

## 1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	1164-1286MHz, 1525-1615MHz
Supported Positioning signal bands	GPS: L1/L2/L5 BDS: B1/B2/B3 GLONASS: G1/G2/G3 Galileo: E1/E5a/E5b L-Band
Peak Gain	≥4dBi@FC,with 100mm ground plane
Impedance	50Ohm
Polarization	RHCP
Axial Ratio	≤1.5 dB
Azimuth Coverage	360°
B. LNA and Filter Electrical Properties	
LNA Gain	35±2dBi(Typ.@25°C)
P-1out	≥5dBm
Noise Figure	≤2.0dB@25°C,Typ.(Pre-filtered)
Output VSWR	≤1.5 : 1Typ. 2.0 : 1 Max
Operation Voltage	3-6 V DC
Operation Current	≤45mA
ESD circuit protection	15KV air discharge
Out-of-Band Rejection	L5/E5/L2/G2/B2 <div style="display: flex; justify-content: space-between;"> <span>&lt; 1050MHz: &gt; 55dB</span> <span>&gt; 30dB</span> </div> <div style="display: flex; justify-content: space-between;"> <span>&lt; 1125MHz: &gt; 30dB</span> </div>



Product Number: BGS-GPS1575-1197627W

Product Name: Multi-Band GNSS antenna 35dBi

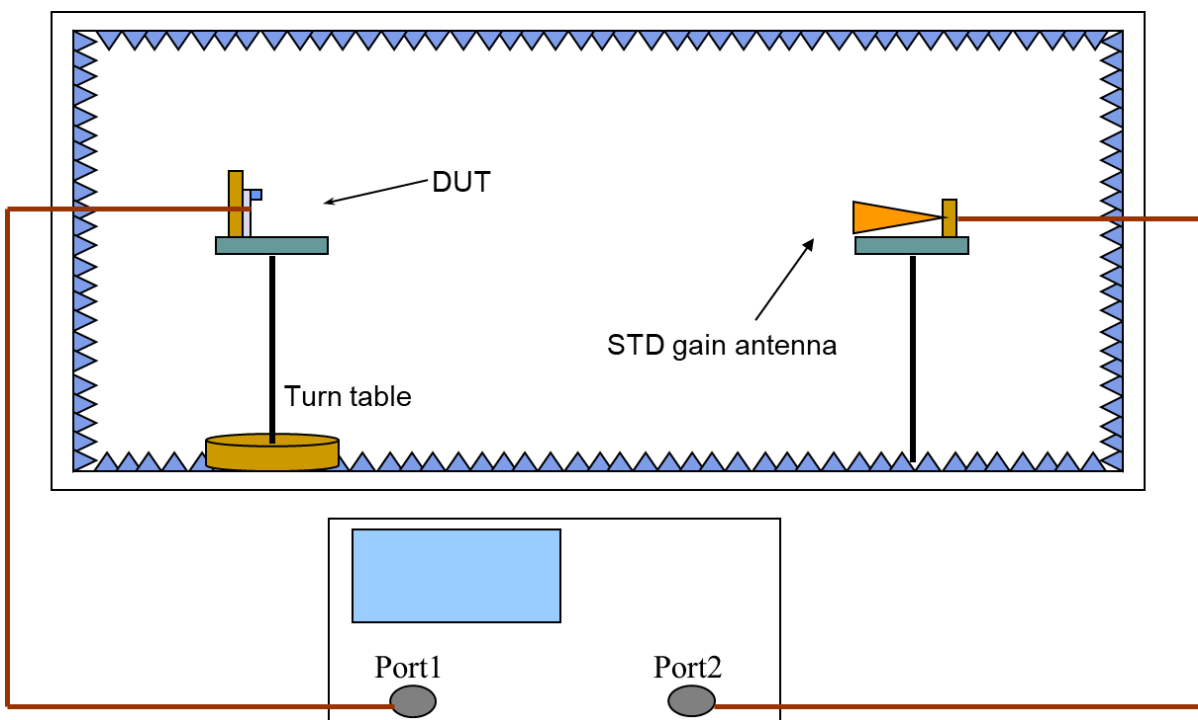
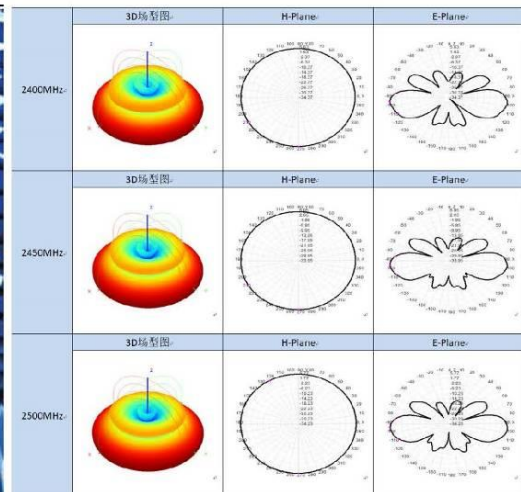
