

OTA TEST REPORT(Passive)

Applicant Shenzhen General Test System Co., Ltd

Product RayZone1800

Issue Date November 24, 2026.6.8

Shenzhen 3Good Wireless Communication Co., Ltd .

Tested the above equipment in accordance with the requirements in **ANTI/IEEE Std 149-2008**.The test results show that the equipment tested is capable of demonstrating compliance with the Requirements as documented in this report.

Prepared by: Songlin Li

Approved by:Pu Xu

Shenzhen 3Good Wireless Communication Co., Ltd

Room 501-508,jinfulai Building,No.49-1,Dabao Road,Baoan
District,Shenzhen

1. Test Laboratory

1.1 Notes of the Test report

This report shall not be reproduced in full or partial. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of applicable standards stated above.

1.2 Test facility

GTS1800 Microwave Anechoic Chamber : testing frequency ranges from 600MHz to 6GHz.

1.3 Testing Location

Company: Shenzhen 3Good Wireless Communication Co., Ltd

Address: Room501-508,jinfulaiBuilding,No.49-1,DabaoRoad,BaoanDistrict,
Shenzhen

Contact:Songlin Li

Telephone:13686856980

E-mail: lsl-rfrd@3good.net.cn

1.4 Laboratory Environment

Temperature	Min.= 19°C, Max.=25°C	
Relative humidity	Min.=40%, Max.=72%	
Shield effect	0.6-7GHz	>100dB
Ground resistance	<0.5Ω	

2. General Description of Equipment under Test

2.1 Applicant and Manufacturer information

Applicant Name	Shenzhen General Test System Co., Ltd
Applicant address	Building C-A7 Suite 805,2190 Liuxian Avenue, Nanshan District, Shenzhen, P.R. China
Manufacturer Name	Shenzhen General Test System Co., Ltd

2.2 General information

EUT Description	
Product Name	RayZone1800
Model	GTS-ANT D-H
HW Version	RayZone1800 V1.0
SW Version	MaxSign 100
Antenna Type	FPC Antenna
Antenna Manufacturer	Shenzhen 3Good Wireless Communication Co., Ltd
Test Frequency	800MHz-2500MHz

2.3 Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test Method: **ANSI/IEEE Std 149-2008**

3. Test Conditions

3.1 Test Configuration

The method is used to measure the antenna 3D GAIN of EUT in OTA qualified anechoic chamber. Equipment Under Test (EUT) geometry centre vertical projection at the centre of platform, the distance from EUT to measurement antenna is 1m.

