

OTA TEST REPORT

Applicant Shenzhen General Test System Co., Ltd
Product RayZone1800
Issue Date April 27, 2026

Shenzhen Fu Bang Wireless Technology 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: Kui zeng
Approved by: Lunkang Yan

Shenzhen Fu Bang Wireless Technology Co., Ltd.

Room 302, lianjian Industry Part, Huarong road, Longhua District, Shenzhen, P.R. China

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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 Fu Bang Wireless Technology Co., Ltd

Address: Room 302, lianjian Industry Part, Huarong road, Longhua District,
Shenzhen, P.R. China

Contact: Tong Dong

Telephone: 15721979352

E-mail: 3108834825@qq.com

1.4 Laboratory Environment

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

2. General Description of Equipment under Test

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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	PCB Antenna
Antenna Manufacturer	Shenzhen General Test System Co., Ltd
Test Frequency	600MHz-5.8GHz

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

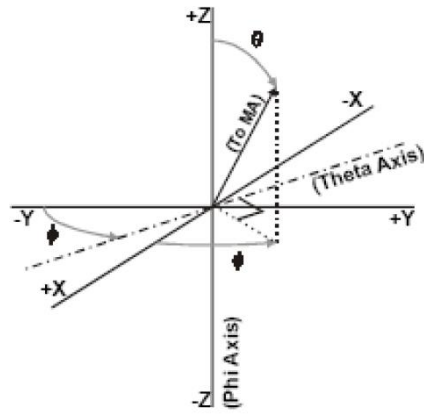
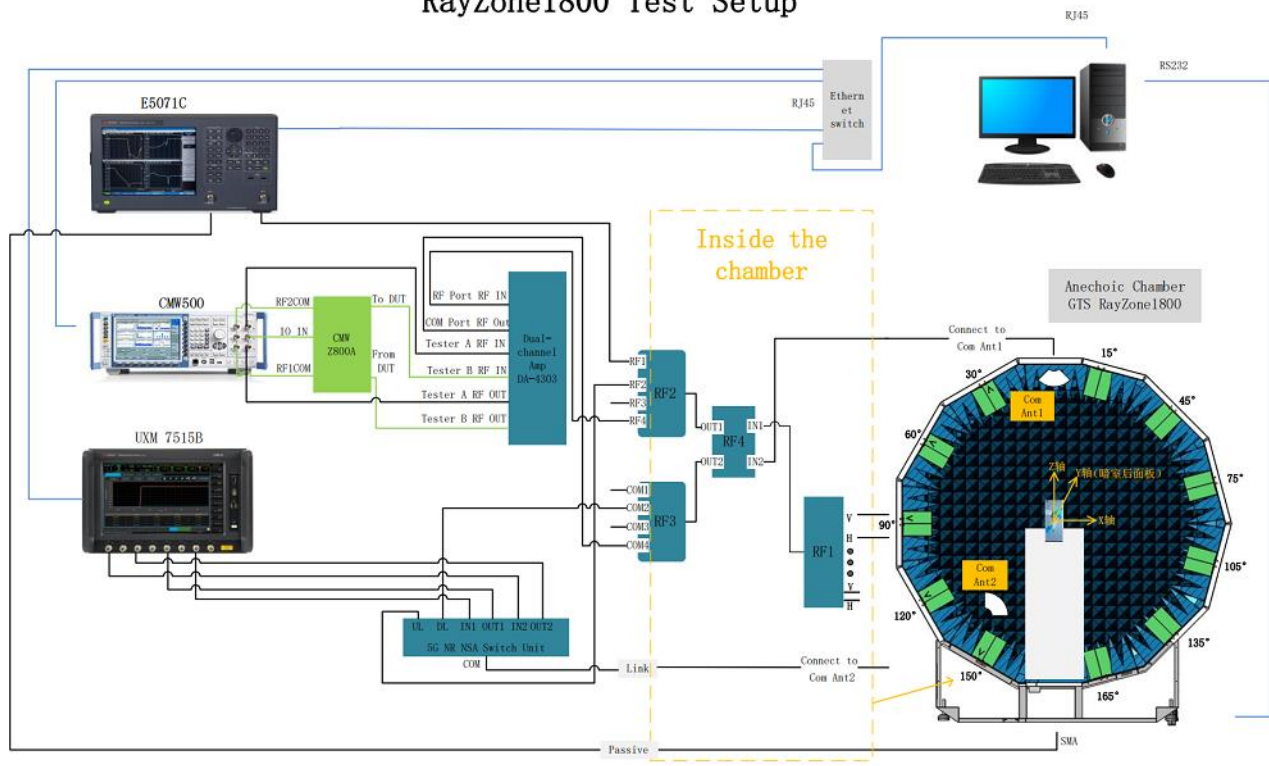


