OTA TEST REPORT

©

Applicant Shenzhen General Test System Co., Ltd

ProductRayZone1800

Issue Date   January 31st,2023

DOSKING Antenna Test Report 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 theRequirements as documented in this report.

Prepared by: Mushao Chen

Approved by: Meidui Chen

DOSKING Antenna Test Report

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 purposesonly. 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: DOSKING Antenna Test Report

Contact: Mushao Chen

Telephone: 13126483572

1.4 Laboratory Environment

Temperature	Min.= 19℃, Max.=25℃	
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	DOSKING Antenna Test Report
Applicant address	403, West Block, Ganghong Science and Technology Building, Building 2, Private Enterprise Science and Technology Park, University Town, Nanshan District, Shenzhen, 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
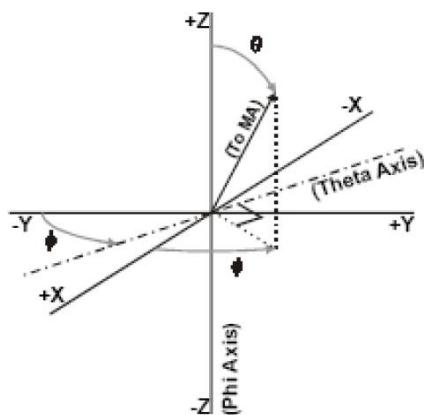
Figure 1 Test coordinate system

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
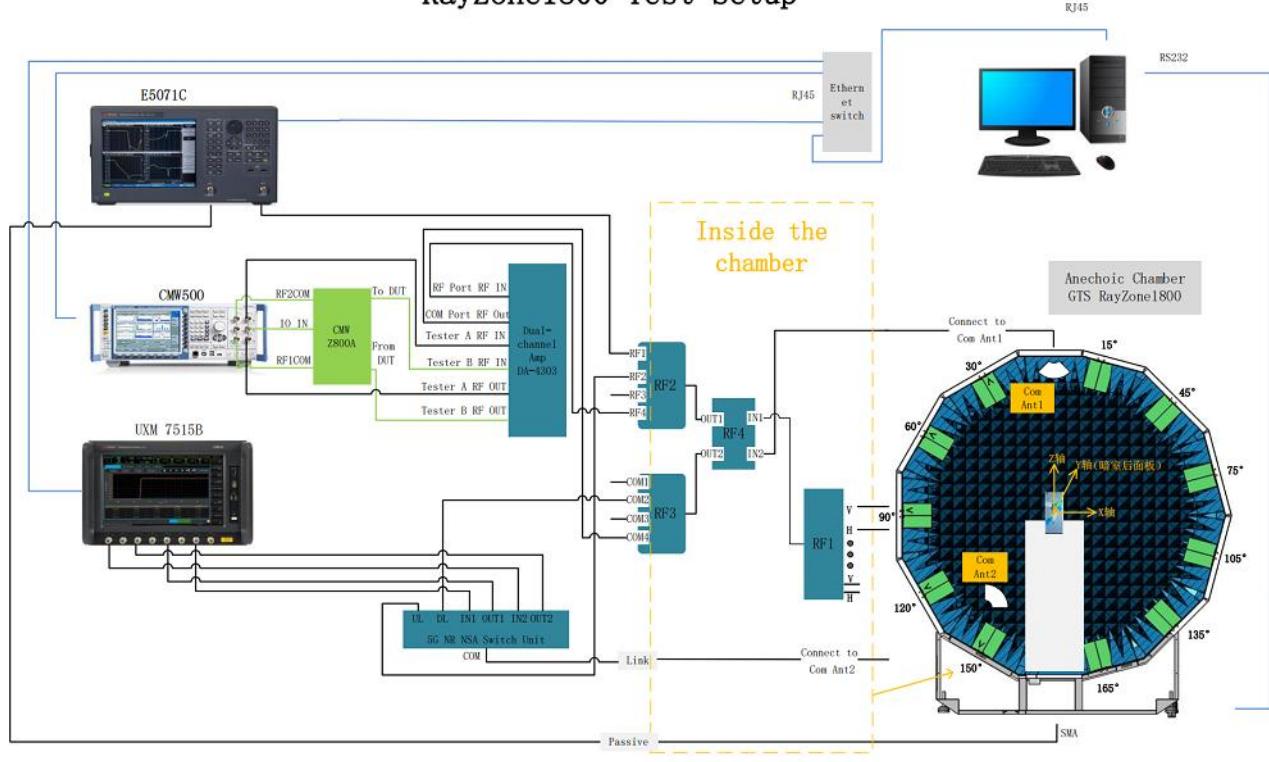
4. Test Results

