



Shenzhen DEWEIMA Communication Equipment Co.,Ltd

SPECIFICATION SHEET FOR APPROVAL

CUSTOMER NAME	
CUSTOMER P/N	RD1009WF
PART NAME	WIFI Antenna
DWM NO.	
APPROVAL REV.	DWM-V1.0

CONTRACTOR			DATE: 2023-06-29
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED

CUSTOMER		DATE:
Approved By	Checked By	Prepared By

	Product Specification		
	P/N: WIFI Antenna	Rev.: A	Page: 2/13

Content

Content	2
1. Product Application	3
2. The test environment, equipment	3
3. Technology Parameters	6
4. Engineering Drawings	10
5. Environmental Performance	11
6. Usage Precaution	12



Product Specification

P/N:

WIFI Antenna

Rev.:

A

Page:

3/13

1. Product Application

Terminal of the antenna products can only be used for WIFI antenna.

2. The test environment, equipment

Item	Description	Test Condition	Requirement
2.1	Passive testing	The VSWR measurement devices are connected in sequence: Agilent5071B Network Analyzer → measurement Cable → Customer-providing Devices.	VSWR: 2400-2500MHz $\leq$ 2
		Test equipment	
			
Item	Description	Test Condition	
2.2	Active test	The antenna is tested within the cell mainboard provided by clients. Follow picture shows the measurement condition of the antenna been put on the measurement device, which is used for all measurement of electric performances.	



Product Specification

P/N:

WIFI Antenna

Rev.:

A

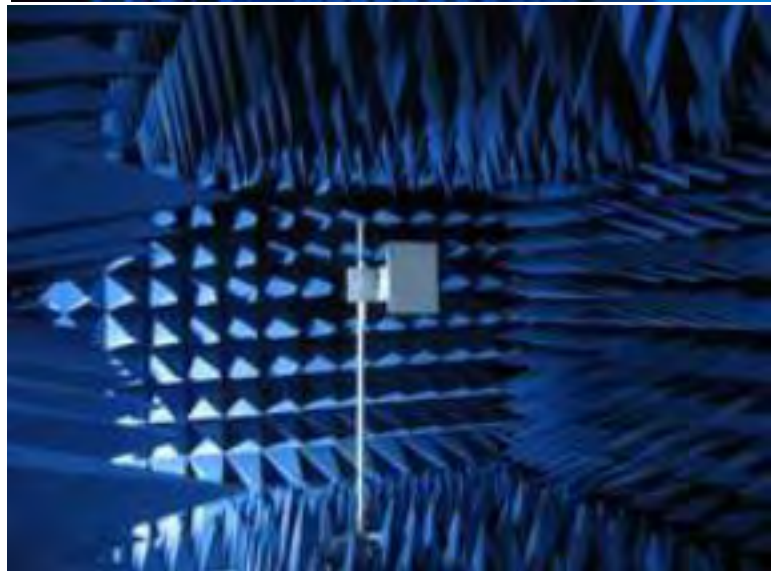
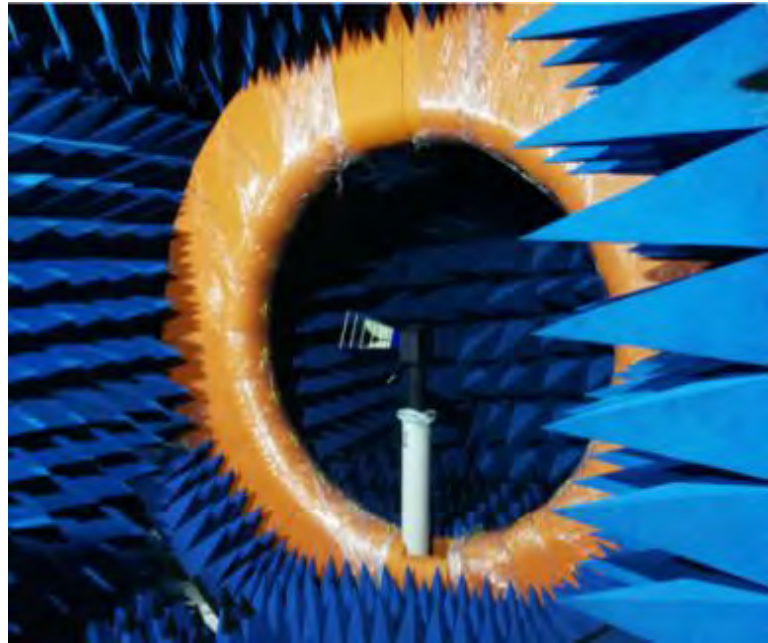
Page:

