

OTA TEST REPORT

Applicant Shenzhen General Test System Co., Ltd
Product RayZone1800
Issue Date November 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: CanZhen Chen

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℃, 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

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

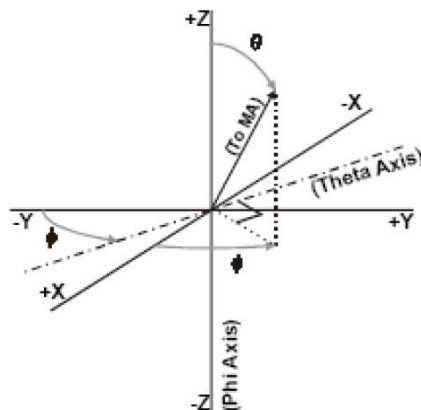
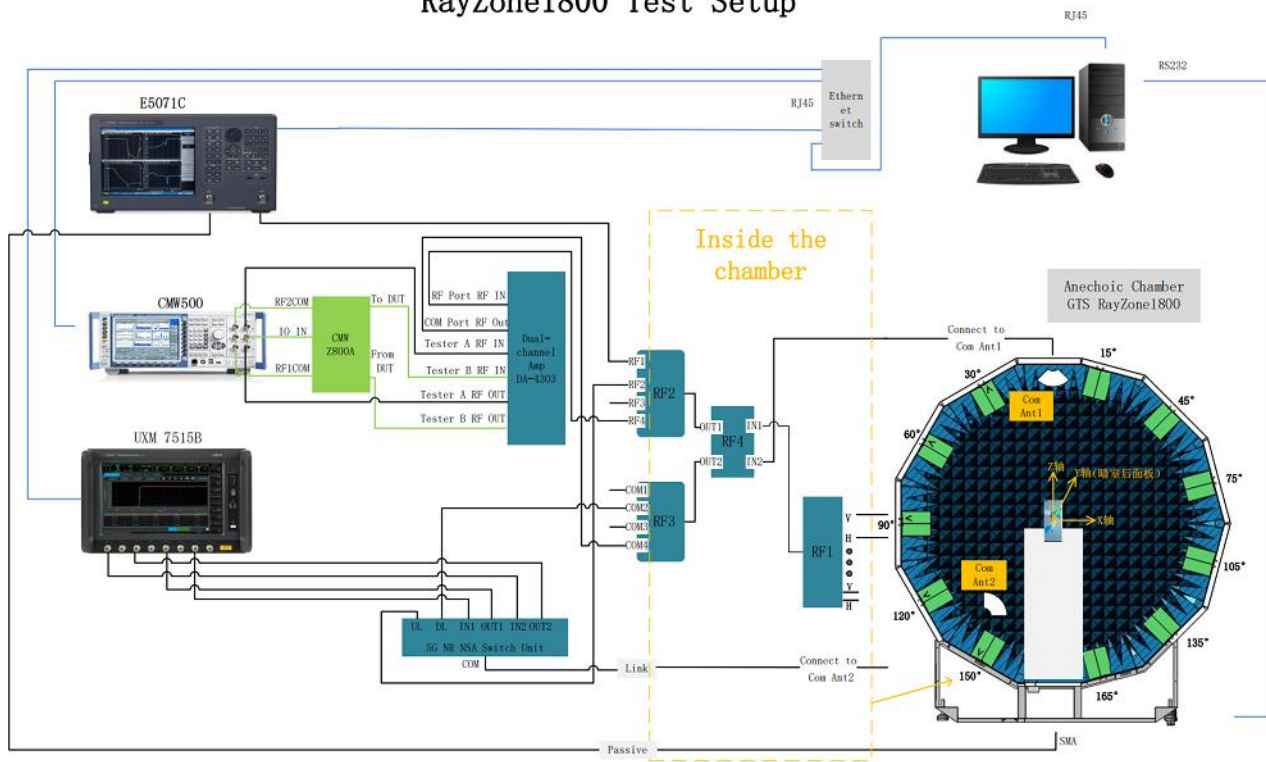


