

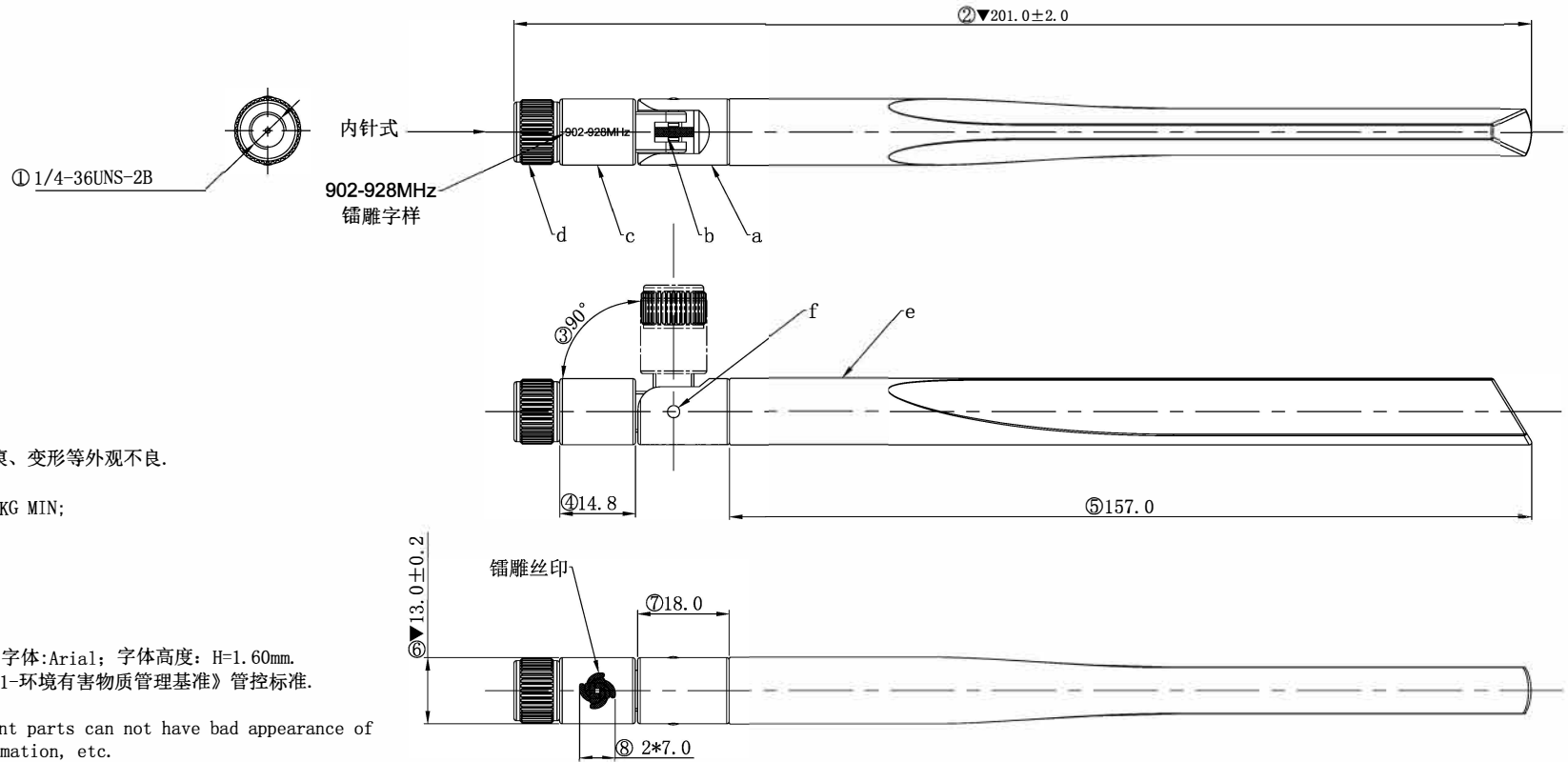
1. Antenna Specification/天线标准

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 (Ω)	
VSWR/驻波比	<2.0	
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	2.37dBi	
Test condition/测试条件	passive test (无源测试)	
Total Efficiency/无源效率	>75%	
Mechanical Specification/机械指标		
Antenna type/天线类型	胶棒天线	
Connector Type/连接器类型	SMA-J(公头母针)	
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	48 (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



