



Product Name: EG-6AB Series_ External One Port GNSS Antenna

Part Number: EG-6AB-AS-A01

Features:

- 40*40*4mm/ 50*50*6mm Dual patch + Dual Feed Embedded
- GPS L1/ L2 /L5, GLONASS, BEIDOU, Galileo Bands Supporting
- Excellent Out of Band Suppression 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 V1.0

I. Specifications:

Category	Specifications							
Passive Antenna Performance								
Application	GPS	BeiDou	GPS	BeiDou	Galileo	BeiDou	GPS	GLONASS1
Band	L5	B2I	L2	B3	E6	L1	L1	L1
Frequency (MHz)	1176.45	1207.14	1227.60	1268.52	1278.75	1561.00	1575.42	1602.00
Efficiency (%)								
High Band	0.52	0.71	1.02	1.36	1.32	41.40	46.03	38.46
Low Band	17.38	47.53	34.28	10.14	7.52	0.87	0.93	1.30
Average Gain (dBi)								
High Band	-22.86	-21.48	-19.90	-18.67	-18.80	-3.83	-3.37	-4.15
Low Band	-7.60	-3.23	-4.65	-9.94	-11.24	-20.62	-20.31	-18.86
Peak Gain (dBi)								
High Band	-17.68	-15.14	-14.06	-11.50	-11.20	1.86	2.31	1.93
Low Band	-0.47	3.62	1.72	-3.09	-4.40	-14.75	-14.27	-12.52
V.S.W.R	< 2							
Return Loss (dB)	< -10							
Impedance (Ω)	50							
Polarization	R.H.C.P. (Right Handed Circular Polarization)							

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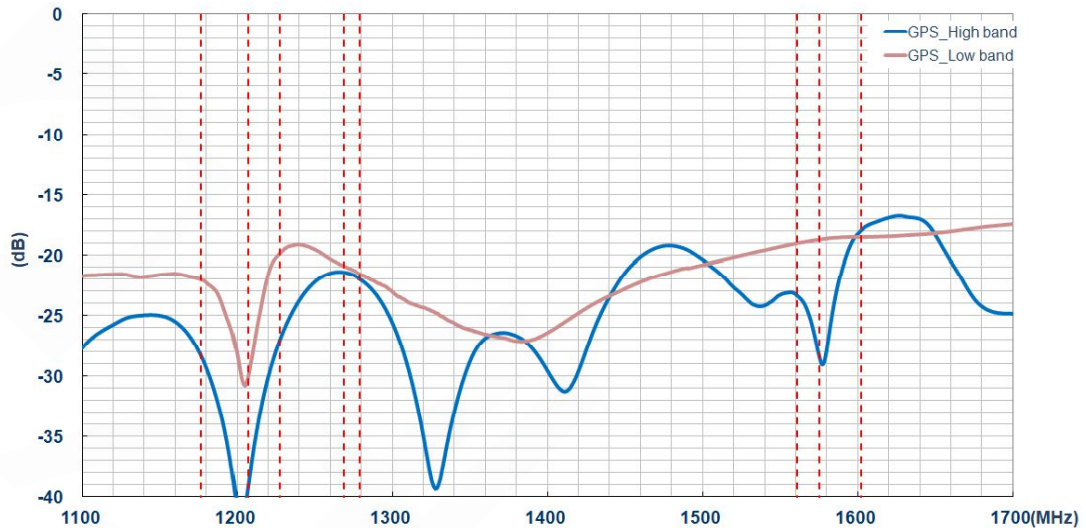
Active Antenna Performance				
Application Band	GPS L2		GPS L1	
Frequency (MHz)	1227		1575.42 ± 1.023	
Gain (dB)	34		38	
Noise (dB)	2.3		2.22	
Current Consumption (mA)	25.21 ± 2			
Output Impedance (Ω)	50			
GNSS _Out Of Band Rejection				
Application Band	GPS L1		GPS L2	
Frequency (MHz)	600 ~ 1520	1650 ~ 3000	600 ~ 1100	1350 ~ 3000
Gain (dB)	65	65	60	60
ESD Protection				
Contact (KV)	± 8			
Air (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			



