

Shenzhen PIPA antenna design Co., LTD.

OTATESTREPORT(Passive)

Project name: UF1001
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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

Satimo SG16 Chamber : testing frequency ranges from 600MHz to 6GHz.

1.3 Testing Location

Company: Shenzhen PIPA antenna design Co.,LTD.

Address: Unit F/4F, buildingA, Junxiangda, Plada, Zhongshanyuan
Road, Nanshan District, Shenzhen

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1.4 Laboratory Environment

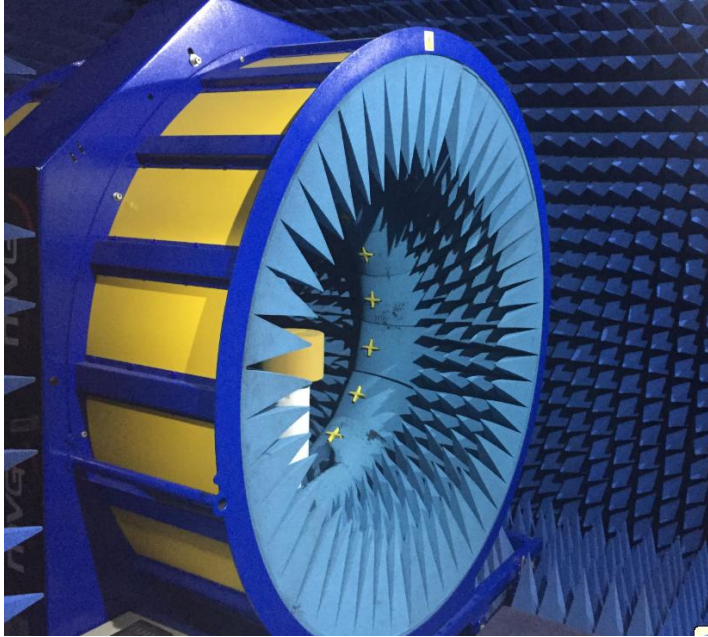
Temperature	Min.= 19°C, Max.=25°C	
Relative humidity	Min.=40%, Max.=72%	
Shield effect	0.6-7GHz	>100dB
Ground resistance	<0.5Ω	

2. General Description of Equipment under Test

2.1 General information

EUT Description	
Product Name	<i>Satimo SG16</i> Chamber
Antenna Type	FPC Antenna
Antenna Manufacturer	Shenzhen PIPA antenna design Co.,LTD.
Test Frequency	617MHz-5000MHz

3. Test Conditions



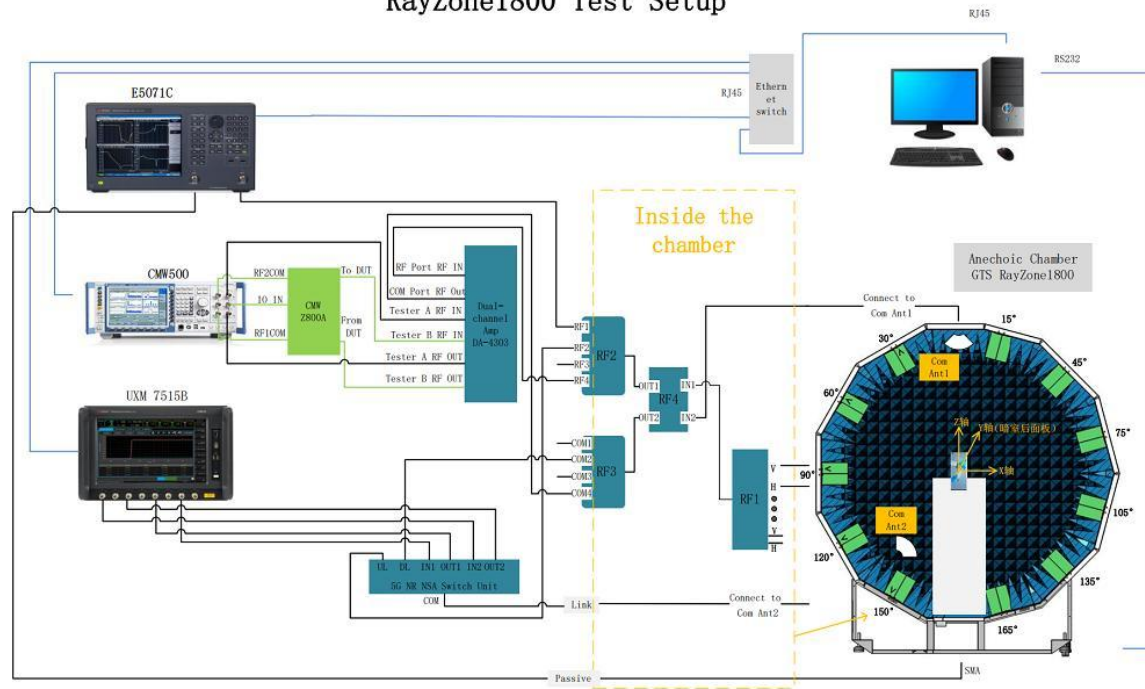
Test items	Test equipment
S11、S12、VSWR、LOSS	E5071B、E5062A
Efficiency、Gain 3D Radiation Pattern	Satimo SG16Chamber、GP7*4*3Chamber、 E5071B
TRP、TIS	Satimo SG16Chamber、GP7*4*3Chamber、8960 、CMW500、MT8820C、E4438C、

