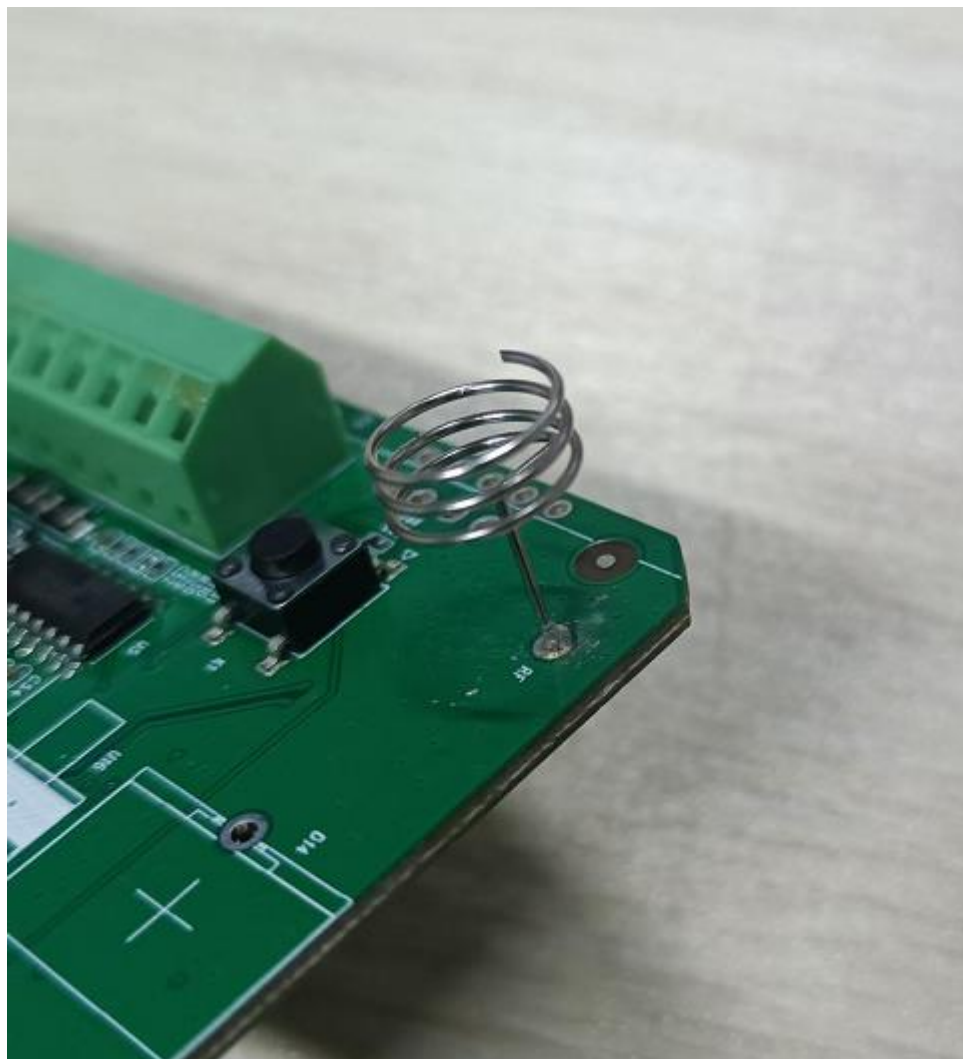


**1. Antenna specification/天线标准**

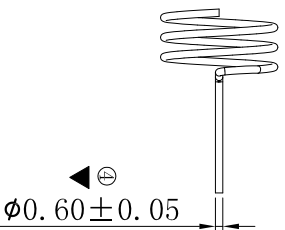
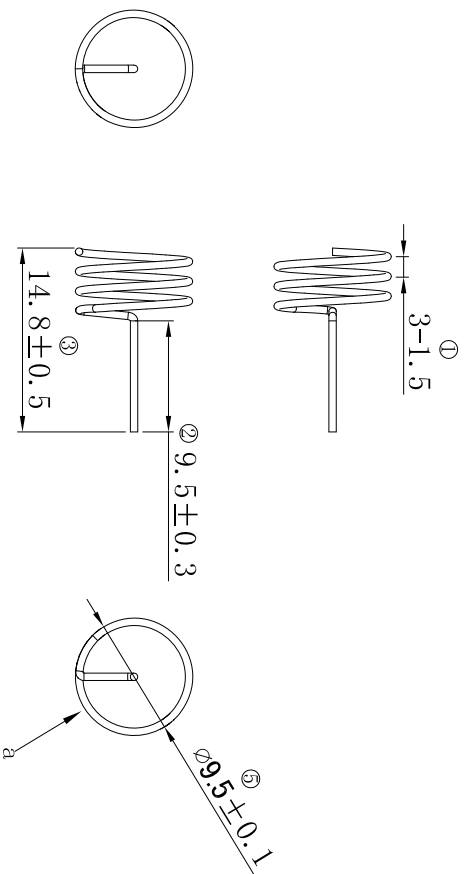
Antenna specification/天线技术参数		
Electrical specification/电气特性		
Item/目录	Specification/规格	Comment/备注
Freq. range/频段范围	850-950 (MHz)	
Impedance/阻抗	50 ( $\Omega$ )	
VSWR/驻波比	$\leq 2.1$	
Directional/辐射方向	Omni directional	
Polarization/极化形式	Vertical	
Peak gain/峰值增益	1.58 (dBi)	