Figure 1 Test coordinate system

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 Gain and Efficiency

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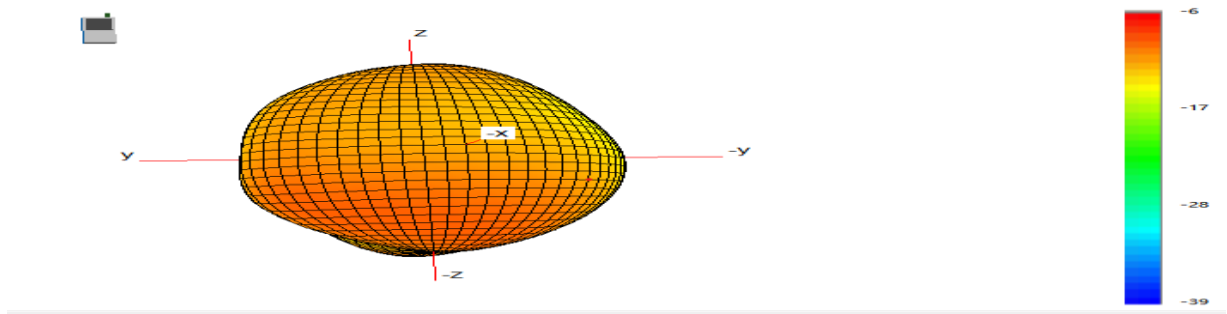
Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
	Free Space	700	15.17	-4.63	1900	30.61	-1.54	
		710	15.23	-4.61	1920	29.19	-2.1	
		720	15.85	-4.57	1940	27.15	-2.65	
		730	16.16	-4.35	1960	26.59	-3.02	
		740	16.47	-4.28	1980	25.95	-3.05	
		750	16.68	-4.02	2000	25.1	-3.3	
		760	17.51	-3.98	2020	26.25	-3.21	
		770	17.87	-3.91	2040	27	-3.08	
		780	17.94	-3.87	2060	25.99	-3.05	
		790	18.83	-3.45	2080	25.34	-3.03	
		800	18.88	-3.42	2100	25.75	-3.23	
		810	15.18	-4.65	2120	25.93	-3.28	
		820	15.36	-4.58	2140	25.66	-3.12	
		830	15.51	-4.31	2160	27.06	-2.69	
		840	16.89	-4.19	2180	27.09	-2.96	
		850	17.01	-3.89	2200	26.11	-3.05	
		860	17.27	-3.75	2300	26.4	-2.58	
		870	18.28	-3.52	2320	27.27	-1.64	
		880	19.31	-3.19	2340	29.32	-1.32	
		890	21.62	-2.63	2360	31.14	-0.78	
		900	21.53	-2.73	2380	32.78	-0.6	
		910	20.95	-2.73	2400	32.7	-0.59	
		920	21.04	-2.91	2420	31.87	-0.98	
		930	19.08	-3.22	2440	31.39	-1.31	
		940	18.61	-3.83	2460	31.19	-1.23	
		950	16.73	-4.05	2480	30.87	-1.35	
		960	16.17	-4.21	2500	29.26	-1.57	
		1700	29.11	-0.68	2520	28.38	-1.84	
		1720	30.41	-0.58	2540	28.26	-2	
		1740	32.97	-0.22	2560	28.02	-2.23	
		1760	34.2	-0.04	2580	27.67	-2.22	
		1780	33.66	-0.27	2600	27.52	-2.18	
		1800	33.74	-0.5	2620	27.42	-2.26	
		1820	33.4	-0.49	2640	27.01	-2.23	
		1840	33.26	-0.54	2660	26.36	-2.95	
		1860	32.72	-0.51	2680	26.54	-3.04	
		1880	31.76	-0.72	2700	25.83	-3.19	

Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
	Free Space	1550	38.34	0.56	5100	25.32	-1.9	
		1560	38.57	0.46	5140	25.53	-1.54	
		1570	37.12	0.17	5180	25.97	-1.41	
		1580	34.54	-0.27	5220	26.54	-1	
		1590	31.4	-0.67	5260	27.05	-0.7	
		2400	35.25	1.53	5300	27.36	-0.07	
		2410	34.7	1.47	5340	27.08	0.09	
		2420	34.44	1.42	5380	26.38	0.42	
		2430	34.67	1.32	5420	26.63	0.68	
		2440	34.98	1.27	5460	26.85	0.59	
		2450	35.4	1.26	5500	26.62	0.28	
		2460	35.59	1.31	5540	26.24	0.2	
		2470	35.53	1.27	5580	26.7	-0.15	
		2480	35.56	1.2	5620	27.01	-0.7	
		2490	35.48	1.27	5660	27.13	0.29	
		2500	34.99	1.22	5700	28.9	0.07	
					5740	26.96	-0.12	
					5780	28.11	-0.34	
					5800	30.79	-0.58	

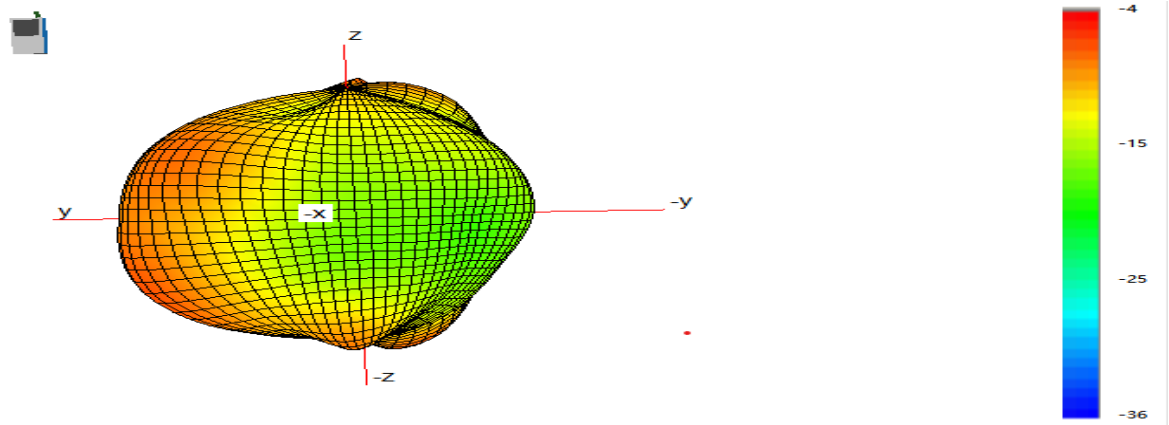
5. Equipment List

Type of Equipment	Manufacture	Model Number
Network Analyzer	Key sight	E5071C
Switch control System	GTS	RayZone1800
Software	GTS	MaxSign 100 Patten Measurement software
Radio Communication Tester	Rohde&Schwarz	CMW 500
	Anritsu	MT8000A
	Agilent	E4438C

