Shenzhen DEWEIMA Communication Equipment Co.Ltd

SPECIFICATION
SHEET FOR APPROVAL

CUSTOMER NAME	NingBO Youhang
CUSTOMER P/N	**UX18 WIFI**
PART NAME	Suction cup antenna
Material code	
APPROVAL REV.	DWM-V1.0

CONTRACTOR			**DATE：2024-11-13**
QA CHECKED	**ME CHECKED**	**RF CHECKED**	**MANAGER CHECKED**
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CUSTOMER		**DATE：**
Approved By	**Checked By**	**Prepared By**

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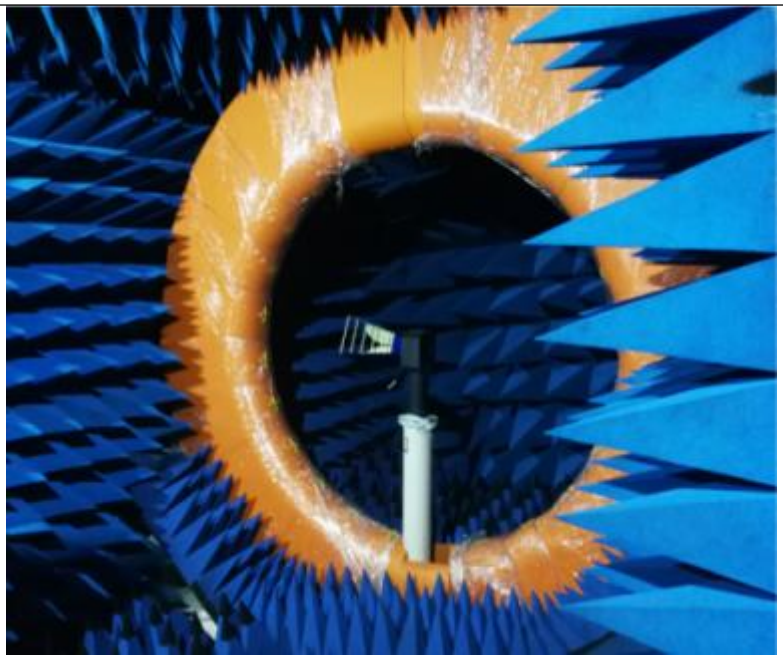
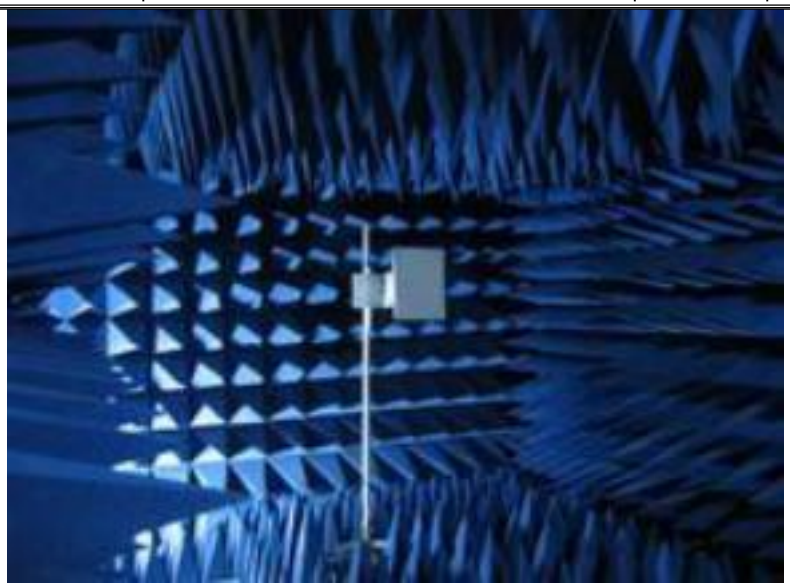
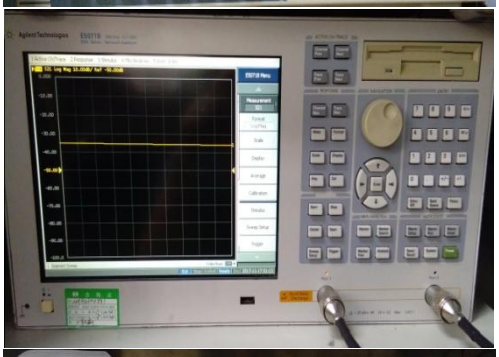
1. Product Application

