Antenna SPEC

Antenna Specification

Model：	RG190
Company Name:	Power Idea Technology (Shenzhen) Co., Ltd.
Antenna type:	External Antenna &PIFA Antenna
Supplier:	Shenzhen Fu Bang Wireless Technology Co., Ltd
	604, Building F, Zhigu R&D Building, Shuguang Community, Xili Street, Nanshan District, Shenzhen

Test Laboratory

1.1 Notes of the Test report

This report shall not be reproduced in full or partial.Theresults documented in this report applyonly 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

GTS1800Microwave Anechoic Chamber ： testing frequency ranges from 600MHz to 6GHz .

1.3 Laboratory Environment

Temperature	Min.= 19℃, Max.=25℃	
Relative humidity	Min.=40%， Max.=72%	
Shield effect	0.6-7GHz	>100dB
Ground resistance	<0.5 Ω	

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2. General Description of Equipment under Test

2.1 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

2.2 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.

3.2Test Measurement

Spherical coordinate system

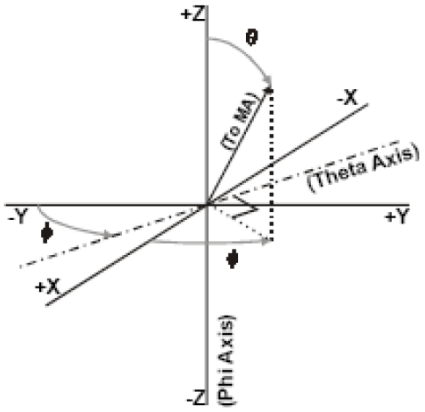

Figure 1 Test coordinate system

Note: Theta is from 0-180degree.Phi is from EUT and record the Date, the step of rotation is 15 degree.

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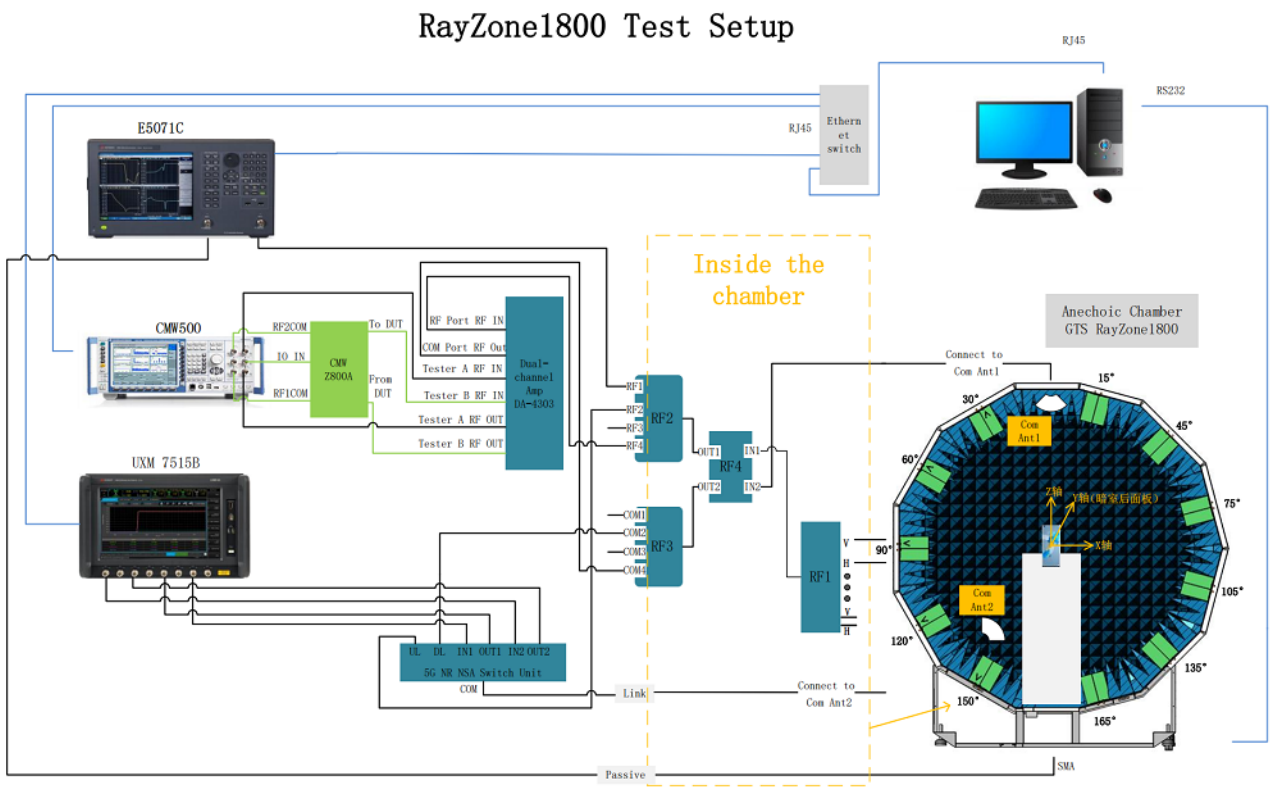
Test Setup



