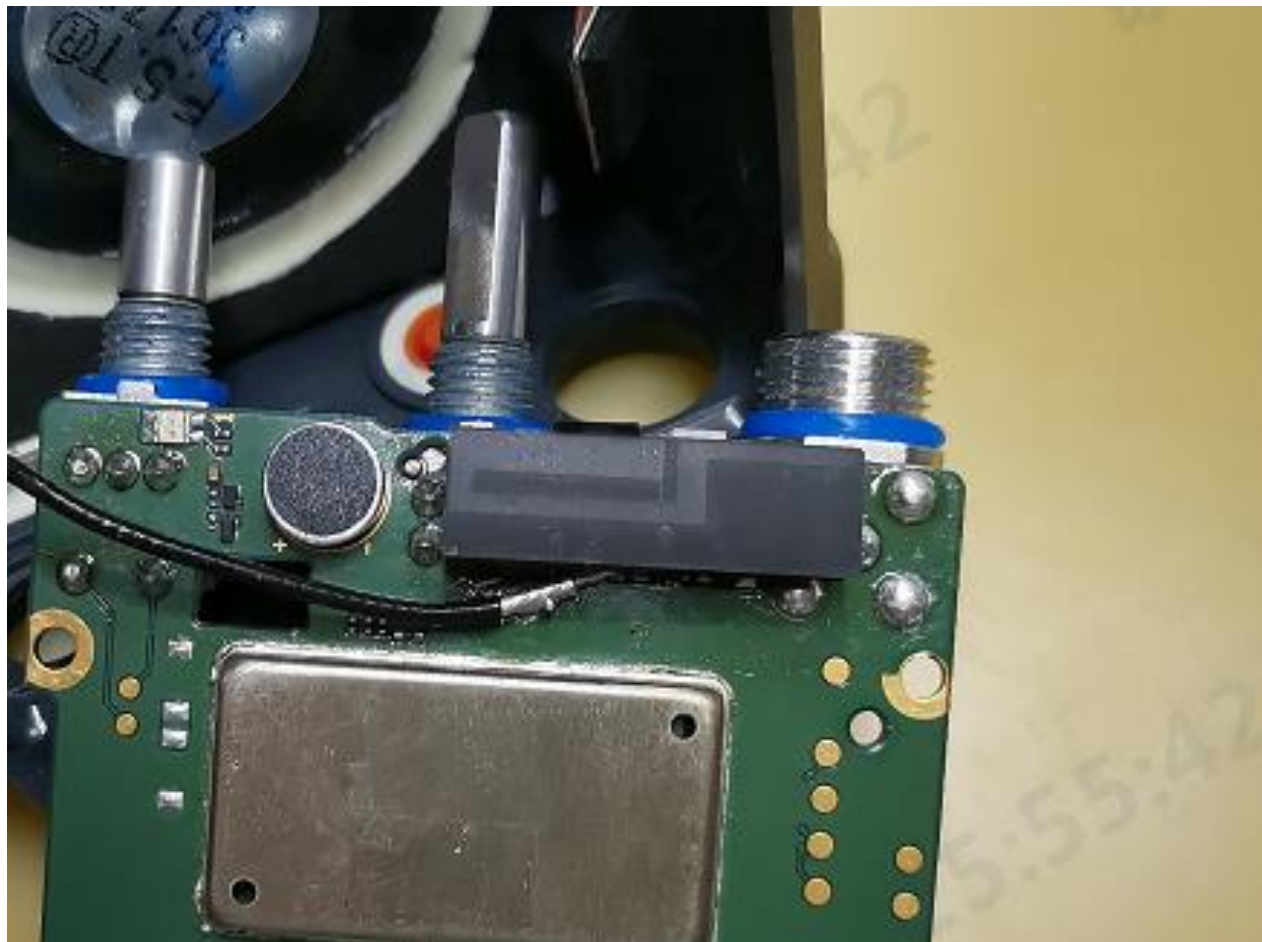


1. Antenna specification/天线标准

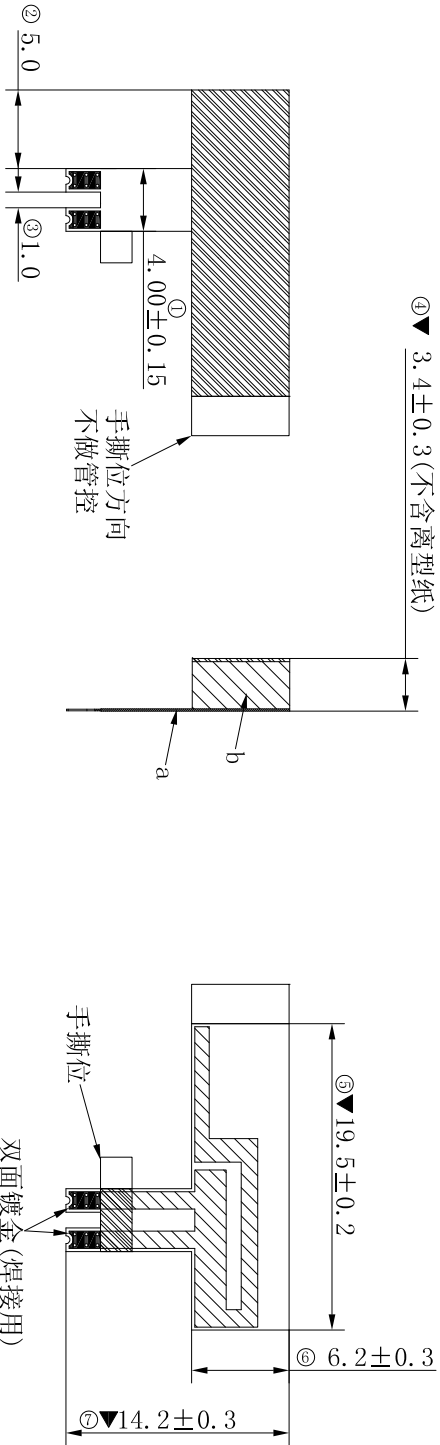
Antenna specification/天线技术参数		
Electrical specification/电气特性		
Item/目录	Specification/规格	Comment /备注
Freq. range/频段范围	2400MHz-2500MHz	
Impedance/阻抗	50 (Ω)	
VSWR/驻波比	≤ 2.5	
Directional/辐射方向	Omni directional/全向天线	
Polarization/极化形式	linear polarization/线极化	
Peak gain/峰值增益	-0.21(dBi)	
Test condition/测试条件	passive test/无源测试	
Total efficiency/无源效率	$\geq 25\%$	
Mechanical Specification/机械指标		
Antenna type/天线类型	内置天线 (FPC+泡棉)	
Connector type/连接器类型	N/A	
RF cable type/射频线型号	N/A	
Connector torque test/连接器扭力	N/A	
Connector pull test/连接器拉力	N/A	
Salt spray/盐雾测试	24 (H)	
Environmentalspecification /环境指标		
Operating temp/工作温度	-40°C ~ +70°C	
Storage temp/存储温度	-40°C ~ +70°C	

2. Antenna picture/天线图片



3. DWG/工程图纸

REV.	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
A	ECN211286	初版发行	07/19/21	刘晓峰	丁第斌	牛宝星
B	ECN222799	依客户要求，变更天线结构	11/18/22	刘晓峰	丁第斌	牛宝星



- 注:
1. 标有“▼”为QC重点检测尺寸, 未注尺寸按照公差表要求。
 2. 产品有害物质符合ECT 《QE-Q-19-001 环境有害物质管理基准》管控标准。

Note:

1. Marked with “▼” for QC key size detection, did not note size according to the tolerance table.

2. HSF shall conform to the standard QE-Q-19-001 Environmental Hazardous Substances Management.

b	海绵	1	PH6内置蓝牙天线19.0*5.7*3.2MM_海绵EVA+双面背胶_无卤
a	FPC	1	PH6内置蓝牙天线FPC_19.5*14.2*0.12MM_无卤_黑油
ITEM	PART NAME	Q'TY	MATERIAL/FINISH

