

北京瑞迪卡特科技有限公司

Beijing Radiocraft Technology Co.,LTD

北京市通州区后南仓 5 号楼 2 单元 5 层 253

253, Floor 5, Unit 2, Building 5, Hounancang, Tongzhou District, Beijing

# SPECIFICATION

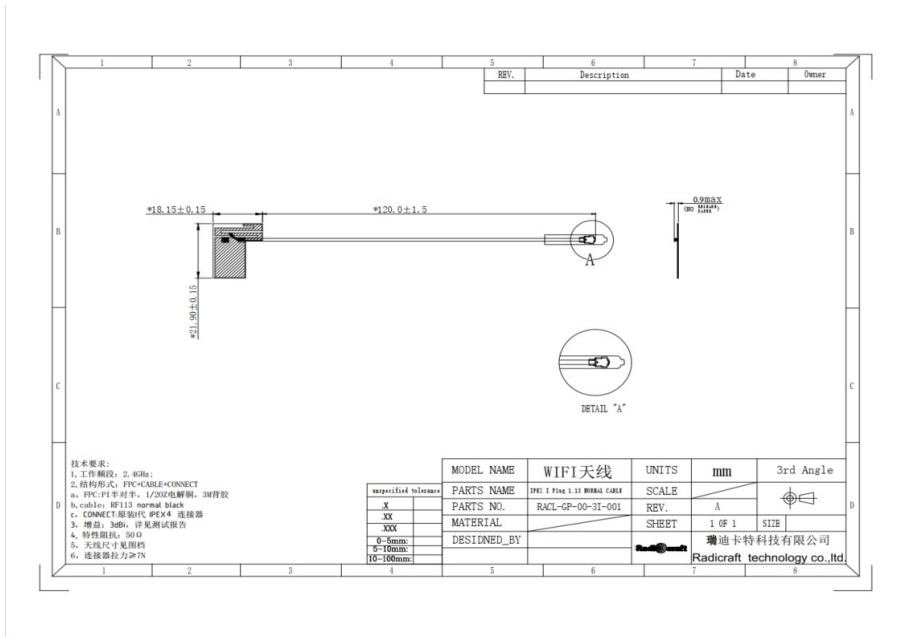
Customer	Hexagon	Project		
Frequency Band	WIFI	P/N	RACL-GP-00-3I-001	
Test Date	2023.06.16	Version	A0	
TEST Personnel	宋文华			
Radiocraft				
Checked by	RF	Design by	RF	宋文华
	ME		ME	徐雷
Remark		Remark		

[www.top-radiocraft.com](http://www.top-radiocraft.com)

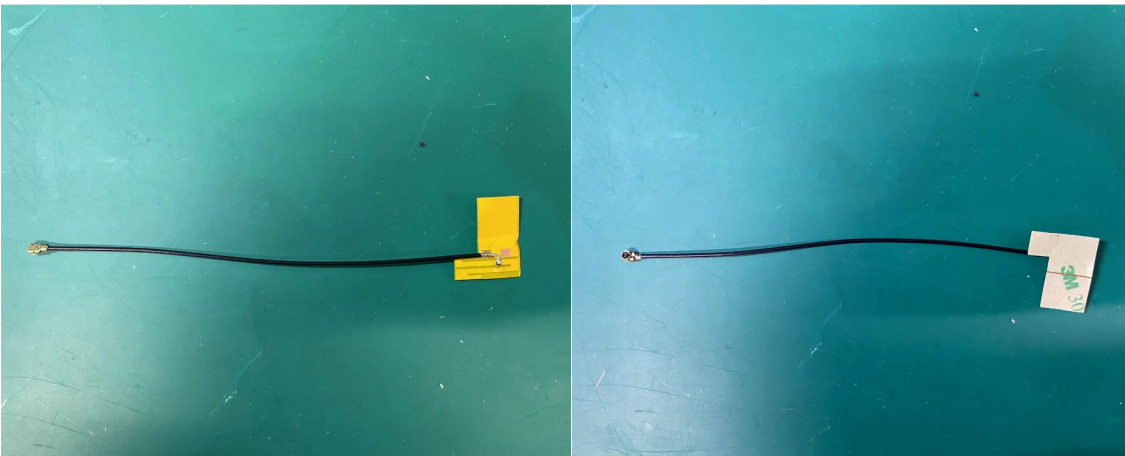
Radiocraft has possession of proprietary information provided in this specification and this proprietary information shall be kept in strict confidence and not disclosed to any person or firm without the prior written consent of Beijing Radiocraft Technology Co., LTD.

