V.1/21

SANAV
San Jose Technology, Inc.

Product Name: EG-20AW Series _High-Accuracy GNSS Active Antenna

Part Number: EG-20AW-AS-A01

Features:

- Substantial and environmental-resistance structure
- Proprietary antenna design provides the flexibility to reach a range of operational goals
- IP67 grade waterproof
- Supports GPS, QZSS, GLONASS, Galileo, and BeiDou systems
- Multi-Constellation and Signal-Frequency for faster initialization

Applications:

- Geospatial Surveys
- Single & Multiple frequencies RTK positioning
- Vehicle Tracking
- Security Surveillance
- Precise Guidance

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High-Accuracy GNSS Active Antenna

MODEL: EG-20AW-AS-A01

WI-RD-D-272 V1.0

I. Specifications:

Category	Specifications				
Active Antenna Performance					
Polarization	R.H.C.P. (Right Handed Circular Polarization)				
Application Band	BeiDou	GPS	GLONASS	L2	L5
Frequency (MHz)	1561 ±2.046	1575.42 ±1.023	1602 ±5	1227 ±11	1176.45 ±12
Gain (dB)	41	41	40	41	39
Noise (dB)	7.79	3.81	4.39	1.06	1.07
Low Noise Amplifier					
Frequency (MHz)	1561 ~ 1602	1227	1176		
Gain (dB) (typical)	43	43	45		
Noise Figure (dB) (typical)	3.6	2.4	1.9		
Supply Voltages (V)	3.3 ~ 15 DC				
Current Consumption (mA) (typical)	30 @ 5V DC				
Output V.S.W.R	2.0 max.				
Output Impedance (Ω)	50				
GNSS _ Out of Band Rejection					
Frequency (MHz)	600 ~ 800	1630 ~ 3000			
Gain (dB)	30	45			
ESD					
Contact (KV)	± 8				
Air (KV)	± 15				

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Cable and Connector	
Cable	RG-58 (Length is suggested between 3~5M)
Connector	TNC (SBJ)
Mount	5/8 inch female thread
Physical Condition	
Dimension (mm)	φ115(D) x 75.2(H)
Weight (g)	
Environmental Conditions	
Operation Temperature	-40 ~ +85 ºC
Storage Temperature	-40 ~ +85 ºC
Waterproof Resistant	IP67
Relative Humidity	+40±2 ºC,90~95% R.H
Electronic Discharge	EN61000-4-2: 20KV Air-discharge；8KV Contact-discharge
Enclosure Rating	IEC 60529 standard: IP67
Solar Radiation	MIL-STD 810E, SAE 1961
Mechanical Shock	MIL-STD-810G, Method 516.6 a. Procedure I, Functional shock
Vibration	Antenna Non-Working 5G/30min Antenna Working 2.5G/30min
Chemical Resistance	Alcohol、Plastic and Vinyl cleaner、Glass cleaner、Saline Solution、Soapy water

