

Shenzhen Kebao Communication Technology Co., Ltd

SPECIFICATION SHEET FOR APPROVAL

CUSTOMER NAME	Shenzhen Zhencheng Technology Co., LTD
CUSTOMER P/N	C400
PART NAME	2.4G&5G dual-band antenna
DWM NO.	
APPROVAL REV.	KB-V1.0

CONTRACTOR			DATE : 2025-10-13
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED

CUSTOMER		DATE :
Approved By	Checked By	Prepared By

Manufacturer: Shenzhen ZhenCheng Technology Co., Ltd.

Address:3/F, Building C, NO.2, Road 1, ShangXue Industrial Area, Bantian Street, Longgang District, ShenZhen, Guangdong, China



Product Specification

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2.4G&5G dual-band
antenna

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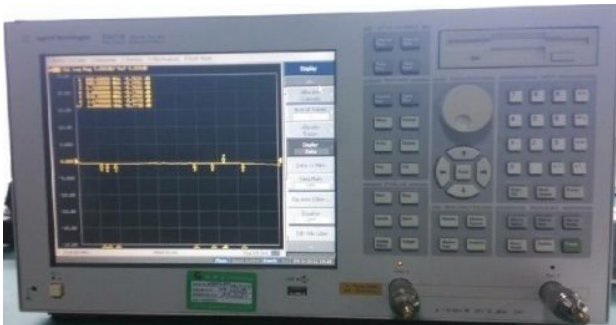
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1. Product Application

Terminal of the antenna products can only be used for 2.4G&5.8G dual-band 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 5150-5850MHz $\leq$ 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.	



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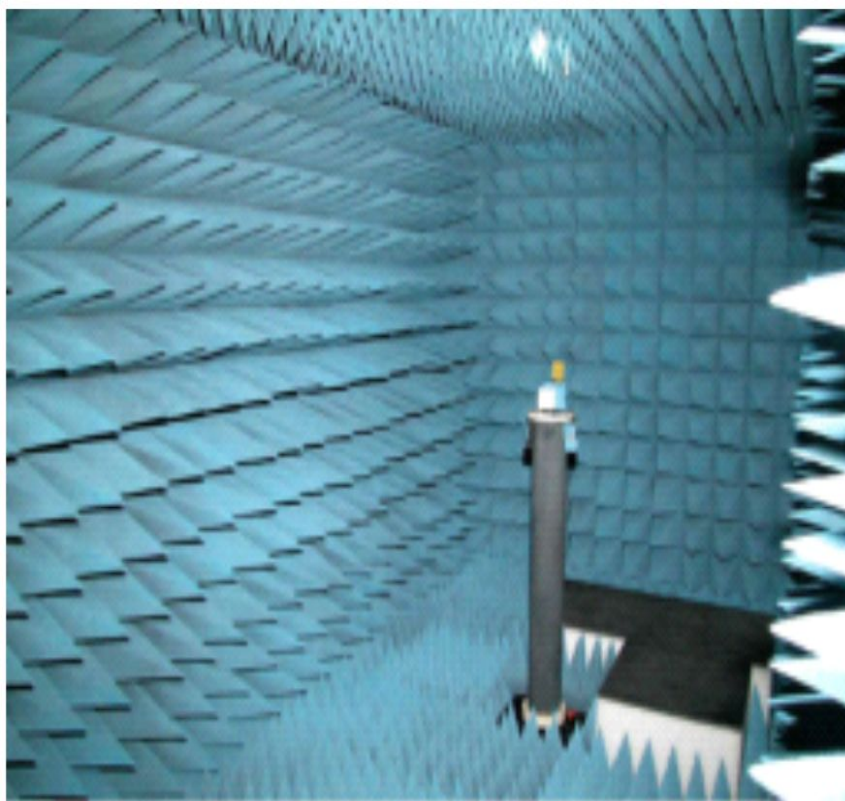
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Test equipment

2.3

Microwave
Anechoic
chamber
(Satimo&ETS
)



