

## 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	863MHz-870MHz	
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	5.2dBi@867MHz	
Total Efficiency/无源效率	74%	
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	玻璃钢天线	
Connector Type/连接器类型	N-J	
RF Cable Type/射频线型号	RG316	
Dimension/尺寸	OD28.5*480mm	
Salt Spray/盐雾测试	7(Day)	
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	ECN222009	PRELIMINARY RELEASE	06/18'22	张苟彪	丁第斌	牛宝星



NOTES:

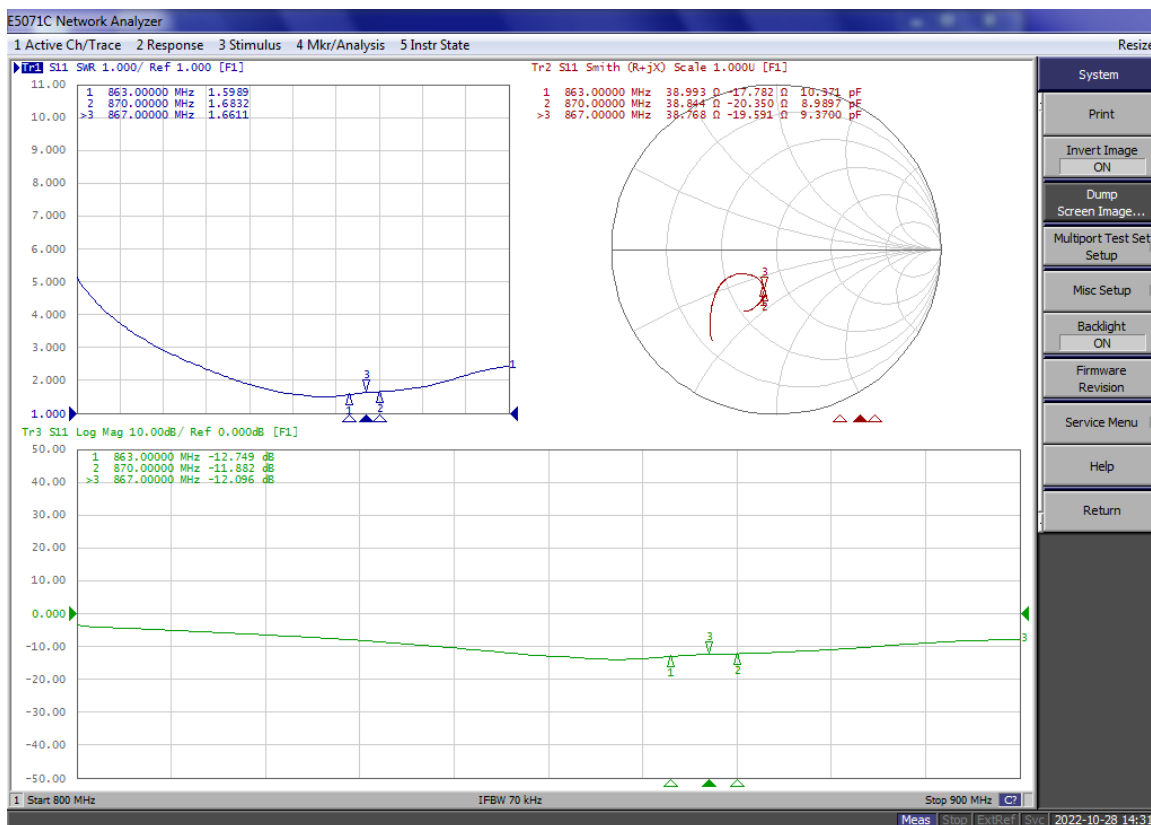
- VSWR TEST:863-870MHz<2.0
- WELDING CAN NOT BE FALSE WELDING, WELDING SPOT MUST BE FULL
- NO GLUE ON THE OUTSIDE
- MARK"⊗"WAS FAI DIMENSIONS
- MARK"▼"WAS CRITICAL DIMENSIONS
- HSF SHALL CONFORM TO THE STANDARD QE-Q-19-001 ENVIRONMENTAL HAZARDOUS SUBSTANCES MANAGEMENT

