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OTA TEST REPORT(Passive)

Applicant Shenzhen General Test System Co., Ltd

Product RayZone1800

Issue Date September 29, 2025

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: Tao Liu

Approved by: Wu Zhou

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: Tao LIU

Telephone: 17680782075

E-mail: liutao@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
Manufacturer address	Building C-A7 Suite 805,2190 Liuxian Avenue, Nanshan District, Shenzhen, P.R. China

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	2400MHz-2500MHz 5150MHz-5850MHz

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

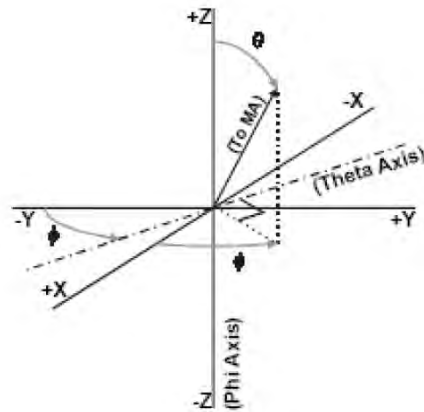
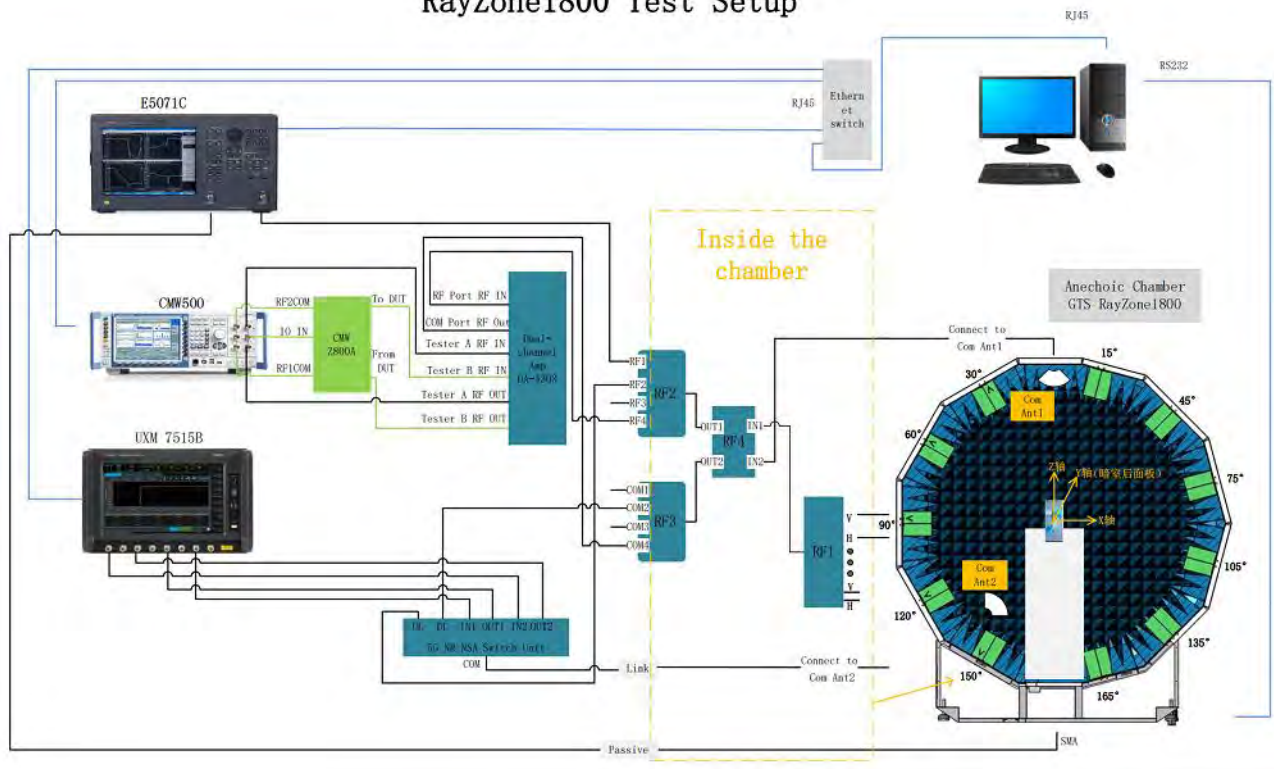


