

1. Antenna specification/天线标准

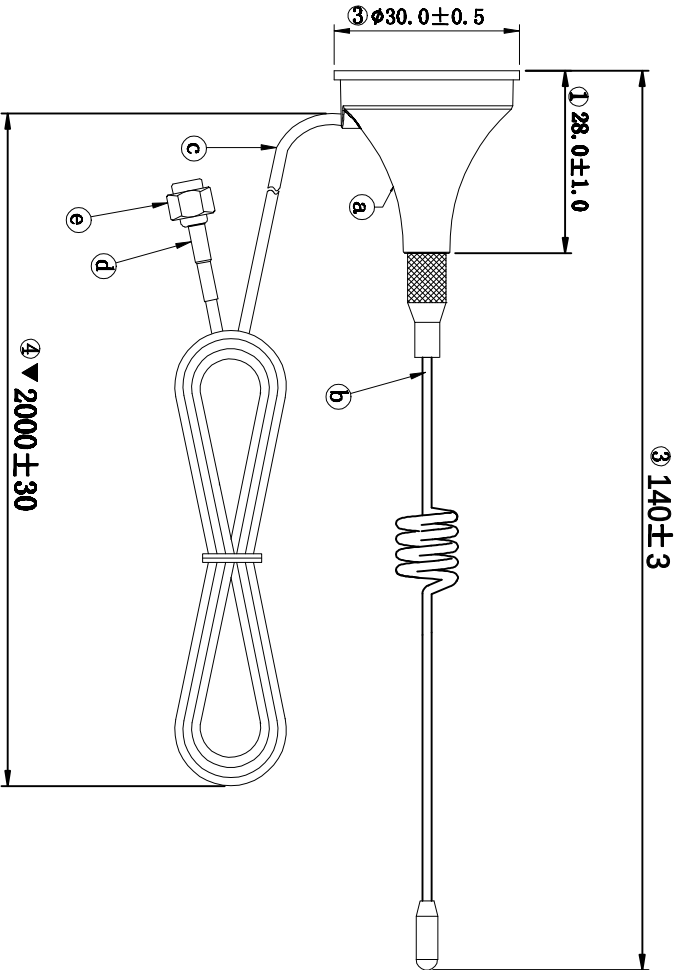
Antenna specification/天线技术参数		
Electrical specification/电气特性		
Item/目录	Specification/规格	Comment/备注
Freq. range/频段范围	2400-2500 (MHz)	
Impedance/阻抗	50 (Ω)	
VSWR/驻波比	≤ 2.5	
Directional/辐射方向	Omni directional	
Polarization/极化形式	Vertical	
Peak gain/峰值增益	0.1 (dBi)	
Test condition/测试条件	passive test (无源测试)	
Total efficiency/无源效率	> 30%	
Mechanical Specification/机械指标		
Antenna type/天线类型	吸盘天线	
Connector type/连接器类型	SMA 公头母针	
RF cable type/射频线型号	RG174	
Connector torque test/连接器扭力	N/A	
Connector pull test/连接器拉力	$\geq 1.5\text{Kgf}$	
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 ~ +85°C	

2. Antenna picture/天线图片



片

REV.		ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
A		ECNxxxxxx	FIRST RELEASE	07/14' 21	刘晓峰	丁第斌	张英杰



- NOTES:
- 频率范围：2400-2500MHz；驻波比：2400-2500 MHz≤2.5
 - 测试设备：网络分析仪
 - 焊接点牢固，无假焊、虚焊、漏焊等不良现象，焊点饱满、光泽。
 - 成品表面整洁，无脏污、溢胶、刮花等不良现象。
 - 标有“ ”为QC重点检测尺寸。
 - 产品须符合本公司ROHS等相关测试要求，不做卤素管控

e	连接器	1	SMA-J公头母针，黄铜 镀金 For RG-174电缆
d	热缩管	1	黑色PE料，外径Φ3.5MM，L=18mm
c	cable	1	RF Coaxial Cable, RG-174, ϕ 2.0mm, 黑色外被 L2020mm
b	弹簧杆	1	40#弹簧杆， ϕ 1.0mm弹簧钢，L=112mm, 电泳
a	磁道底座组合件	1	0030*28mm, ABS757, 黑色，磨砂面（配槽柱、铁夹、磁铁、磁铁座、贴片）
ITEM	PART NAME	Q'TY	MATERIAL / FINISH

DWG. NO:	600-UX12-01	TITLE:	REV.
PARTS NO. (INTENDED USE):	81800UX12	ANT_EX_0727_AB01 (30mm) RG174_L2M_SMA-母	A
		客户图	SHEET: 1/1