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	泡棉+双面胶, 40*10*T1.95mm
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,DK3.0,418*19*T0.8mm
A	CABLE	1	RG316/F/50,外皮直径 $\phi$ 2.5mm, 棕色

	GENERAL TOLERANCE		SCALE: 1:3	DRAWN: 张苟彪	DATE: 06/18'22	DWG.NO: 600-V147-01	TITLE: CUSTOMER DRAWING	REV. X1
	XX.±1	XX.°± 1°	UNIT: mm	CHECK:	DATE:	PARTS NO.(INTENDED USE): 81800V147		SHEET: 1/1
	X.±0.5	X.°± 1°		APPROVE:	DATE:			
	.X±0.2	.X°± 1°	SIZE: A4					
.XX±0.10								

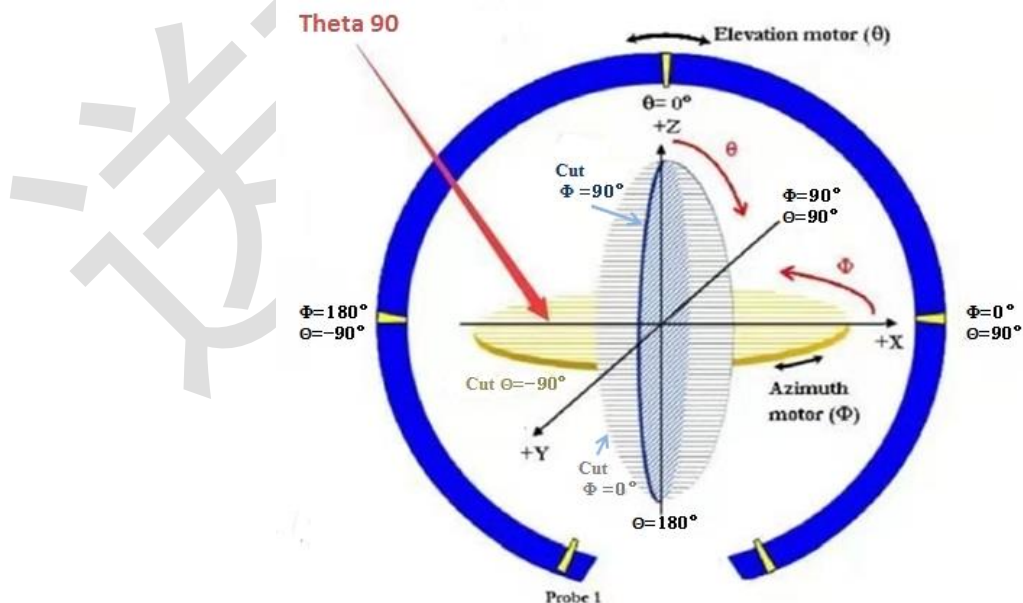
## 4. Antenna test result/测试结果

### 4.1 Isolation degree/ VSWR/驻波比

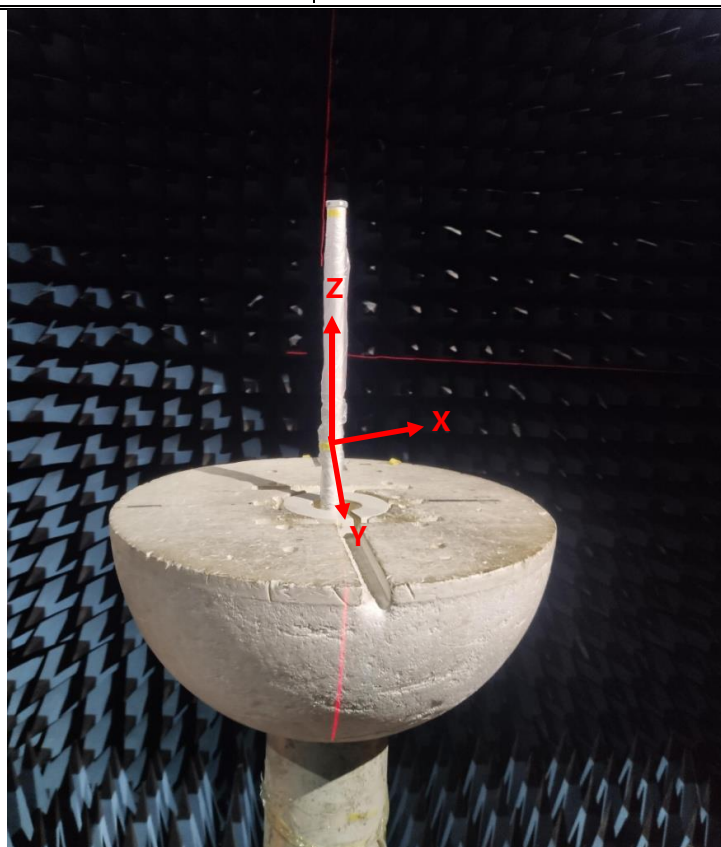


