

## 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 ( $\Omega$ )	
Directional/辐射方向	Omni Directional	
Polarization/极化形式	Vertical	
VSWR/驻波比	$\leq 2$	
Peak Gain/峰值增益	7.63dBi	
Total Efficiency/无源效率	$\geq 70\%$	
Test condition/测试条件	passive test (无源测试)	
Power/功率	20W	

#### Mechanical Specification/机械指标

Antenna type/天线类型	Omni antenna	
Connector Type/连接器类型	N-J	
RF Cable Type/射频线型号	RG316	
Dimension/尺寸	OD27*480mm	
Salt Spray/盐雾测试	48H	

#### Environmental Specification /环境指标

Operating temp/工作温度	-40°C ~ +80°C	
Storage temp/存储温度	-40°C ~ +85°C	

**2. Antenna Picture/天线图片**



**3. DWG/工程图纸**

REV	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
X1	ECN231576	INITIAL RELEASE	03/29'23	张苟彪	丁第斌	牛宝星



NOTES:

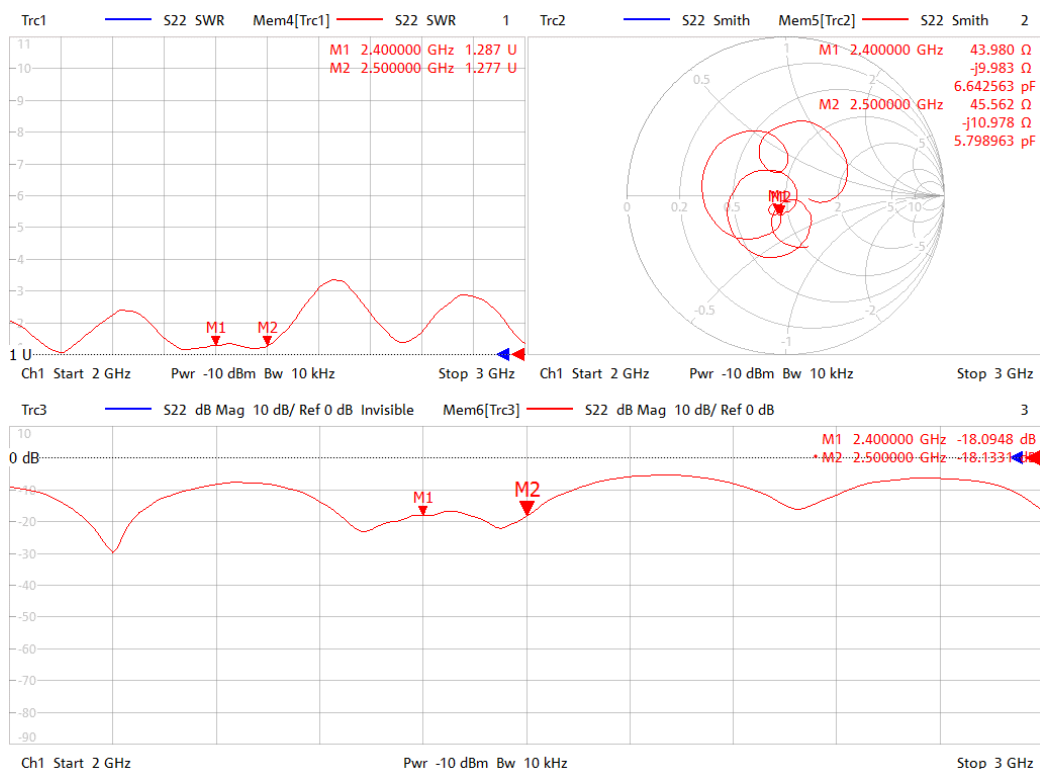
- 焊接不能虚焊、假焊，焊点须饱满。  
WELDING CAN NOT BE FALSE WELDING,  
WELDING SPOT MUST BE FULL.
- 外部不能有胶。  
NO GLUE ON THE OUTSIDE.
- 标有“⊗”为FAI首件全检尺寸。  
MARK“⊗”WAS FAI DIMENSIONS.
- 标有“▼”为QC重点检测尺寸。  
MARK“▼”WAS CRITICAL DIMENSIONS.
- 所有材料需符合ROHS2.0。  
ALL MATERIALS MUST CONFORM TO ROHS2.0.

