



Product Number: BGS-GPS1575-15060W

Product Name: Four-star multi-Band Survey antenna 40dBi

1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	1160-1290MHz, 1525-1615MHz
Supported Positioning signal bands	GPS: L1/L2 BDS: B1/B2/B3 GLONASS: G1/G2 Galileo: E1/E5b
Peak Gain	$\geq 5.5\text{dBi}@F_c$
Impedance	50Ohm
Polarization	RHCP
Axial Ratio	$\leq 3\text{ dB}$
Azimuth Coverage	360°
Phase-center accuracy	$\leq 2.0\text{mm}$
B. LNA and Filter Electrical Properties	
LNA Gain	40±2dBi(Typ.@25°C)
Group Delay variation	$\leq 5\text{ns}$
Noise Figure	$\leq 2.0\text{dB}@25^\circ\text{C, Typ. (Pre-filtered)}$
Output VSWR	$\leq 1.5 : 1\text{Typ. } 2.0 : 1\text{ Max}$
Operation Voltage	3.3-12 V DC
Operation Current	$\leq 45\text{mA}$
C. Material & Mechanical Characteristics	
Connector Type	TNC connector



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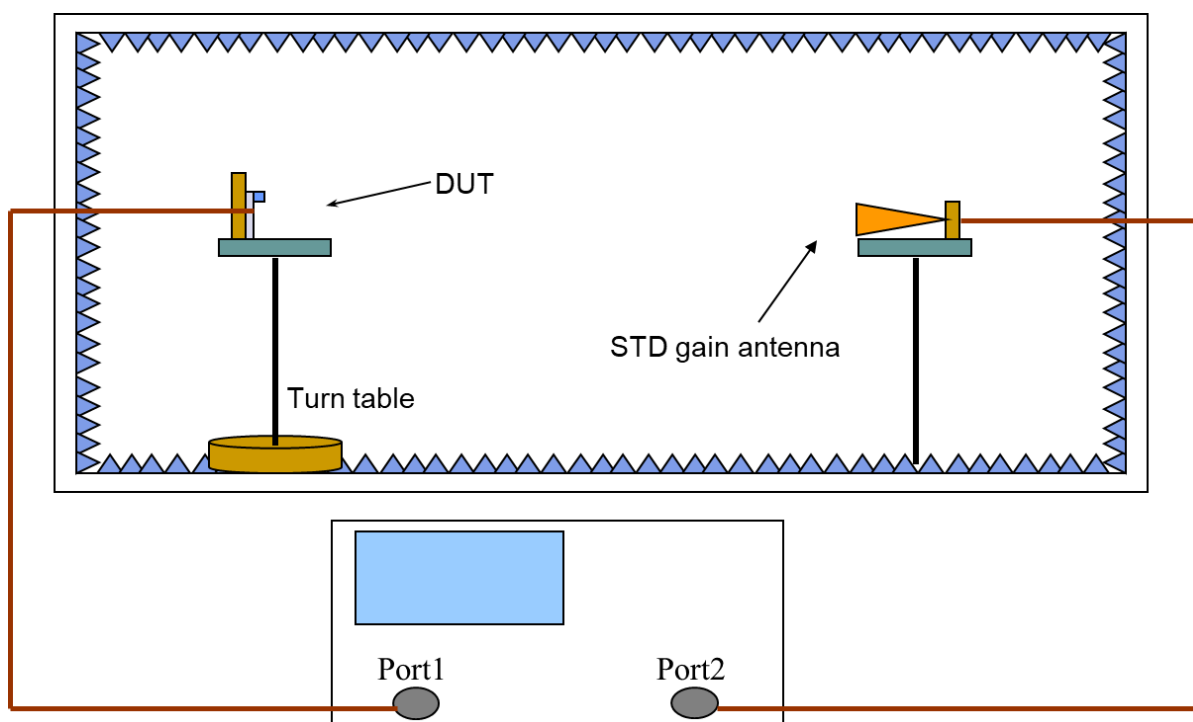
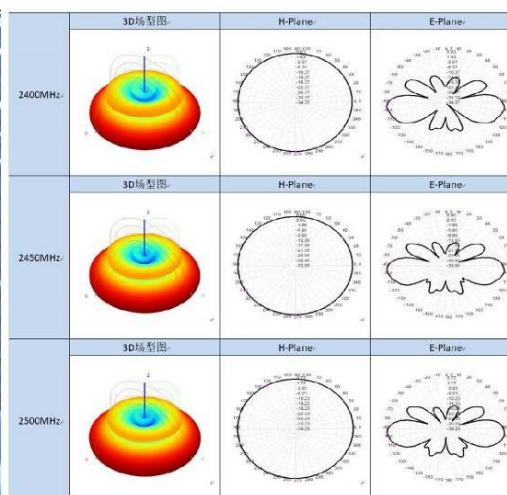
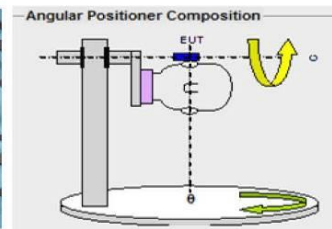
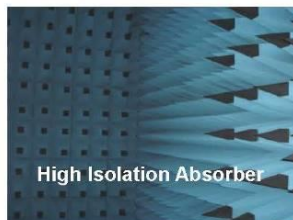
Dimension	Φ 150x60mm
Radome material	ABS
Waterproof	IP67
Weight	0.42Kg
C. Environmental	
Operation Temperature	- 40 °C ~ + 85 °C
Storage Temperature	- 40 °C ~ + 85 °C

