

OTA TEST REPORT

Applicant Shenzhen General Test System Co., Ltd
Product RayZone1800
Issue Date August 19, 2025

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: Tong Dong
Approved by: ZhangHong Lai

Shenzhen Fu Bang Wireless Technology Co., Ltd.

Room 302, Lianjian Industry Part, Huarong Road, Longhua District, Shenzhen, P.R. China

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

2. General Description of Equipment under Test

Shenzhen Fu Bang Wireless Technology Co., Ltd.

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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

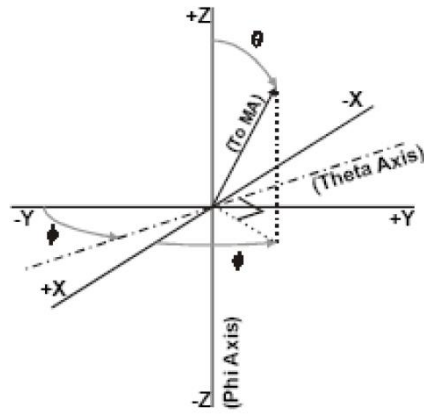
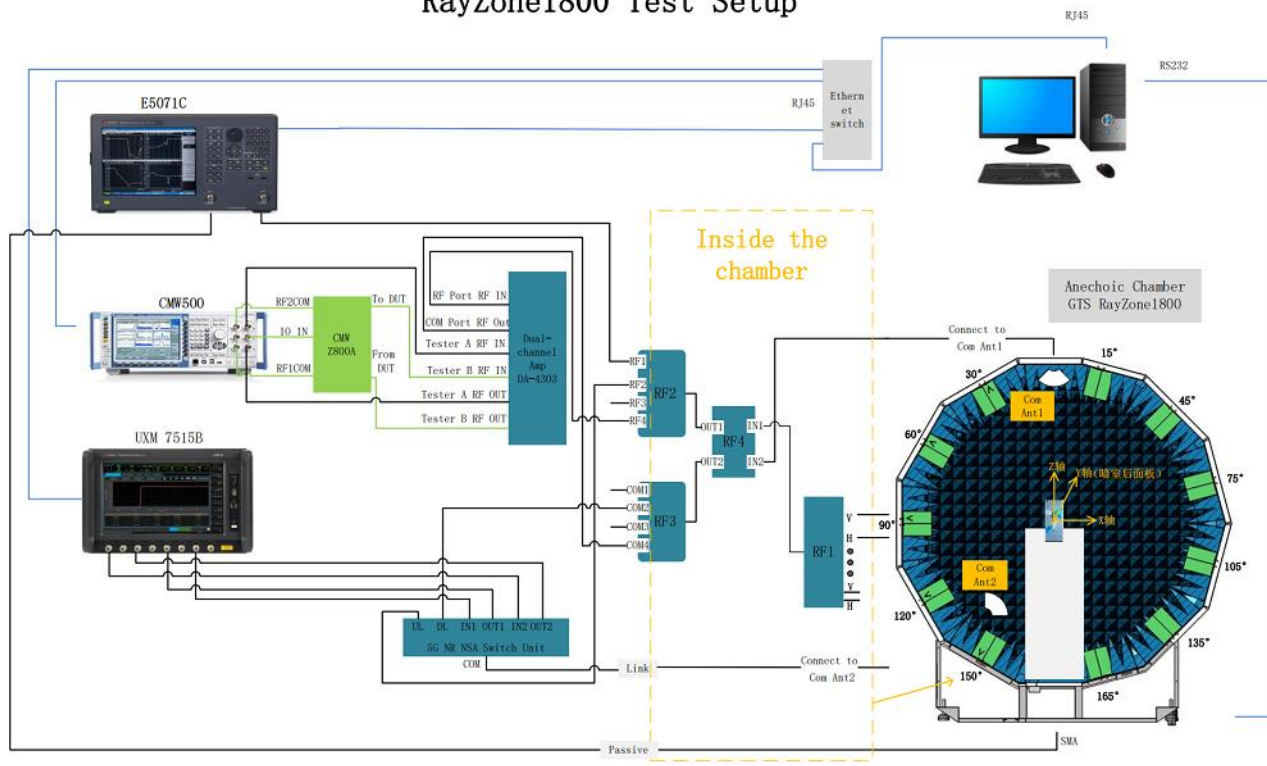


Figure 1 Test coordinate system

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

Shenzhen Fu Bang Wireless Technology Co., Ltd.

