

ADA-125H



ADA-125H High-Accuracy GNSS Active Antenna

Feature:

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

Application:

- Geospatial Surveys
- Single & Multiple frequencies RTK positioning
- Vehicle Tracking
- Security Surveillance
- Precise Guidance
- Machine Control / AVL

Specifications:

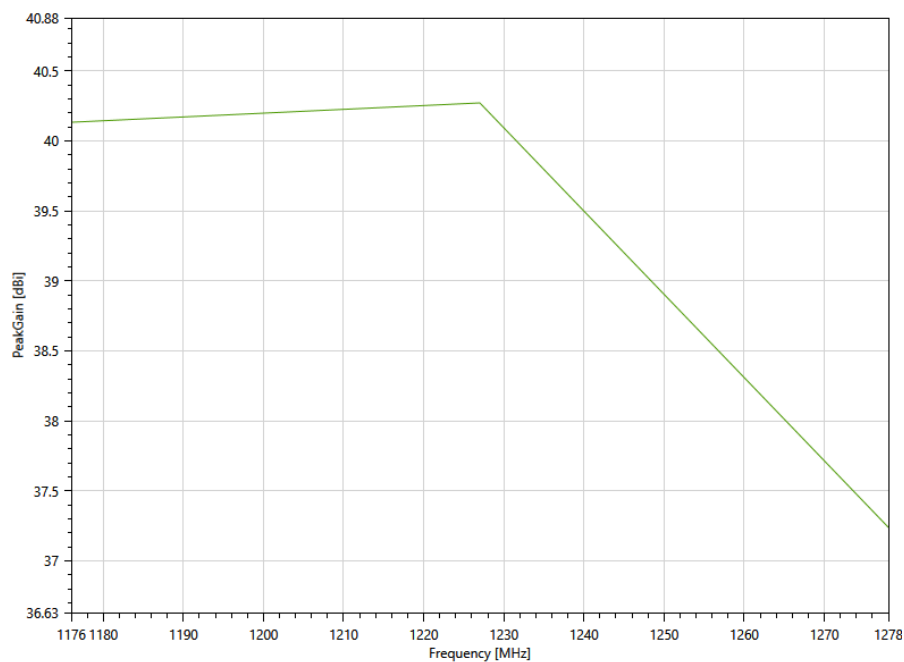
Category	Specifications		
Electrical Characteristics			
GNSS Reception	GPS L1 & GPS L2 / L5 & BD2 B1 & GLONASS L1		
Polarization	R.H.C.P. (Right Handed Circular Polarization)		
Absolute Gain @ Zenith (typical)	1559 ~ 1602 MHz	1227 MHz	1176 MHz
	3 dBi	2.7 dBi	-5.2 dBi
Axial Ratio (typical)	3 dB		
Output V.S.W.R (typical)	2 dB		
Low Noise Amplifier			
Frequency	1561 ~ 1602 MHz	1227 MHz	1176 MHz
Gain (typical)	43 dB	43 dB	45 dB
Noise Figure (typical)	3.6 dB	2.4 dB	1.9 dB
Supply Voltages	3.3 ~ 15 V DC		
Current Consumption (typical)	30 mA @ 5V DC		
Output V.S.W.R	2.0 max.		
Output Impedance	50 Ω		
Overall Specification (Through Patch and LNA)			
Center Frequency	1561 ~ 1602 MHz	1227 MHz	1176 MHz
Gain @ Zenith	46 ± 3 dB	45.7 ± 3 dB	39.8 ± 3 dB
Output V.S.W.R	2.0 max.		
Output Impedance	50 Ω		
Cable and Connector			
Cable	RG-58 (Length is suggested between 3~5M)		
Connector	TNC (SBJ)		
Mount	5/8 inch female thread		
Physical Condition			
Dimension	φ140(D) x 49(H) mm		
Weight	407 g		

