

产品规格书

Product Specification

P/N:

81800V351

Title :

ANT_EX_860~930MHz_SMA-J_OD8*45mm-FCC

Rev.	ECN	Release and Revision Description	Prepared By/Date:	Approved By/Date:
A	ECN232327	正式发行	刘晓峰 2024.09.03	丁第斌 2024.09.03

1. Antenna Specification/天线标准

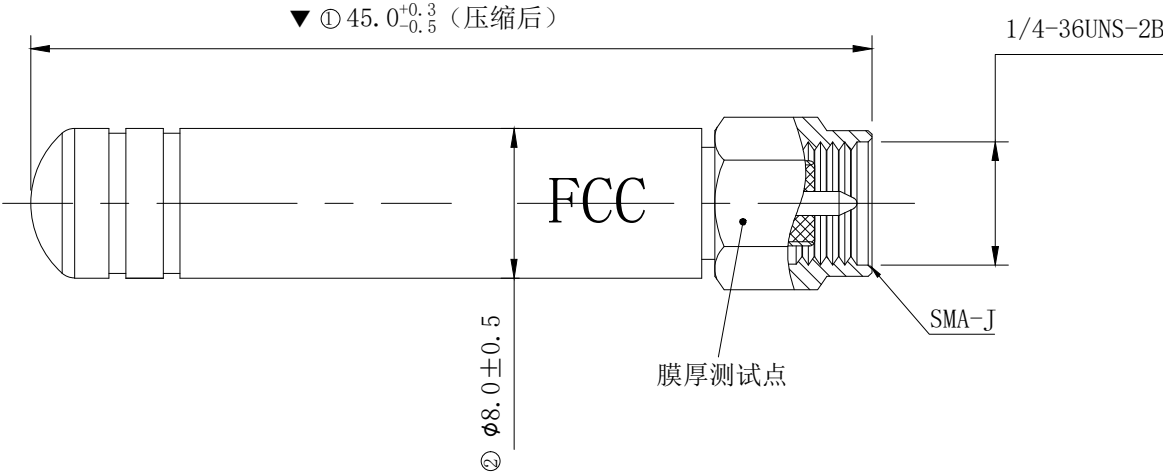
Antenna Specification/天线技术参数		
Electrical Specification/电气特性		
Item/目录	Specification/规格	Comment/备注
Freq. Range/频段范围	860MHz ~ 930MHz	
Impedance/阻抗	50 (Ω)	
VSWR/驻波比	<3.0	
Directional/辐射方向	Omni directional	
Polarization/极化形式	Vertical	
Peak Gain/峰值增益	1.71dBi	
Test condition/测试条件	passive test (无源测试)	
Total Efficiency/无源效率	$\geq 35\%$	
Mechanical Specification/机械指标		
Antenna type/天线类型	胶棒天线	
Connector Type/连接器类型	SMA PLUG(公头公针)	
RF Cable Type/射频线型号	/	
Connector Torque Test/连接器扭力	/	
Connector Pull Test/连接器拉力	/	
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	
Manufacturer/制造商	电连技术股份有限公司	
Address/地址	中国广东省深圳市光明区公明街道西田社区锦绣工业园	

2. Antenna Picture/天线图片



文档密级：
商业秘密

REV.	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
A	ECN232327	初版发行	09/03' 24	刘晓峰	丁第斌	牛宝星



- 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.
 - 标有“▼”为QC重点检测尺寸
 - 频率：860MHz-930MHz VSWR<3.0
测试仪器：网络分析仪
网分带宽设置：100MHz-1500MHz
 - 须符合ROHS指令.
- NOTE:
- 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.
 - MARKED WITH “▼” KEY SIZE DETECTION FOR QC
 - FREQUENCY: 860MHz-930MHz VSWR<3.0
TESTING INSTRUMENT: NETWORK ANALYZER
NETWORK BANDWIDTH IS SET: 100MHz-1500MHz
 - SHOULD MEET THE ROHS DIRECTIVE.

a	胶杆天线	1	FCC_860~930MHz_SMA-J_OD8*45mm_镀金, 盐雾48H
ITEM	PART NAME	Q'TY	MATERIAL / FINISH
TITLE:			REV.
ANT_EX_860~930MHz_SMA-J_OD8*45mm-FCC			A
CUSTOMER DRAWING			SHEET:
1/1			