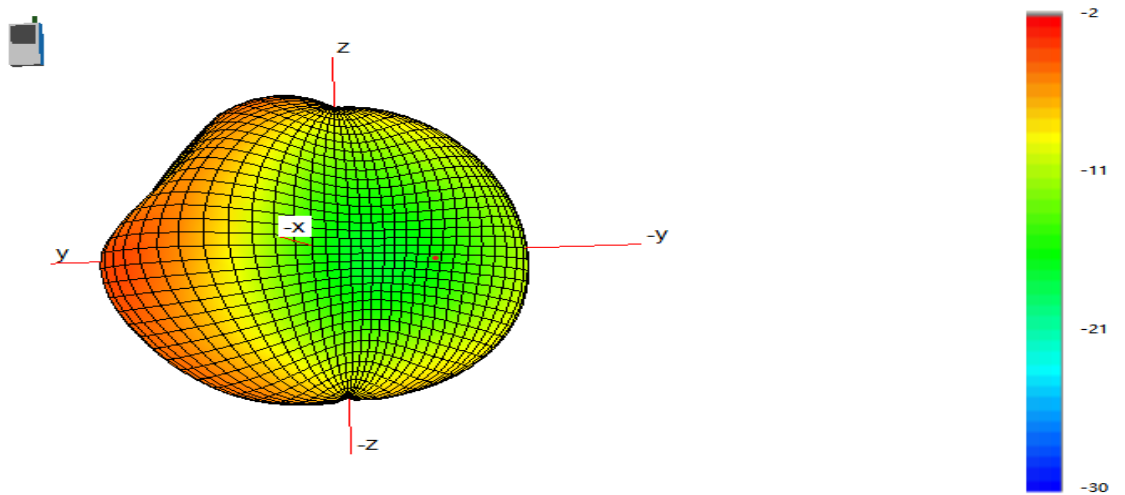
ANNEX A 3-D Patten Plots



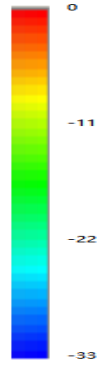
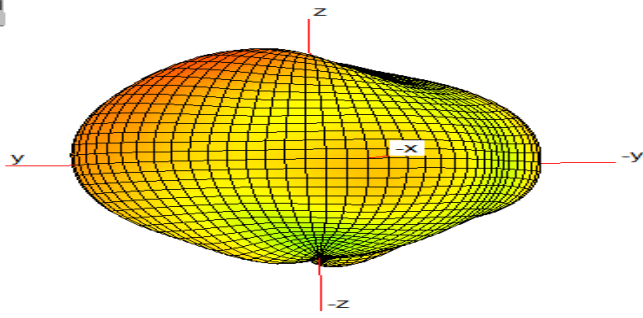
700MHz



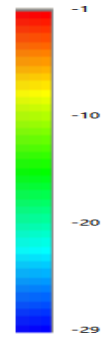
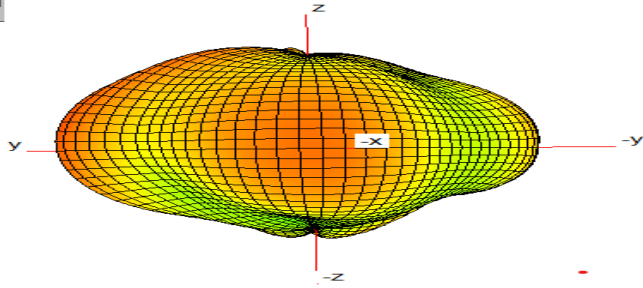
850MHz



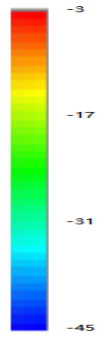
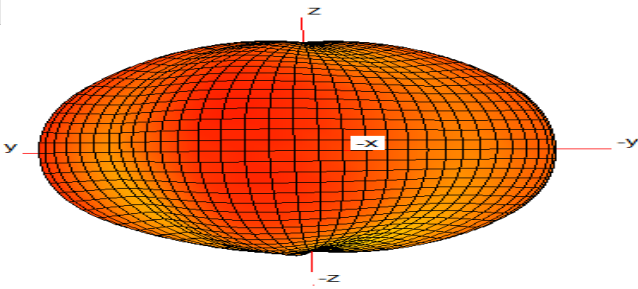
900MHz



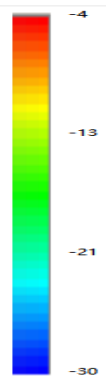
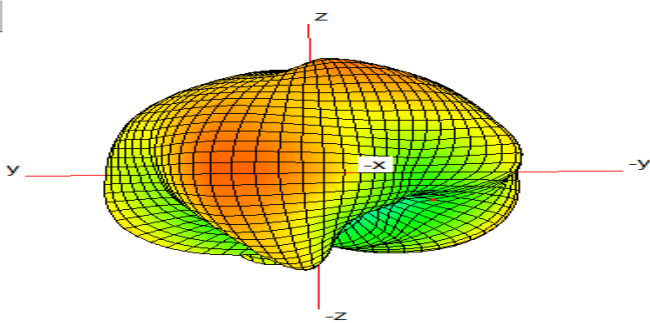
1800MHz



