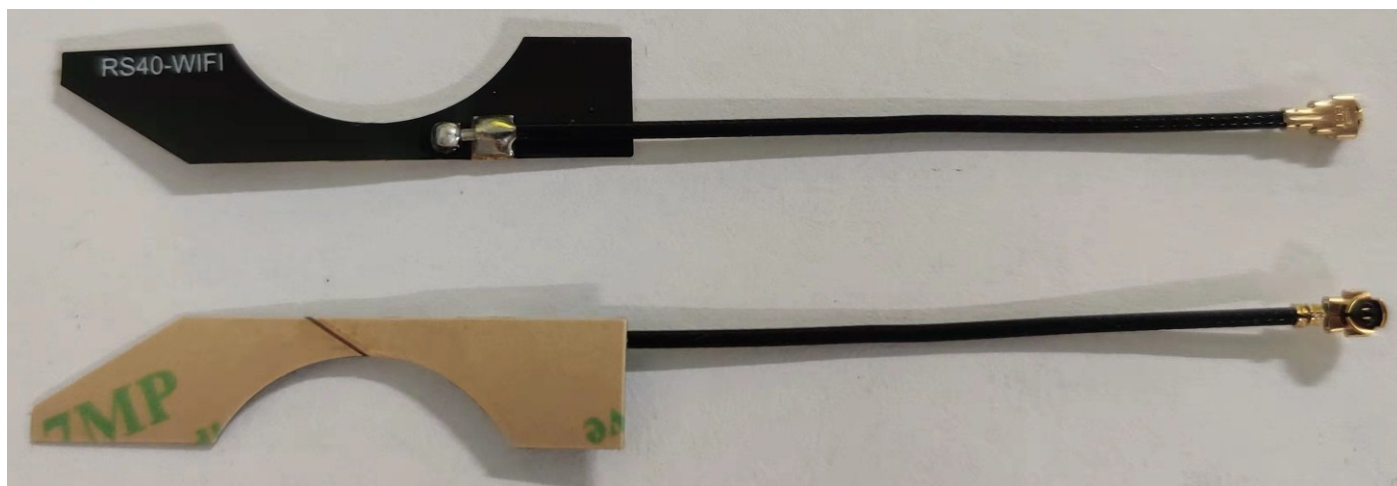


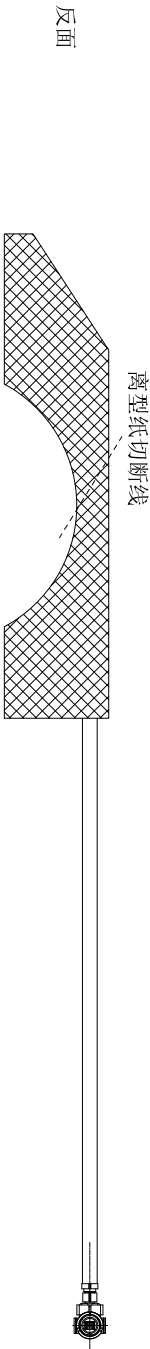
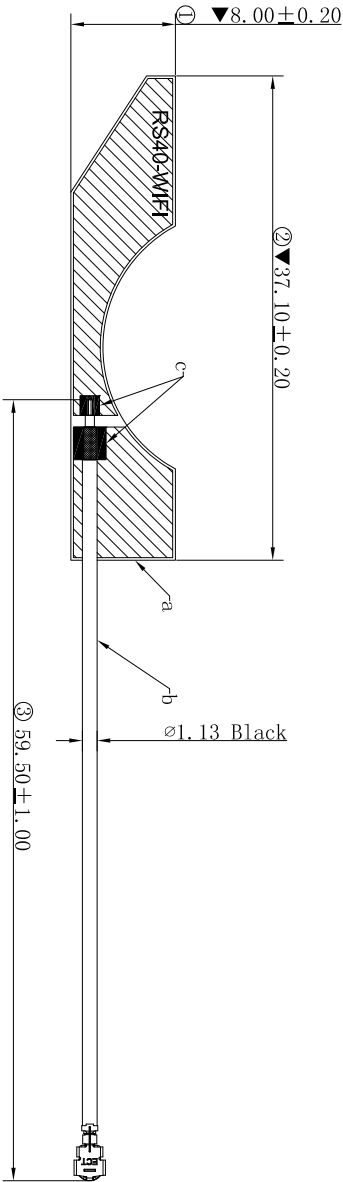
1. Antenna specification/天线标准

