


1. Specification

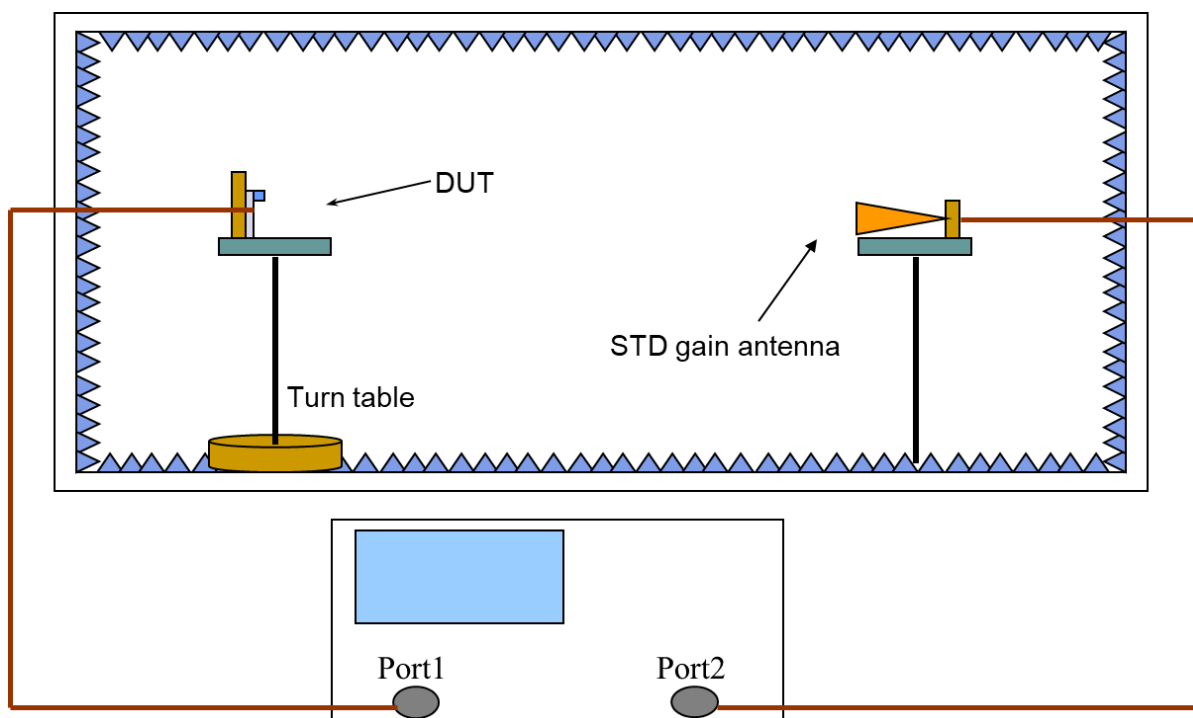
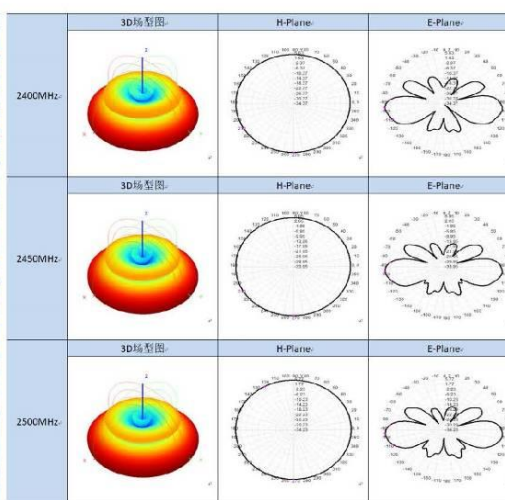
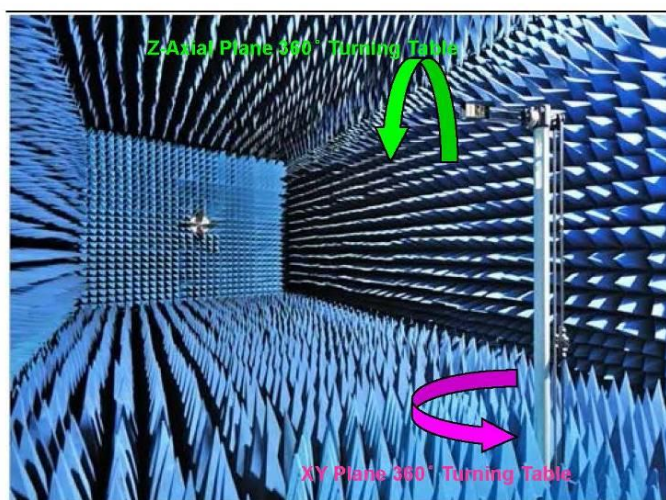
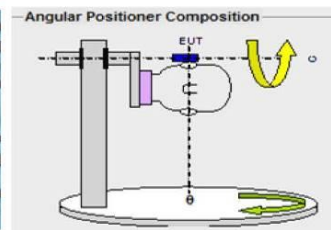
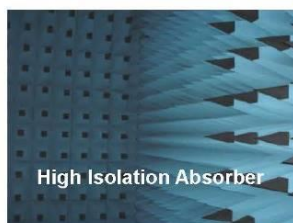
Sample Photo			
			