ETS Chamber
天线测试暗室

L x W x H =8x4x4M



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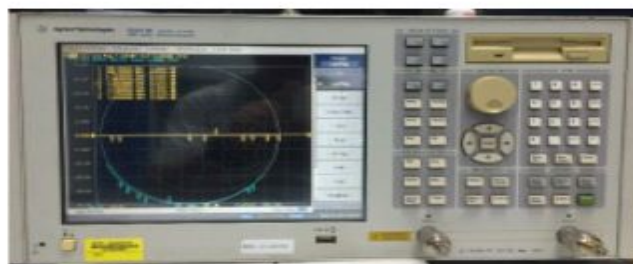
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R&S CMW500



Agilent E5071B



Agilent 8960

CMW500

Agilent5071B

Agilent8960

2.4

3. Technology Parameters

Frequency Range:

2400MHz-2500MHz 5150MHz-5850MHz

Operating Humidity:

85% R.H.MAX

Temperature Rating:

-40℃~+85℃



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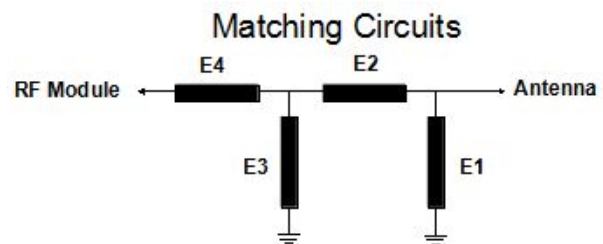
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3.1 The matching test value

Element	Value
E1(0402)	NC
E2(0402)	0 Ω
E3(0402)	NC
E4(0402)	0 Ω



3.2 VSWR:





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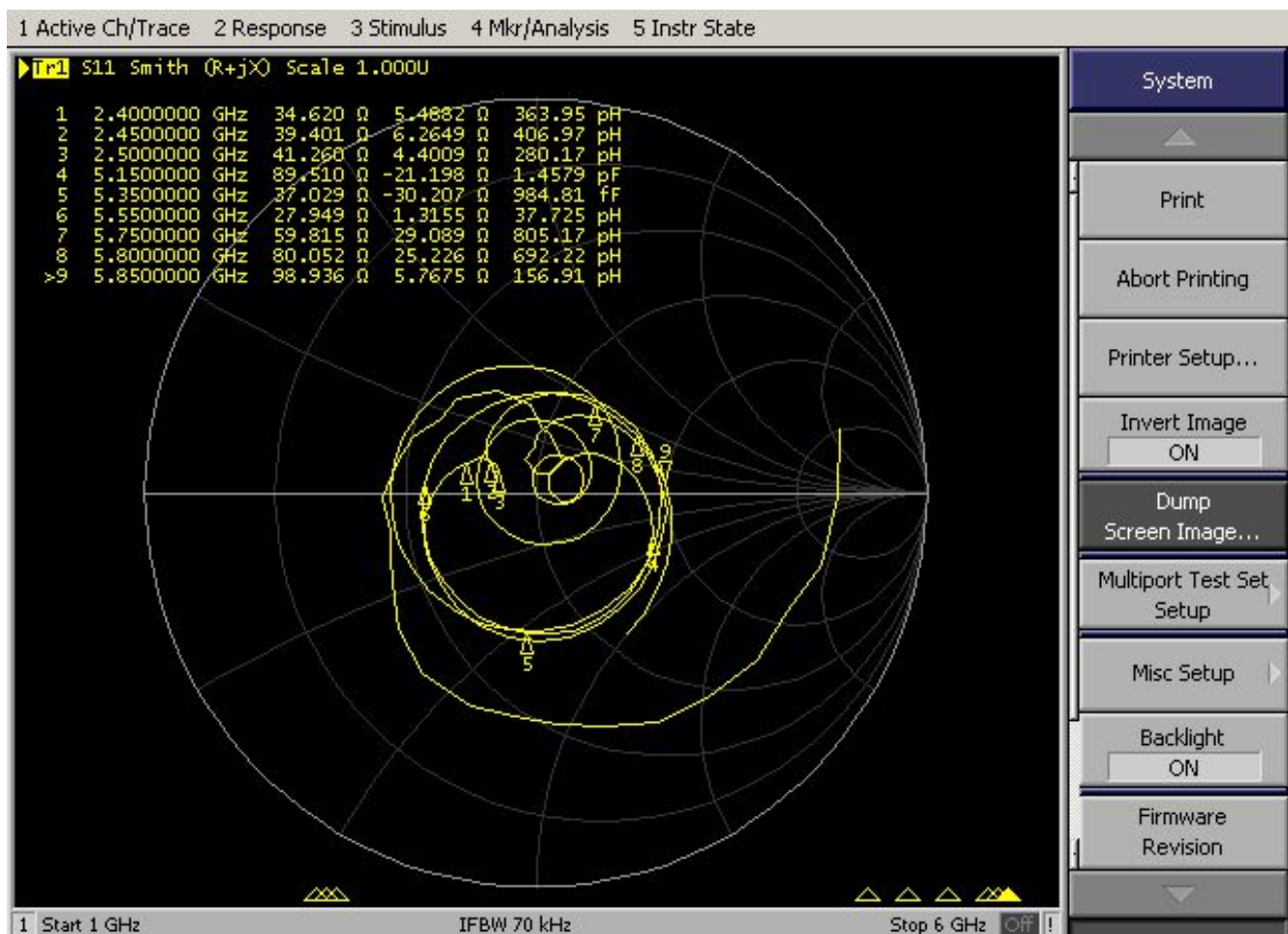
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3.3 Smith:



3.4 Measured data: Open the mobile APP, click the video function, there is no obstacle in the middle, 2.4G pull 28 meters without the phenomenon of lag, 5G pull 45 meters without the phenomenon of lag.



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3.5 Efficiency and gain

Passive Test For 2.4G												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	29.4	-5.32	-0.08	-2.23	13.264	16.139	-0.08	-15.64	5.24	30	49.16	49.3
2410	26.36	-5.79	-0.69	-2.84	11.932	14.427	-0.69	-15.89	5.1	0	48.83	49.1
2420	26.36	-5.79	-0.71	-2.86	11.661	14.695	-0.71	-15.69	5.08	15	48.62	48.54
2430	24.49	-6.11	-0.93	-3.08	10.88	13.607	-0.93	-16.85	5.18	0	48.09	48.03
2440	25.47	-5.94	-0.71	-2.86	11.277	14.188	-0.71	-18.07	5.23	45	48.05	47.97
2450	27.21	-5.65	-0.51	-2.66	12.124	15.084	-0.51	-18.67	5.14	15	48	47.88
2460	27.91	-5.54	-0.58	-2.73	12.625	15.284	-0.58	-21.04	4.97	15	48.21	48.35
2470	29.17	-5.35	-0.26	-2.41	13.242	15.924	-0.26	-20.52	5.09	15	48.29	48.32
2480	29.34	-5.33	-0.29	-2.44	13.561	15.774	-0.29	-20.92	5.03	15	48.47	48.56
2490	31.35	-5.04	0.16	-1.99	14.59	16.759	0.16	-23.01	5.2	15	48.41	48.63
2500	32.29	-4.91	0.36	-1.79	15.311	16.976	0.36	-20.43	5.27	15	48.43	48.67

Passive Test For 5.8												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
5150	15.62	-8.06	-2.7	-4.85	8.09	7.534	-2.7	-23.93	5.36	0	58.28	58.7
5200	22.62	-6.46	-1.7	-3.85	11.832	10.784	-1.7	-22.3	4.76	0	57.61	57.96
5250	35.76	-4.47	1.6	-0.55	16.753	19.003	1.6	-22.8	6.07	15	58.57	59.2
5300	33.23	-4.78	2	-0.15	13.83	19.399	2	-20.55	6.78	15	57.28	57.55
5350	36.1	-4.42	2.84	0.69	13.84	22.26	2.84	-20.83	7.26	45	58.38	58.8
5400	31.22	-5.06	2.29	0.14	11.279	19.944	2.29	-20.52	7.35	45	57.64	58.51
5450	33.09	-4.8	2.77	0.62	11.912	21.173	2.77	-19.78	7.57	45	58.1	59.25
5500	33.85	-4.71	2.93	0.78	12.439	21.406	2.93	-17.6	7.64	45	58.46	59.87
5550	34.35	-4.64	2.76	0.61	12.647	21.704	2.76	-17.08	7.4	30	60.23	60.9
5600	31.26	-5.05	2.25	0.1	11.54	19.716	2.25	-20.06	7.3	30	60.3	61.95
5650	31.78	-4.98	2.37	0.22	11.71	20.07	2.37	-20.33	7.35	30	60.01	60.87
5700	27.68	-5.58	1.8	-0.35	10.265	17.414	1.8	-26.3	7.37	30	59.97	60.89
5750	26.69	-5.74	1.42	-0.73	10.114	16.572	1.42	-29.42	7.16	30	60.02	60.72
5800	23.98	-6.2	0.61	-1.54	9.39	14.589	0.61	-24.08	6.82	30	60.6	61.71
5850	21.27	-6.72	0	-2.15	8.805	12.462	0	-25.21	6.73	30	60.22	61.21



