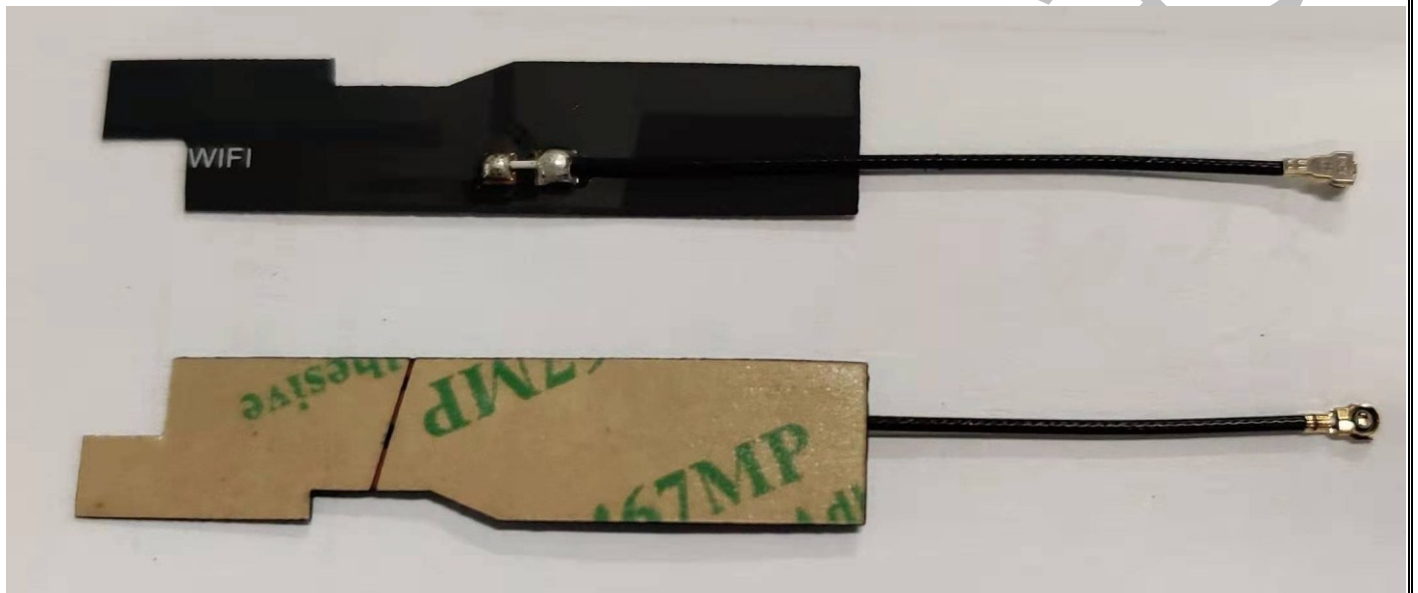


1. Antenna specification/天线标准

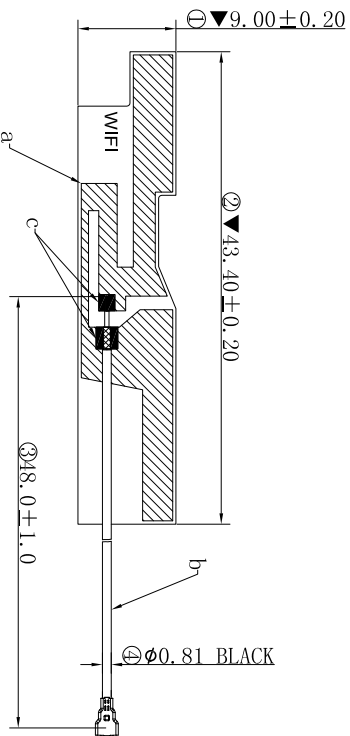
Antenna specification/天线技术参数		
Electrical specification/电气特性		
Item/目录	Specification/规格	Comment/备注
Freq. range/频段范围	2400 -2500(MHz)	
Impedance/阻抗	50 (Ω)	
VSWR/驻波比	≤ 2.0	
Directional/辐射方向	Omni directional	
Polarization/极化形式	Vertical	
Peak gain/峰值增益	1.14 (dBi)	
Test condition/测试条件	passive test (无源测试)	
Total efficiency/无源效率	$\geq 42\%$	
Mechanical specification/机械指标		
Antenna type/天线类型	FPC+CABLE 组件	
Connector type/连接器类型	ECT_USS RF PLUG CONN , III Generation (3484)	
RF cable type/射频线型号	OD0.81(S+T) 黑色	
Connector torque test/连接器扭力	N/A	
Connector pull test/连接器拉力	$\geq 0.2\text{Kgf}$	
Salt spray/盐雾测试	24 (H)	
Environmental specification /环境指标		
Operating temp./工作温度	$-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$	
Storage temp./存储温度	$-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$	