GENERAL TOLERANCE		SCALE:	DRAWN:	DATE:
X. ± 1.0	XX. ° ± 5°	1:1	刘晓峰	07/14' 21
.X ± 1.0	X. ° ± 2°	UNIT: mm	CHECK:	DATE:
.XX ± 1.0	.X ° ± 1°	SIZE: A4	APPROVE:	DATE:



A

B

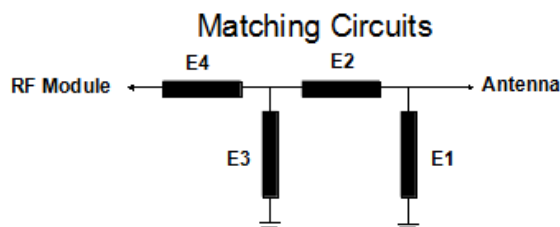
C

D

E

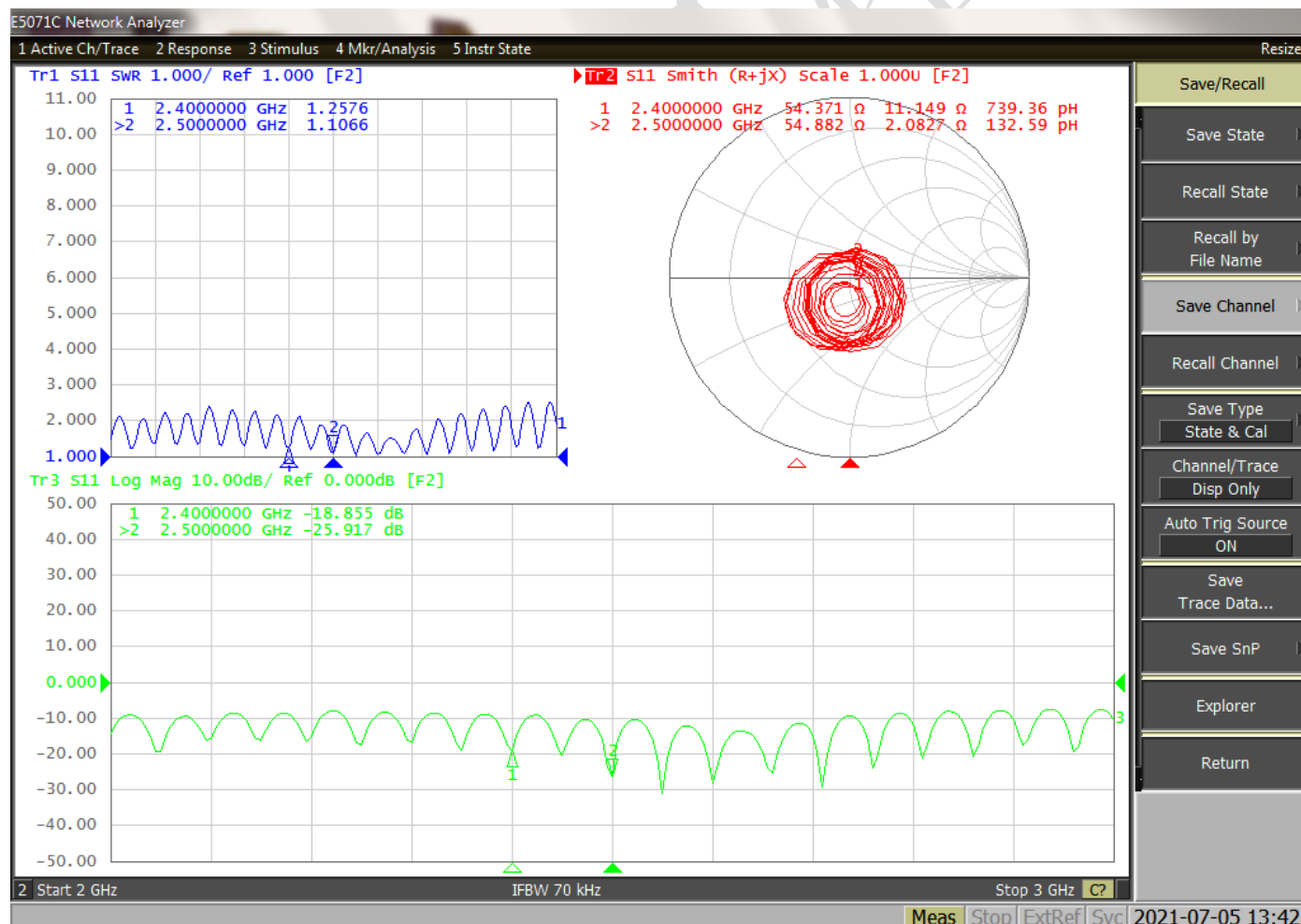
4. Antenna test result/测试结果

4.1 The matching circuits/匹配电路



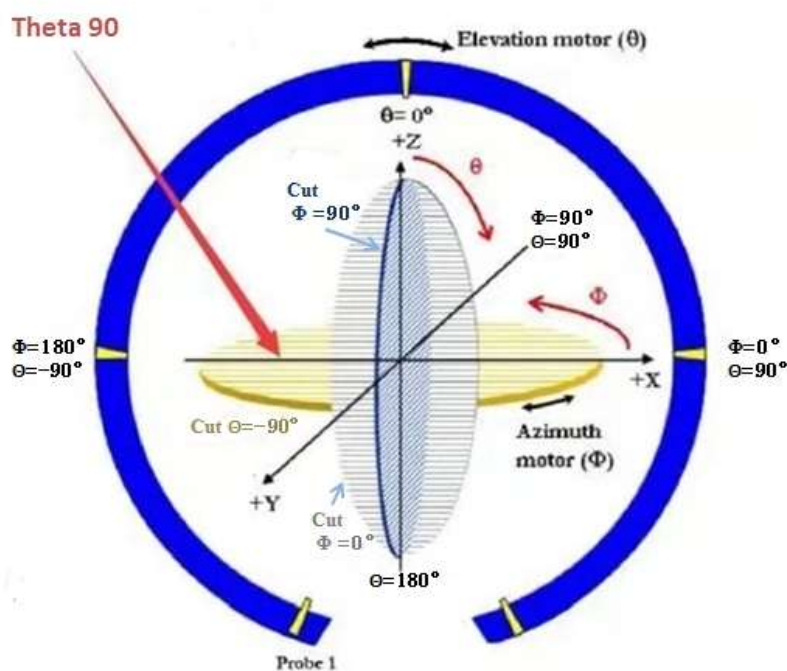
Element	Value
E1(0201)	NC
E2(0201)	0 Ω
E3(0201)	NC
E4(0201)	0 Ω