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

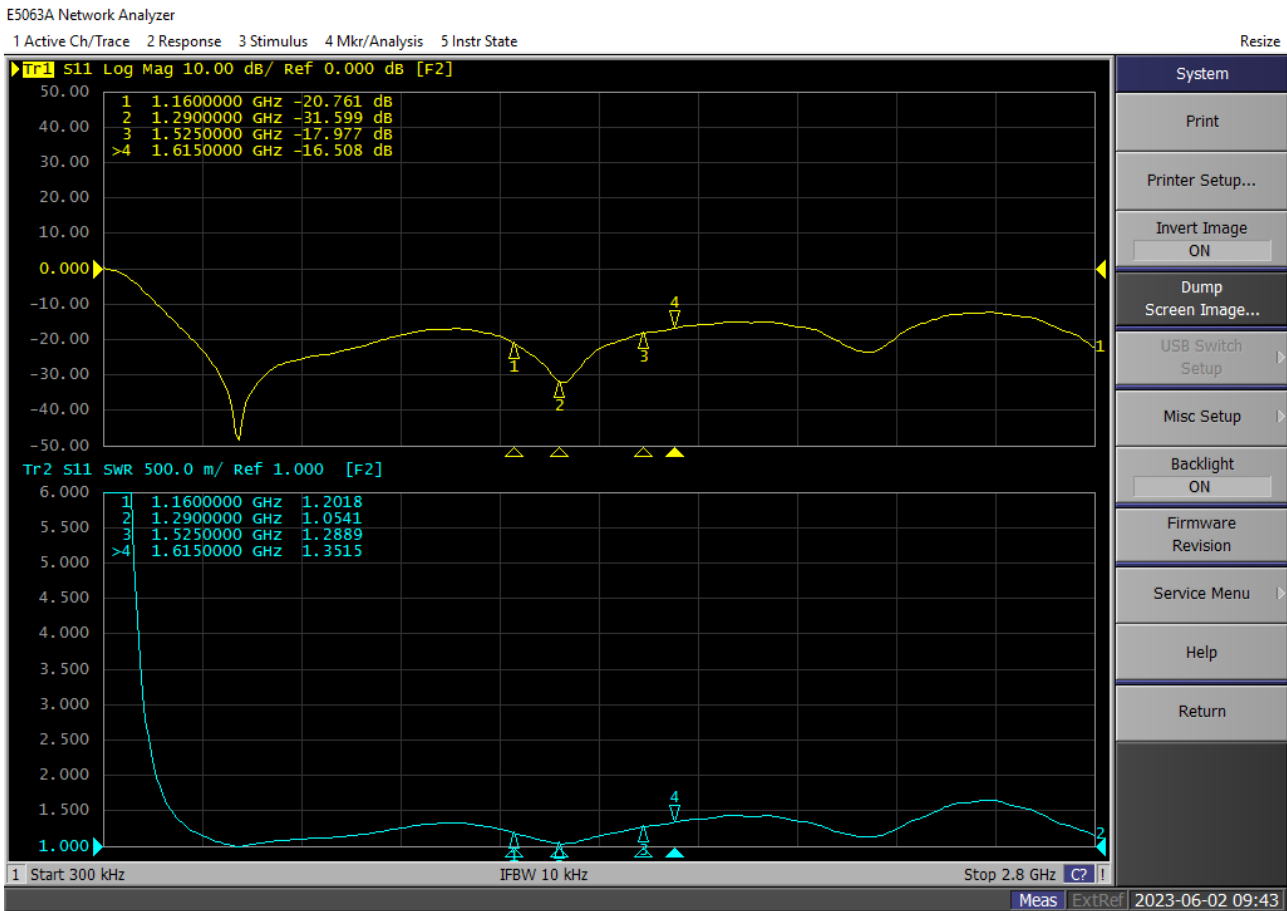




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2. Antenna - S Parameter Test Data