4. Test Results

4.1 Gain and Efficiency

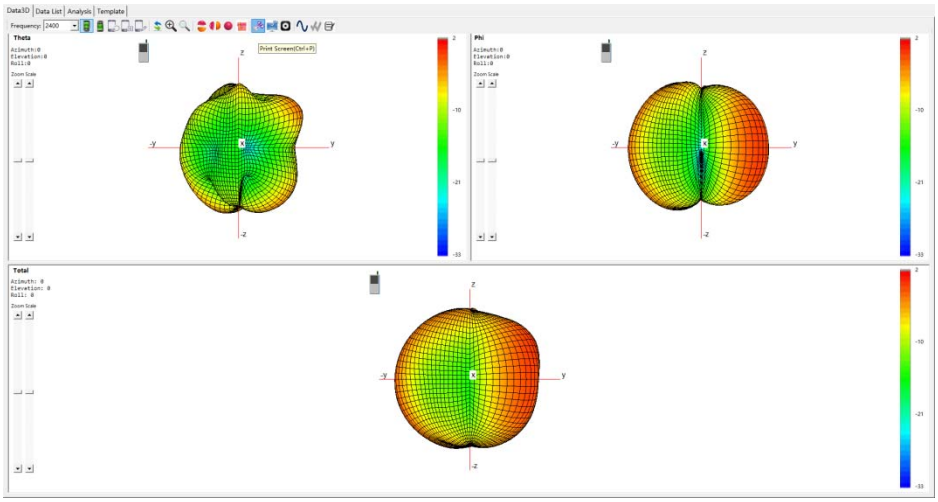
GSM	GSM1800 (1710~1785 MHz)	0.50 dBi
	GSM1900 (1850-1910 MHz)	0.50 dBi
	GSM850 (824-849 MHz)	0.20 dBi
	GSM900 (880-915 MHz)	0.30 dBi
UMTS	FDD I (1920-1980 MHz)	0.80 dBi
	FDD II (1850-1910 MHz)	0.50 dBi
	FDD IV (1710-1755 MHz)	0.50 dBi
	FDD V (824-849 MHz)	0.20 dBi
	FDD VIII (880-915 MHz)	0.30 dBi
LTE	FDD 1: Japan, Korea, Europe(1920-1980MHz)	0.80 dBi
	FDD 2: US(1850 -1910)	0.50 dBi
	FDD 3: Europe, Asia(1710-1785MHz)	0.50 dBi
	FDD 4: US (T-Mobile)(1710-1755MHz)	0.50 dBi
	FDD 5: US(824-849)	0.20 dBi
	FDD 7: Europe(2500-2570MHz)	1.00 dBi
	FDD 8: Europe(880-915MHz)	0.30 dBi
	FDD 20: Europe(832-862MHz)	0.50 dBi
	FDD 28: Japan, NCC (703-748MHz)	0.30 dBi