# 1. OUTLINE DRAWING AND DIMENSIONS

## 1.1 Dimensions



## 1.2 Picture



[www.top-radiocraft.com](http://www.top-radiocraft.com)

Radiocraft has possession of proprietary information provided in this specification and this proprietary information shall be kept in strict confidence and not disclosed to any person or firm without the prior written consent of Beijing Radiocraft Technology Co., LTD.

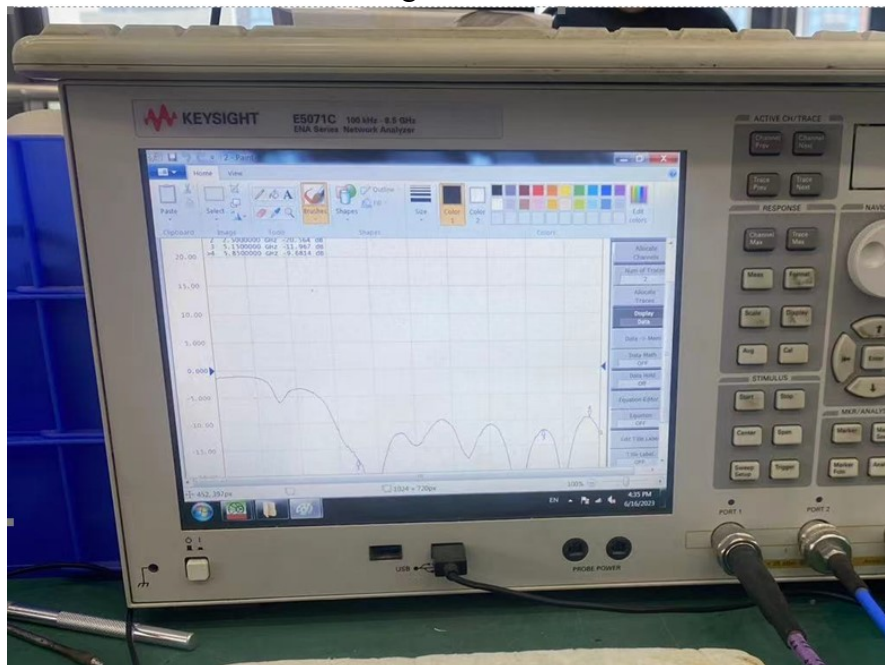
### 1.3 Antenna Type

FPC antenna.

## 2 TEST

### 2.1 Test setup

- ① The return loss was measured with Agilent E5071.



- ② The efficiency and gain were measured in MVG-SATIMO Chamber



MVG chamber and measurement system

- ③ Measurement equipment description

[www.top-radiocraft.com](http://www.top-radiocraft.com)

Radiocraft has possession of proprietary information provided in this specification and this proprietary information shall be kept in strict confidence and not disclosed to any person or firm without the prior written consent of Beijing Radiocraft Technology Co., LTD.

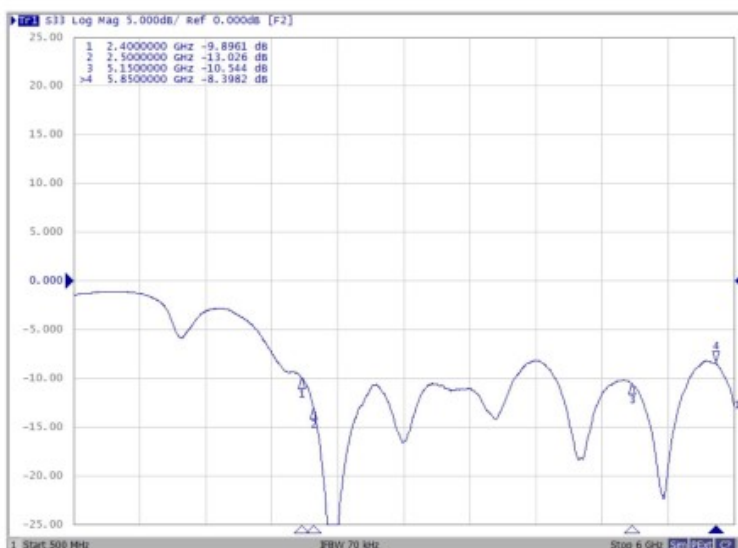
Description	Manufacturer	Model No	Serial No	Calibrated Date	Calibrated Until
	Agilent	E5071C	MY46316132	2023/1/13	2024/1/13
	SATIMO MVG	SG64	1103277-0001	2023/1/16	2024/1/16
	Test software	WaveStudio	2020.2.8		
	Analyze software	Satenv	3.0.3.0.23		

## 2.2 Test step

- ① The instrument is powered on and preheated for more than 30 minutes;
- ② Turn on the darkroom power supply, connect the test cable, and set up the sample according to the standard;
- ③ Outline sets the test content objectives and conducts calibration tests;
- ④ Run the software, when the test is completed, export the corresponding test diagram and testdata, and save to the corresponding directory.

