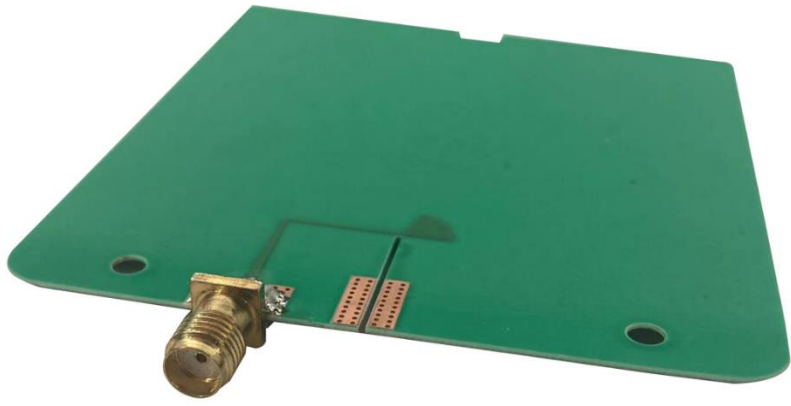


## 1. Specification

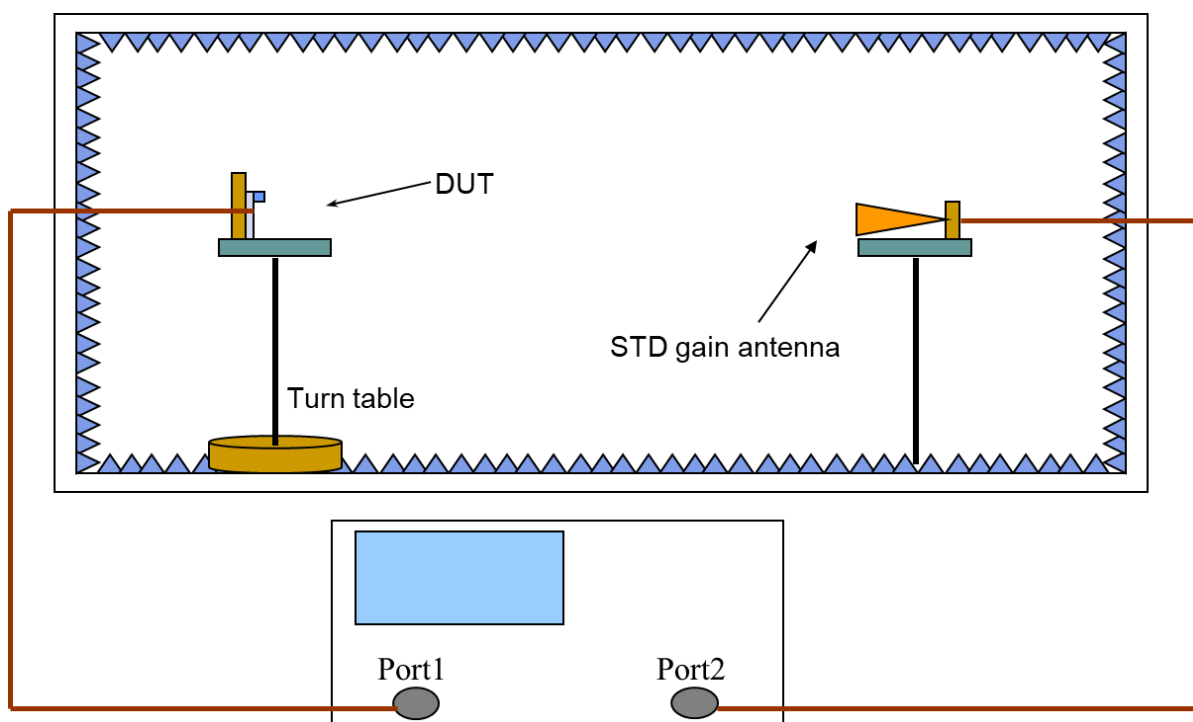
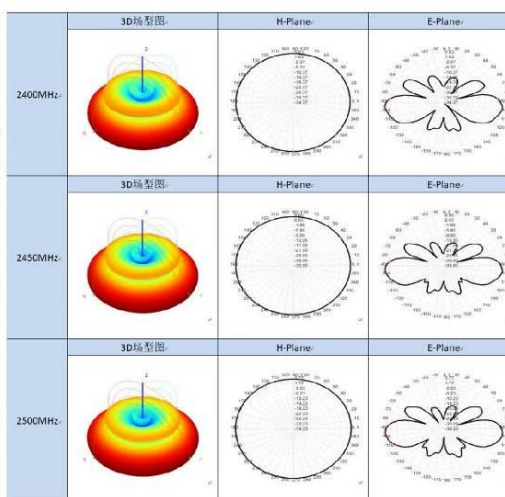