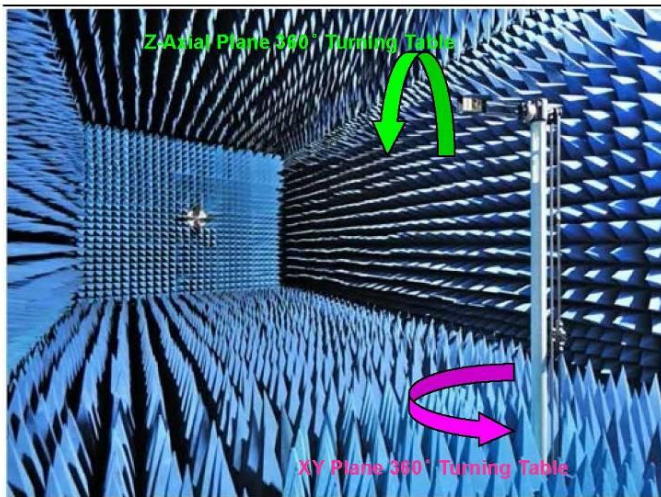
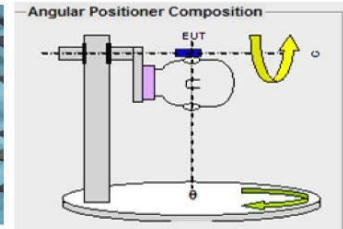
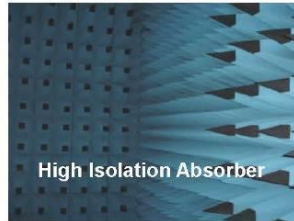
		< 1350MHz:	> 45dB
		< 1450MHz:	> 40dB
	L1/E1/B1/G1	< 1690MHz:	> 40dB
		< 1730MHz:	> 45dB
<b>C. Material &amp; Mechanical Characteristics</b>			
Connector Type	TNC connector		
Dimension	Φ 119x76x27mm		
Radome material	PC+ABS		
Base	Aluminum alloy 6061-T6		
Attachment Method	Four screw holes		
Waterproof	IP67		
Weight	0.2Kg		
<b>C. Environmental</b>			
Operation Temperature	- 40 °C ~ + 85 °C		
Storage Temperature	- 40 °C ~ + 85 °C		
Humidity	≤95%		
Vibration	3 axis sweep = 15 min, 10 to 200Hz sweep: 3G		
Shock	Vertical axis:50G, other axes:30G		

## Test Equipment & Conditions

1. Network Analyzer: Keysight E5071C

2. 3D Chamber Test System

- .Chamber Size: 9 x 5 x 4 m<sup>3</sup>
- .Freq. Range: 0.4 ~ 18.0 GHz
- .Double Ridge Horn Antenna
- .VNA: Agilent E5071C
- .3D Turning Table and Positioner
- .ADT Solution 3D Testing Software

