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# 承 认 书

## SPECIFICATION FOR APPROVAL

客户名称 Customer Name:

产品型号 Product Model: AP 胶棒天线

客户料号 Customer P/N :

XHY 料号 XINHENG YANG P/N: W. 01. 00001033

产品规格 SPECIFICATIONS: 频段: 2400MHZ-2500MHZ

5150MHZ-5850MHZ

制作日期 Production date: 2024-03-21

封样版本 Sample Version: V1.0

一、基本参数

Number	Effective date	Change record
V1.0	2024-03-21	Initial release

A. Electrical Characteristics

<b>Frequency</b>	<b>2400MHZ-2500MHZ</b> <b>5150MHZ-5850MHZ</b>
<b>VSWR</b>	<b>&lt;2.5</b>
<b>Avg Efficiency</b>	<b>2.4G&gt;50% 5G&gt;50%</b>
<b>Impedance</b>	<b>50 ± 25 Ohm</b>
<b>Polarization</b>	<b>Linear</b>
<b>PeakGain</b>	<b>2.4G : 5±1dBi</b> <b>5G: 5±1dBi</b>
<b>B. Material &amp; Mechanical Characteristics</b>	
<b>Material of Radiator</b>	<b>AP 胶棒天线    black</b>
<b>Cable Type</b>	<b>/</b>
<b>Connector Type</b>	<b>SMA-J</b>
<b>Dimension</b>	<b>195mm±3mm</b>
<b>C. Environmental</b>	
<b>Operation Temperature</b>	<b>- 20℃ ~ + 60℃</b>
<b>Storage Temperature</b>	<b>- 30℃ ~ + 70 °C</b>

## 二、电性规格

Those specifications were specially defined for AP 胶棒天线 model.

## 三、VSWR

## 1 测量方法

1.A 50  $\Omega$  coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR

2.Keeping this jig away from metal at least 20cm

## 2 测量频率点和驻波比



## 四、暗室简介

### Introduction:

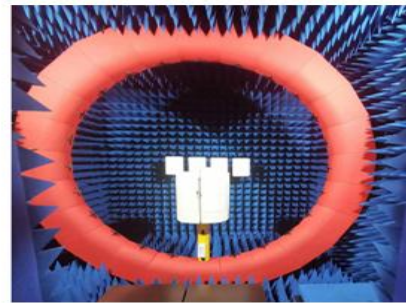
Microwave darkroom and no reflection chamber, absorbing short wave darkroomdarkroom. Microwave darkroom by electromagnetic shielding room, filtering and isolation, grounding device, the ventilation duct, indoor distribution system, monitoring system, ceiling wave material part. It is based on the wave absorbing material as the lining of the shield room, it can absorb the most of the electromagnetic energy into the six wall is a better simulation of the free space conditions.

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The main working principle of microwave anechoic chamber is according to the electromagnetic wave in the medium from the low magnetic guide magnetic direction of propagation rules, absorbing materials to guide the electromagnetic wave using high permeability, through resonance, a substantial absorption of electromagnetic wave radiation energy, by coupling the electromagnetic energy into heat energy.

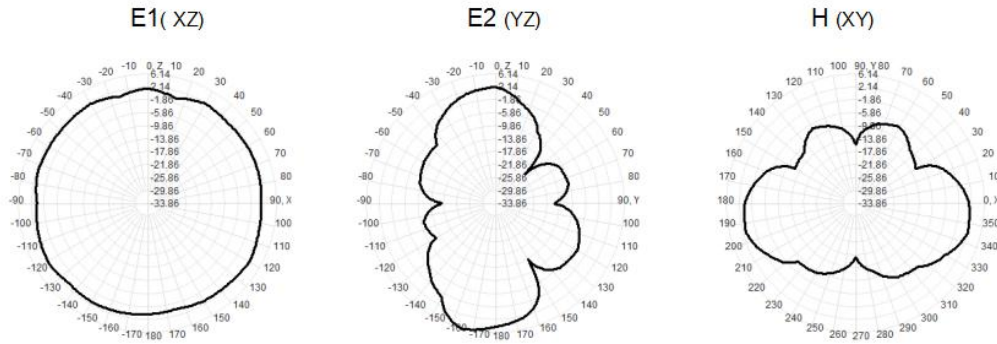
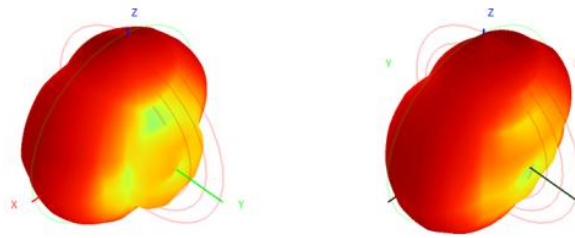
## main performance :