NO	ITEM	Q'TY	MATERIAL / FINISH
G	胶水	1	AB胶,NO.660-4,50ML/支,华麟电子
F	玻璃钢	1	玻璃钢管,白色亮面,长度460mm
E	泡棉	3	黑色海棉+3M双面胶,20*10*T10.05mm
D	顶帽	1	顶帽,AL6061,OD29.8*10mm,阳极喷砂
C	N连接器	1	N型连接器,镀三元合金
B	PCB	1	PCB,PTFE,DK3.0,404*10*T0.8mm
A	CABLE	1	RG316/F/50,外皮直径ø2.5mm,棕色

	GENERAL TOLERANCE		SCALE: 1:3	DRAWN: 张苟彪	DATE: 03/29'23	DWG.NO: 600-V434-01	TITLE: CUSTOMER DRAWING	REV. X1
	XX.± 1	XX.± 1*	UNIT: mm	CHECK:	DATE:	PARTS NO.(INTENDED USE): 81800V434		SHEET: 1/1
	X.± 0.5	X.± 1*	SIZE: A4	APPROVE:	DATE:			
	.X± 0.2	.X± 1*						
.XX± 0.10								

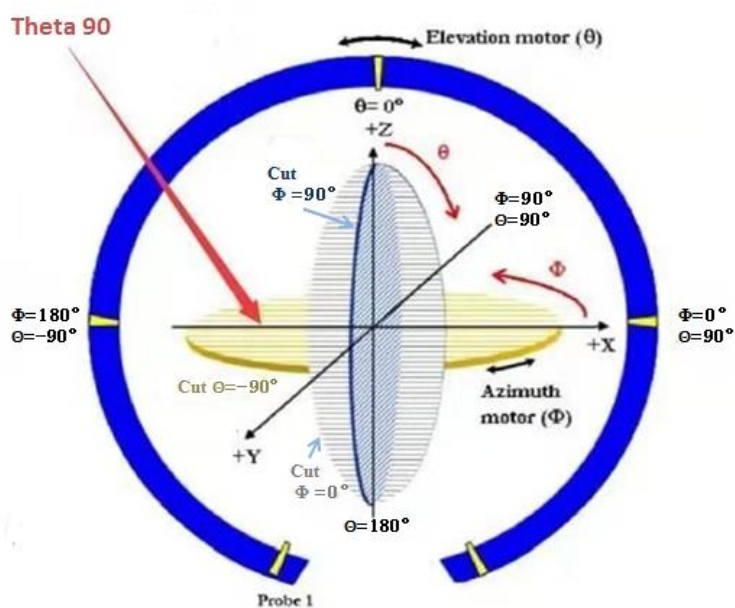
## 4. Antenna test result/测试结果

### 4.1 Isolation degree/ VSWR/驻波比

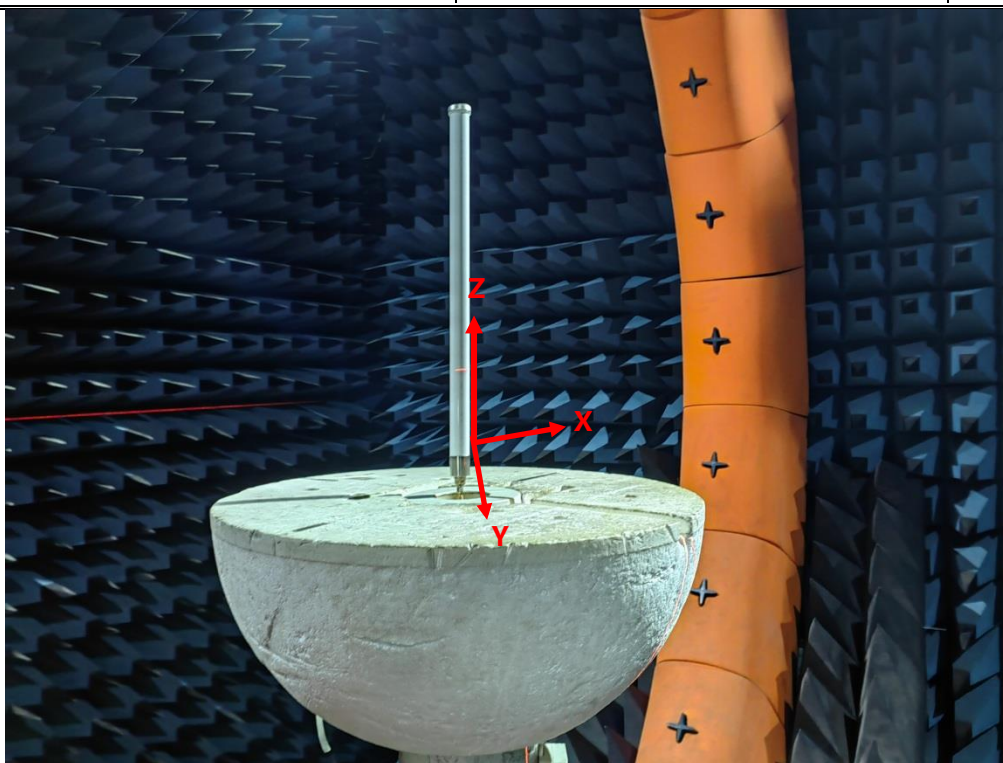


