

**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	902MHz-928MHz	
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@916MHz	
Total Efficiency/无源效率	71%	
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	OD28.5*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	

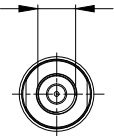
## 2. Antenna Picture/天线图片



## 3. DWG/工程图纸

REV	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
X1	ECN222009	PRELIMINARY RELEASE	06/18'22	张苟彪	丁第斌	牛宝星

5/8-24UNEF-2B



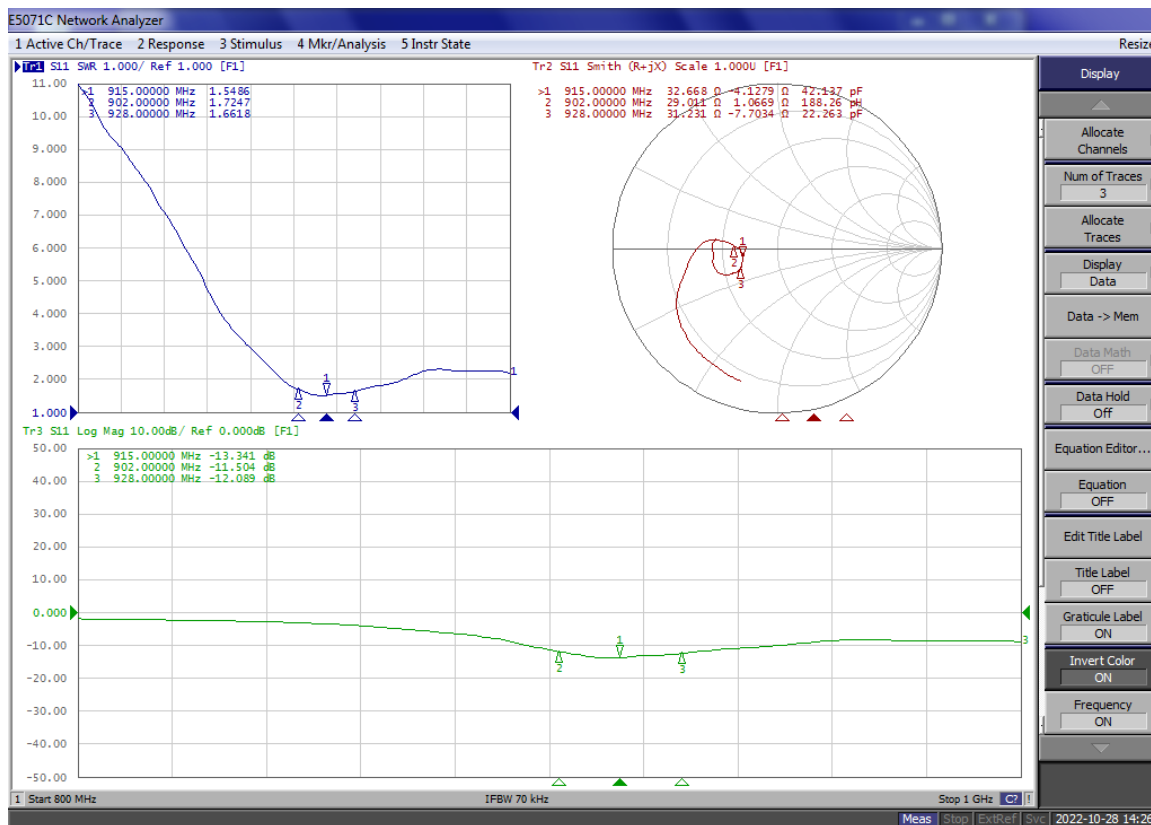
NOTES:  
 1.VSWR TEST:902-928MHz<2.0.  
 2.WELDING CAN NOT BE FALSE WELDING, WELDING SPOT MUST BE FULL.  
 3.NO GLUE ON THE OUTSIDE.  
 4.MARK"⊗"WAS FAI DIMENSIONS.  
 5.MARK"▼"WAS CRITICAL DIMENSIONS.  
 6.HSF SHALL CONFORM TO THE STANDARD QE-Q-19-001 ENVIRONMENTAL HAZARDOUS SUBSTANCES MANAGEMENT.

