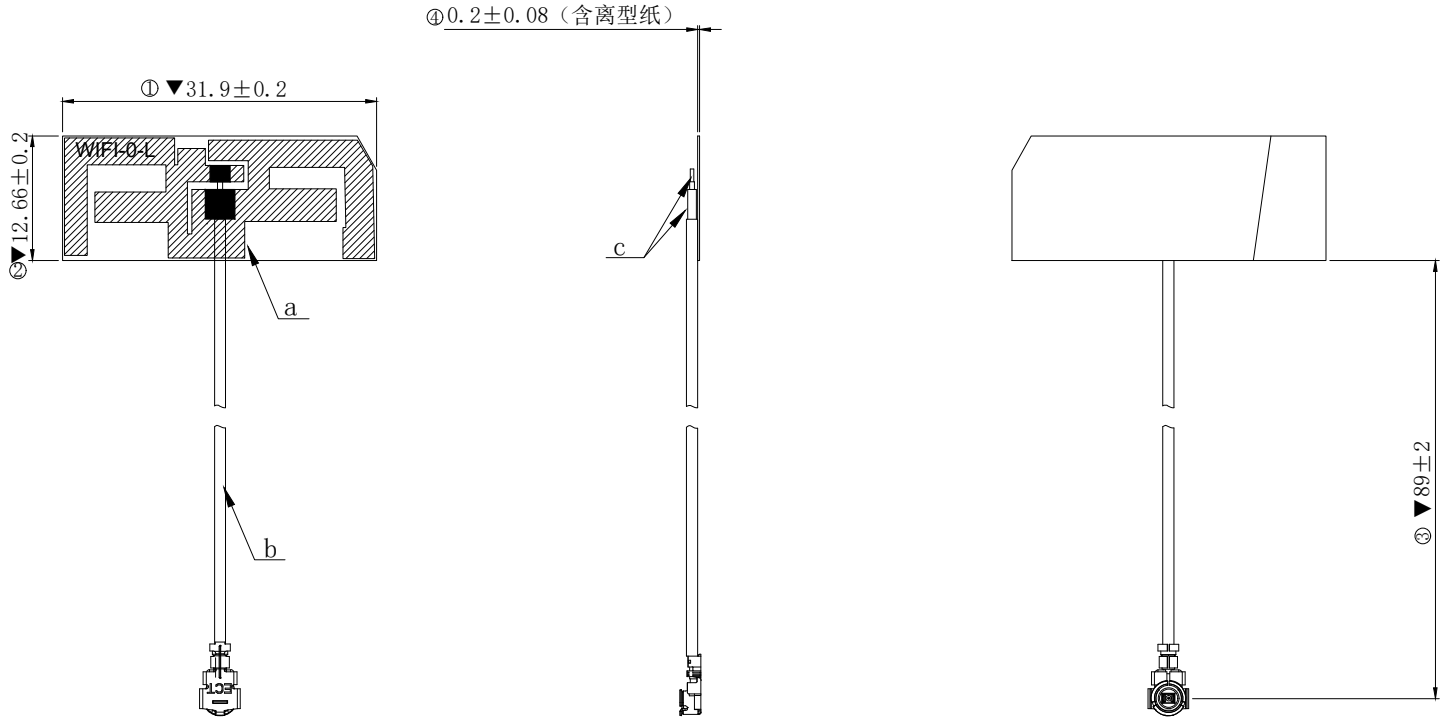
ELECTRIC CONNECTOR TECHNOLOGY

1. Antenna Specification/天线标准

Antenna Specification/天线技术参数			
Electrical Specification/电气特性			
Item/目录	**Specification/规格**		**Comment/备注**
Freq. Range/频段范围	2400MHz-2500MHz/5150MHz-5850MHz		
Impedance/阻抗	50 (Ω)		
VSWR/驻波比	<10.0	<8.0	
Directional/辐射方向	Omni directional/全向辐射		
Polarization/极化形式	Vertical polarization/垂直极化		
Peak Gain/峰值增益	-2.21dBi	2.88dBi	
Test condition/测试条件	passive test（无源测试）		
Total Efficiency/无源效率	15%	15%	
Mechanical Specification/机械指标			
Antenna type/天线类型	FPC 天线		
Connector Type/连接器类型	USS RF PLUG 1 代端子		
RF Cable Type/射频线型号	USS RF Coaxial Cable,32AWG D=1.13(S+T)黑色		
Connector Torque Test/连接器扭力	N/A		
Connector Pull Test/连接器拉力	≥1.0Kgf		
Salt Spray/盐雾测试	24 (H)		
Environmental Specification /环境指标			
Operating temp/工作温度	-40℃ ~ +75℃		
Storage temp/存储温度	-40℃ ~ +75℃		