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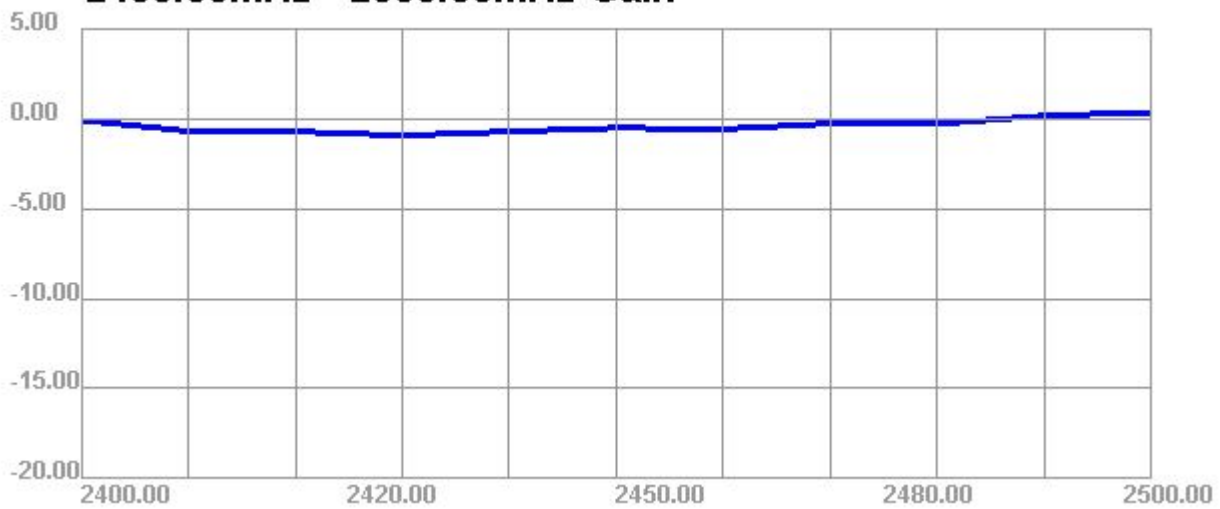
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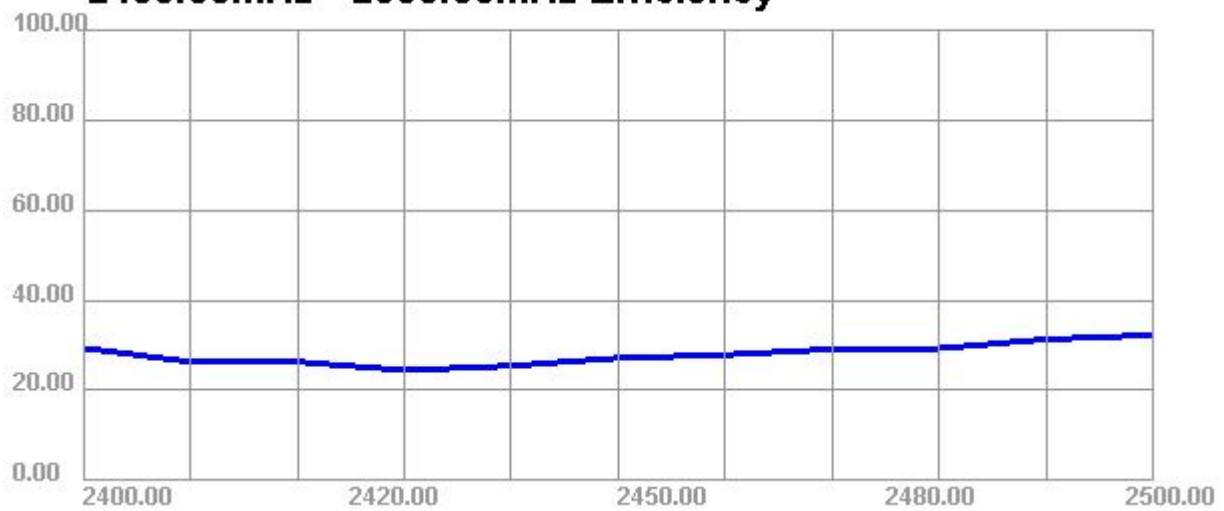
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3.6 Efficiency and gain chart