## 3. Electrical Performance

### 3.1. Return Loss



[www.top-radiocraft.com](http://www.top-radiocraft.com)

Radiocraft has possession of proprietary information provided in this specification and this proprietary information shall be kept in strict confidence and not disclosed to any person or firm without the prior written consent of Beijing Radiocraft Technology Co., LTD.

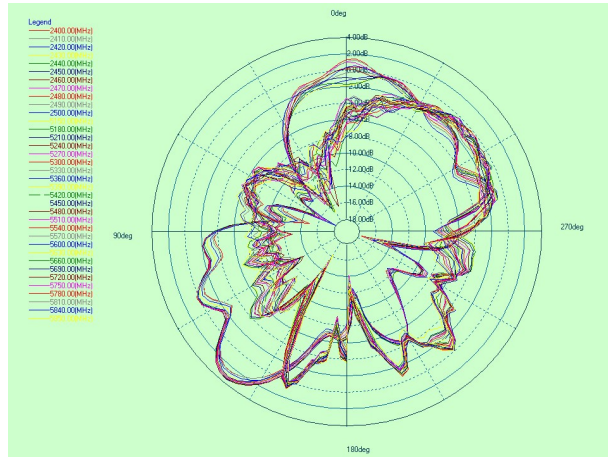
## 3.2 Efficiency and Peak Gain

Frequency (MHz)	Efficiency (%)	Peak gain	Frequency (MHz)	Efficiency (%)	Peak gain
2400	69%	3.01	5360	64%	3.67
2410	68%	2.93	5390	64%	3.51
2420	69%	2.87	5420	65%	3.81
2430	70%	3.08	5450	66%	3.75
2440	72%	3.48	5480	64%	3.83
2450	72%	3.54	5510	66%	3.98
2460	73%	3.52	5540	63%	3.86
2470	75%	3.44	5570	63%	3.86
2480	76%	3.64	5600	64%	4.02
2490	76%	3.63	5630	61%	3.78
2500	74%	3.58	5660	63%	3.97
5150	61%	3.08	5690	63%	3.88
5180	63%	3.32	5720	59%	3.76
5210	64%	3.13	5750	59%	3.80
5240	64%	3.21	5780	58%	3.72
5270	63%	3.29	5810	58%	3.88
5300	62%	3.27	5840	59%	3.82
5330	62%	3.37	5850	58%	3.75

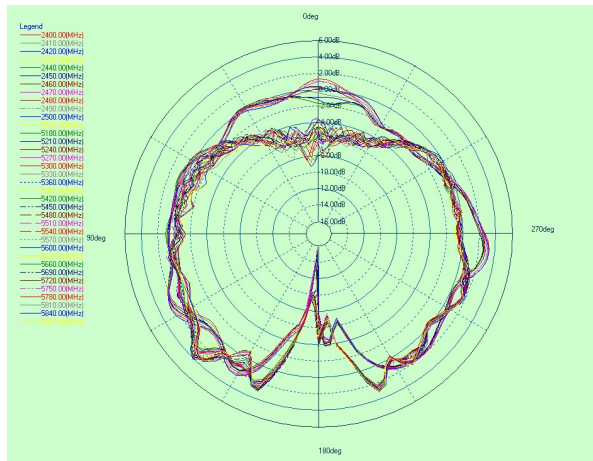
[www.top-radiocraft.com](http://www.top-radiocraft.com)

Radiocraft has possession of proprietary information provided in this specification and this proprietary information shall be kept in strict confidence and not disclosed to any person or firm without the prior written consent of Beijing Radiocraft Technology Co., LTD.