Figure 1 Test coordinate system

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

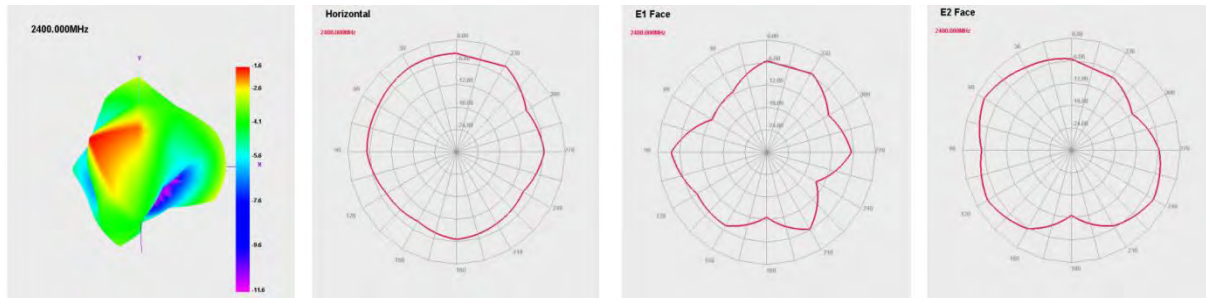
4.1 Antenna Effi.& Max. Peak Gain

WIFI 1

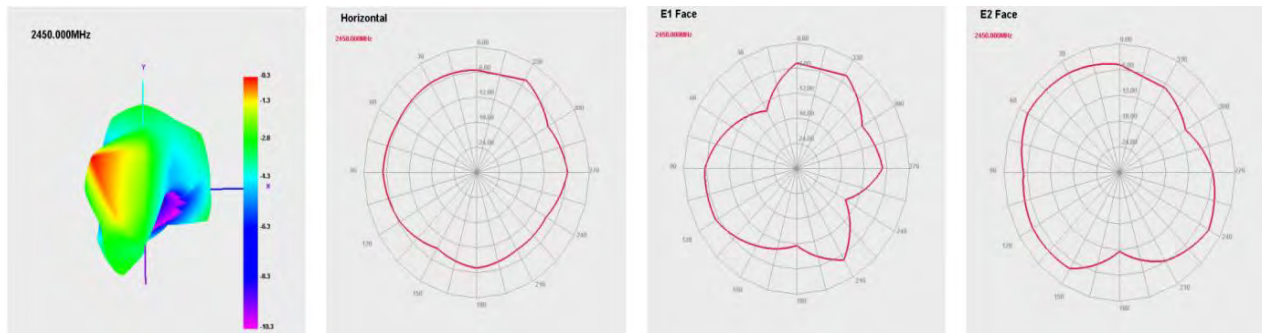
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	23.44	-6.3	-1.61	5150	17.8	-7.5	-1.61	5500	23.85	-6.22	-0.9
2410	24.44	-6.12	-1.25	5160	17.87	-7.48	-1.74	5510	23.1	-6.36	-0.61
2420	24.77	-6.06	-1.04	5170	17.38	-7.6	-1.64	5520	23.18	-6.35	-0.62
2430	25.67	-5.91	-0.88	5180	18.11	-7.93	-2.19	5530	23.73	-6.25	-0.54
2440	25.87	-5.87	-0.55	5190	16.26	-7.89	-1.71	5540	24.78	-6.06	-0.4
2450	26.9	-5.7	-0.33	5200	16.39	-7.85	-1.96	5550	26.42	-5.78	-0.05
2460	27.33	-5.63	-0.26	5210	17.33	-7.61	-1.64	5560	24.9	-6.04	-0.11
2470	27.32	-5.64	-0.16	5220	16.19	-7.91	-2.05	5570	25.06	-6.01	-0.2
2480	28.7	-5.42	-0.1	5230	15.68	-8.05	-2.13	5580	25.56	-5.92	0.21
2490	30.11	-5.21	0.18	5240	15.1	-8.21	-2.22	5590	26.48	-5.77	0.46
2500	28.54	-5.45	-0.31	5250	14.87	-8.28	-2.21	5600	27.26	-5.64	0.64
				5260	15.23	-8.17	-2.17	5610	28.35	-5.47	0.4
				5270	15.18	-8.19	-2.18	5620	27.5	-5.61	0.08
				5280	15.29	-8.16	-1.87	5630	27.12	-5.67	0.22
				5290	14.27	-8.45	-1.92	5640	27.38	-5.63	0.48
				5300	13.24	-8.78	-2.5	5650	28.77	-5.41	0.54
				5310	13.97	-8.55	-2.22	5660	29.55	-5.29	0.52
				5320	15.21	-8.18	-2.01	5670	28.82	-5.4	0.13
				5330	15.17	-8.19	-1.96	5680	27.35	-5.63	-0.28
				5340	15.64	-8.06	-2.07	5690	27.5	-5.61	-0.5
				5350	16.21	-7.9	-1.76	5700	27.81	-5.56	-0.38
				5360	15.98	-7.97	-1.79	5710	28.16	-5.5	0
				5370	16.75	-7.76	-1.52	5720	27.55	-5.6	-0.16
				5380	17.44	-7.58	-1.61	5730	26.91	-5.7	-0.58
				5390	17.82	-7.49	-1.54	5740	25.96	-5.86	-0.89
				5400	20.05	-6.98	-1.05	5750	25.65	-5.91	-0.82
				5410	20.53	-6.88	-0.97	5760	25.66	-5.91	-0.76
				5420	20.31	-6.92	-0.61	5770	27.08	-5.67	-0.25
				5430	22.26	-6.52	-0.33	5780	25.46	-5.94	-0.75
				5440	22.69	-6.44	-0.49	5790	23.41	-6.31	-0.93
				5450	22.62	-6.42	-0.69	5800	22.48	-6.46	-1.07
				5460	21.21	-6.73	-0.71	5810	23.6	-6.27	-0.79
				5470	21.58	-6.66	-0.69	5820	25.01	-6.02	-0.24
				5480	22.14	-6.55	-0.54	5830	25.25	-5.98	-0.31
				5490	24.38	-6.13	-0.47	5840	23.43	-6.3	-0.62
								5850	22.34	-6.51	-0.96