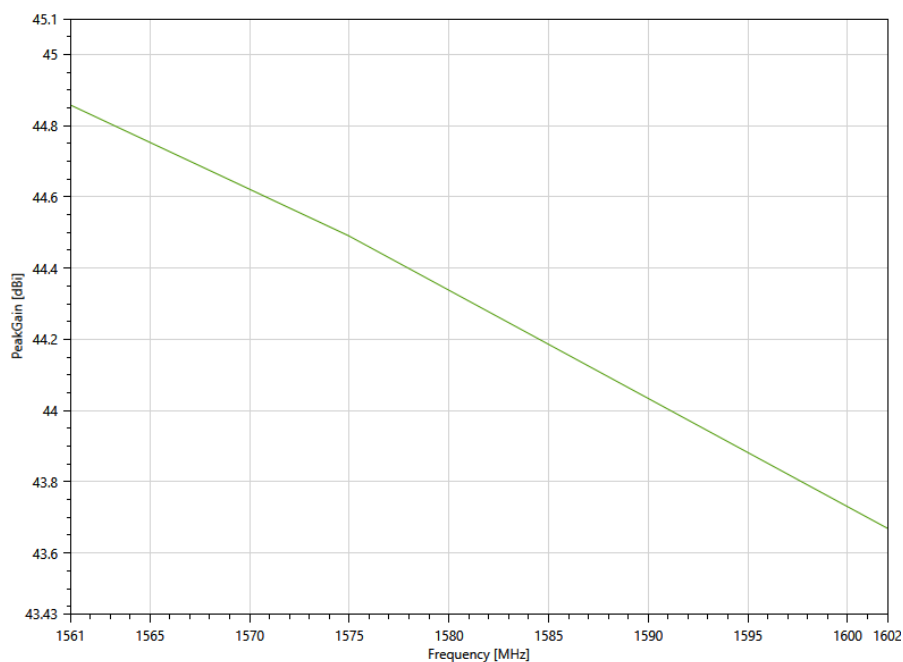
Environmental Conditions	
Operation Temperature	-40~85 °C
Storage Temperature	-40~85 °C
Waterproof Resistant	IP67
Relative Humidity	+40±2 °C, 90~95% R.H
Electronic Discharge	EN61000-4-2: 20KV Air-discharge : 8KV Contact-discharge
Enclosure Rating	IEC 60529 standard: IP67
Solar Radiation	MIL-STD 810E, 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