3.2 Test Measurement

Spherical coordinate system

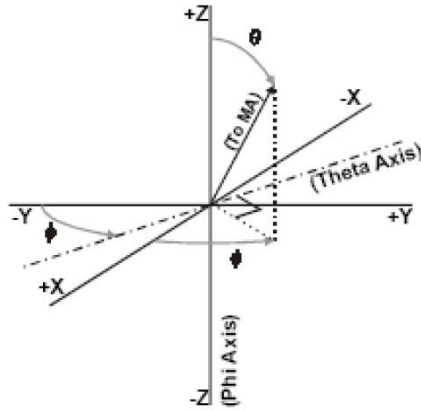
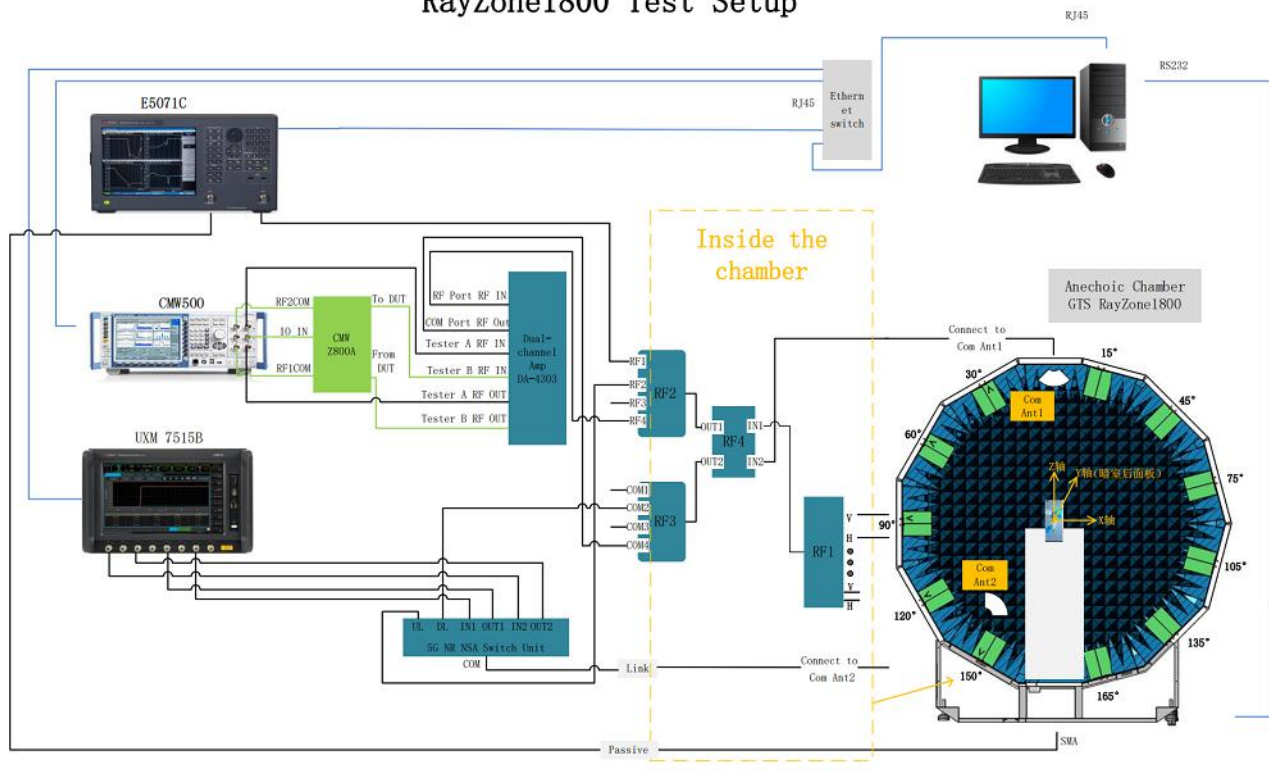


Figure 1 Test coordinate system

Note: Theta is from 0-180degree. Phi is from EUT and record the Date, the step of rotation is 15 degree.