### 4.2 The gain and total efficiency test/增益和效率测试

#### 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

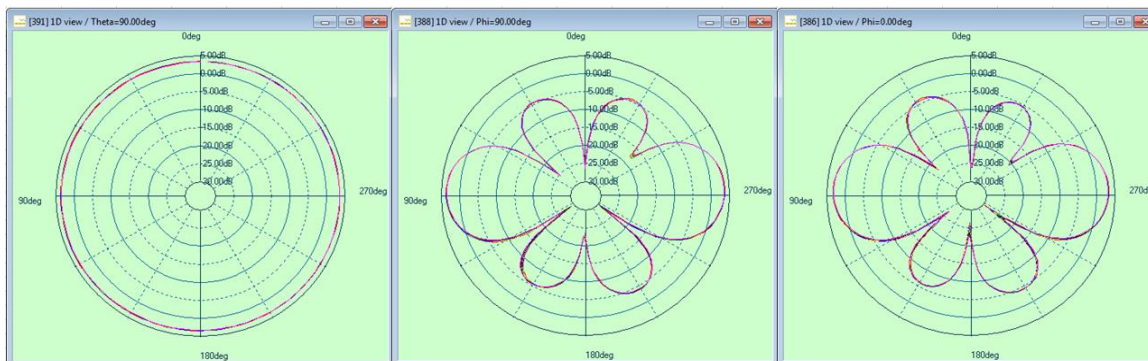
#### 4.2.2 The test result of total efficiency and total gain/天线效率及增益测试结果

863MHz-870MHz

Frequency	Gain (dBi)	Efficiency(%)
863MHz	5.2	75%
864MHz	5.1	74%
865MHz	5	74%
866MHz	5	74%
867MHz	5	74%
868MHz	5	73%
869MHz	4.9	73%
870MHz	4.9	72%

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

**863MHz-870MHz**



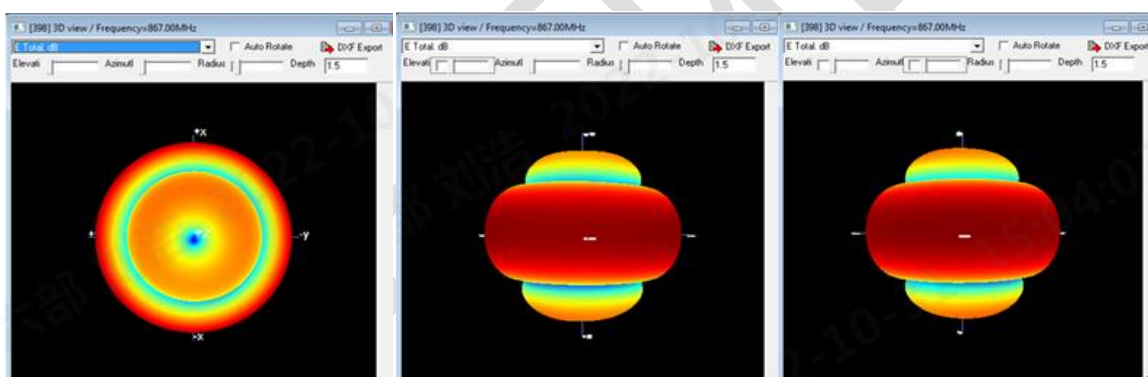
**X0Y**

**Y0Z**

**X0Z**

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

**867MHz**



**X0Y**

**Y0Z**

**X0Z**