* This specification is subject to change without prior notice

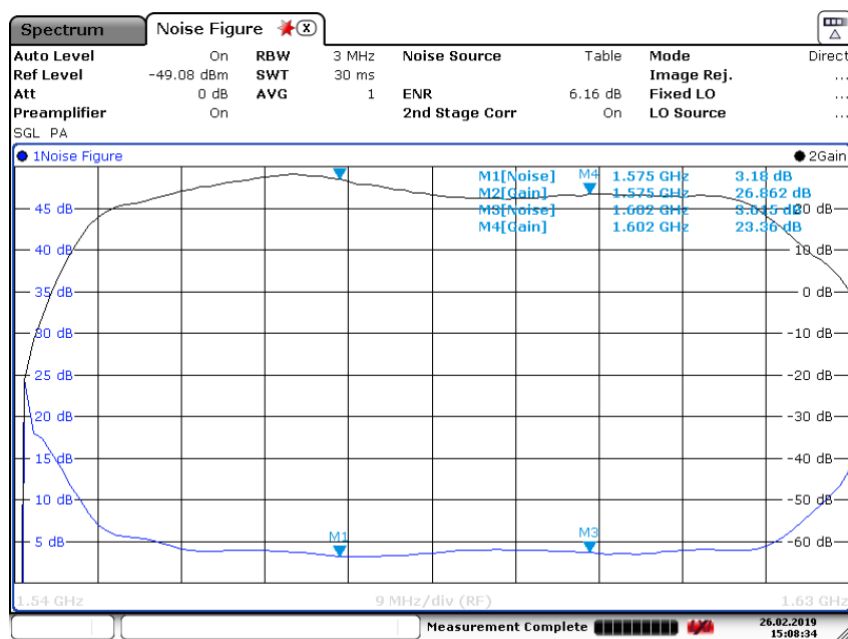
Technical Parameters

1164 MHz ~ 1283 MHz Peak Gain





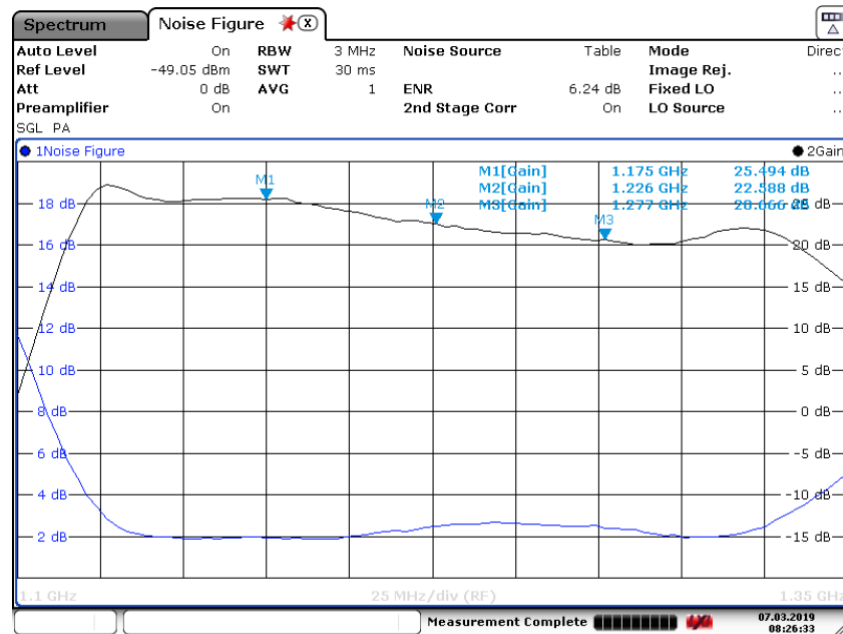
Active Circuit – L1 LNA Gain & N.F Measurement



Date: 26.FEB.2019 15:08:34

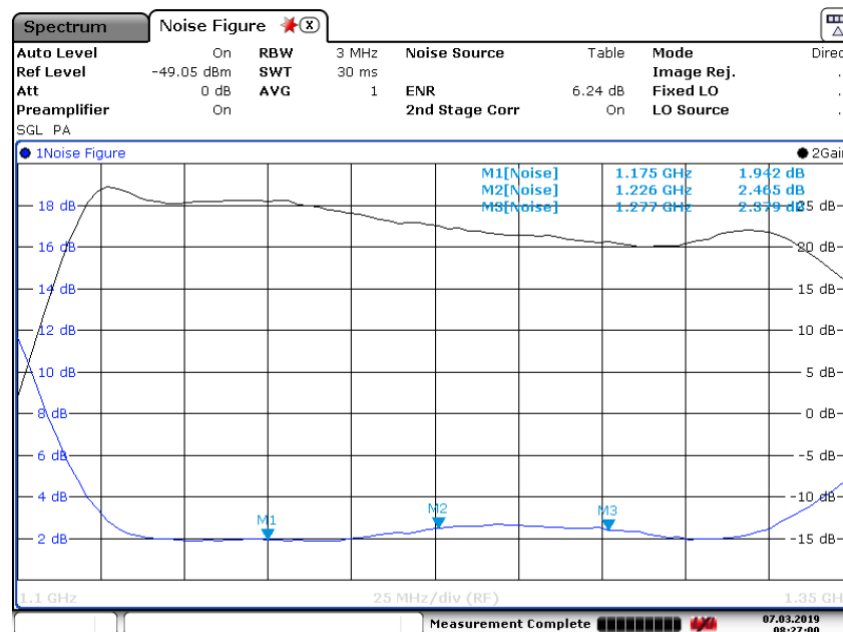
Active Circuit – L2 / L5 LNA Gain Measurement