Figure 1 Test coordinate system

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

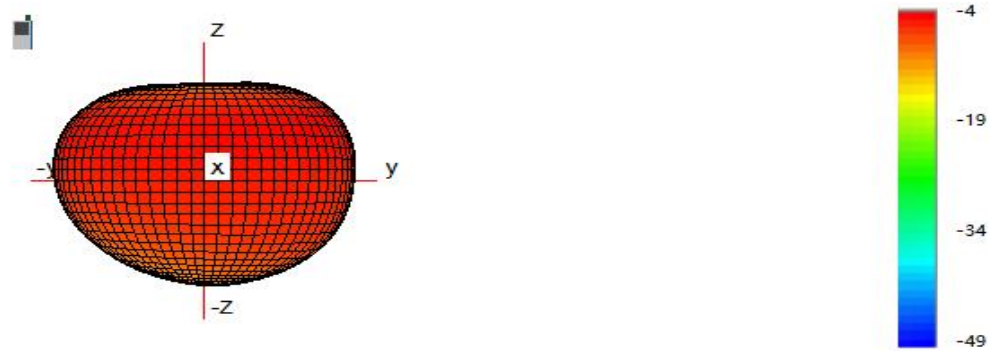
Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Frequency (MHz)	Efficiency (%)	Gain (dBi)
WWAN	Free Space	700	16.9	-4.3	1940	26.3	-5.8
		710	20.1	-3.7	1960	26.3	-5.8
		720	19.9	-3.6	1980	26.6	-5.8
		730	18.4	-4.1	2000	22.0	-2.8
		740	18.0	-4.2	2020	21.6	-3.1
		750	16.8	-4.4	2040	20.9	-3.2
		760	16.1	-4.8	2060	21.3	-2.7
		770	14.5	-5.0	2080	21.4	-2.5
		780	12.8	-5.7	2100	20.8	-2.7
		790	11.4	-6.2	2120	20.2	-2.7
		800	10.1	-6.7	2140	20.3	-2.1
		810	12.6	-5.5	2160	20.1	-2.7
		820	14.4	-4.8	2180	20.2	-2.2
		830	16.4	-4.2	2200	21.1	-2.1
		840	17.9	-4.0	2300	21.4	-1.8
		850	20.0	-3.4	2320	21.9	-1.8
		860	19.3	-3.5	2340	23.7	-1.8
		870	19.0	-3.8	2360	25.3	-1.6
		880	13.5	-5.1	2380	25.7	-2.0
		890	18.8	-3.5	2400	28.2	-1.0
		900	24.4	-2.4	2420	31.7	-0.3
		910	29.7	-1.8	2440	35.0	0.5
		920	31.3	-1.5	2460	36.5	0.6
		930	28.0	-2.0	2480	36.2	0.7
		940	22.9	-2.9	2500	36.8	1.0
		950	17.7	-4.3	2520	38.4	1.4
		960	14.0	-5.1	2540	39.4	1.6
		1700	25.2	-6.0	2560	39.8	1.7
		1720	28.5	-5.5	2580	38.9	1.5
		1740	31.1	-5.1	2600	38.6	1.6
		1760	31.3	-5.0	2620	38.0	1.8
		1780	31.6	-5.0	2640	37.7	1.9
		1800	30.6	-5.2	2660	36.7	2.0
		1820	28.5	-5.5	2680	36.8	2.1
		1840	27.3	-5.6	2700	37.0	2.2
		1860	27.1	-5.7			
		1880	26.8	-5.7			
		1900	25.5	-5.9			
		1920	25.6	-5.9			

Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Frequency (MHz)	Efficiency (%)	Gain (dBi)
GWB	Free Space	1550	31.5	-0.6			
		1560	32.4	-0.5			
		1570	33.0	-0.4			
		1580	33.9	-0.2			
		1590	31.5	-0.2			
		2400	30.4	-0.6			
		2410	30.2	-0.5			
		2420	30.0	-0.4			
		2430	30.7	-0.1			
		2440	31.6	0.2			
		2450	32.6	0.2			
		2460	33.4	0.3			
		2470	34.4	0.4			
		2480	35.2	0.6			
		2490	35.8	0.5			
		2500	35.8	0.5			
		5100	31.8	0.6			
		5140	35.1	1.7			
		5180	31.2	0.6			
		5220	33.5	1.4			
		5260	30.1	0.5			
		5300	28.5	0.5			
		5340	29.0	0.4			
		5380	32.1	0.4			
		5420	26.6	-0.1			
		5460	26.5	-0.7			
		5500	26.7	-0.7			
		5540	25.6	-1.1			
		5580	26.2	-0.8			
		5620	25.0	-1.6			
		5660	25.5	-0.7			
		5700	25.3	-1.4			
		5740	24.8	-0.9			
		5780	26.6	-0.8			
		5800	25.0	-1.4			

