



深圳自由行通信技术有限公司

Shenzhen Free Walk Communication Technology Co. LTD

ADD: 深圳市宝安西乡鹤洲西区工业园 2 栋 3 楼
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Xixiang, Baoan, Shenzhen

Email: zyx_sz@yeah.net

TEL: 86-0755-29955983 **FAX:** 86-0755-29955983

承认书

APPROVAL SHEET

客户 (Customer) : 上海矽昌通信技术有限公司
Shanghai Sichang Communication Technology Co., Ltd

产品 (Product) : 5G外置天线(L=60mm)
5G External Antenna (L=60mm)

型号 (Model) : WiFi5-L2

客户料号 (Customer
Part Number) :

料号 (Part Number) : Z01-50455-R01

制作人 (Written By) : 胡 涛 Mr Hu

签发时间 (Issued Date) : 2024-09-26

客户 CUSTOMER

工程部 ENGINEER R&D DEPT	品质部 QUALITY DEPT	批准 APPROVED

Free Walk

射频 R&D DEPT	工程部 ENGINEER R&D DEPT	批准 APPROVED
胡 涛	卿创辉	邓凯



深圳自由行通信技术有限公司

Shenzhen Free Walk Communication Technology Co. LTD

文件变更履历表

Document change history

表单编号:QR-ZYX-084 版本: A0

Form number: QR-ZYX-084 Version: A0

产品型号 Product number		文件变更记录 Document change history					
序号 Serial number	变更类型 Change type	文件编号 File Number	变更日期 Change date	变更内容说明 Description of changes	制作/修订 Production/Revision	版本 version	备注 Remarks



目 录

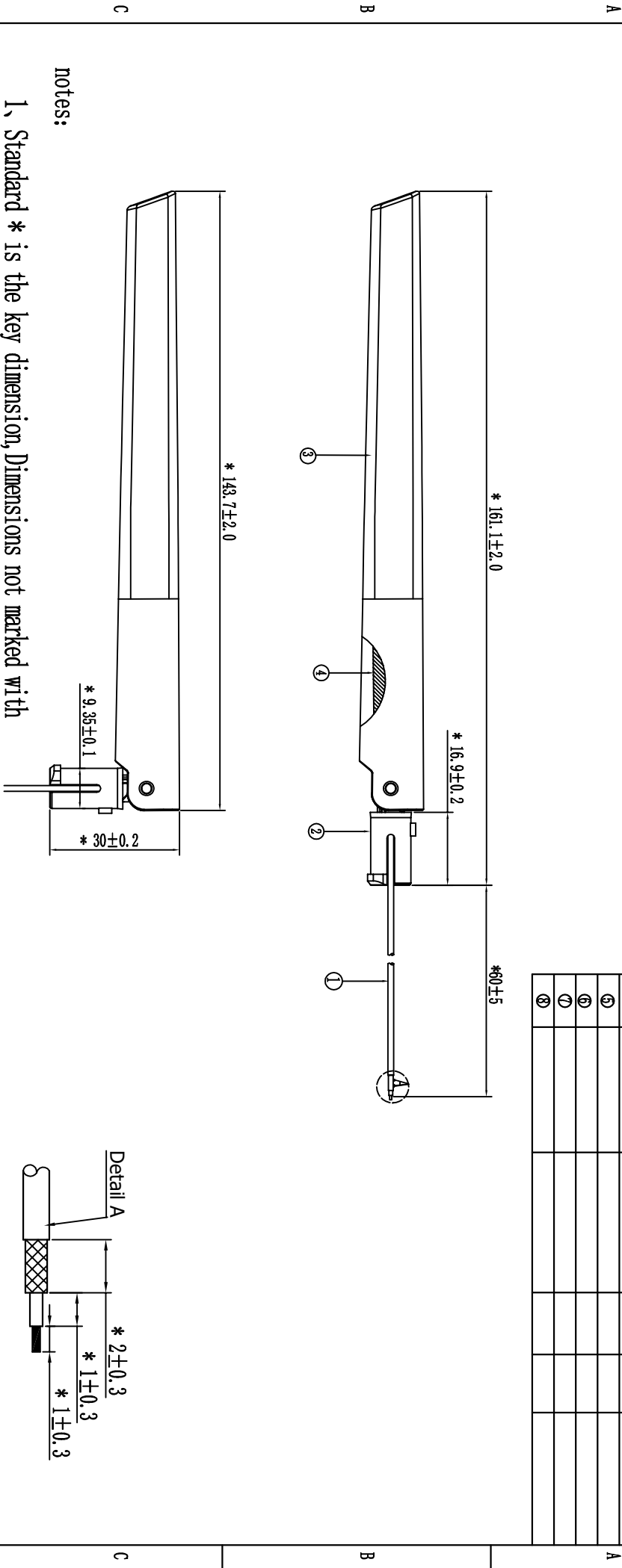
Index

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七、 性能测试报告 (Test Report)	7-10
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The basic parameters