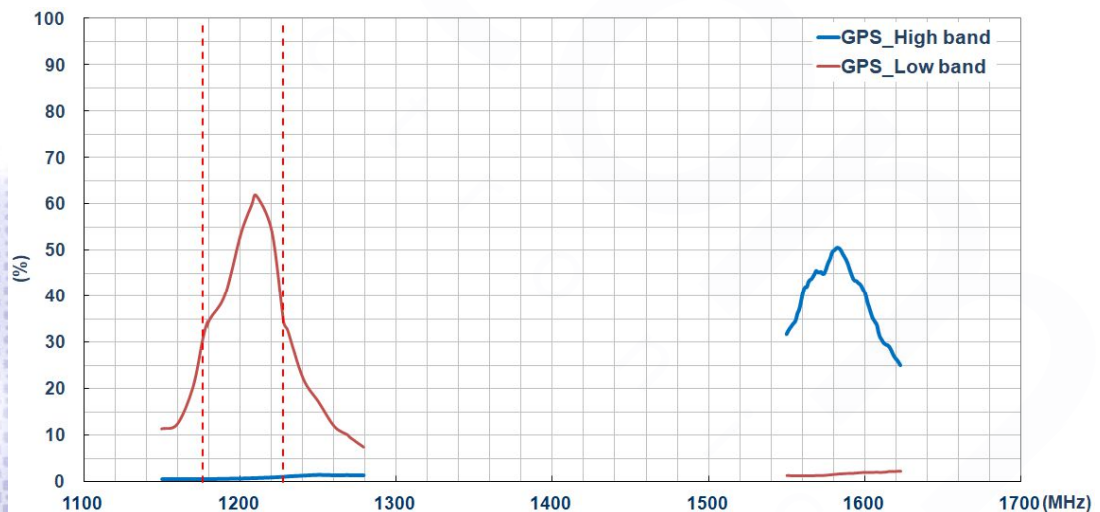
II. Antenna Technical Parameters:

● Passive Antenna Performance

S11 (dB)



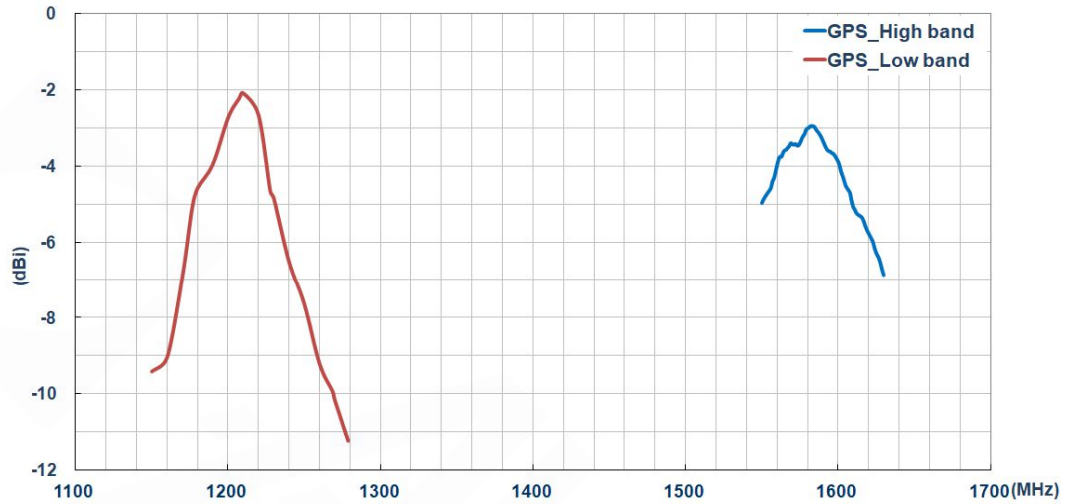
Efficiency (%)