2. Antenna Picture/天线图片

REV.	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
X1	ECN251288	FIRST RELEASE	03/18'25	丁第斌	胡鹏	黄颗



NOTES：

1.焊接不能虚焊、假焊，焊点须饱满。
WELDING CAN NOT BE FALSE WELDING, WELDING SPOT MUST BE FULL.

2.标有“Ⓧ”为FAI首件全检尺寸。
MARKED"Ⓧ"WAS FAI DIMENSIONS.

3.标有“▼”为QC重点检测尺寸。
MARKED"▼"WAS CRITICAL DIMENSIONS.

4.所有材料需符合ROHS2.0、REACH和无卤。
ALL MATERIALS MUST CONFORM TO ROHS2.0,RREACH AND HALOGEN-FREE.
无卤要求：Br≤900PPM，Cl≤900PPM，Br+Cl≤1500PPM。
HALOGEN-FREE REQUEST:Br≤900PPM，Cl≤900PPM，Br+Cl≤1500PPM.

5.VSWR测试一致性（VSWR CONSISTENCY TEST）
VSWR测试频率（VSWR TEST FREQUENCY）：xxxxxMHz。


Connector facing down


Connector facing up

NO	ITEM	Q'TY	MATERIAL/FINISH
c	Sn	1	Purun,ODO.6mm
b	Cable Assy	1	USS RF CABLE试,G1,SG,113BK,98,089
a	FPC	1	FPC,31.9*12.66*T0.13mm

ELECTRIC CONNECTOR TECHNOLOGY

GENERAL TOLERANCE	
XX.± 1	XX.° ± 2°
X.± 0.5	X.° ± 1.5°
.X± 0.3	X.° ± 1°
.XX± 0.10	.X° ± 0.5°

SCALE: 1:1
UNIT: mm
SIZE: A4

DRAWN: 丁第斌 DATE: 03/18'25
CHECK: DATE:
APPROVE: DATE:

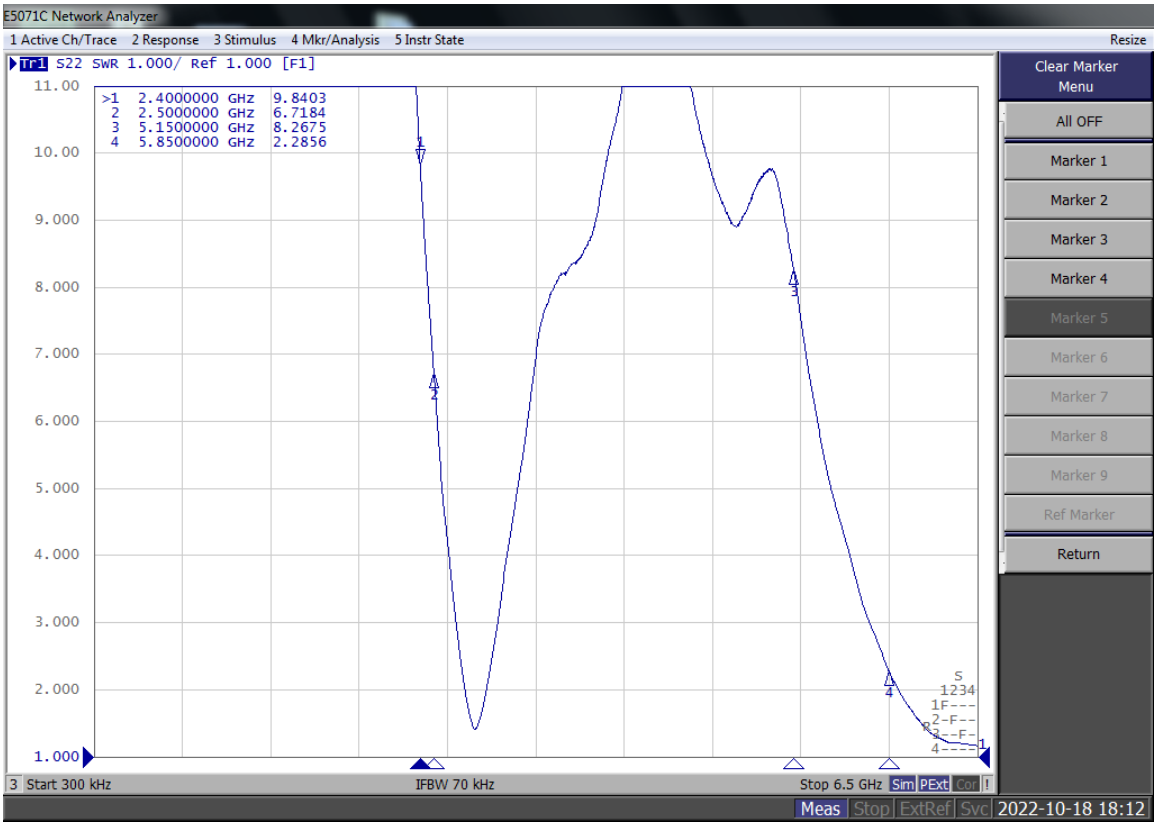
DWG.NO: 600-1020092-01
PARTS NO.(INTENDED USE): 8181020092

