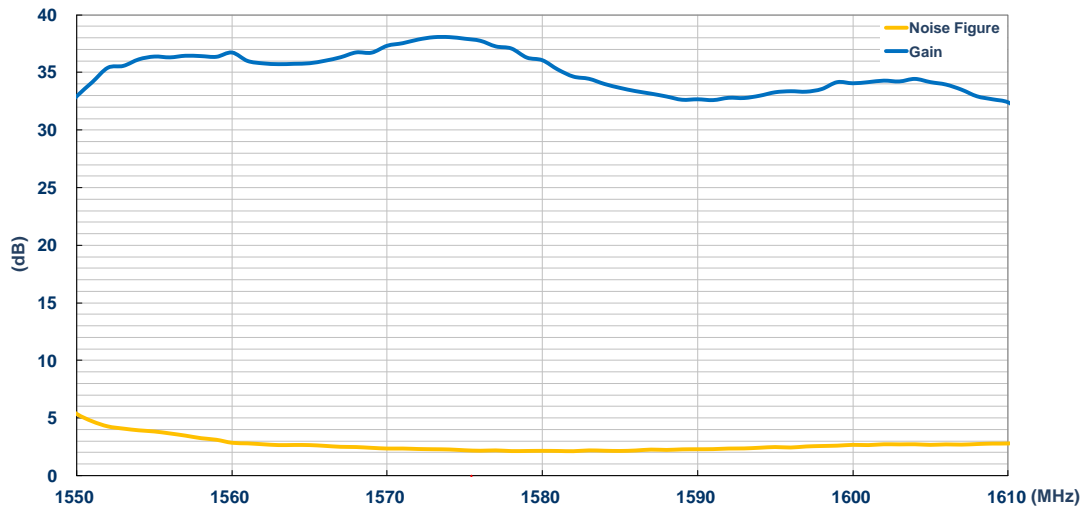
Peak Gain (dBi)



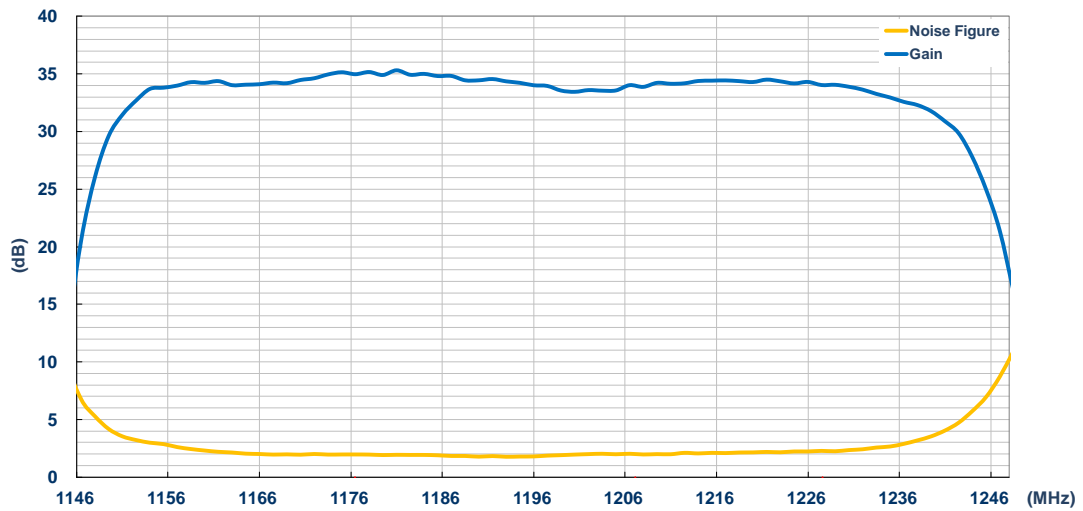
● **Active Antenna Performance**

Noise Figure & Gain (dB)

