

1. Antenna Specification/天线标准

Electrical Specification/电气特性

Item/目录	Specification/规格	Comment/备注
Freq. Range/频段范围	470MH-510MHz	
Impedance/阻抗	50 (Ω)	
Directional/辐射方向	Omni Directional	
Polarization/极化形式	Vertical	
VSWR/驻波比	≤ 3.5	
Peak Gain/峰值增益	1.59dBi	
Total Efficiency/无源效率	$\geq 60\%$	
Test condition/测试条件	passive test (无源测试)	
Power/功率	5W	

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	RG-141	
Connector torque test/连接器扭力	N/A	
Connector pull test/连接器拉力	$\geq 3.0\text{Kgf}$	
Salt spray/盐雾测试	48(H)	
Waterproof grade/防水等级	IP66	对锁母头后测试

Environmental Specification /环境指标

Operating temp/工作温度	$-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$	
Storage temp/存储温度	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$	

Antenna Picture/天线图片

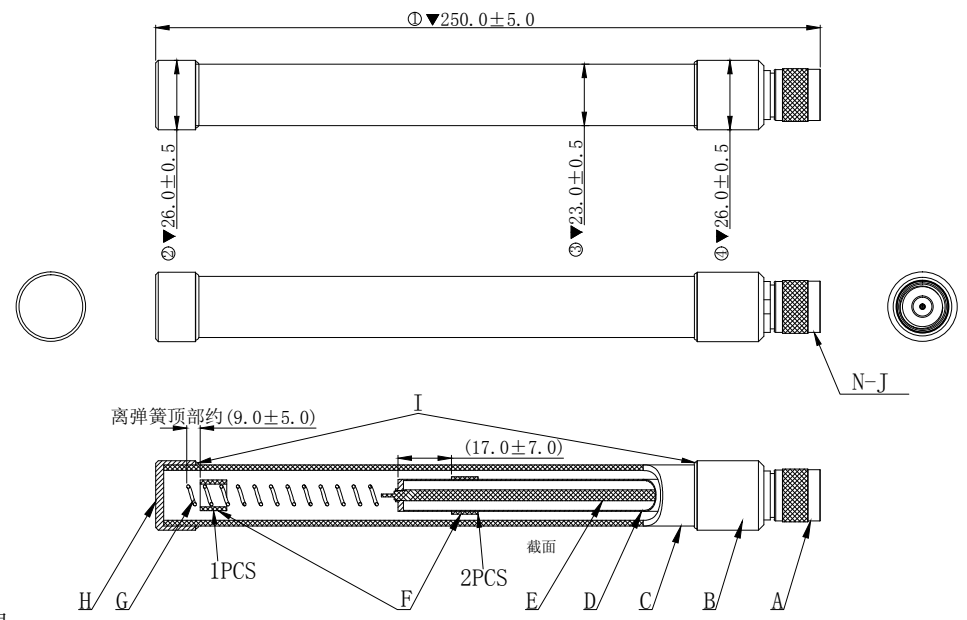
产品示意图片，待更新



此处插入天线图片

2. DWG/工程图纸

REV.	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
X1	ECN231366	REASE FOR PRODUCTION	06/25' 23	刘晓峰	丁第斌	牛宝星



NOTES:

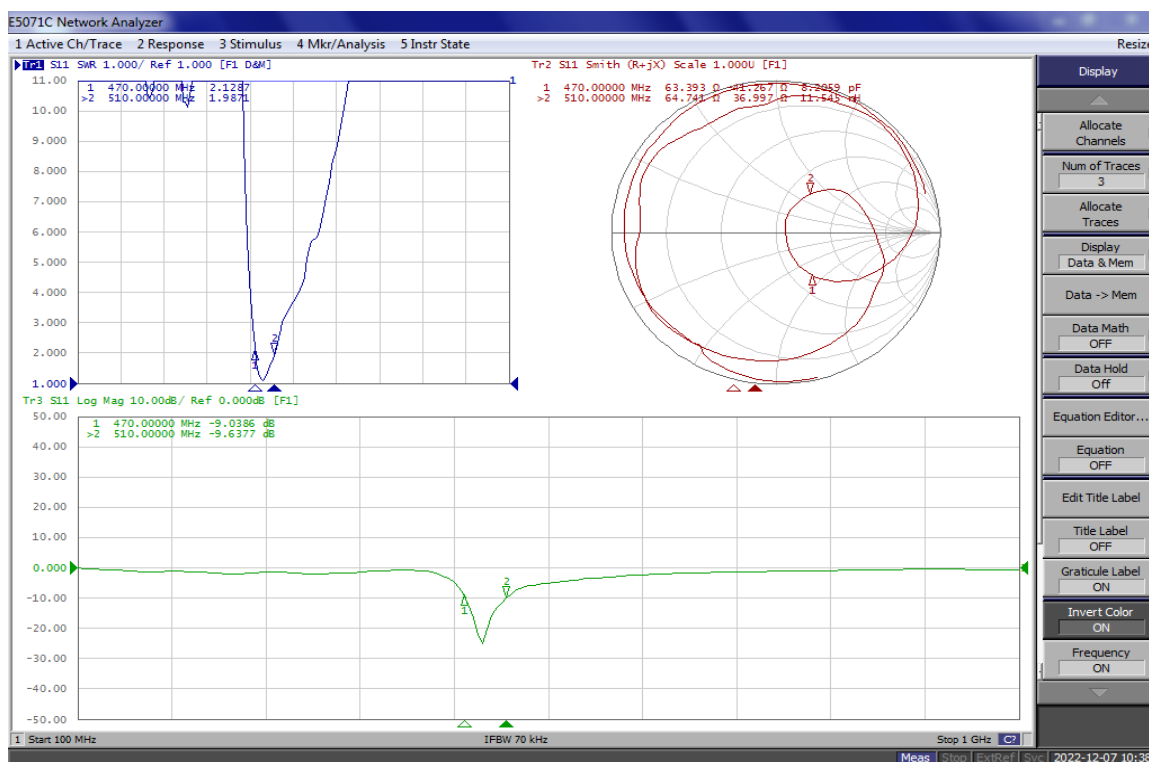
1. 无明显压痕、无毛刺、划伤、变形等不良。
NO OBVIOUS INDENTATION, NO BURR, SCRATCHES, DEFORMATION AND OTHER BAD.
2. 盐雾: 48H.
SALT SPRAY: 48H.
3. VSWR测试: 470-510MHz ≤ 3.5
网分带宽设置: 100MHz-1000MHz
VSWR TEST: 470-510MHz ≤ 3.5
Network bandwidth is set: 100MHz-1000MHz
4. 标有“⊗”为FAI首件全检尺寸。
MARK “⊗” WAS FAI DIMENSIONS.
5. 标有“▼”为QC重点检测尺寸。
MARK “▼” WAS CRITICAL DIMENSIONS.
6. 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。
HSF SHALL CONFORM TO THE STANDARD QE-Q-19-001 ENVIRONMENTAL HAZARDOUS SUBSTANCES MANAGEMENT.

I	胶水	1	AB胶, NO. 660-4, 50ML/支, 华麟电子
H	顶帽	1	顶帽, 15*OD26mm, 接OD23mm玻璃钢, 48H盐雾
G	弹簧	1	Lora玻璃钢天线-弹簧OD1.2*77.1mm, 弹簧钢, 镀镍
F	泡棉	3	防震棉50*10mm, T=1.0mm, EVA, 黑色
E	CABLE	1	RG141/50欧姆, 镀银铜线, 蓝色表皮, L=144MM
D	铜管组件	1	Lora玻璃钢天线-铜管组件OD12*121mm
C	玻璃钢管	1	Lora玻璃钢管, 白色, OD23*217mm
B	铝管固定件	1	铝管固定件, OD26*25mm, 接OD23mm玻璃钢, 48H盐雾
A	N头连接器	1	N公头公针, FOR RG141, 主体黄铜镀镍, 中心针镀金, 48H盐雾
ITEM	PART NAME	Q'TY	MATERIAL / FINISH

	GENERAL TOLERANCE		SCALE: 1:1	DRAWN: 刘晓峰	DATE: 06/25' 23	DWG. NO: 600-V372-01	TITLE: ANT_EX_Lora_HG26*250mm_N-J-W	REV. X1
	X ± 0.20	X.° ± 1°	UNIT: mm	CHECK:	DATE:	PARTS NO. (INTENDED USE): 81800V372	Customer Figure	SHEET: 1/1
	.XX ± 0.10	XX.° ± 1°	SIZE: A4	APPROVE:	DATE:			