2. Antenna picture/天线图片

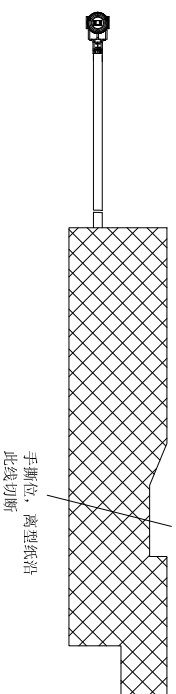


REV.	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
X1	ECN212662	初版发行	11/23'21	梁兑泉	丁第斌	牛宝星

正面 (B面)

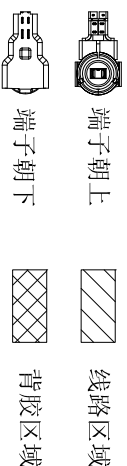


反面 (B面)



说明:

1. 测试要求: VSWR全检测试, 矩阵测试.
测试范围: 2400-2500
VSWR ≤ 2.0
 2. 焊接不能虚焊、假焊, 焊点须饱满, 屏蔽层不能有烫伤。
 3. 标有“▼”为QC重点检测尺寸。
 4. 有害物质须符合ECT《QE-Q-19-001环境有害物质管理基准》管控标准。
- Notes:
1. Test requirements: VSWR, all testing test matrix.
Test range: 2400-2500
VSWR 2.0 or less
 2. Welding can't virtual welding, welding, solder joints must be full, shielding layer cannot have burns.
 3. marked with "▼" key size detection for QC.
 4. HSP shall conform to the standard QE-Q-19-001 Environmental Hazardous Substances Management.



ITEM	PART NAME	Q'TY	MATERIAL / FINISH
c	Tin		环保锡丝, 0D0.6mm
b	CABLE(Ø0.81)	1	USS RF CABLE, G3, SG, 081BK, 48, 3484
a	FPC	1	2.4G WIFI-1_43.4*9.0_BK-HF_FPC

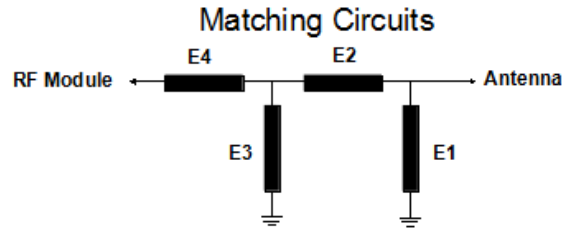
GENERAL TOLERANCE		SCALE:	DRAWN:	DATE:	DWG. NO:	TITLE:	REV.
.XXX ± 0.05		1:1	梁兑泉	11/23'21	600-U810-01	ANT_IN_2.4G_43.4*9.0_X8-WIFI	X1
.XX ± 0.10		UNIT: mm	CHECK:	DATE:	PARTS NO. (INTENDED USE):	43.4*9.0_X8-WIFI	SHEET: 1/1
.X ± 0.2		SIZE: A4	APPROVE:	DATE:	81800U810		



