

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	901-915MHz	
Impedance/阻抗	50 (Ω)	
VSWR/驻波比	<2.5	
Directional/辐射方向	Omni directional/全向天线	
Polarization/极化形式	Vertical Polarization/垂直极化	
Peak Gain/峰值增益	1.78dBi	
Test condition/测试条件	passive test (无源测试)	
Total Efficiency/无源效率	40%	

Mechanical Specification/机械指标

Antenna type/天线类型	外置天线	
Connector Type/连接器类型	RPSMA-J	
RF Cable Type/射频线型号	RG178	
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	24 (H)	

Environmental Specification /环境指标

Operating temp/工作温度	-40°C ~ +75°C	
Storage temp/存储温度	-40°C ~ +75°C	

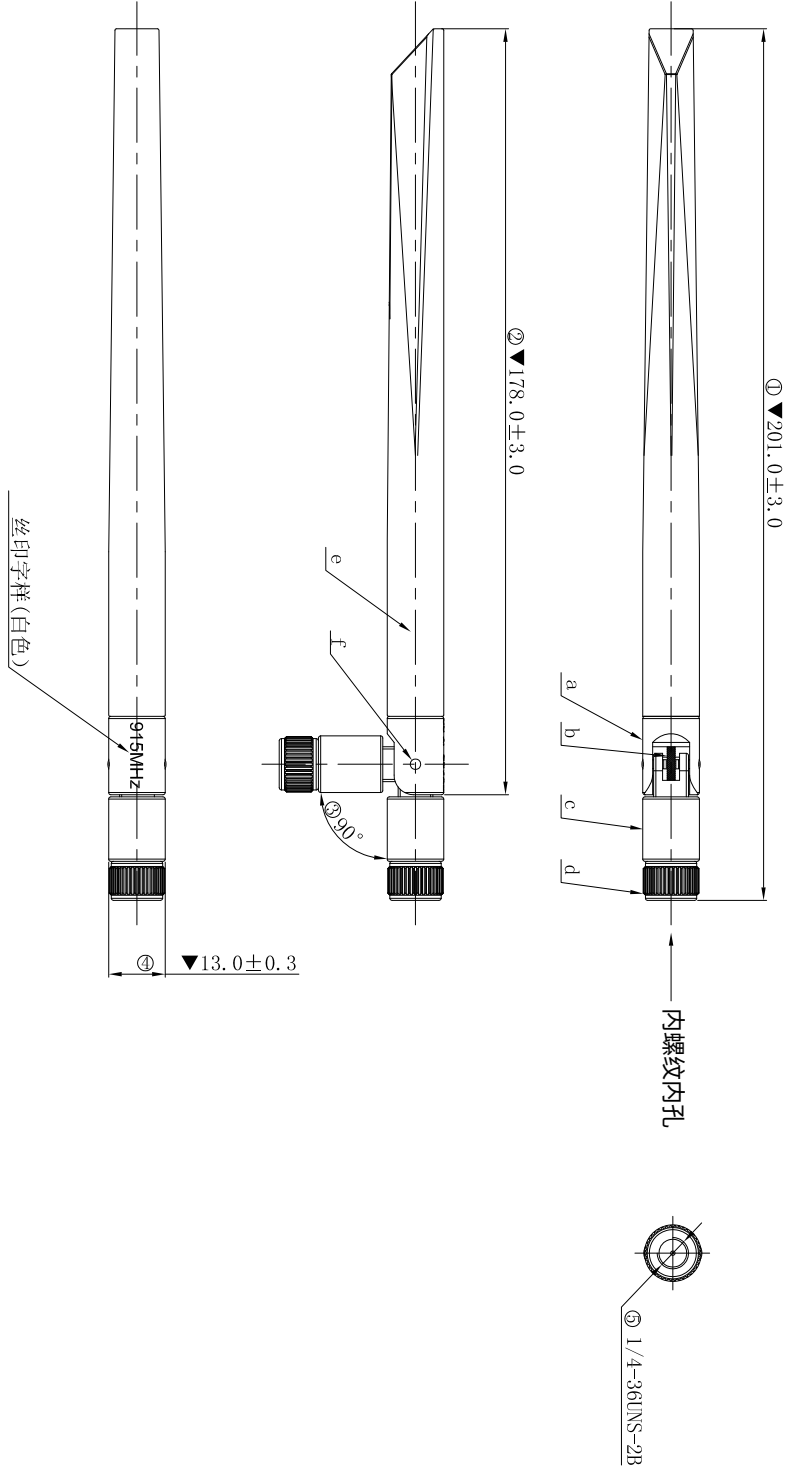
2. Antenna Picture/天线图片



3. DWG/工程图纸

REV.	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
X1	ECN*****		121323	刘晓峰	丁第斌	牛宝星

RoHS



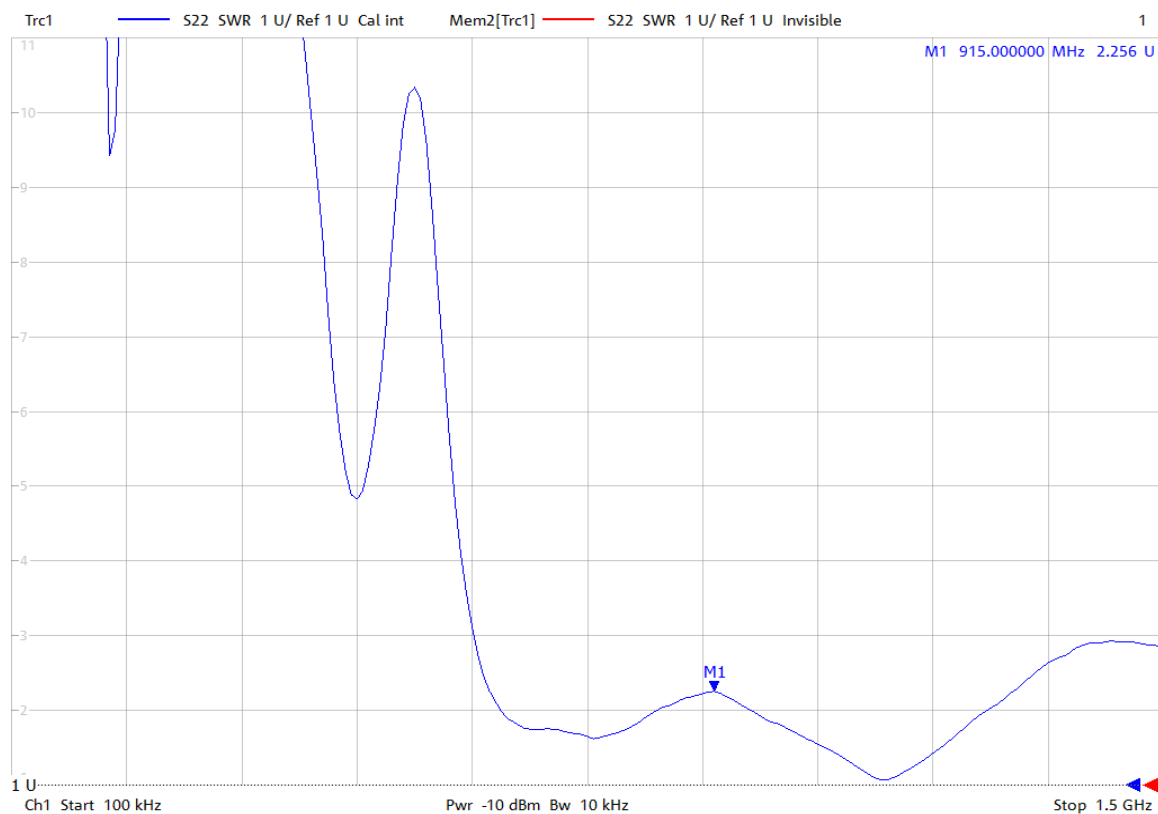
- 注:
- 各部件装配完后不得有油污、划痕、变形等外观不良.
 - 各部件装配完成后无明显色差.
 - 本体与连接轴的装配后保持力: 3KG MIN;
 - 标有“▼”为QC重点检测尺寸
 - 频率: 915MHz <2.5
 - 测试仪器: 网络分析仪
 - 丝印字迹要求: 清晰, 工整;
 - 有害物质须符合ECT《QE-Q-19-001-环境有害物质管理基准》管控标准.