Test Setup

RayZone1800 Test Setup



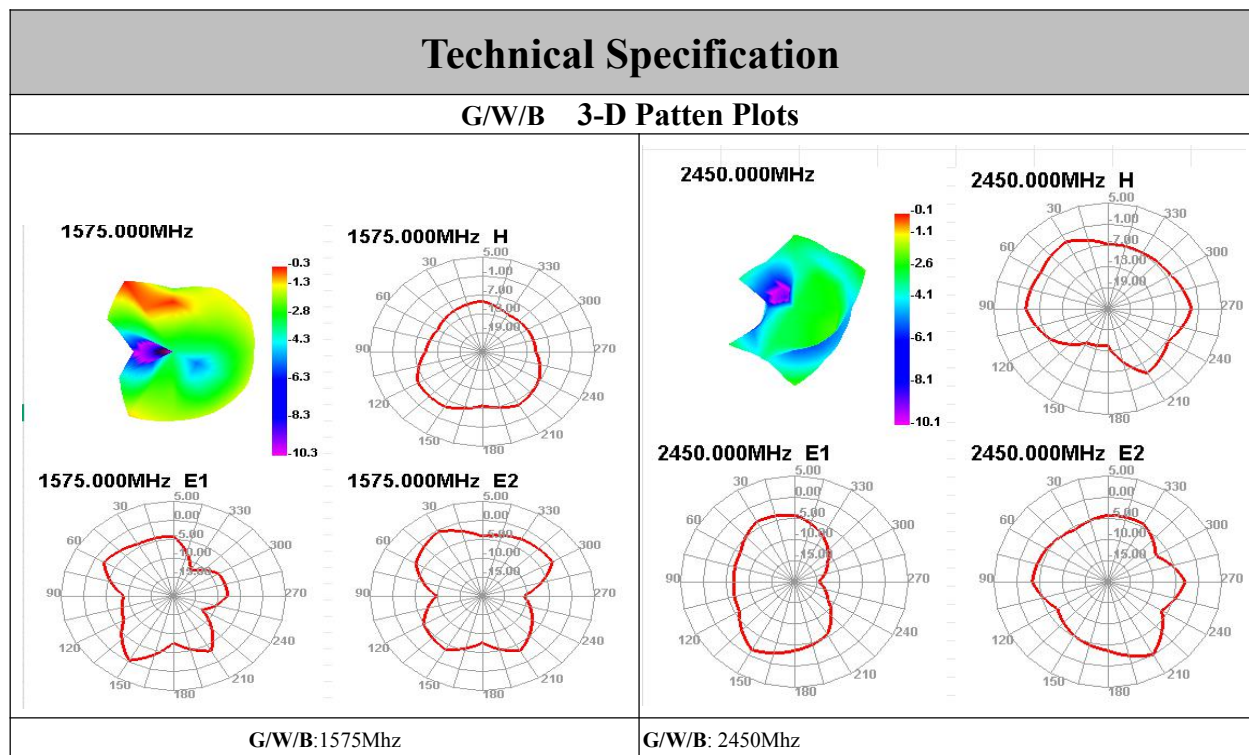
4. Test Results

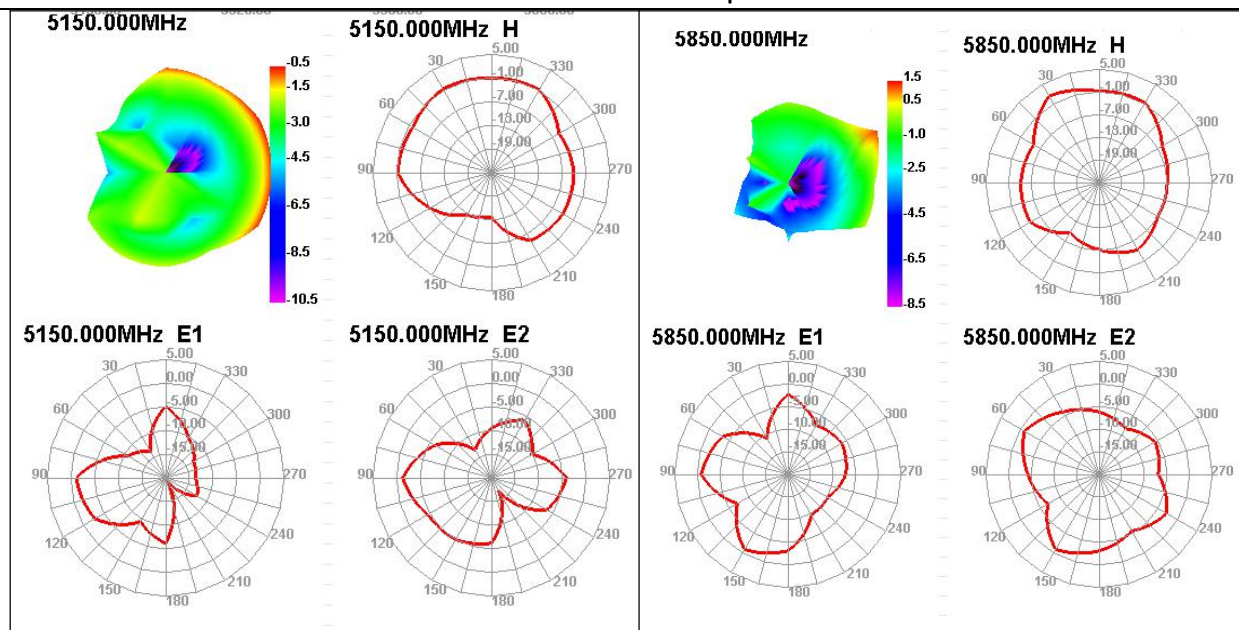
4.1 Antenna Effi.& Max. Peak Gain

主天线 700MHz-960MHz 1710MHz-2700MHz															
Freq (MHz)	Effi (%)	Effi (dB)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	
690	5.64	-12.49	1710	21.32	-6.71	-2.09	1990	42.07	-3.76	0.47	2340	37.59	-4.25	0.01	
700	5.93	-12.27	1720	22.4	-6.5	-2.08	2000	41.09	-3.86	0.29	2350	39.12	-4.08	0.13	
710	6.97	-11.57	1730	26.21	-5.82	-1.55	2010	39.14	-4.07	0.25	2360	38.16	-4.18	-0.07	
720	7	-11.55	1740	27.69	-5.58	-0.96	2020	38.52	-4.14	0.41	2370	36.83	-4.34	-0.4	
730	7.88	-11.03	1750	27.44	-5.62	-1.12	2030	37.07	-4.31	0.24	2380	37.49	-4.26	-0.34	
740	9.85	-10.07	1760	28.81	-5.4	-1.07	2040	35.6	-4.49	0.18	2390	38.81	-4.11	-0.05	
750	11.76	-9.3	1770	30.21	-5.2	-1.12	2050	35.49	-4.5	0.45	2400	39.95	-3.99	0.32	
760	13.78	-8.61	1780	35.24	-4.53	-0.53	2060	35.6	-4.49	0.58	2410	40.73	-3.9	0.52	
770	14.59	-8.36	1790	35.31	-4.52	-0.23	2070	35.46	-4.5	0.52	2420	40.8	-3.89	0.64	