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

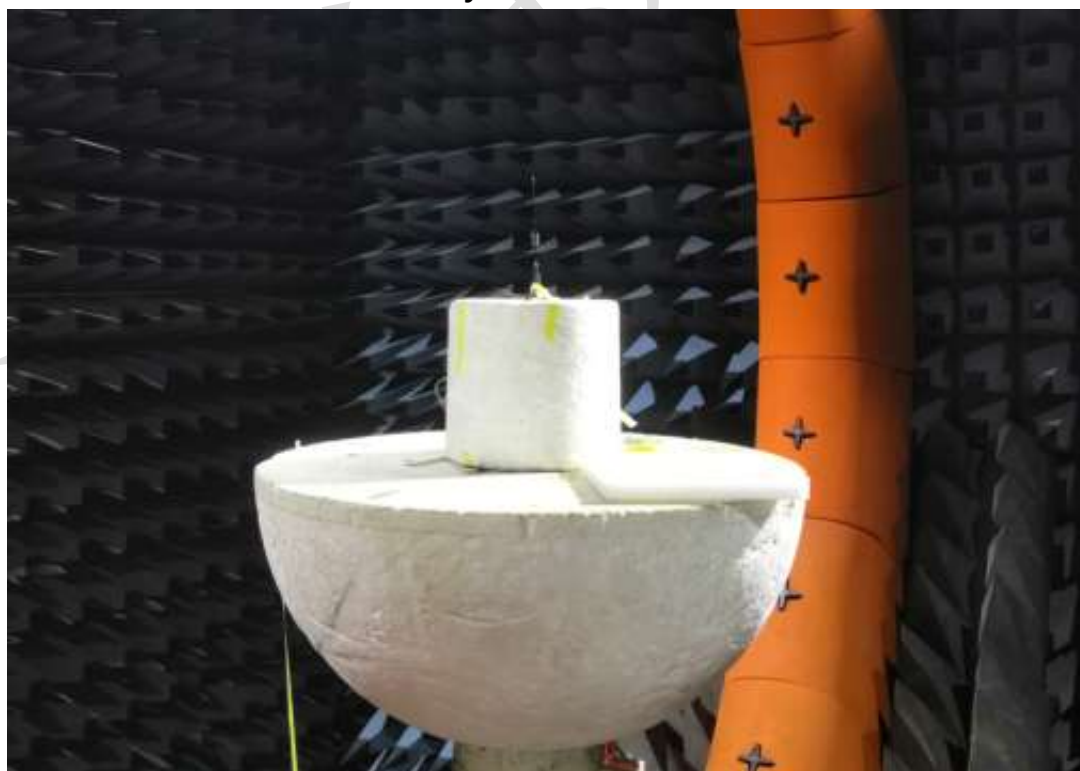


4.3 The gain and total efficiency test/增益和效率测试

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

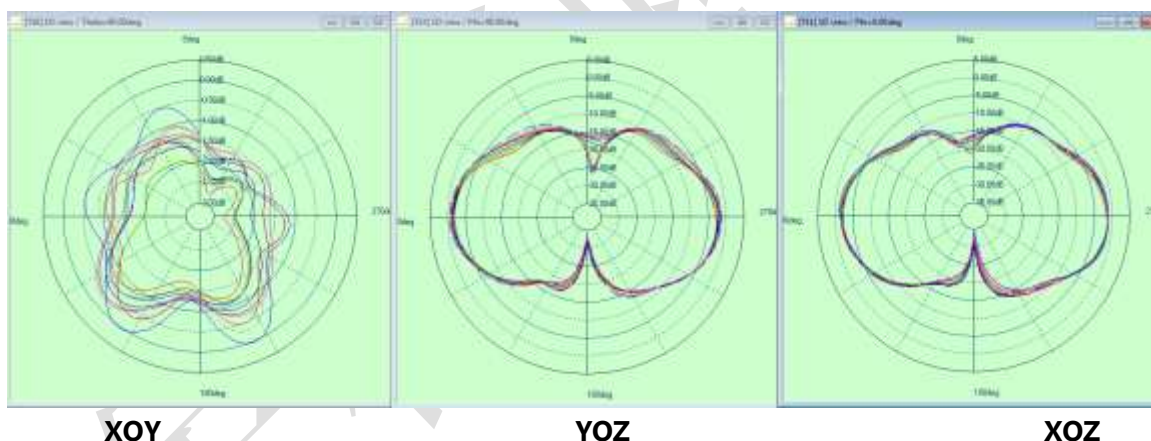
4.3.2 The test result of total efficiency and total gain/天线效率及增益测试结果

413MHz-453MHz

Frequency	Efficiency(%)	Gain (dBi)
2400MHz	29%	-0.80
2410MHz	29%	-0.62