f	销钉	2	POI, 黑色
e	杆套	1	TPDE, 黑色
d	连接器	1	内螺纹内孔, 黑色, 包胶结构
c	下固	1	PC+PBT, 黑色
b	Cable	1	cable, RG178 (棕色)
a	上固	1	PC+PBT, 黑色
ITEM	PART NAME	Q' TY	MATERIAL / FINISH

	GENERAL TOLERANCE		SCALE:	DRAWN:	DATE:	DWG. NO:	PARTS NO. (INTENDED USE): 81800VXX5	TITLE: ANT_EX_915_201*1.3MM_B_RPSMA-J 客户图	REV. X1
	XX. ± 2.00	XX. ° ± 3°	1:1	刘晓峰		600-VXX3-01			
	X. ± 1.00	X. ° ± 2°	UNIT: mm	CHECK:	DATE:				
	X ± 0.50	X° ± 1°	SIZE: A4	APPROVE:	DATE:				SHEET: 1/1

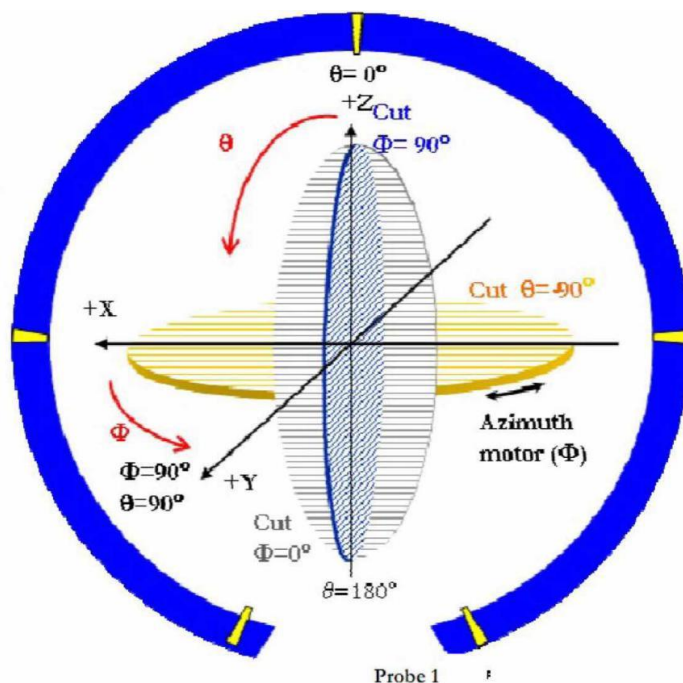
4. Antenna test result/测试结果

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

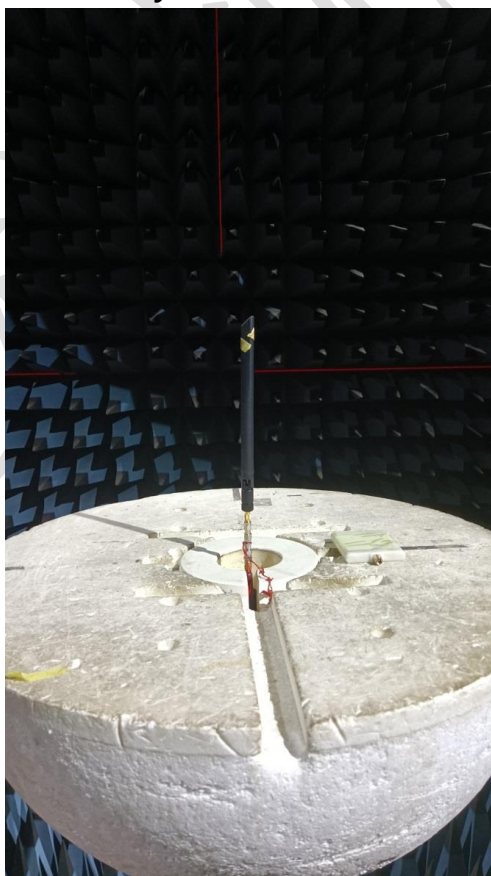


4.2 The gain and total efficiency test/增益和效率测试

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

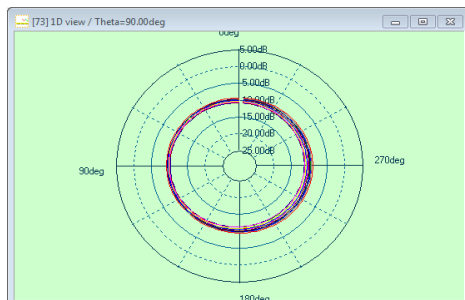