REV.	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
X1	ECN225538	初版发行	11/02' 22	梁兑泉	丁第斌	牛宝星



备注:

- 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;
连接器扭力为: 0.2~0.6 Kg-cm.
- 标有“▼”为QC重点检测尺寸
- 频率: 902MHz-928MHz
VSWR: ≤2.0.

测试仪器: 网络分析仪

- 丝印要求: 镭雕字迹清晰, 工整. 字体: Arial; 字体高度: H=1.60mm.
- 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.

NOTES:

- After the assembly of different parts can not have bad appearance of greasy dirt, scratches, deformation, etc.
- The assembly after the completion of the various components without clear off color.
- The ontology and the connecting shaft assembly after retention: 3kg MIN;
Connector torque is: 0.2~0.6 Kg - cm.
- Marked with “▼” key size detection for QC
- Frequency: 902MHz-928MHz,
VSWR: ≤2.0.
Testing instrument: network analyzer
- Screen printing requirements: radium vulture clear, neat. The font: Arial;The font height: H = 1.60 mm.
- HSF shall conform to the standard QE-Q-19-001 Environmental Hazardous Substances Management.

f	销钉	2	销钉, OD2.4*5.5mm, POM, 白色
e	杆套	1	杆套, OD13*157 mm, TPEE, 白色
d	连接器	1	SMA-J(公头母针), 白色, 塑料
c	下固	1	下固, OD13*14.5mm, PC+PBT, 白色
b	Cable	1	cable, RG178(棕色)
a	上固	1	上固, OD13*18mm, ABS, 白色
ITEM	PART NAME	Q' TY	MATERIAL / FINISH