L1

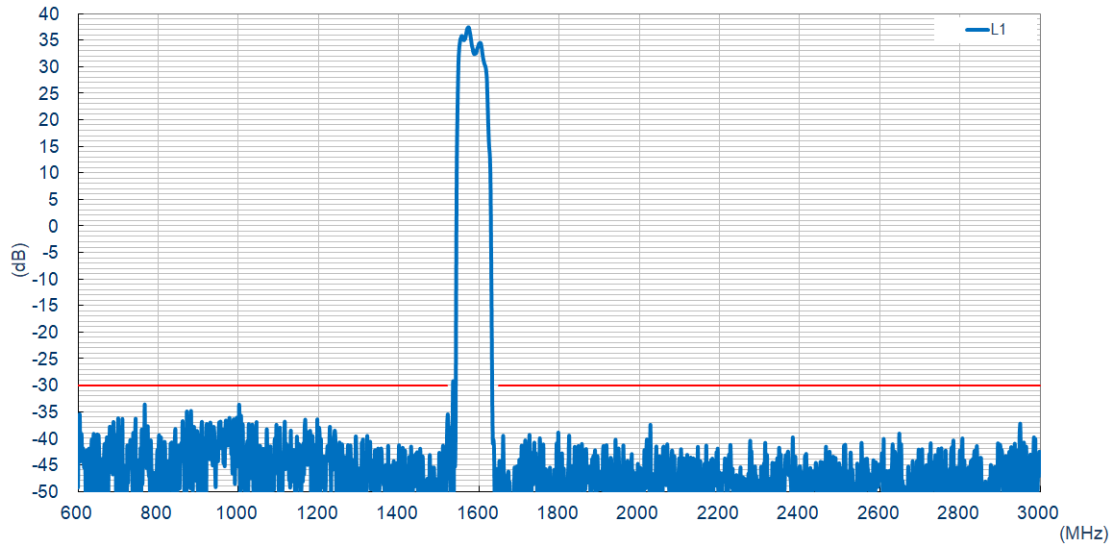


L2 / L5

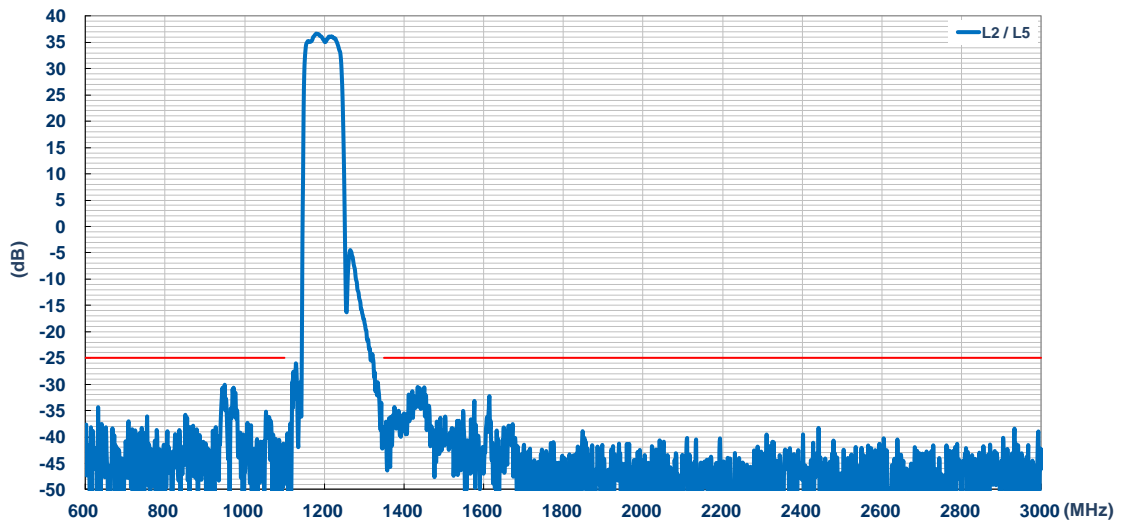


### Out Of Band Rejection (dB)

#### L1



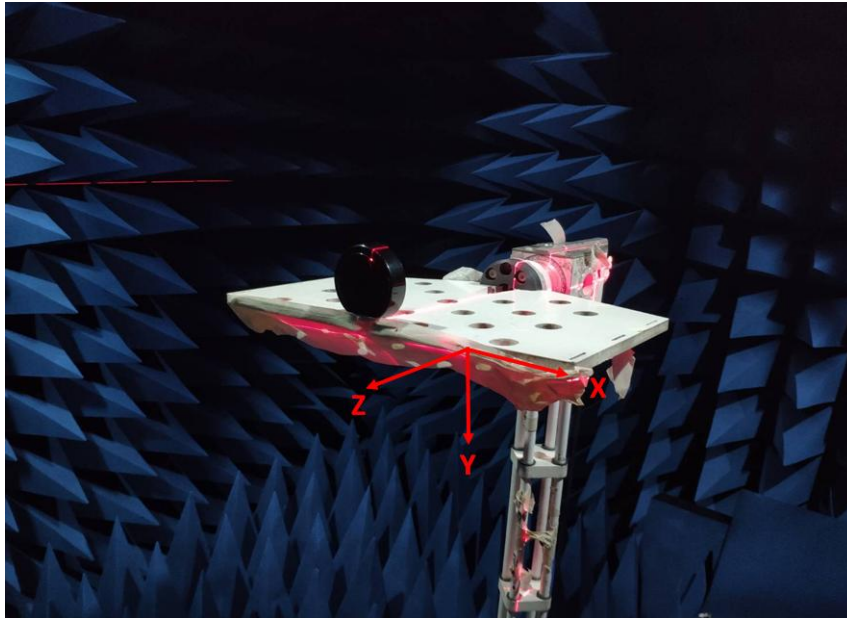
#### L2 / L5





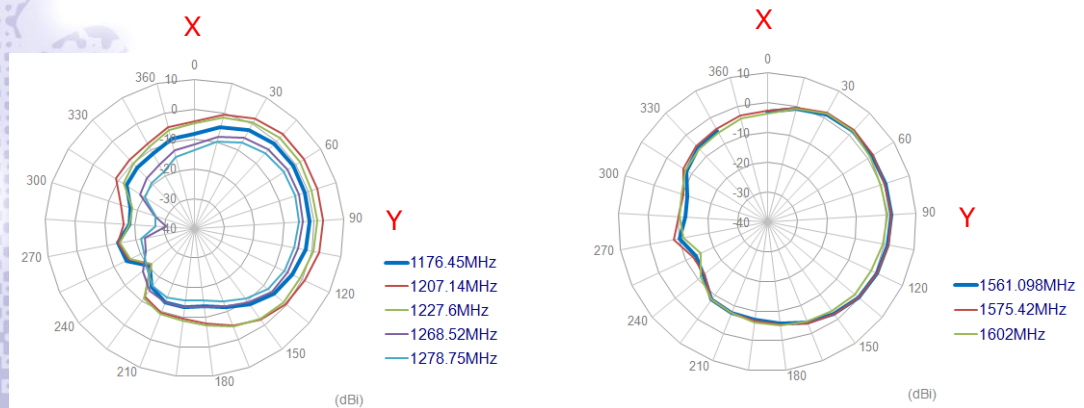