2400.00MHz - 2500.00MHz Gain



2400.00MHz - 2500.00MHz Efficiency





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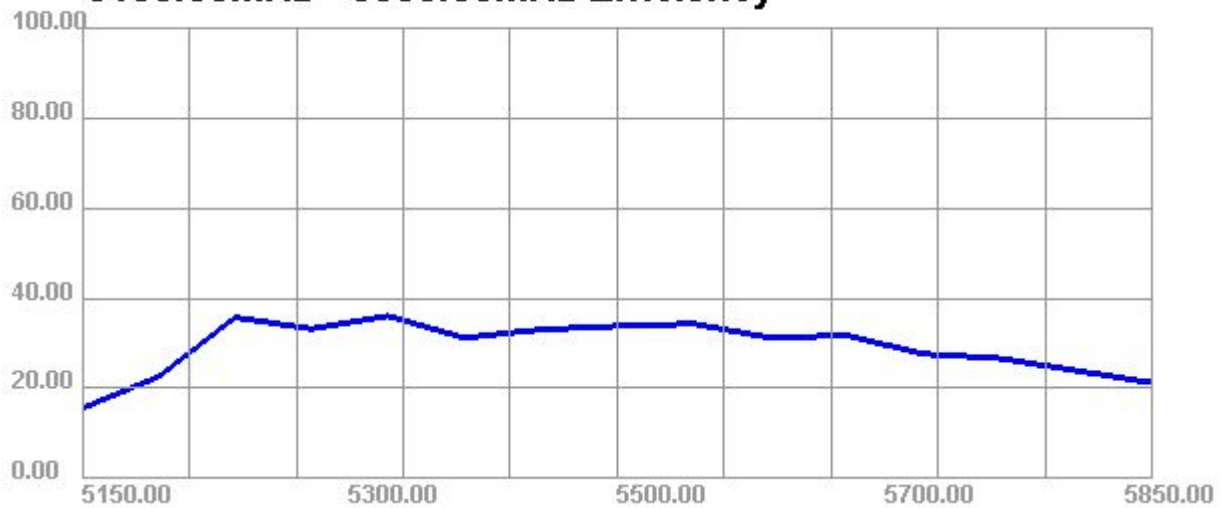
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5150.00MHz - 5850.00MHz Gain



5150.00MHz - 5850.00MHz Efficiency





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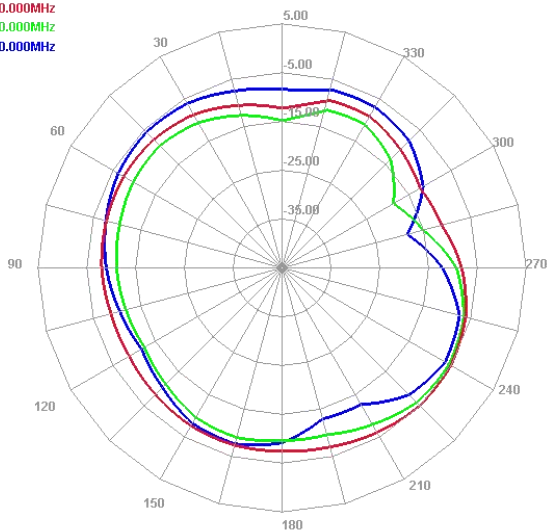
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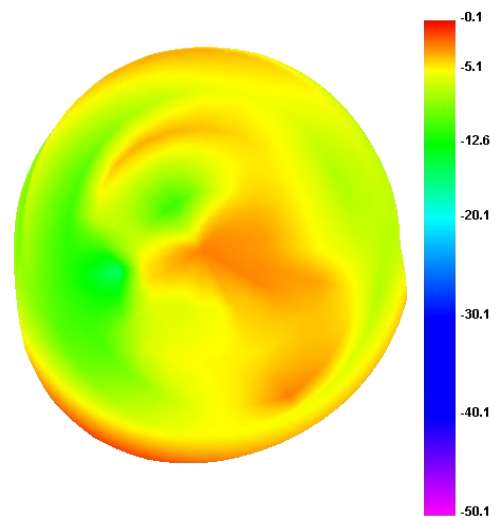
3.7 2D&3D drawings