Test condition/测试条件	passive test (无源测试)	
Total efficiency/无源效率	> 49 %	
Mechanical Specification/机械指标		
Antenna type/天线类型	内置天线	
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	48 (H)	
Environmental specification /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**



**3. DWG/工程图纸**

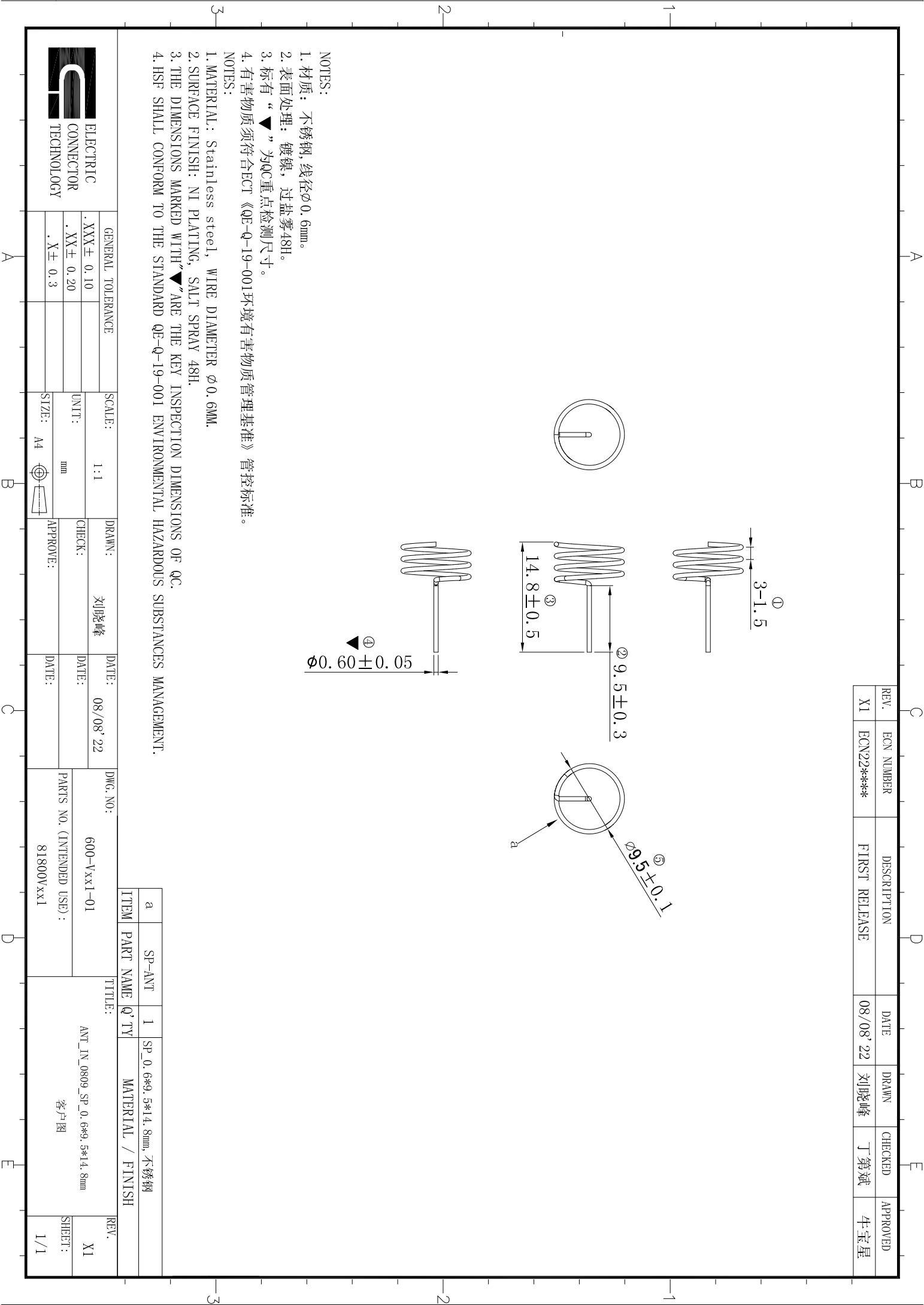
REV.	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
X1	ECN22****	FIRST RELEASE	08/08'22	刘晓峰	丁第斌	牛宝星