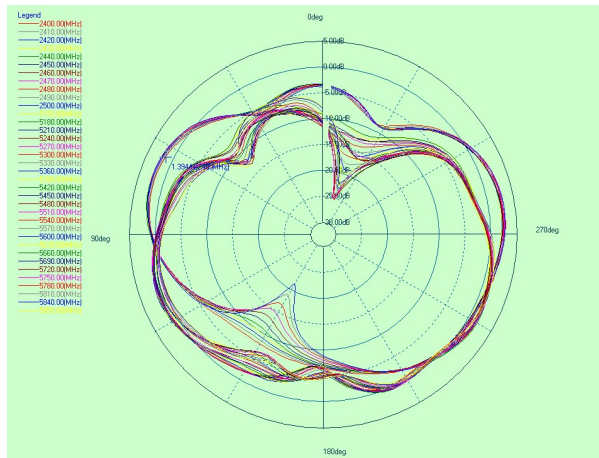
3.3 2D Pattern



Phi=0



Phi=90

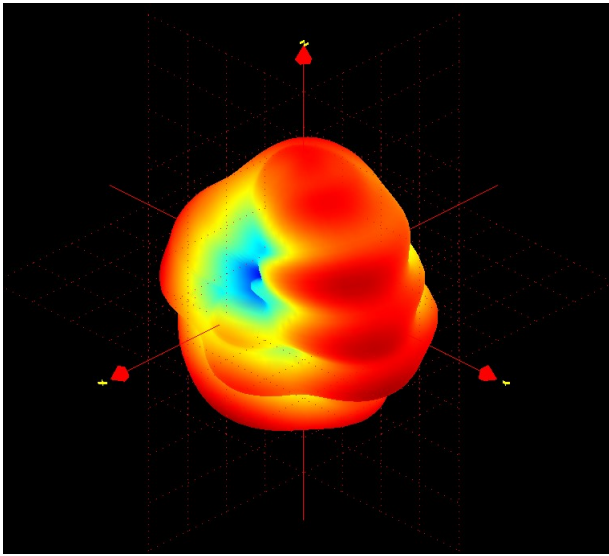


[www.top-radiocraft.com](http://www.top-radiocraft.com)

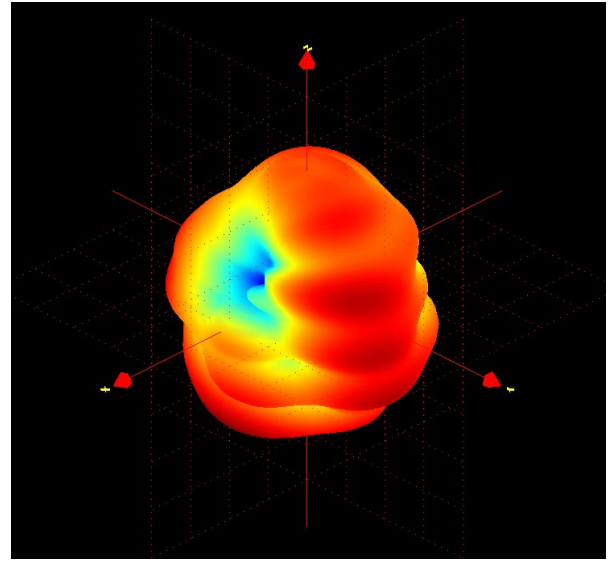
Radiocraft has possession of proprietary information provided in this specification and this proprietary information shall be kept in strict confidence and not disclosed to any person or firm without the prior written consent of Beijing Radiocraft Technology Co., LTD.