Horizontal

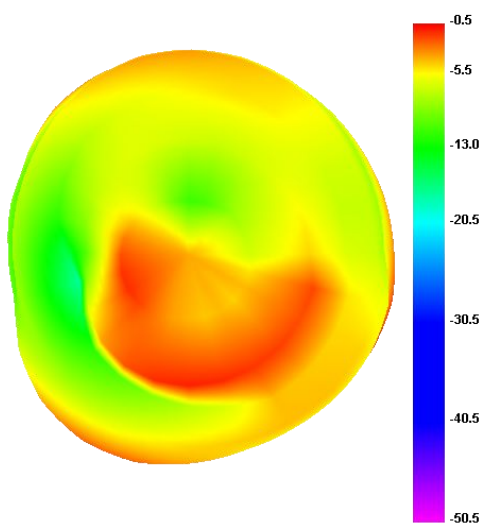
2400.000MHz
2450.000MHz
2500.000MHz



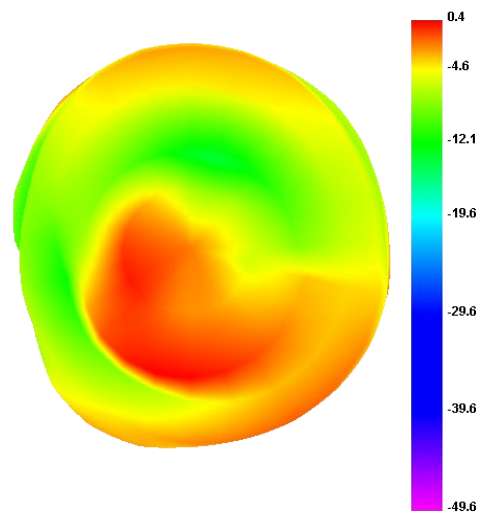
2400.000MHz



2450.000MHz



2500.000MHz





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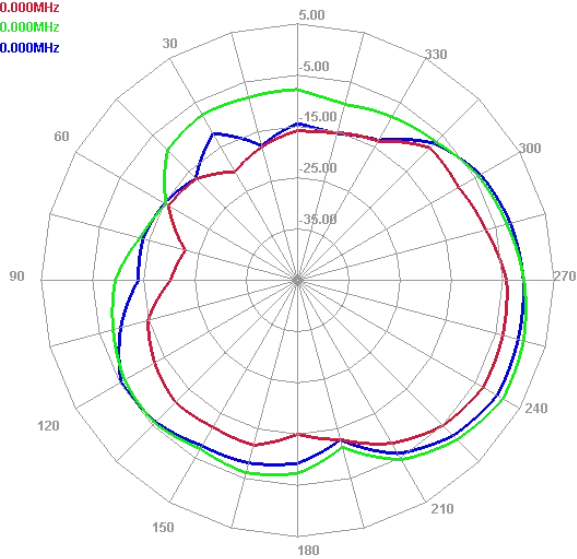
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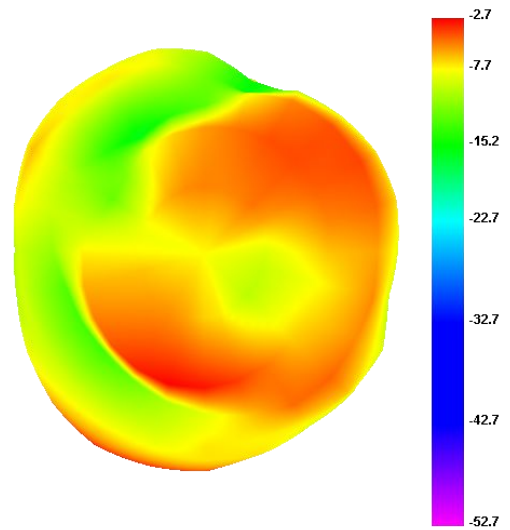
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Horizontal