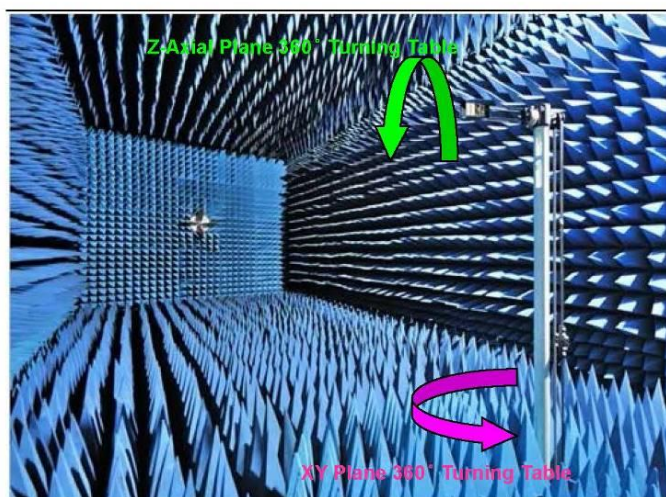
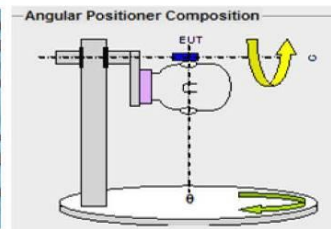
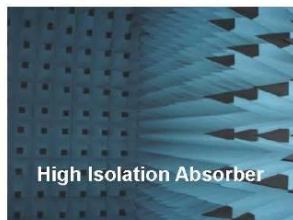
Sample Photo		
		