GENERAL TOLERANCE	
XX. ± 2.00	XX. ° ± 3°
X. ± 1.00	X. ° ± 2°
.X ± 0.50	.X° ± 1°

SCALE:	1:1
UNIT:	mm
SIZE:	A4

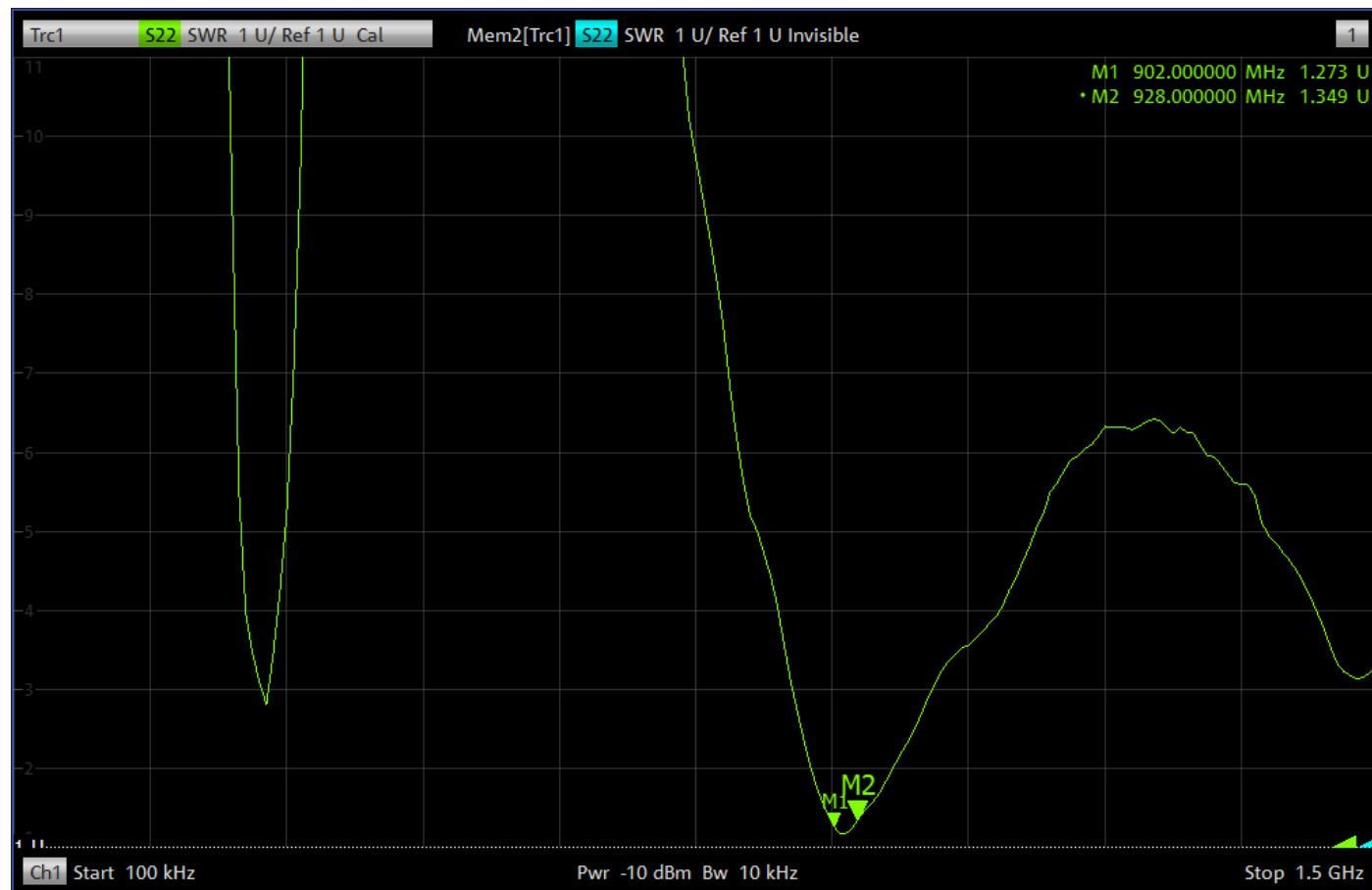
DRAWN:	梁兑泉
CHECK:	
APPROVE:	

DATE:	11/02' 22
DATE:	
DATE:	