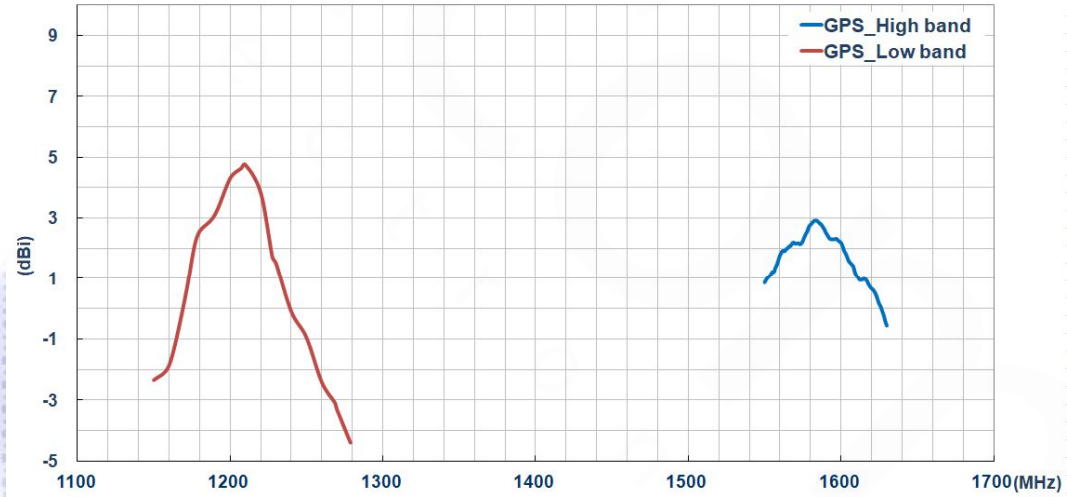
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SANAV
2019.12.19
DCC

Average Gain (dBi)



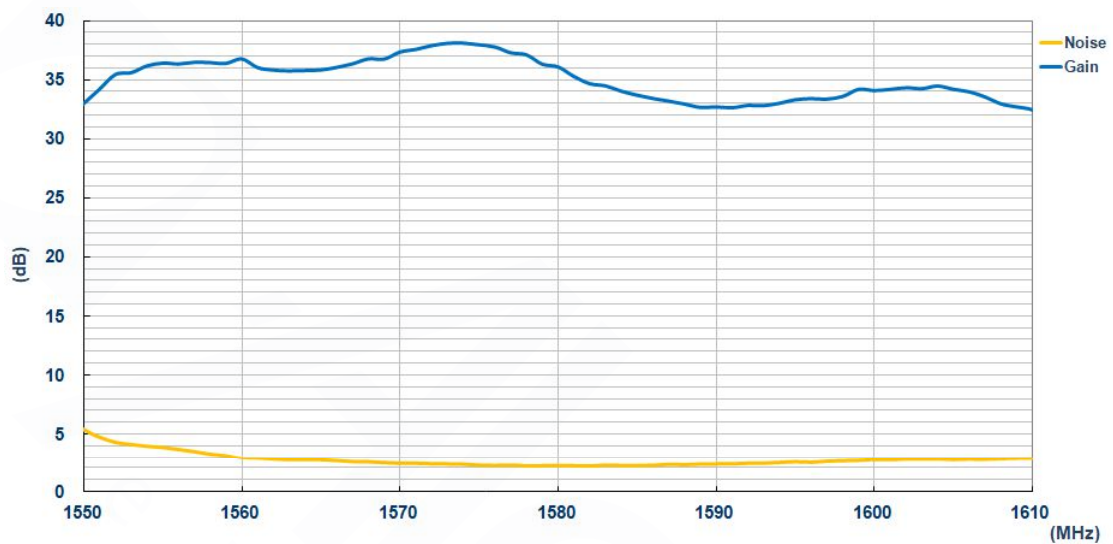
Peak Gain (dBi)