780	14.83	-8.29	1800	33.91	-4.7	-0.53	2080	36.57	-4.37	0.65	2430	39.87	-3.99	0.61	
790	17.5	-7.57	1810	34.41	-4.63	-0.31	2090	34.14	-4.67	0.39	2440	40.2	-3.96	0.74	
800	25.21	-5.98	1820	35.06	-4.55	-0.24	2100	31.82	-4.97	0.19	2450	40.1	-3.97	0.89	
810	25.55	-5.93	1830	36.16	-4.42	-0.26	2110	30.49	-5.16	-0.06	2460	37.31	-4.28	0.7	
820	29.12	-5.36	1840	37.5	-4.26	-0.02	2120	29.22	-5.34	-0.42	2470	35.41	-4.51	0.52	
830	24.39	-6.13	1850	38.44	-4.15	0.24	2130	30.34	-5.18	-0.3	2480	35.32	-4.52	0.49	
840	27.53	-5.6	1860	39.21	-4.07	0.44	2140	30.11	-5.21	-0.28	2490	35.03	-4.56	0.63	
850	26.89	-5.7	1870	39.95	-3.98	0.54	2150	28.38	-5.47	-0.41	2500	34.18	-4.66	0.54	
860	25.56	-5.92	1880	42.53	-3.71	0.68	2160	28.01	-5.53	-0.4	2510	30.44	-5.17	0.16	
870	19.41	-7.12	1890	44.76	-3.49	0.81	2170	26.57	-5.76	-0.66	2520	28.28	-5.49	-0.13	
880	17.89	-7.48	1900	46.94	-3.28	0.94	2180	27.36	-5.63	-0.48	2530	28.21	-5.5	-0.11	
890	16.36	-7.86	1910	47.43	-3.24	0.89	2190	30.39	-5.17	0.01	2540	26.12	-5.83	-0.38	