Frequency range:400MHz ~ 6GHz ceiling reflected wave loss materials: 400MHz ~ 6GHz is equal to or more than 15dB (microwave absorbing material by composite wave absorbing materials, namely tapered containing carbon sponge suction wave materialpaste in ferrite)



## 五、天线性能

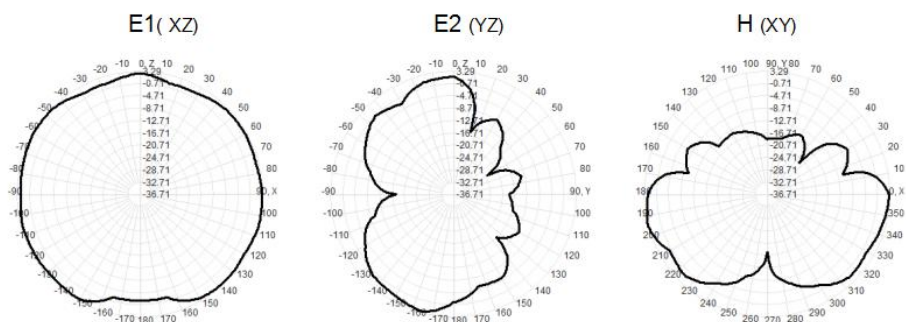
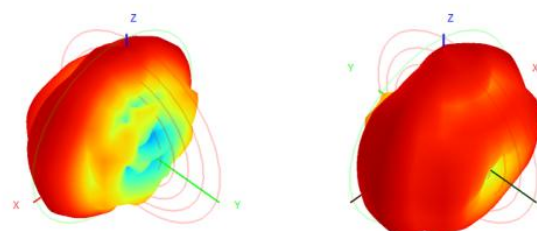
无源场型图-2400MHZ-2500MHZ



## 无源效率增益

Freq (MHz)	Efficiency (%)	Gain (dBi)	Freq (MHz)	Efficiency (%)	Gain (dBi)
2400	57.37	3.00	2460	82.02	4.40
2410	63.06	3.35	2470	84.87	4.40
2420	68.65	3.80	2480	85.40	4.47
2430	72.22	4.02	2490	79.01	4.28
2440	76.24	4.24	2500	71.91	3.94
2450	78.70	4.30			