A. Electrical Characteristics			
Frequency	600-960MHz	1710-2700MHz	2700-6000MHz
S.W.R.	<= 4.5	<= 2.5	<= 3.0
Antenna Gain	3.0dBi	4.0dBi	4.5dBi
Efficiency	≈37%	≈62%	≈59%
Polarization	Linear	Linear	Linear
Impedance	50 Ohm	50 Ohm	50 Ohm
B. Material & Mechanical Characteristics			
Antenna Cover	ABS		
Connector Type	SMA Plug		
Dimension	13*221mm		
Weight	0.03Kg		
C. Environmental			
Operation Temperature	- 40 °C ~ + 80 °C		
Storage Temperature	- 40 °C ~ + 80 °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

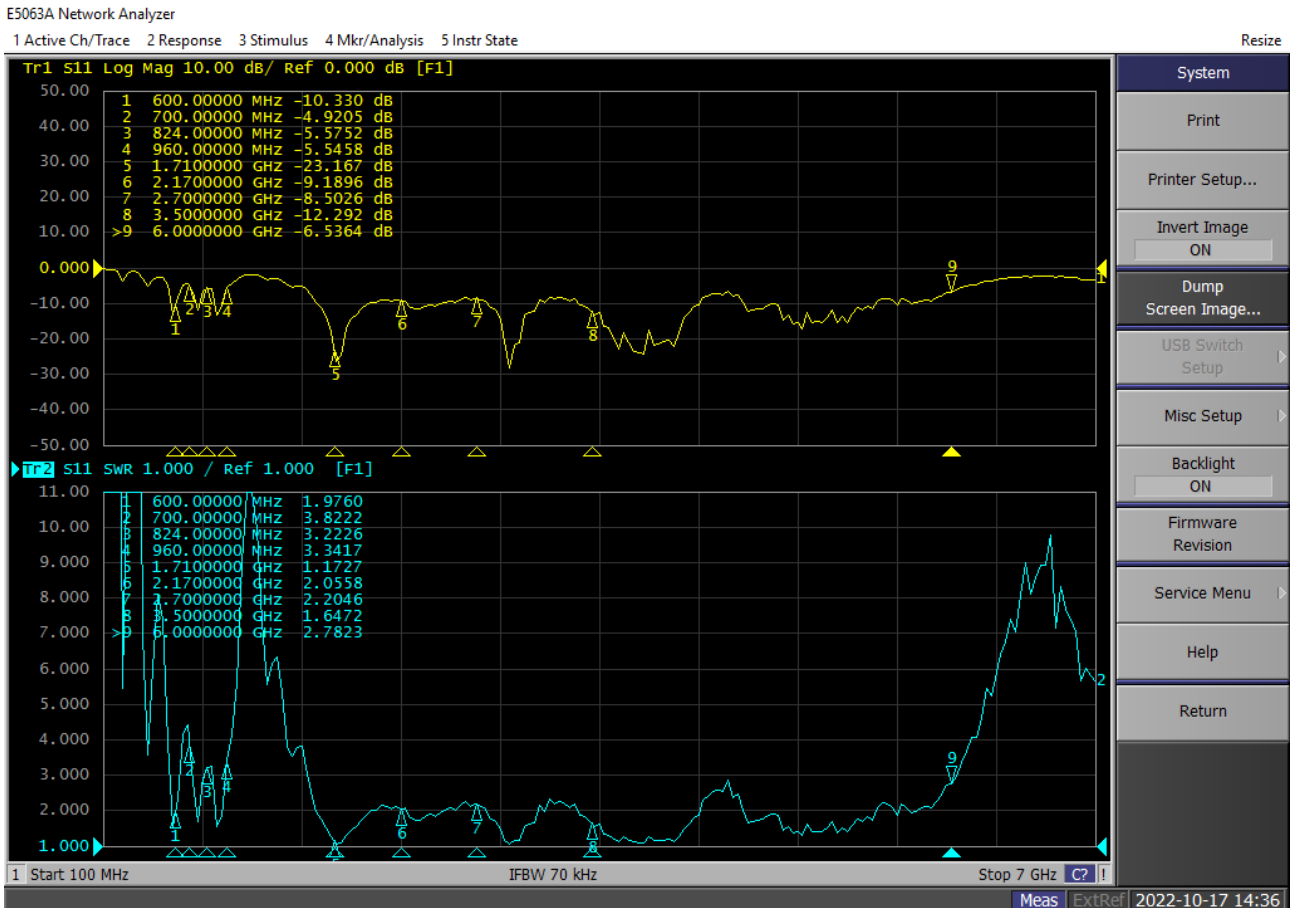




Product Number: BGS-AN5000-13221B
Product Name: 5G External Antenna

2. Antenna - S Parameter Test Data

2.1. VSWR





Product Number: BGS-AN5000-13221B

Product Name: 5G External Antenna

2.2. Total Efficiency & Gain:

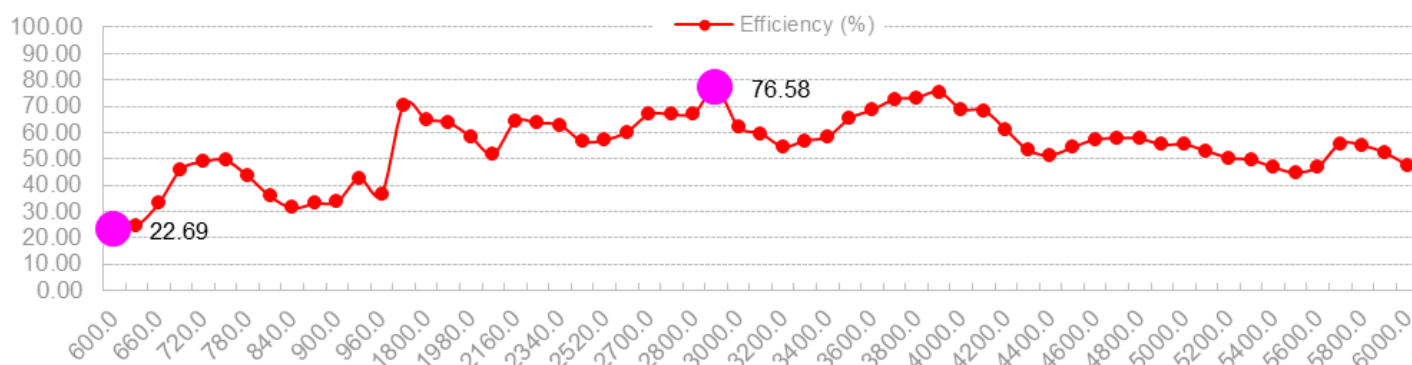