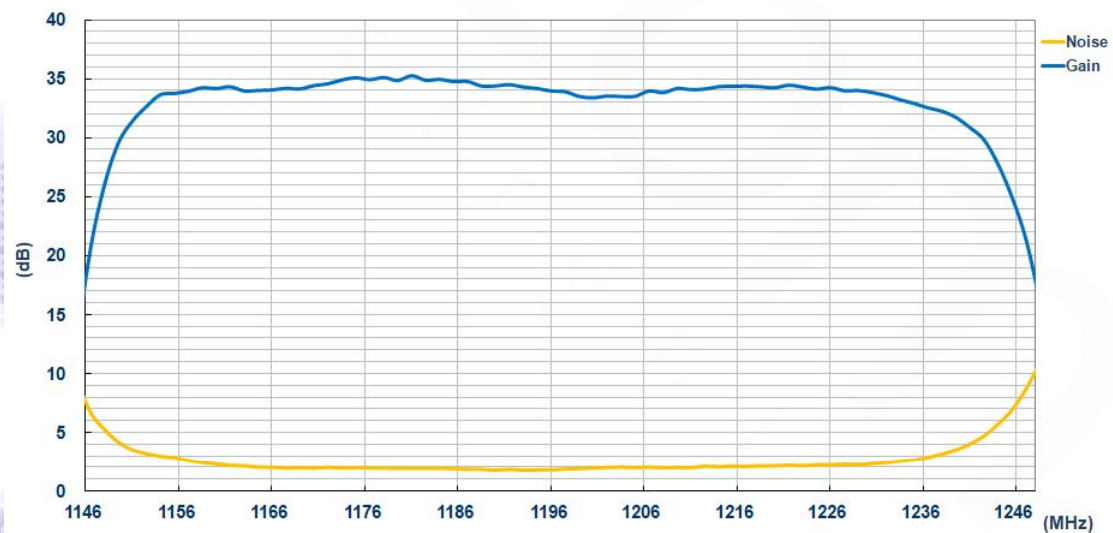
● Active Antenna Performance

Noise & Gain (dB)