Antenna radiation pattern

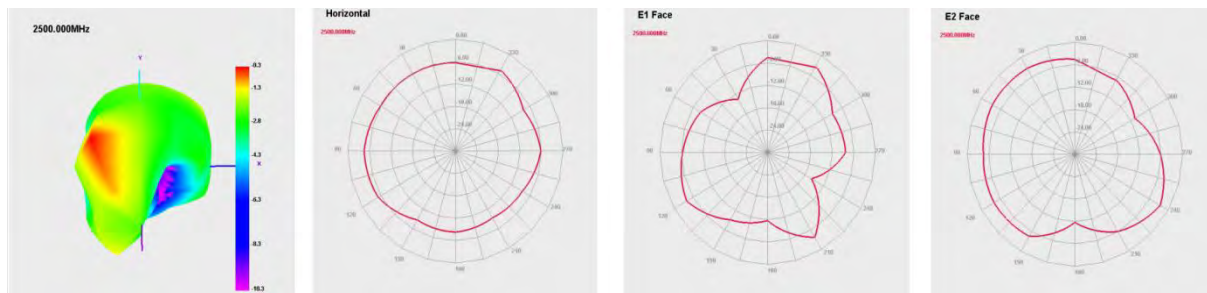
Antenna 3D Patten at 2400MHz



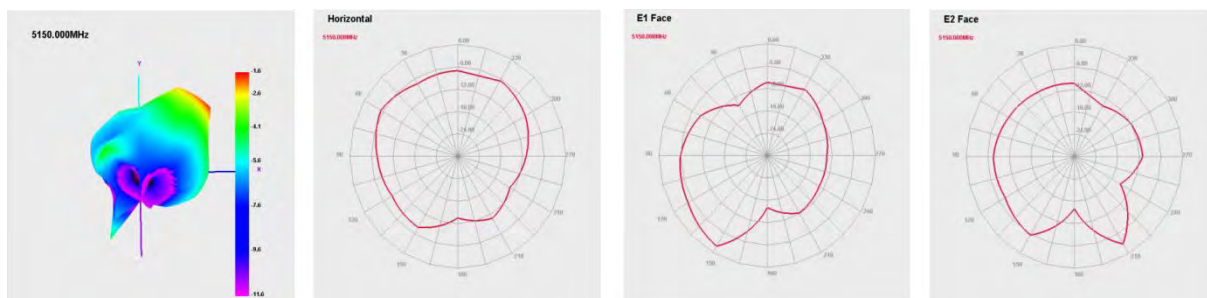
Antenna 3D Patten at 2450MHz



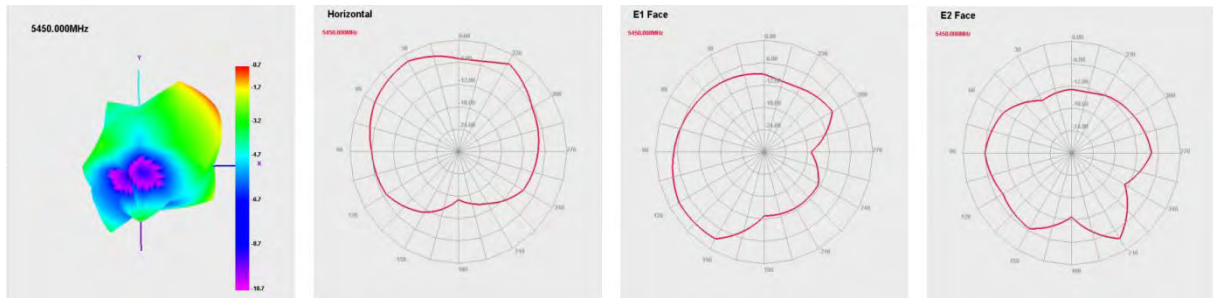
Antenna 3D Patten at 2500MHz



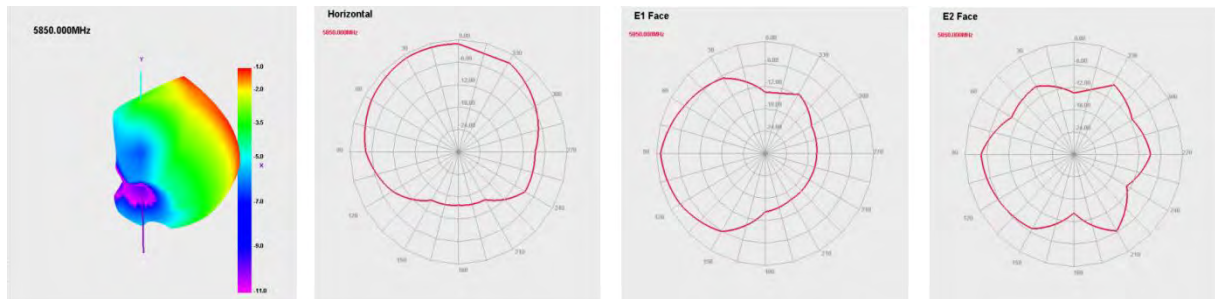
Antenna 3D Patten at 5150MHz



Antenna 3D Patten at 5450MHz



Antenna 3D Patten at 5850MHz



WIFI 2

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	28.21	-5.5	-0.74	5150	24.81	-6.05	-0.49	5510	23.72	-6.25	-0.56
2410	28.19	-5.5	-0.66	5160	25.21	-5.98	-0.59	5520	23.94	-6.21	-0.33
2420	26.48	-5.77	-0.79	5170	26.07	-5.84	-0.43	5530	24.37	-6.13	-0.02
2430	26.13	-5.83	-0.8	5180	25.6	-5.92	-0.57	5540	23.99	-6.2	-0.22
2440	27.06	-5.68	-0.65	5190	25.5	-5.93	-0.69	5550	23.7	-6.25	-0.39
2450	27.9	-5.54	-0.17	5200	26.46	-5.77	-0.5	5560	21.73	-6.63	-0.66
2460	28	-5.53	0.27	5210	28.19	-5.5	-0.4	5570	20.72	-6.84	-0.79
2470	25.7	-5.9	0.14	5220	27.64	-5.58	-0.71	5580	19.57	-7.08	-0.71
2480	25.79	-5.89	0.33	5230	27.72	-5.57	-0.89	5590	19.12	-7.18	-0.95
2490	26.67	-5.74	0.24	5240	26.11	-5.83	-1.29	5600	19.9	-7.01	-0.09
2500	27.79	-5.56	0.28	5250	26.78	-5.72	-1.16	5610	19.61	-7.07	-0.29