ELECTRIC
CONNECTOR
TECHNOLOGY

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

SCALE:	1:1
UNIT:	mm
SIZE:	A4

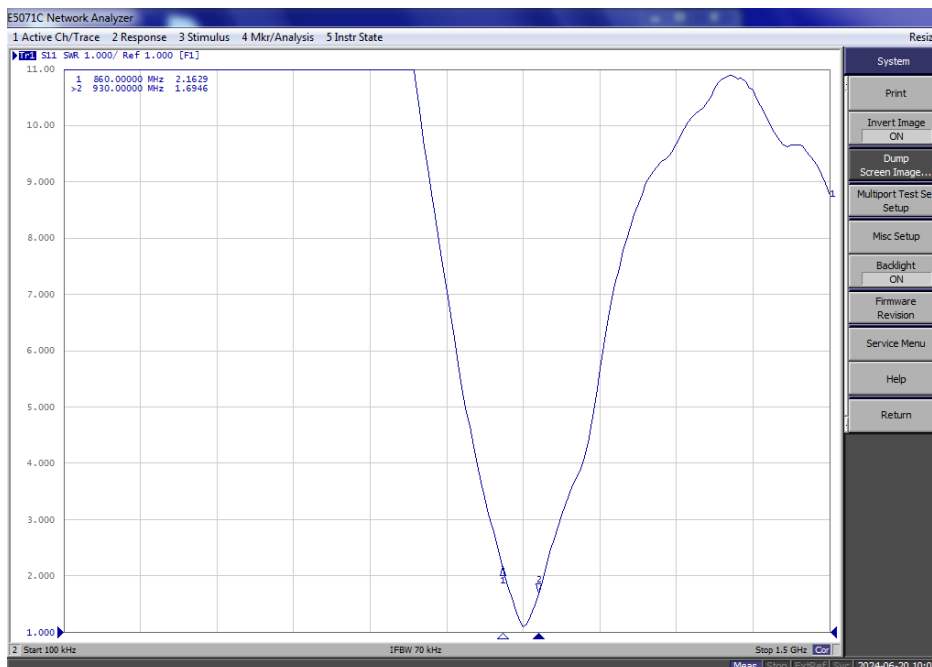
DRAWN:	刘晓峰	DATE:	09/03' 24
CHECK:		DATE:	
APPROVE:		DATE:	