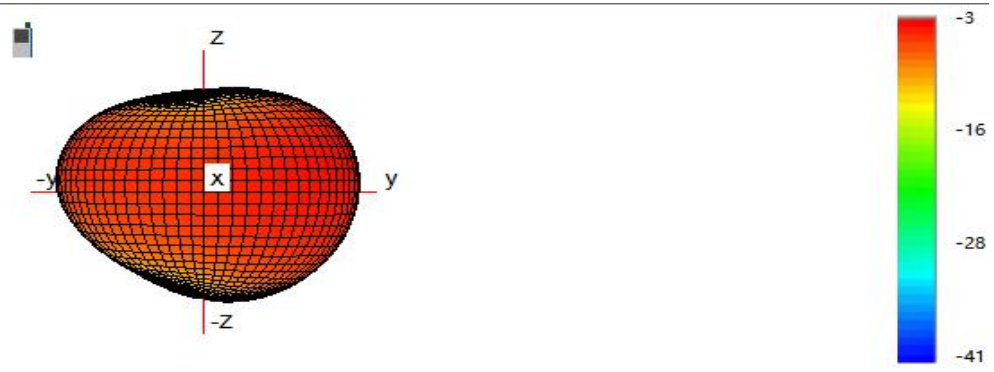
5. Equipment List

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

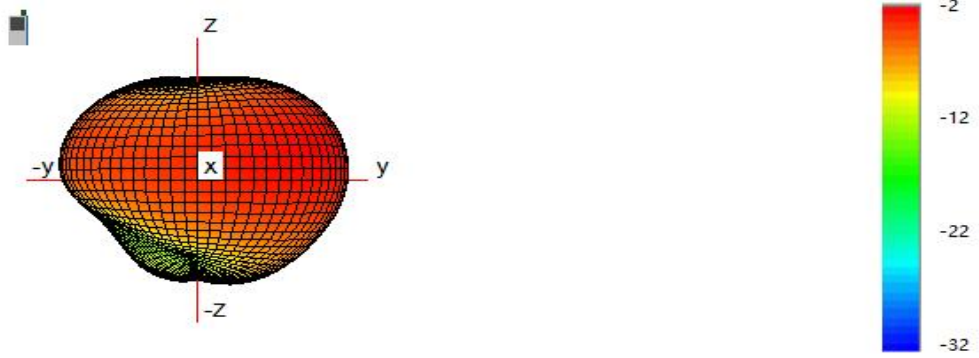
ANNEX A 3-D Patten Plots



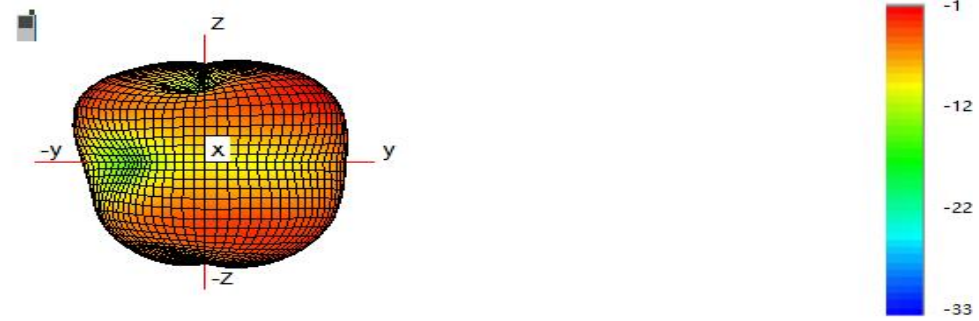
700MHz



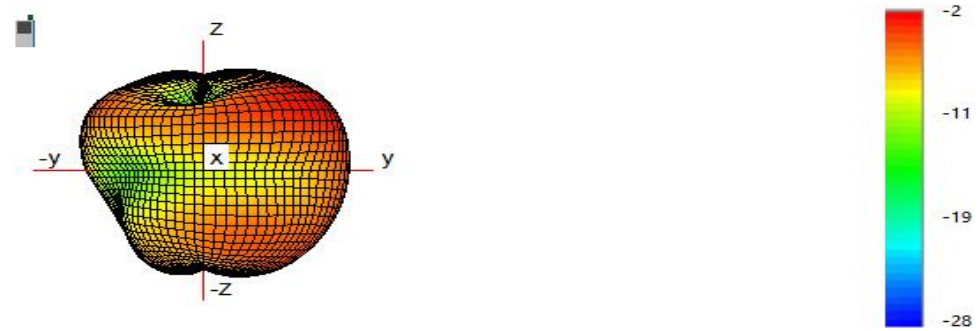
850MHz



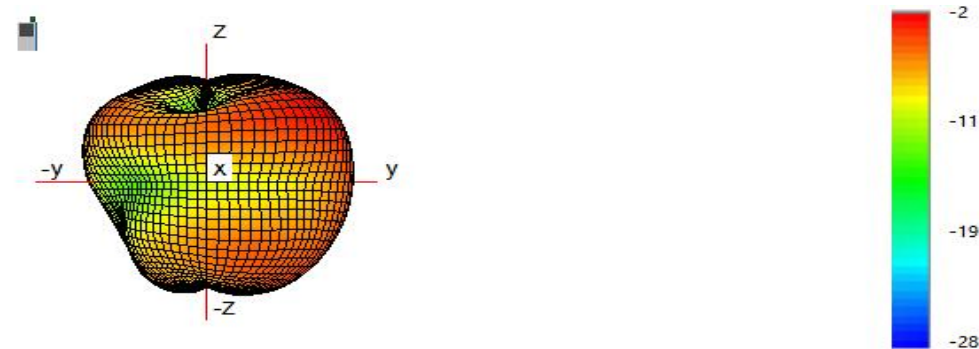
900MHz



1800MHz

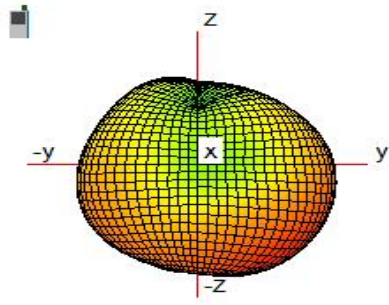


1900MHz