A. Electrical Characteristics	
Frequency	5150MHz~5850MHz
VSWR	<2
Efficiency	>60%
Impedance	50 Ohm
Polarization	Vertical
Gain	3dBi
B. Material & Mechanical Characteristics	
Material of Radiator	
Cable Type	Φ1.13mm Black
Connector Type	焊接
Dimension	
C. Environmental	
Operation Temperature	- 20 °C ~ + 60 °C
Storage Temperature	- 40 °C ~ + 80 °C

6		7	8	
序号 NO	品名 Name	材料/规格 Material	颜色 Colour	数量 Amount
①	RF line	Ø1.13mm	black	1
②	Lower mount	ABS	white	1
③	Set rods	TPEE	white	1
④	PCB	FR4	white	1
⑤				
⑥				
⑦				
⑧				



notes:

- 1、Standard * is the key dimension, Dimensions not marked with tolerance shall be tested according to ± 0.15
- 2、Refer to drawing without dimension; Other dimensions are subject to actual matching;
- 2、Refer to drawing without dimension; Other dimensions are subject to actual matching;
- 4、accord with ROHS

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Shenzhen Free Walk Technology Co. LTD

Third angle system		机种/Project	Wi-Fi5-L2	Date	2024-08-14
0~10	±0.10	品名/Part Name	5G-Antenna	Checked by	MD QING
10~20	±0.15	料号/Part NO	Z01-50455-R01		
20~40	±0.20	客户料号			
40~	±0.25	Customer P/N			
Do not measure the drawings location		N/A	unit	mm	Scale
5		6	7	1:1	Rea A

Test Equipment & Conditions

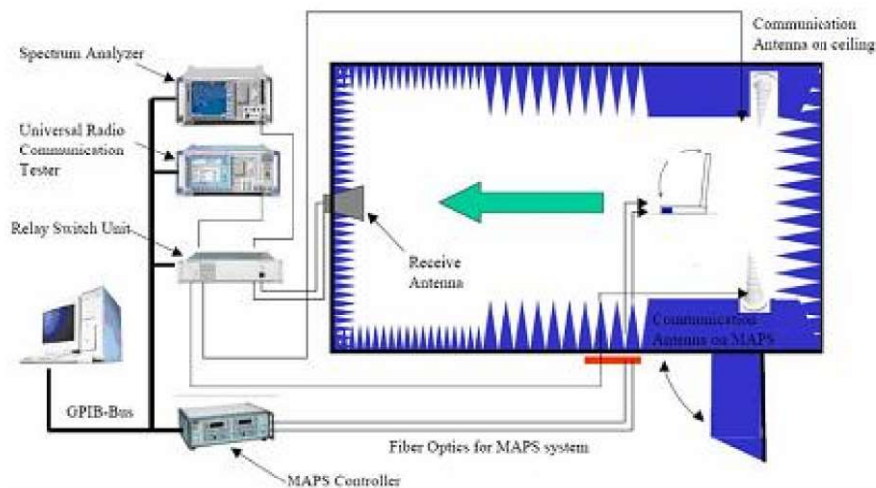
1. Network Analyzers :

Agilent 8753D 5071C

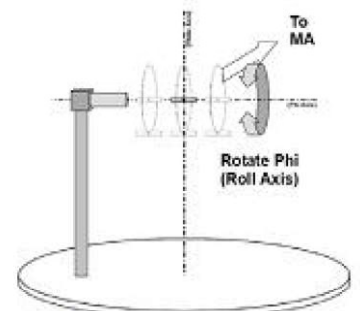
2. Communications Test Set:

Agilent 8960 CMW500

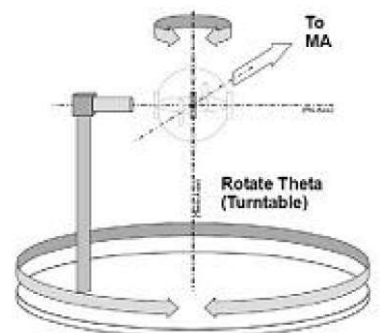
3. 3D Chamber Test System



(Testing by 3D anechoic chamber)