ADA-125H



Date: 7.MAR.2019 08:26:33

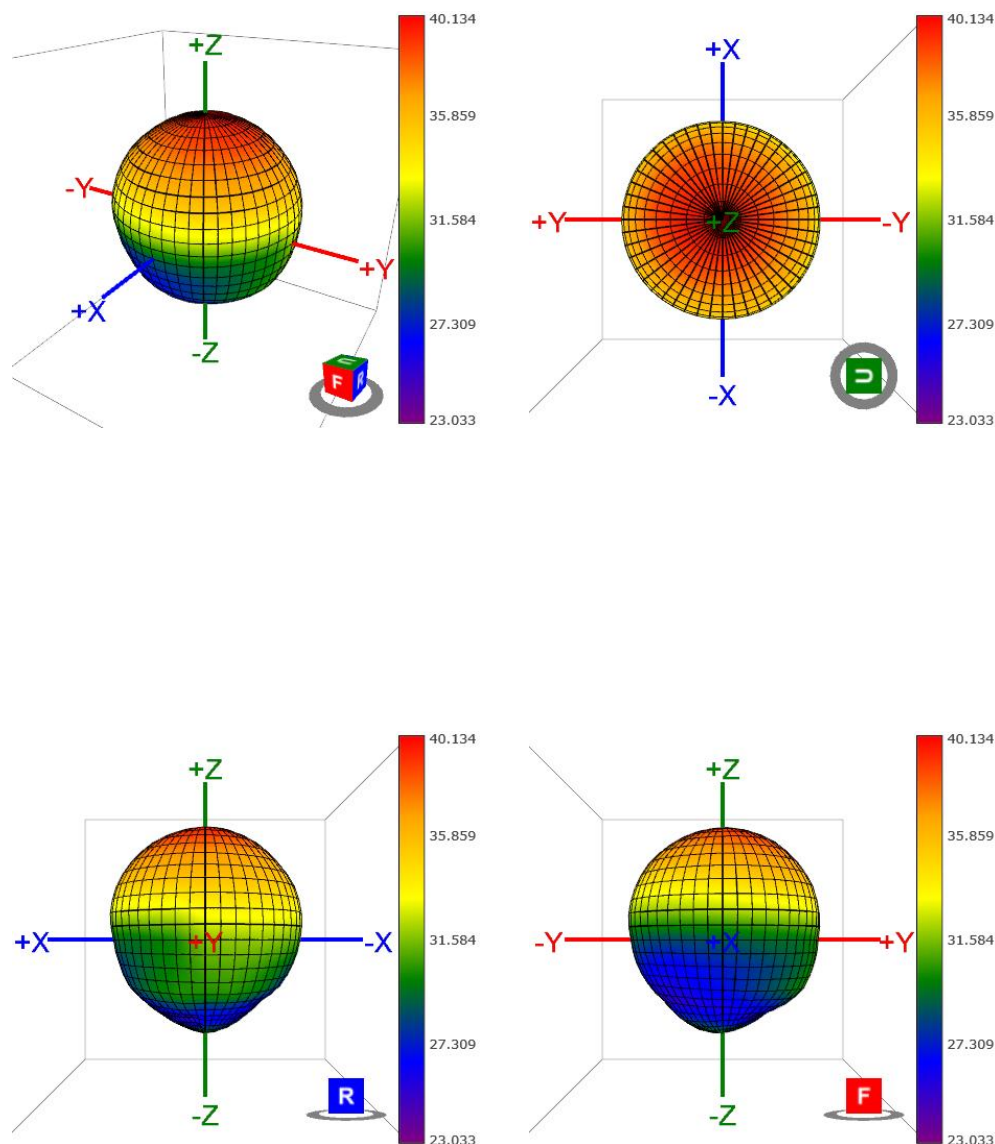
Active Circuit – L2 / L5 N.F Measurement



