

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: XiaoYing Hu

Shenzhen Fu Bang Wireless Technology Co., Ltd.

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

1. Test Laboratory

Shenzhen Fu Bang Wireless Technology Co., Ltd.

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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

2.1 Applicant and Manufacturer information

Shenzhen Fu Bang Wireless Technology Co., Ltd.

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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

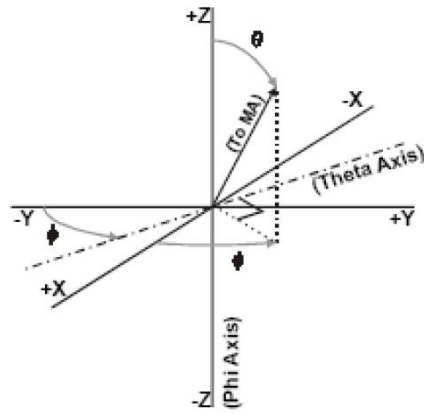
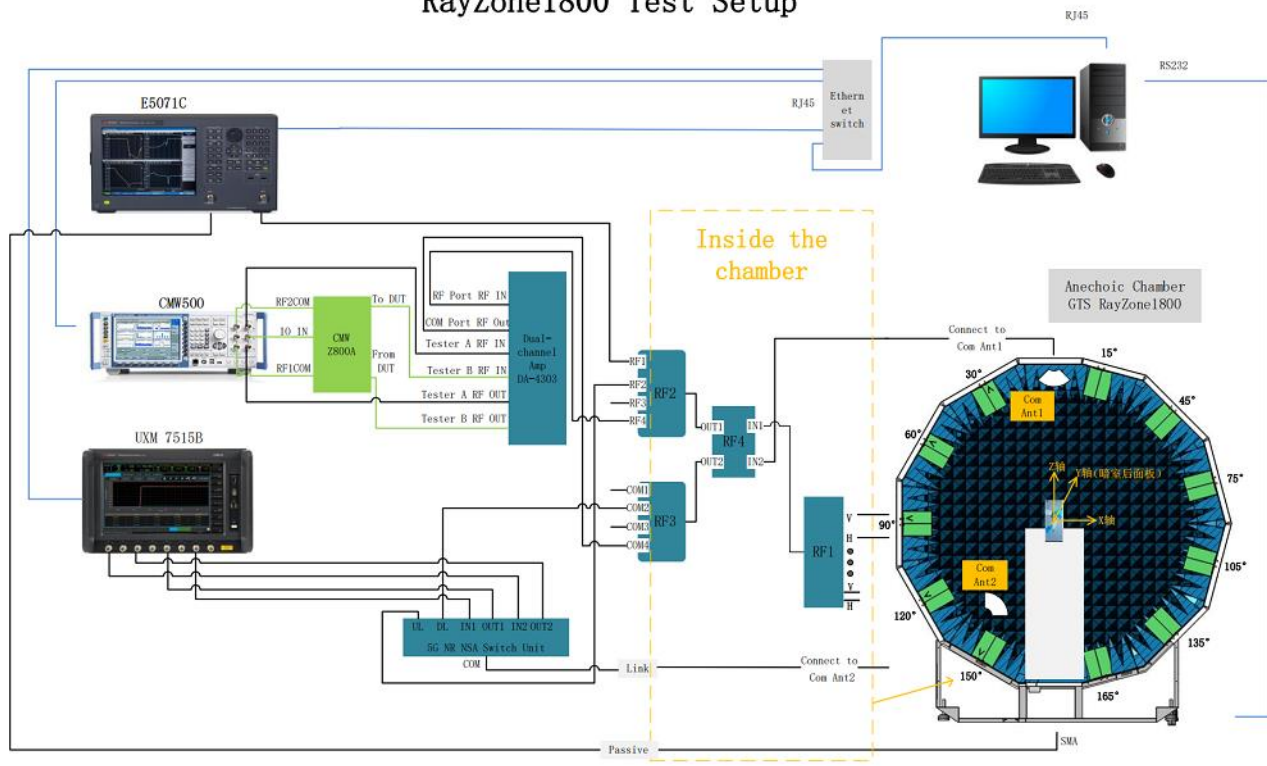