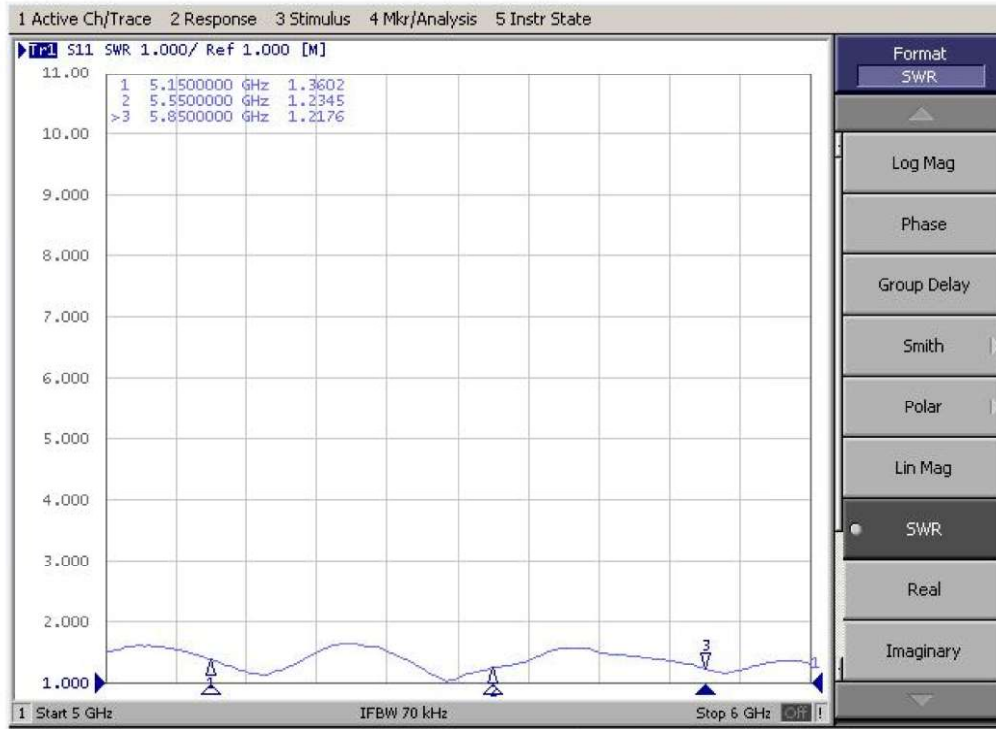
Phi axis test



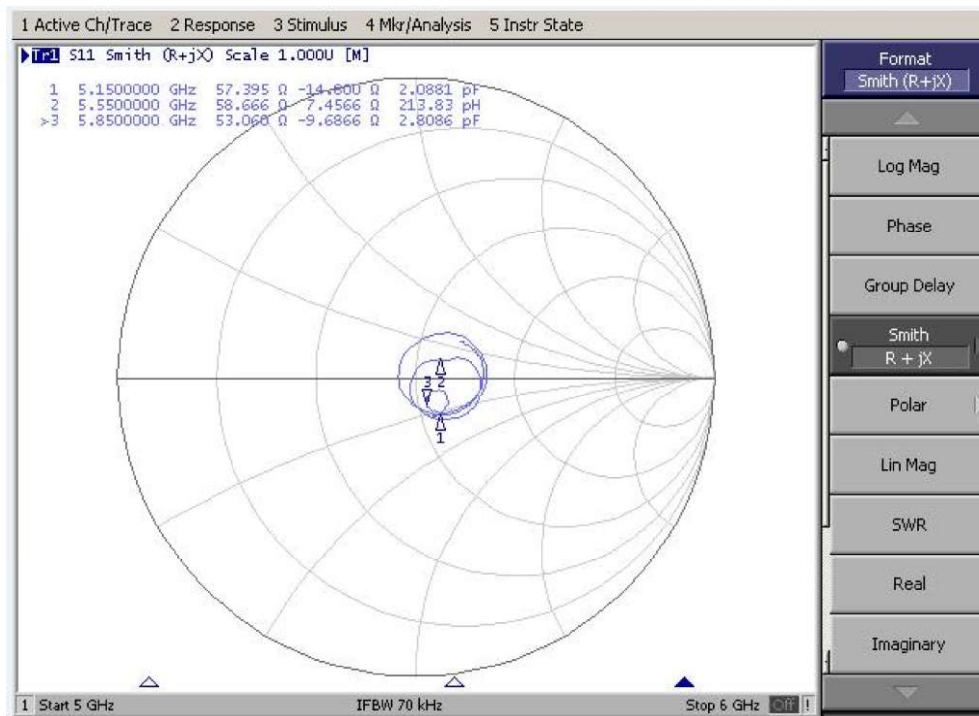
Theta axis test

测试数据

SWR



Smith





效率&增益: Efficiency&Gain

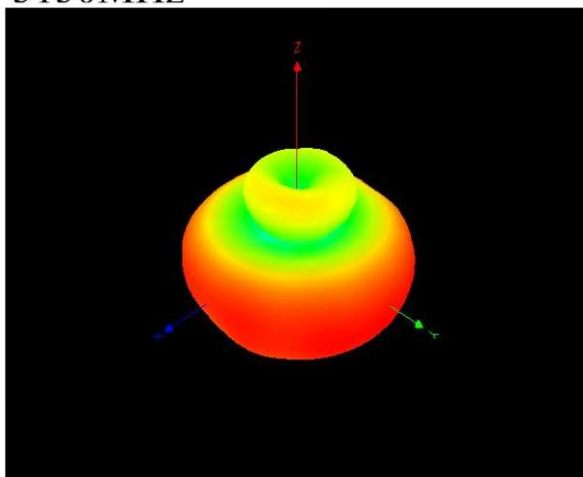
Freq (MHz)	Effi (%)	Gain (dBi)
5150	69.68	3.77
5200	65.66	3.57
5250	70.30	3.79
5300	69.99	3.74
5350	65.37	3.64
5400	71.71	3.94
5450	71.29	3.01
5500	72.11	3.25
5550	69.68	3.10
5600	66.24	3.04
5650	70.14	3.05
5700	70.45	3.98
5750	68.92	3.28
5800	66.24	3.53
5850	68.31	3.76

