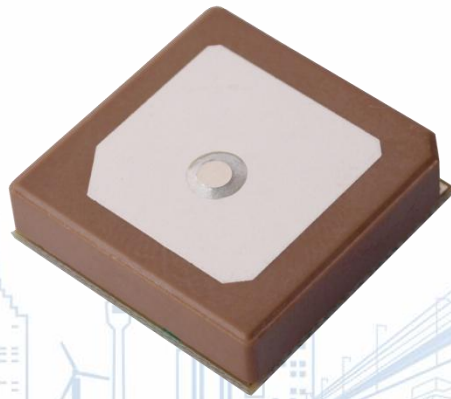




Product Name: High Gain GNSS Active Antenna Module

Part Number: AM-4-B-B01

Features:

- 18 x 18 x 7.9 mm Compact Form Factor
- Dual Satellite Navigation System ,GPS/GLONASS
- 29dB LNA Gain, Exceptionally Low Noise Figure
- Up to 60dB Out-of-Band Suppression

Application:

- GNSS Navigation or Tracking Device

High Gain GNSS Active Antenna Module

MODEL: AM-4-B-B01

WI-RD-D-239 V1.1

I. Specifications:

Items	Specification	
Patch Specification		
Application Bands	GPS	GLONASS
Frequencies Range	1575.42 ± 1.023MHz	1602 ± 5MHz
Efficiency (%)	29.85	42.36
Average Gain (dBi)	-5.25	-3.73
Gain (zenith) (dBi)	0.29	1.95
Polarization	R.H.C.P	
Test Condition	Without housing 18 x 18 <i>mm</i> ² (Ground Plane Dimension)	
VSWR	< 2	
Return loss	< -10	
Impedance	50 Ω	
Filter / LNA Specification		
Frequencies Range	1575.42 ± 1.023MHz	1602 ± 5MHz
Gain	29±2 dB	29±2 dB
Noise Figure	2.5dB typ.	
Output V.S.W.R	< 2	
Operation Voltage	3.0~5.0 V	
Current	10±2 mA	
GNSS _Out of Band Rejection		
Frequencies (MHz)	600~1500	1660~3000
Out of Band Rejection (dB)	60	60

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All specifications subject to change without notice.

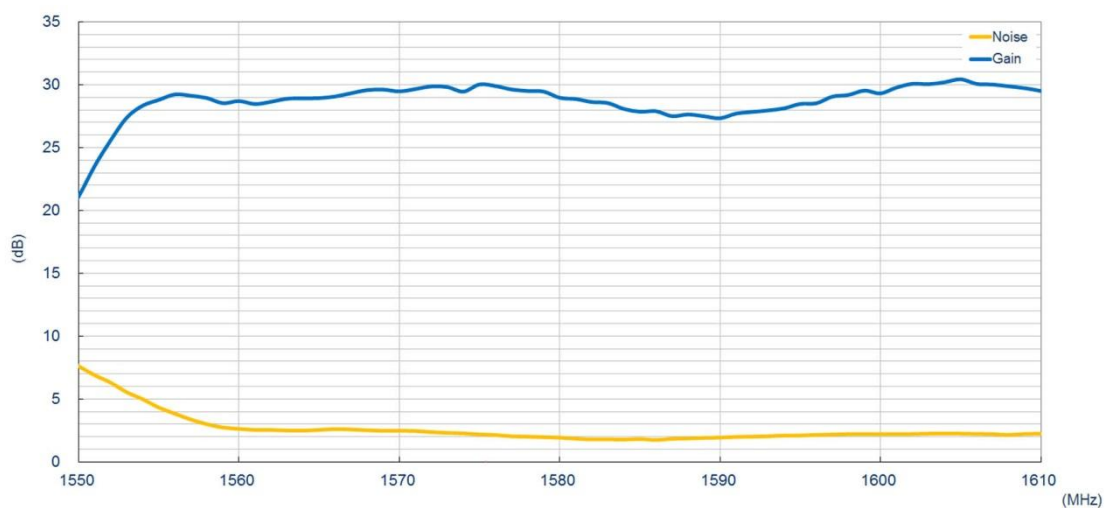
Overall Specification (Through Antenna , LNA , without cable loss)		
Frequencies Range	1575.42 ± 1.023MHz	1602 ± 5MHz
Zenith Gain	29.4±2 dB	29.2±2 dB
Output Impedance	50 Ω	
Output V.S.W.R	< 2	
Operation Voltage	3.0~5.0 V	
Current	10±2 mA	
Dimension	18 x 18 x 7.9 mm	
ESD Protection	±8 KV (direct discharge) ±15KV (air discharge)	
Operation Temperature	-40 ~ +85 °C	
Storage Temperature	-40 ~ +85 °C	