WIFI/BT

Model	Test State	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Frequency (MHz)	Efficiency (%)	Gain (dBi)	Note
		1168	24.62	-1.54				
		1172	25.2	-1.43				
		1176	24.99	-1.53				
		1180	23.46	-1.82				
		1184	21.77	-2.18				
		1550	31.0	-1.0	**5100**	32.3	-1.9	
		1560	32.6	-0.7	**5140**	32.3	-2.0	
		1570	33.0	-0.5	**5180**	35.3	-1.8	
		1580	33.7	-0.4	**5220**	36.5	-1.3	
		1590	32.9	-0.8	**5260**	37.0	-1.0	
		1600	30.6	-1.1	**5300**	39.3	-0.5	

					5340	40.8	0.1
					5380	41.2	0.1
					5420	41.9	0.1
Free Space		**2400**	38.6	-1.0	**5460**	41.4	-0.2
		2410	39.0	-0.9	**5500**	42.4	-0.5
		2420	40.3	-0.5	**5540**	41.4	-0.4
		2430	41.6	-0.3	**5580**	43.1	-0.1
		2440	42.1	-0.2	**5620**	42.1	0.1
		2450	43.3	-0.3	**5660**	42.8	0.3
		2460	42.7	-0.2	**5700**	40.9	0.3
		2470	42.5	-0.2	**5740**	42.5	0.6
		2480	42.6	0.1	**5780**	41.3	0.6
		2490	42.5	-0.2	**5820**	41.8	0.5
		2500	42.8	-0.3	**5860**	41.3	0.4
					6000	41.0	0.2
Note: WIFI and BT share an antenna							