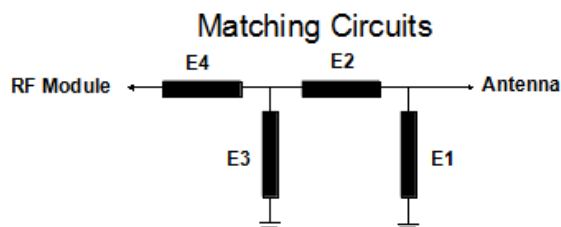
	GENERAL TOLERANCE		SCALE:	DRAWN:	DATE:	DWG. NO:	TITLE:	REV.
	X ± 0.30	XXX.° ± 2°	UNIT:	CHECK:	DATE:	PARTS NOT INTENDED USE:	ANT_IN_FPC+EVA_19.5*14.2*3.4MM_PH6 G0.80.60.3100192 Customer Figure	SHEET:
	X ± 0.20	XX.° ± 1°						
	XX ± 0.10		SIZE:	APPROVE:	DATE:	81800U837	1/1	
		A4						



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)	0Ω
E3(0201)	NC
E4(0201)	0Ω

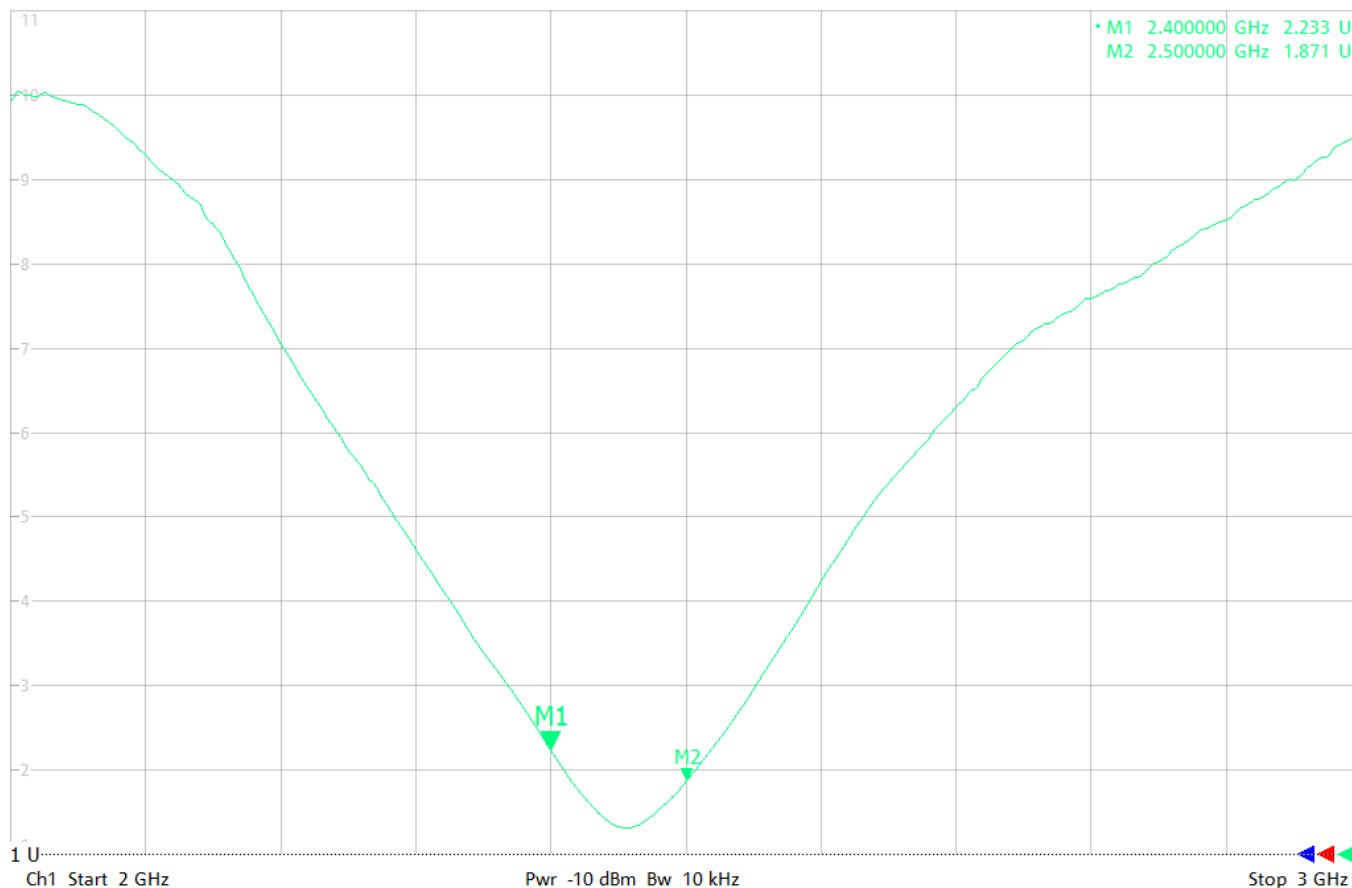
4.2 Return loss/Smith chart/VSWR/回波损耗/史密斯图/驻波比