### III. Antenna Radiation Pattern Measurement:

The antenna radiation patterns are measured in 3D Anechoic Chamber. The measurement is setup as show below,



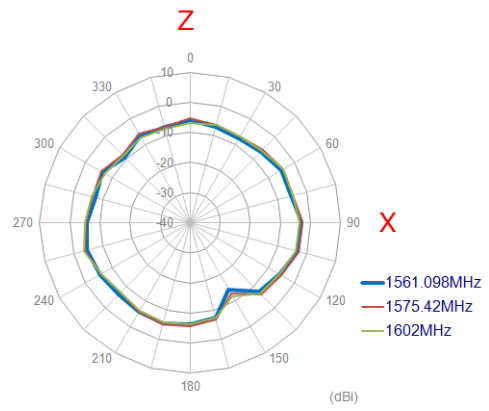
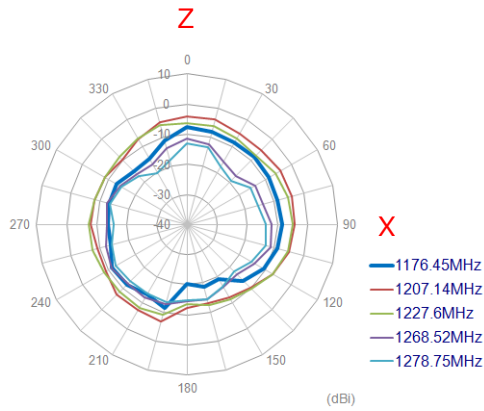
### IV. 2D Radiation Pattern:

X-Y Plane

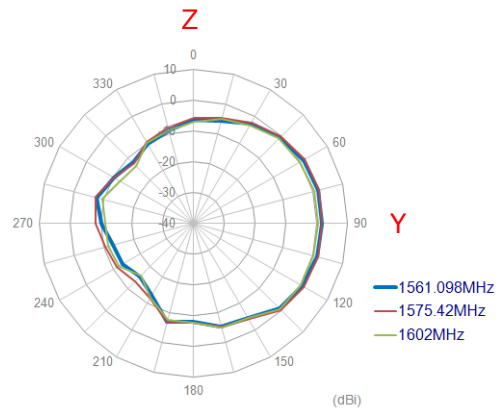
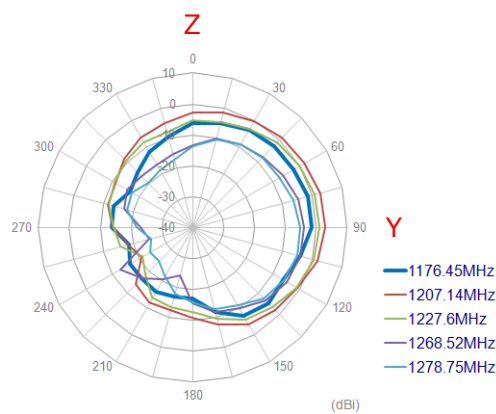