2420MHz	29%	-0.64
2430MHz	28%	-0.84
2440MHz	28%	-0.84
2450MHz	30%	-0.47
2460MHz	32%	-0.32
2470MHz	33%	-0.24
2480MHz	32%	-0.27
2490MHz	33%	-0.25
2500MHz	34%	0.15
AVG	31%	-0.47

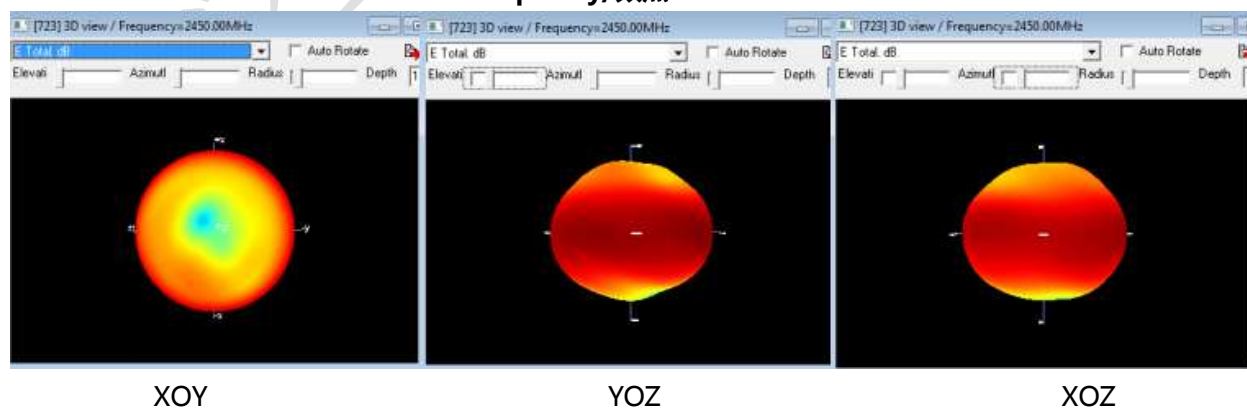
4.3.3 The antenna radiation pattern(1D View)/天线辐射方向图 (1D View)

2400MHz-2500MHz



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

Frequency/频点 2450MHz



海祥规格书