A. Electrical Characteristics		
Frequency	1.3-8.5GHz	8.5-13.4GHz
S.W.R.	<3.0	<3.0
Antenna Gain	9dBi	9dBi
Polarization	Vertical	Vertical
Horizontal Beamwidth	30° - 360°	30° - 360°
Vertical Beamwidth	40° - 100°	45° - 65°
Impedance	50Ohm	50Ohm
Max. Power	50W	50W
B. Material & Mechanical Characteristics		
Connector Type	SMA connector	
Dimension	80*72*0.6mm	
Weight	0.01Kg	
C. Environmental		
Operation Temperature	- 40 °C ~ + 85 °C	
Storage Temperature	- 40 °C ~ + 85 °C	
Operation Humidity	<95%	

## 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

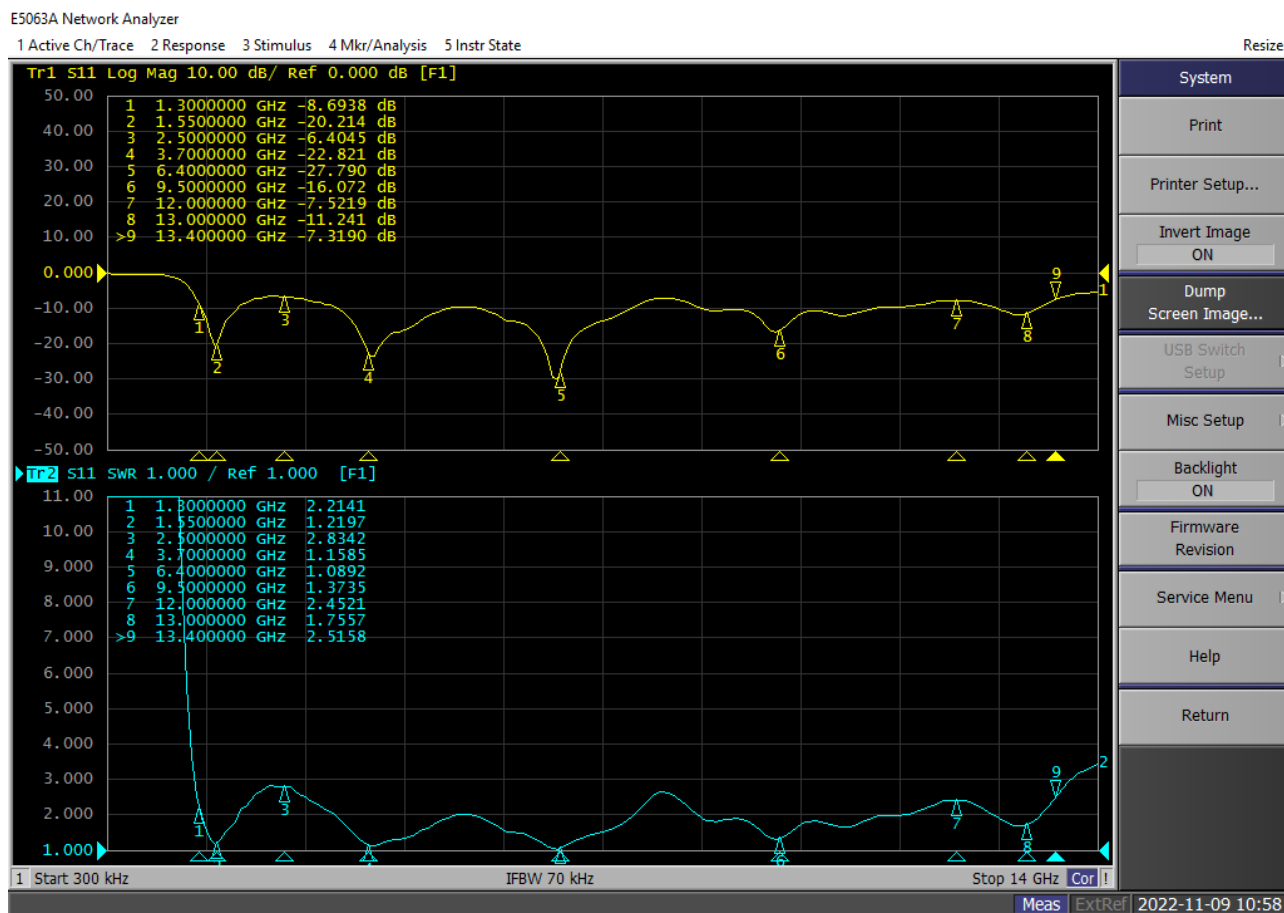




Product Number: BGS-AN13000-807206G  
Product Name: UWB PCB Antenna 1.3-13.4GHz 9dBi