				5260	27.43	-5.62	-0.94	5620	17.38	-7.6	-0.97
				5270	27.93	-5.54	-0.88	5630	16.23	-7.9	-1.28
				5280	28.75	-5.41	-0.82	5640	16.34	-7.87	-0.58
				5290	27.38	-5.63	-0.76	5650	16.93	-7.71	-0.22
				5300	26.34	-5.79	-1.15	5660	17.43	-7.59	0
				5310	27.56	-5.6	-0.84	5670	16.41	-7.85	-0.78
				5320	29.17	-5.35	-0.42	5680	15.86	-8	-0.89
				5330	28.19	-5.5	-0.57	5690	16.67	-7.78	-0.87
				5340	28.68	-5.42	-0.16	5700	16.76	-7.76	-1.12
				5350	28.73	-5.42	-0.11	5710	17.23	-7.64	-1.15
				5360	27.9	-5.54	-0.17	5720	17.07	-7.68	-1.39
				5370	28.67	-5.43	-0.09	5730	17.11	-7.67	-1.24
				5380	28.66	-5.43	-0.13	5740	16.95	-7.71	-1.75
				5390	26.75	-5.73	-0.28	5750	17.48	-7.57	-1.76
				5400	29.04	-5.37	-0.11	5760	17.52	-7.57	-2.38
				5410	28.59	-5.44	0.2	5770	18.4	-7.35	-2.49
				5420	27.98	-5.53	0.07	5780	17.24	-7.64	-2.43
				5430	29.16	-5.35	0.35	5790	16.58	-7.8	-2.66
				5440	28.43	-5.46	-0.05	5800	17.2	-7.65	-2.71
				5450	26.47	-5.77	-0.13	5810	17.99	-7.45	-1.88
				5460	24.63	-6.09	-0.37	5820	17.95	-7.46	-2.06
				5470	25.09	-6	0.06	5830	18.15	-7.41	-1.57
				5480	25.44	-5.94	0.12	5840	19.24	-7.16	-1.5
				5490	25.85	-5.87	0.05	5850	20.71	-6.84	-1.25
				5500	24.93	-6.03	-0.32				