DWG. NO:	600-V351-01
PARTS NO. (INTENDED USE):	81800V351

TITLE:	REV.
ANT_EX_860~930MHz_SMA-J_OD8*45mm-FCC	A
CUSTOMER DRAWING	SHEET:
1/1	

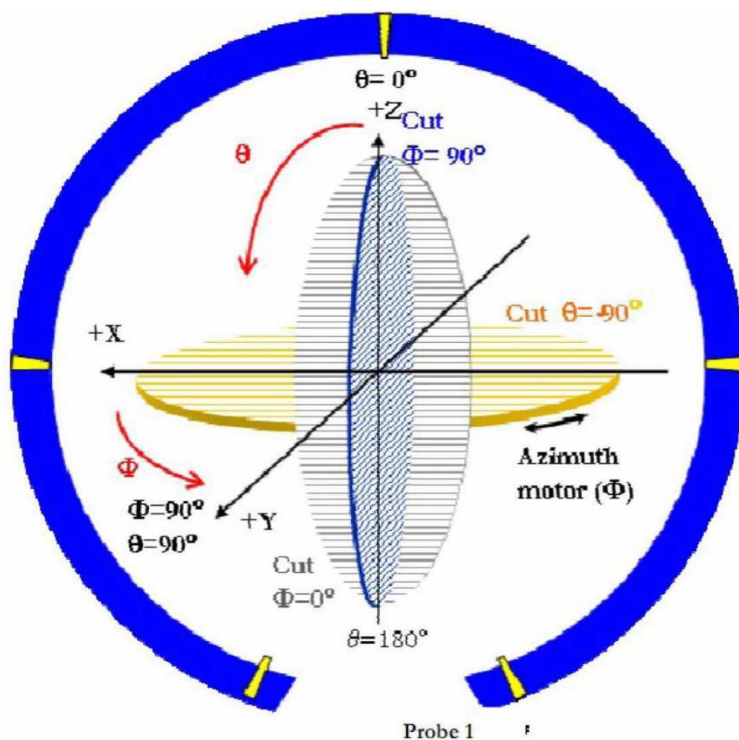
4. Antenna test result/测试结果

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

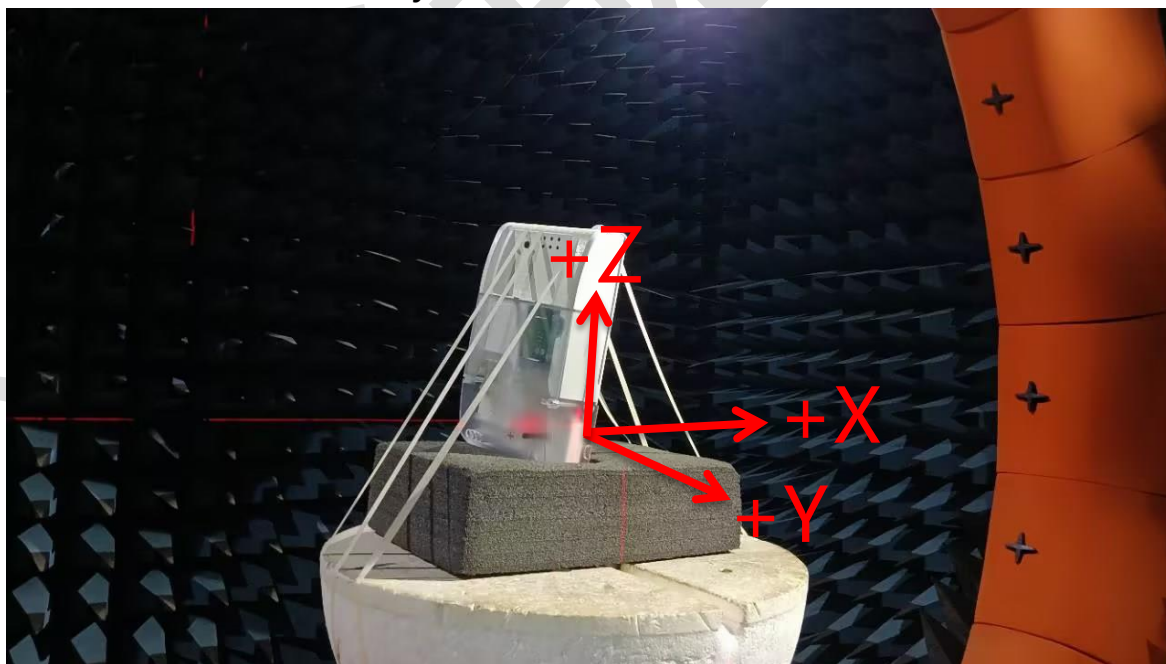


4.2 The gain and total efficiency test/增益和效率测试

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

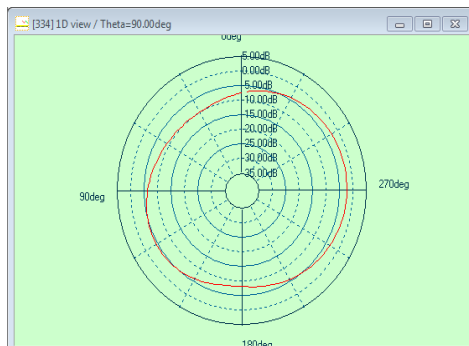
4.2.2 The test result of total efficiency and total gain/天线效率及增益测试结果

860MHz-930MHz

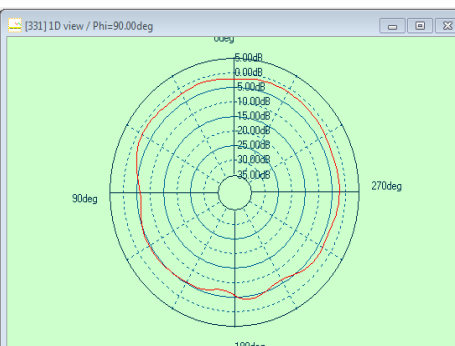
Frequency	Efficiency(%)	Gain (dBi)	Frequency	Efficiency(%)	Gain (dBi)
860MHz	35%	0.05	898MHz	45%	1.30
862MHz	36%	0.20	900MHz	44%	1.21
864MHz	36%	0.31	902MHz	45%	1.34
866MHz	37%	0.42	904MHz	46%	1.49
868MHz	37%	0.50	906MHz	47%	1.62
870MHz	38%	0.58	908MHz	47%	1.70
872MHz	39%	0.78	910MHz	47%	1.70
874MHz	40%	0.99	912MHz	46%	1.71
876MHz	41%	1.16	914MHz	46%	1.70
878MHz	41%	1.17	916MHz	45%	1.66
880MHz	40%	1.14	918MHz	44%	1.59
882MHz	41%	1.18	920MHz	42%	1.43
884MHz	43%	1.27	922MHz	42%	1.36
886MHz	44%	1.32	924MHz	42%	1.27
888MHz	43%	1.28	926MHz	41%	1.15
890MHz	42%	1.13	928MHz	40%	0.96
892MHz	43%	1.19	930MHz	39%	0.80
894MHz	44%	1.29	AVG	42%	1.16
896MHz	45%	1.35			