2.1 VSWR





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2.2 LNA Gain:

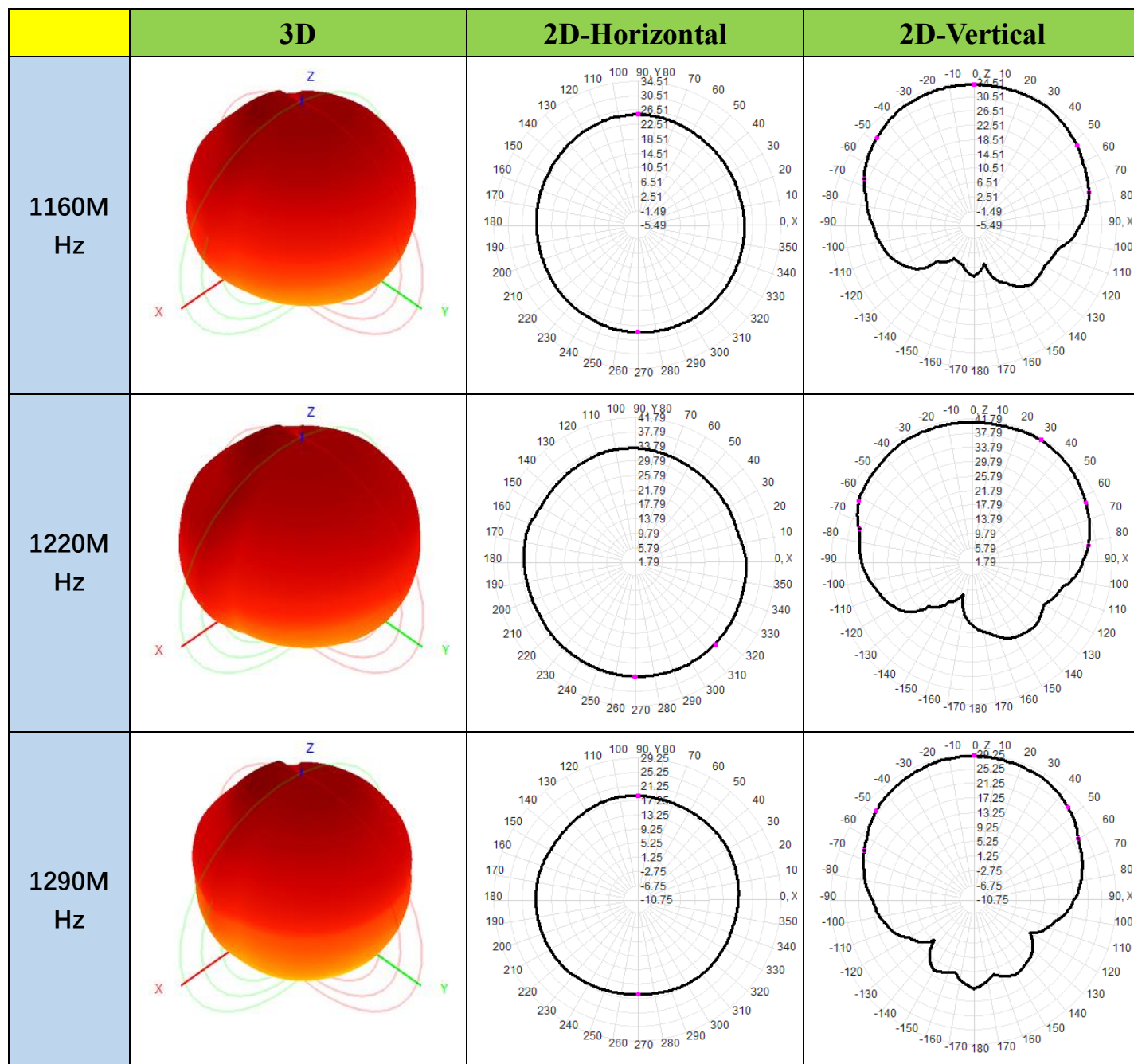
Frequency (MHz)	Gain (dBi)	Frequency (MHz)	Gain (dBi)
1160.0	34.7	1525.0	27.4
1165.0	36.4	1530.0	34.5
1170.0	37.9	1535.0	37.3
1175.0	39.2	1540.0	39.9
1180.0	40.1	1545.0	40.8
1185.0	40.6	1550.0	40.9
1190.0	41.0	1555.0	40.7
1195.0	41.0	1560.0	40.3
1200.0	41.5	1565.0	40.0
1205.0	41.9	1570.0	39.9
1210.0	42.0	1575.0	40.1
1215.0	42.0	1580.0	40.2
1220.0	41.8	1585.0	40.0
1225.0	41.4	1590.0	39.7
1230.0	40.8	1595.0	39.2
1235.0	40.7	1600.0	38.6
1240.0	40.7	1605.0	38.1
1245.0	40.3	1610.0	36.6
1250.0	39.9	1615.0	31.8
1255.0	38.9		
1260.0	38.4		
1265.0	37.7		
1270.0	36.3		
1275.0	34.5		
1280.0	32.6		
1285.0	30.7		
1290.0	29.3		