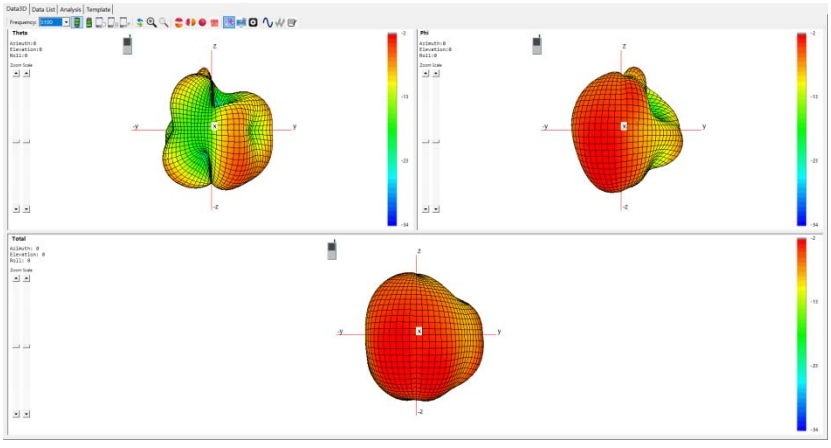
	TDD 34: 2010 - 2025 MHz	1.40 dBi
	TDD 38: Europe, China(2570-2620MHz)	1.50 dBi
	TDD 39: China(1880-1920MHz)	0.50 dBi
	TDD 40: China(2300-2400MHz)	1.40 dBi
	TDD 41: US, Japan(2496-2690MHz)	1.10 dBi
2.4G BT	2.4~2.4835GHz	0.00 dBi
2.4G WLAN	2.4~2.4835GHz	0.00 dBi
5G WLAN	5.15~5.25GHz	-2.00 dBi
	5.25~5.35GHz	-1.40 dBi
	5.47~5.725GHz	-0.40 dBi
	5.725~5.825GHz	0.20 dBi

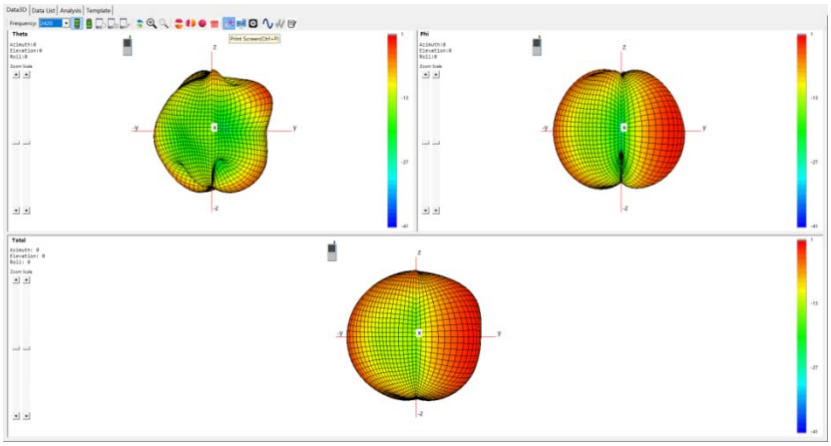
4.2OTA DATA:

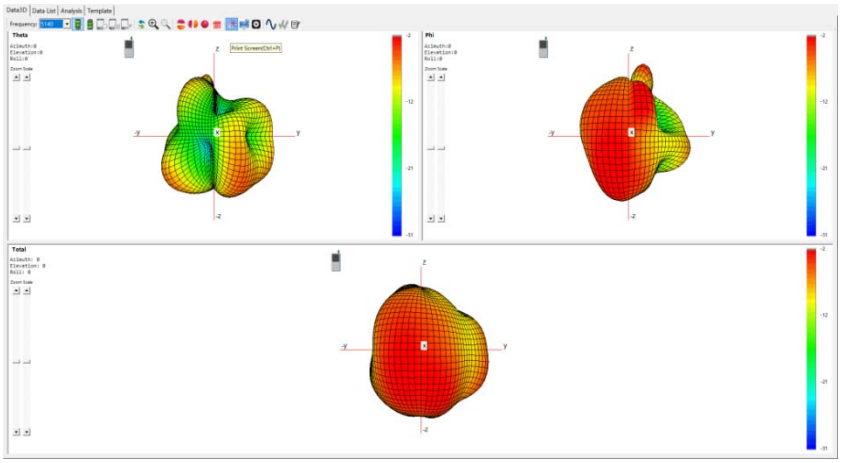
WIFI	CH	Data Rate	FS	
			TPR	TIS
11b	1	11	13.3	
	6	11	13.9	
	11	11	13.0	-83.7
11a	36	6/54	13.1	
	56	6/54	14.4	
	165	6/54	14.2	-74.2