4/13

Test equipment

2.3

Microwave
Anechoic
chamber
(Satimo&ETS
)





Product Specification

P/N:

WIFI Antenna

Rev.:

A

Page:

5/13

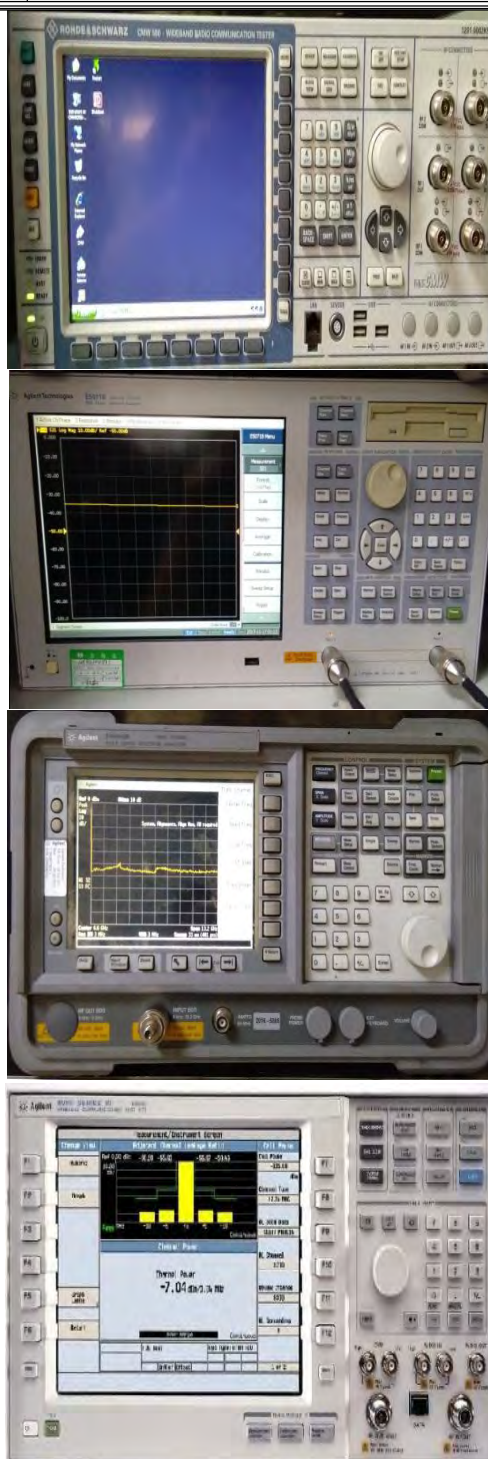
2.4

CMW500

Agilent5071B

AgilentE4405B

Agilent8960





Product Specification

P/N:

WIFI Antenna

Rev.:

A

Page:

6/13

3. Technology Parameters

Frequency Range:

2400MHz~2500MHz

Operating Humidity:

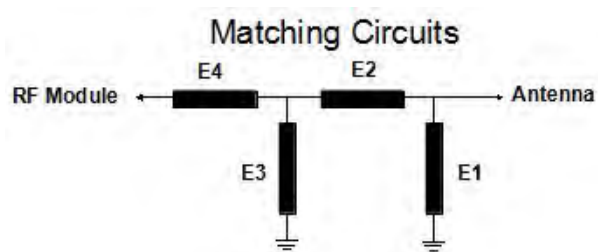
85% R.H.MAX

Temperature Rating:

-40℃~+85℃

3.1 The matching test value

Element	Value
E1(0402)	
E2(0402)	
E3(0402)	
E4(0402)	



3.2 VSWR/Smith:





Product Specification

P/N:

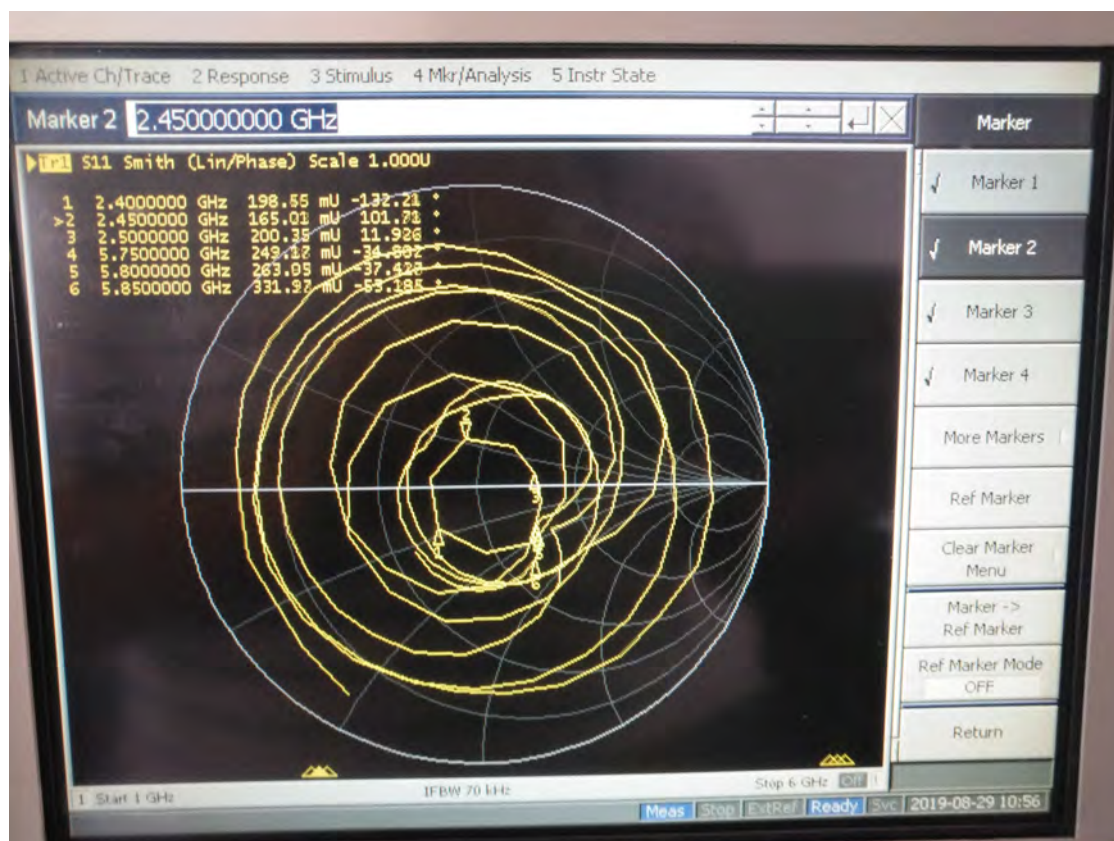
WIFI Antenna

Rev.:

A

Page:

7/13



3.3 Efficiency And Gain:

Frequency(MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Peak Gain(dBi)	1.66	1.79	1.72	1.98	2.22	2.27	2.22	1.97	1.59	1.68	1.74
Directivity(dBi)	5.42	5.42	5.44	5.54	5.65	5.71	5.76	5.71	5.66	5.61	5.46
Average Gain(dBi)	-3.76	-3.64	-3.72	-3.56	-3.42	-3.44	-3.54	-3.74	-4.07	-3.93	-3.72
Efficiency(%)	42.06	43.27	42.45	44.03	45.46	45.28	44.29	42.29	39.20	40.47	42.45
Upper HEM . EIRP(dB)	-6.28	-6.21	-6.27	-6.13	-5.94	-5.92	-5.97	-6.12	-6.47	-6.33	-6.18
Lower HEM . EIRP(dB)	-7.33	-7.14	-7.24	-7.07	-6.99	-7.06	-7.22	-7.48	-7.79	-7.65	-7.37
Upper HEM . EIRP(%)	23.57	23.96	23.58	24.38	25.48	25.58	25.31	24.43	22.56	23.30	24.10
Lower HEM . EIRP(%)	18.49	19.31	18.87	19.64	19.99	19.70	18.98	17.86	16.64	17.17	18.34
Peak Gain @ Theta(degree)	14.00	12.00	12.00	12.00	12.00	14.00	14.00	14.00	14.00	14.00	14.00
Peak Gain @ Phi(degree)	86.00	82.00	78.00	70.00	68.00	64.00	62.00	60.00	56.00	54.00	46.00
Null @ Phi(degree)	170.00	170.00	170.00	170.00	170.00	170.00	172.00	170.00	170.00	170.00	168.00
Null @ Theta(degree)	24.00	24.00	20.00	22.00	18.00	20.00	18.00	20.00	20.00	12.00	10.00
Roundness @90degree	6.48	6.37	6.57	6.46	6.77	6.90	6.98	6.81	6.84	7.46	7.40
Roundness @60degree	10.82	11.38	12.38	13.28	13.67	14.01	13.53	13.35	12.89	12.94	12.75
Roundness @30degree	3.18	3.27	3.13	3.23	3.25	3.51	3.83	4.13	4.48	4.67	4.89



Product Specification

P/N:

WIFI Antenna

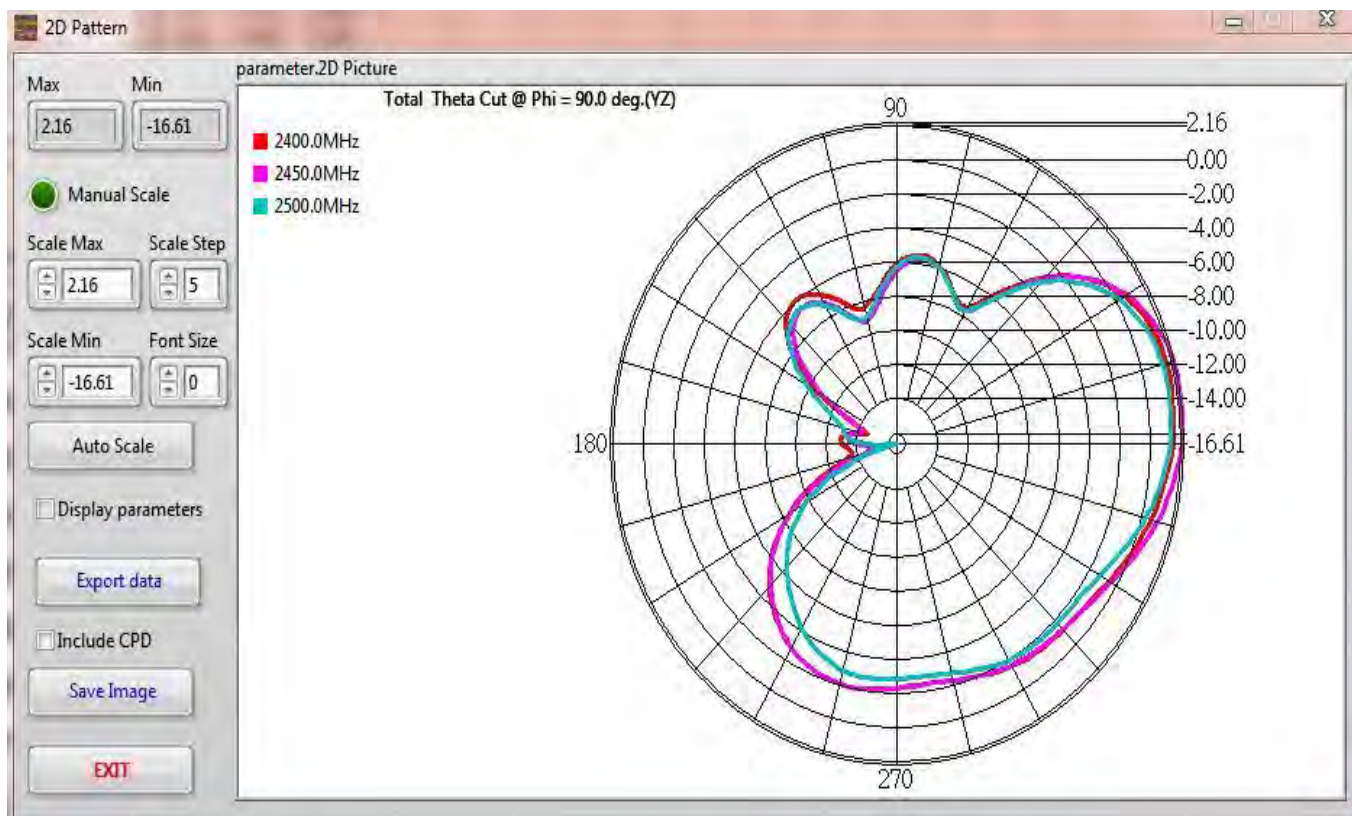