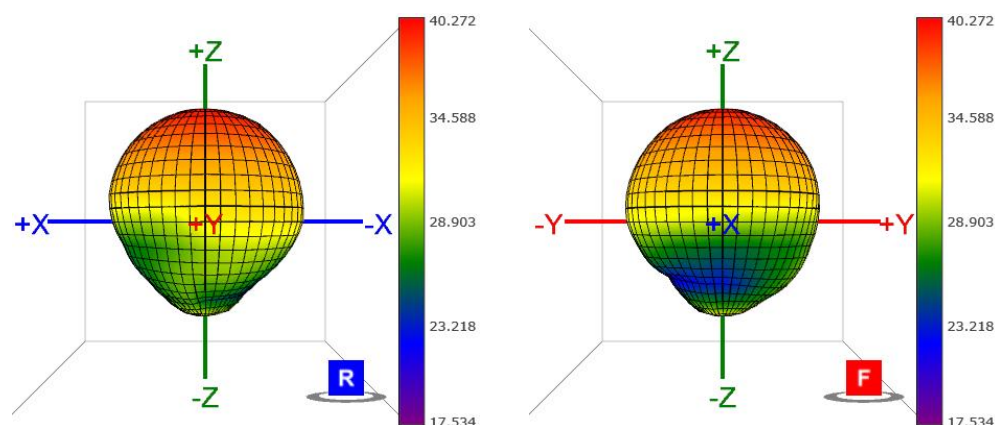
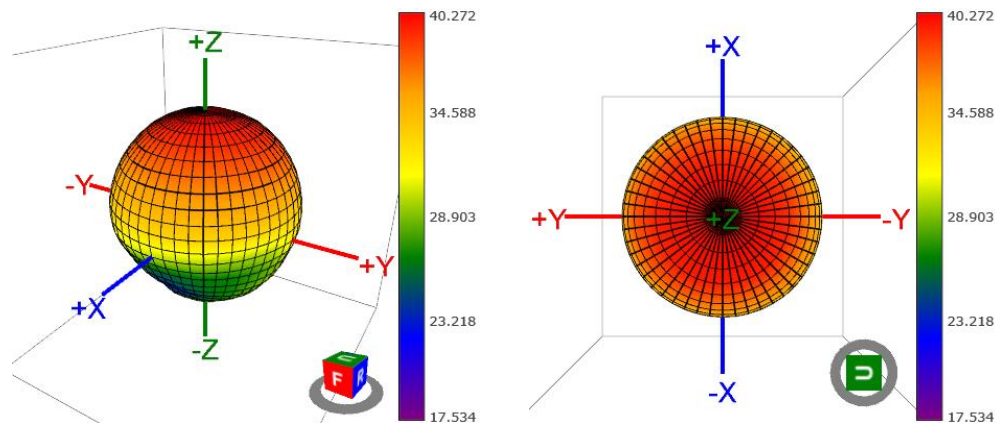
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Radiation Pattern:

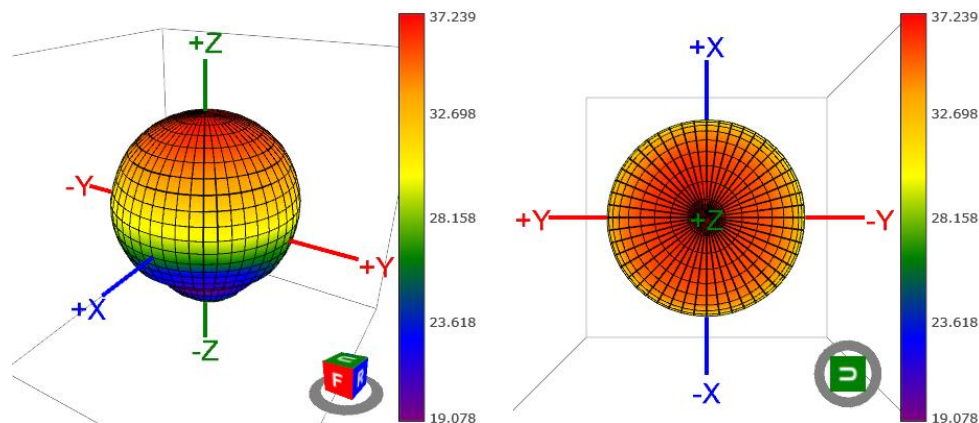
1176MHz (dBi)