Frequency (MHz)	600.0	630.0	660.0	690.0	720.0	750.0	780.0	810.0	840.0	870.0	900.0	930.0	960.0
Gain (dBi)	-0.03	0.90	1.67	2.98	2.35	1.96	1.21	0.52	0.09	0.35	0.98	1.94	1.68
Efficiency (%)	22.69	24.61	33.00	45.90	48.83	49.42	43.42	35.86	31.31	33.06	33.72	42.55	36.68

Frequency (MHz)	1710.0	1800.0	1890.0	1980.0	2070.0	2160.0	2250.0	2340.0	2430.0	2520.0	2610.0	2700.0
Gain (dBi)	2.26	2.05	1.79	1.45	1.50	3.68	4.12	3.10	3.01	3.41	3.79	3.90
Efficiency (%)	70.45	64.90	63.71	58.24	51.81	64.02	63.50	62.67	56.57	57.01	60.16	66.78

Frequency (MHz)	2800.0	2900.0	3000.0	3100.0	3200.0	3300.0	3400.0	3500.0	3600.0	3700.0	3800.0	3900.0
Gain (dBi)	3.28	3.60	2.30	3.00	1.68	2.36	2.41	2.95	3.21	3.50	3.29	2.96
Efficiency (%)	67.09	76.58	62.05	59.61	54.55	56.90	58.26	65.30	68.38	72.44	73.09	75.26