方向图

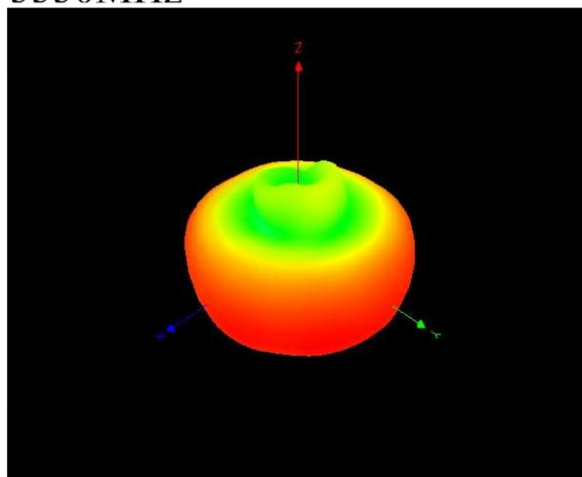
Patten

3D图

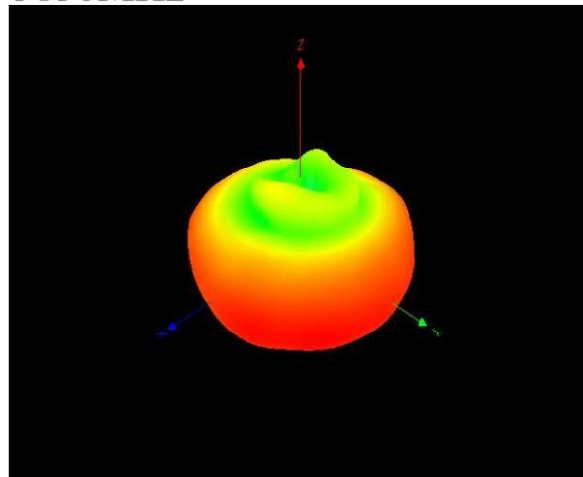
5150MHz



5550MHz

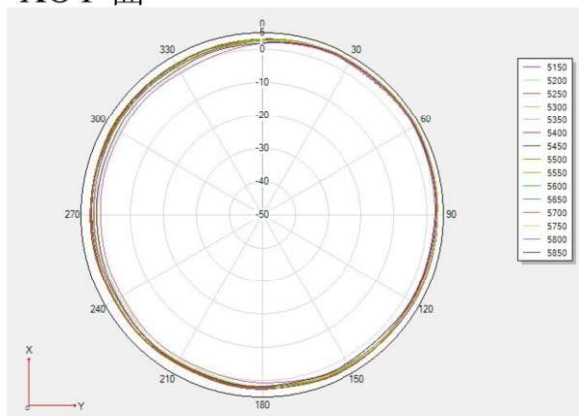


5850MHz

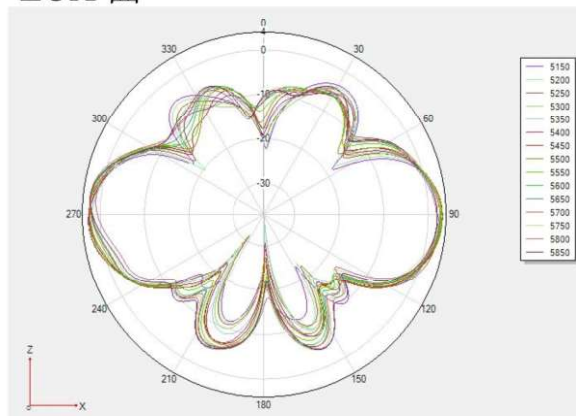


2D图

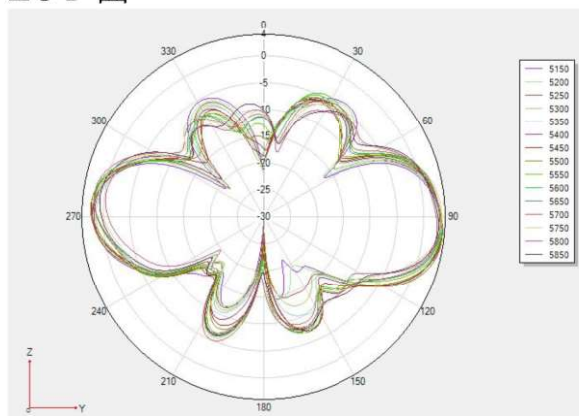
XOY 面



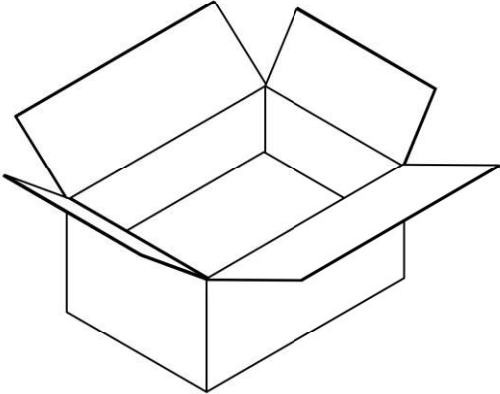
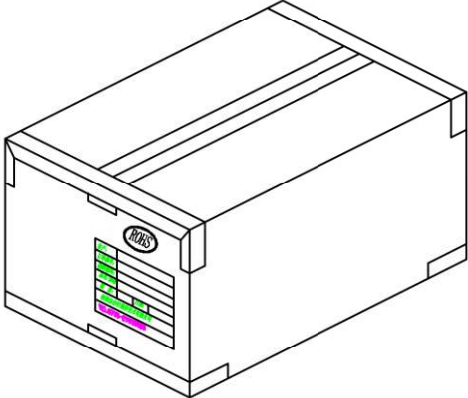
ZOX 面



ZOY 面



产品包装规范

产品名称 :天线	版本: A00
	客户特殊要求除外
一：成品天线  三：将装好的天线放入纸箱中(以实际数量为准)  二：用PE袋装起来, 数量以 (30 50PCS) 整数装 以实际为准  四：封箱, 外箱贴我司生产标签和 ROHS 标签(最终以实际情况为 准!)	



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Shanghai Sichang Communication Technology Co., Ltd

产品 (Product): 5G外置天线(L=210mm)
