



Product Number: BGS-GPS1575-2756B

Product Name: Helical Spiral Transmitting Multi-band GNSS Antenna

## 1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	1197-1278MHz; 1559-1606MHz
Supported Positioning signal bands	GPS: L1/L2 BDS: B1/B2/B3 GLONASS: G1/G2 Galileo: E1/E5b
Peak Gain	$\geq 2\text{dBi}$
Impedance	50Ohm
Polarization	RHCP
Axial Ratio	$\leq 1.5\text{ dB}$
Azimuth Coverage	360°
B. LNA and Filter Electrical Properties	
LNA Gain	35±2dBi(Typ.@25°C)
Noise Figure	$\leq 1.5\text{dB}@25^\circ\text{C}$ ,Typ.(Pre-filtered)
Output VSWR	$\leq 1.8 : 1$ Typ. 2.0 : 1 Max
Operation Voltage	3-16 V DC
Operation Current	$\leq 45\text{mA}$
C. Material & Mechanical Characteristics	
Connector Type	SMA connector
Dimension	$\Phi 27.5 \times 56\text{mm}$
Radome material	PC+ABS
Waterproof	IP67
Weight	0.018Kg



**Product Number: BGS-GPS1575-2756B**

**Product Name: Helical Spiral Transmitting Multi-band GNSS Antenna**

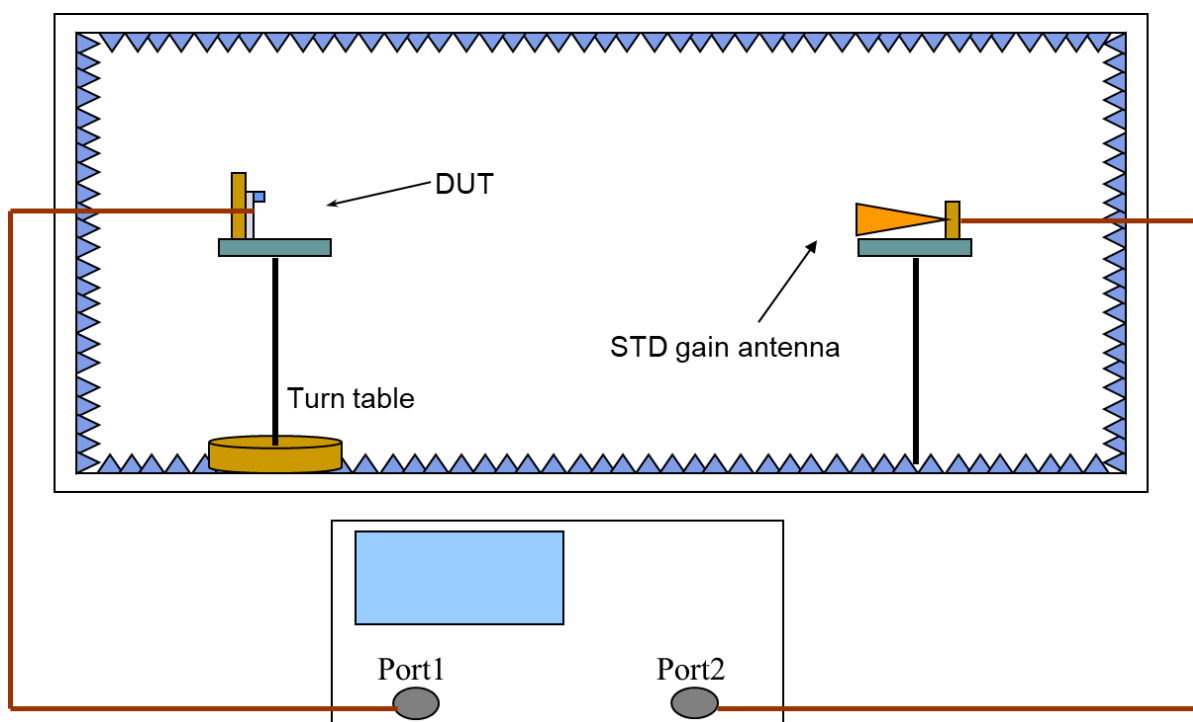
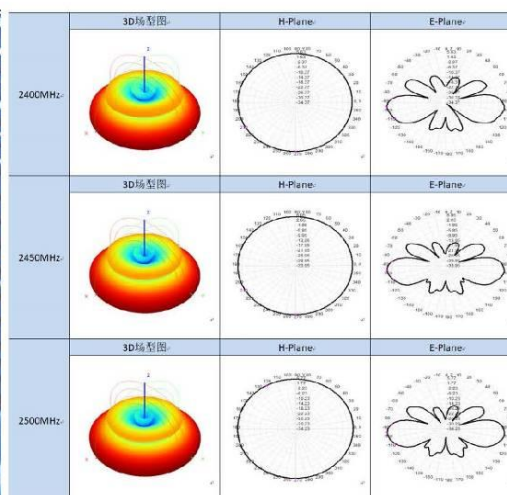
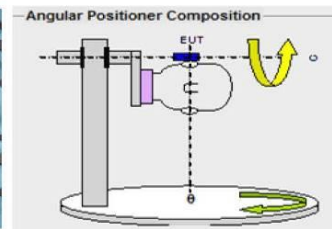
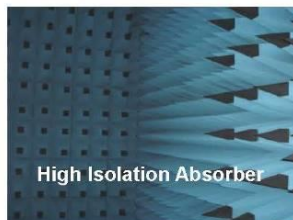
<b>C. Environmental</b>	
<b>Operation Temperature</b>	<b>- 40 °C ~ + 85 °C</b>
<b>Storage Temperature</b>	<b>- 40 °C ~ + 85 °C</b>
<b>Humidity</b>	<b>≤95%</b>