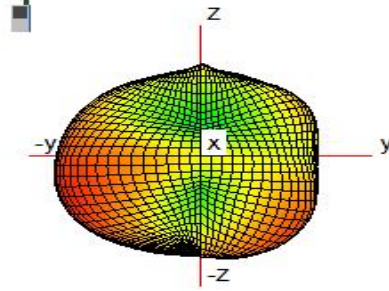


2100MHz

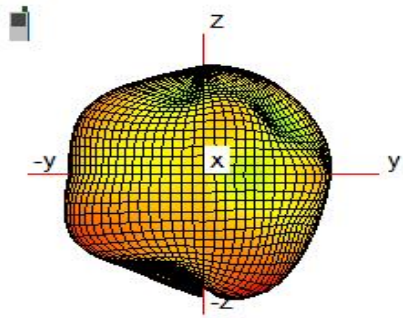
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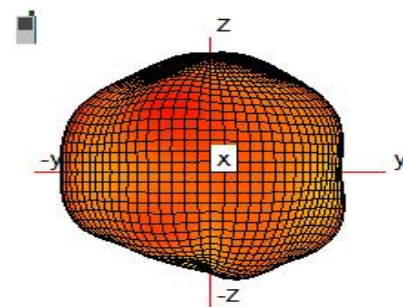
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1575MHz



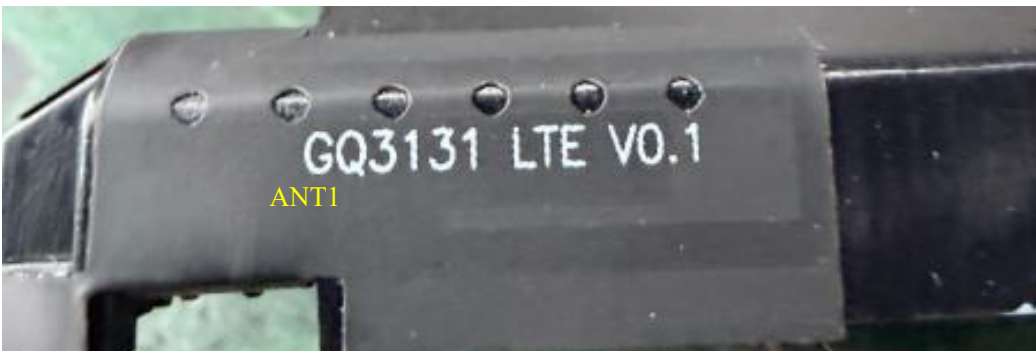
2400MHz



5100MHz

ANNEX B: The EUT Appearance and Test Configuration

B.1 EUT Appearance



B.2 Test Configuration