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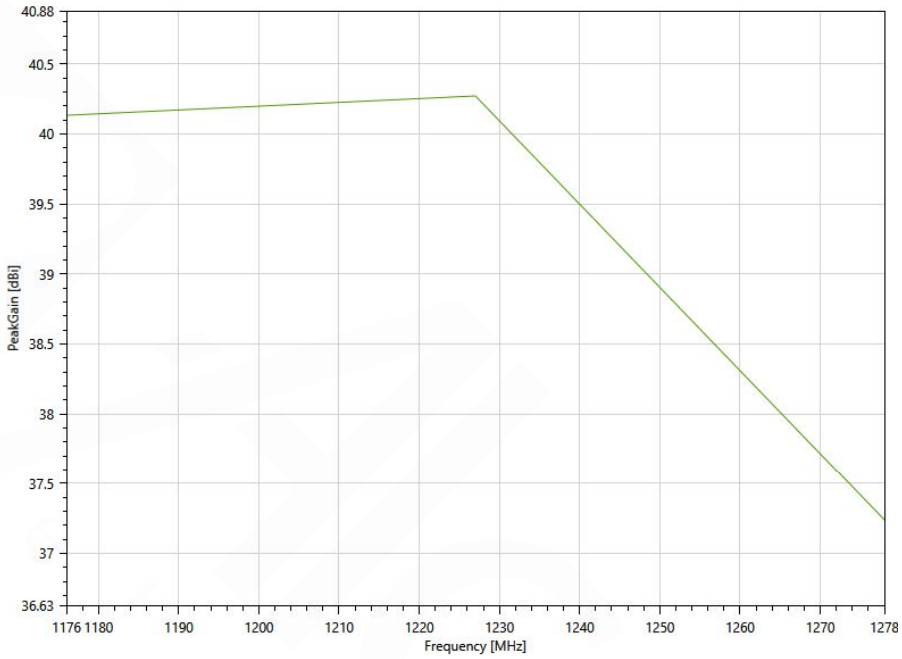
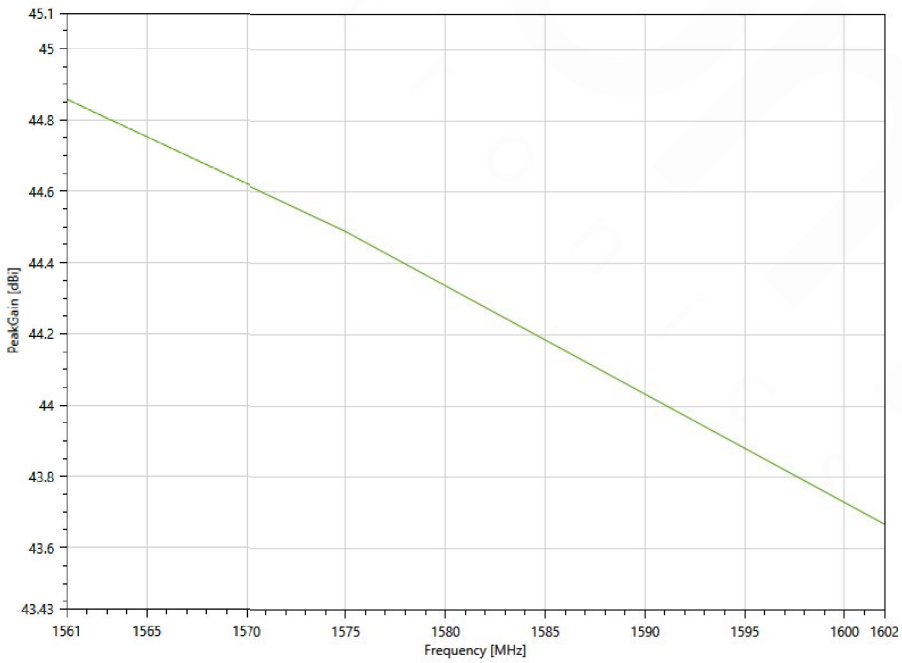
II. Antenna Technical Parameters:

1164 MHz ~ 1283 MHz Peak Gain



1559 MHz ~ 1610 MHz Peak Gain



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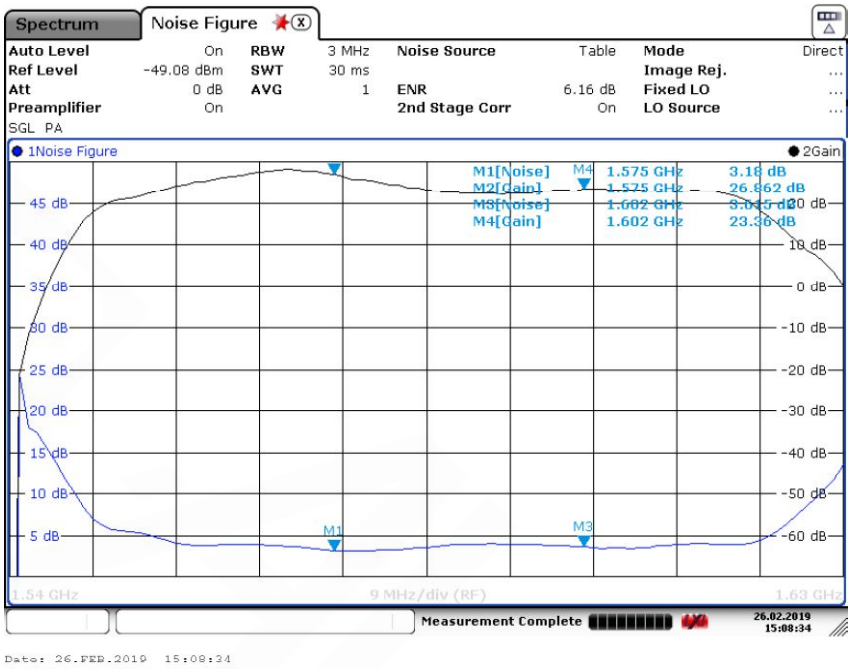
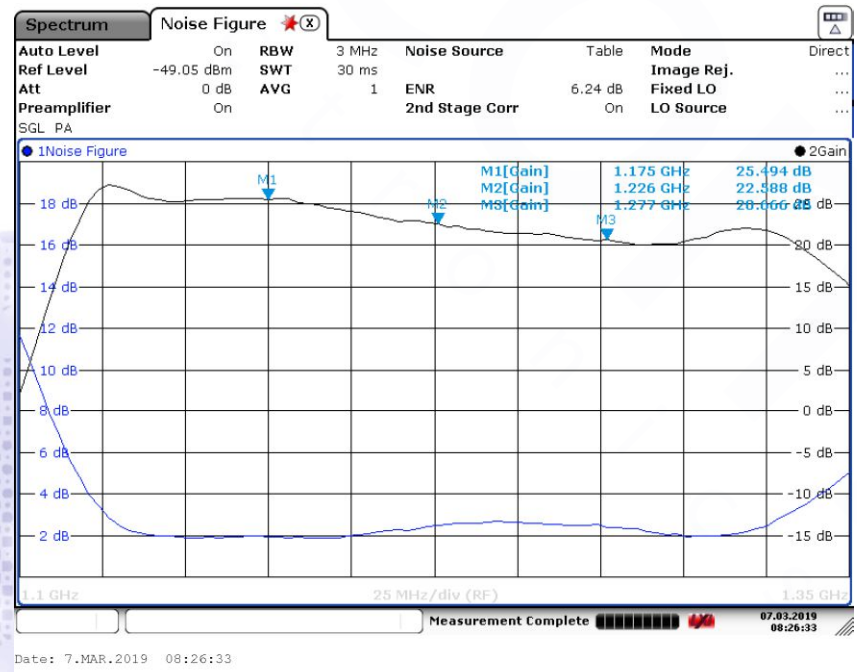
Active Circuit – L1 LNA Gain & N.F Measurement