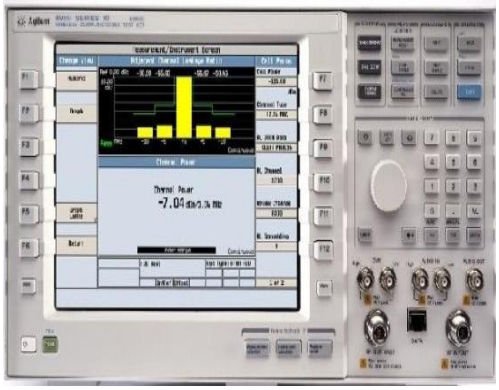
Terminal of the antenna products can only be used for WIFI antenna.

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<2
		Test equipment	
Item	Description	Test Condition	Requirement

2.2	Active test	Follow picture shows the measurement condition of the antenna been put on the measurement device, which is used for all measurement of electric performances.	Antenna gain: 2400-2500MHz: 2dBi Antenna efficiency: 2400-2500MHz >30%
2.3	Microwave Anechoic （Satimo&ETS）	Test equipment/测试设备	
			

		
2.4	CMW500 Agilent5071B AgilentE4405B Agilent8960	 

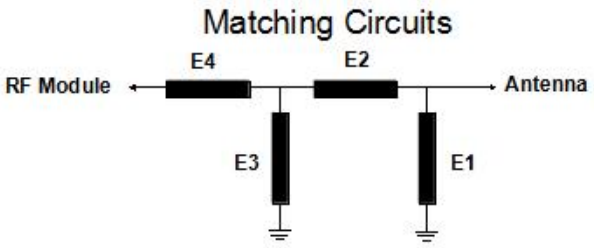


3.Technology Parameters

Frequency Range	2400-2500MHz
Operating Humidity	85% R.H.MAX
Temperature Rating	-40℃～+85℃