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

ANNEX A   3-D Patten Plots
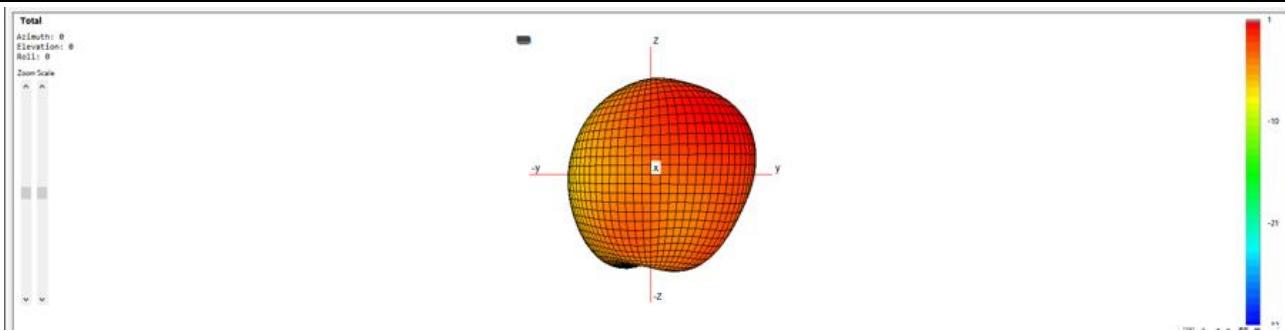
5100MHz
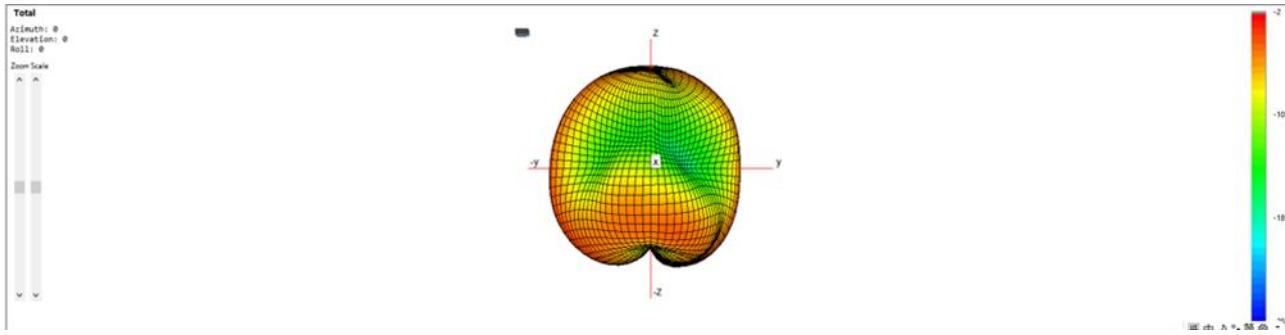
2400MHz
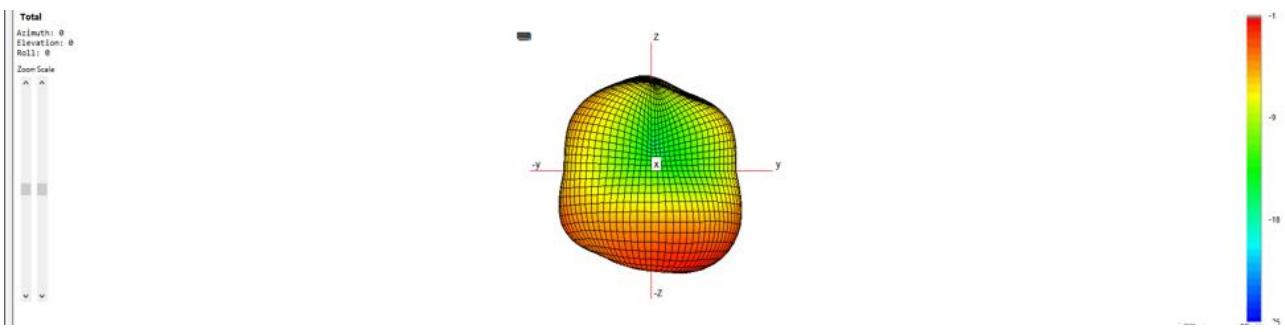
1575MHZ
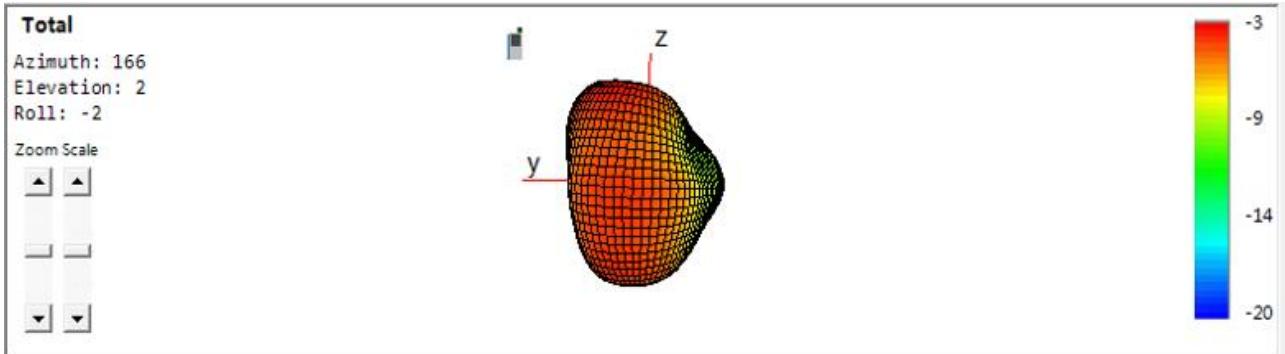
1176MHz

ANNEX B: The EUT Appearance and Test Configuration

B.1 EUT Appearance

B.2 Test Configuration