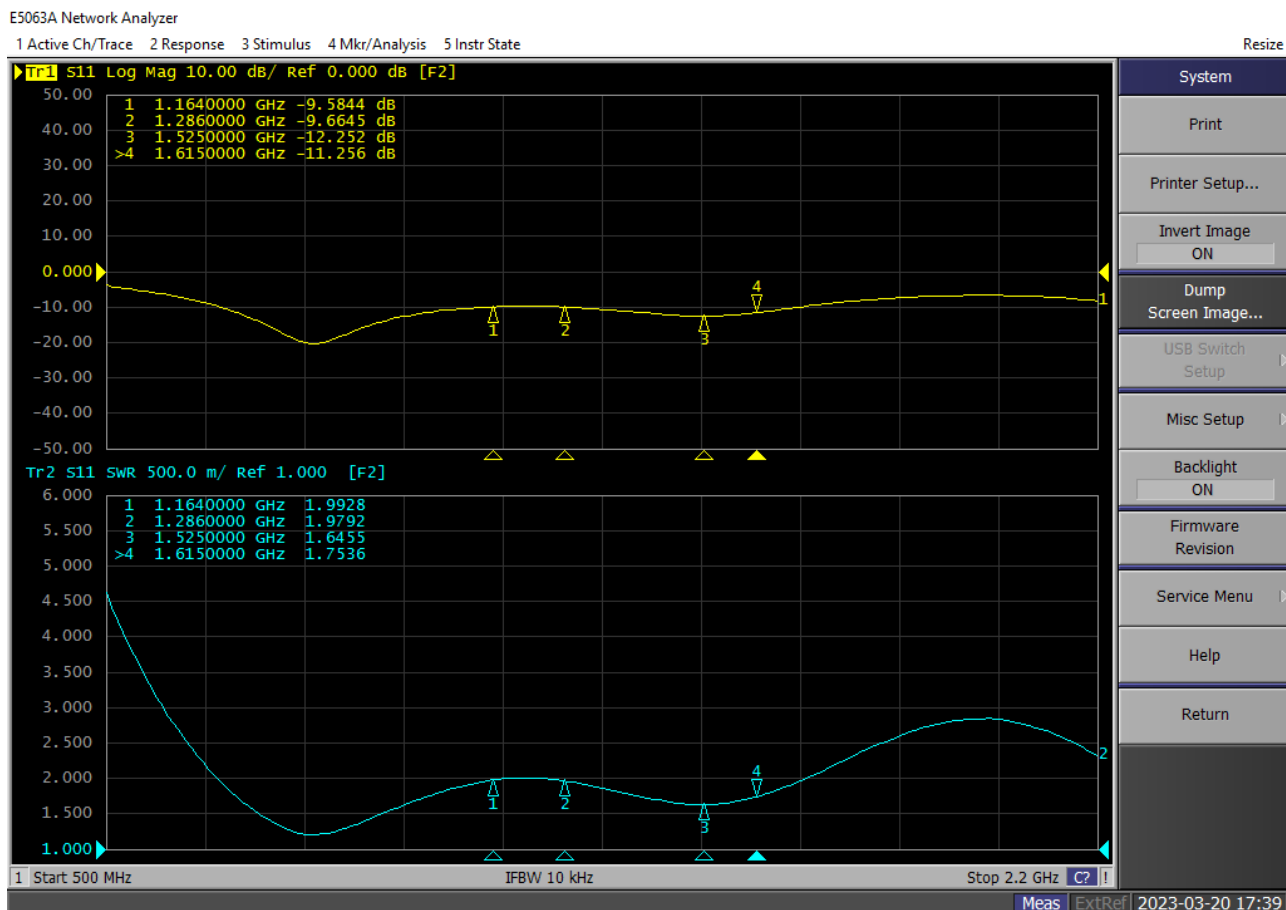




Product Number: BGS-GPS1575-1197627W  
Product Name: Multi-Band GNSS antenna 35dBi