## 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

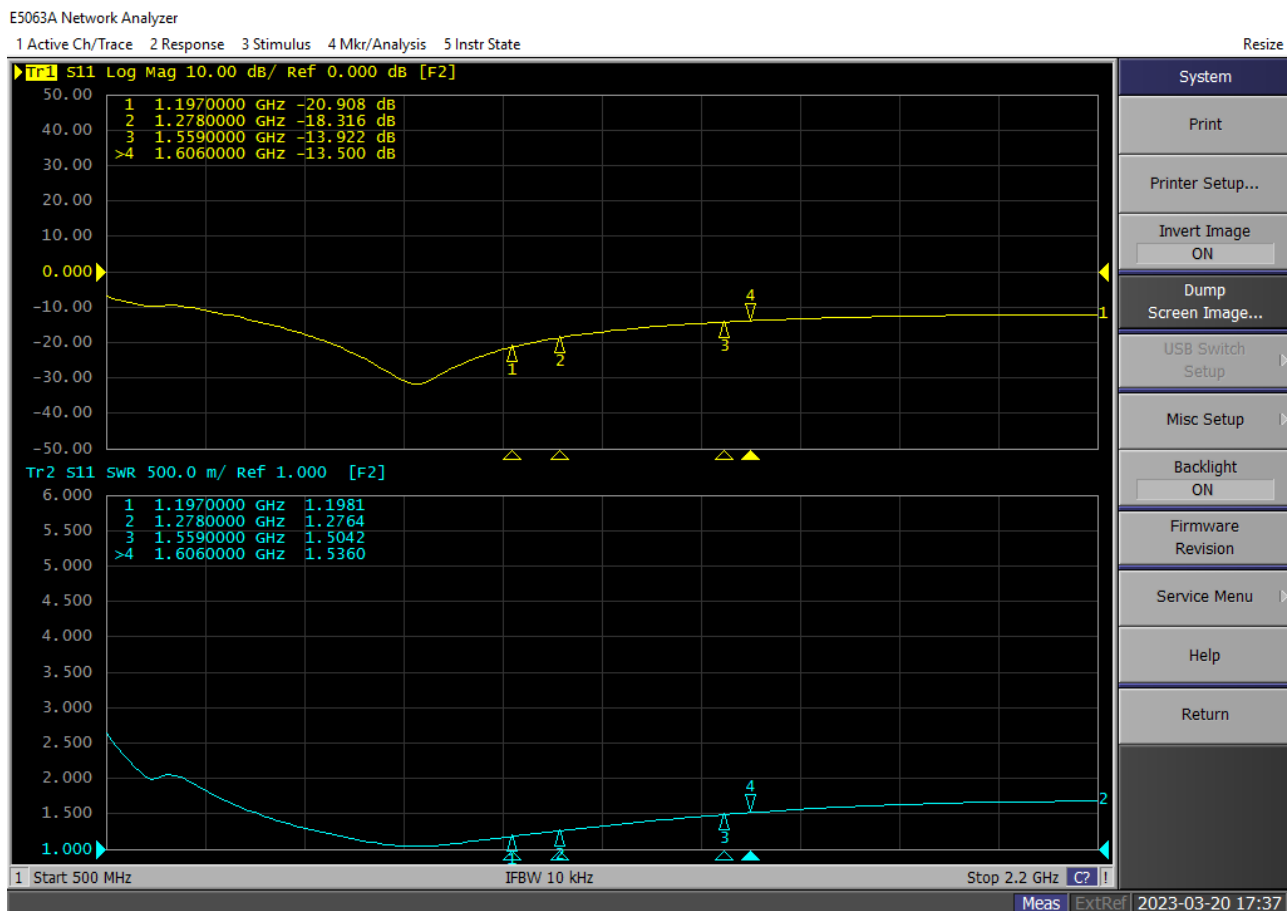




Product Number: BGS-GPS1575-2756B  
Product Name: Helical Spiral Transmitting Multi-band GNSS Antenna