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,DK3.0,401*19*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: 06/18'22	DWG.NO: 151-V148-01	TITLE: CUSTOMER DRAWING	REV. X1
	XX.± 1	XX.*± 1°	UNIT: mm	CHECK:	DATE:	PARTS NO.(INTENDED USE): 81800V148		SHEET: 1/1
	X.± 0.5	X.*± 1°		APPROVE:	DATE:			
	.X± 0.2	.X*± 1°	SIZE: A4					
.XX± 0.10								

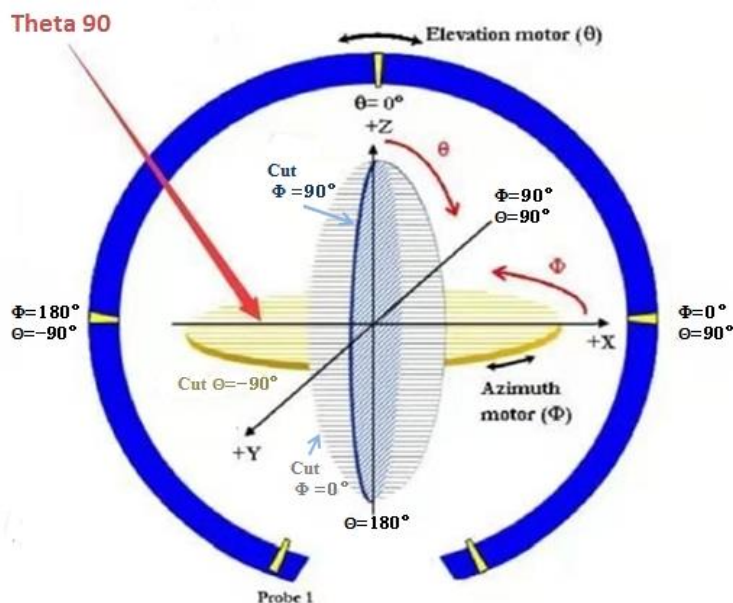
## 4. Antenna test result/测试结果

### 4.1 Isolation degree/ VSWR/驻波比

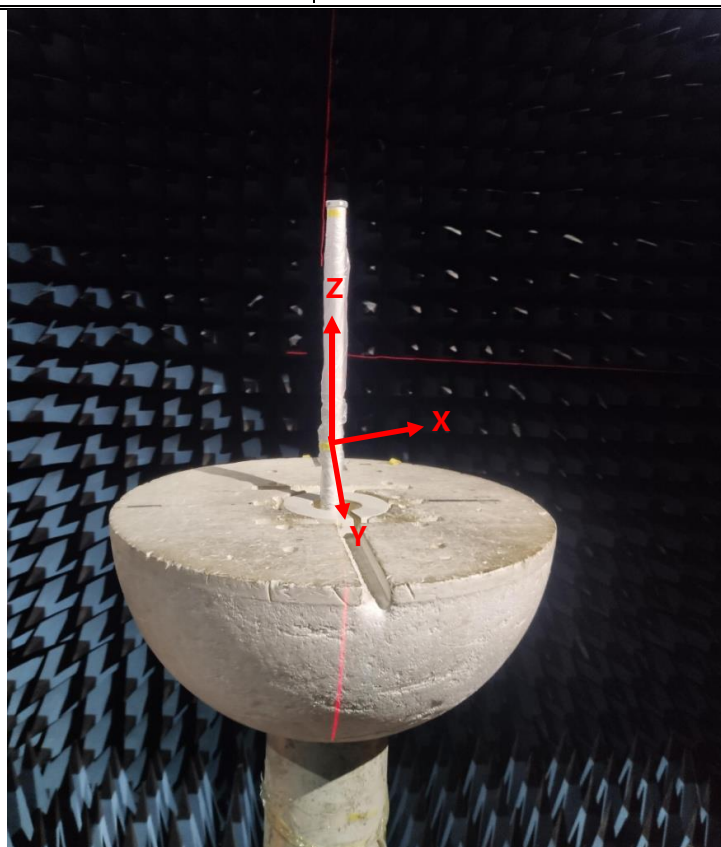


### 4.2 The gain and total efficiency test/增益和效率测试

#### 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

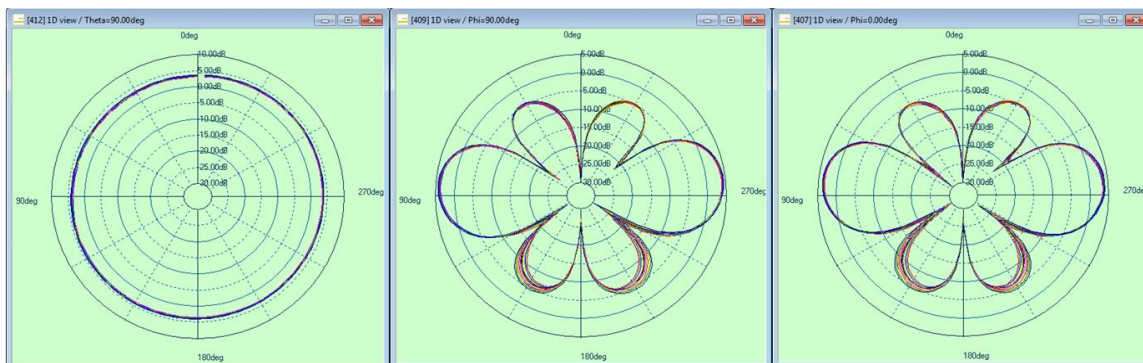