12/9/2022 3:47:47 PM
1328.5170K92-101247-Tw

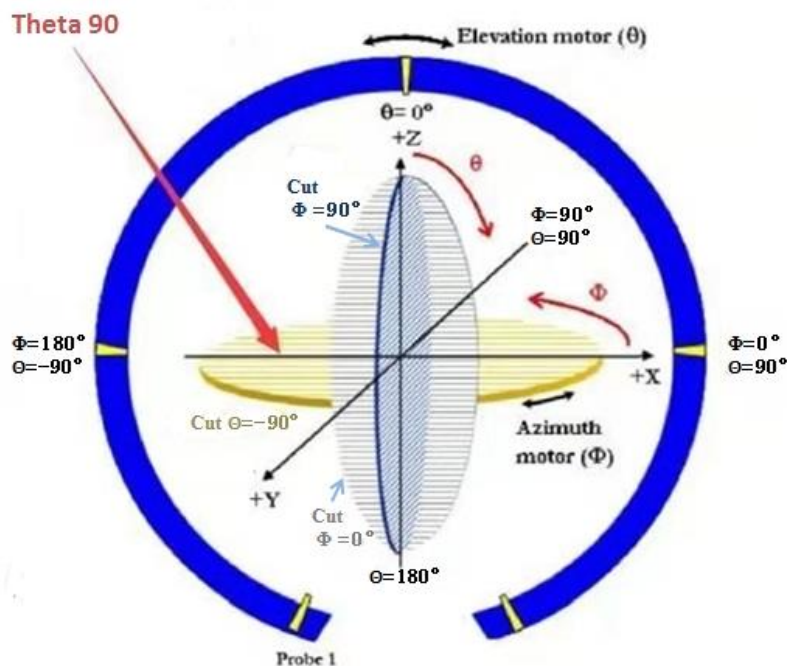
Trc1 — S22 SWR 1 U/ Ref 1 U Invisible Mem2[Trc1] — S22 SWR 1 U/ Ref 1 U Invisible
Mem3[Trc1] — S22 SWR 1 U/ Ref 1 U