5G External Antenna (L=210mm)

型号 (Model): WiFi5-L2

客户料号 (Customer
Part Number):

料号 (Part Number): Z01-50456-R01

制作人 (Written By): 胡 涛 Mr Hu

签发时间 (Issued Date): 2024-09-26

客户 CUSTOMER

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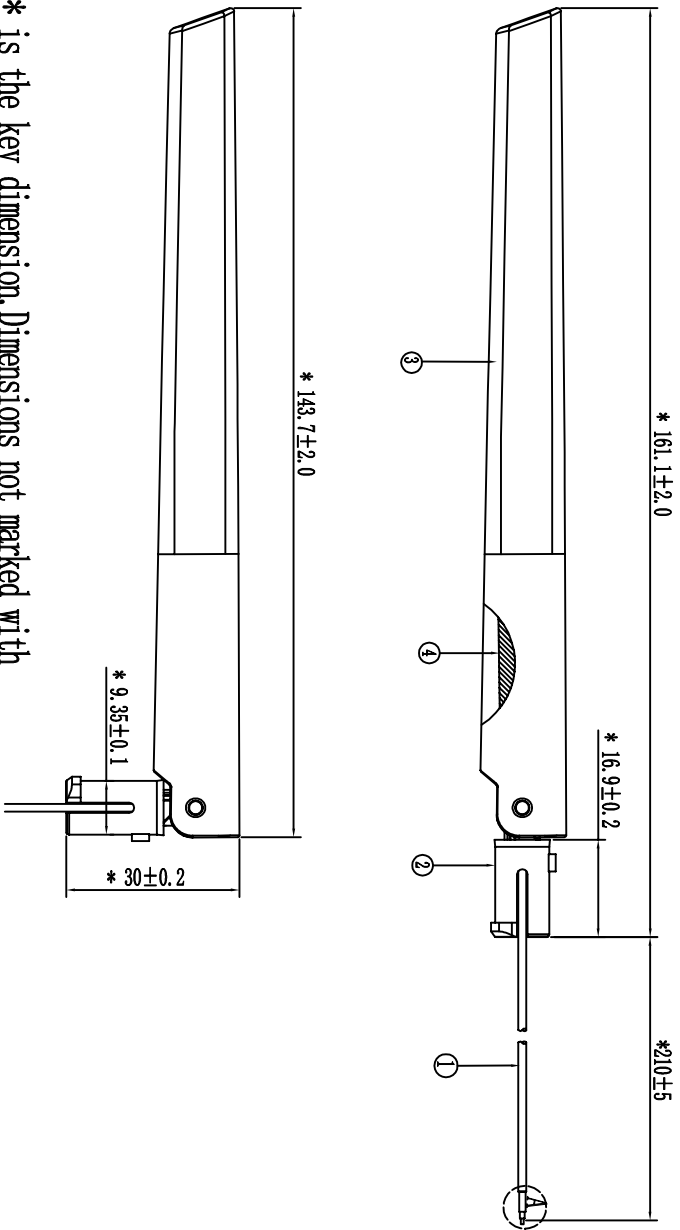
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④	PCB	FR4	white	1	
⑤					
⑥					
⑦					
⑧					



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0~10	±0.10	品名/Part Name	5G-Antenna	Checked by	MD	QING
10~20	±0.15	料号/Part NO	Z01-50456-R01		RF	Li wen ke
20~40	±0.20	客户料号				
40~	±0.25	Customer P/N				
Do not measure the drawings location		N/A	unit	mm	Scale	1:1
5		6	7	8	Rea	A

