

Product Specification

P/N:

81800VXXX

Rev.:

X1

Page:

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产品规格书

Product Specification

P/N:

81800VXXX

Title :

ANT_EX_4G_RG174_1M TO SMA-JW

Rev.	ECN	Release and Revision Description	Prepared By/Date:	Approved By/Date:
X1	/	FIRST RELEASE	2022.06.10	

1. Antenna specification/天线标准

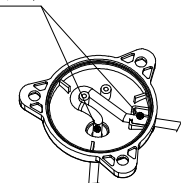
Antenna specification/天线技术参数		
Electrical specification/电气特性		
Item/目录	Specification/规格	Comment/备注
Freq. range/频段范围	860MHz-940MHz	
Impedance/阻抗	50 (Ω)	
VSWR/驻波比	≤ 2.0	
Directional/辐射方向	Omni directional	
Polarization/极化形式	Vertical	
Peak gain/峰值增益	4(dBi)	
Test condition/测试条件	passive test (无源测试)	
Total efficiency/无源效率	$> 60\%$	
Mechanical Specification/机械指标		
Antenna type/天线类型	磁盘天线	
Connector type/连接器类型	SMA RA PLUG(公头公针 90 度)	
RF cable type/射频线型号	RG174	
Connector torque test/连接器扭力	/	
Connector pull test/连接器拉力	$\geq 3.0\text{Kgf}$	
Salt spray/盐雾测试	72 (H)	
Environmentalspecification /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	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$	

2. Antenna picture/天线图片

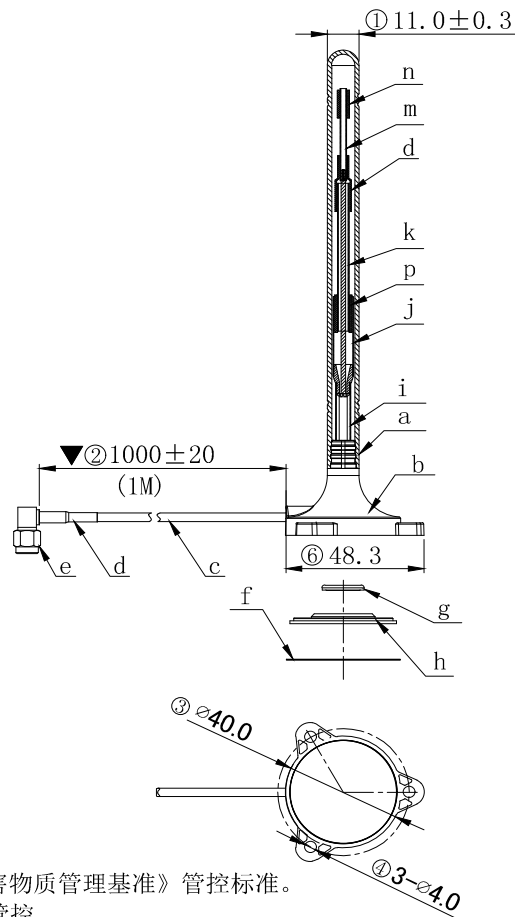


REV.	ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
X1	ECNXXXXXX	初版发行	06/10' 22	王卫杰	丁第斌	张英杰

两处需点硅胶密封



底座内部绕线图

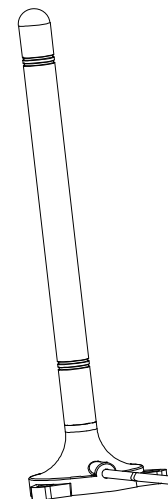
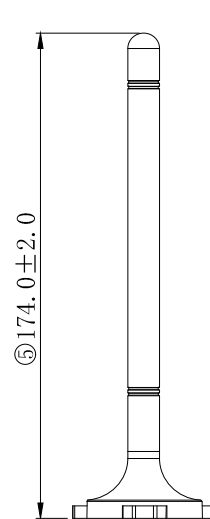


NOTES:

1. 未标尺寸以此电子档实测为准。
2. 标有“▼”为QC重点检测尺寸。
3. 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。
线材外被和贴纸材质是PVC，产品不做卤素管控。

NOTES:

1. THE DIMENSIONS NOT MARKED SHALL BE SUBJECT TO THE ACTUAL MEASUREMENT IN ELECTRONIC FILE
2. THE DIMENSIONS MARKED WITH “▼” ARE THE KEY INSPECTION DIMENSIONS OF QC
3. HSF SHALL CONFORM TO THE STANDARD QE-Q-19-001 ENVIRONMENTAL HAZARDOUS SUBSTANCES MANAGEMENT.
THE MATERIAL OF THE WIRE COVER AND STICKER IS PVC, AND THE PRODUCT IS NOT SUBJECT TO HALOGEN CONTROL.



p	防震棉	1	防震棉, 14*34.5mm, T=1.0mm, EVA, 黑色
n	防震棉	1	防震棉, 20*10mm, T=1.0mm, EVA, 黑色
m	振子	1	振子管, OD2.2*33mm, 黄铜
k	振子	1	振子管, OD4.0*53mm, 黄铜
j	振子	1	振子管, OD7.0*34.8mm, 黄铜
i	振子	1	振子管, OD5.2*20.6mm, 黄铜
h	底盖	1	吸盘天线 底盖 OD37*3.6mm PC+PBT 黑色
g	磁铁	1	吸盘天线-磁铁OD14.5*1.9mm, 强磁
f	贴纸	1	贴纸, OD39.5mm, T=0.3mm, PV, 黑色
e	连接器	1	SMA-J 90度, 镀镍, 接RG174线, 过72H盐雾
d	热缩管	2	黑色PE料, 外径Φ3.5MM, L=20mm
c	cable	1	RG174同轴线 7/0.16镀锡铜丝 PE绝缘层 φ2.8mm黑色PVC
b	底座	1	吸盘天线-底座 OD56*32mm PC+PBT 黑色
a	杆套	1	杆套 OD11*150mm TPEE 黑色
ITEM	PART NAME	Q'TY	MATERIAL / FINISH