DWG. NO:	600-V294-01
PARTS NO. (INTENDED USE):	81800V294
TITLE:	ANT_EX_915_201*13_WT_RP-SMA-J_A
REV.	X1
SHEET:	1/1

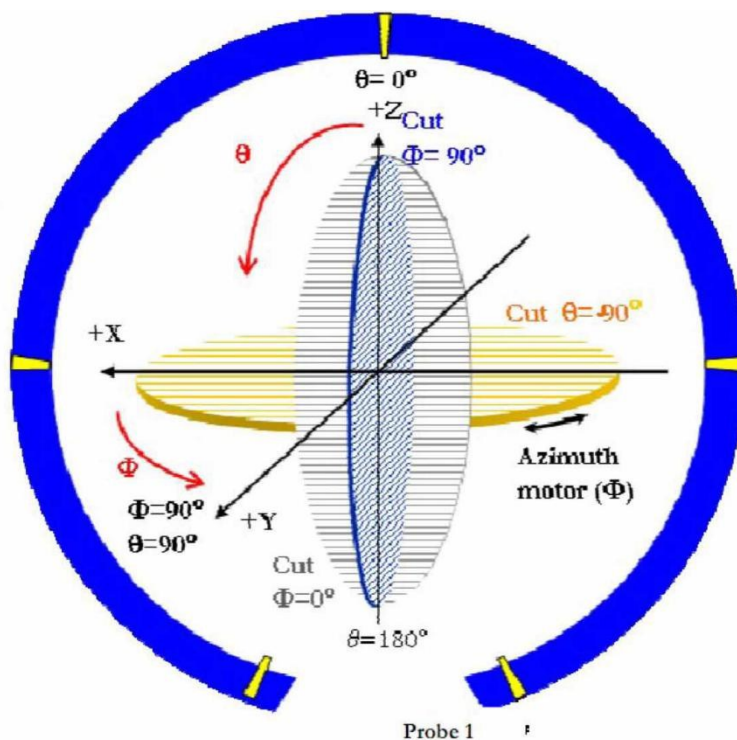
4. Antenna test result/测试结果

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

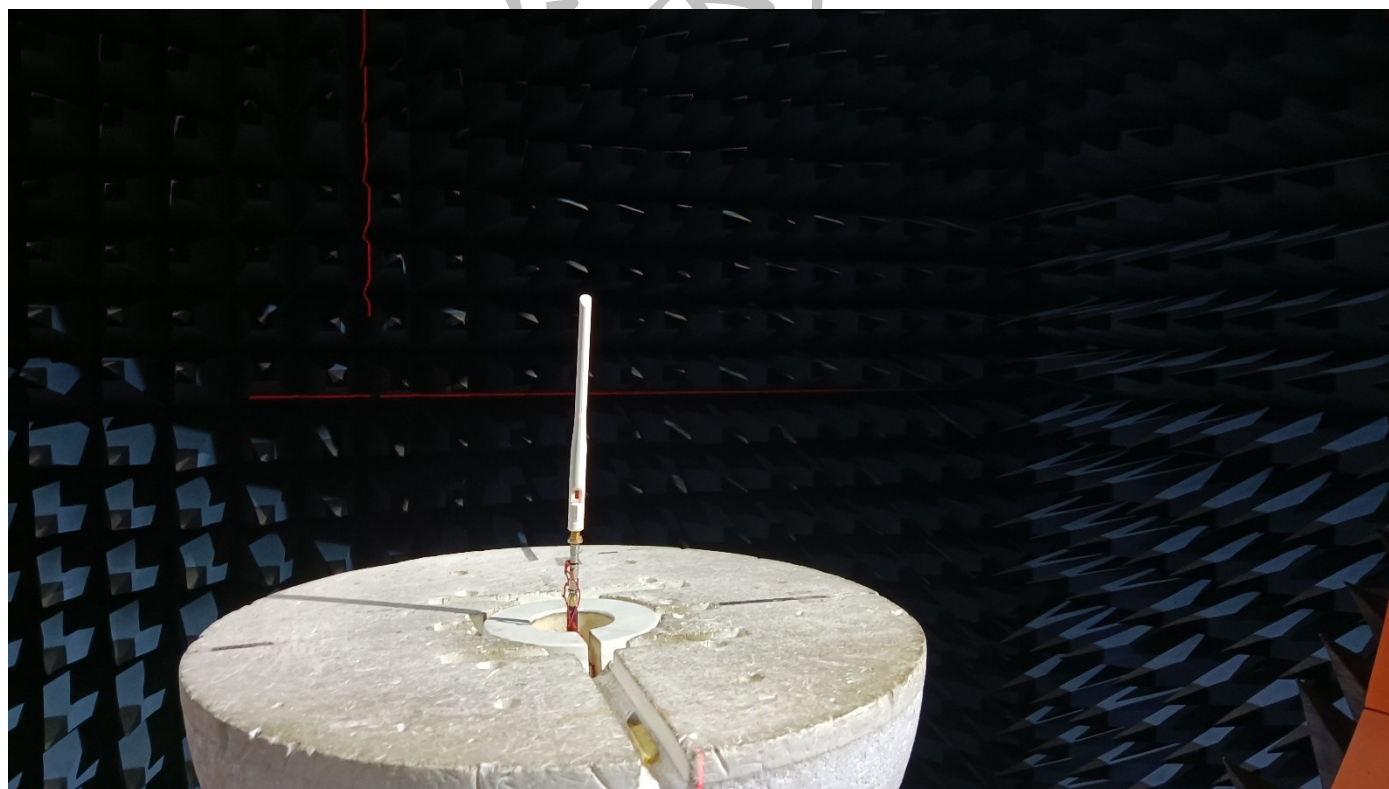


4.2 The gain and total efficiency test/增益和效率测试

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



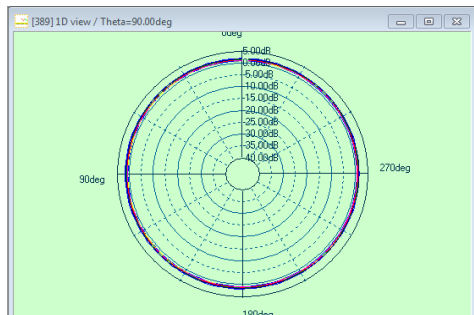
The production test position/天线测试放置位置

4.2.2 The test result of total efficiency and total gain/天线效率及增益测试结果**902MHz-928MHz**

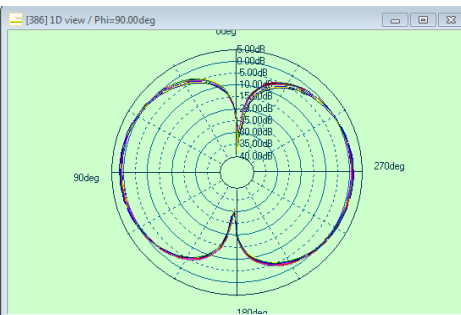