3.1 Test Measurement

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

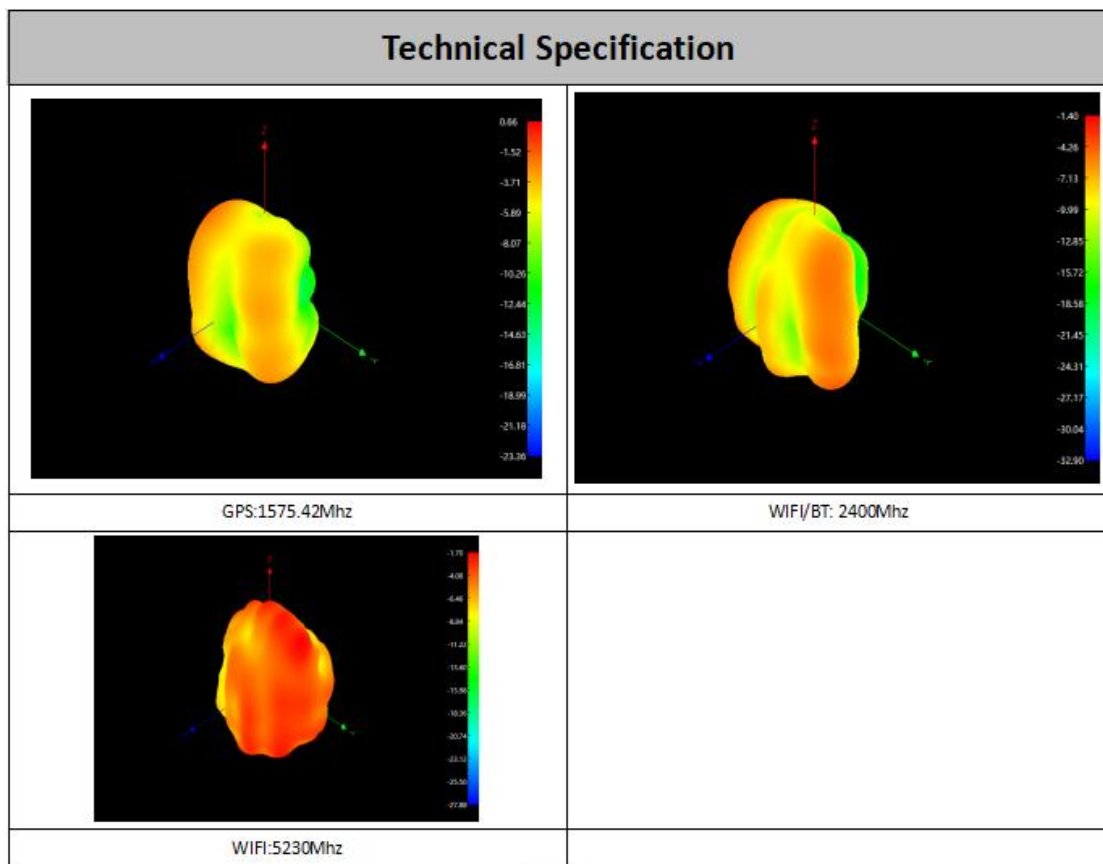


4. Test Results

4.1 Antenna Effi.& Max. Peak Gain

Frequency/ Mhz	Efficiency / dB	Efficiency / %	MaxGain/ dBi	Frequenc y/Mhz	Efficiency / dB	Efficiency / %	MaxGain/ dBi
1555	-5.43	28.64	0.35	5150	-5.60	32.54	0.72
1565	-5.29	29.58	0.44	5170	-5.79	31.36	0.31
1575	-5.23	29.99	0.66	5190	-6.11	29.49	-0.61
1585	-5.22	30.06	0.42	5210	-6.50	27.39	0.3
1595	-5.23	29.99	0.31	5230	-6.69	26.43	-1.7
1605	-5.31	29.44	-0.03	5250	-6.67	26.53	-2.13
2400	-5.19	30.28	-1.4	5270	-6.73	26.23	-2.16
2410	-5.04	31.33	-1.05	5290	-6.46	27.59	-2.01
2420	-4.92	32.18	-1.1	5310	-6.17	29.15	-1.9
2430	-4.93	32.13	0.34	5330	-5.79	31.36	-1.64
2440	-4.78	33.28	-0.78	5350	-5.56	27.8	-1.31
2450	-4.80	33.12	-0.67	5725	-4.69	33.96	-0.18
2460	-4.69	33.99	-0.63	5745	-4.76	33.42	0.14
2470	-4.70	33.88	0.4	5765	-4.8	33.11	-0.09
2480	-4.59	34.72	-0.53	5785	-4.83	32.89	0.7
2490	-4.60	34.66	0.5	5805	-4.92	32.21	0.06
				5825	-4.9	32.36	0.11
				5845	-4.75	33.5	0.1