900	17.44	-7.59	1920	48.39	-3.15	1	2250	34.2	-4.66	0.08	2550	25.09	-6	-0.51	
910	14.14	-8.49	1930	47.03	-3.28	0.87	2260	36.29	-4.4	0.44	2560	26.21	-5.82	-1.55	
920	13.46	-8.71	1940	46.83	-3.29	0.79	2270	37.77	-4.23	0.63	2570	27.69	-5.58	-0.96	
930	12.35	-9.08	1950	47.75	-3.21	1.01	2280	34.56	-4.61	0.12	2580	26.22	-5.81	-0.38	
940	10.87	-9.64	1960	47.22	-3.26	0.91	2290	32.5	-4.88	-0.38	2590	25.03	-6.02	-0.55	
950	10.11	-9.95	1970	47.04	-3.28	0.91	2200	30.6	-5.14	0.08	2600	25.33	-5.96	-0.47	
960	8.96	-10.48	1980	44.37	-3.53	0.73	2210	31.7	-4.99	0.16	2610	24.65	-6.08	-0.52	
							2220	31.95	-4.96	0.16	2620	24.48	-6.11	-0.66	
							2230	31.98	-4.95	0.06	2630	25.13	-6	-0.7	
							2240	33.16	-4.79	0.17	2640	24.62	-6.09	-1.01	
							2300	33.37	-4.77	-0.33	2650	24.85	-6.05	-1	
							2310	35.21	-4.53	0.01	2660	24.35	-6.14	-1.15	
							2320	36.05	-4.43	-0.01	2670	23.48	-6.29	-1.2	
							2330	37.52	-4.26	0.09	2680	24.18	-6.17	-0.89	
											2690	24.23	-6.16	-0.89	
											2700	24.69	-6.08	-0.84	