ELECTRIC
CONNECTOR
TECHNOLOGY

GENERAL TOLERANCE	
.X ± 0.30	XX. ± 2°
.XX ± 0.10	X. ± 1°

SCALE:	1:1
UNIT:	mm
SIZE:	A4

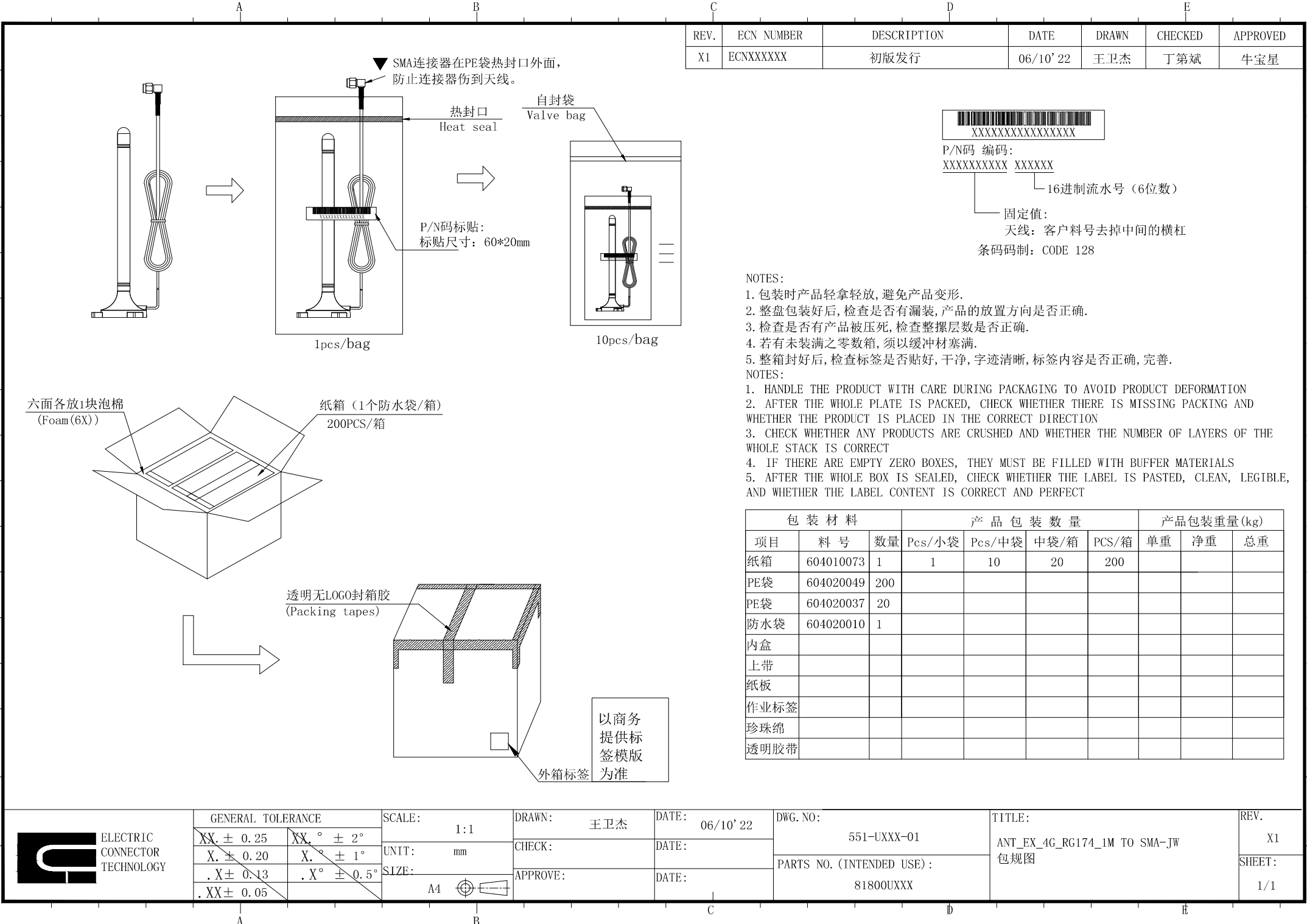
DRAWN:	王卫杰
CHECK:	
APPROVE:	

DATE:	06/10' 22
DATE:	
DATE:	

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

TITLE:	ANT_EX_4G_RG174_1M TO SMA-JW 成品图
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REV.	X1
SHEET:	1/1



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X1	ECNXXXXXX	初版发行	06/10' 22	王卫杰	丁第斌	牛宝星

NOTES:

1. 包装时产品轻拿轻放, 避免产品变形.
2. 整盘包装好后, 检查是否有漏装, 产品的放置方向是否正确.
3. 检查是否有产品被压死, 检查整摞层数是否正确.
4. 若有未装满之零数箱, 须以缓冲材塞满.
5. 整箱封好后, 检查标签是否贴好, 干净, 字迹清晰, 标签内容是否正确, 完善.

NOTES:

1. HANDLE THE PRODUCT WITH CARE DURING PACKAGING TO AVOID PRODUCT DEFORMATION
2. AFTER THE WHOLE PLATE IS PACKED, CHECK WHETHER THERE IS MISSING PACKING AND WHETHER THE PRODUCT IS PLACED IN THE CORRECT DIRECTION
3. CHECK WHETHER ANY PRODUCTS ARE CRUSHED AND WHETHER THE NUMBER OF LAYERS OF THE WHOLE STACK IS CORRECT
4. IF THERE ARE EMPTY ZERO BOXES, THEY MUST BE FILLED WITH BUFFER MATERIALS
5. AFTER THE WHOLE BOX IS SEALED, CHECK WHETHER THE LABEL IS PASTED, CLEAN, LEGIBLE, AND WHETHER THE LABEL CONTENT IS CORRECT AND PERFECT