## 2. Antenna - S Parameter Test Data

### 2.1 VSWR





Product Number: BGS-AN13000-807206G

Product Name: UWB PCB Antenna 1.3-13.4GHz 9dBi

## 2.2 Efficiency & Gain:

1300-8500MHz						
Frequency(MHz)	Gain(dBi)	Efficiency (%)		Frequency (MHz)	Gain (dBi)	Efficiency (%)
1300.0	0.01	62.20		5000.0	6.48	78.29
1400.0	1.76	74.00		5100.0	6.40	78.50
1500.0	2.17	79.68		5200.0	6.76	79.44
1600.0	2.02	78.78		5300.0	8.19	88.59
1700.0	3.03	70.77		5400.0	7.32	87.10
1800.0	2.16	68.60		5500.0	8.42	84.79
1900.0	2.80	61.06		5600.0	7.70	86.74
2000.0	2.20	64.02		5700.0	7.97	90.83
2100.0	2.04	67.85		5800.0	8.38	89.74
2200.0	3.06	67.08		5900.0	8.49	88.75
2300.0	2.43	65.19		6000.0	8.08	89.51
2400.0	2.55	64.84		6100.0	7.72	87.95
2500.0	2.61	61.57		6200.0	7.87	87.79
2600.0	3.81	67.20		6300.0	8.12	87.11
2700.0	3.08	72.82		6400.0	7.45	86.42
2800.0	3.32	72.87		6500.0	7.37	87.14
2900.0	3.75	75.42		6600.0	7.91	84.92
3000.0	3.75	71.12		6700.0	8.14	88.13
3100.0	3.70	72.08		6800.0	7.76	84.09
3200.0	3.66	71.22		6900.0	8.30	88.31
3300.0	3.42	71.21		7000.0	8.84	84.68
3400.0	4.06	75.37		7100.0	8.74	77.76
3500.0	4.27	75.97		7200.0	8.07	82.01
3600.0	4.93	81.77		7300.0	7.93	81.13
3700.0	5.24	84.23		7400.0	8.66	86.86
3800.0	4.50	88.16		7500.0	7.98	74.31
3900.0	4.86	85.81		7600.0	7.81	69.83
4000.0	5.53	85.43		7700.0	7.58	65.39
4100.0	5.60	88.00		7800.0	8.00	70.00
4200.0	6.12	86.25		7900.0	7.95	67.45
4300.0	6.17	84.47		8000.0	7.43	63.03



**Product Number: BGS-AN13000-807206G**

**Product Name: UWB PCB Antenna 1.3-13.4GHz 9dBi**

4400.0	6.13	84.50		8100.0	7.20	60.49
4500.0	6.32	86.50		8200.0	7.36	61.42
4600.0	6.32	83.36		8300.0	8.04	69.58
4700.0	5.87	84.05		8400.0	8.21	78.04
4800.0	6.46	81.94		8500.0	7.90	78.03
4900.0	6.99	84.11				

## 8500-13400MHz

Frequency(MHz)	Gain(dBi)	Efficiency (%)		Frequency (MHz)	Gain (dBi)	Efficiency (%)
8500.0	7.90	83.18		12200.0	6.91	78.64
8600.0	7.60	75.21		12300.0	6.57	79.73
8700.0	8.01	78.29		12400.0	6.36	79.08
8800.0	8.35	78.20		12500.0	6.49	78.76
8900.0	8.72	88.91		12600.0	6.47	74.43
9000.0	8.35	86.15		12700.0	6.99	82.11
9100.0	8.60	86.63		12800.0	6.62	78.16
9200.0	8.91	87.64		12900.0	6.81	75.23
9300.0	9.02	92.17		13000.0	7.53	81.33
9400.0	9.02	99.19		13100.0	7.46	81.22
9500.0	8.68	94.94		13200.0	7.49	84.20
9600.0	8.53	93.97		13300.0	7.32	84.78
9700.0	8.35	89.70		13400.0	7.34	74.56
9800.0	8.20	85.51				
9900.0	8.57	88.71				
10000.0	8.36	83.09				
10100.0	8.22	84.35				
10200.0	7.97	83.75				
10300.0	8.10	84.91				
10400.0	8.28	86.02				
10500.0	8.59	86.57				
10600.0	8.29	86.14				
10700.0	7.97	86.30				
10800.0	7.77	85.88				
10900.0	7.62	78.93				
11000.0	8.21	84.62				