- NOTES:
1. 材质：不锈钢，线径 $\phi 0.6\text{mm}$ 。
  2. 表面处理：镀镍，过盐雾48H。
  3. 标有“ $\blacktriangledown$ ”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. MATERIAL: Stainless steel, WIRE DIAMETER  $\phi 0.6\text{MM}$ .
  2. SURFACE FINISH: NI PLATING, SALT SPRAY 48H.
  3. THE DIMENSIONS MARKED WITH“ $\blacktriangledown$ ”ARE THE KEY INSPECTION DIMENSIONS OF QC.
  4. HSF SHALL CONFORM TO THE STANDARD QE-Q-19-001 ENVIRONMENTAL HAZARDOUS SUBSTANCES MANAGEMENT.

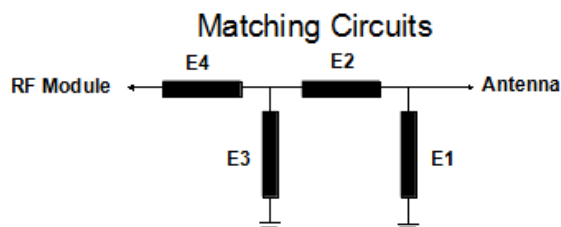
ITEM	PART NAME	Q'TY	MATERIAL / FINISH
a	SP-ANT	1	SP 0.6*9, 5*14.8mm, 不锈钢

ELECTRIC CONNECTOR TECHNOLOGY		GENERAL TOLERANCE	SCALE:	DRAWN:	DATE:	DWG. NO:	TITLE:		REV.
		.XXX $\pm$ 0.10	1:1	刘晓峰	08/08'22	600-Vxx1-01	ANT_IN_0809_SP_0.6*9, 5*14.8mm		X1
		.XX $\pm$ 0.20	UNIT:	CHECK:	DATE:	PARTS NO. (INTENDED USE):	客户图		SHEET:
		.X $\pm$ 0.3	mm	APPROVE:	DATE:	81800Vxx1			1/1
			SIZE:						
			A4						