Figure 1 Test coordinate system

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

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4.1 Gain and Efficiencycnbv cxkjhgfdspoiuytrq-0987632

Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
	Free Space	700	19.2	-4.2	1980	39.5	-0.7	
		710	20.5	-4.0	2000	38.4	-0.9	
		720	18.6	-4.4	2020	37.9	-0.2	
		730	16.7	-4.8	2040	33.6	0.3	
		740	16.1	-5.0	2060	28.6	0.1	
		750	15.2	-5.1	2080	23.1	-0.4	
		760	14.9	-5.1	2100	18.3	-0.9	
		770	13.5	-5.5	2120	16.0	-1.5	
		780	12.6	-5.8	2140	15.0	-2.0	
		790	12.2	-5.9	2160	14.5	-2.2	
		800	14.9	-5.0	2180	14.7	-2.3	
		810	15.3	-4.9	2200	16.0	-2.3	
		820	15.0	-4.9	2300	16.8	-2.2	
		830	15.1	-4.8	2320	19.0	-1.7	
		840	14.2	-4.7	2340	22.0	-1.1	
		850	15.0	-4.4	2360	24.2	-0.7	
		860	13.7	-4.7	2380	25.0	-0.6	
		870	13.3	-4.8	2400	26.6	-0.5	
		880	12.4	-4.8	2420	28.1	0.0	
		890	15.0	-3.9	2440	28.8	0.1	
		900	17.1	-3.5	2460	29.1	0.4	
		910	19.1	-3.2	2480	29.1	0.1	
		920	20.3	-3.1	2500	29.4	0.2	
		930	19.0	-3.4	2520	30.3	0.5	
		940	16.2	-4.2	2540	31.5	0.7	
		950	12.5	-5.4	2560	32.1	1.0	
		960	9.7	-6.4	2580	32.2	0.9	
		1700	20.7	-1.7	2600	32.5	0.8	
		1720	21.7	-1.4	2620	32.7	0.7	
		1740	22.9	-0.9	2640	32.3	0.7	
		1760	24.7	-0.6	2660	32.2	0.7	
		1780	26.1	-0.6	2680	32.3	0.4	
		1800	27.1	-0.1	2700	32.9	0.3	
		1820	29.5	-0.1				
		1840	32.1	0.0				
		1860	34.4	0.0				
		1880	36.5	-0.2				
		1900	37.6	-0.2				
		1920	38.9	-0.3				
		1940	39.5	-0.3				
		1960	41.1	0.0				

Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
	Free Space							
		1550	32.0	-0.5				
		1560	32.4	-0.5				
		1570	33.5	-0.3				
		1580	34.0	-0.1				
		1590	33.0	-0.2				
		2400	29.9	0.1				
		2410	30.6	0.2				
		2420	31.6	0.3				
		2430	32.9	0.6				
		2440	34.2	0.8				
		2450	35.0	0.9				
		2460	36.1	1.0				
		2470	37.3	1.1				
		2480	38.3	1.2				
		2490	38.9	1.2				
		2500	39.1	1.1				
		5100	33.7	1.0				
		5140	35.6	0.0				
		5180	34.9	1.3				
		5220	36.9	0.3				
		5260	35.4	0.7				
		5300	34.5	0.7				
		5340	35.6	-0.1				
		5380	38.7	1.2				
		5420	33.5	-0.2				
		5460	35.2	0.6				
		5500	35.8	0.5				
		5540	33.7	-0.2				
		5580	36.6	0.9				
		5620	33.4	0.8				
		5660	34.9	1.2				
		5700	34.9	1.2				
		5740	33.7	1.1				
		5780	35.5	0.9				
		5800	30.8	-0.3				

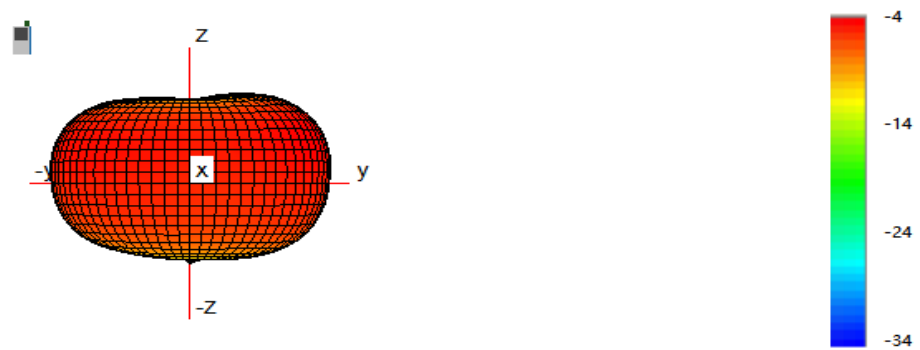
5. Equipment List

Shenzhen Fu Bang Wireless Technology Co., Ltd.