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	
Impedance/阻抗	50 (Ω)	
VSWR/驻波比	≤ 3.0	
Directional/辐射方向	Omni directional/全向天线	
Polarization/极化形式	Vertical/垂直	
Peak gain/峰值增益	2.64(dBi)	
Test condition/测试条件	passive test/无源测试	
Total efficiency/无源效率	$\geq 35\%$	
Mechanical Specification/机械指标		
Antenna type/天线类型	FPC+Cable	
Connector type/连接器类型	一代 (089)	
RF cable type/射频线型号	OD1.13 Black	
Connector torque test/连接器扭力	N/A	
Connector pull test/连接器拉力	$\geq 1.0\text{Kg}$	
Salt spray/盐雾测试	48 (H)	
Environmentalspecification /环境指标		
Operating temp/工作温度	-40°C ~ +80°C	
Storage temp/存储温度	-40°C ~ +80°C	

2. Antenna picture/天线图片

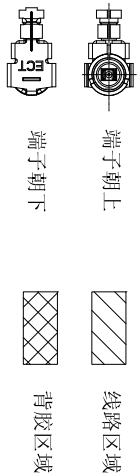


REV.	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
X1	ECN212352	初版发行	07/27' 21	梁兑泉	丁第斌	牛宝星



备注:

1. 焊接不能虚焊、假焊，焊点须饱满，绝缘层不能有烫伤。
 2. 允许最大毛边0.05MAX。
 3. 测试要求：全检VSWR测试，矩阵测试。
 4. 测试频率：2400-2500MHz，VSWR $\leq$ 3.0。
 5. 标有“ $\blacktriangledown$ ”为QC重点检测尺寸。
- NOTE:
1. The welding can't virtual welding, welding solder joints must be full, The insulation layer must not be scald.
 2. Allow maximum Flash 0.05 MAX.
 3. The test requirements: pattern all inspection VSWR test, test matrix.
 4. Test frequency:2400-2500MHz, VSWR $\leq$ 3.0。
 5. Marked with “ $\blacktriangledown$ ” key size detection for QC.
- HSF shall conform to the standard QF-Q-19-001 Environmental Hazardous Substances Management

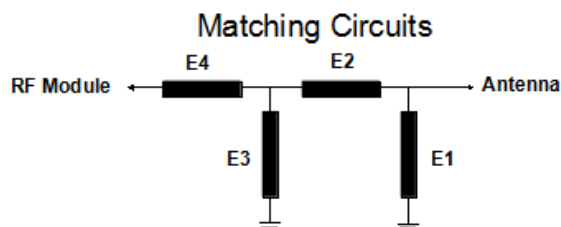


c	Tin	1	环保锡丝， $\varnothing 0.80\text{mm}$
b	CABLE ($\varnothing 1.13$)	1	USS RF CABLE G1, SG, 113BK, 58.5, 089
a	PPC	1	RS40-WIFI_1L-FPC_HF-BK_37.1*8.0
ITEM	PART NAME	Q' TY	MATERIAL / FINISH

ELECTRIC CONNECTOR TECHNOLOGY		GENERAL TOLERANCE	SCALE: 1:1	DRAWN: 梁兑泉	DATE: 07/27' 21	DWG. NO: 600-U918-01	TITLE: ANT_IN_2400_ MSD3_RS40/V60-WIFI-ANT	REV. X1
.XXX $\pm$ 0.05	.XX $\pm$ 0.10	.X $\pm$ 0.2	UNIT: mm	CHECK:	DATE:	PARTS NO. (INTENDED USE): 81800U918	SHEET: 1/1	
SIZE: A4		APPROVE:		DATE:				