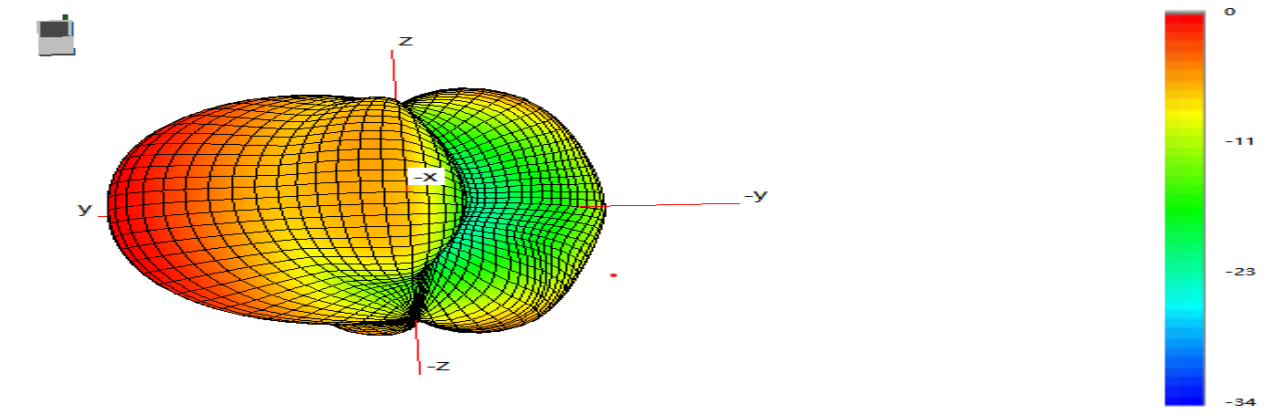
1900MHz



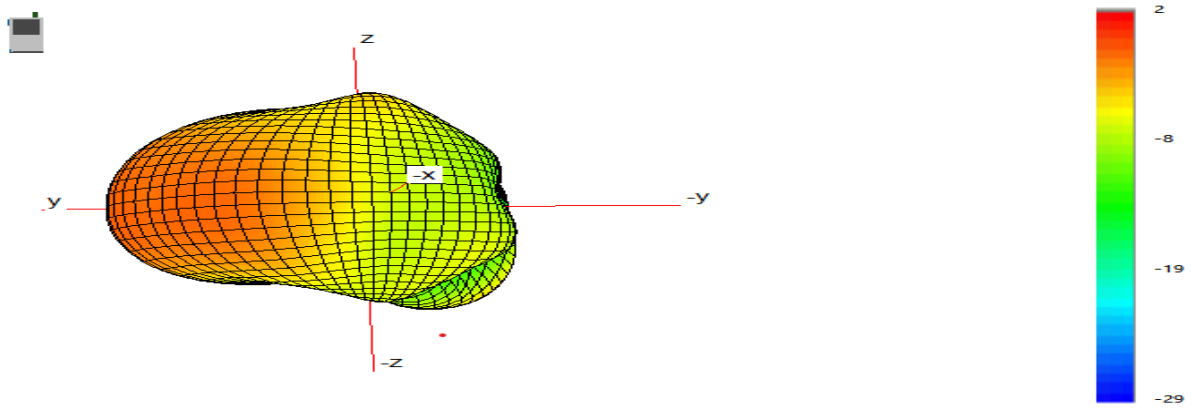
2100MHz



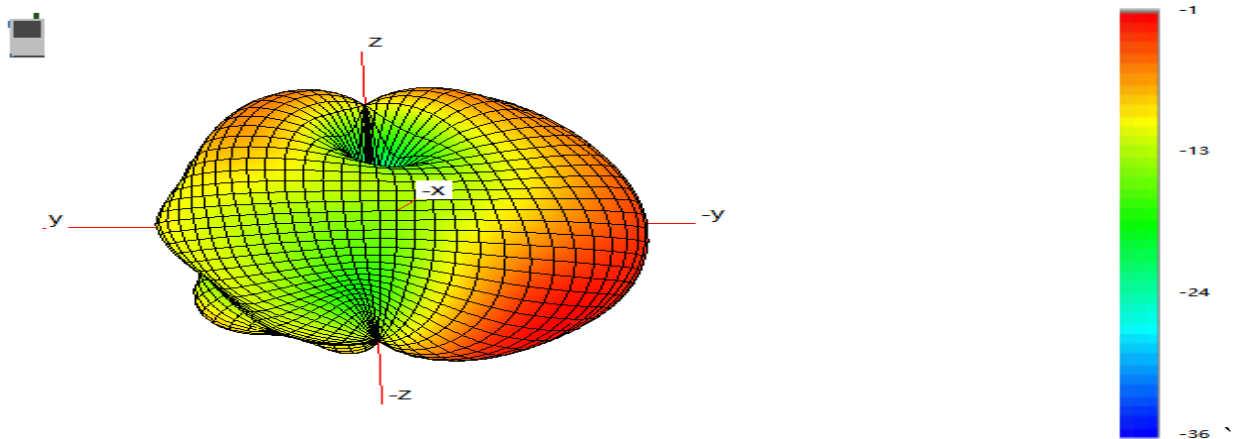
2700MHz



1575MHz



2400MHz



5100MHz

ANNEX B: The EUT Appearance and Test Configuration

B.1 EUT Appearance

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