1500MHZ-1600MHZ				2400MHZ-2500MHZ				5100MHZ-5800MHZ							
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1550	33.48	-4.75	0.93	2400	28.75	-5.41	-1.57	5150	25.08	-6.01	-0.7	5500	31.19	-5.06	-0.08
1555	32.49	-4.88	0.76	2410	28.71	-5.42	-1.5	5160	27.13	-5.67	-0.33	5510	30.33	-5.18	-0.27
1560	34.4	-4.63	0.96	2420	29.96	-5.23	-1.41	5170	27.59	-5.59	-0.28	5520	31.03	-5.08	-0.32
1565	35.46	-4.5	1.05	2430	29.56	-5.29	-1.48	5180	29.13	-5.36	0.11	5530	36.72	-4.35	1.08
1570	35.75	-4.47	1.03	2440	28.89	-5.39	-1.63	5190	29.39	-5.32	0.43	5540	36.35	-4.4	0.91
1575	38.47	-4.15	1.35	2450	29.24	-5.34	-1.64	5200	31.61	-5	0.87	5550	36.13	-4.42	0.75
1580	36.93	-4.33	1.03	2460	28.28	-5.49	-1.8	5210	33.34	-4.77	1.03	5560	33.87	-4.7	0.48
1585	38.16	-4.18	1.17	2470	29.11	-5.36	-1.85	5220	33.83	-4.71	1	5570	33.71	-4.72	0.56
1590	37.24	-4.29	0.99	2480	31.72	-4.99	-1.49	5230	30.6	-5.14	0.08	5580	32.69	-4.86	0.33
1595	36.43	-4.38	0.81	2490	33.03	-4.81	-1.27	5240	31.7	-4.99	0.16	5590	32.51	-4.88	0.34
1600	36.49	-4.38	0.71	2500	33.46	-4.75	-1.19	5250	31.95	-4.96	0.16	5600	32.95	-4.82	0.05
								5260	31.98	-4.95	0.06	5610	33.16	-4.79	0.31
								5270	33.16	-4.79	0.17	5620	32.62	-4.87	0.34
								5280	34.2	-4.66	0.08	5630	32.09	-4.94	0.77
								5290	31.68	-4.99	-0.84	5640	31	-5.09	0.5
								5300	30.2	-5.2	-0.89	5650	31.94	-4.96	0.24
								5310	30.33	-5.18	-0.83	5660	33.13	-4.8	0.37
								5320	31.63	-5	-0.77	5670	33.79	-4.71	0.4
								5330	32.42	-4.89	-0.48	5680	32.44	-4.89	0.28
								5340	33.25	-4.78	-0.47	5690	31.85	-4.97	0.21
								5350	34.38	-4.64	-0.6	5700	33.19	-4.79	0.32
								5360	31.91	-4.96	-0.67	5710	33.56	-4.74	0.12
								5370	34.08	-4.68	-0.42	5720	32.22	-4.92	0.29
								5380	35.29	-4.52	-0.35	5730	32.53	-4.88	0.56
								5390	34.88	-4.57	-0.2	5740	32.63	-4.86	0.64
								5400	26.49	-5.77	-1.3	5750	32.25	-4.91	0.44
								5410	25.36	-5.96	-1.75	5760	32.28	-4.91	0.26
								5420	27.33	-5.63	-1.25	5770	32.59	-4.87	0.54
								5430	28.4	-5.47	-1.39	5780	31.09	-5.07	0.65
								5440	29.67	-5.28	-1.26	5790	29.55	-5.29	0.39
								5450	29.06	-5.37	-0.89	5800	28.85	-5.4	0.14
								5460	26.96	-5.69	-1.4	5810	29.08	-5.36	-0.02
								5470	27.72	-5.57	-1.79	5820	29.71	-5.27	0.32
								5480	29.33	-5.33	-1.52	5830	29.69	-5.27	0.1
								5490	30.5	-5.16	-1.12	5840	28.45	-5.46	-0.11
												5850	26.71	-5.73	-0.33