TITLE: A28-WIFI-0-L
Customer drawings
客户料号：115-00048-00 wifi0

REV. X1
SHEET: 1/1

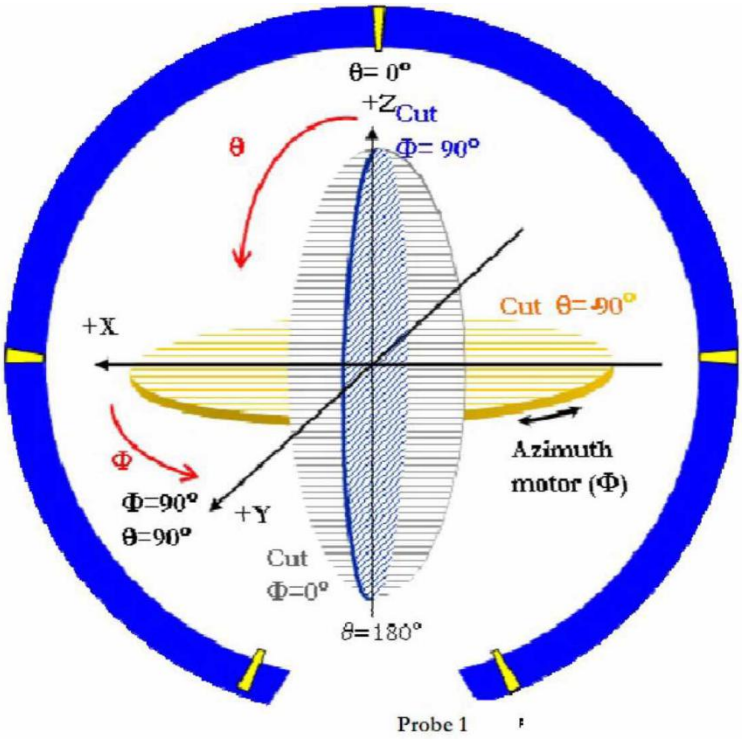
4. Antenna test result/测试结果

4.1Return loss/Smith chart/VSWR/回波损耗/史密斯图/驻波比

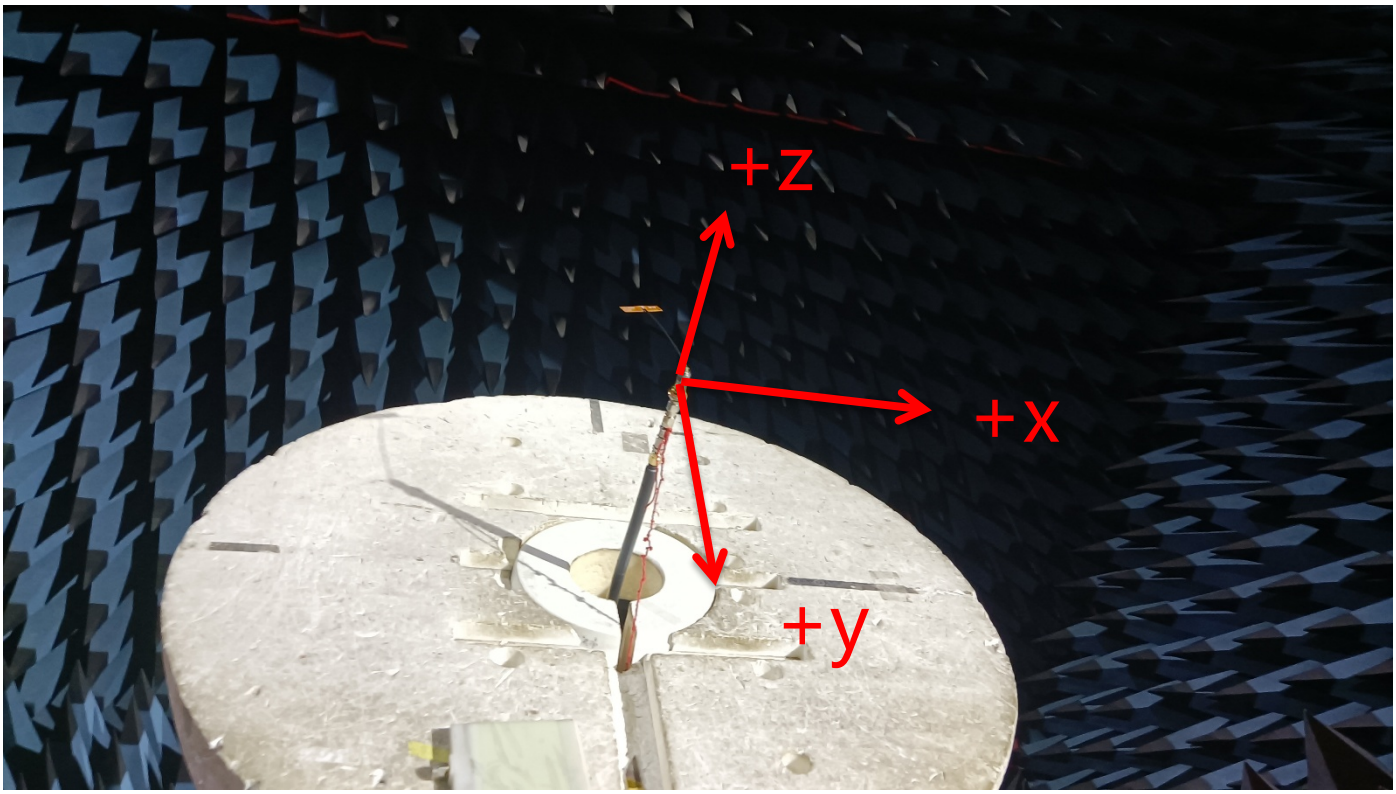


4.2The gain and total efficiency test/增益和效率测试

4.2.1 The definition of coordinate system/坐标系定义-Satimo SG24



The coordinate system of Chamber/暗室坐标系



The production test position/天线测试放置位置

4.2.2 The test result of total efficiency and total gain/天线效率及增益测试结果

2400MHz-2500MHz

Frequency	Efficiency(%)	Gain (dBi)
2400MHz	16%	-3.43
2405MHz	18%	-3.10
2410MHz	19%	-2.79
2415MHz	20%	-2.72
2420MHz	20%	-2.90
2425MHz	19%	-3.09
2430MHz	19%	-3.22
2435MHz	19%	-3.21
2440MHz	20%	-3.22
2445MHz	20%	-3.15
2450MHz	22%	-2.91
2455MHz	23%	-2.64
2460MHz	25%	-2.27
2465MHz	26%	-2.21
2470MHz	26%	-2.30
2475MHz	26%	-2.45
2480MHz	26%	-2.61
2485MHz	26%	-2.69
2490MHz	26%	-2.80
2495MHz	26%	-2.84
2500MHz	27%	-2.63
AVG	22%	-2.82