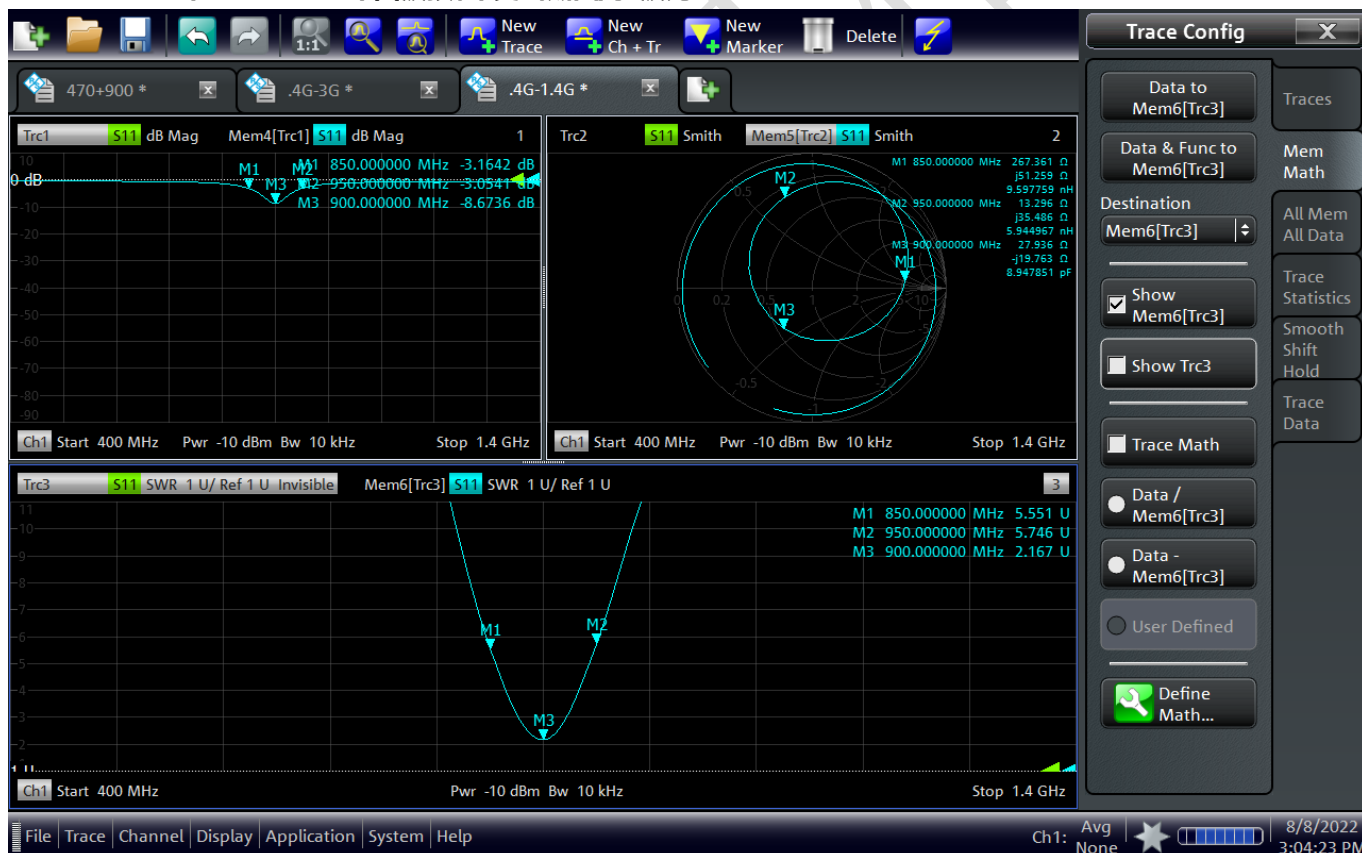
## 4. Antenna test result/测试结果

### 4.1 The matching circuits/匹配电路



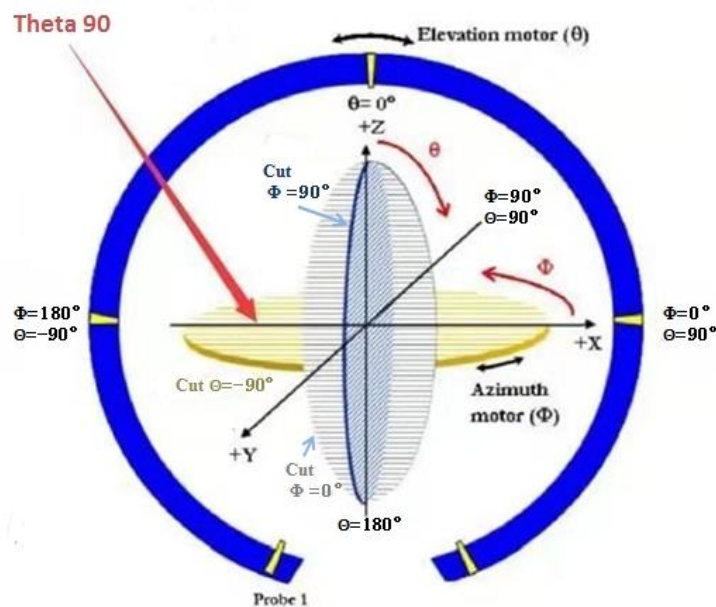
Element	Value
E1(0201)	NC
E2(0201)	0 $\Omega$
E3(0201)	NC
E4(0201)	0 $\Omega$