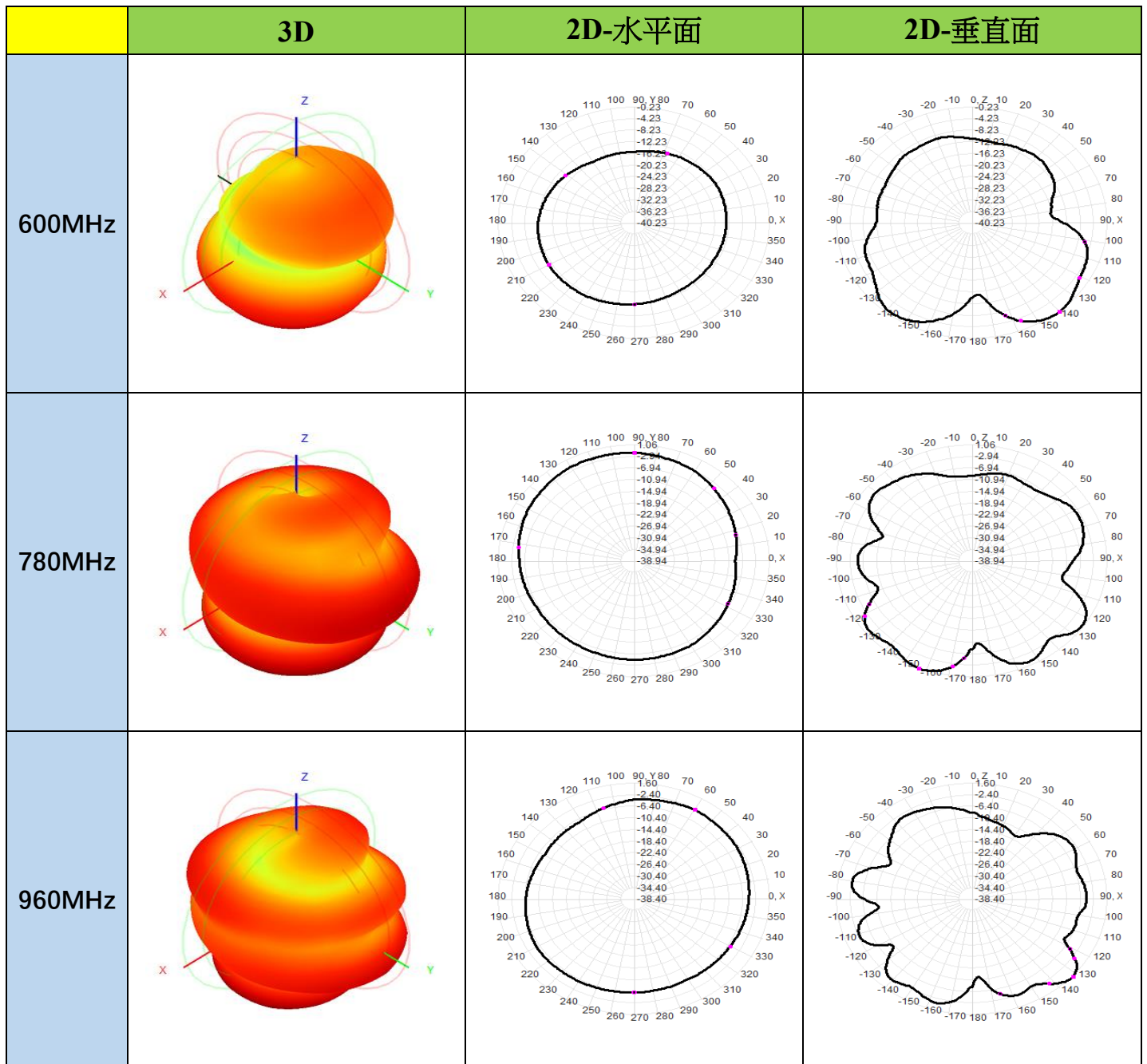
Frequency (MHz)	4000.0	4100.0	4200.0	4300.0	4400.0	4500.0	4600.0	4700.0	4800.0	4900.0	5000.0	5100.0
Gain (dBi)	2.50	2.37	2.45	2.30	2.14	1.79	2.46	3.02	2.48	4.06	4.54	3.55
Efficiency (%)	68.75	68.28	60.96	53.22	51.38	54.34	57.23	57.80	57.63	55.33	55.41	52.91