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4.1 Gain and Efficiencycnbv cxkjhgfs[poiuytrq-0987632

Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
	Free Space	700	15.8	-4.7	1980	26.1	-1.8	
		710	17.3	-4.4	2000	24.7	-1.5	
		720	16.4	-4.4	2020	24.4	-1.2	
		730	14.7	-5.0	2040	21.7	-1.4	
		740	13.9	-5.1	2060	19.8	-1.7	
		750	12.8	-5.5	2080	18.7	-2.0	
		760	12.1	-5.8	2100	17.9	-2.3	
		770	11.2	-5.9	2120	17.7	-2.4	
		780	10.6	-6.2	2140	19.5	-2.3	
		790	10.2	-6.2	2160	21.2	-2.1	
		800	14.6	-4.7	2180	21.7	-1.9	
		810	16.3	-4.1	2200	23.4	-1.7	
		820	16.6	-3.9	2300	23.8	-1.5	
		830	17.6	-3.4	2320	23.7	-1.4	
		840	17.0	-3.3	2340	24.7	-0.8	
		850	17.6	-2.9	2360	26.4	-0.2	
		860	16.5	-3.2	2380	26.7	0.4	
		870	15.9	-3.3	2400	29.2	0.8	
		880	18.2	-3.0	2420	32.3	1.5	
		890	20.7	-2.4	2440	36.0	2.0	
		900	21.5	-2.2	2460	36.8	2.0	
		910	20.8	-2.5	2480	36.6	1.9	
		920	19.6	-2.9	2500	35.8	1.5	
		930	17.1	-3.6	2520	36.1	1.3	
		940	15.0	-4.4	2540	35.6	1.0	
		950	12.5	-5.5	2560	34.8	0.8	
		960	10.9	-6.3	2580	33.0	0.3	
		1700	22.9	-0.7	2600	32.0	-0.1	
		1720	25.1	-0.4	2620	30.6	-0.3	
		1740	27.9	0.0	2640	29.8	-0.4	
		1760	29.1	0.1	2660	29.1	-0.6	
		1780	27.6	0.1	2680	28.5	-1.0	
		1800	26.7	0.1	2700	28.0	-1.0	
		1820	26.7	0.3				
		1840	28.7	0.3				
		1860	30.5	0.1				
		1880	31.5	-0.3				
		1900	31.5	-0.7				
		1920	31.3	-1.1				
		1940	30.0	-1.5				
		1960	28.4	-1.8				

Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
	Free Space							
		1550	39.2	0.8				
		1560	39.4	1.1				
		1570	37.6	0.9				
		1580	35.4	0.8				
		1590	39.4	1.1				
		2400	19.7	-2.2				
		2410	21.9	-1.9				
		2420	24.3	-1.7				
		2430	27.9	-1.1				
		2440	31.1	-0.5				
		2450	34.3	0.0				
		2460	37.2	0.5				
		2470	40.5	0.9				
		2480	43.2	1.2				
		2490	44.8	1.3				
		2500	45.3	1.3				
		5100	16.8	-2.3				
		5140	19.0	-1.7				
		5180	18.1	-2.0				
		5220	19.6	-1.8				
		5260	18.6	-1.8				
		5300	17.7	-2.5				
		5340	19.2	-2.1				
		5380	20.5	-1.3				
		5420	19.4	-2.4				
		5460	19.5	-2.0				
		5500	20.8	-2.7				
		5540	22.4	-2.2				
		5580	23.2	-2.8				
		5620	24.8	-2.3				
		5660	24.5	-2.1				
		5700	24.8	-2.6				
		5740	24.8	-2.3				
		5780	24.8	-2.4				
		5800	28.3	-1.6				

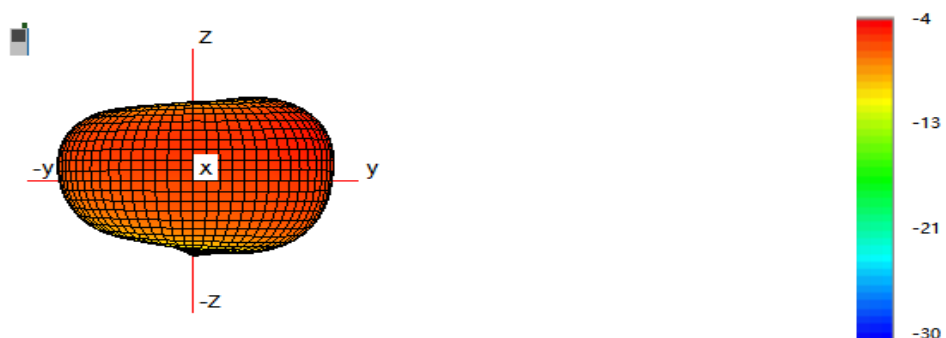
5. Equipment List

Shenzhen Fu Bang Wireless Technology Co., Ltd.