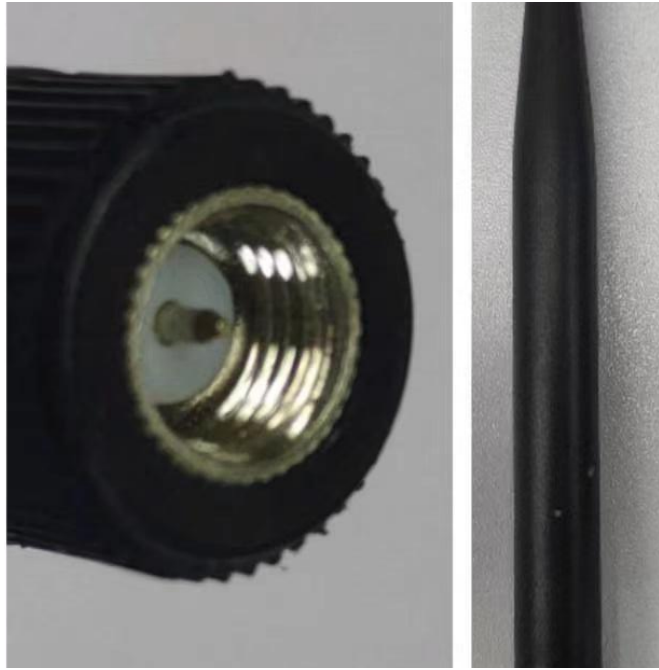
## 无源场型图-5150MHZ-5850MHZ



## 无源效率增益

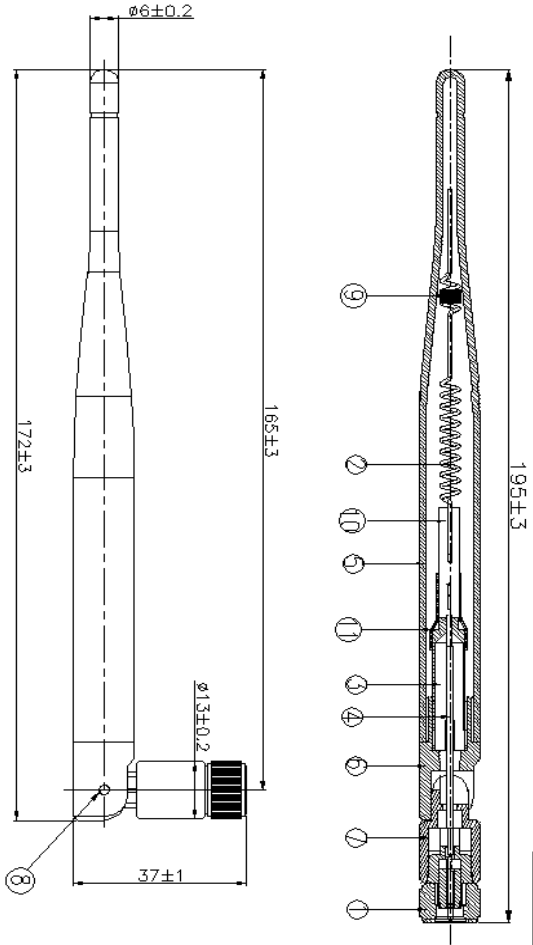
Freq (MHz)	Efficiency (%)	Gain (dBi)	Freq (MHz)	Efficiency (%)	Gain (dBi)
5150	56.56	3.10	5500	70.95	3.17
5250	62.65	4.00	5550	68.17	3.32
5275	65.40	4.71	5600	62.89	3.85
5300	64.36	4.29	5625	56.79	3.49
5350	71.92	3.19	5675	63.83	4.11
5400	72.98	3.67	5750	66.03	3.36
5425	65.71	4.56	5800	58.73	3.52
5450	63.66	4.52	5850	51.55	3.86

## 六、天线图片



## 七、天线图纸尺寸





11	热缩管	1	PE; Black
10	空心柱	1	Zinc alloy
9	泡棉	1	EVA; Black
8	铆钉	2	POM; Black
7	下面底座	1	PC; Black
6	上面底座	1	PC; Black
5	杆套	1	PE; Black
4	线材	1	RG178
3	接地管	1	Zinc alloy
2	弹簧	1	Brass
1	SMA接头	1	SMA Male-RP B
NO	DESCRIPTION	QTY	REMAF
COSTOMER:			
PART NO. :			
XXL ±5.0	APPROVED		
XXL ±3.0			
XL ±1.0	CHECKED	PARTNAME : RF Antenna Assembly	
X ±0.5		R.F/P/NO. : W01.00001033	
XXL ±0.1	DRAWING	REV UNIT SCALE SIZE SHEET	
		A mm 1:1 A4 10F1	

1. 外箱须贴上1pcs外箱标签至外箱右上角。

Autodesk

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# 八、ROHS

AntennaW. 01. 00001033 meets RoHS requirements.

# 九、产品包装说明

A. packing should meet the moistureproof, vibration, pressure and mildew proof, etc.

B. the smallest packing unit logo must have the manufacturer trademarks, product model, name, code and quantity.

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C. in the attached packing list, certificate of approval, and the factory inspection report.

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