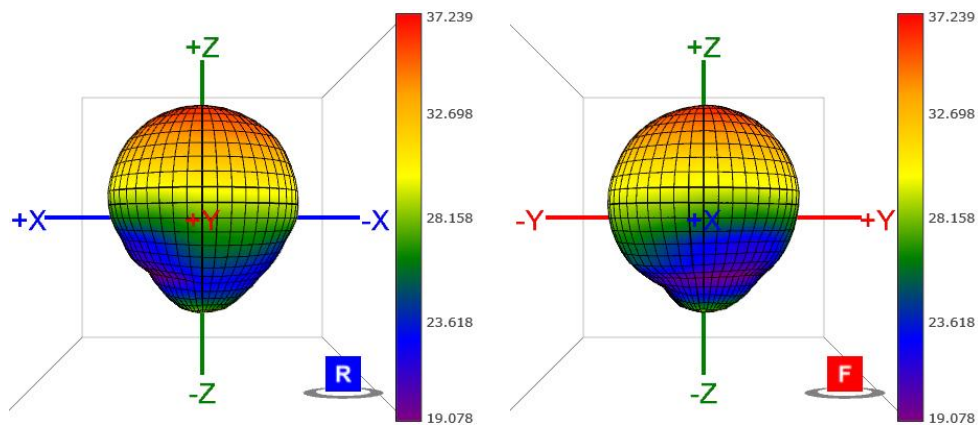


1227MHz (dBi)

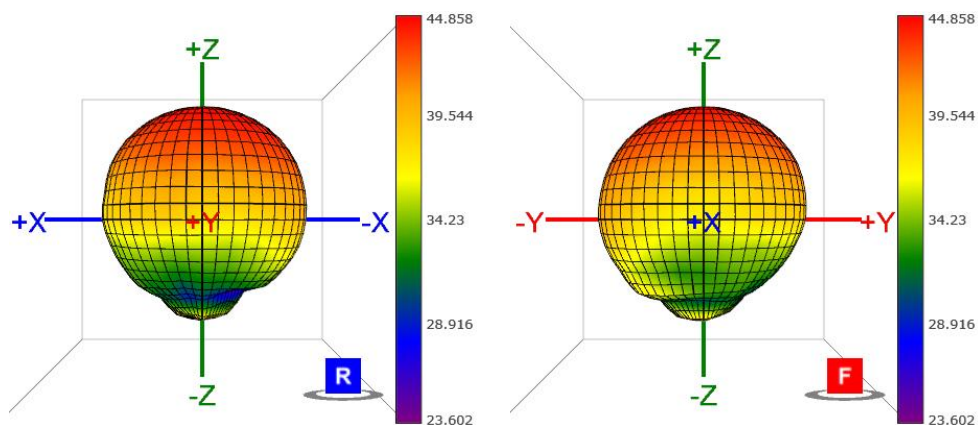
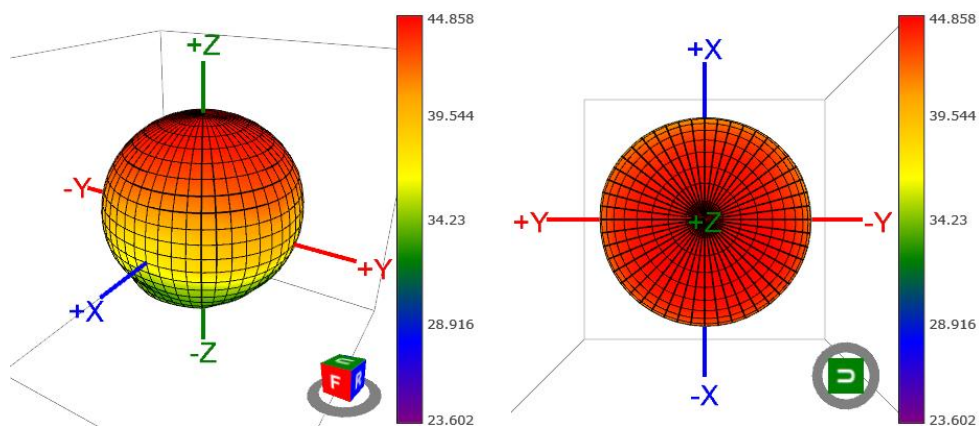


1278MHz (dBi)