Test Equipment & Conditions

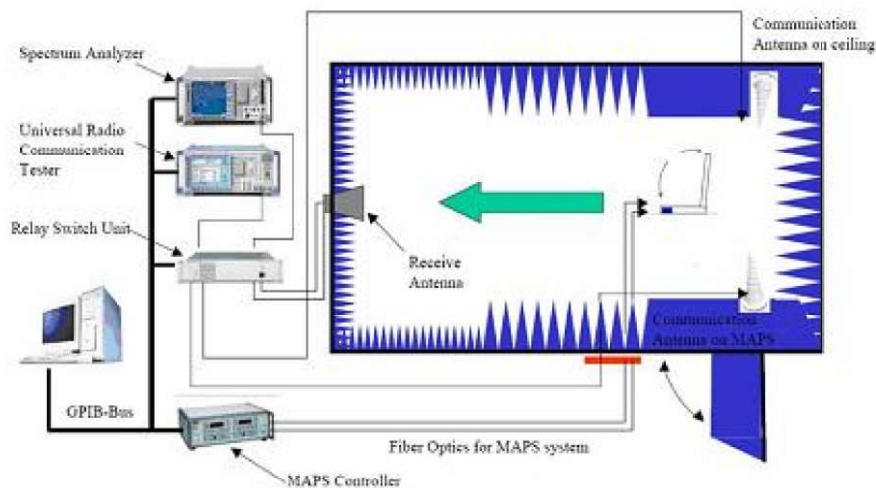
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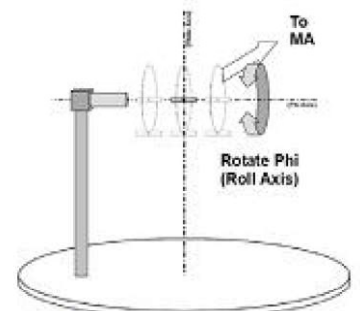
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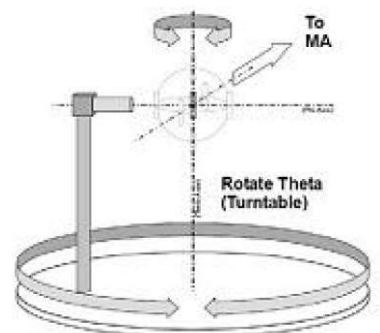
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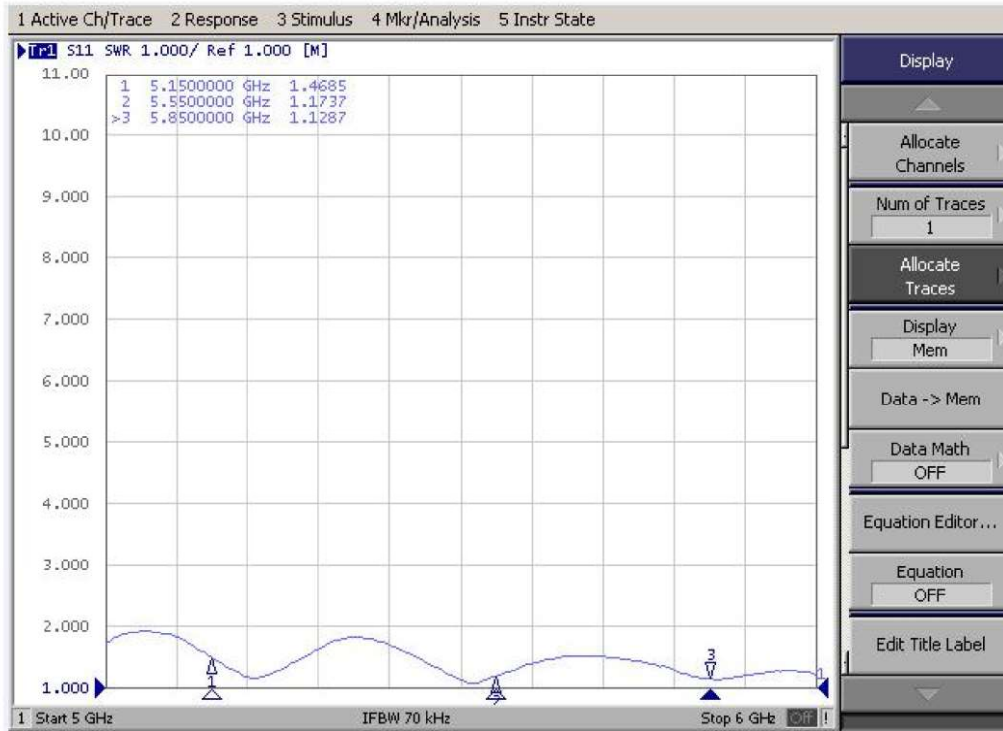
Phi axis test



