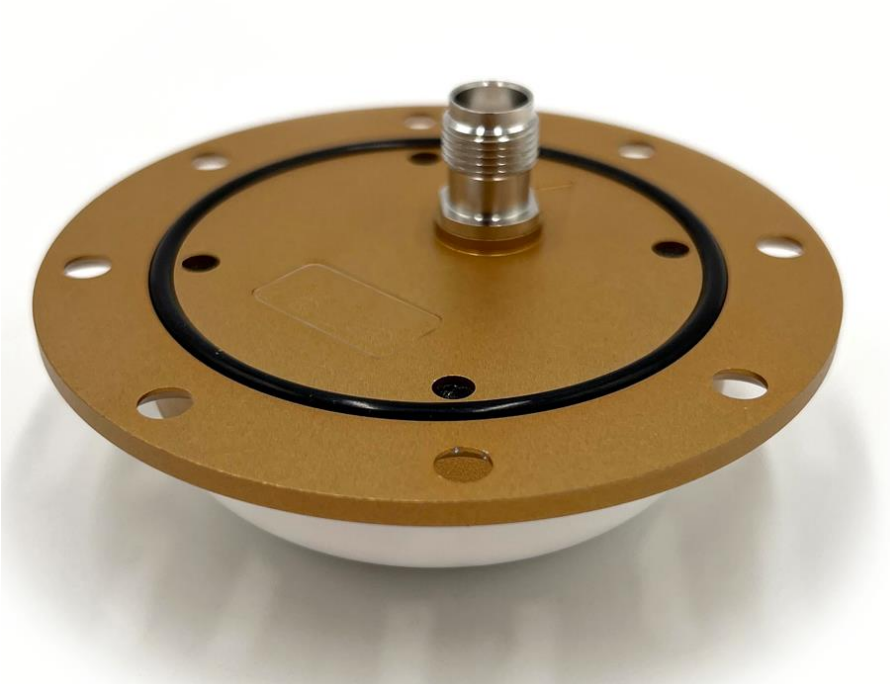


1. Specification

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	38±2dBi(Typ.@25°C)
Noise Figure	≤2.0dB@25°C, Typ.(Pre-filtered)
Output VSWR	≤1.5 : 1Typ. 2.0 : 1 Max
Operation Voltage	3-16 V DC
Operation Current	≤45mA
ESD circuit protection	15KV air discharge