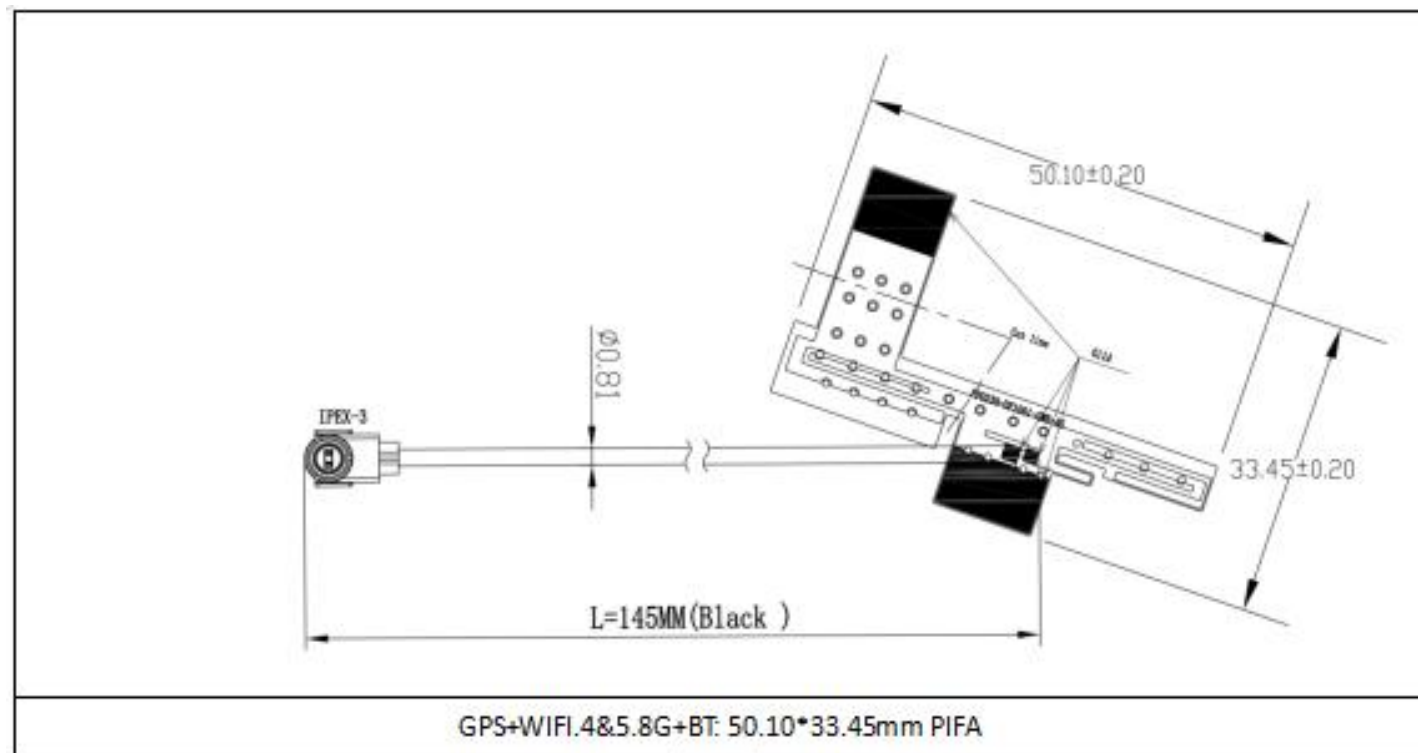
4.2 Antenna radiation pattern



5. Equipment List

Type of Equipment	Manufacture	Model Number
Network Analyzer	Agilent Technologies	E5071B
Switch control System	GTS	RayZone1800
Software	GTS	MaxSign 100 Patten Measurement software

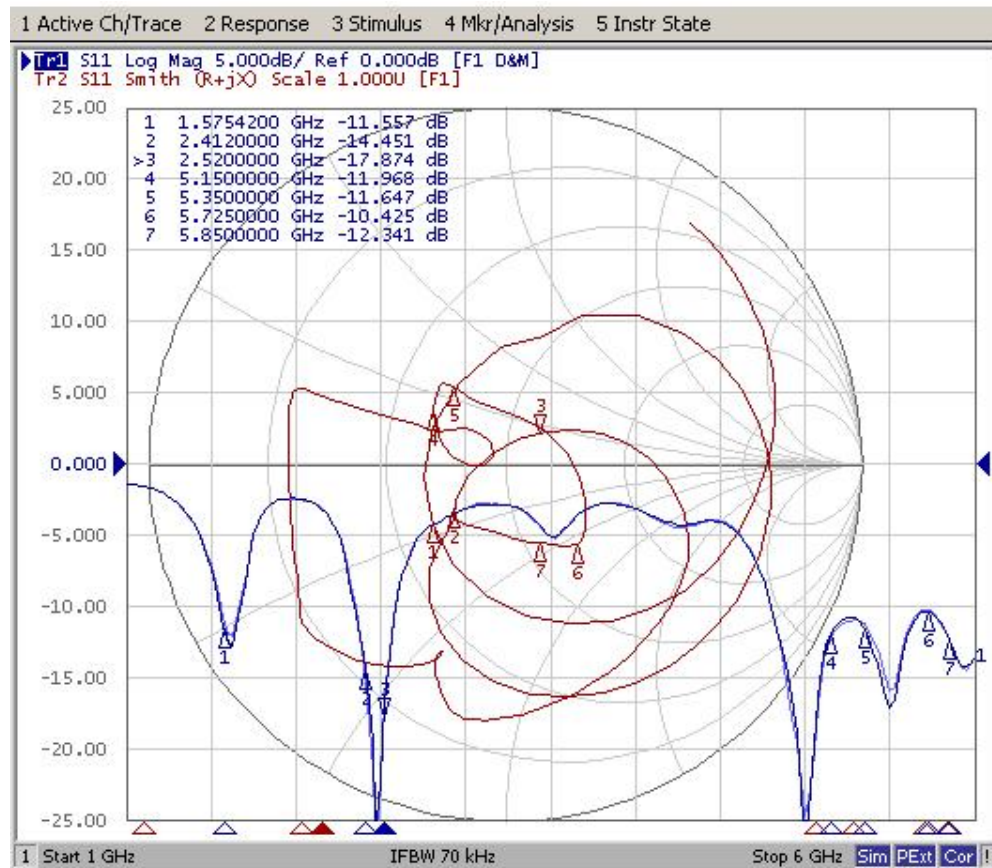
6. Size&Picture



7. Basic Specifications

No.	Specification	Descriptions	Notes
1	Antenna model	<u>PF0239-UF1001-GWB-FPC-A5</u>	
2	Antenna type	GWB <u>Antenna-PIFA</u>	
3	Operation Frequency	GPS: 1.57542GHz BT/WIFI2.4G: 2.4-2.483GHz WIFI5G: 5.15-5.85GHz	
4	Impedance	50ohm	
5	MAX Gain	3.48dBi@2.4~5GHz	
6	Efficiency	$\geq 30\%$	
7	VSWR	≤ 3	
8	MAX Gain (dBi)	GPS: 0.66dBi WiFi2.4G/BT: 0.5dBi WiFi5G: 0.72dBi	
9	Cable length (mm)	145mm	
10	Connector Type	IPEX-3	
11	Cable Colour	Black	

7. S11



THE END