Active Circuit – L2 / L5 LNA Gain Measurement



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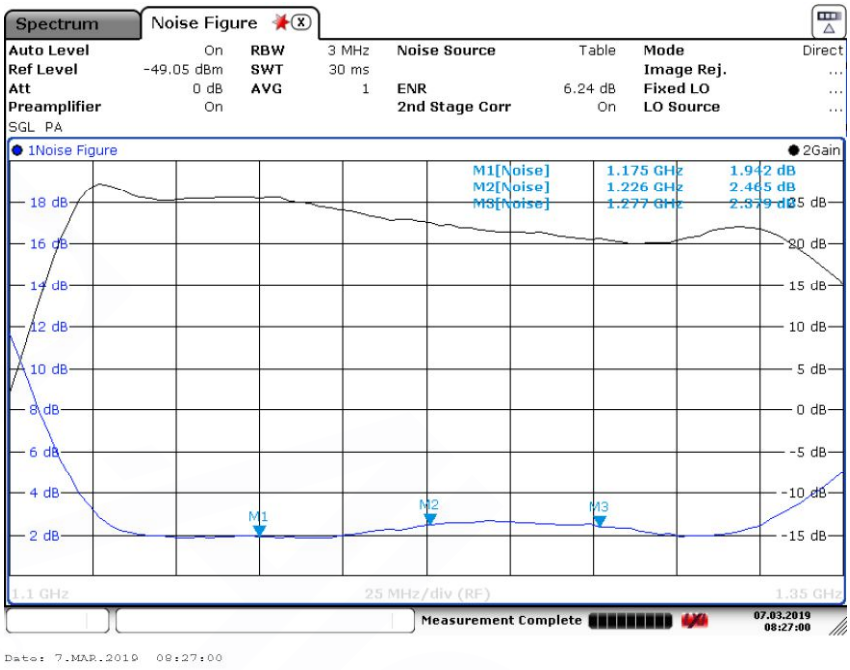
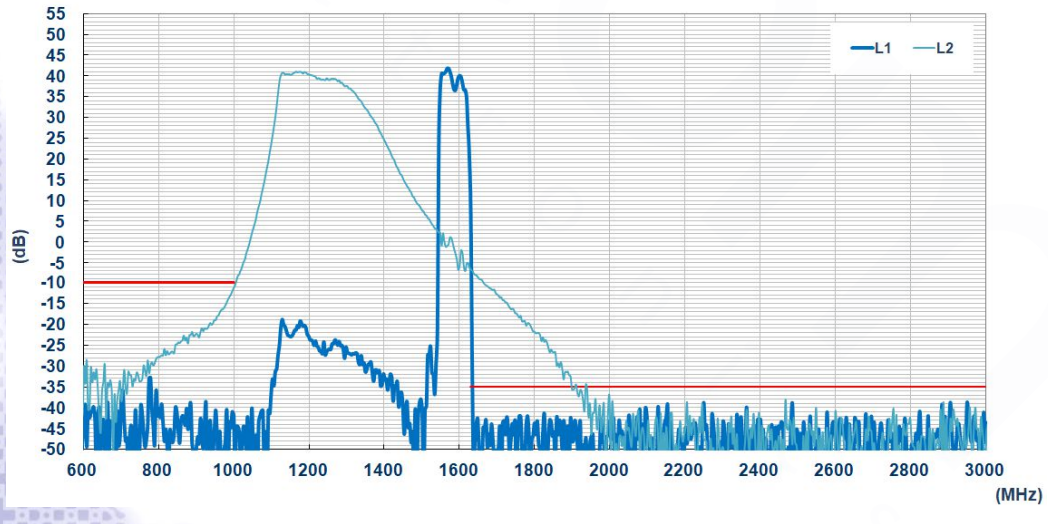
Active Circuit – L2 / L5 N.F Measurement