## 2. Antenna - S Parameter Test Data

### 2.1 VSWR





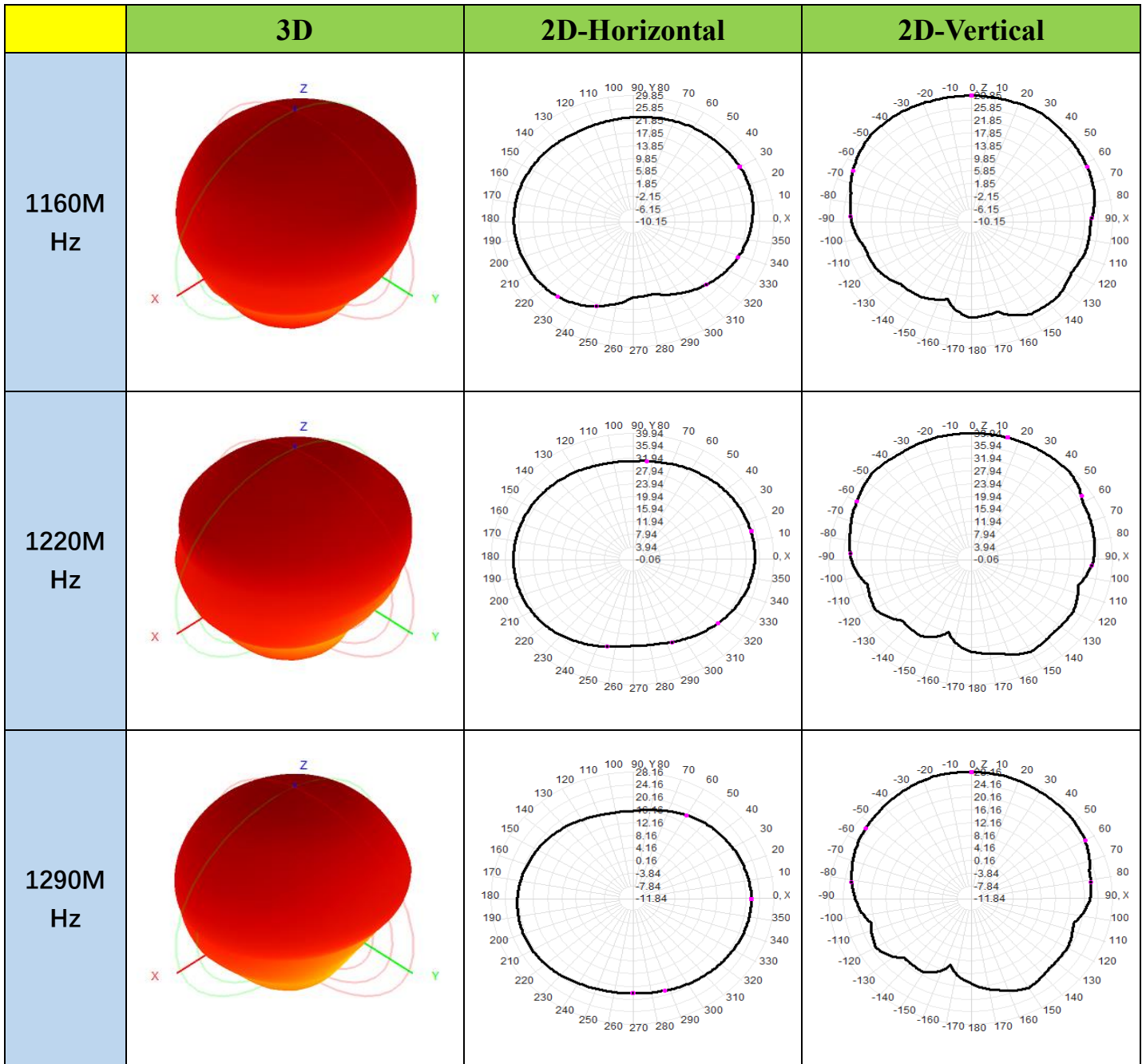
Product Number: BGS-GPS1575-1197627W  
Product Name: Multi-Band GNSS antenna 35dBi

## 2.2 LNA Gain:

Frequency (MHz)	Gain (dBi)	Frequency (MHz)	Gain (dBi)
1160.0	29.96	1525.0	33.85
1165.0	32.24	1530.0	34.59
1170.0	33.83	1535.0	35.53
1175.0	34.93	1540.0	36.57
1180.0	35.83	1545.0	37.12
1185.0	36.61	1550.0	37.41
1190.0	37.45	1555.0	37.99
1195.0	37.91	1560.0	38.45
1200.0	38.26	1565.0	38.48
1205.0	38.62	1570.0	38.10
1210.0	39.17	1575.0	37.95
1215.0	39.71	1580.0	37.80
1220.0	40.10	1585.0	37.48
1225.0	40.16	1590.0	36.98
1230.0	40.01	1595.0	36.66
1235.0	39.46	1600.0	36.34
1240.0	38.86	1605.0	35.86
1245.0	37.95	1610.0	35.27
1250.0	37.10	1615.0	34.79
1255.0	36.09		
1260.0	35.15		
1265.0	34.02		
1270.0	33.12		
1275.0	32.16		
1280.0	31.06		
1285.0	29.81		
1290.0	28.17		