Product Number: BGS-GPS1575-9027W

Product Name: Multi-Band GNSS antenna 38dBi

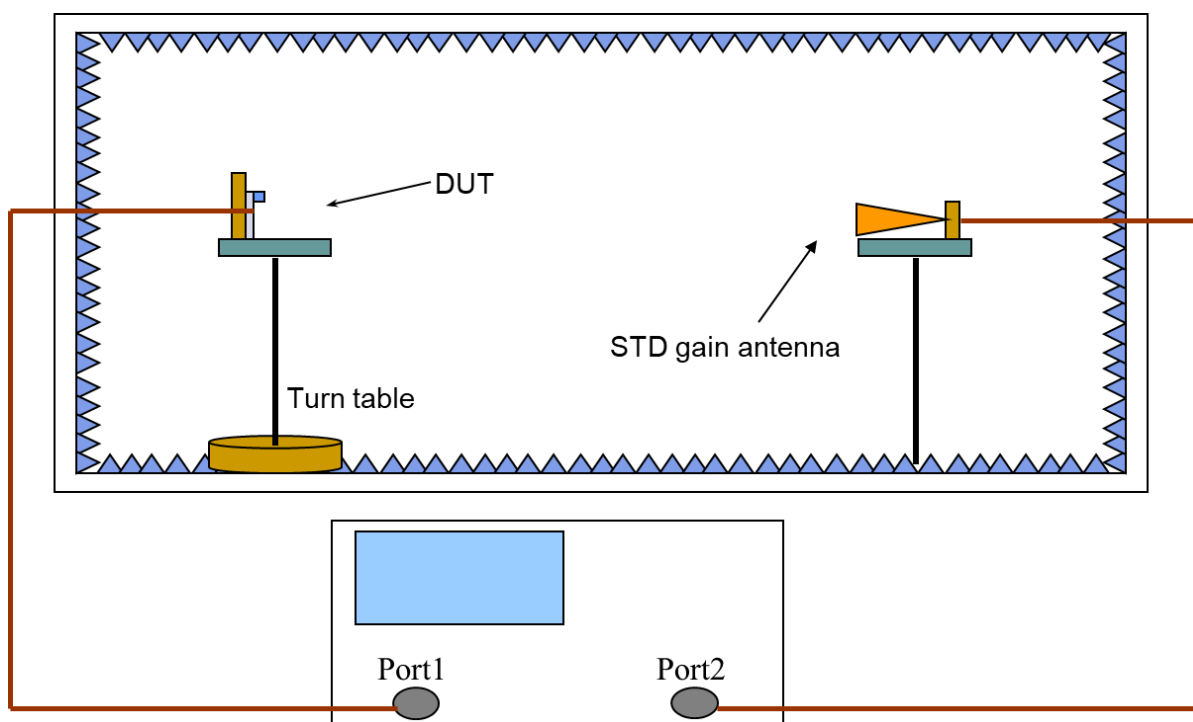
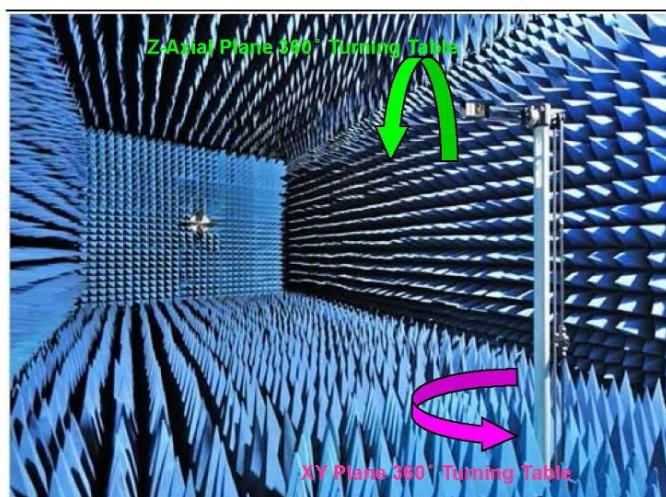
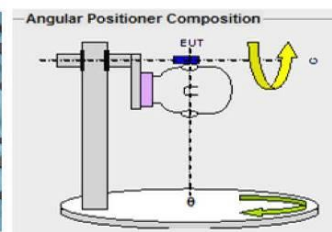
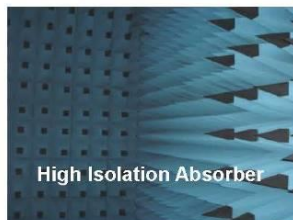
Out-of-Band Rejection	L5/E5/L2/G2/B2	< 1050MHz: > 55dB < 1125MHz: > 30dB < 1350MHz: > 45dB
	L1/E1/B1/G1	< 1450MHz: > 40dB < 1690MHz: > 40dB < 1730MHz: > 45dB
C. Material & Mechanical Characteristics		
Connector Type	TNC connector	
Dimension	Φ 90x27mm	
Radome material	PC+ABS	
Base	Aluminum alloy 6061-T6	
Attachment Method	Four screw holes	
Waterproof	IP67	
Weight	0.15Kg	
C. Environmental		
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 m³
- .Freq. Range: 0.4 ~ 18.0 GHz
- .Double Ridge Horn Antenna
- .VNA: Agilent E5071C
- .3D Turning Table and Positioner
- .ADT Solution 3D Testing Software