Out Of Band Rejection (dB)



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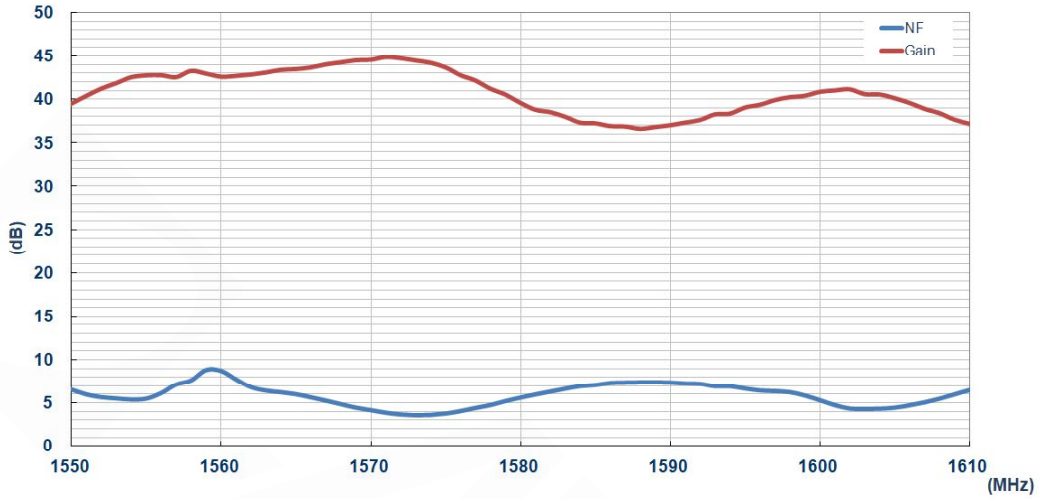
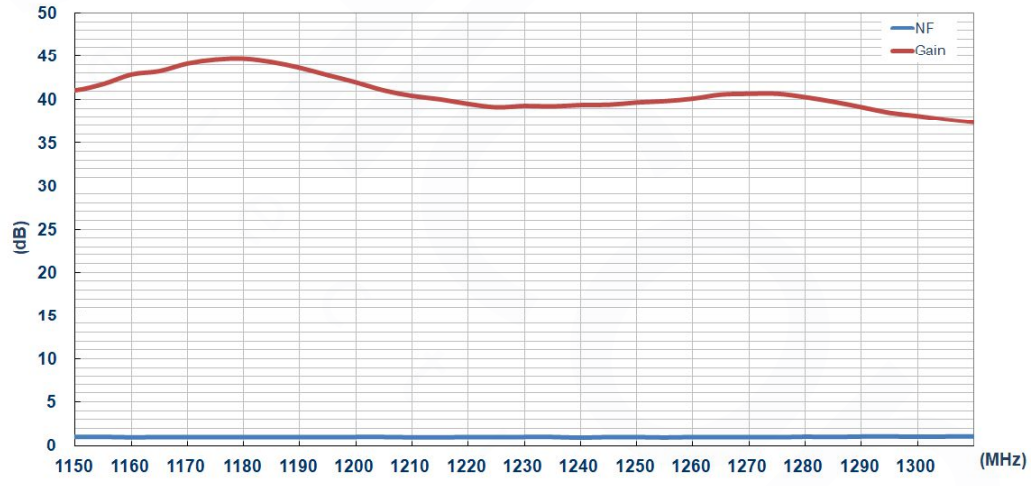
Noise Figure & Gain (dB)