X-Z Plane

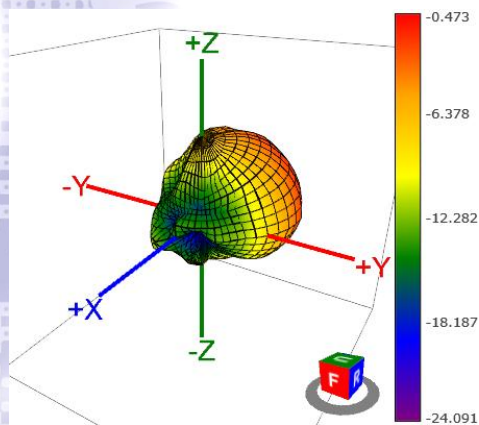


Y-Z Plane

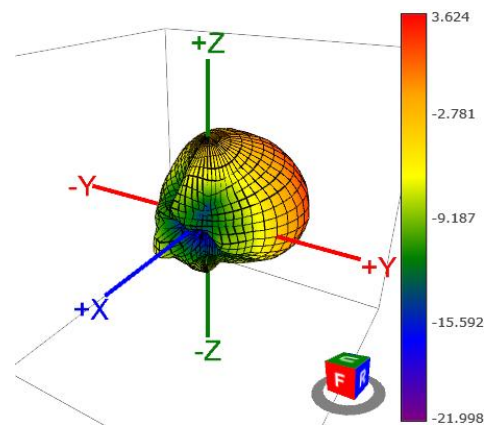


### V. 3D Radiation Pattern:

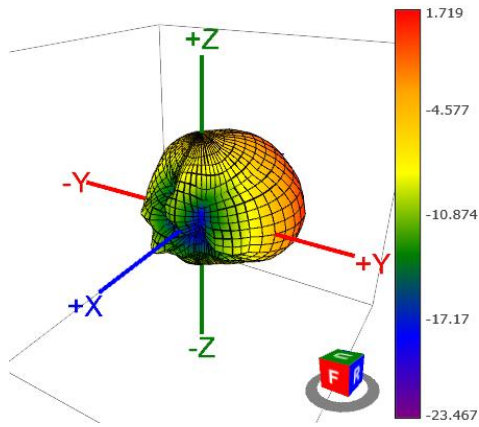
1176.45MHz



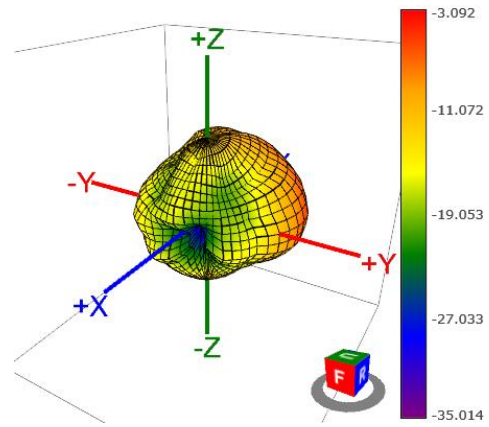
1207.14MHz



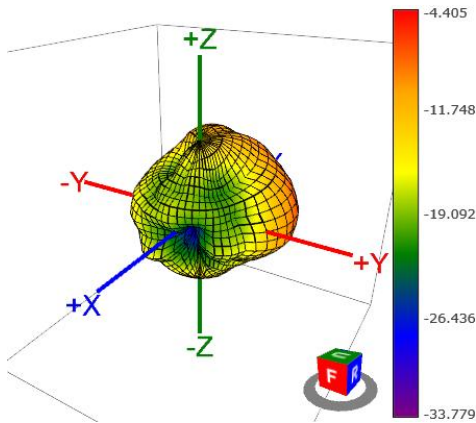
1227.6MHz



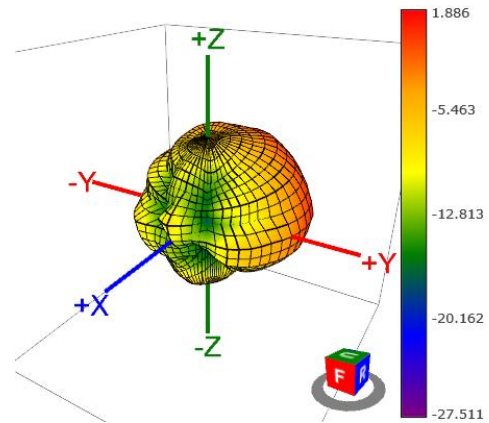
1268.52MHz



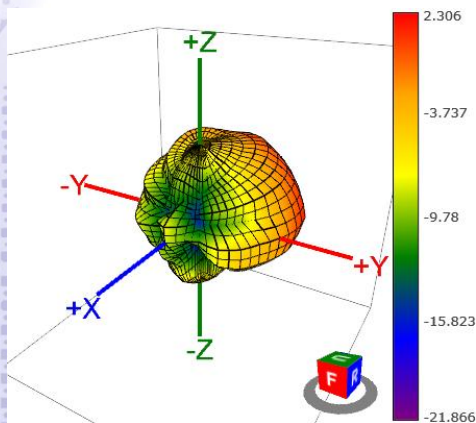
1278.75MHz



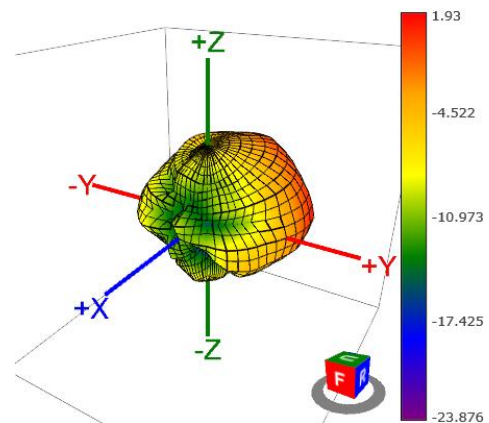
1561.098MHz