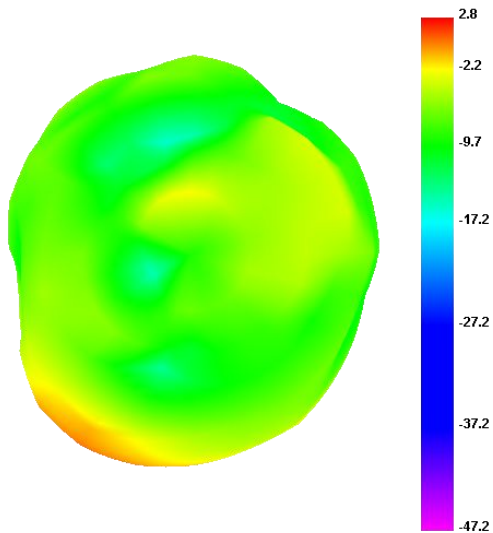
5150.000MHz
5550.000MHz
5850.000MHz



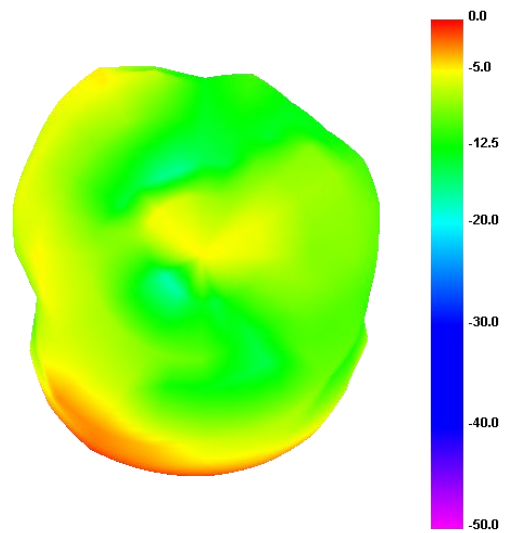
5150.000MHz



5550.000MHz



5850.000MHz





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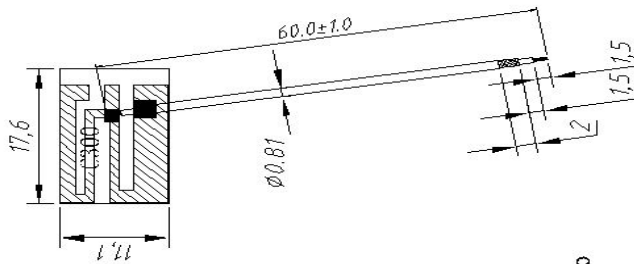
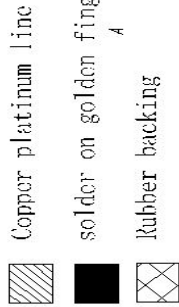
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4. Product Structure Diagram:



NOTE:

- 1 dozen * is the key detection size, and the hole size is subject to the actual configuration.
- 2 Rounded Angle R=0.30mm is not noted, the size in the figure should be the middle value, other unmarked tolerances refer to the description in the figure box.
3. The material is electrolytic copper +Pl(one half), and the overall thickness is less than 0.07MM (excluding 3M glue).
4. The surface is matte black with 3M 300 LSE glue on the back.
5. The surface can not be scratched copper, poor plating, oxidation, notch, indentation, bubble, crack sash;
And do not allow foreign bodies, dirty spots, deviation and other phenomena.

Shenzhen Kebao Communication Co., Ltd

Machine a		date		2023/09/13	
Product name		design			
Material no.		examine construction			
Material is		verify		RF	
Surface treatment		affirm			
appearance finish		monad		percentage	
seal		mm		FIT	
Version of this Repair order		7		8	
Modify the content		3		4	
Day period		2		1	



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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.



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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%