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

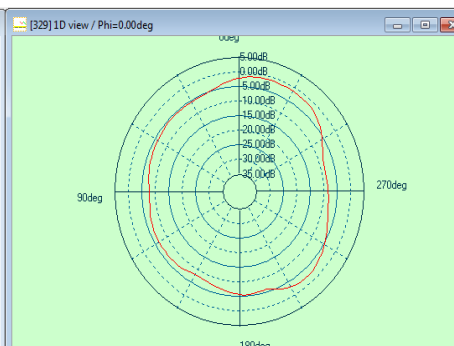
868MHz



XOY

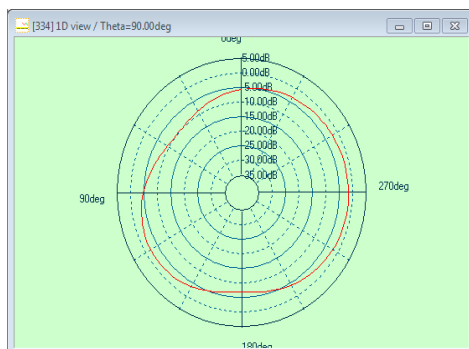


YOZ

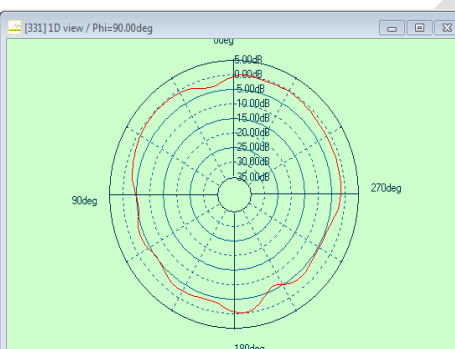


XOZ

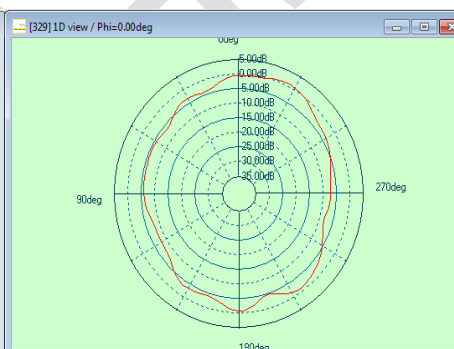
915MHz



XOY



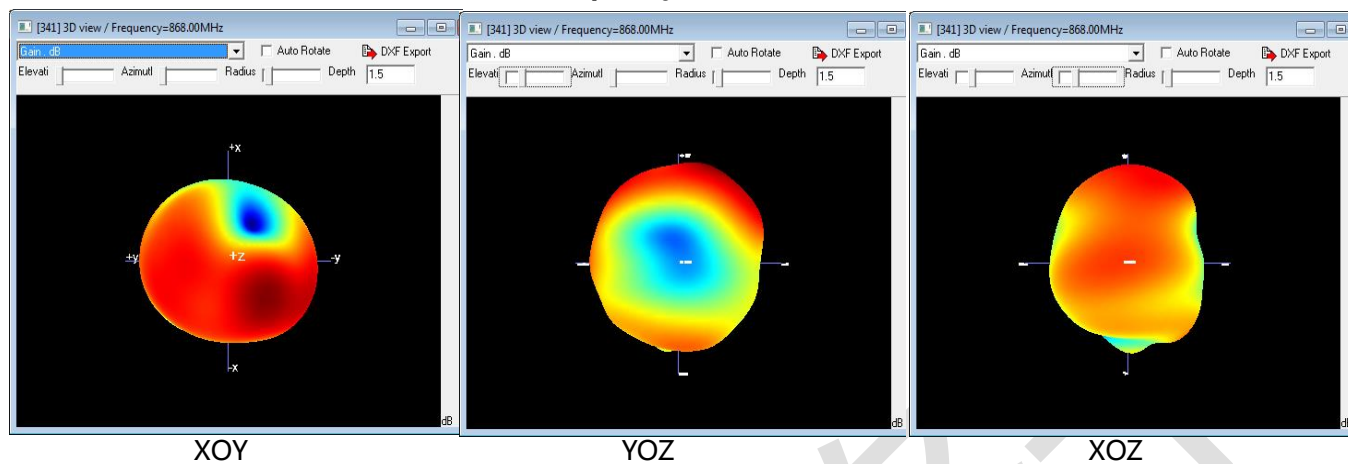
YOZ



XOZ

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

Frequency/频点 868MHz



Frequency/频点 915MHz

