

1. Antenna specification

Antenna specification		
Electrical specification		
Item	Specification	Comment
Freq. range	690-960(MHz),1710-2690(MHz)	
Impedance	50 (Ω)	
VSWR	690-960(MHz) $\leq$ 4 1710-2690(MHz) $\leq$ 3.5	
Directional	Omni directional	
Polarization	Vertical	
Peak gain	4.2 (dBi)	
Test condition	passive test	
Total efficiency	690-960(MHz) > 50% 1710-2690(MHz) > 35%	
Mechanical Specification		
Antenna type	4G Sucker antenna	
Connector type	SMA-JW	
RF cable type	RG-174	
Connector torque test	N/A	
Connector pull test	$\geq$ 1.5Kgf	
Salt spray	48(H)	
Environmental specification		
Operating temp	-40°C ~ +80°C	
Storage temp	-40°C ~ +85°C	

2. Antenna picture

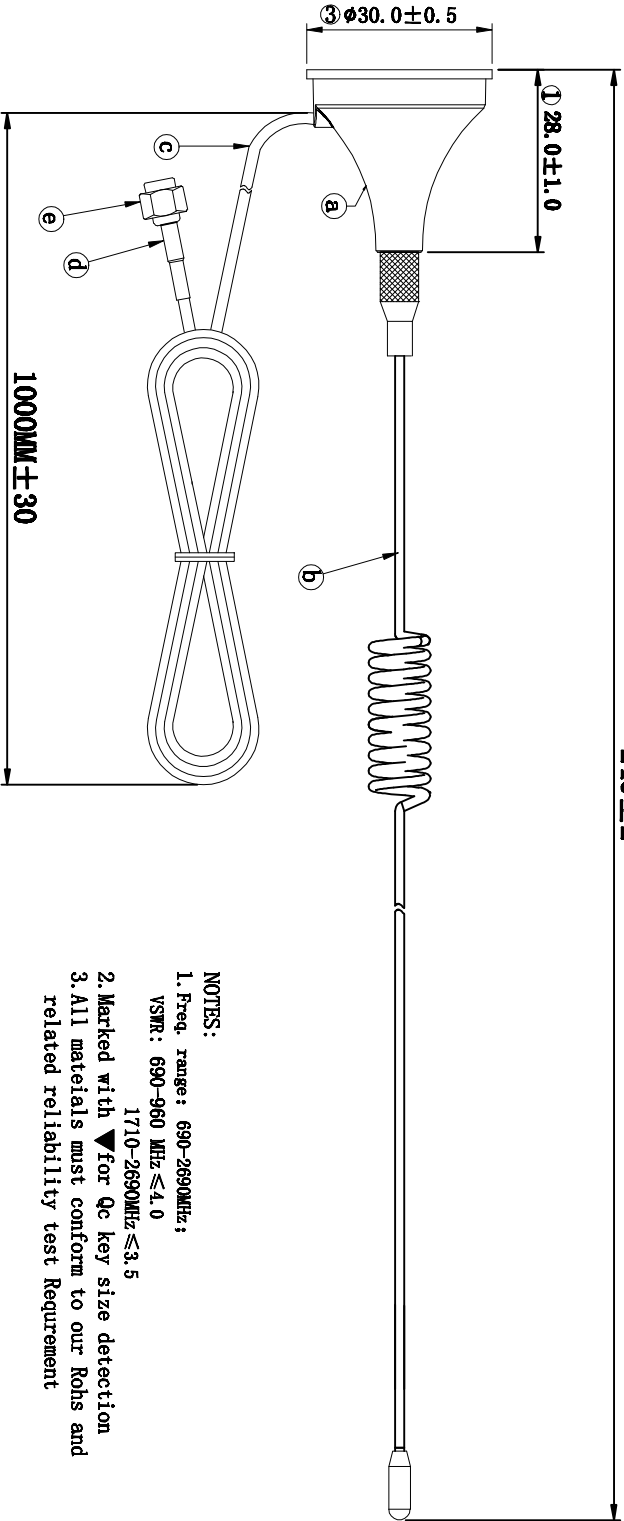
此处插入天线图片



3. DWG

REV.		ECN NUMBER	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED
A		ECNxxxxxx	FIRST RELEASE	07/14' 21	xiaofeng	Dibing	Zhangyin