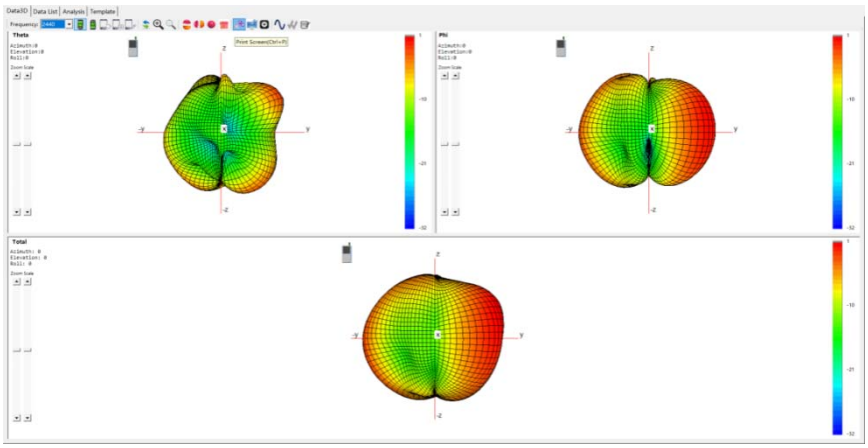
4.3A 3D Patten Plots

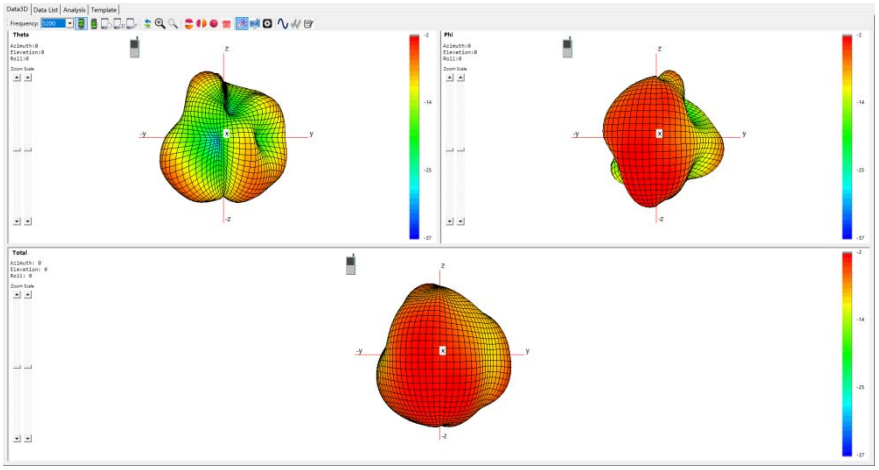


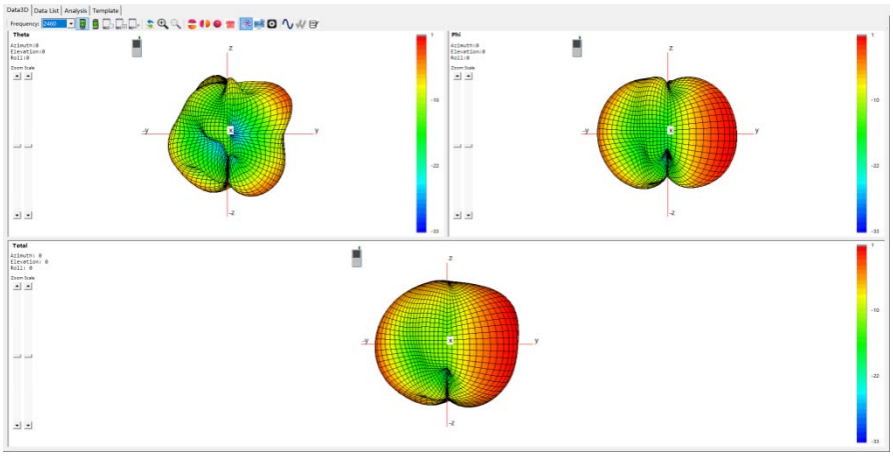


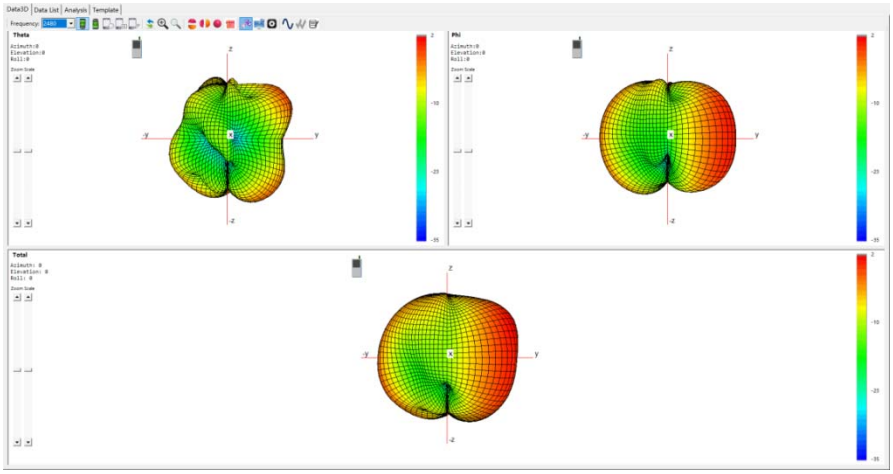


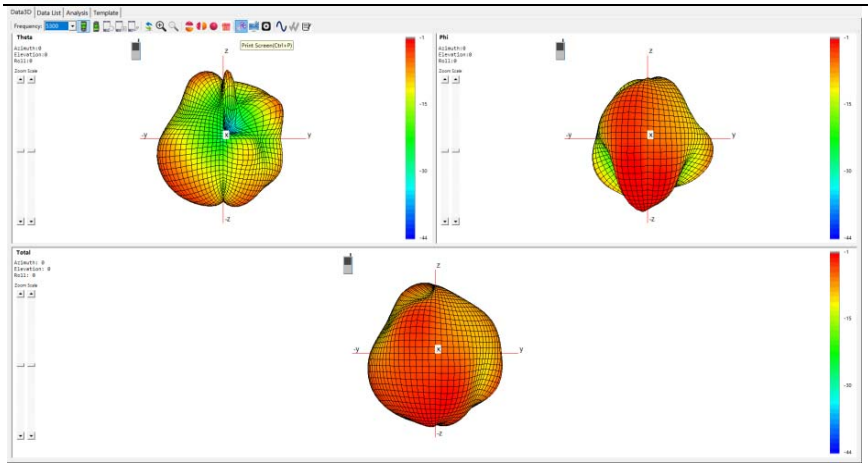


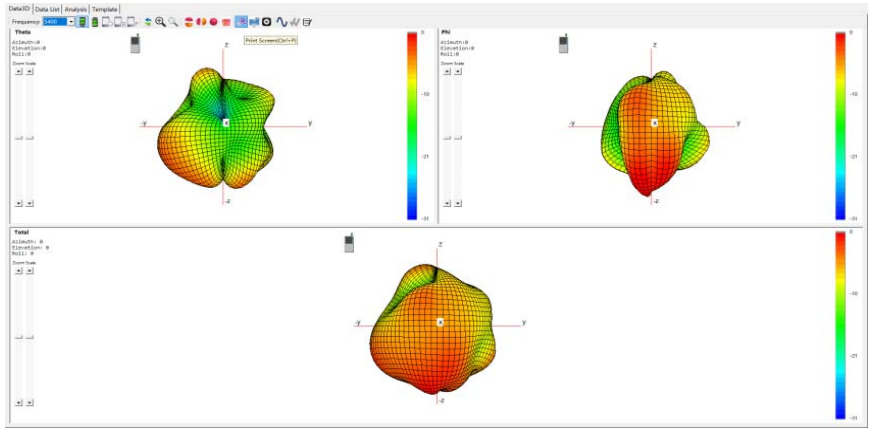