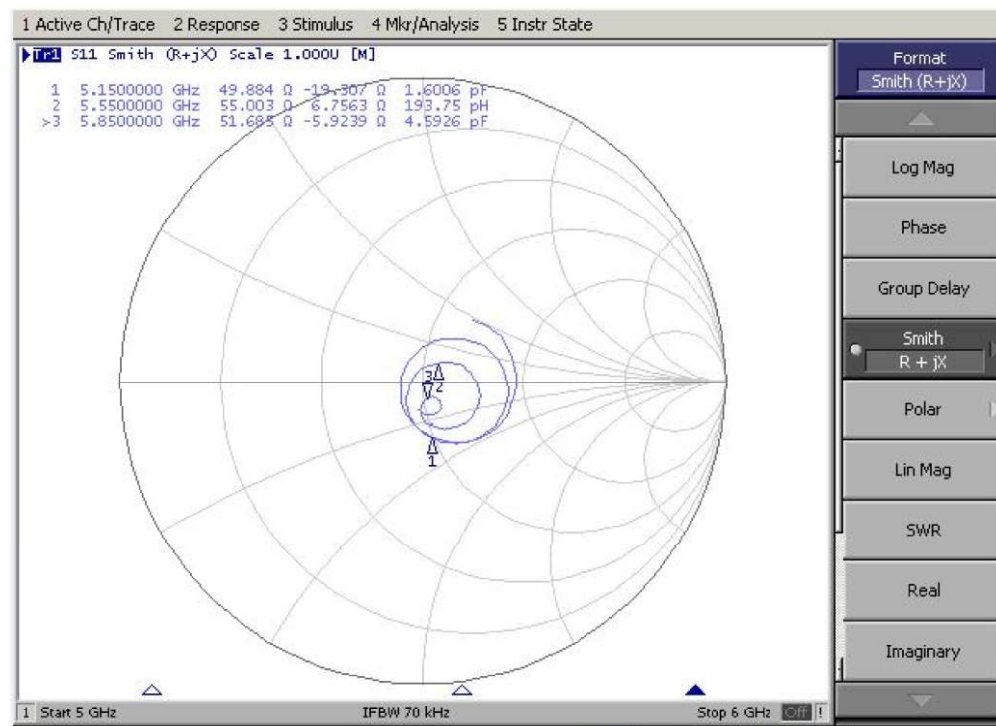
Theta axis test

测试数据

SWR



Smith





效率&增益: Efficiency&Gain

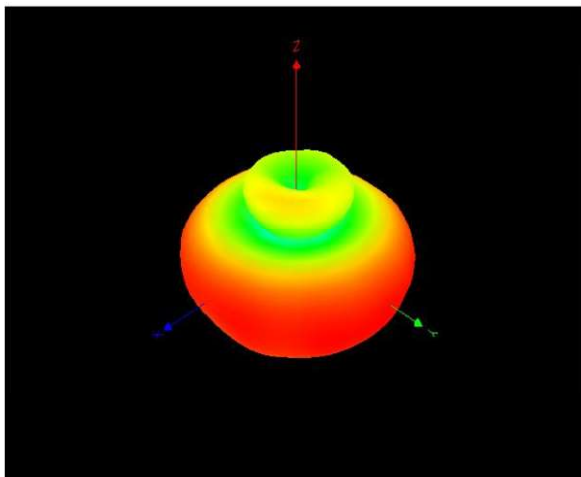
Freq(MHz)	Effi (%)	Gain(dBi)
5150	67.95	3.65
5200	67.01	3.00
5250	68.53	3.96
5300	69.30	3.23
5350	69.30	3.96
5400	73.11	3.35
5450	72.79	3.31
5500	71.34	3.23
5550	71.82	3.09
5600	71.50	3.13
5650	70.39	3.21
5700	67.92	3.87
5750	70.23	3.91
5800	67.31	3.51
5850	69.92	3.94