包 装 材 料			产 品 包 装 数 量				产品包装重量(kg)		
项目	料 号	数量	Pcs/小袋	Pcs/中袋	中袋/箱	PCS/箱	单重	净重	总重
纸箱	604010073	1	1	10	20	200			
PE袋	604020049	200							
PE袋	604020037	20							
防水袋	604020010	1							
内盒									
上带									
纸板									
作业标签									
珍珠绵									
透明胶带									



ELECTRIC
CONNECTOR
TECHNOLOGY

GENERAL TOLERANCE	
XX. ± 0.25	XX. ° ± 2°
X. ± 0.20	X. ° ± 1°
. X ± 0.13	. X ° ± 0.5°
. XX ± 0.05	

SCALE:	1:1
UNIT:	mm
SIZE:	M4



DRAWN:	王卫杰
CHECK:	
APPROVE:	

DATE:	06/10' 22
DATE:	
DATE:	

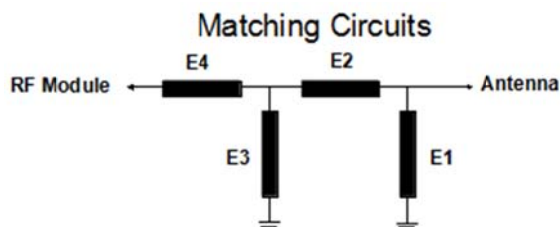
DWG. NO:	551-UXXX-01
PARTS NO. (INTENDED USE):	81800UXXX

TITLE:	ANT_EX_4G_RG174_1M TO SMA-JW 包规图
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REV.	X1
SHEET:	1/1