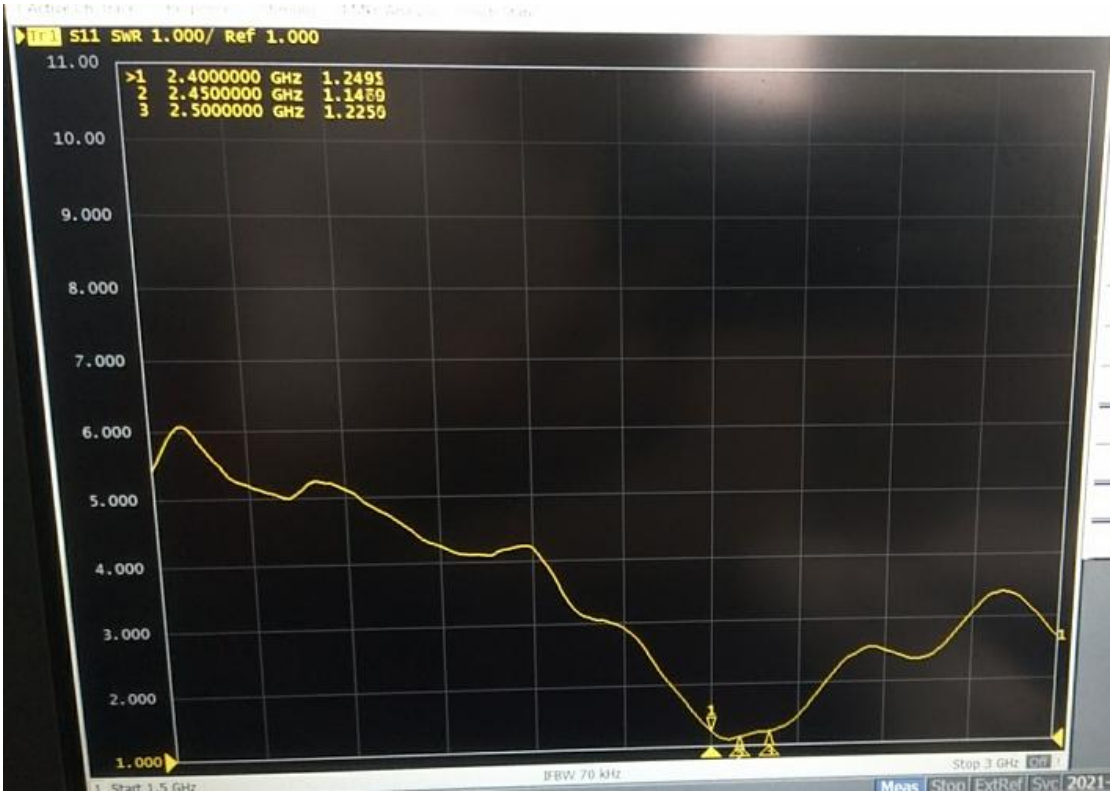
3.1 The matching test value

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



3.2 VSWR

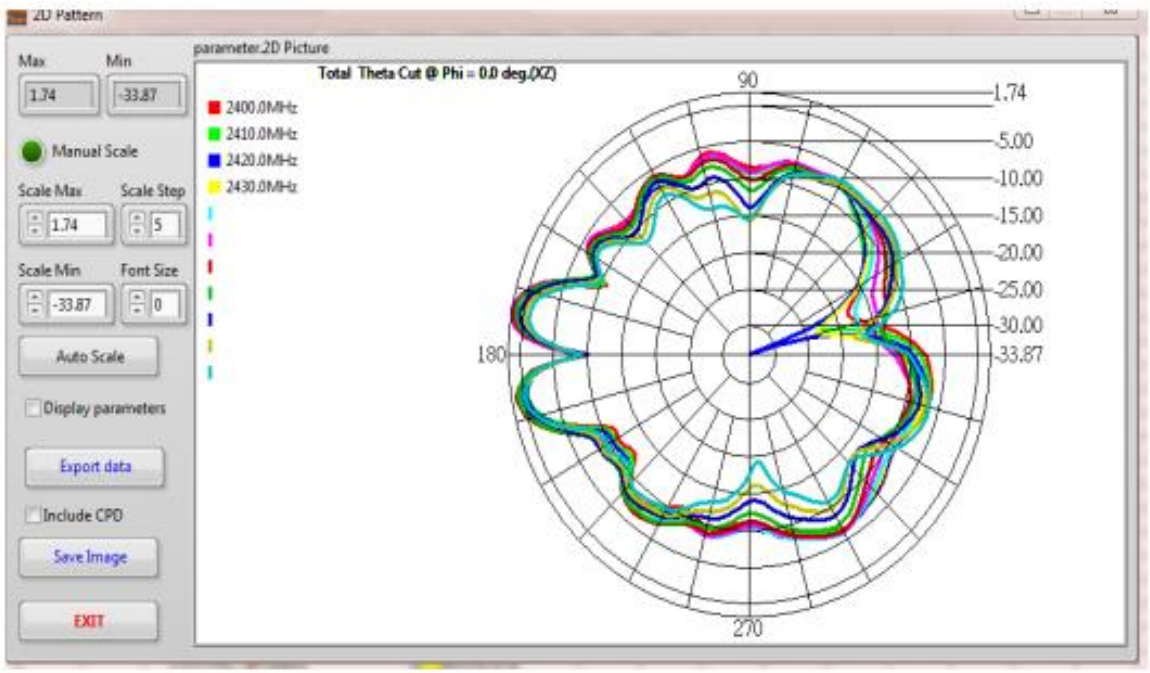
2400-2500MHz

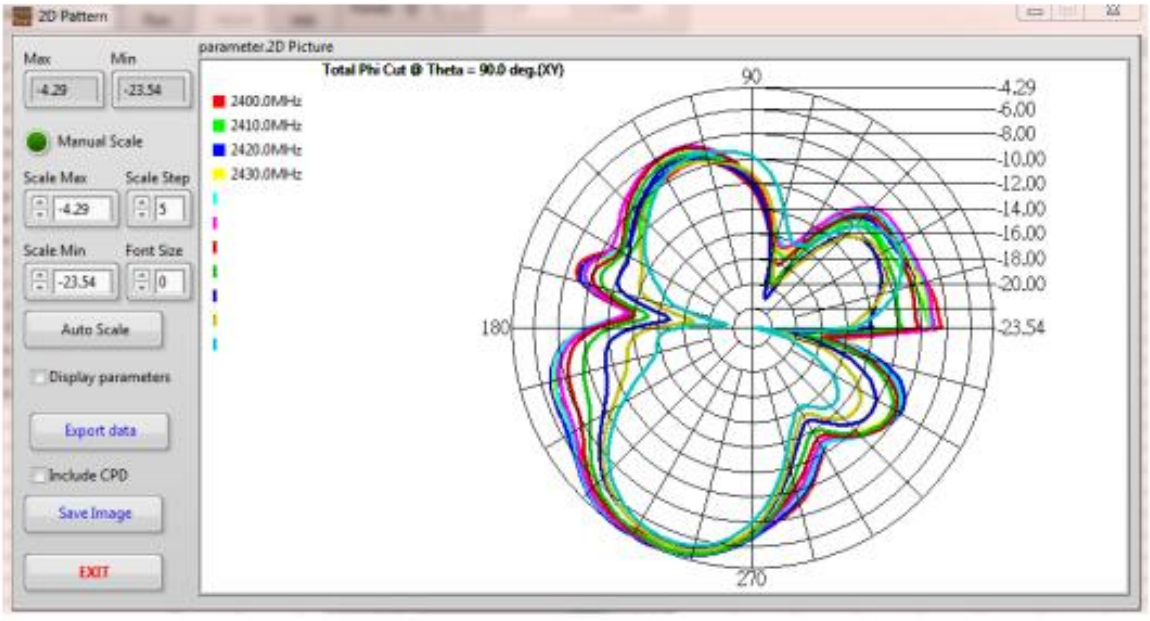


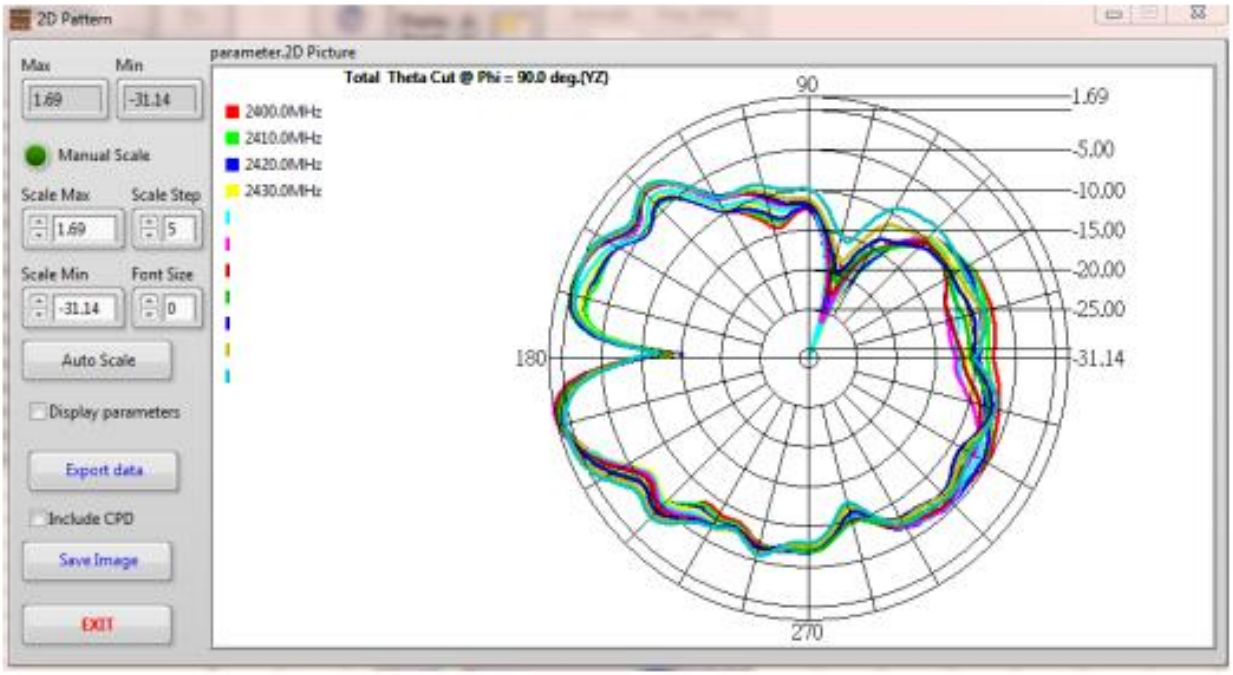
3.3. Efficiency And Gain/效率和增益

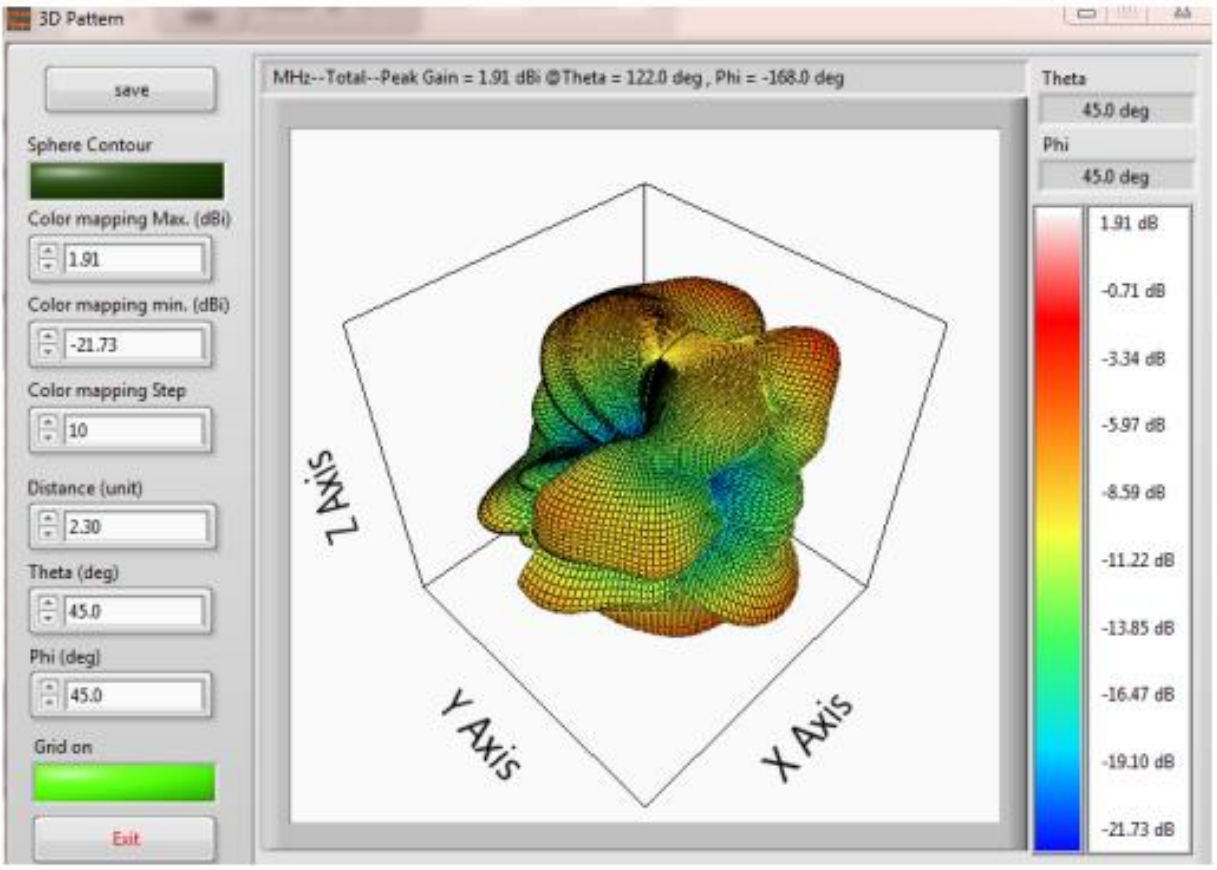
Frequency(MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Peak Gain(dBi)	1.91	2.20	2.34	2.42	3.11	3.40	3.29	3.33	2.97	2.52	2.43