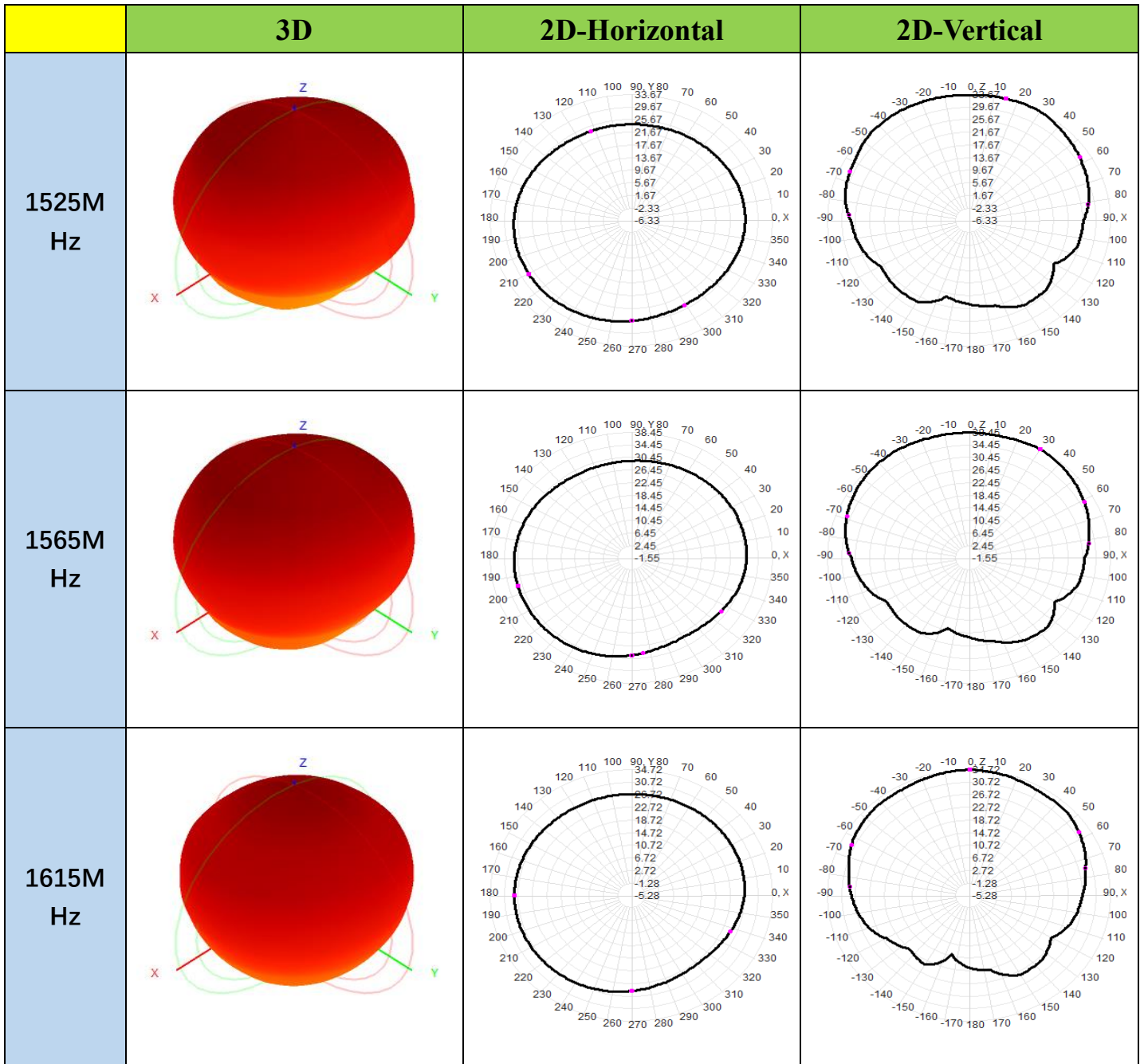
### 2.3 Radiation Pattern







Product Number: BGS-GPS1575-1197627W  
 Product Name: Multi-Band GNSS antenna 35dBi





Product Number: BGS-GPS1575-1197627W  
 Product Name: Multi-Band GNSS antenna 35dBi

### 3. Mechanical Drawing

