

OTA TEST REPORT

©

Applicant Shenzhen General Test System Co., Ltd

Product RayZone1800

Issue Date September 6, 2022

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: Lunkang Yan

Approved by: Zhanghong Lai

Shenzhen Fu Bang Wireless Technology Co., Ltd.

Room 302, Lianjian Industry Park, 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: lunkang Yan

Telephone: 13760182610

E-mail: 646363118@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	<0.5Ω	

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	PCB Antenna
Antenna Manufacturer	Shenzhen General Test System Co., Ltd
Test Frequency	700MHz-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

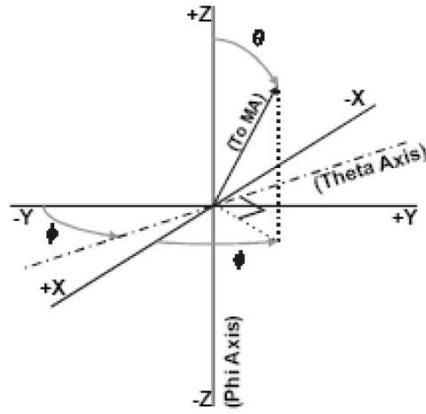
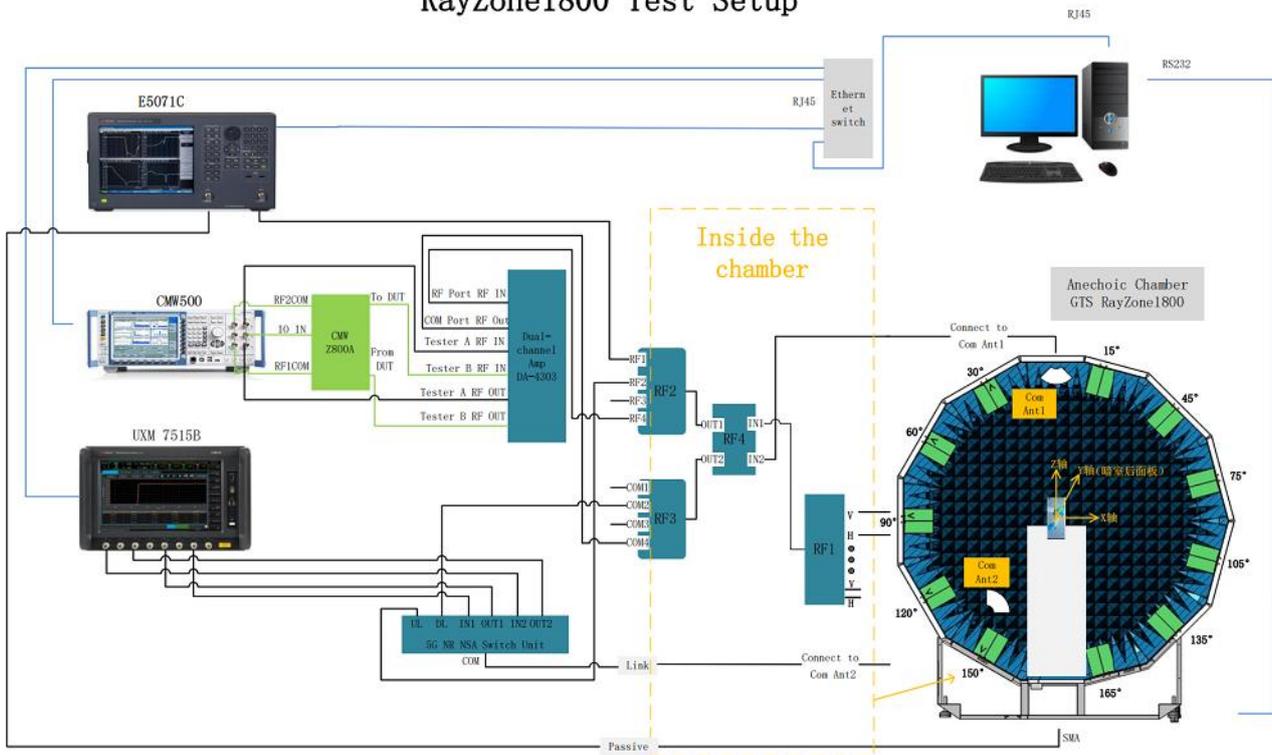