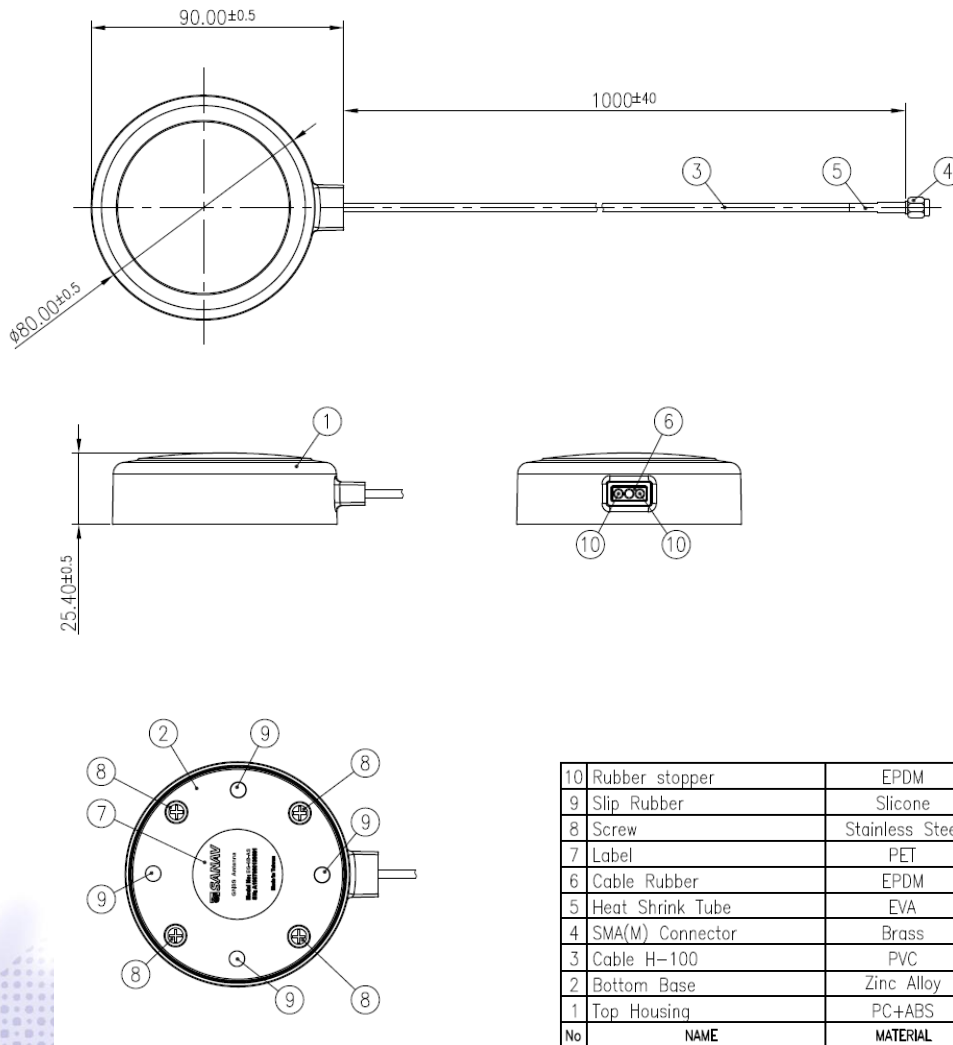
1575.42MHz



1602MHz



## VI. Mechanical Drawing (Unit:mm):



10	Rubber stopper	EPDM	Black	2
9	Slip Rubber	Silicone	Black	4
8	Screw	Stainless Steel	Cr Plated	4
7	Label	PET	Silver	1
6	Cable Rubber	EPDM	Black	1
5	Heat Shrink Tube	EVA	Black	1
4	SMA(M) Connector	Brass	Au Plated	1
3	Cable H-100	PVC	Black	1
2	Bottom Base	Zinc Alloy	Ni Plated	1
1	Top Housing	PC+ABS	Black	1
No	NAME	MATERIAL	FINISH	Q'TY

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