1

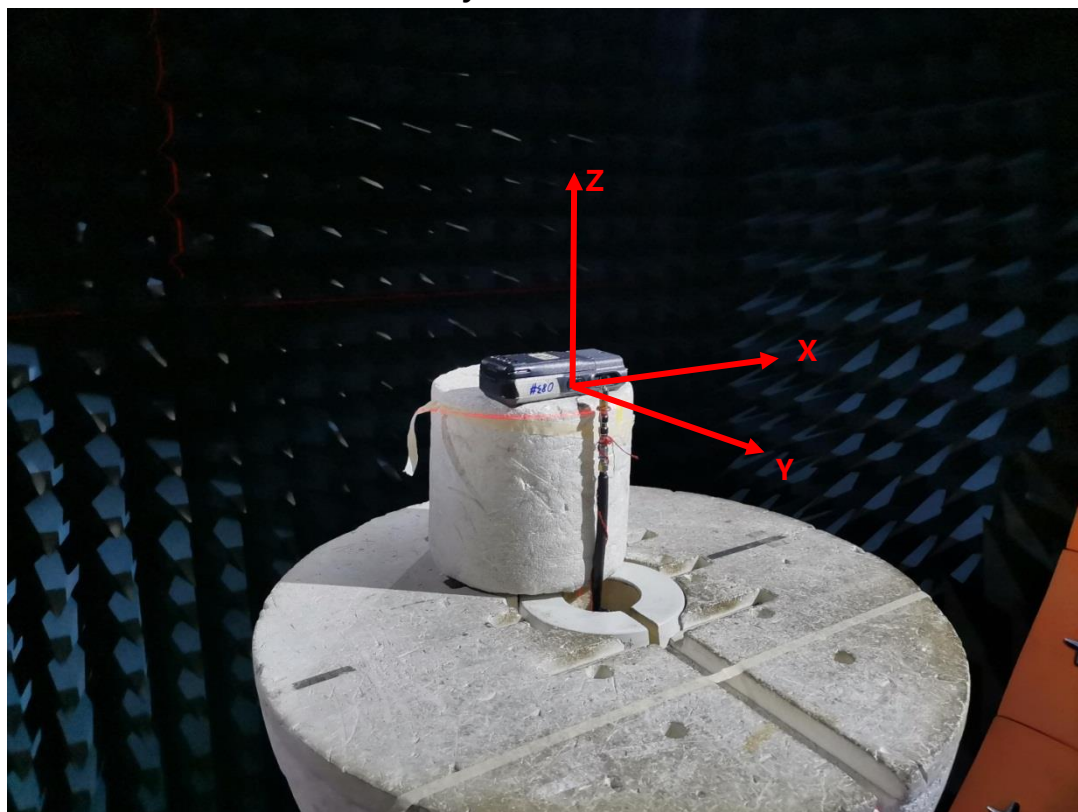


4.3 The gain and total efficiency test/增益和效率测试

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

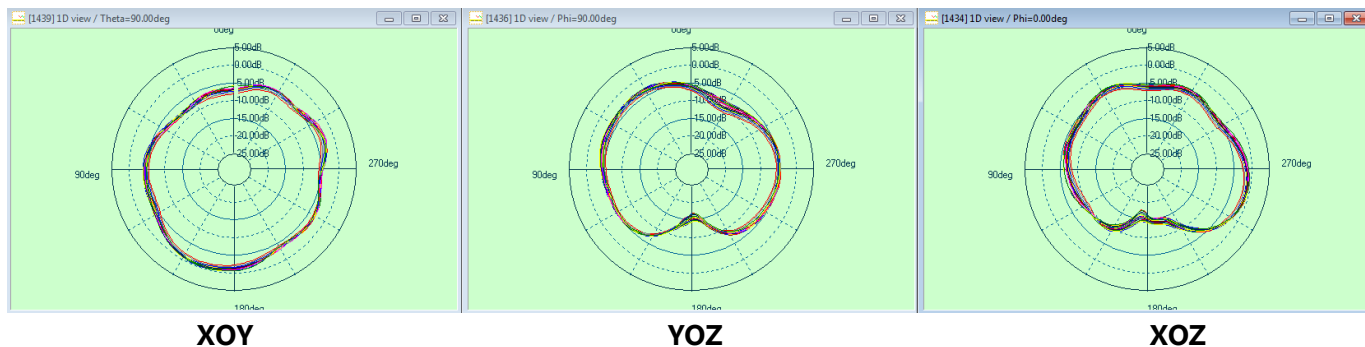
4.3.2 The test result of total efficiency and total gain/天线效率及增益测试结果

2400MHz-2500MHz

Frequency	Efficiency(%)	Gain (dBi)
2400MHz	27%	-1.45
2405MHz	28%	-1.35
2410MHz	30%	-1.01
2415MHz	31%	-0.81
2420MHz	32%	-0.75
2425MHz	32%	-0.65
2430MHz	33%	-0.53
2435MHz	34%	-0.38
2440MHz	34%	-0.33
2445MHz	34%	-0.26
2450MHz	35%	-0.21
2455MHz	34%	-0.22
2460MHz	34%	-0.30
2465MHz	33%	-0.38
2470MHz	33%	-0.49
2475MHz	33%	-0.48
2480MHz	32%	-0.37
2485MHz	32%	-0.39
2490MHz	32%	-0.45
2495MHz	32%	-0.43
2500MHz	31%	-0.49

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

2400MHz-2500MHz



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

Frequency/频点 2450MHz