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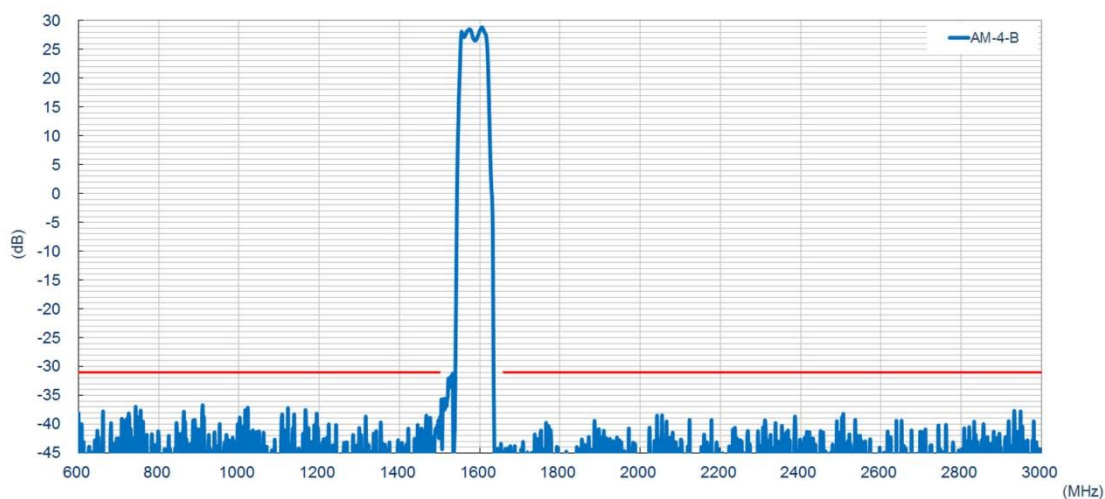
II. Analysis Antenna Performance:

● Active antenna performance

GNSS_Noise & gain :

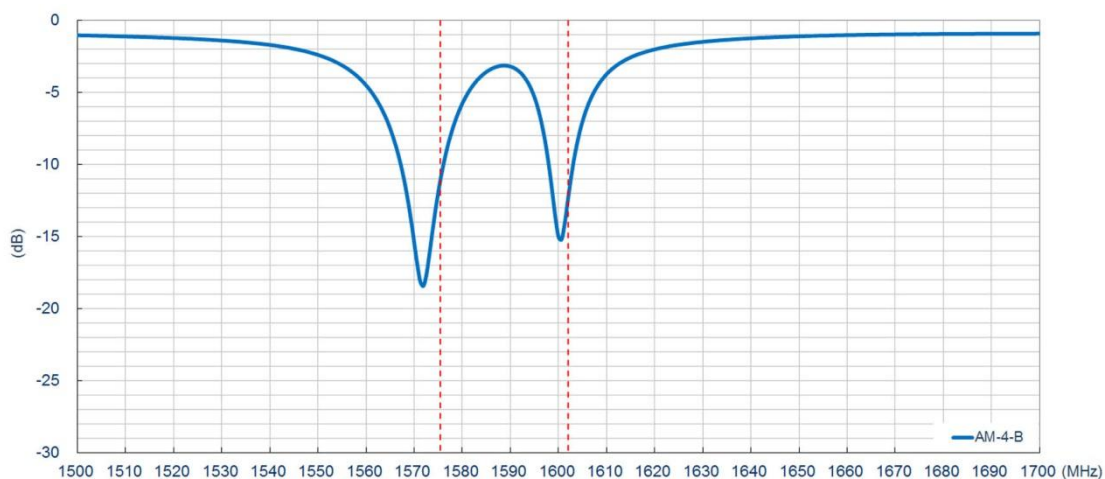


GNSS _Out of Band Rejection :