③ 240±2



NOTES:

1. Freq. range: 690-2690MHz;
VSWR: 690-960 MHz ≤4.0
1710-2690MHz ≤3.5
2. Marked with ▼ for Qc key size detection
3. All materials must conform to our Rohs and related reliability test Requirement

e	RF Connector	1	SMA-J For RG-174
d	Heat shrinkable tube	1	BLACK PE, Ø3.5MM, L=15mm
c	cable	1	RF Coaxial Cable, RG-174, #2.0mm, 黑色外被 L1020mm
b	Spring rod	1	4G, ø1.5mm, L=210mm, BLACK
a	base-ASM	1	0D30*28mm, ABS767, BLACK
ITEM	PART NAME	Q'TY	MATERIAL / FINISH

DWG. NO:	600-UX11-01	TITLE:	REV.
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PARTS NO. (INTENDED USE):	ANT_EX_0727_AB01 (30mm)_RG174_L1M_SMA-J	SHEET:	A
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81800UX11	1/1
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SCALE:	1:1	DRAWN:	Xiaofeng Liu	DATE:	07/14' 21
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CHECK:		DATE:	
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APPROVE:		DATE:	
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GENERAL TOLERANCE

X. ± 1.0	XX. ° ± 5°
.X ± 1.0	X. ° ± 2°
.XX ± 1.0	.X ° ± 1°

UNIT:	mm
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SIZE:	A4
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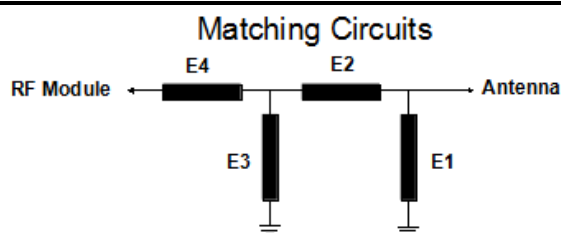
A