Frequency (MHz)	5200.0	5300.0	5400.0	5500.0	5600.0	5700.0	5800.0	5900.0	6000.0
Gain (dBi)	2.55	2.84	2.93	2.46	2.47	3.25	3.00	1.99	2.01
Efficiency (%)	50.35	49.57	46.75	44.73	47.05	55.75	55.04	52.22	47.60





2.3 Radiation Pattern





Product Number: BGS-AN5000-13221B

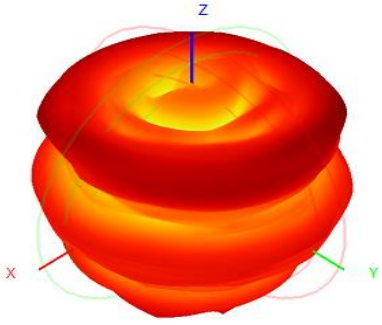
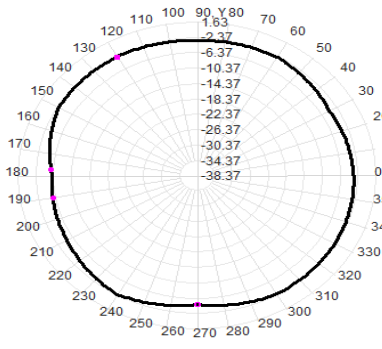
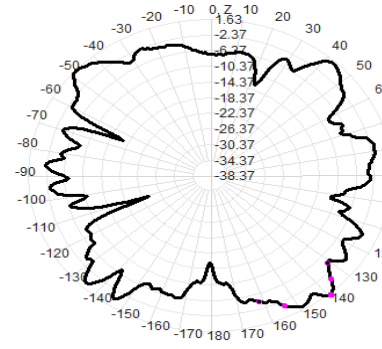
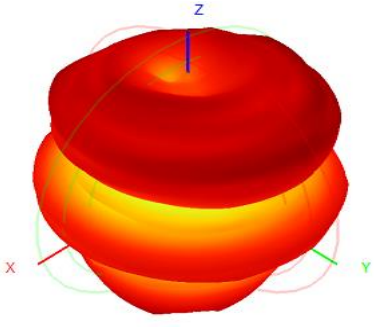
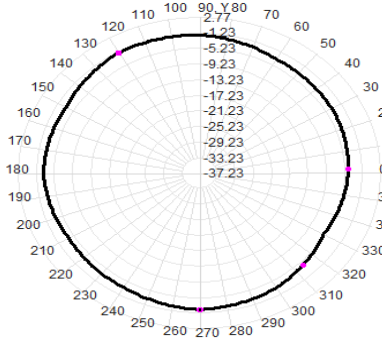
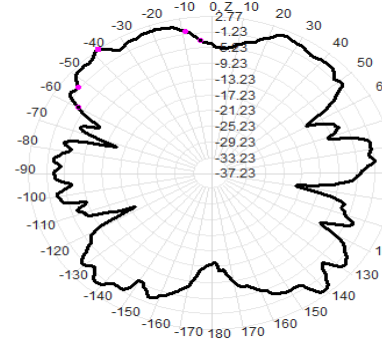
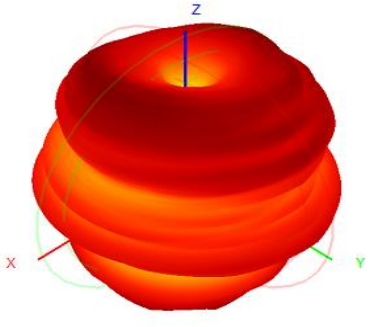
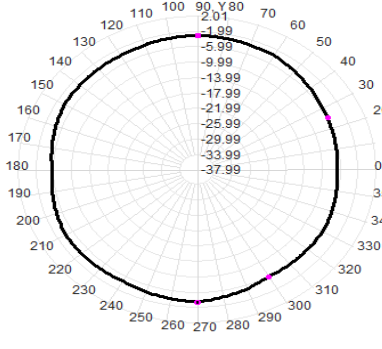
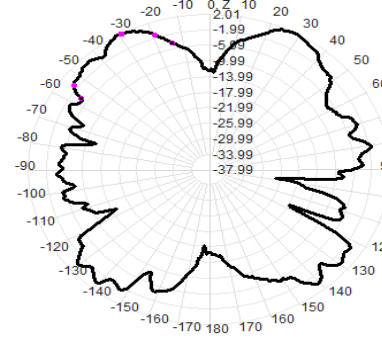
Product Name: 5G External Antenna