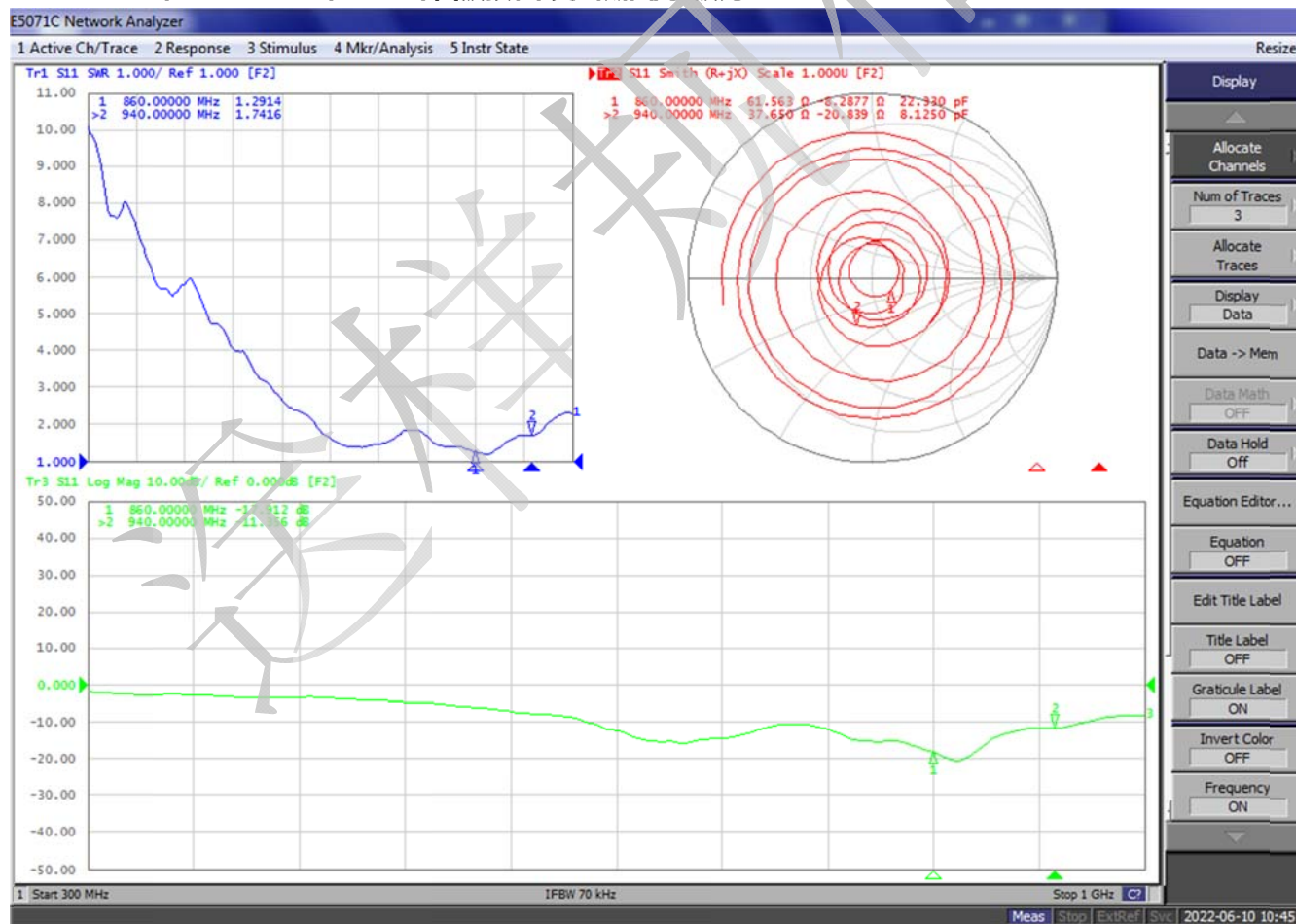
4. Antenna test result/测试结果

4.1 The matching circuits/匹配电路



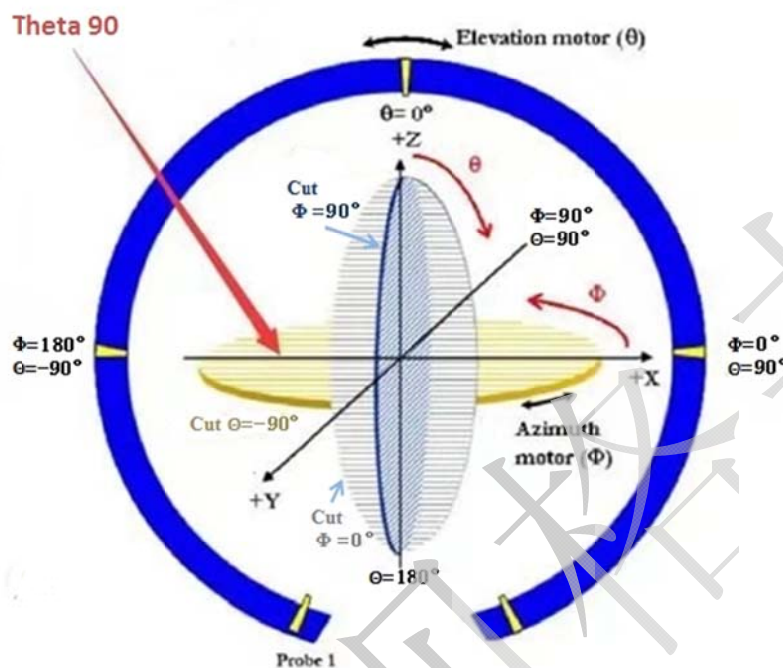
Element	Value
E1(0201)	NC
E2(0201)	0 Ω
E3(0201)	NC
E4(0201)	0 Ω