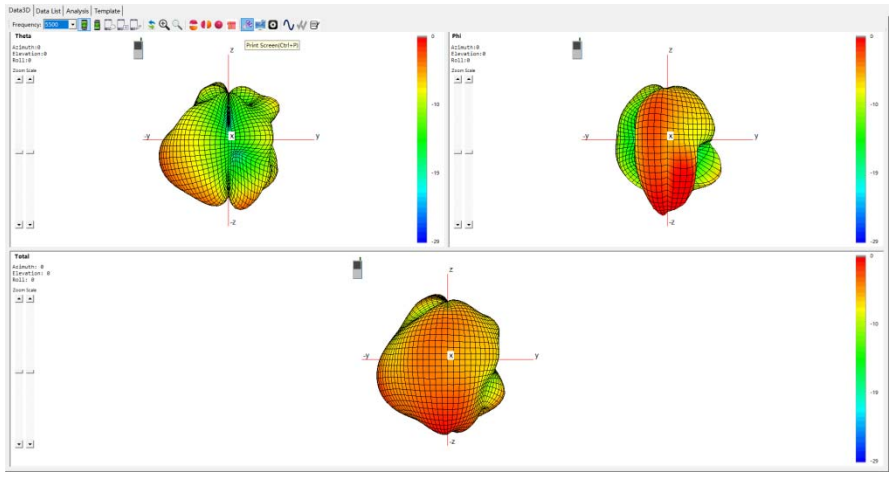


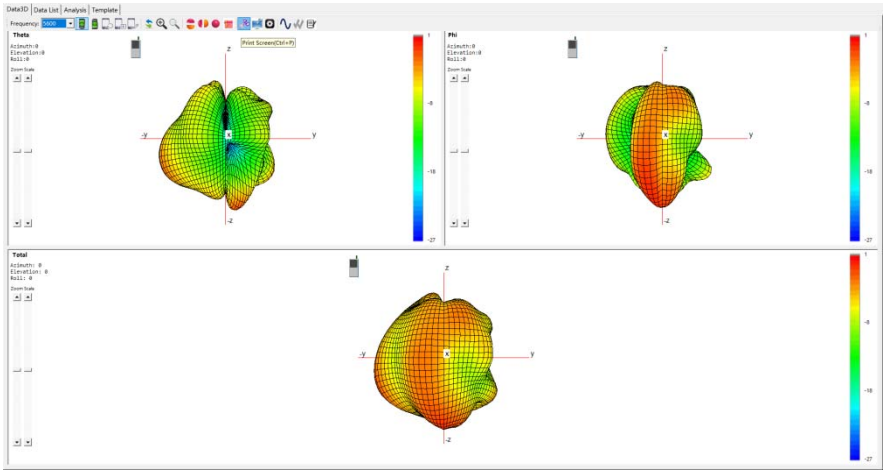












5. Equipment List

Type of Equipment	Manufacture	Model Number
Network Analyzer	Key sight	E5071C
Switch control System	GTS	RayZone1800
Software	GTS	MaxSign 100Patten Measurement software