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

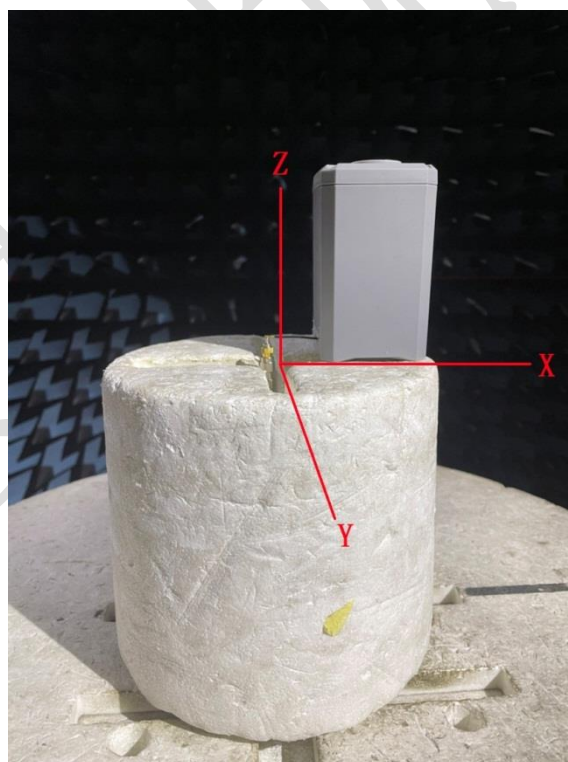


**4.3 The gain and total efficiency test/增益和效率测试**

**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**



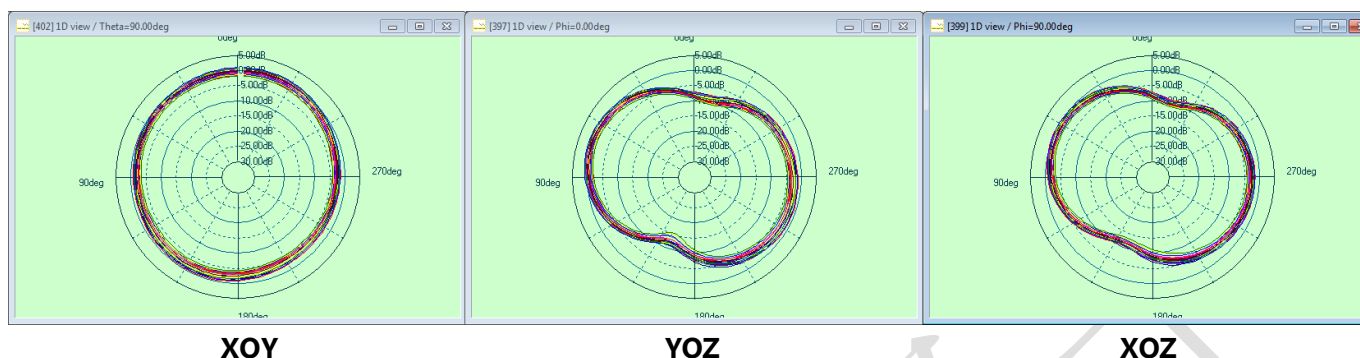
**The production test position/天线测试放置位置**

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

Frequency	Efficiency (%)	Gain (dBi)
850MHz	38%	-1.22
855MHz	42%	-0.85
860MHz	45%	-0.44
865MHz	49%	-0.07
870MHz	53%	0.33
875MHz	53%	0.16
880MHz	58%	0.88
885MHz	59%	0.95
890MHz	64%	1.38
895MHz	62%	1.24
900MHz	62%	1.35
905MHz	57%	1.03
910MHz	56%	1.03
915MHz	48%	0.41
920MHz	49%	0.43
925MHz	42%	-0.16
930MHz	43%	-0.18
935MHz	38%	-0.65
940MHz	37%	-0.82
945MHz	35%	-0.98
950MHz	33%	-1.30
AVG	49%	0.12

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

Frequency/频点 900MHz



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

Frequency/频点 900MHz