## 2. Antenna - S Parameter Test Data

### 2.1 VSWR





Product Number: BGS-GPS1575-2756B

Product Name: Helical Spiral Transmitting Multi-band GNSS Antenna

## 2.2 LNA Gain:

Frequency (MHz)	Gain (dBi)	Frequency (MHz)	Gain (dBi)
1195.0	30.91	1555.0	32.22
1200.0	32.02	1560.0	34.14
1205.0	33.15	1565.0	35.37
1210.0	34.27	1570.0	35.14
1215.0	35.11	1575.0	34.94
1220.0	35.80	1580.0	34.90
1225.0	36.40	1585.0	35.00
1230.0	36.74	1590.0	34.61
1235.0	36.57	1595.0	34.88
1240.0	35.82	1600.0	32.42
1245.0	34.49	1605.0	31.26
1250.0	33.07	1610.0	31.52
1255.0	31.59		
1260.0	30.45		
1265.0	29.47		
1270.0	28.61		
1275.0	27.93		
1280.0	27.51		



Product Number: BGS-GPS1575-2756B

Product Name: Helical Spiral Transmitting Multi-band GNSS Antenna

### 2.3 Radiation Pattern

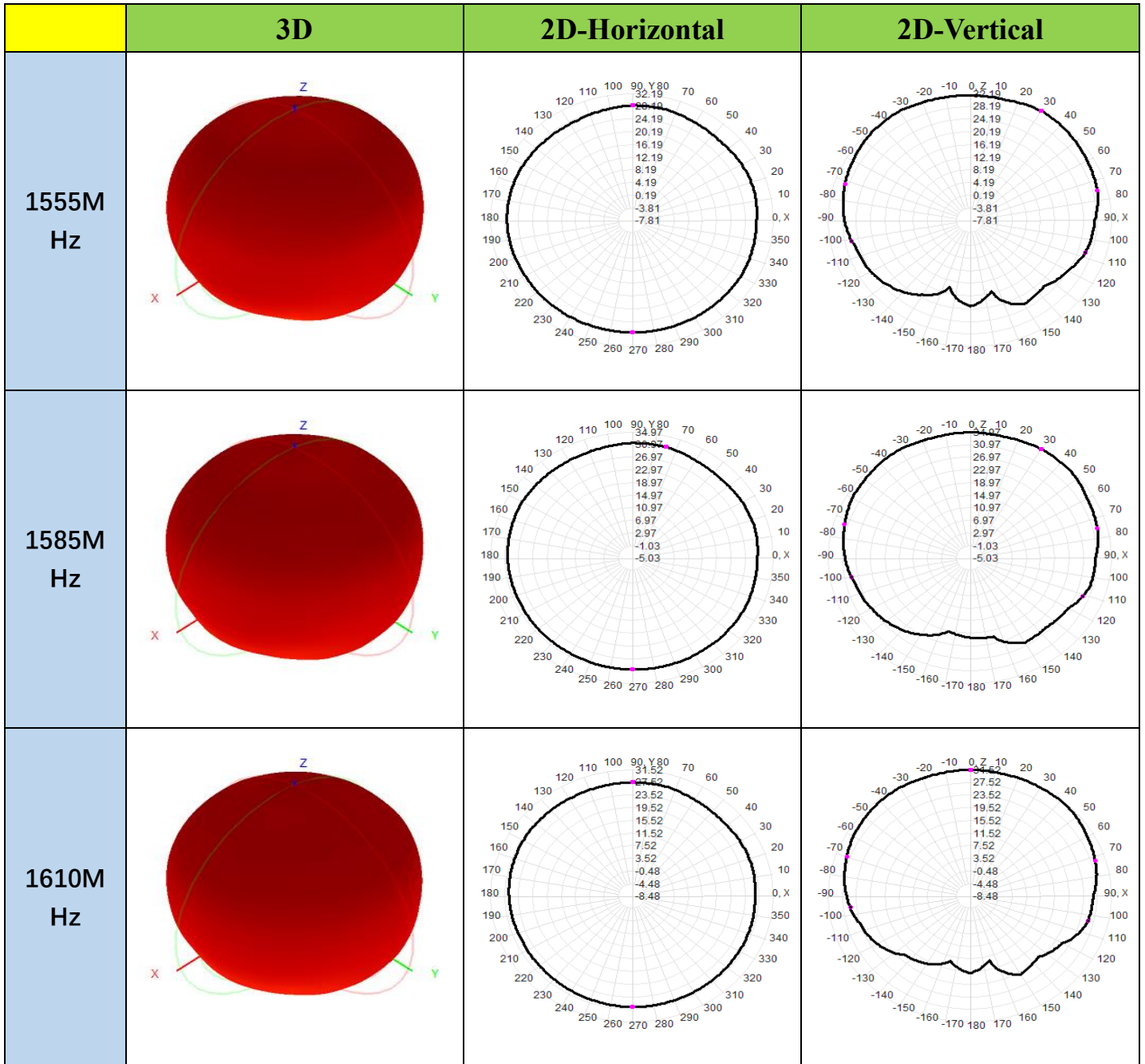
	3D	2D-Horizontal	2D-Vertical
1195M Hz			
1235M Hz			
1280M Hz			





Product Number: BGS-GPS1575-2756B

Product Name: Helical Spiral Transmitting Multi-band GNSS Antenna





Product Number: BGS-GPS1575-2756B

Product Name: Helical Spiral Transmitting Multi-band GNSS Antenna

### 3. Mechanical Drawing