### 4.2 The gain and total efficiency test/增益和效率测试

#### 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

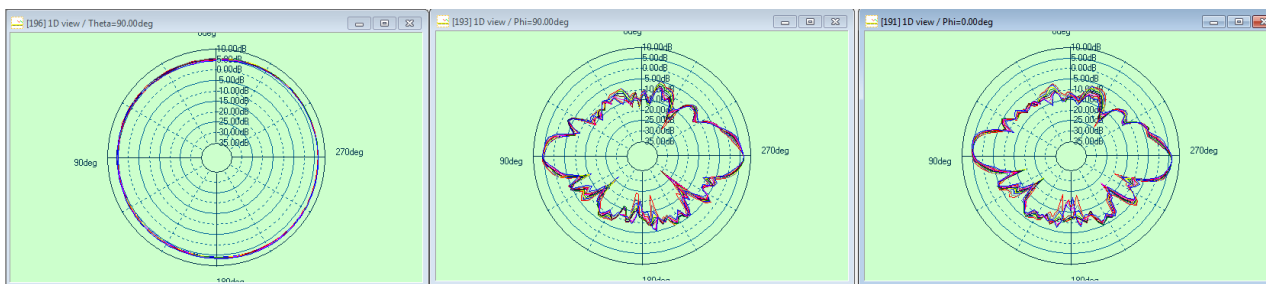
#### 4.2.2 The test result of total efficiency and total gain/天线效率及增益测试结果

##### 2400MHz-2500MHz

Frequency	Efficiency(%)	Gain(dBi)
2400MHz	77%	7.48
2410MHz	77%	7.56
2420MHz	75%	7.51
2430MHz	77%	7.63
2440MHz	78%	7.59
2450MHz	77%	7.43
2460MHz	75%	7.33
2470MHz	74%	7.49
2480MHz	75%	7.63
2490MHz	75%	7.54
2500MHz	77%	7.53
AVG	76%	7.52

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

**2400MHz-2500MHz**



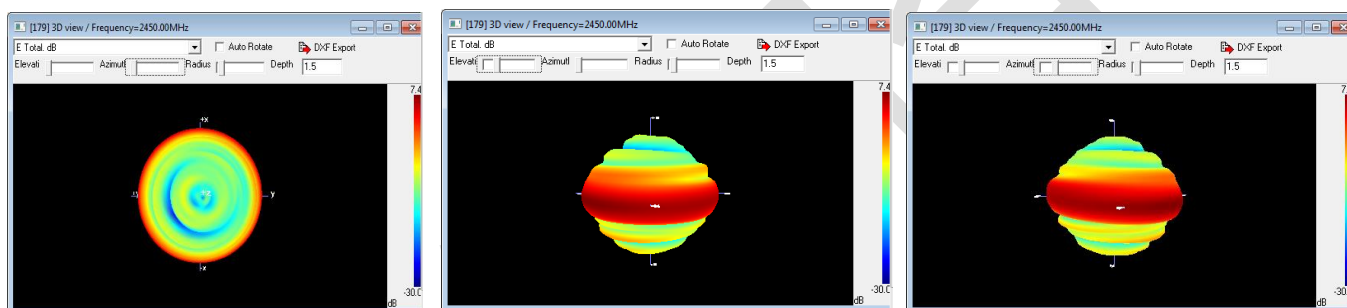
**X0Y**

**Y0Z**

**X0Z**

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

**2450MHz**



**X0Y**

**Y0Z**

**X0Z**