#### 4.2.2 The test result of total efficiency and total gain/天线效率及增益测试结果

902MHz-928MHz

Frequency	Gain (dBi)	Efficiency(%)
902MHz	4.7	72%
904MHz	4.8	70%
906MHz	4.9	70%
908MHz	4.9	72%
910MHz	5	74%
912MHz	5	75%
914MHz	5.1	73%
916MHz	5.2	71%
918MHz	5.1	74%
920MHz	5.1	79%
922MHz	5.1	81%
924MHz	5	77%
926MHz	4.9	75%
928MHz	4.9	79%

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

902MHz-928MHz



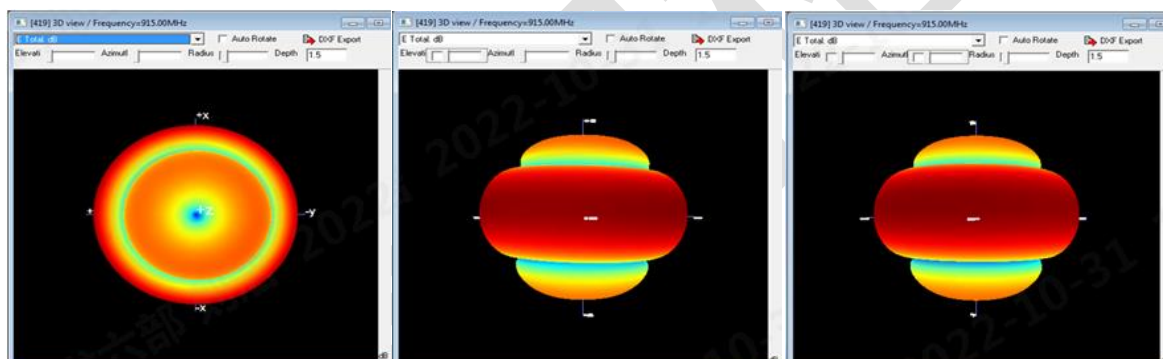
XOY

YOZ

XOZ

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

915MHz



XOY

YOZ

XOZ