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

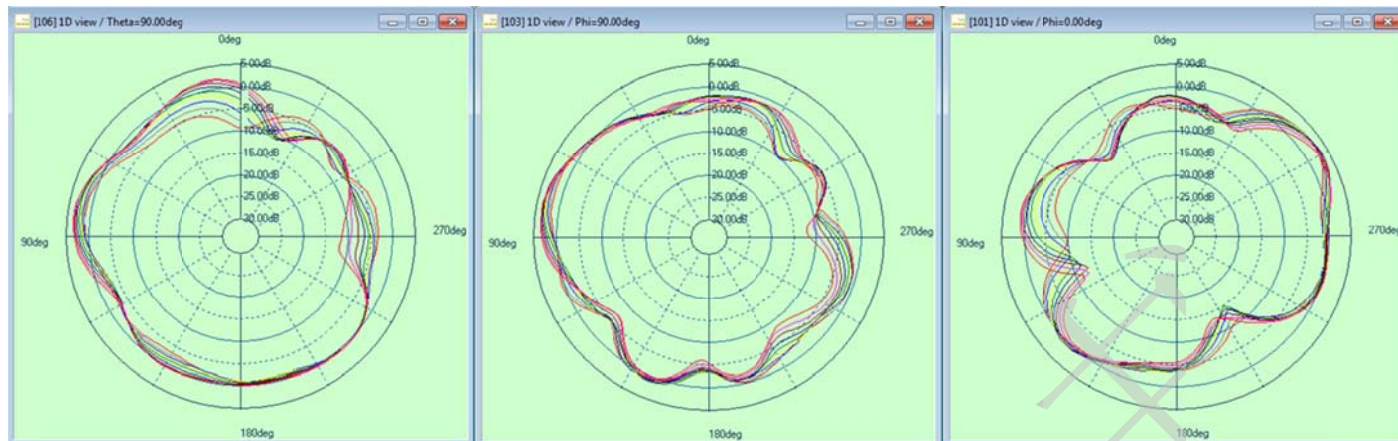
4.3.2 The test result of total efficiency and total gain/天线效率及增益测试结果

860MHz-940MHz

Frequency	Efficiency(%)	Gain (dBi)
860MHz	68%	3.91
870MHz	68%	3.81
880MHz	67%	3.76
890MHz	68%	3.92
900MHz	68%	4.07
910MHz	69%	4.12
920MHz	69%	3.95
930MHz	67%	3.73
940MHz	64%	3.69

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

860MHz-940MHz



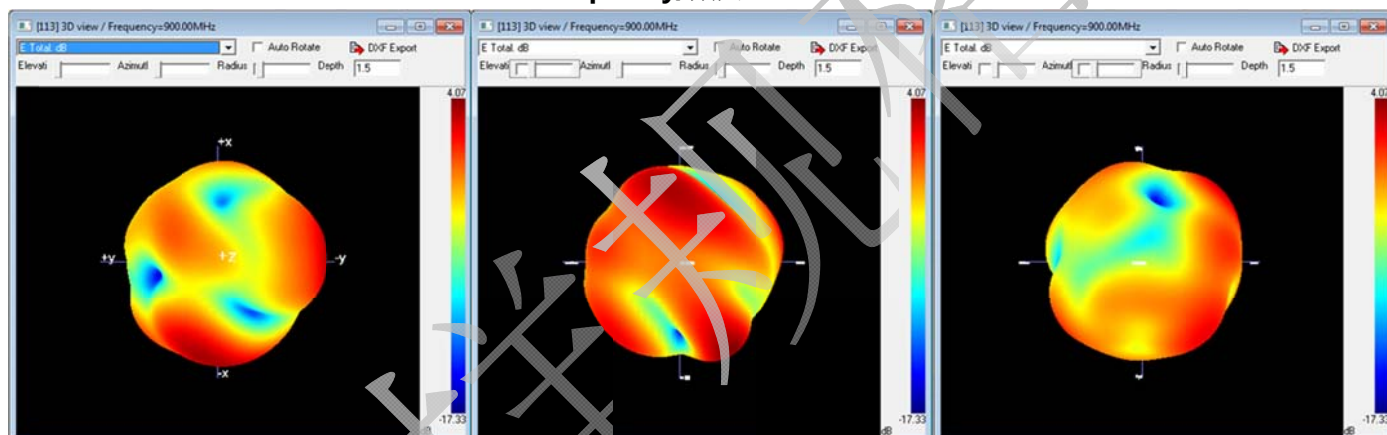
XOY

YOZ

XOZ

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

Frequency/频点 900MHz



XOY

YOZ

XOZ