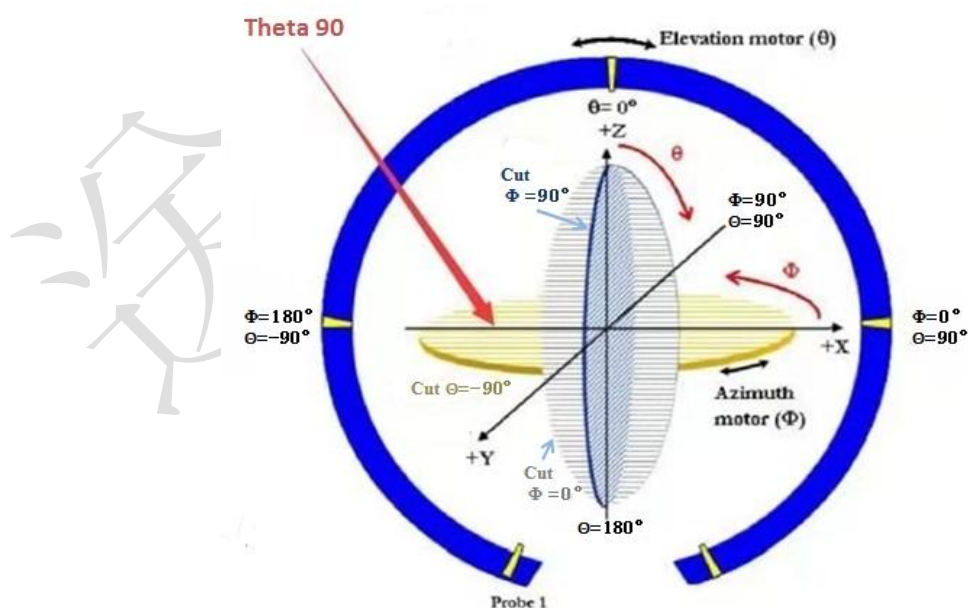
4. Antenna test result/测试结果

4.1 Isolation degree/ VSWR/驻波比

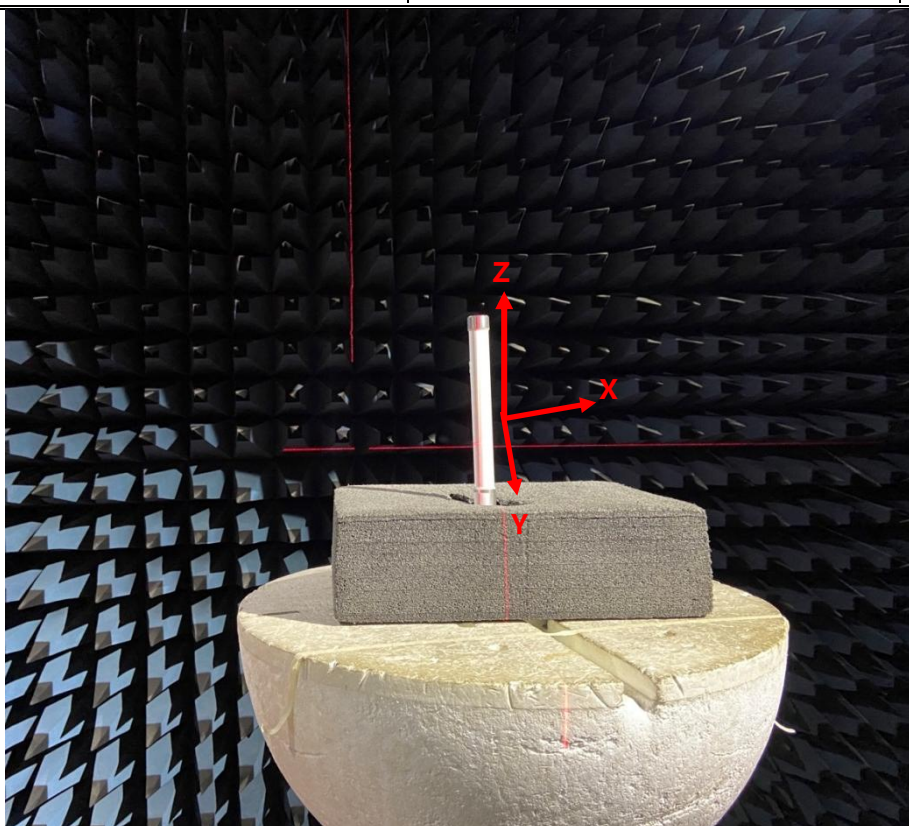


4.2 The gain and total efficiency test/增益和效率测试

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

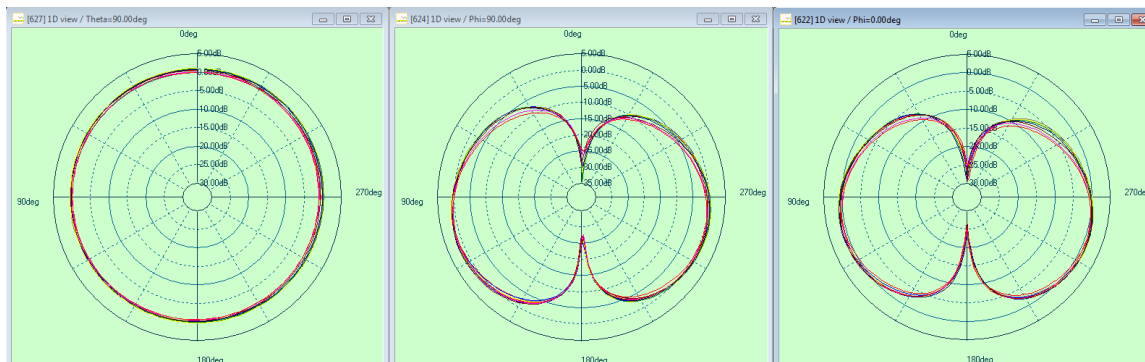
4.2.2 The test result of total efficiency and total gain/天线效率及增益测试结果

470MHz-510MHz