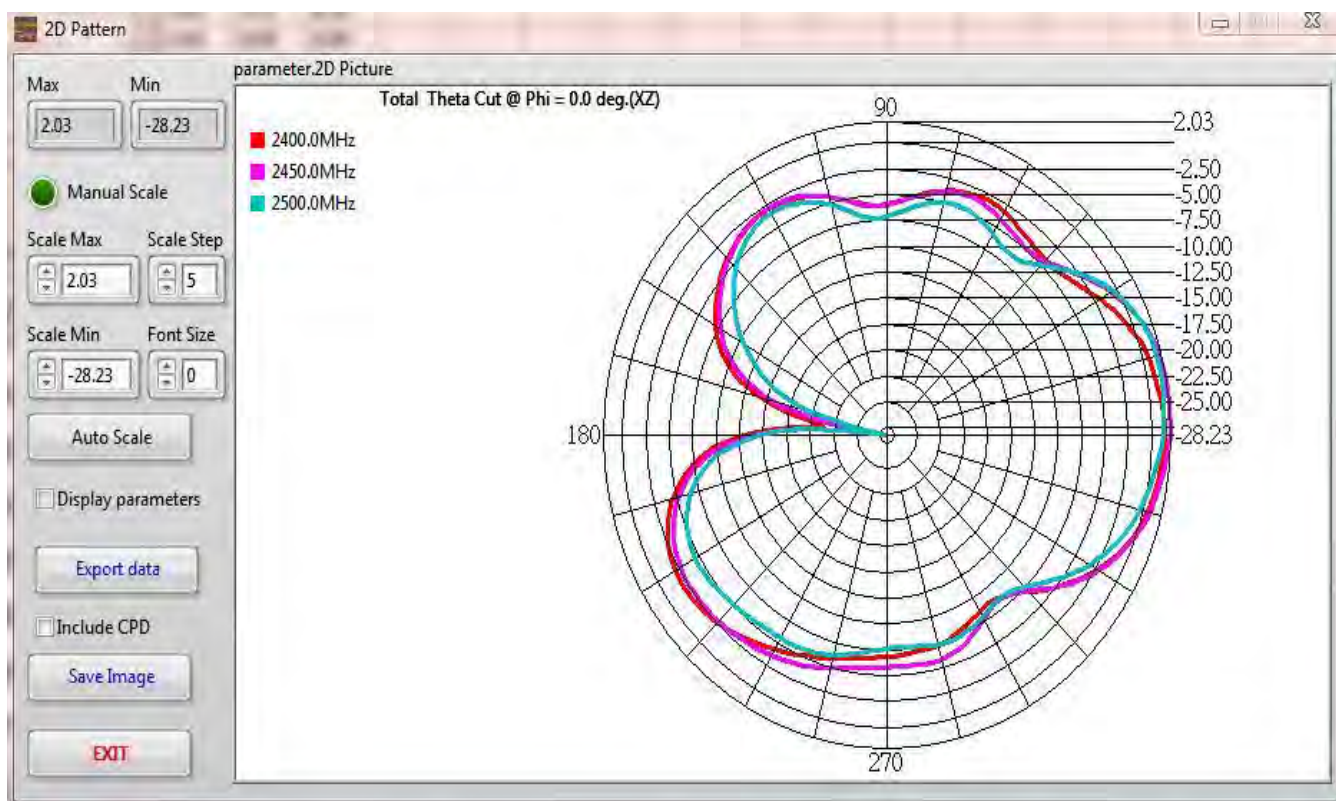
Rev.:

A

Page:

8/13

3.4. 2D Pattern





Product Specification

P/N:

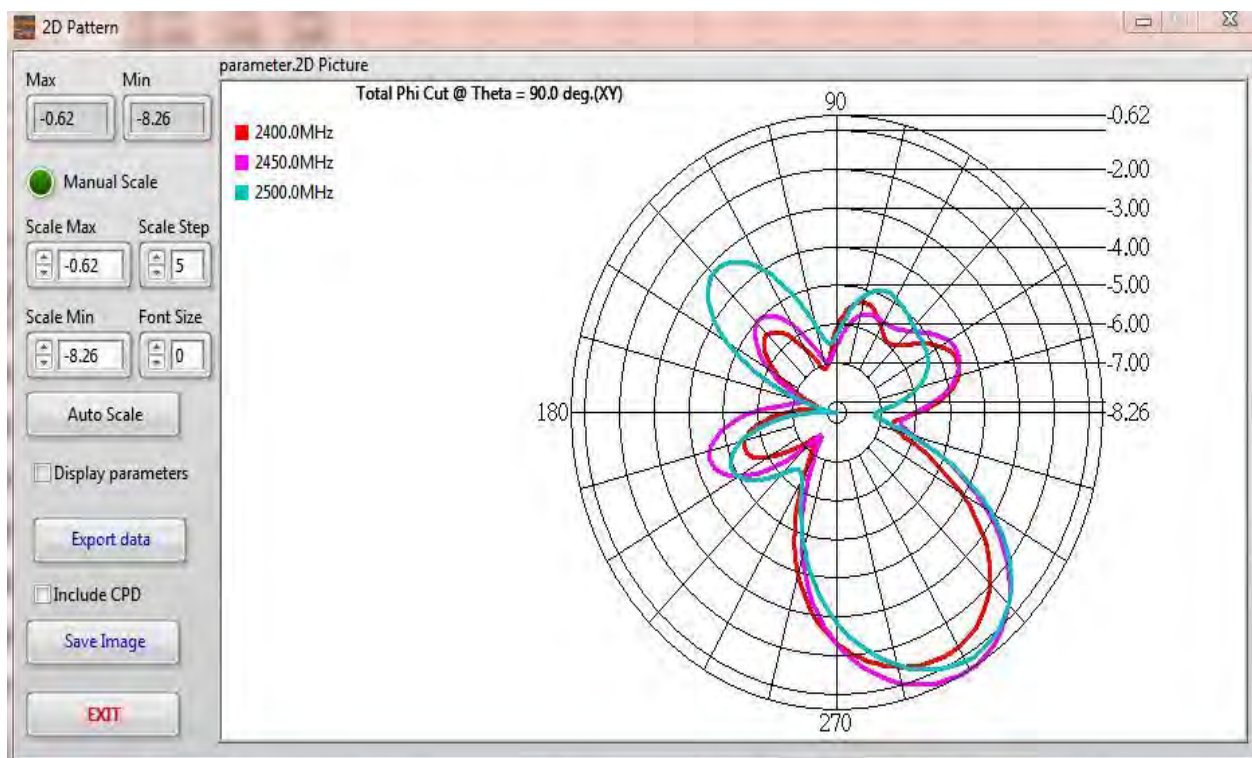
WIFI Antenna

Rev.:

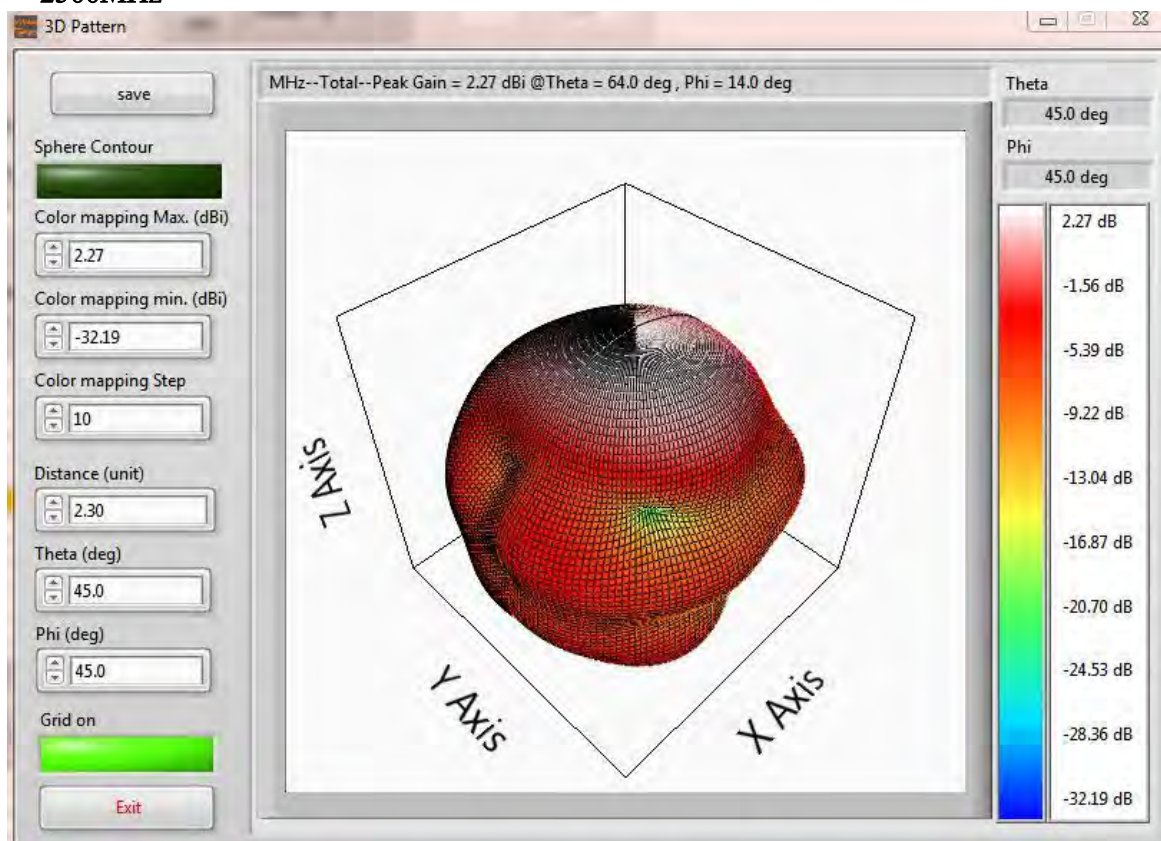
A

Page:

9/13



3D Pattern 2500MHz





Product Specification

P/N:

WIFI Antenna

Rev.:

A

Page:

11/13

5.Environmental Performance

Item	Description	Test Condition	Requirement
5.1	High and low temperature test	Temp.: -40 °C Time: 48 hours Temp.: 85°C Time: 48 hours	1. No visible damage. 2. The electric performances reach the standard.
Item	Description	Test Condition	Requirement
5.2	Salt Spray	5±0.1% Nad salt fog PH Value: 6.5-7.2 Temp: 35±1 °C Time:24 hours	1. No color change. 2. the appearance of the antenna does not flake off.



Product Specification

P/N:

WIFI Antenna

Rev.:

A

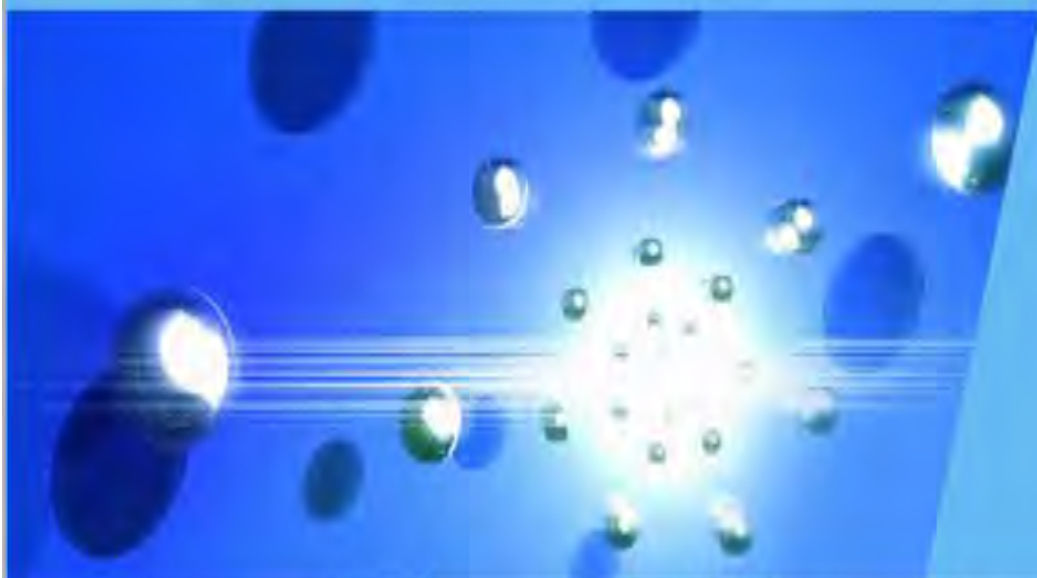
Page:

12/13

6.Usage Precaution

No	Items	Matter
6.1	Precautions	a)Please avoid the cleaning of this product
No	Items	Matter
6.2	Stockpile condition	Use this product within 6 months after receipt Condition : Temp: 5~30℃ Humidity:≤70%

专业的**RF**研发机构



Thank You !

公司地址：深圳市宝安23区创业二路友谊大厦1栋3楼 邮编：518101
3rd Floor,first unit,Friendships Building,Chuangye 2rd Road,Baoan
23 district,Shenzhen,China Post NO:518101
TEL: 0755-27885759 FAX: 0755-27885739
E-mail: 2880181958@qq.com