L1

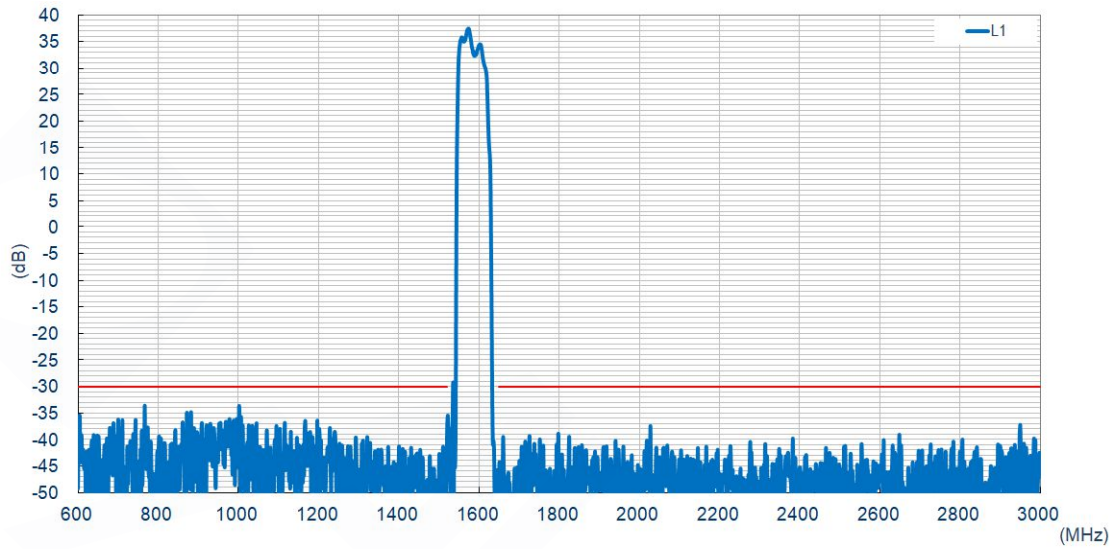


L2

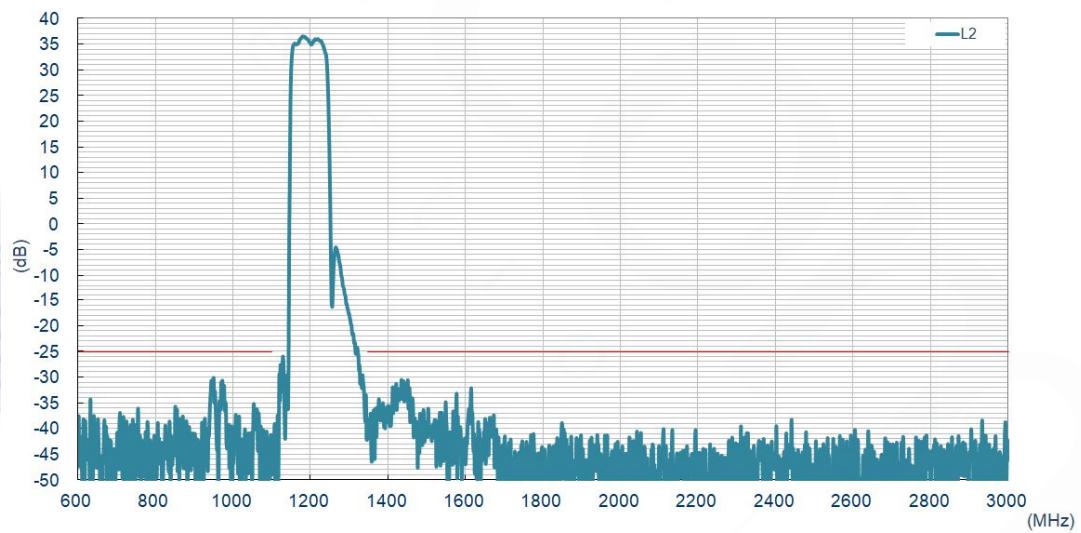


Out Of Band Rejection (dB)

L1

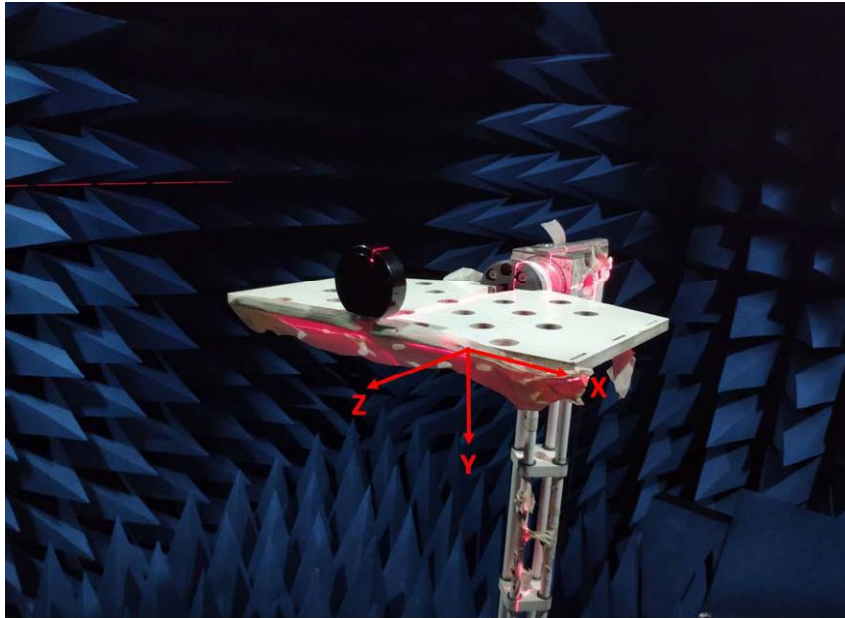


L2



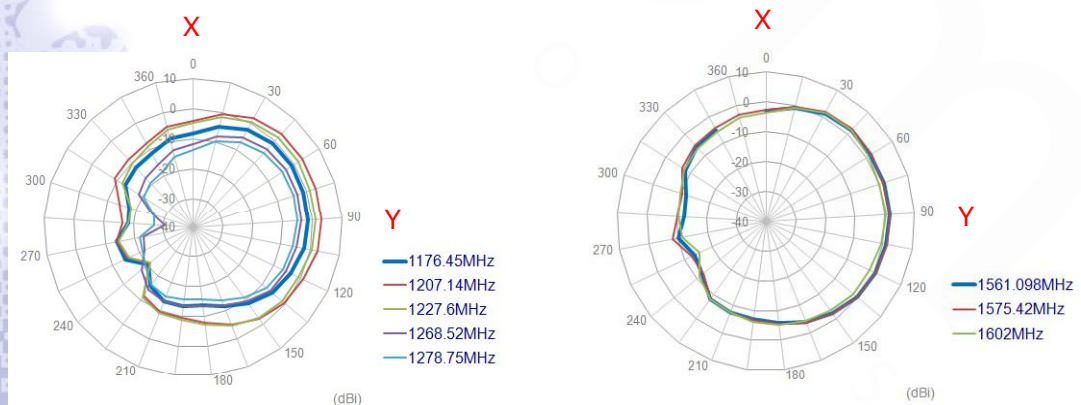
III. Antenna Radiation Pattern Measurement:

The antenna radiation patterns were measured in Anechoic Chamber.
The measurement setup as below,

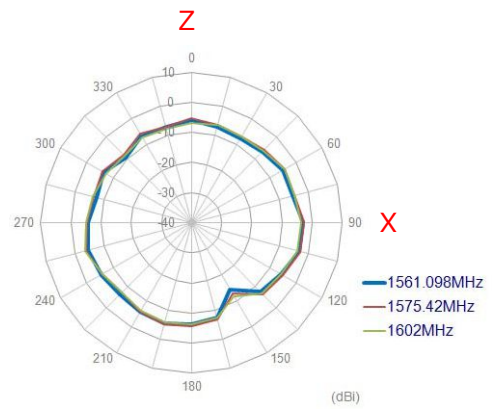
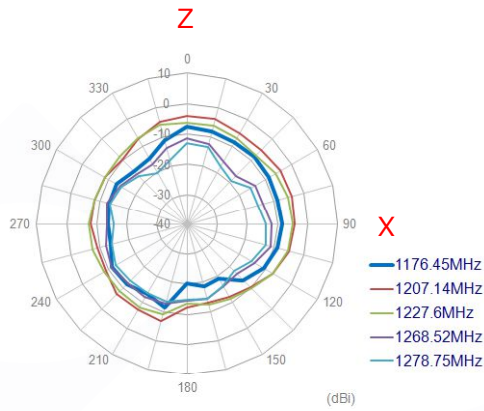


IV. 2D Radiation Pattern:

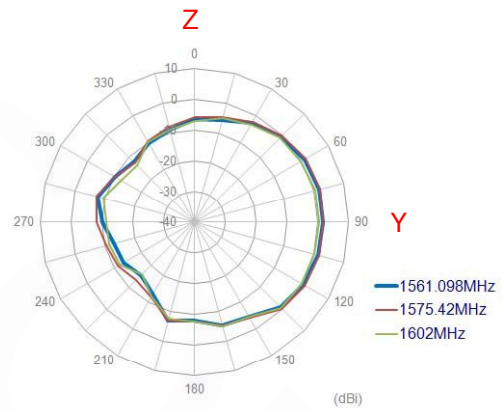
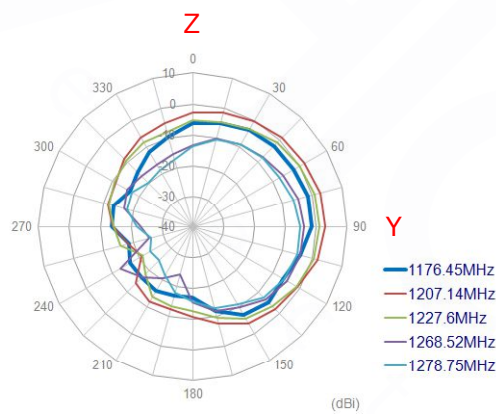
X-Y Plane