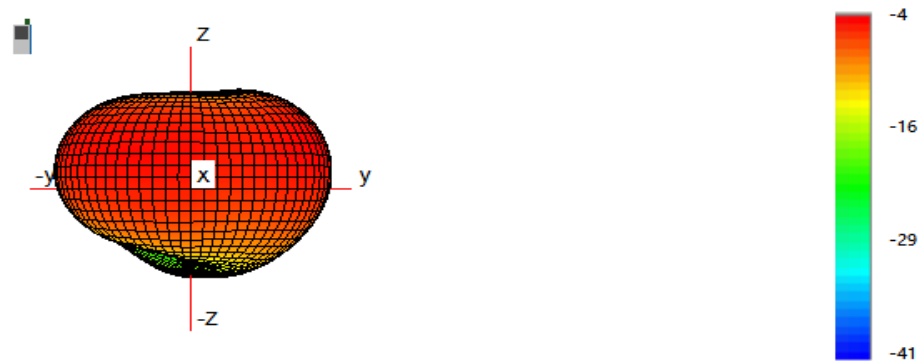
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Type of Equipment	Manufacture	Model Number
Network Analyzer	Key sight	E5071C
Switch control System	GTS	RayZone1800
Software	GTS	MaxSign 100 Patten Measurement software
Radio Communication Tester	Rohde&Schwarz	CMW 500
	Anritsu	MT8000A
	Agilent	E4438C