4. Antenna test result/测试结果

4.1 The matching circuits/匹配电路



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

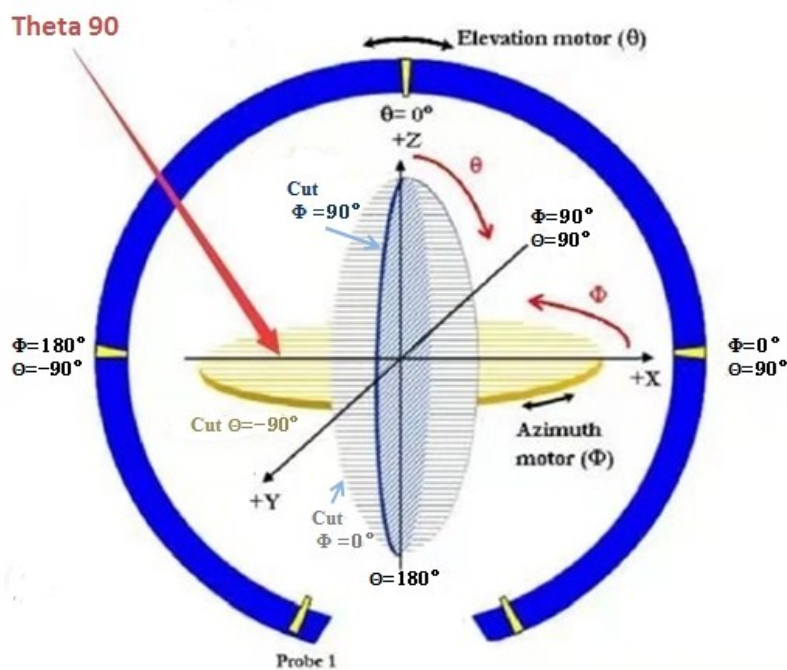
4.2 Return loss/Smith chart/VSWR/回波损耗/史密斯图/驻波比