Directivity(dBi)	9.16	9.59	9.53	9.59	10.01	10.05	9.99	10.19	10.28	9.92	9.77
Average Gain(dBi)	-7.25	-7.40	-7.19	-7.16	-6.90	-6.65	-6.70	-6.86	-7.30	-7.39	-7.34
Efficiency(%)	18.84	18.22	19.11	19.21	20.43	21.63	21.38	20.60	18.61	18.23	18.44
Upper HEM . EIRP(dB)	-11.06	-11.36	-11.30	-11.50	-11.39	-11.38	-11.56	-11.89	-12.46	-12.42	-11.95
Lower HEM . EIRP(dB)	-9.58	-9.63	-9.32	-9.16	-8.80	-8.43	-8.42	-8.50	-8.88	-9.03	-9.19
Upper HEM . EIRP(%)	7.83	7.31	7.41	7.08	7.26	7.27	6.99	6.47	5.68	5.73	6.39
Lower HEM . EIRP(%)	11.02	10.90	11.70	12.13	13.17	14.36	14.39	14.13	12.93	12.50	12.06
Peak Gain @ Theta(degree)	-168.00	-168.00	-168.00	-168.00	170.00	170.00	170.00	170.00	170.00	170.00	170.00
Peak Gain @ Phi(degree)	122.00	122.00	124.00	122.00	36.00	38.00	38.00	40.00	42.00	44.00	46.00
Null @ Phi(degree)	-74.00	-20.00	18.00	70.00	72.00	-74.00	-72.00	-74.00	-74.00	-86.00	-86.00
Null @ Theta(degree)	124.00	176.00	0.00	90.00	88.00	124.00	124.00	122.00	120.00	172.00	170.00
Roundness @90degree	13.13	12.59	12.58	12.45	12.14	12.58	13.48	15.11	16.50	18.60	18.11
Roundness @60degree	16.02	16.38	16.00	14.25	13.57	13.21	12.95	12.06	10.45	8.68	8.37
Roundness @30degree	12.69	14.77	17.88	18.93	16.14	13.03	11.40	11.00	12.62	17.31	14.44