Figure 1 Test coordinate system

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

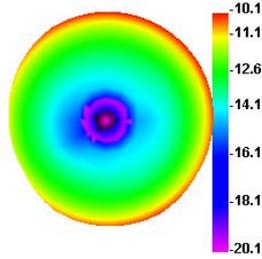
4.1 Gain and Efficiency



OTA Test Report

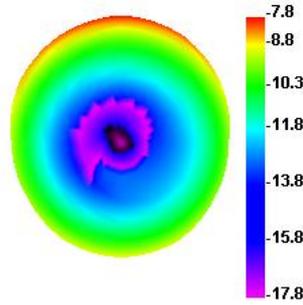
Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
	Free Space	700	7.96	-7.87	1900	30.48	-1.44	
		710	9.12	-7.25	1920	27.31	-1.37	
		720	10.09	-6.66	1940	28.26	-0.7	
		730	10.48	-6.54	1960	28.73	-0.33	
		740	8.9	-7.38	1980	28.94	-0.32	
		750	9.48	-6.93	2000	34.56	0.32	
		760	10.09	-6.6	2020	30.89	-0.48	
		770	10.84	-6.24	2040	29.34	-1.27	
		780	10.98	-6.14	2060	27.88	-2.17	
		790	11.95	-5.65	2080	26.56	-2.47	
		800	10.65	-5.96	2100	24.98	-2.43	
		810	11.01	-5.64	2120	28.87	-1.61	
		820	12.97	-4.97	2140	31.49	-1	
		834	10.99	-5.6	2160	26.46	-1.69	
		848	9.33	-6.4	2180	32.08	-0.82	
		862	8.22	-7.45	2200	31.16	-0.94	
		870	8.88	-7.48	2500	44.13	2.04	
		880	10.83	-6.26	2520	42.65	2	
		890	12.01	-5.4	2540	39.04	1.54	
		900	11.3	-4.99	2560	34.71	0.91	
		910	9.95	-4.97	2580	34.66	1.11	
		920	9.57	-4.71	2600	30.14	0.63	
		930	8.21	-5.15	2620	26.36	0.3	
		940	8.88	-7.48				
		950	10.83	-6.26				
		960	12.01	-5.4				
		1700	25.61	-2.54				
		1720	29.06	-2.09				
		1740	29.29	-2.06				
		1760	29.7	-1.75				
		1780	30.24	-1.54				
		1800	30.04	-1.52				
		1820	30.27	-1.56				
	1840	30.44	-1.9					
	1860	30.83	-1.27					
	1880	27.75	-1.82					

700.000MHz



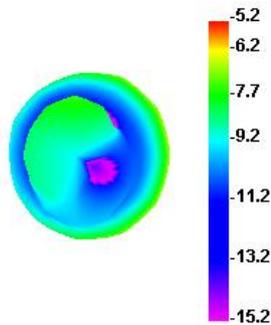
700MHz

848.000MHz



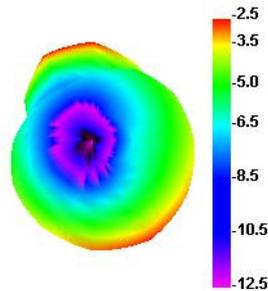
850MHz

960.000MHz



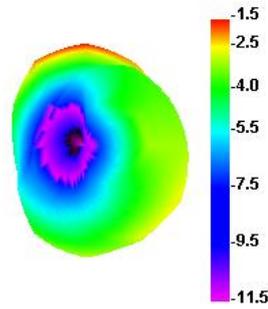
900MHz

1700.000MHz



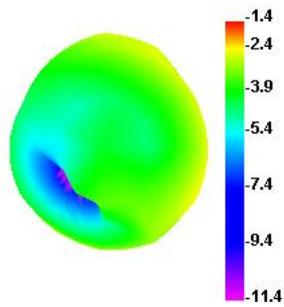
1700MHz

1800.000MHz



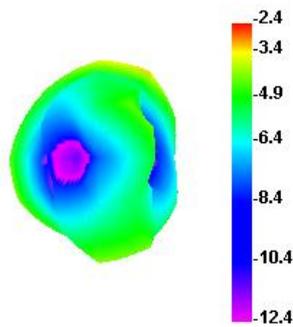
1800MHz

1900.000MHz



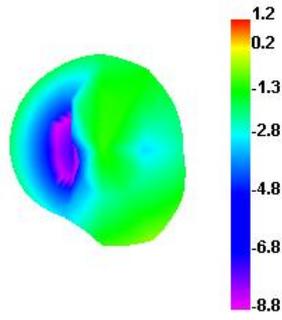
1900MHz

2100.000MHz

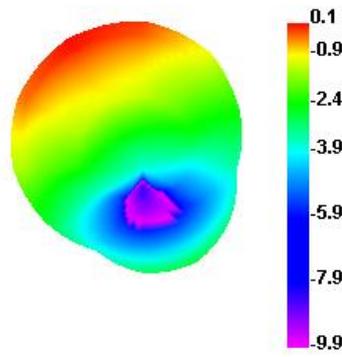


2100MHz

2520.000MHz

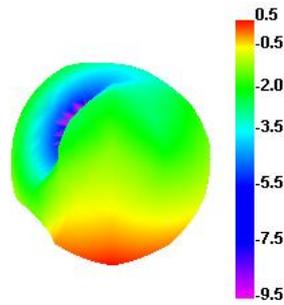


2500MHz

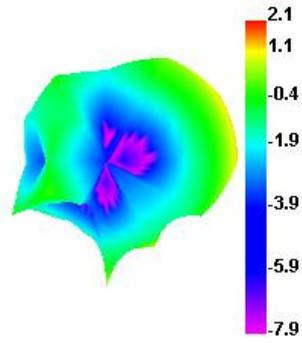


1575MHz

2400.000MHz



2400MHz

5150.000MHz**5150MHz**

ANNEX B: The EUT Appearance and Test Configuration

B.1 EUT Appearance

Shenzhen Fu Bang Wireless Technology Co., Ltd.

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B.2 Test Configuration