ELECTRIC
CONNECTOR
TECHNOLOGY

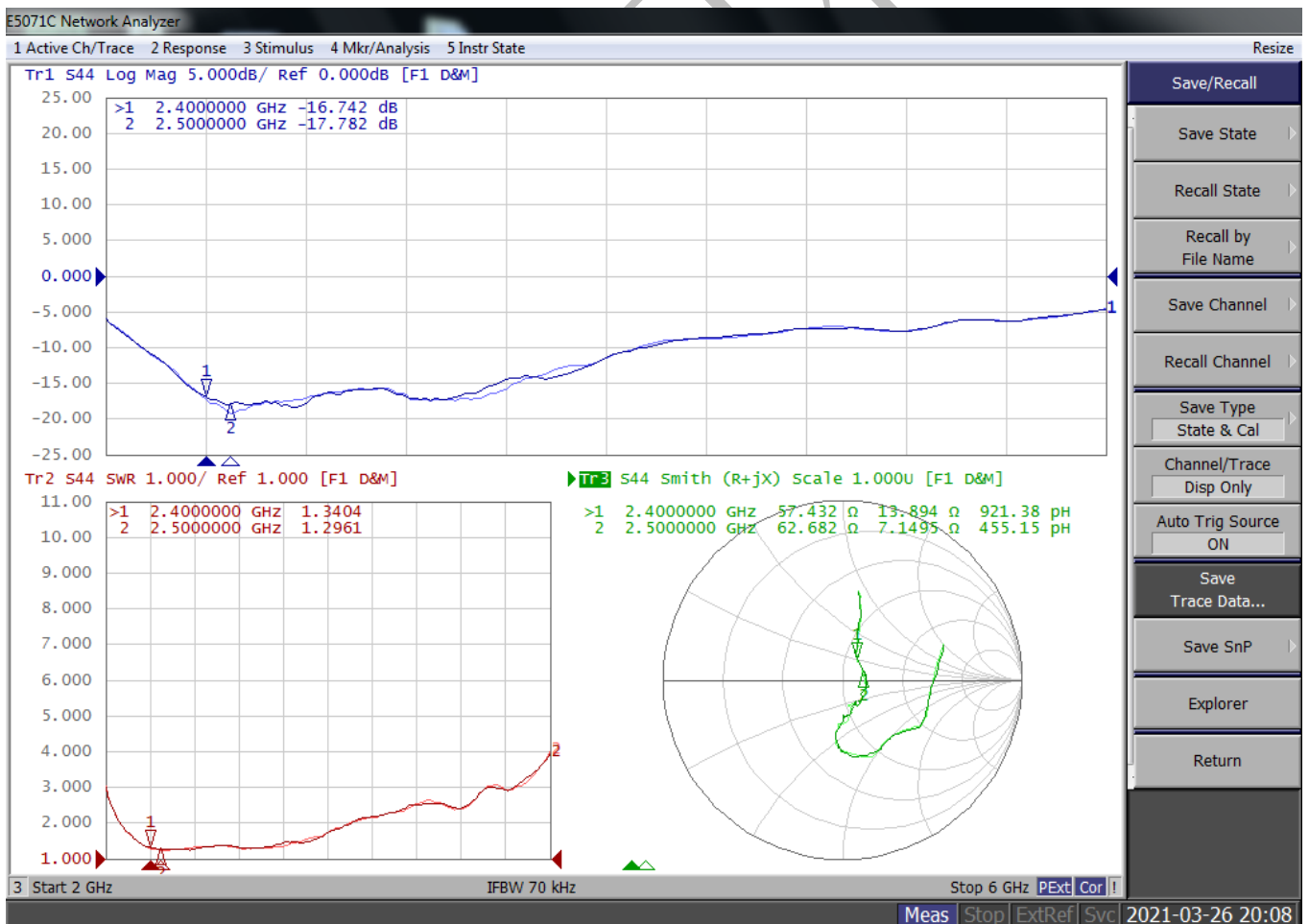
4. Antenna test result/测试结果

4.1 The matching circuits/匹配电路



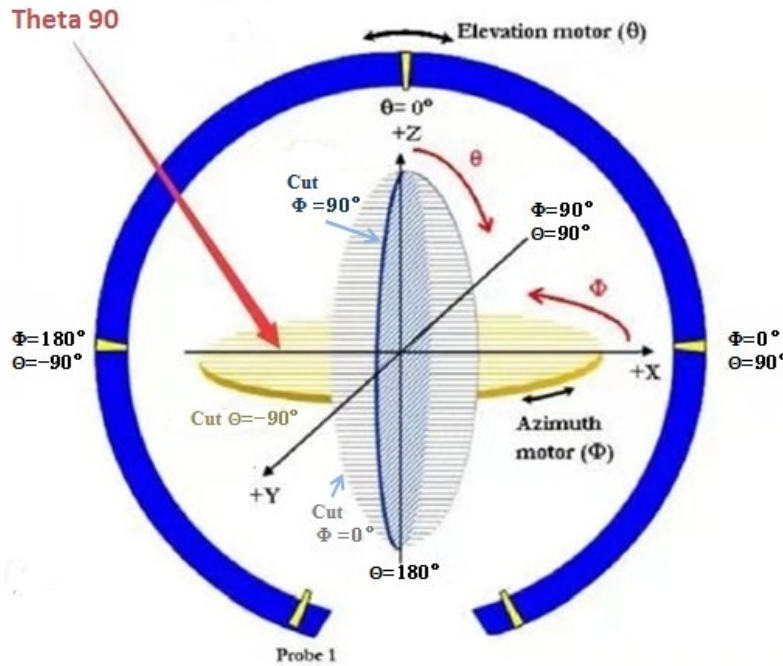
Element	Value
E1(0201)	NC
E2(0201)	0 Ω
E3(0201)	NC
E4(0201)	0 Ω

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



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

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



The coordinate system of Chamber/暗室坐标系

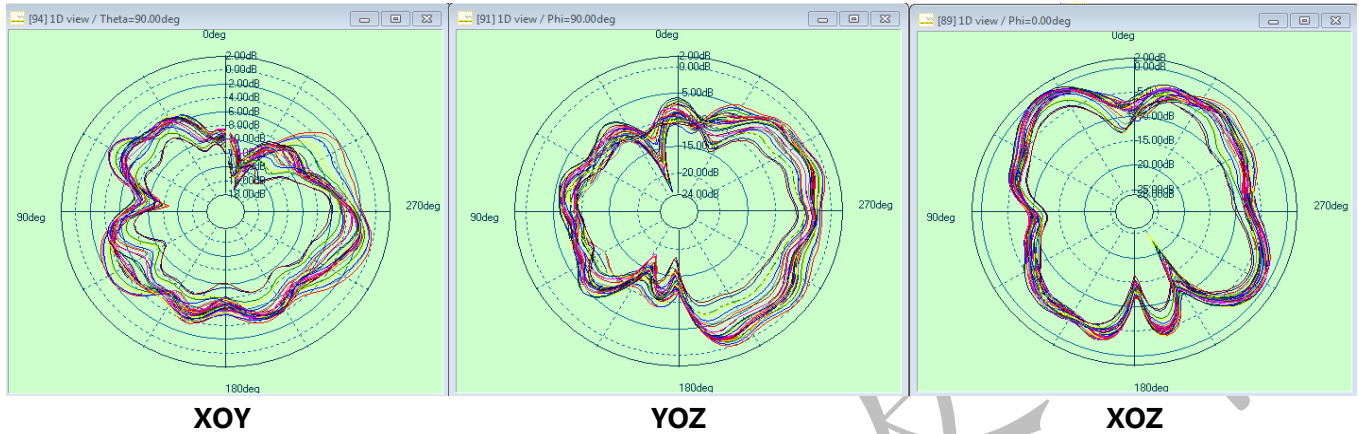
4.3.2 The test result of total efficiency and total gain/天线效率及增益测试结果

2400MHz-2500MHz

Frequency	Efficiency(%)	Gain (dBi)
2400MHz	45%	0.18
2410MHz	47%	0.26
2420MHz	44%	0.34
2430MHz	45%	0.22
2440MHz	45%	0.35
2450MHz	46%	0.78
2460MHz	45%	1.14
2470MHz	47%	0.38
2480MHz	43%	0.32
2490MHz	42%	-0.68
2500MHz	43%	-0.12
AVG	45%	0.29

4.3.3 The antenna radiation pattern(1D View)/天线辐射方向图 (1D View)

2400MHz-2500MHz



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

Frequency/频点 2450 MHz