9/7/2022 10:45:35 AM
1328.5170K92-101247-Tw

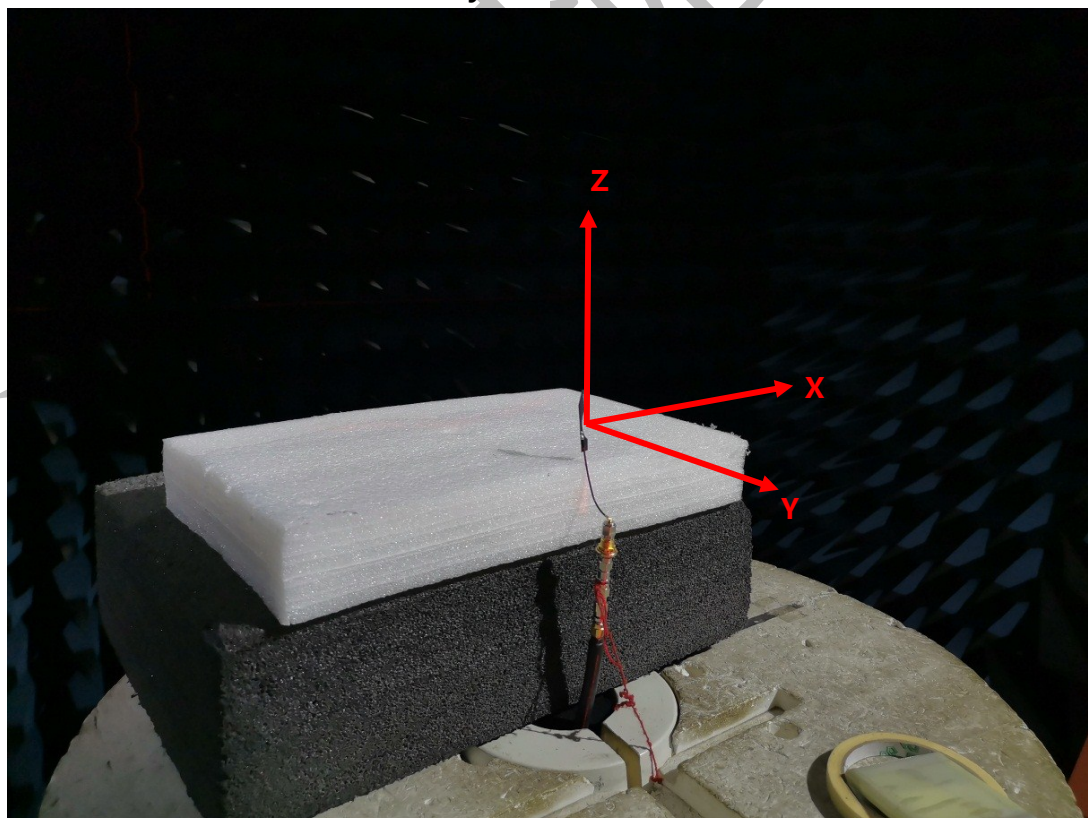


4.3 The gain and total efficiency test/增益和效率测试

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



The production test position/天线测试放置位置

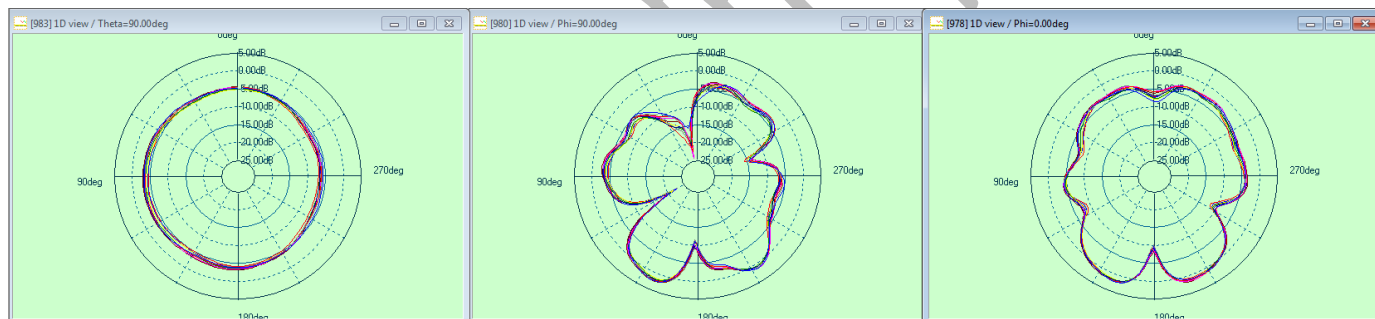
4.3.2 The test result of total efficiency and total gain/天线效率及增益测试结果

2400MHz-2500MHz

Frequency	Efficiency(%)	Gain (dBi)
2400MHz	35%	2.39
2410MHz	38%	2.60
2420MHz	36%	2.29
2430MHz	36%	2.07
2440MHz	37%	2.13
2450MHz	40%	2.40
2460MHz	43%	2.64
2470MHz	42%	2.45
2480MHz	40%	2.40
2490MHz	40%	2.52
2500MHz	41%	2.60
AVG	40%	2.41

4.3.3The antenna radiation pattern(2D View)/天线辐射方向图 (2D View)

2400MHz-2500MHz



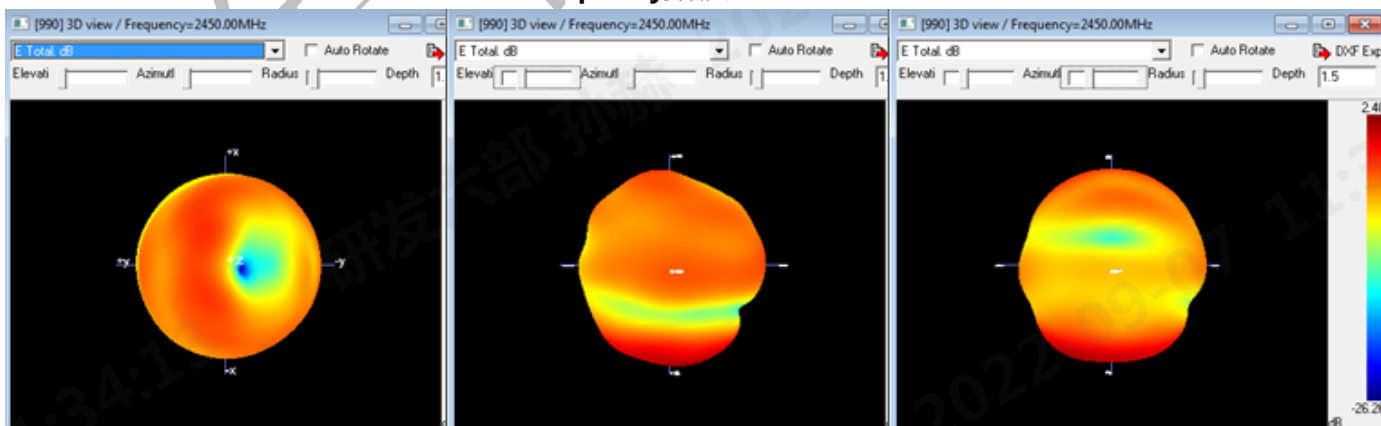
XOY

YOZ

XOZ

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

Frequency/频点 2450MHz



XOY

YOZ

XOZ