5150MHz-5850MHz

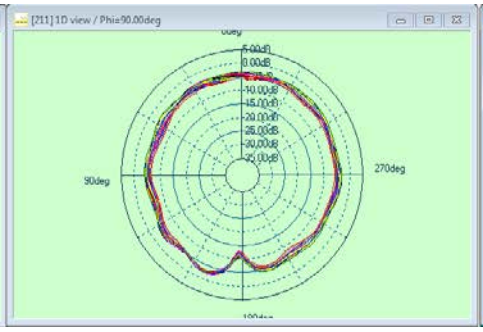
Frequency	Efficiency(%)	Gain (dBi)
5150MHz	16%	-3.93
5200MHz	21%	-2.36
5250MHz	25%	-1.56
5300MHz	24%	-1.40
5350MHz	32%	-0.16
5400MHz	29%	-0.39
5450MHz	31%	-0.12
5500MHz	34%	0.10
5550MHz	34%	0.04

5600MHz	44%	0.49
5650MHz	45%	0.50
5700MHz	51%	1.29
5750MHz	54%	1.65
5800MHz	52%	1.73
5850MHz	67%	2.88
AVG	37%	-0.08

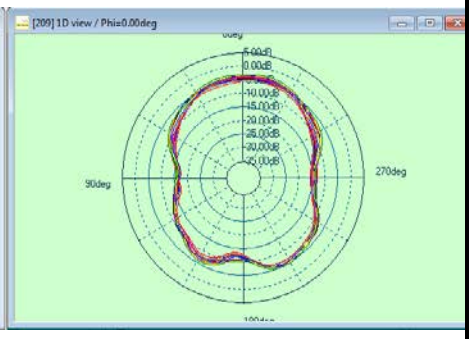
4.2.3The antenna radiation pattern(2D)/天线辐射方向图（2D）