X-Z Plane

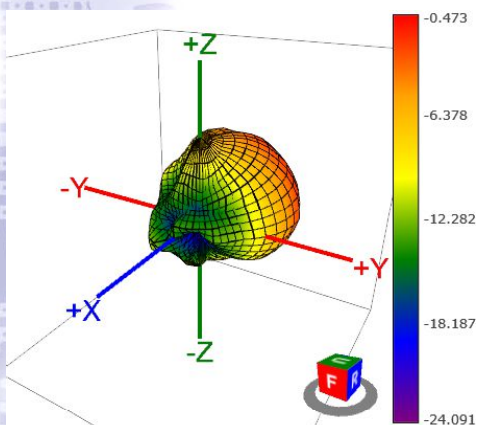


Y-Z Plane

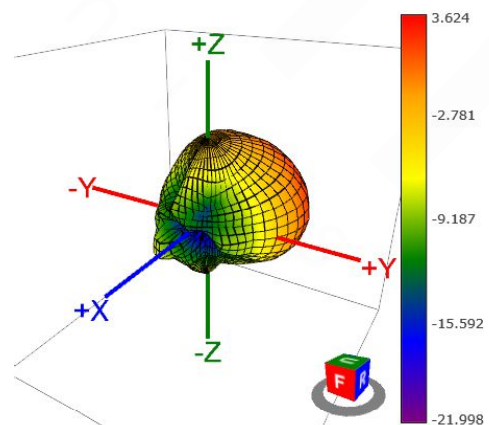


V. 3D Radiation Pattern:

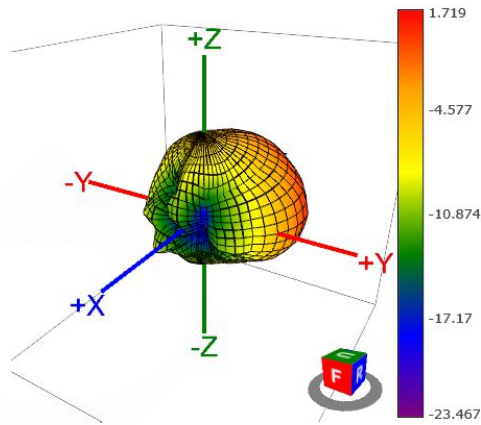
1176.45MHz (dBi)



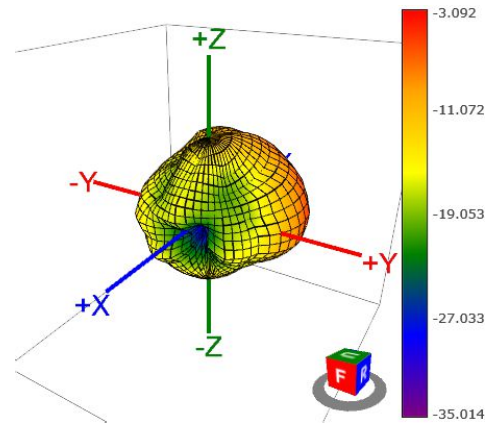
1207.14MHz (dBi)



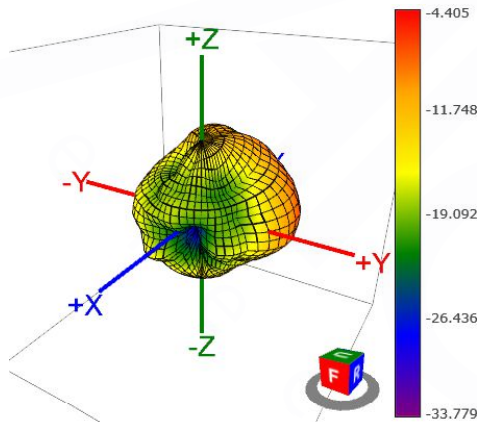
1227.6MHz (dBi)



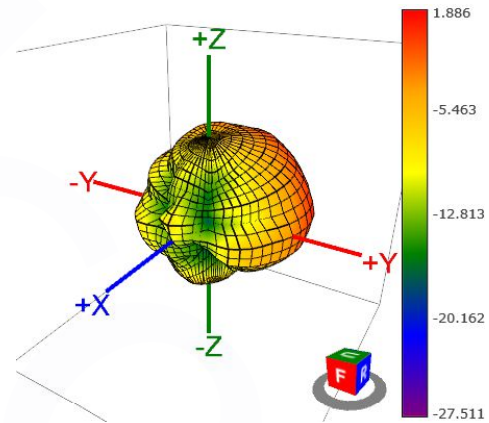
1268.52MHz (dBi)



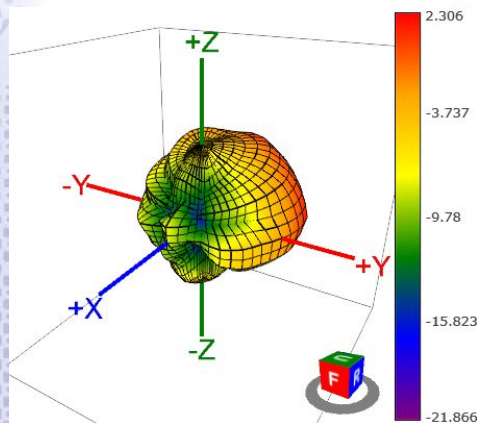
1278.75MHz (dBi)