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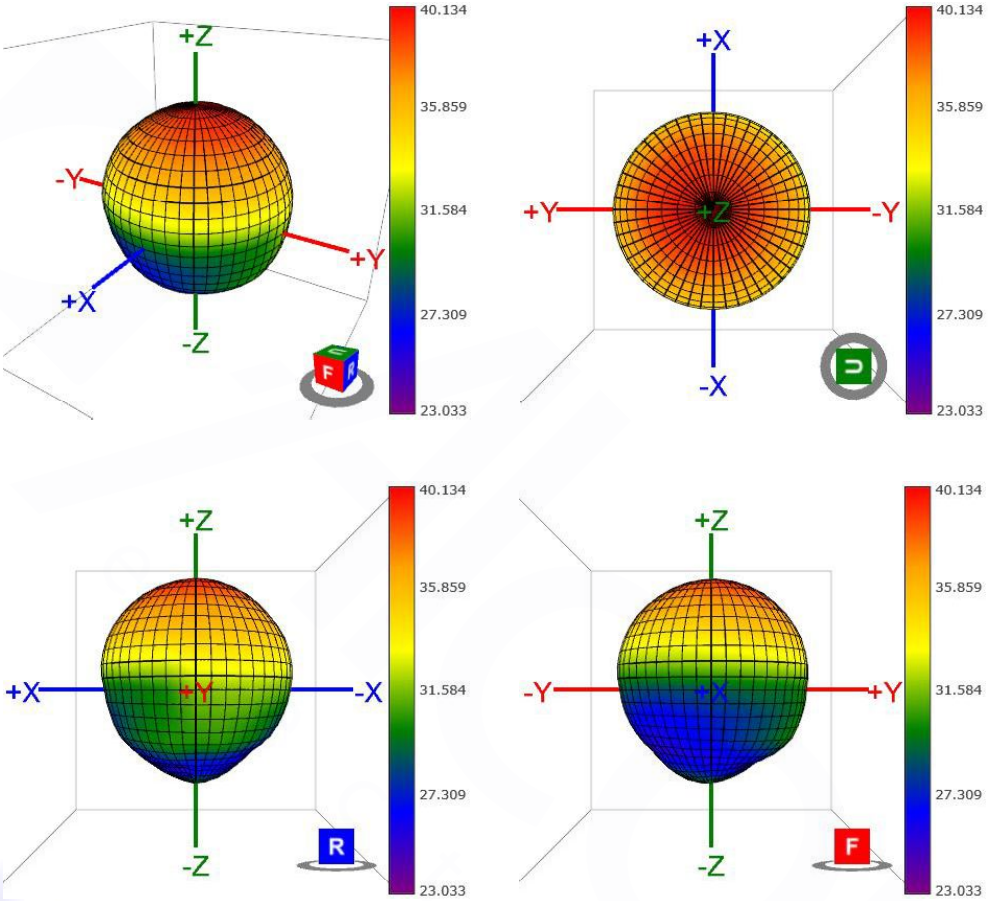
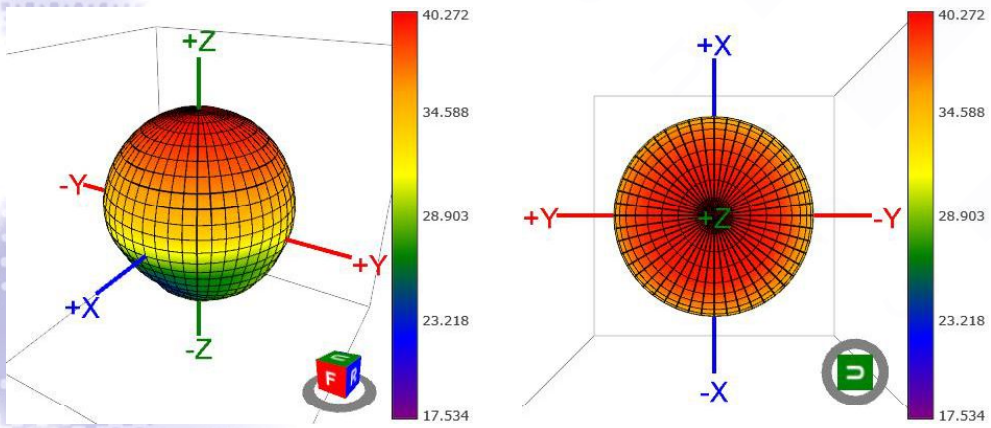
III. 3D Radiation Pattern:

1176MHz (dBi)



1227MHz (dBi)