**Product Number: BGS-AN13000-807206G**

**Product Name: UWB PCB Antenna 1.3-13.4GHz 9dBi**

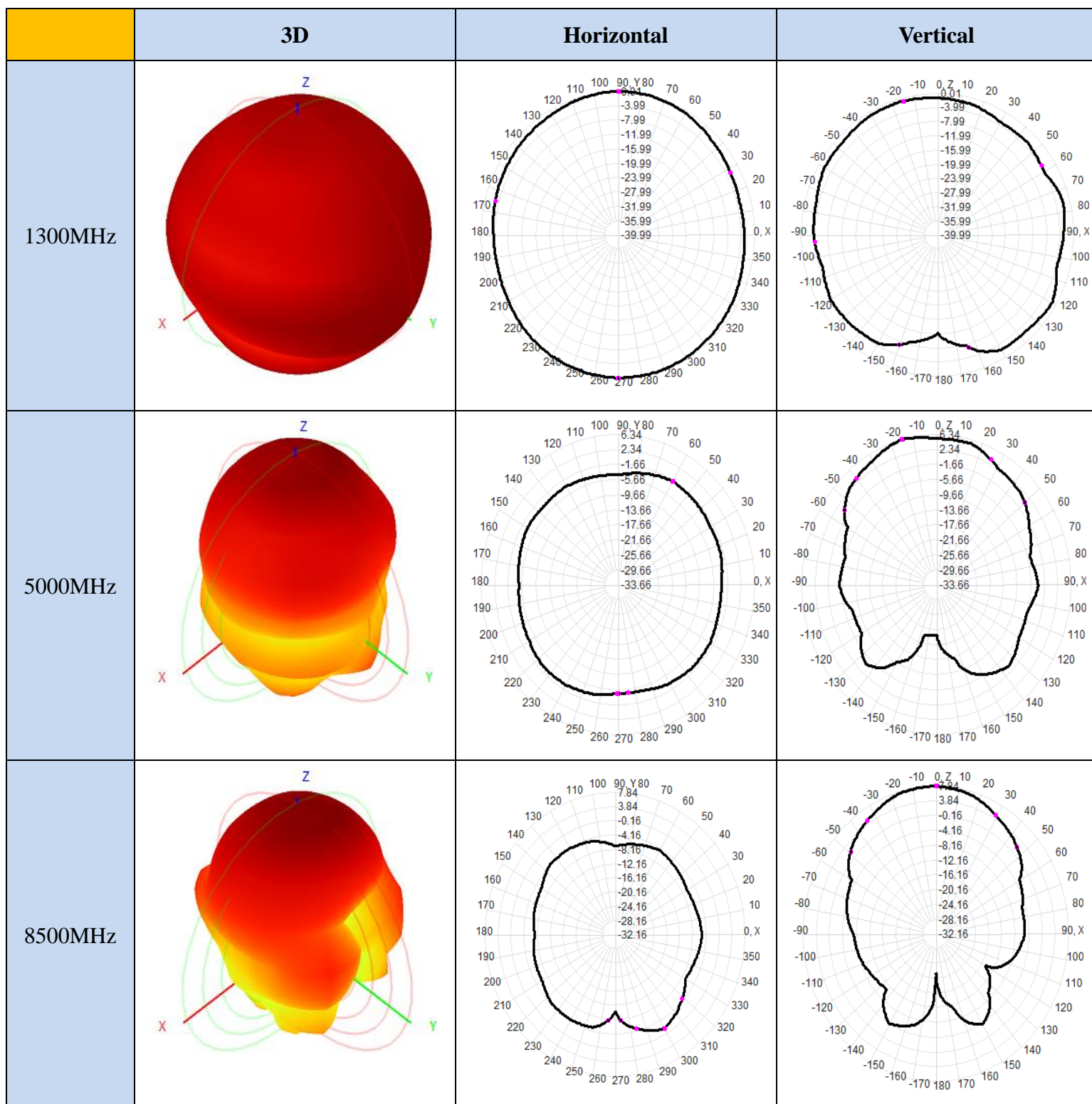
11100.0	8.10	84.63			
11200.0	8.19	94.51			
11300.0	7.55	91.72			
11400.0	7.67	92.95			
11500.0	7.39	90.51			
11600.0	7.14	86.59			
11700.0	7.31	93.80			
11800.0	7.15	89.58			
11900.0	7.33	92.23			
12000.0	6.48	78.59			
12100.0	6.93	78.46			





Product Number: BGS-AN13000-807206G  
Product Name: UWB PCB Antenna 1.3-13.4GHz 9dBi