方向图

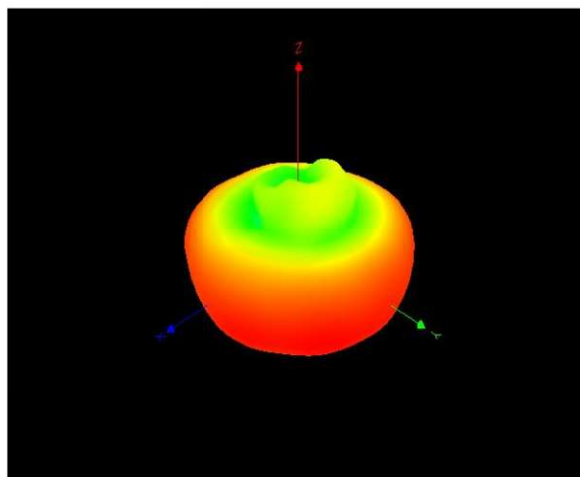
Patten

3D图

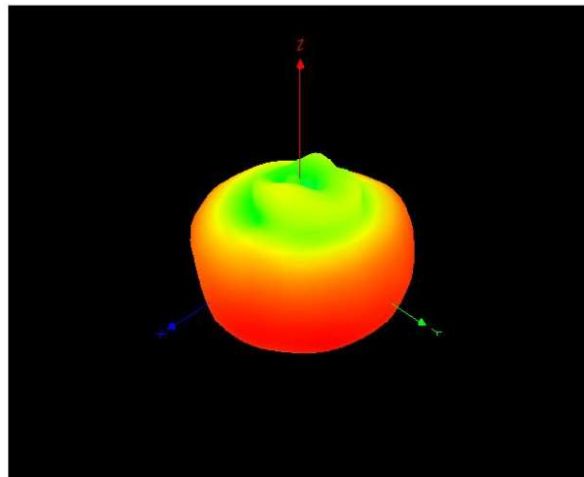
5150MHz



5550MHz

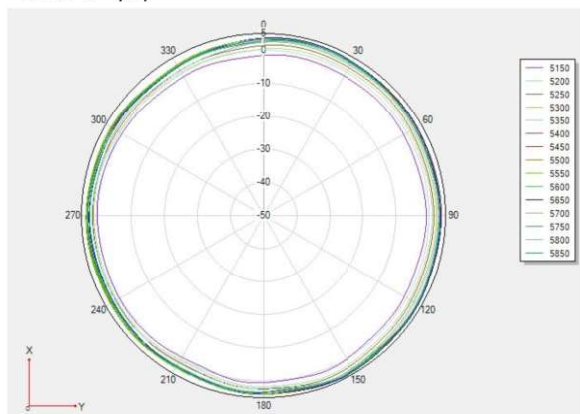


5850MHz

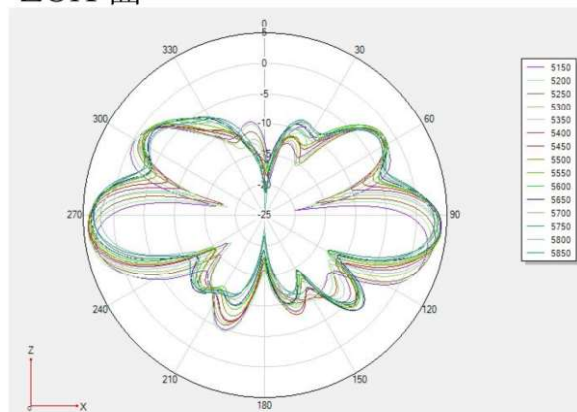


2D图

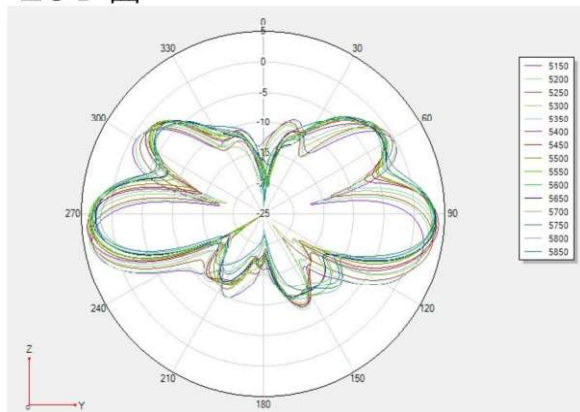
XOY 面



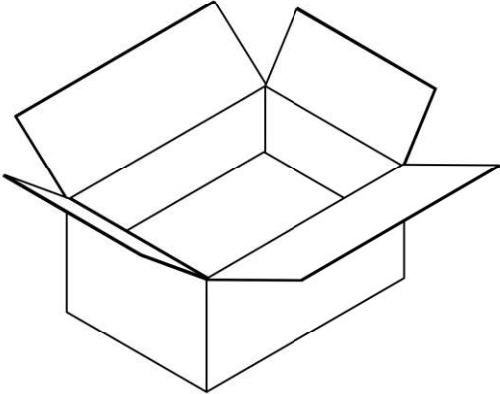
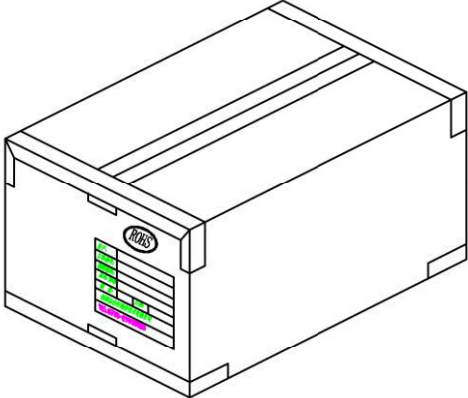
ZOX 面



ZOY 面



产品包装规范

产品名称 :天线	版本: A00
	客户特殊要求除外
一：成品天线  三：将装好的天线放入纸箱中(以实际数量为准)  二：用PE袋装起来, 数量以 (30 50PCS) 整数装 以实际为准  四：封箱, 外箱贴我司生产标签和 ROHS 标签(最终以实际情况为 准!)	