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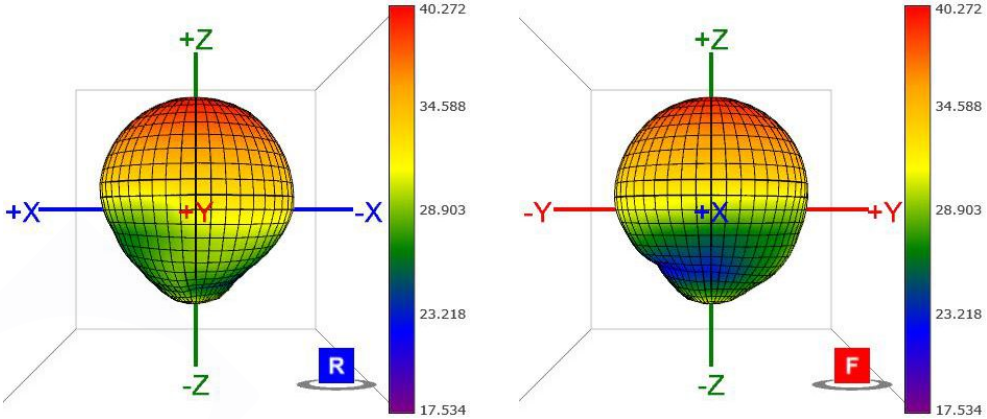
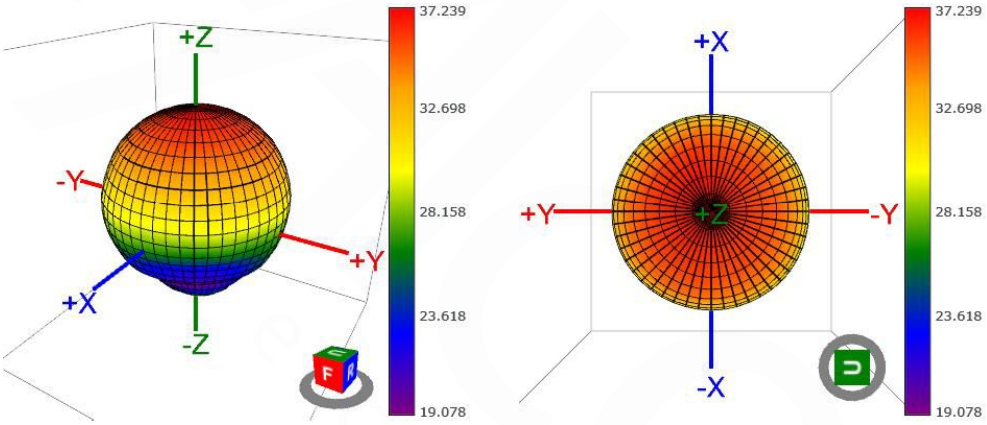
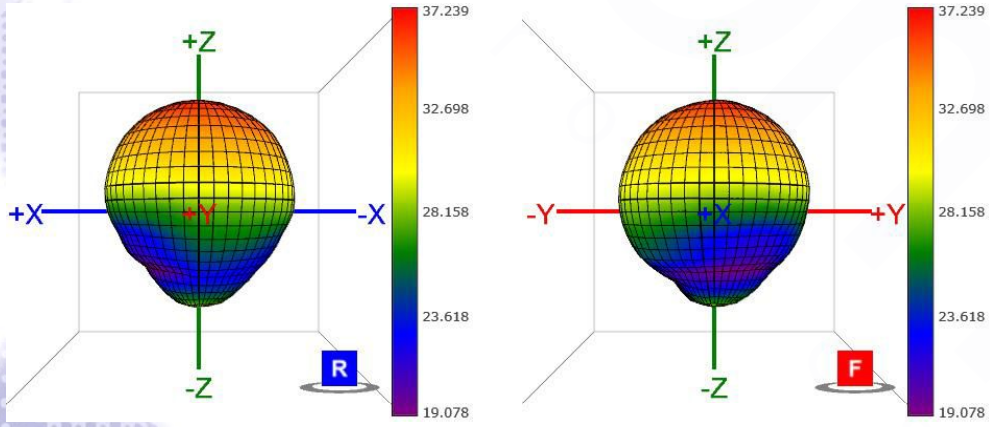


1278MHz (dBi)