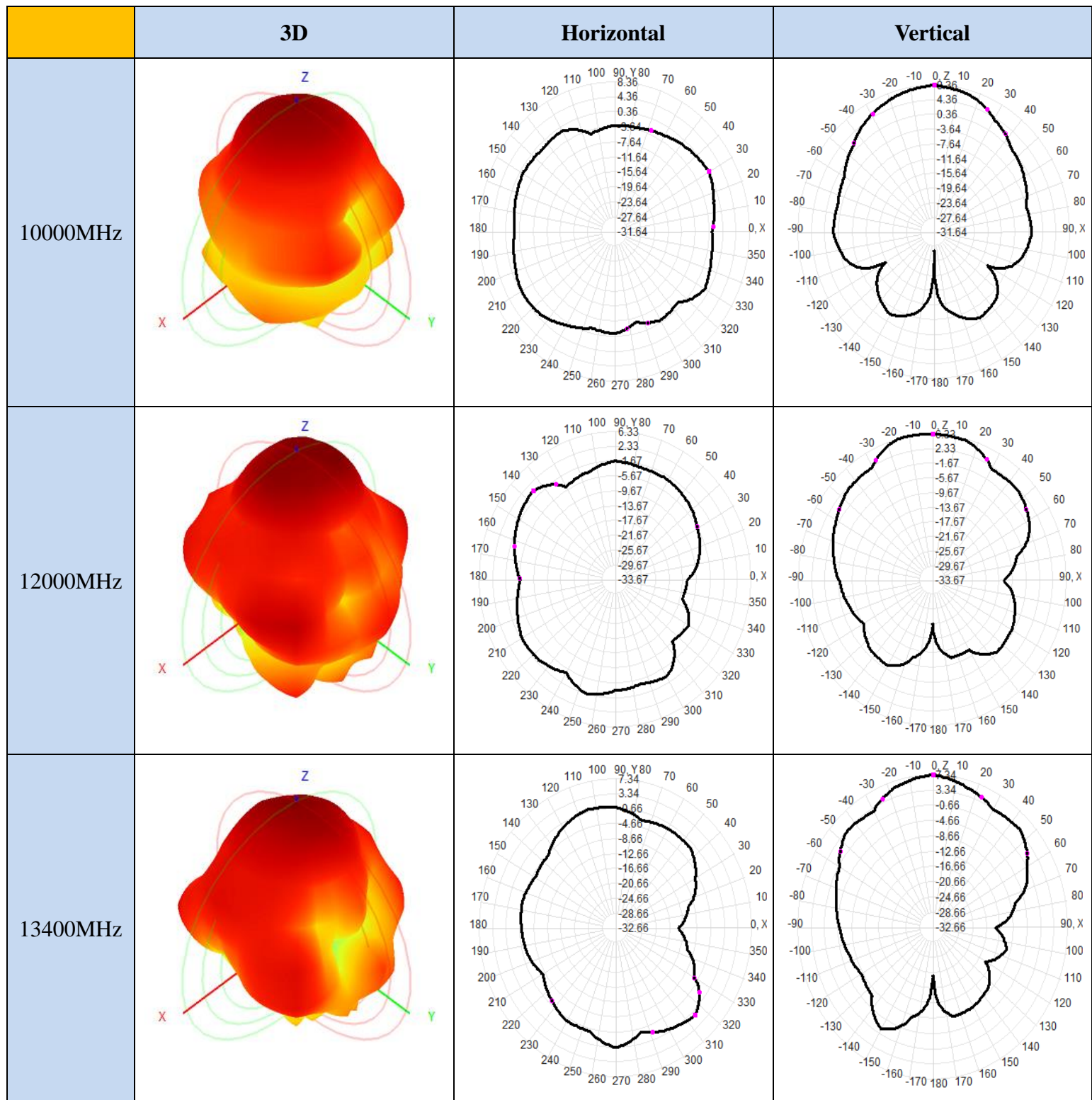
### 2.3 Radiation Pattern





Product Number: BGS-AN13000-807206G

Product Name: UWB PCB Antenna 1.3-13.4GHz 9dBi







Product Number: BGS-AN13000-807206G  
 Product Name: UWB PCB Antenna 1.3-13.4GHz 9dBi

### 3. Mechanical Drawing