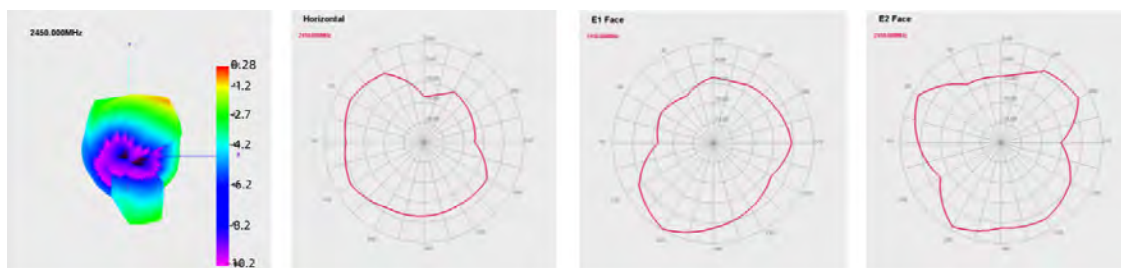
Antenna 3D Pattern at 2400MHz



Antenna 3D Pattern at 2450MHz



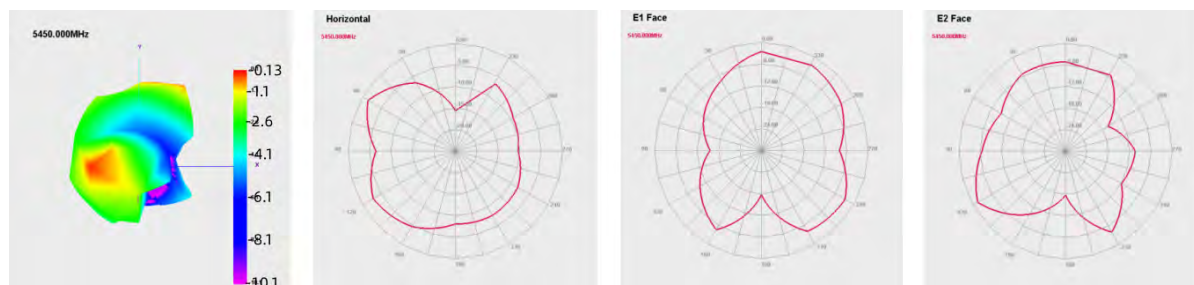
Antenna 3D Pattern at 2500MHz



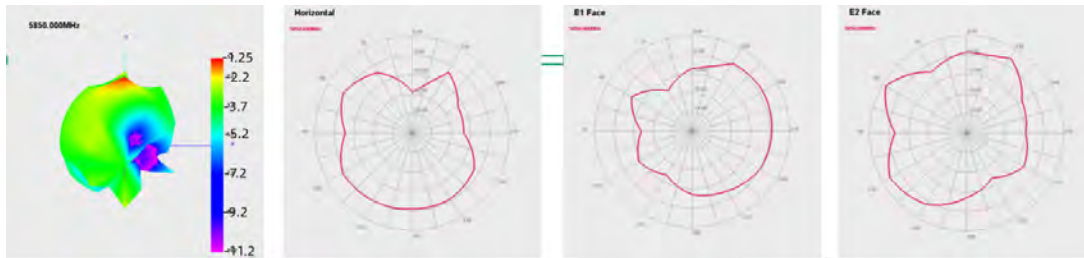
Antenna 3D Pattern at 5150MHz



Antenna 3D Pattern at 5450MHz



Antenna 3D Pattern at 5850MHz

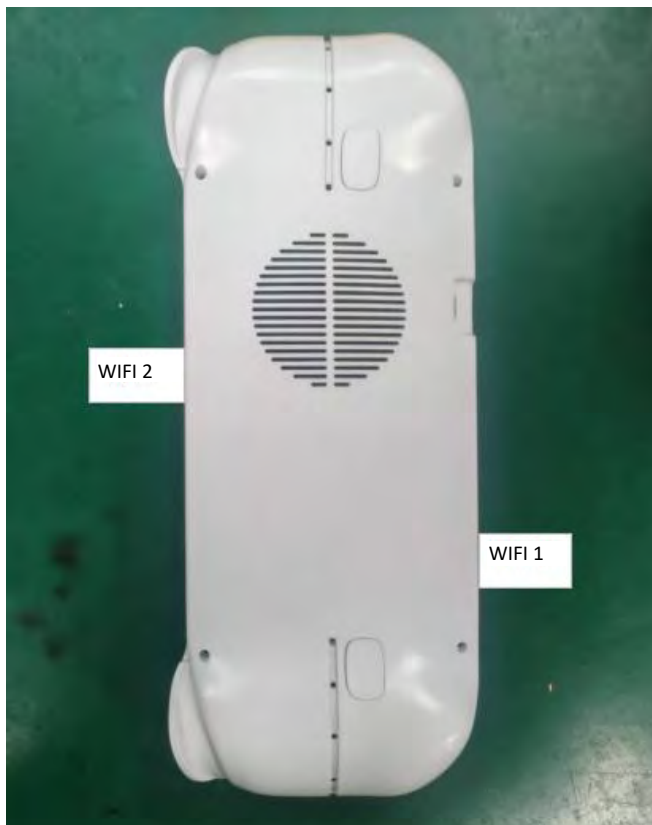