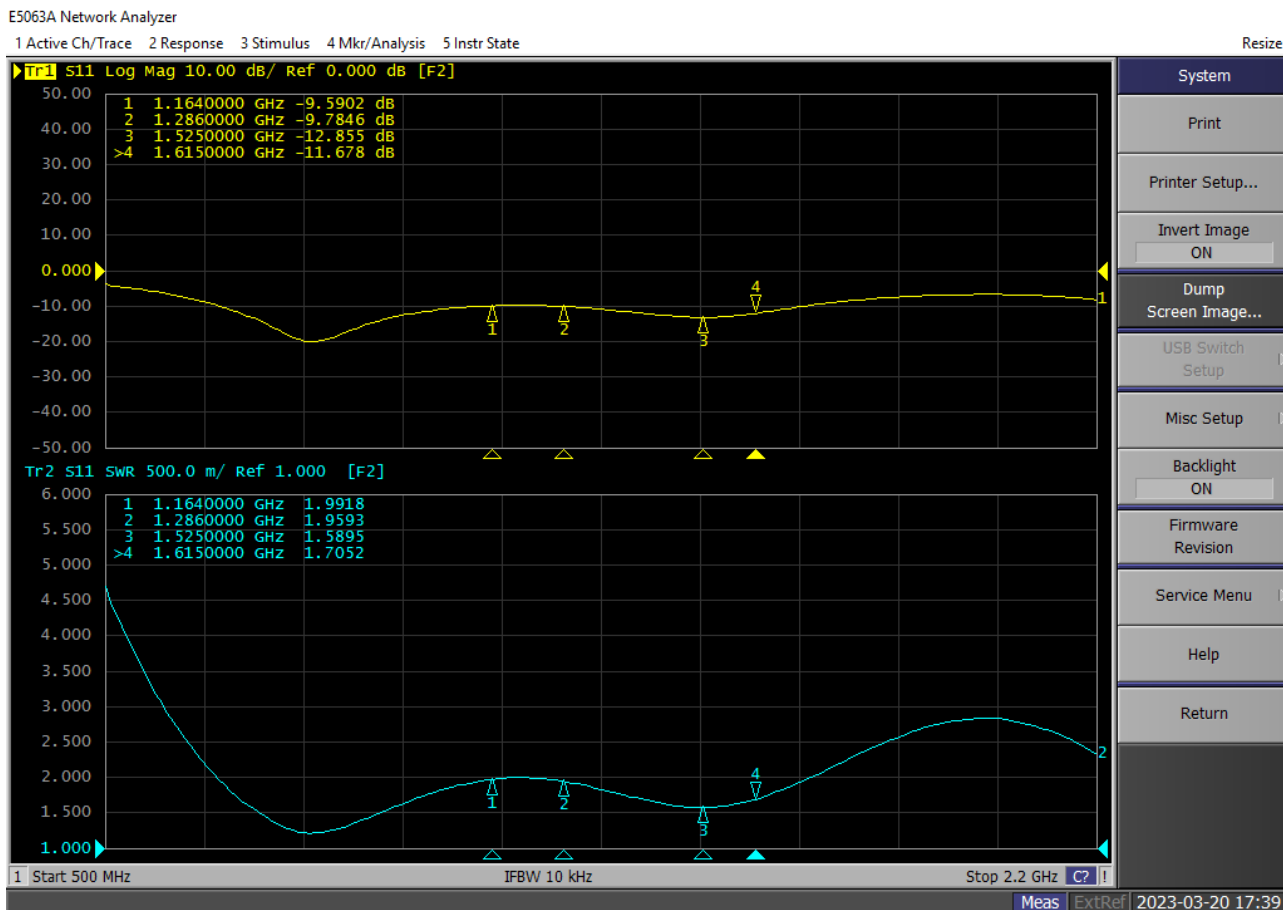




Product Number: BGS-GPS1575-9027W
Product Name: Multi-Band GNSS antenna 38dBi

2. Antenna - S Parameter Test Data

2.1 VSWR





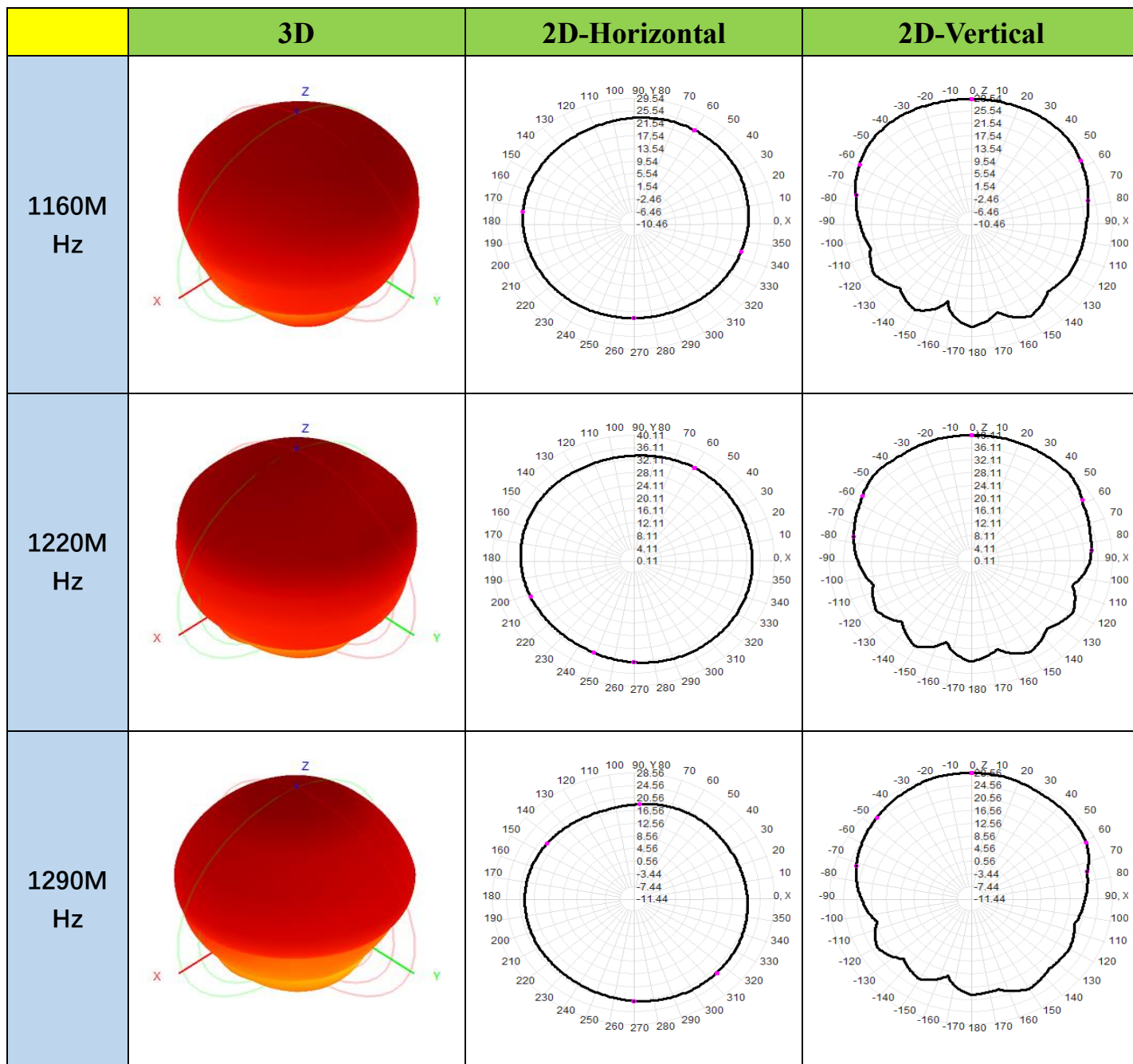
Product Number: BGS-GPS1575-9027W
Product Name: Multi-Band GNSS antenna 38dBi

2.2 LNA Gain:

Frequency (MHz)	Gain (dBi)	Frequency (MHz)	Gain (dBi)
1160.0	29.60	1525.0	34.00
1165.0	31.85	1530.0	34.83
1170.0	33.50	1535.0	35.80
1175.0	34.67	1540.0	36.93
1180.0	35.67	1545.0	37.57
1185.0	36.57	1550.0	37.82
1190.0	37.53	1555.0	38.35
1195.0	38.16	1560.0	38.73
1200.0	38.52	1565.0	38.65
1205.0	38.90	1570.0	38.07
1210.0	39.35	1575.0	37.78
1215.0	39.81	1580.0	37.65
1220.0	40.11	1585.0	37.40
1225.0	40.23	1590.0	36.95
1230.0	40.09	1595.0	36.66
1235.0	39.62	1600.0	36.43
1240.0	39.00	1605.0	35.95
1245.0	38.18	1610.0	35.33
1250.0	37.34	1615.0	34.80
1255.0	36.31		
1260.0	35.35		
1265.0	34.22		
1270.0	33.20		
1275.0	32.14		
1280.0	31.14		
1285.0	30.01		
1290.0	28.58		



2.3 Radiation Pattern





Product Number: BGS-GPS1575-9027W
 Product Name: Multi-Band GNSS antenna 38dBi

	3D	2D-Horizontal	2D-Vertical
1525M Hz			
1565M Hz			
1615M Hz			



Product Number: BGS-GPS1575-9027W
 Product Name: Multi-Band GNSS antenna 38dBi

3. Mechanical Drawing