2400MHz -2500MHz

XOY

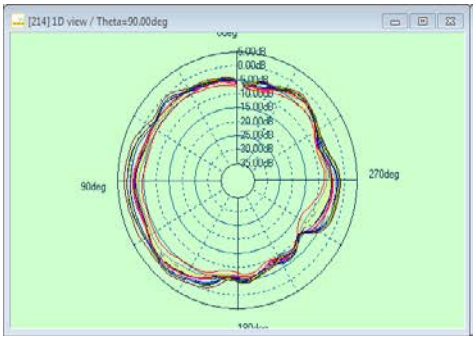


YOZ

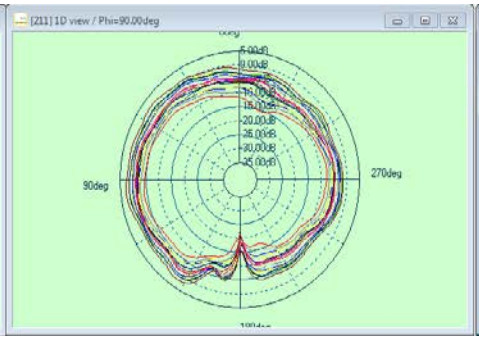


XOZ

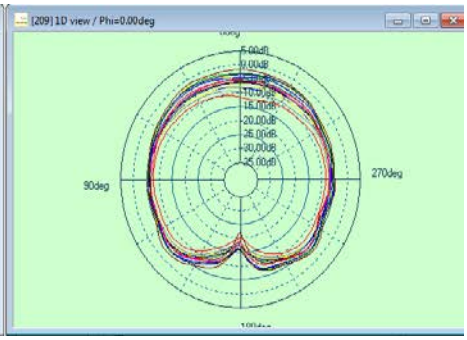
5150MHz -5850MHz



XOY



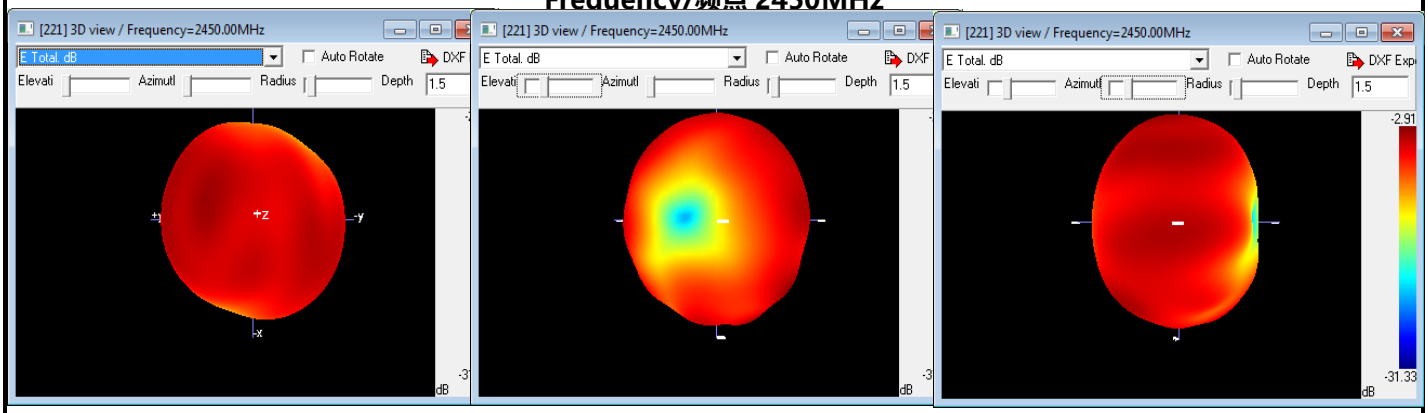
YOZ



XOZ

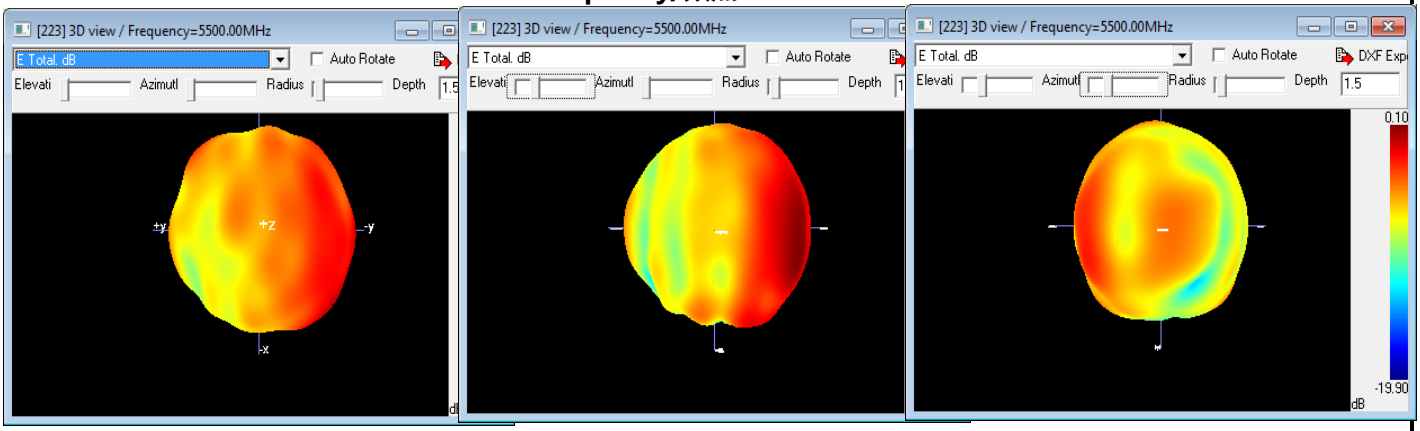
4.2.4The antenna radiation pattern(3D)/天线辐射方向图（3D）

Frequency/频点 2450MHz



XOY YOZ XOZ

Frequency/频点 5500MHz



XOY YOZ XOZ