Frequency	Efficiency (%)	Gain(dBi)
902MHz	77%	1.54
904MHz	77%	1.47
906MHz	78%	1.47
908MHz	81%	1.61
910MHz	84%	1.83
912MHz	84%	1.89
914MHz	80%	1.72
916MHz	79%	1.62
918MHz	82%	1.85
920MHz	88%	2.13
922MHz	87%	2.37
924MHz	81%	2.11
926MHz	79%	2.05
928MHz	82%	2.26
AVG	81%	1.85

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

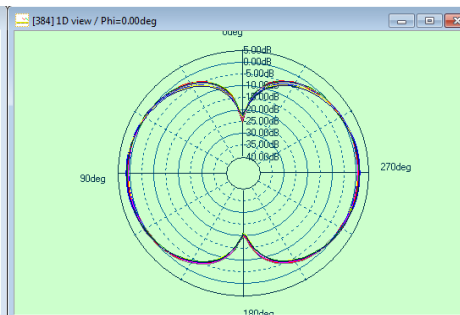
902MHz -928MHz



XOY



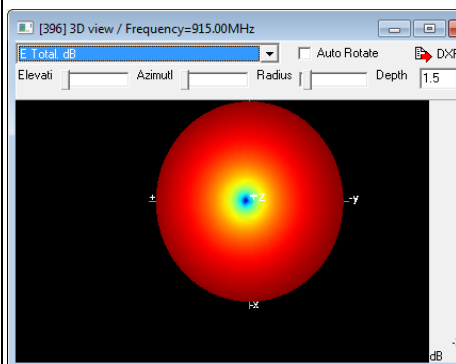
YOZ



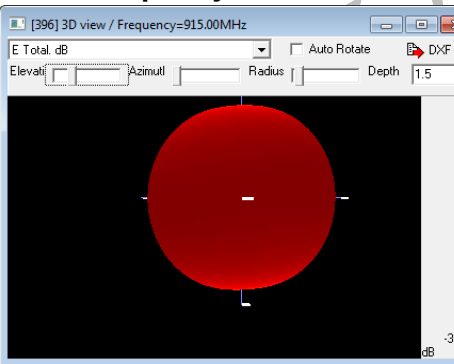
XOZ

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

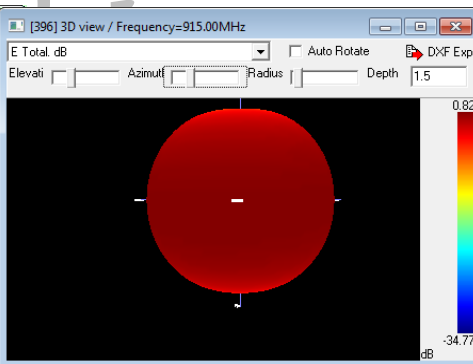
Frequency/频点 915MHz



XOY



YOZ



XOZ