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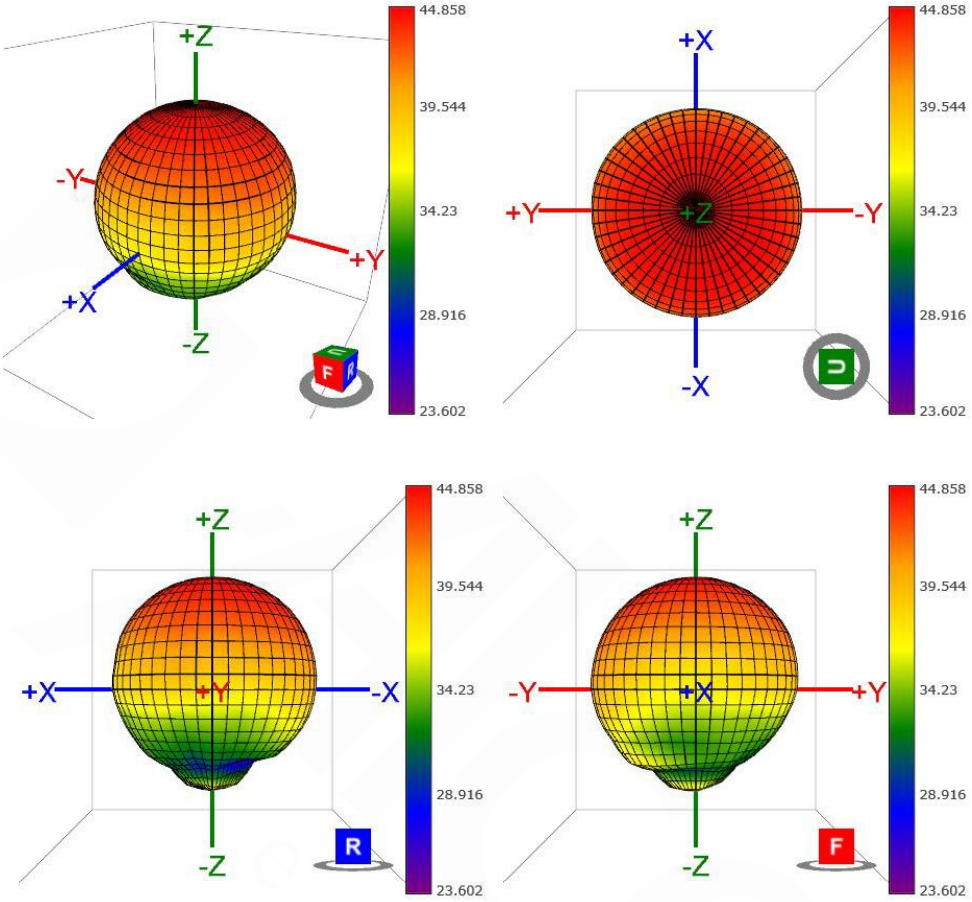
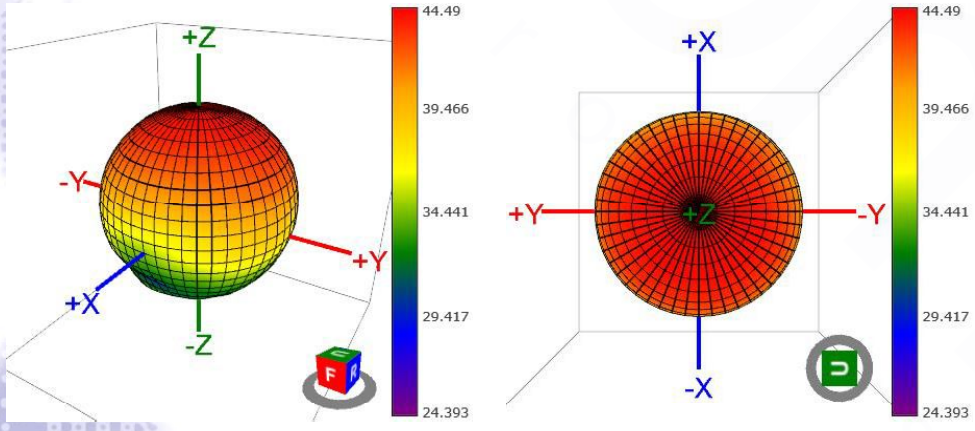
1561MHz (dBi)



1575MHz (dBi)