3.4 2D & 3D PHOTO

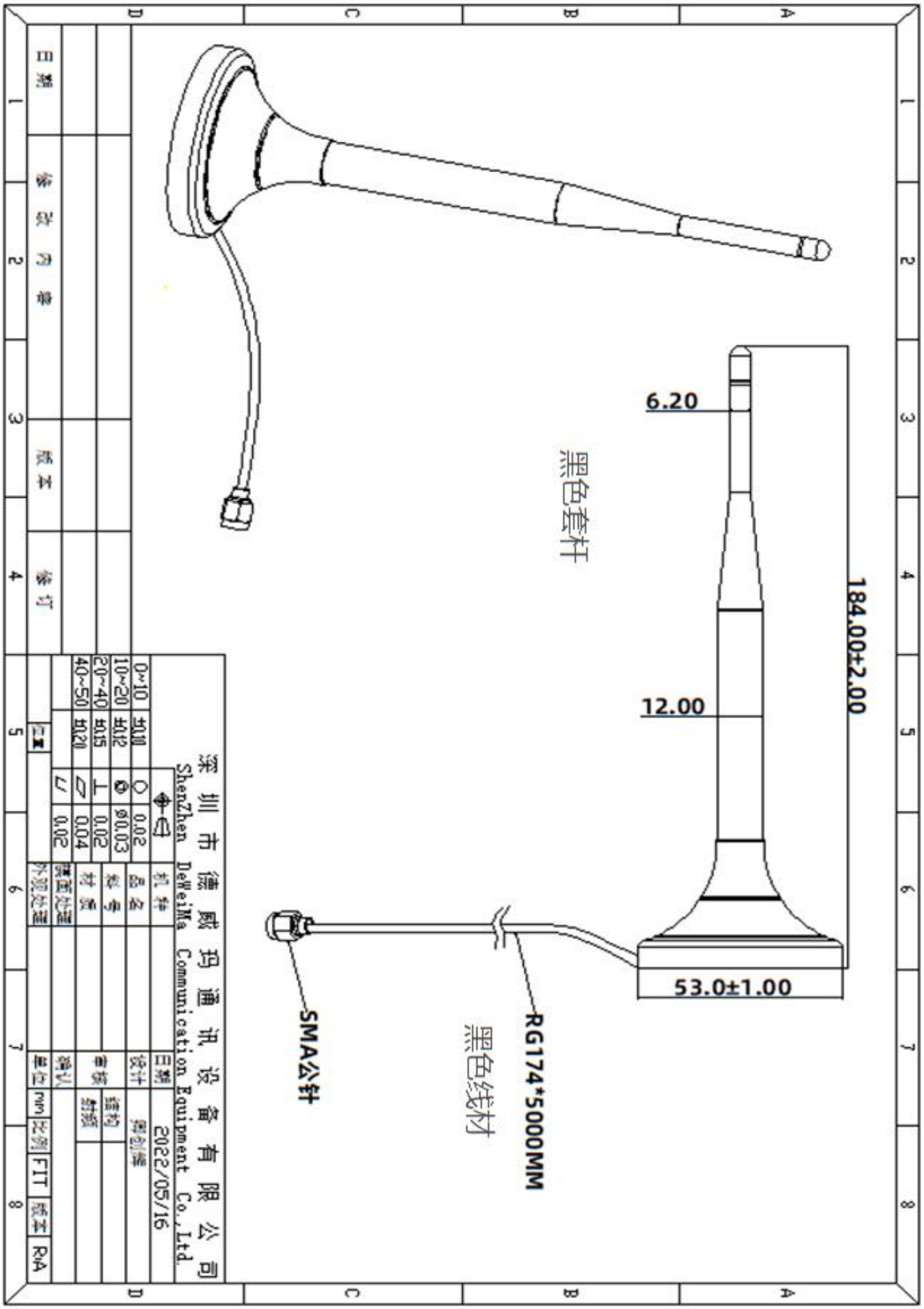





2D Pattern
parameter.2D Picture
Max
Min
1.69
-31.14
Manual Scale
Scale Max
Scale Step
1.69
5
Scale Min
Font Size
-31.14
0
Auto Scale
Display parameters
Export data
Include CPD
Save Image
EXIT
Total Theta Cut @ Phi = 90.0 deg.(YZ)
2400.0MHz
2410.0MHz
2420.0MHz
2430.0MHz
90
180
270
1.69
-5.00
-10.00
-15.00
-20.00
-25.00
-31.14


3D Pattern
save
Sphere Contour
Color mapping Max. (dBi)
1.91
Color mapping min. (dBi)
-21.73
Color mapping Step
10
Distance (unit)
2.30
Theta (deg)
45.0
Phi (deg)
45.0
Grid on
Exit
MHz--Total--Peak Gain = 1.91 dBi @Theta = 122.0 deg , Phi = -168.0 deg
Z Axis
Y Axis
X Axis
Theta
45.0 deg
Phi
45.0 deg
1.91 dB
-0.71 dB
-3.34 dB
-5.97 dB
-8.59 dB
-11.22 dB
-13.85 dB
-16.47 dB
-19.10 dB
-21.73 dB

4. Product photo



5.Environmental Performance

Item	Description	Test Condition	Requirement
5.1	High and low temperature test	Temp.: -40 ℃ Time: 48 hours Temp.: 85℃ 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℃ Time:24 hours	1. No color change. 2. the appearance of the antenna does not flake off.

6.Usage Precaution

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

7. Packing metho

Bag shipment，100pcs。