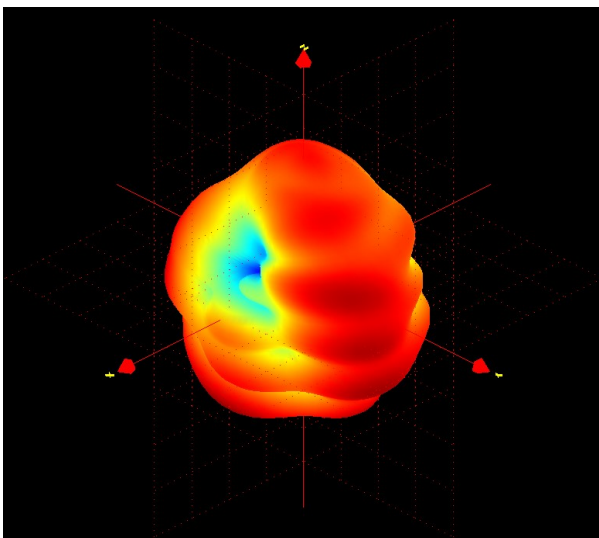
3.4 3D Pattern



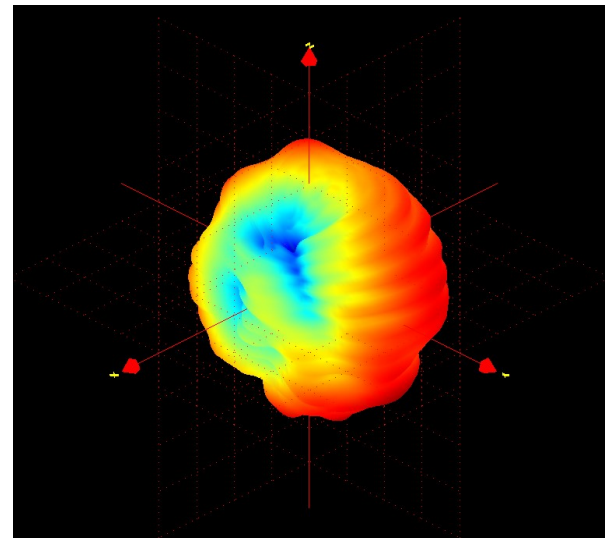
2400MHz



2450MHz



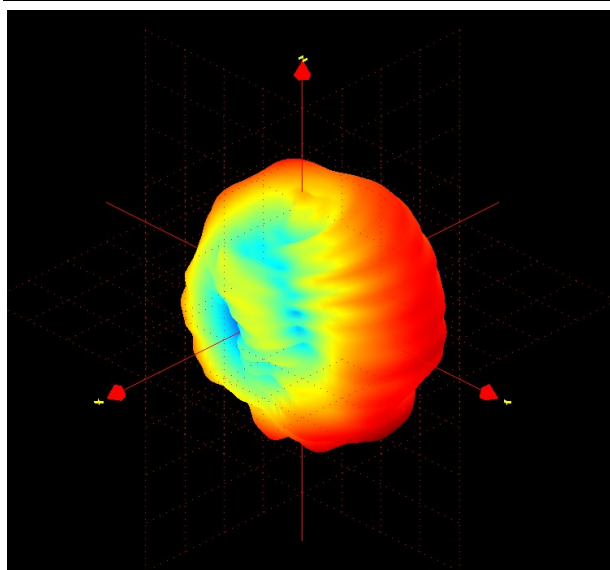
2500MHz



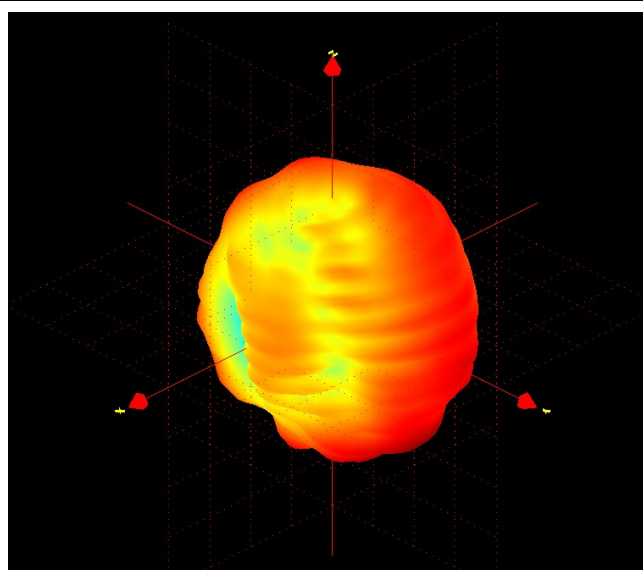
5150MHz

[www.top-radiocraft.com](http://www.top-radiocraft.com)

Radiocraft has possession of proprietary information provided in this specification and this proprietary information shall be kept in strict confidence and not disclosed to any person or firm without the prior written consent of Beijing Radiocraft Technology Co., LTD.



5510Mhz



5850Mhz

#### 4.Parameter

##### Electrical

<b>Antenna Model</b>	<b>2.4G&amp;5G FPC antenna</b>
<b>Frequency</b>	<b>2400-2500MHz&amp;5150-5850 MHz</b>
<b>Impedance</b>	<b>50 Ω</b>
<b>Polarization</b>	<b>Omnidirectional</b>
<b>Antenna Gain</b>	<b>Max Gain 2.4G: 3.64 &amp; 5G Max Gain: 4.02</b>
<b>S.W.R</b>	<b>&lt;2</b>

##### Mechanical

<b>Cable</b>	<b>RF113</b>
<b>Connector</b>	<b>I-PEX 20278-112R-13</b>
<b>Length</b>	<b>120mm</b>
<b>Operation Temperature</b>	<b>-40° C ~80° C</b>

[www.top-radiocraft.com](http://www.top-radiocraft.com)

Radiocraft has possession of proprietary information provided in this specification and this proprietary information shall be kept in strict confidence and not disclosed to any person or firm without the prior written consent of Beijing Radiocraft Technology Co., LTD.