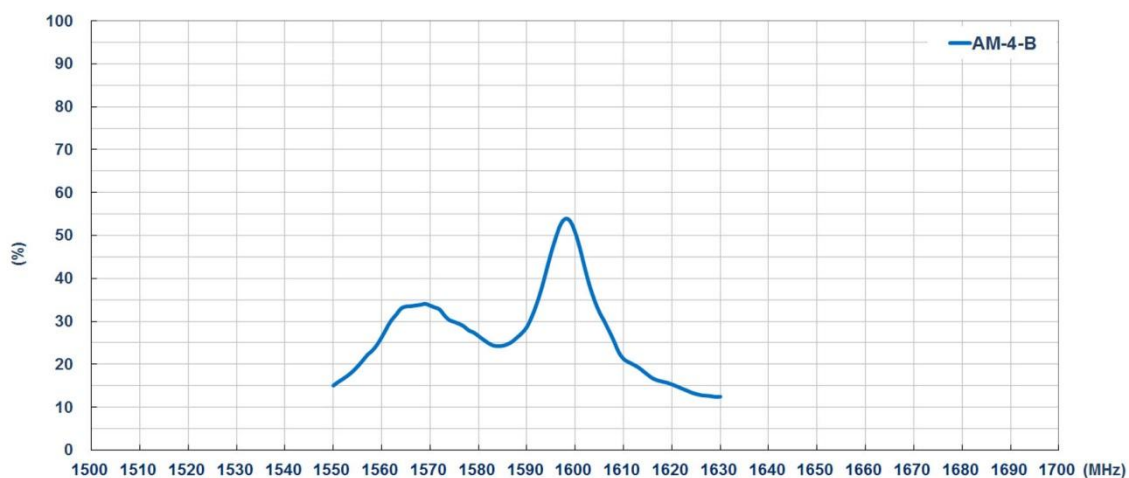


- **Passive antenna performance**

S-parameters:

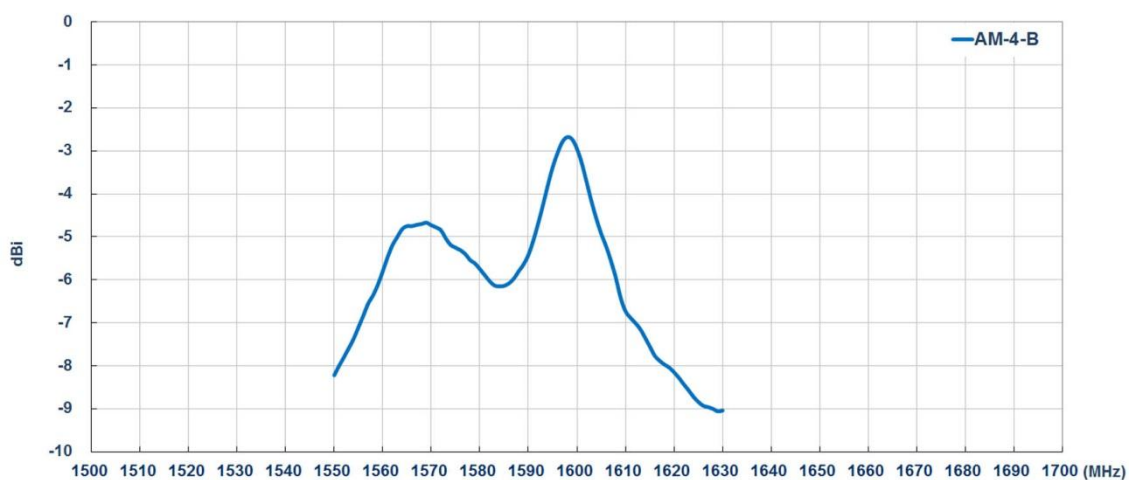


Efficiency:

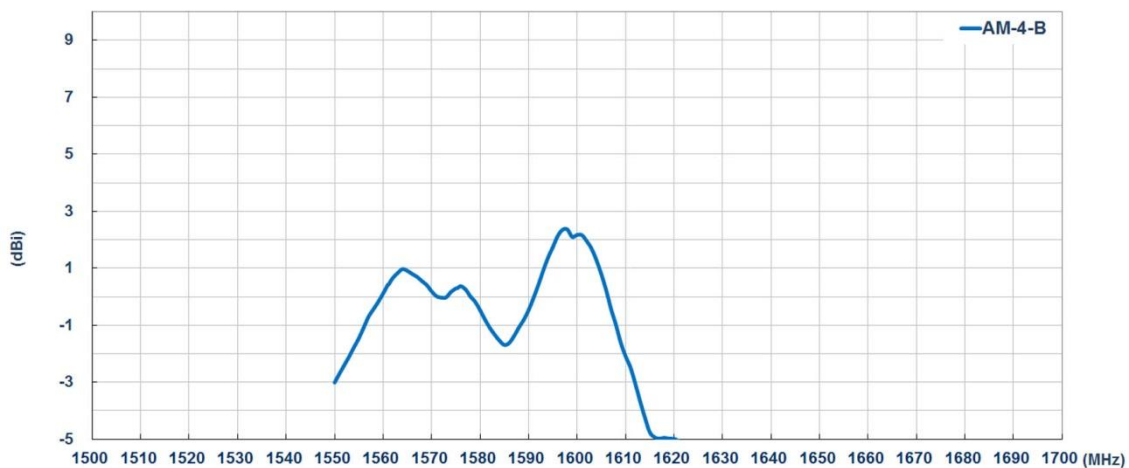


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Average Gain:

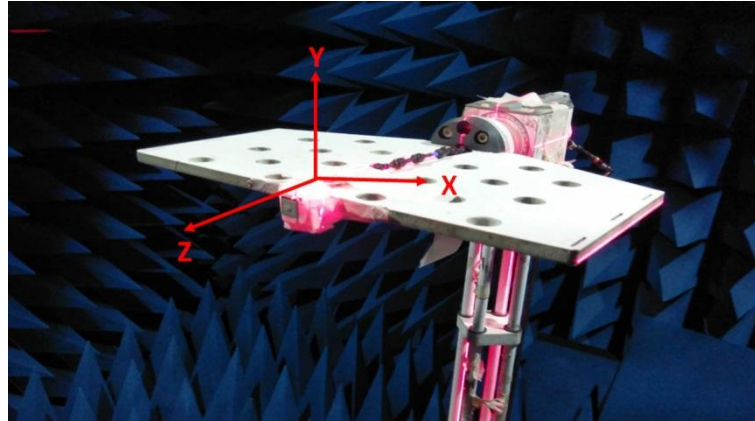


Peak Gain

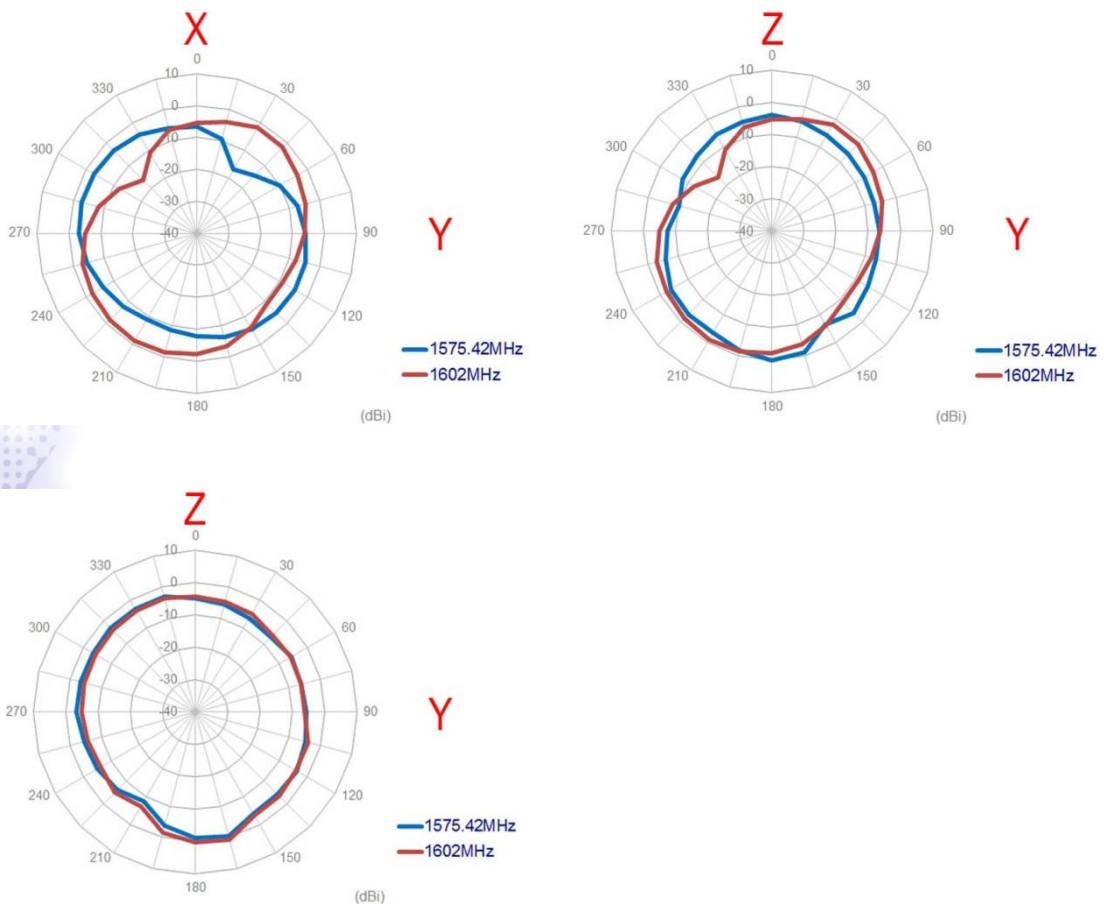


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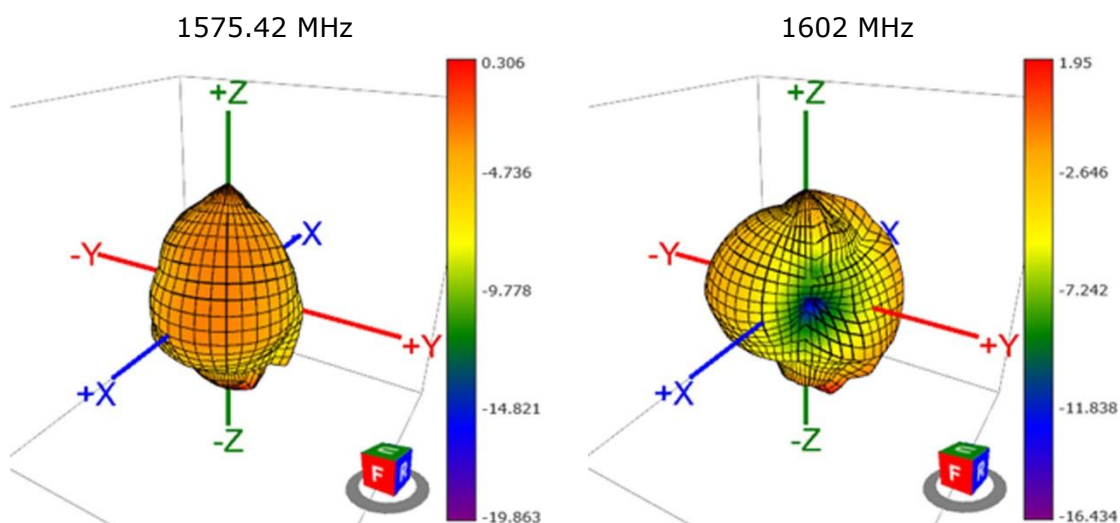
III. Antenna Radiation Pattern Measurement:



2D radiation pattern :



3D radiation pattern :



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IV. Mechanical Drawing (Unit:mm):