4.2.2 The test result of total efficiency and total gain/天线效率及增益测试结果

901MHz-931MHz

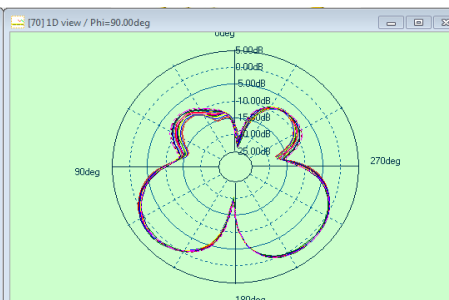
Frequency	Efficiency (%)	Gain(dBi)
901MHz	42%	1.68
903MHz	41%	1.57
905MHz	41%	1.59
907MHz	42%	1.68
909MHz	43%	1.78
911MHz	43%	1.71
913MHz	41%	1.46
915MHz	40%	1.30
917MHz	41%	1.40
919MHz	43%	1.59
921MHz	43%	1.49
923MHz	40%	1.15
925MHz	39%	0.95
927MHz	40%	1.08
929MHz	42%	1.25
931MHz	42%	1.20

4.2.3 The antenna radiation pattern(2D)/天线辐射方向图 (2D)

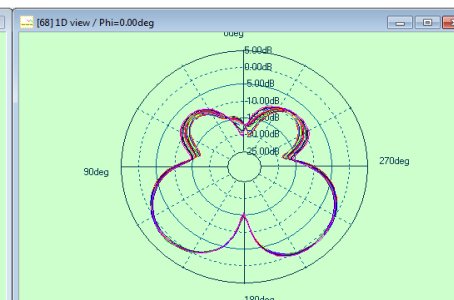
901MHz -931MHz



XOY



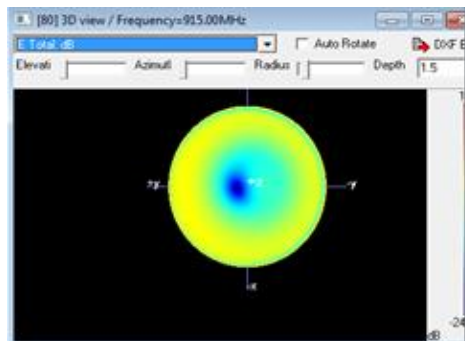
YOZ



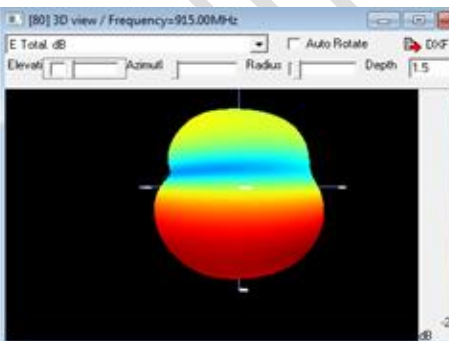
XOZ

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

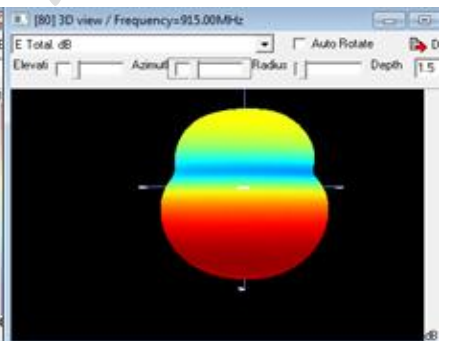
Frequency/频点 915MHz



XOY



YOZ



XOZ