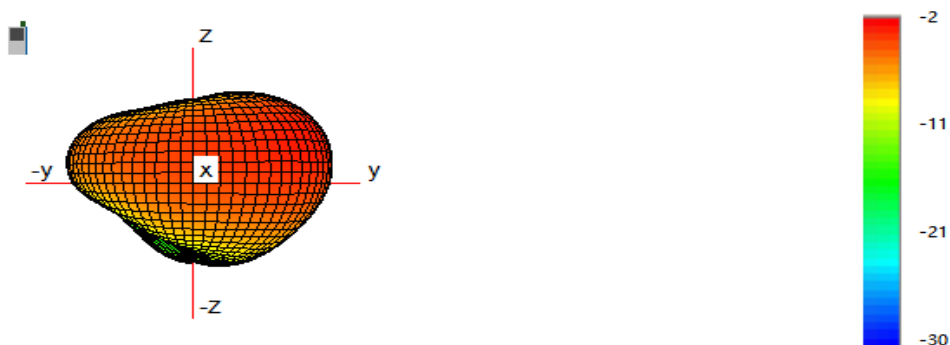
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Type of Equipment	Manufacture	Model Number
Network Analyzer	Key sight	E5071C
Switch control System	GTS	RayZone1800
Software	GTS	MaxSign 100 Patten Measurement software
Radio Communication Tester	Rohde&Schwarz	CMW 500
	Anritsu	MT8000A
	Agilent	E4438C