	3D	2D-水平面	2D-垂直面
1710M Hz		<p>2.26 -1.74 -5.74 -9.74 -13.74 -17.74 -21.74 -25.74 -29.74 -33.74 -37.74</p>	<p>0, Z, 10, 20, 30, 40, 50, 60, 70, 80, 90, X -10, -20, -30, -40, -50, -60, -70, -80, -90, -100, -110, -120, -130, -140, -150, -160, -170, 160, 150, 140, 130, 120, 110, 100, 90, X</p>
2250M Hz		<p>2.86 -1.14 -5.14 -9.14 -13.14 -17.14 -21.14 -25.14 -29.14 -33.14 -37.14</p>	<p>0, Z, 10, 20, 30, 40, 50, 60, 70, 80, 90, X -10, -20, -30, -40, -50, -60, -70, -80, -90, -100, -110, -120, -130, -140, -150, -160, -170, 160, 150, 140, 130, 120, 110, 100, 90, X</p>
2700M Hz		<p>3.60 -0.10 -4.10 -8.10 -12.10 -16.10 -20.10 -24.10 -28.10 -32.10 -36.10</p>	<p>0, Z, 10, 20, 30, 40, 50, 60, 70, 80, 90, X -10, -20, -30, -40, -50, -60, -70, -80, -90, -100, -110, -120, -130, -140, -150, -160, -170, 160, 150, 140, 130, 120, 110, 100, 90, X</p>



Product Number: BGS-AN5000-13221B
 Product Name: 5G External Antenna

	3D	2D-水平面	2D-垂直面
3300M Hz		 90, Y80: 1.97, 2.03 0, X: -6.03, -10.03, -14.03, -18.03, -22.03, -26.03, -30.03, -34.03, -38.03	 0, Z: -10, 20 -10, Z: 1.97, -2.03 -20, Z: 5.03, -5.03 -30, Z: 10.03, -10.03 -40, Z: 14.03, -14.03 -50, Z: 18.03, -18.03 -60, Z: 22.03, -22.03 -70, Z: 26.03, -26.03 -80, Z: 30.03, -30.03 -90, Z: 34.03, -34.03 -100, Z: 38.03, -38.03
4000M Hz		 90, Y80: 2.26, -1.74 0, X: -5.74, -9.74, -13.74, -17.74, -21.74, -25.74, -29.74, -33.74, -37.74	 0, Z: 10, 20 -10, Z: 2.26, -1.74 -20, Z: 5.74, -5.74 -30, Z: 9.74, -9.74 -40, Z: 13.74, -13.74 -50, Z: 17.74, -17.74 -60, Z: 21.74, -21.74 -70, Z: 25.74, -25.74 -80, Z: 29.74, -29.74 -90, Z: 33.74, -33.74 -100, Z: 37.74, -37.74
5000M Hz		 90, Y80: 3.73, -0.27 0, X: -4.27, -8.27, -12.27, -16.27, -20.27, -24.27, -28.27, -32.27, -36.27	 0, Z: 10, 20 -10, Z: 3.73, -0.27 -20, Z: 4.27, -4.27 -30, Z: 8.27, -8.27 -40, Z: 12.27, -12.27 -50, Z: 16.27, -16.27 -60, Z: 20.27, -20.27 -70, Z: 24.27, -24.27 -80, Z: 28.27, -28.27 -90, Z: 32.27, -32.27 -100, Z: 36.27, -36.27

	3D	2D-水平面	2D-垂直面
5500M Hz		 1.63, 2.37, 6.37, 10.37, 14.37, 18.37, 22.37, 26.37, 30.37, 34.37, 38.37	 1.63, 2.37, 6.37, 10.37, 14.37, 18.37, 22.37, 26.37, 30.37, 34.37, 38.37
5800M Hz		 2.77, 1.23, 5.23, 9.23, 13.23, 17.23, 21.23, 25.23, 29.23, 33.23, 37.23	 2.77, 1.23, 5.23, 9.23, 13.23, 17.23, 21.23, 25.23, 29.23, 33.23, 37.23
6000M Hz		 2.01, 1.99, 5.99, 9.99, 13.99, 17.99, 21.99, 25.99, 29.99, 33.99, 37.99	 2.01, 1.99, 5.99, 9.99, 13.99, 17.99, 21.99, 25.99, 29.99, 33.99, 37.99



Product Number: BGS-AN5000-13221B
 Product Name: 5G External Antenna

3. Mechanical Drawing