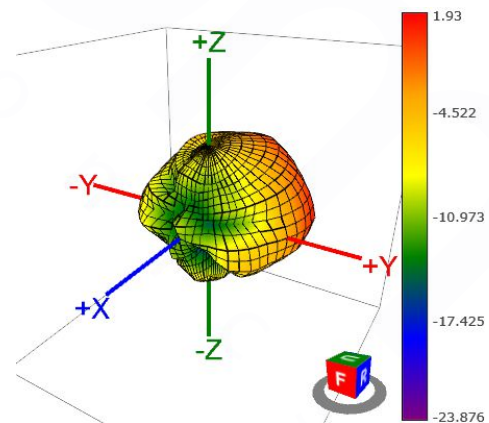
1561.098MHz (dBi)



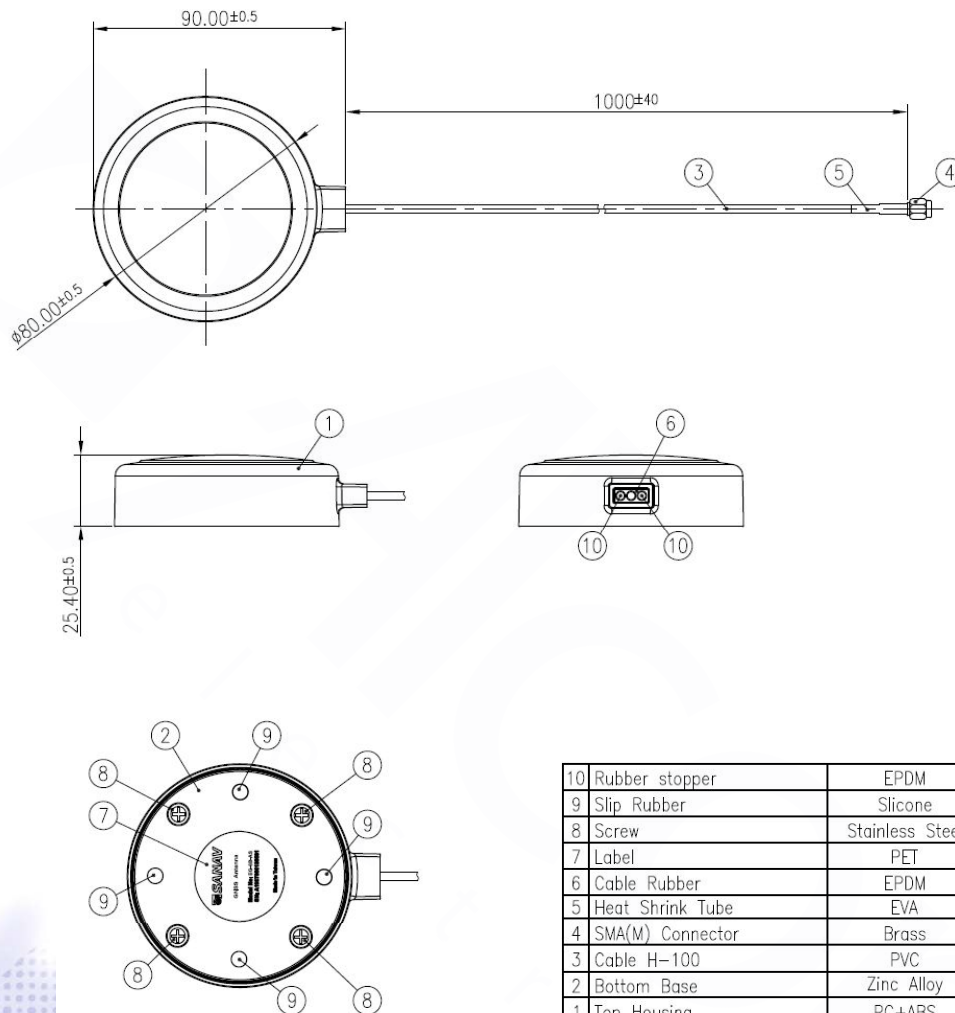
1575.42MHz (dBi)



1602MHz (dBi)



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