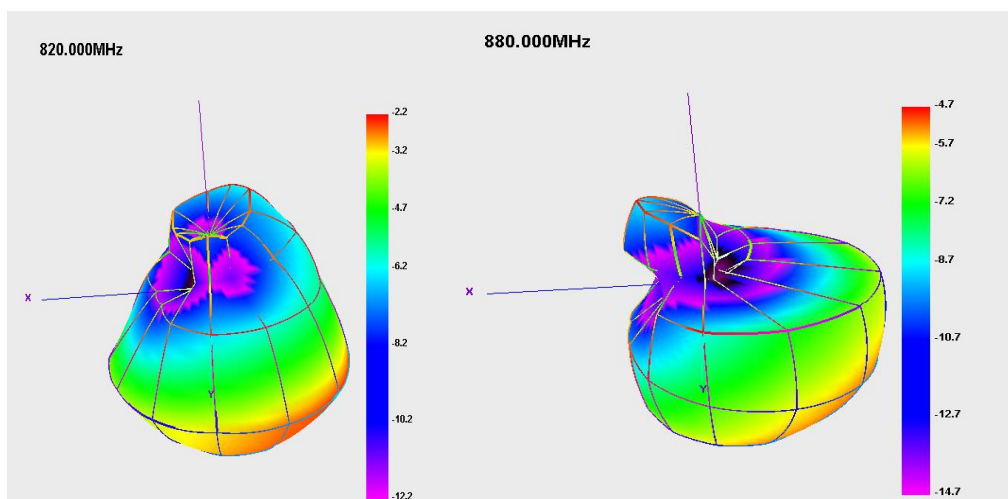
4.2 Antenna radiation patter





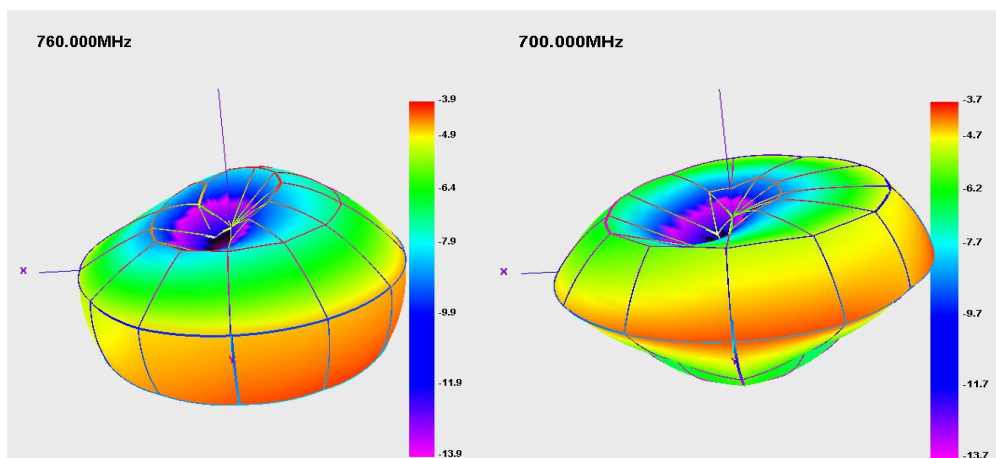
B5

B8



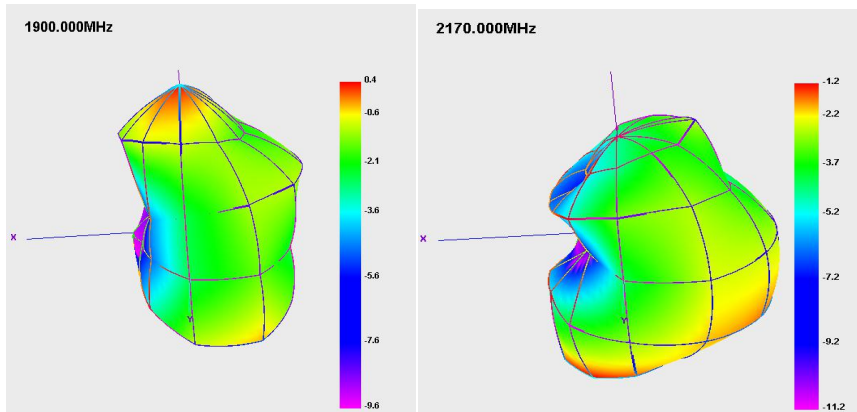
B20

B28



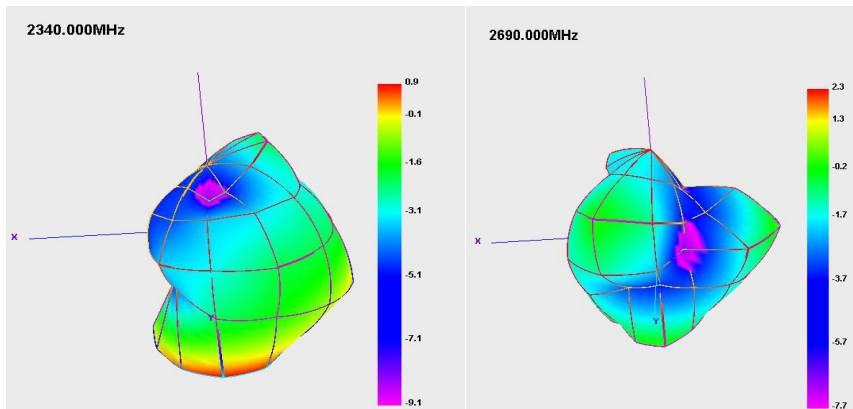
1800

B1



40

41



5. Equipment List

Type of Equipment	Manufacture	Model Number
Network Analyzer	Agilent Technologies	E5071B
Switch control System	GTS	RayZone1800
Software	GTS	MaxSign 100 Patten Measurement software

ANNEX B: The EUT Appearance and Test Configuration

B.1 EUT Appearance