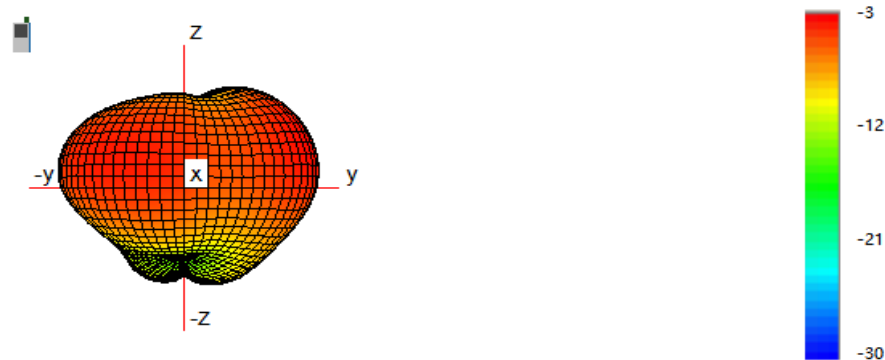
ANNEX A 3-D Patten Plots



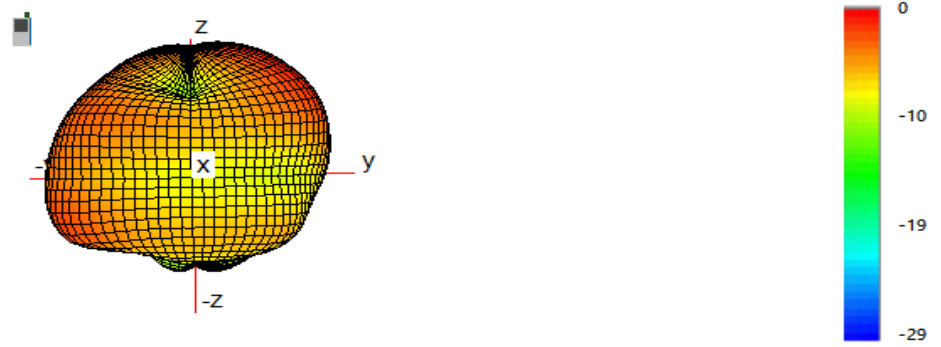
700MHz



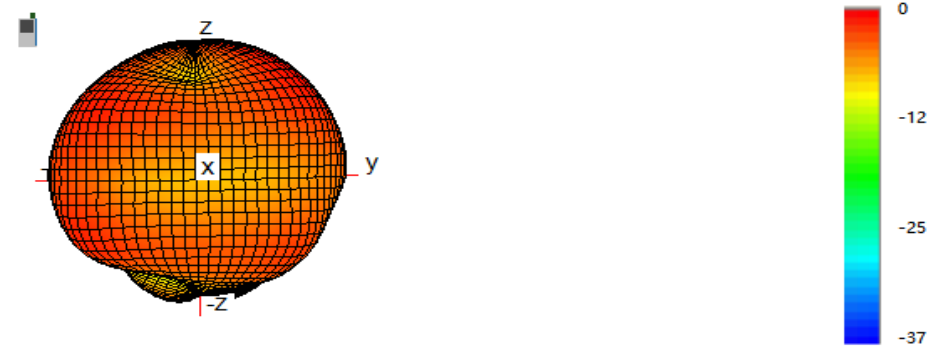
850MHz



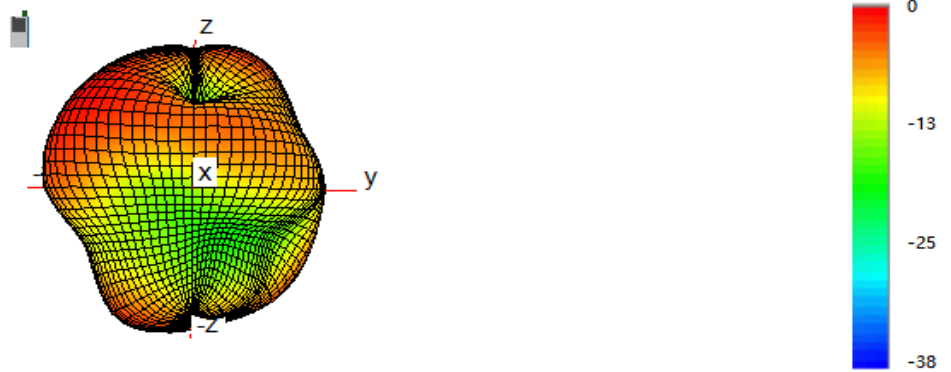
900MHz



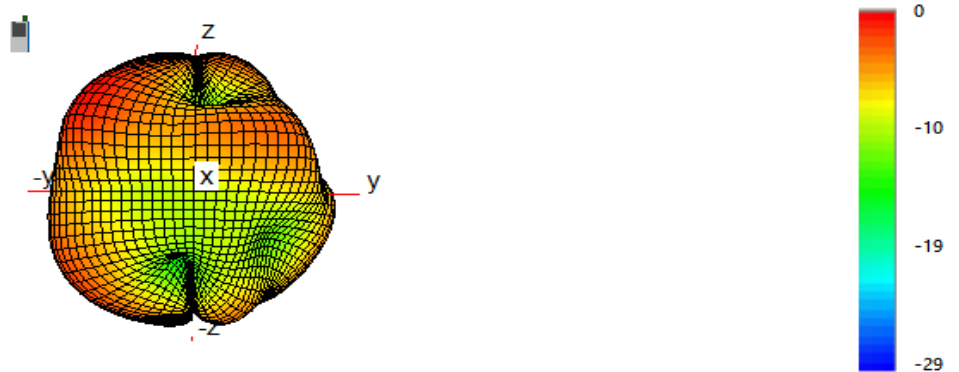
1800MHz



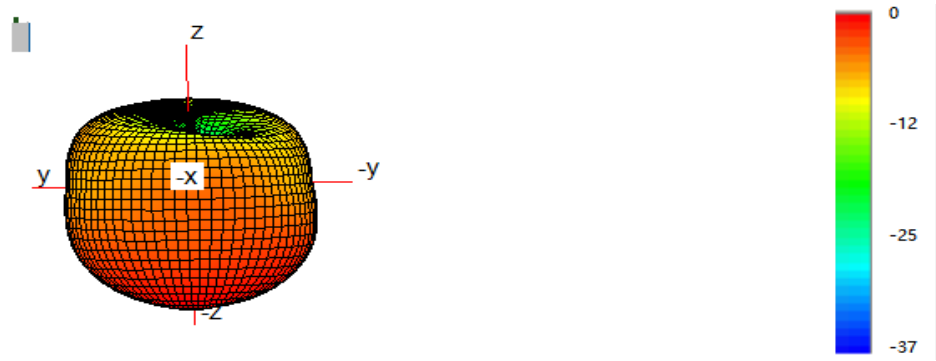