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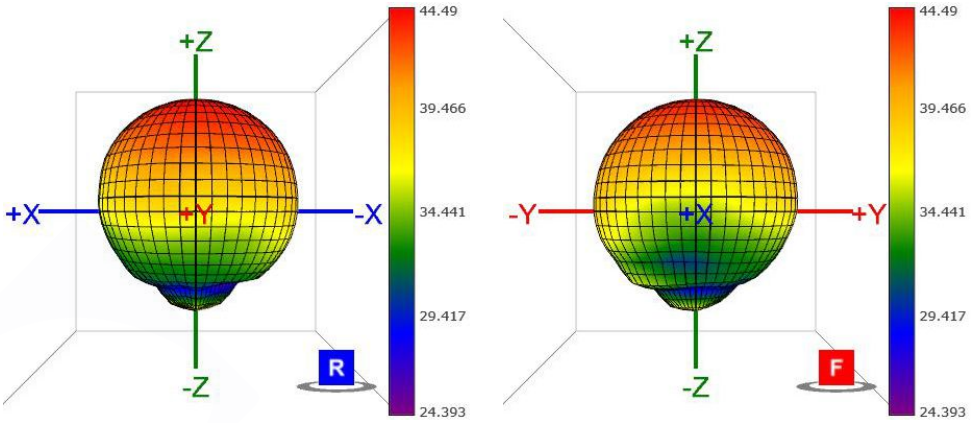
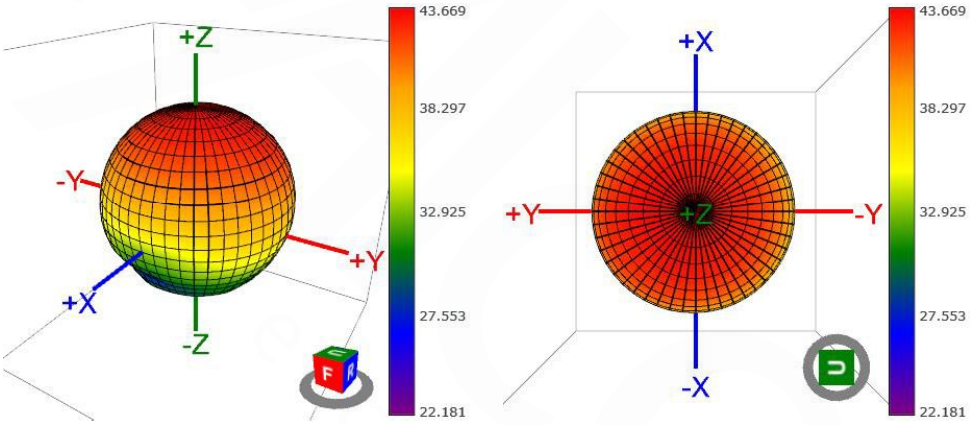
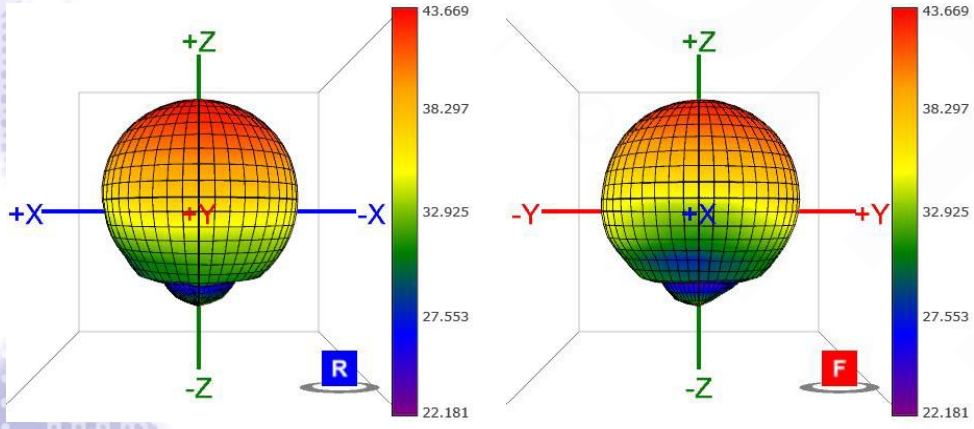


1602MHz (dBi)





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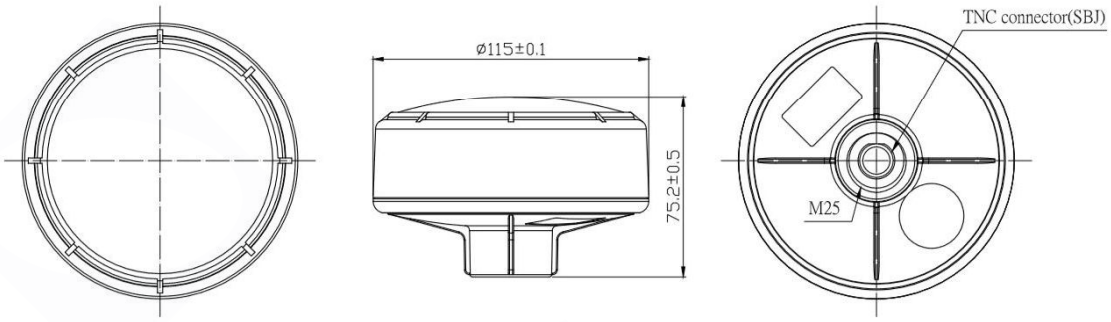
IV. Mechanical Drawing (Unit:mm):



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