5. Equipment List

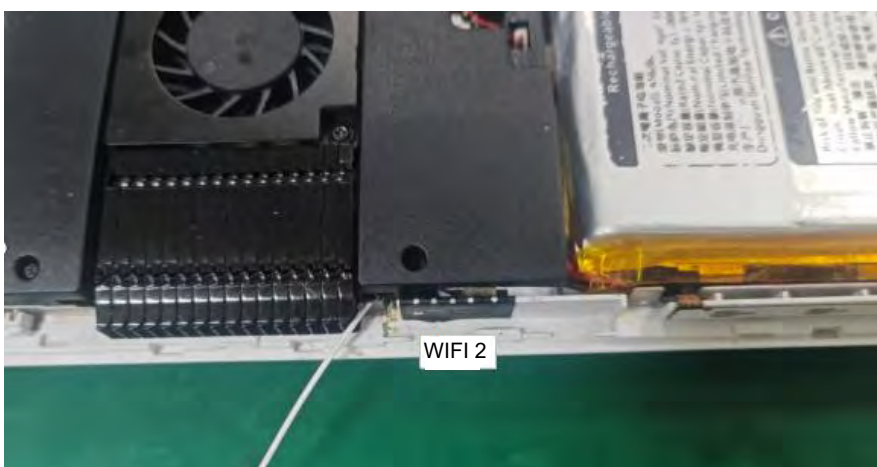
Type of Equipment	Manufacture	Model Number
Network Analyzer	Agilent Technologies	E5071B
Switch control System	GTS	RayZone1800
Software	GTS	MaxSign 100 Patten Measurement software

ANNEX B: The EUT Appearance and Test Configuration

B.1 EUT Appearance



B.2 Test Configuration





6. 工程图纸