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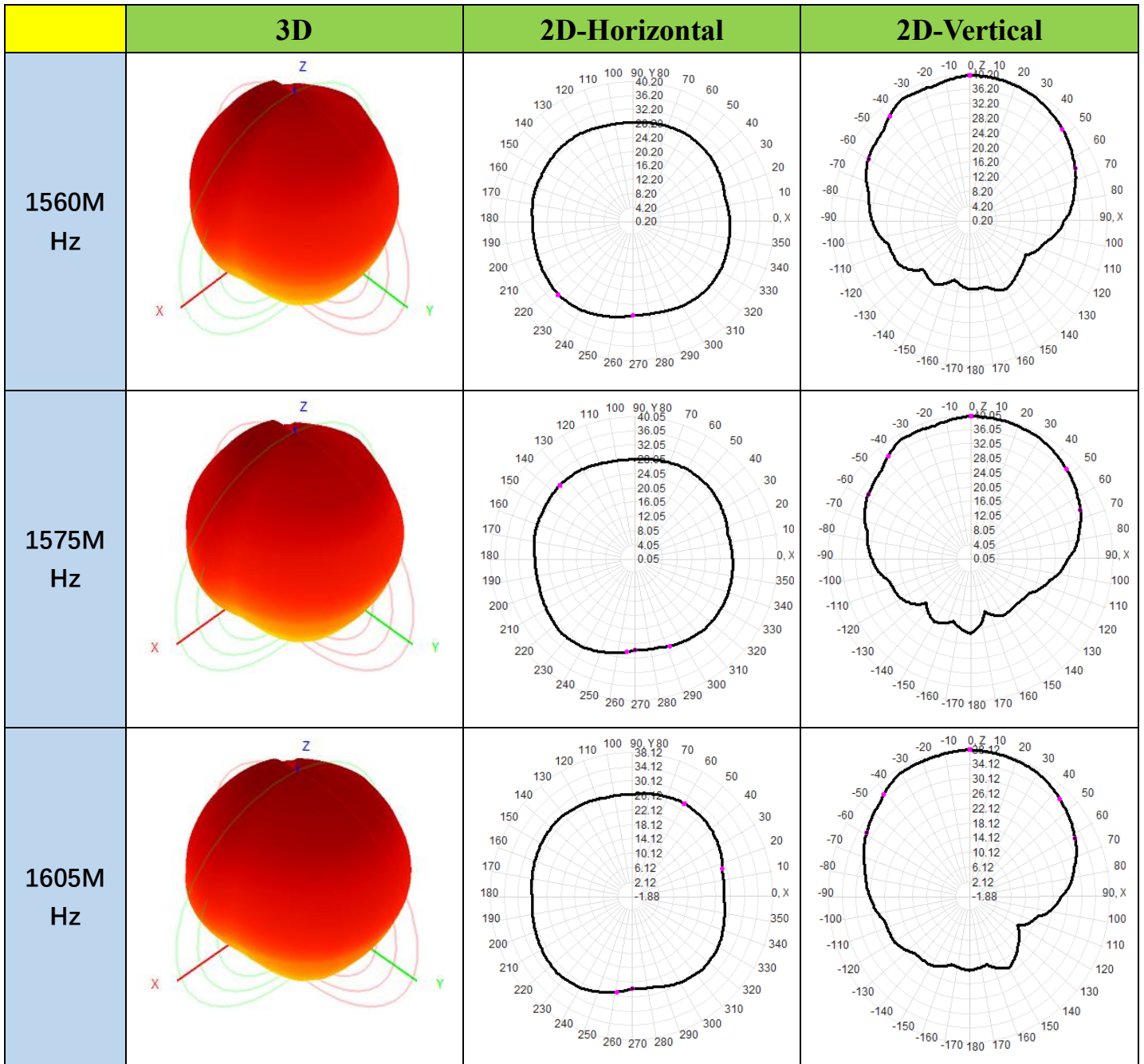
2.3 Radiation Pattern





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3. Mechanical Drawing