Frequency	Gain (dBi)	Efficiency(%)
470MHz	1.03	67%
475MHz	1.29	74%
480MHz	1.16	74%
485MHz	1.42	77%
490MHz	1.44	76%
495MHz	1.59	74%
500MHz	1.53	72%
505MHz	1.13	66%
510MHz	1.00	64%
AVG	1.29	72%

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

470MHz-510MHz



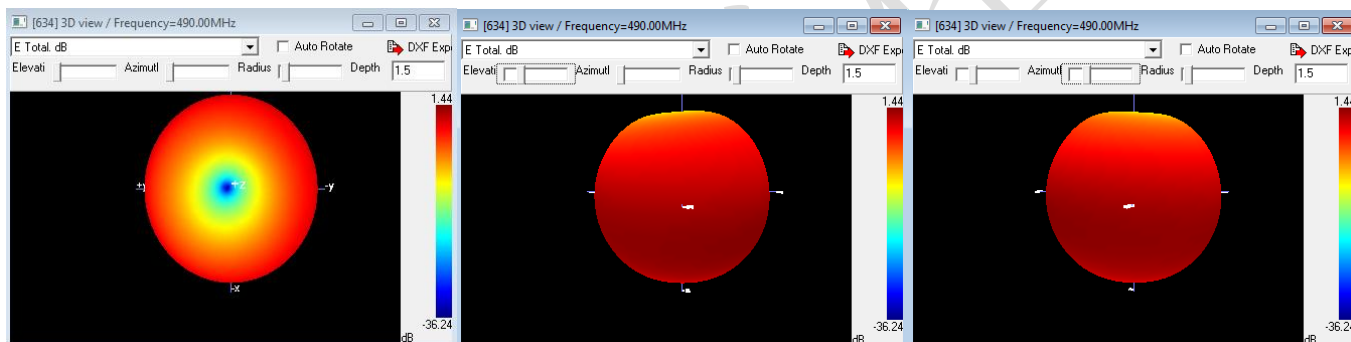
X0Y

Y0Z

X0Z

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

490MHz



X0Y

Y0Z

X0Z