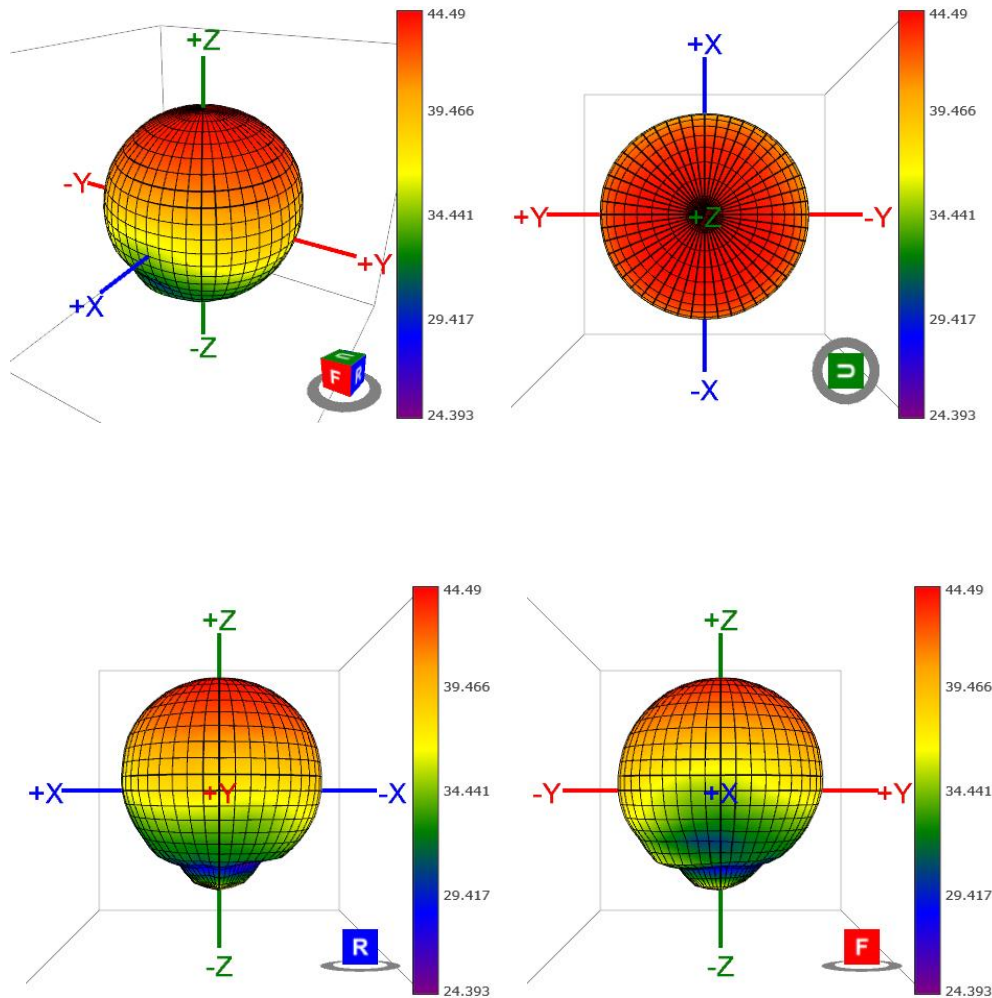




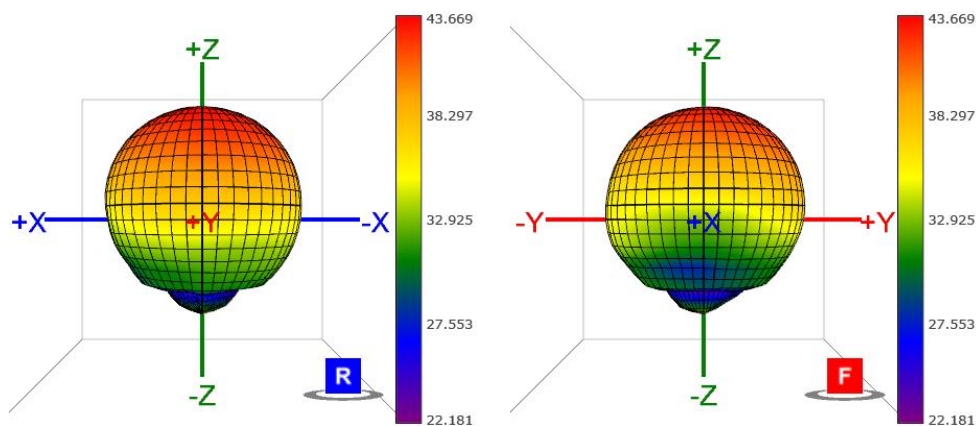
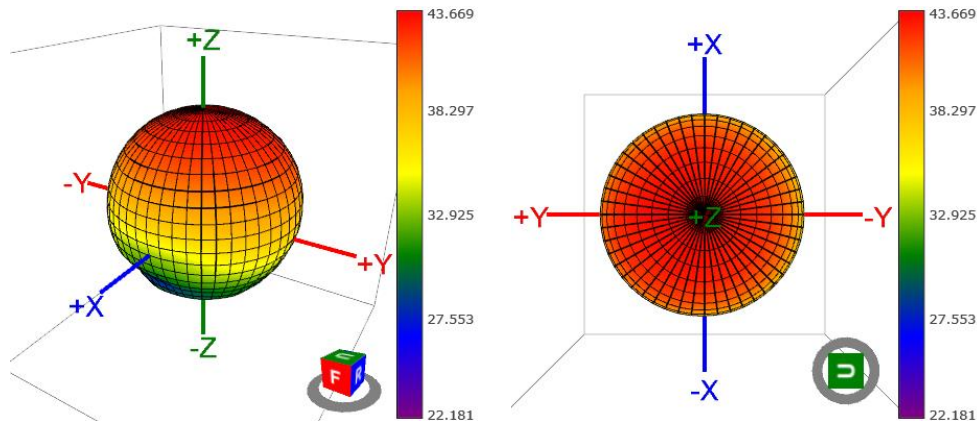
1561MHz (dBi)



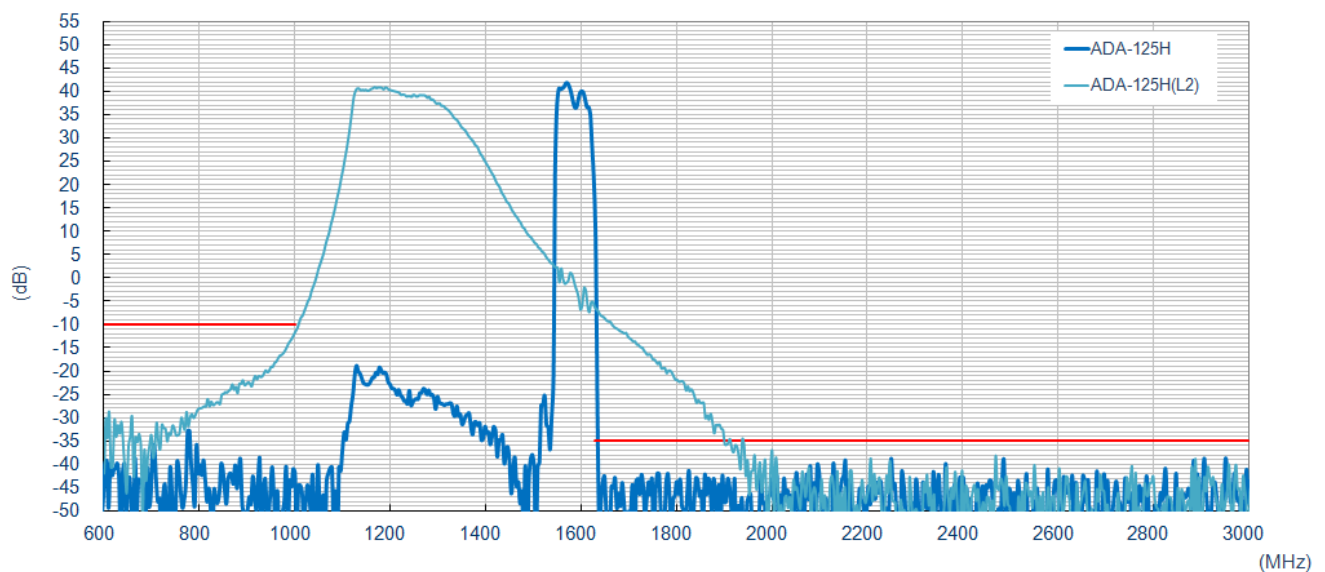
1575MHz (dBi)



1602MHz (dBi)



Out-of-band rejection



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ESD

ESD	
Contact	±8KV
Air	±15KV

Mechanical Drawing (mm):