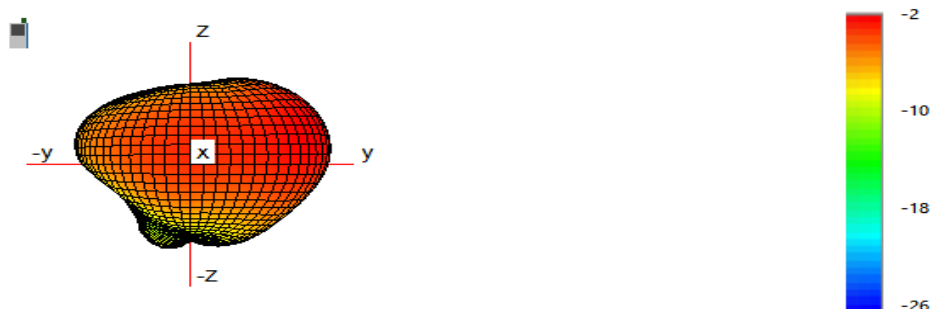
ANNEX A 3-D Patten Plots



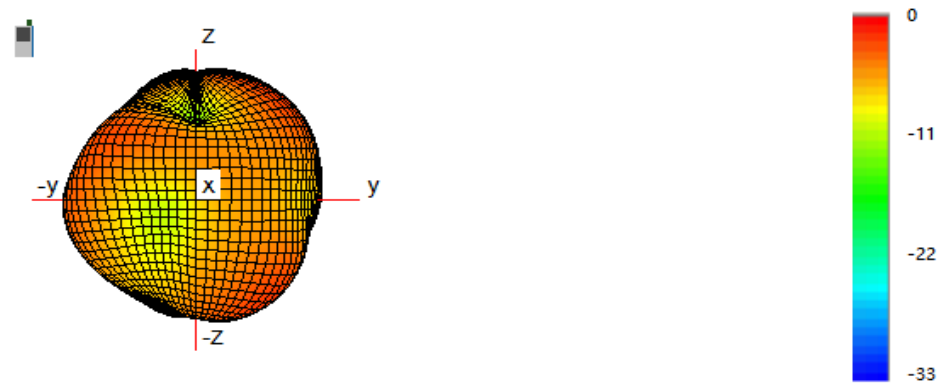
700MHz



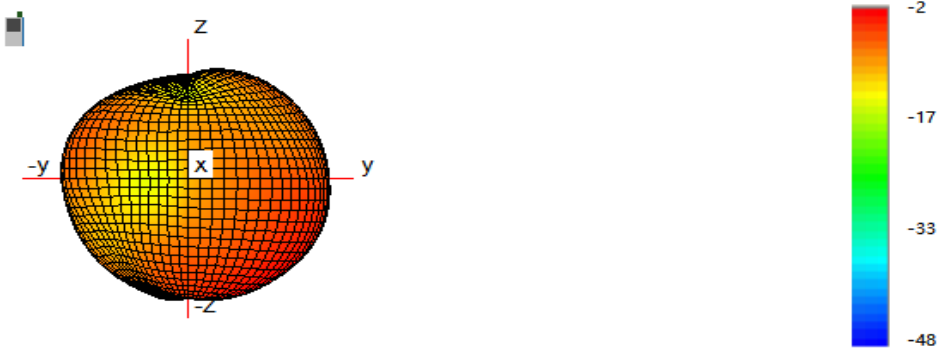
850MHz



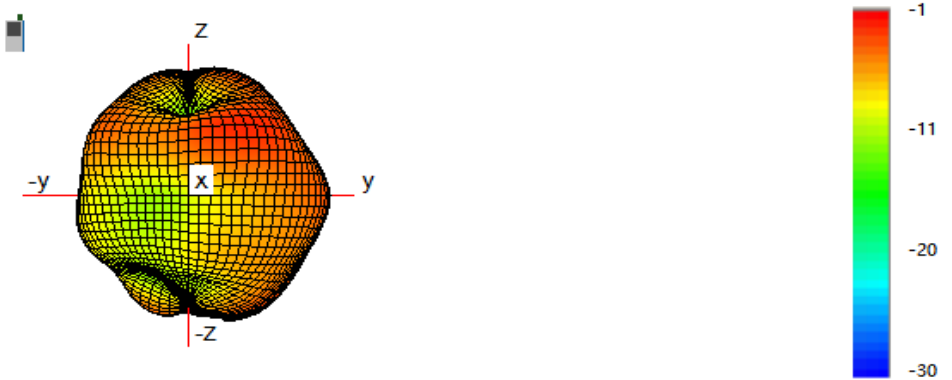
900MHz



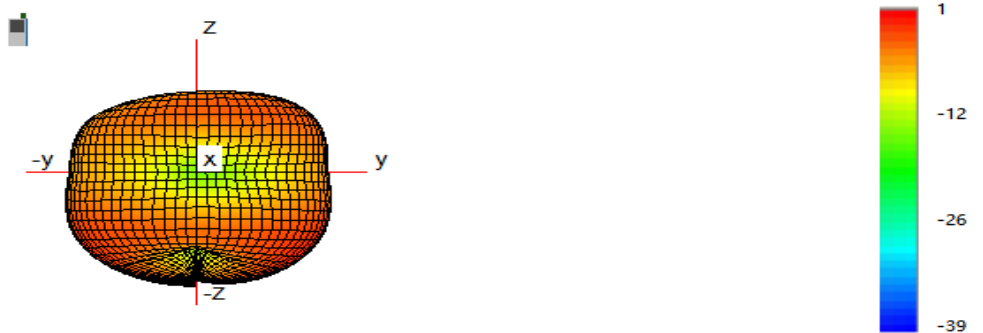
1900MHz



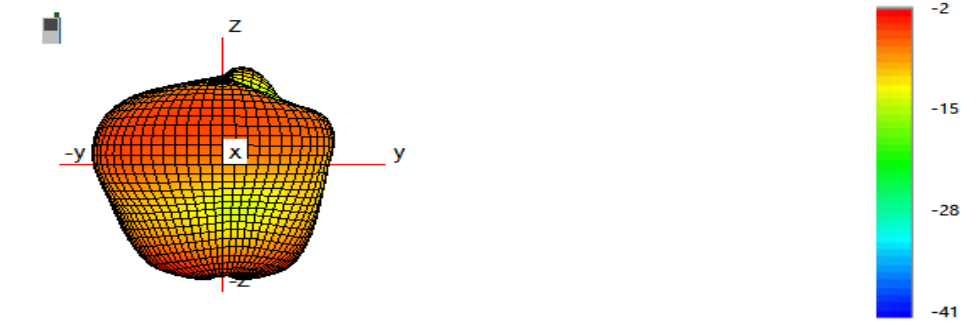
2100MHz



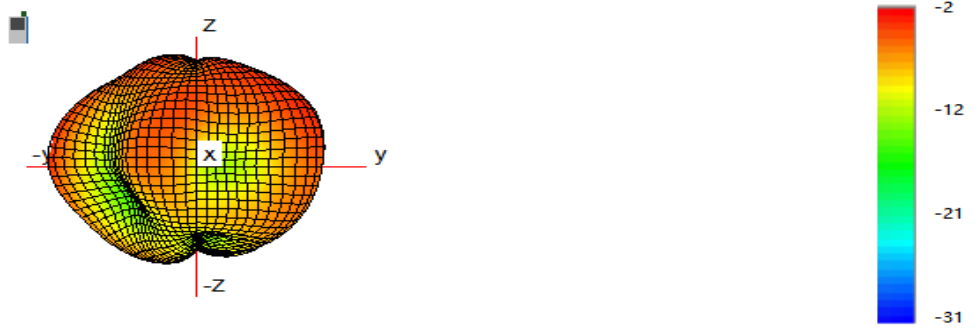
2700MHz



1575MHz



2400MHz



5100MHz

ANNEX B: The EUT Appearance and Test Configuration

B.1 EUT Appearance



B.2 Test Configuration