1900MHz



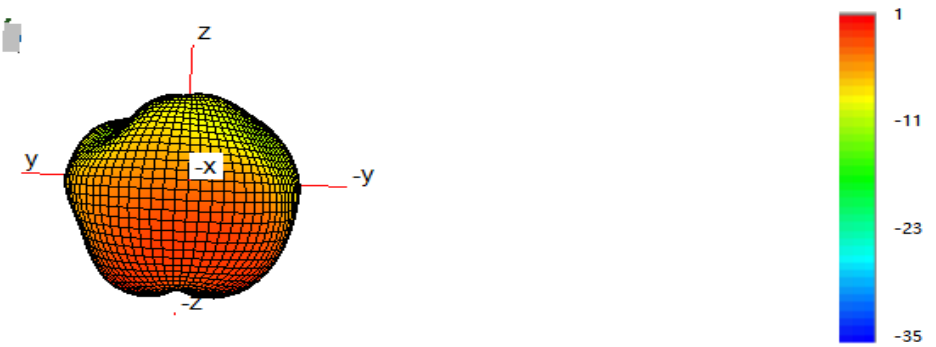
2100MHz



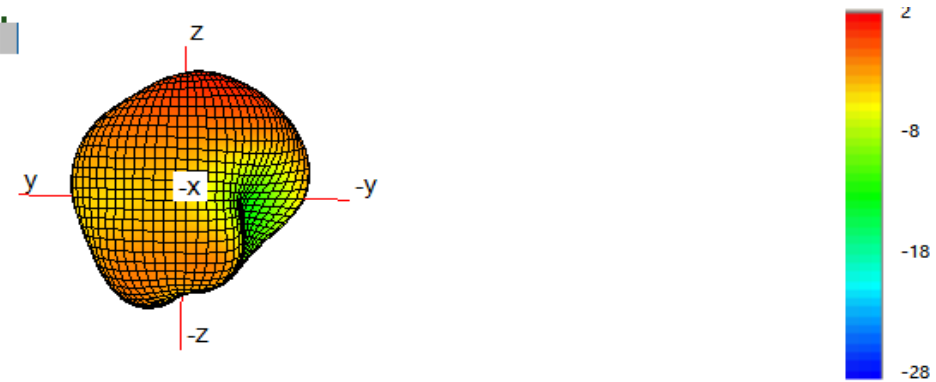
2700MHz



1575MHz



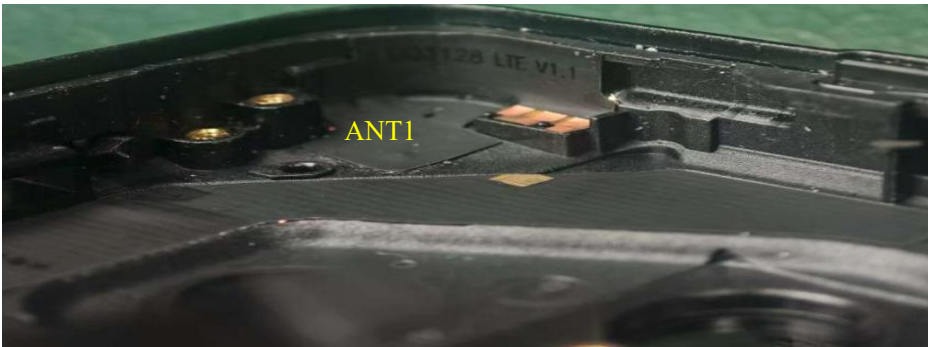
2400MHz



5100MHz

ANNEX B: The EUT Appearance and Test Configuration

B.1 EUT Appearance



B.2 Test Configuration