B

C

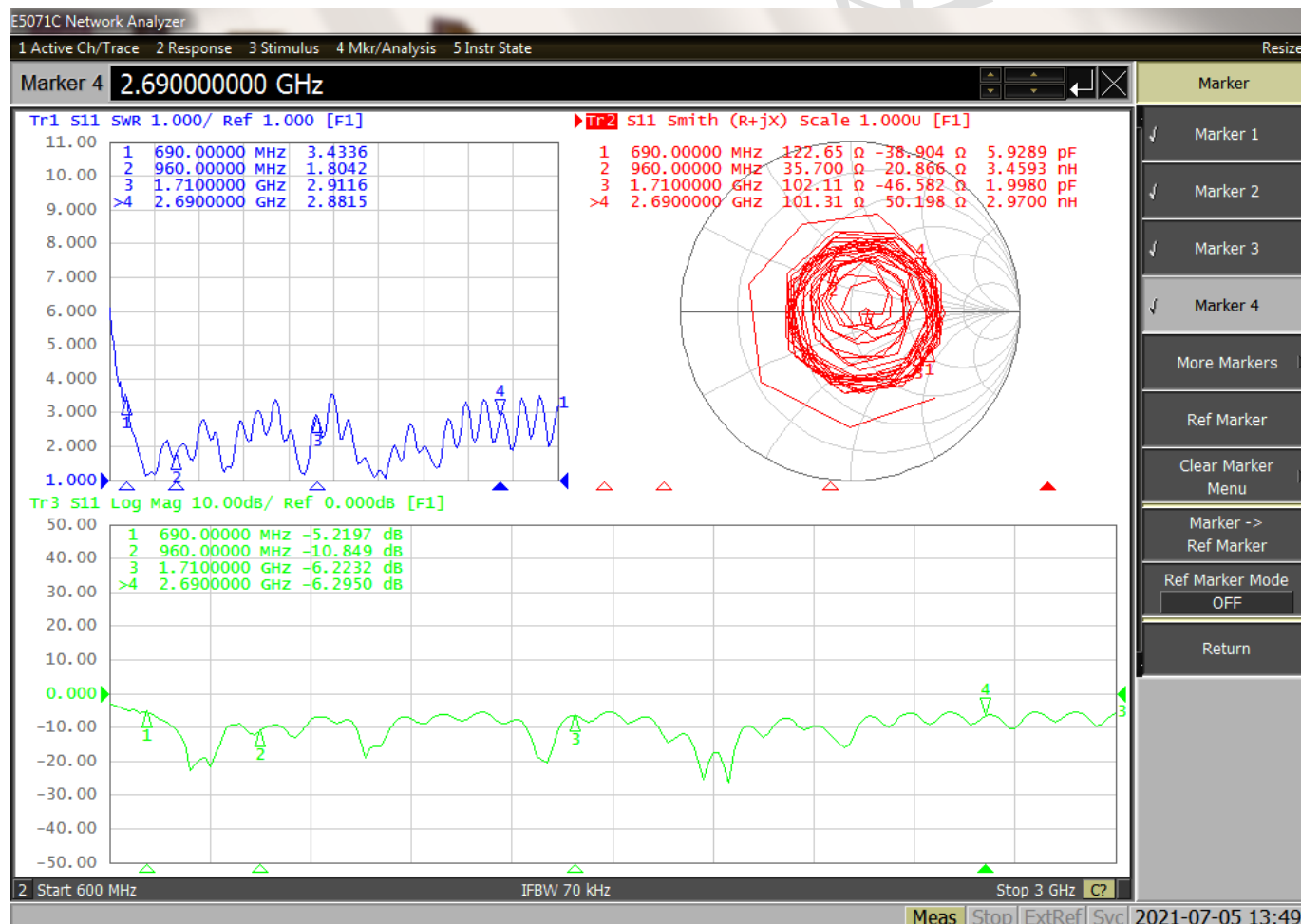
D

E



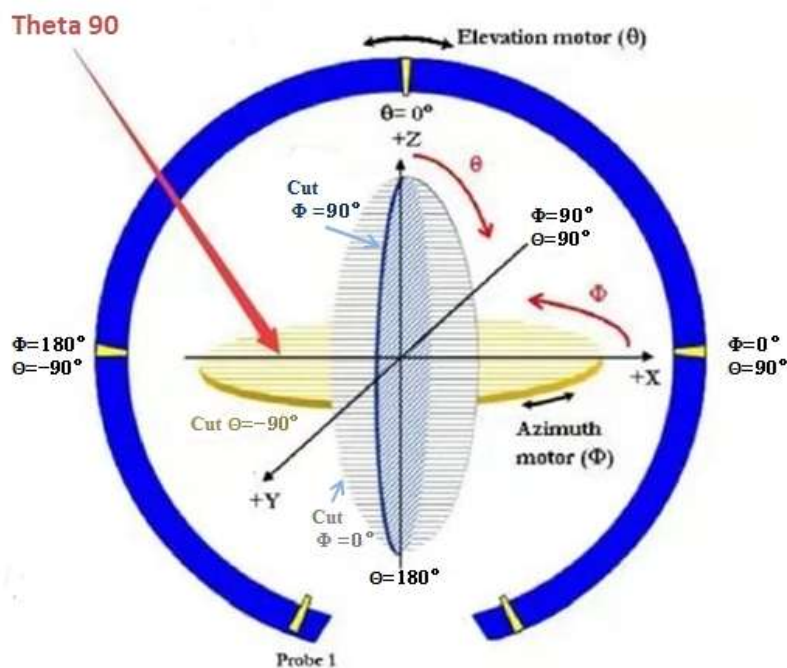
Element	Value
E1(0201)	NC
E2(0201)	0 Ω
E3(0201)	NC
E4(0201)	0 Ω

4.2 Return loss/Smith chart/VSWR



4.3 The gain and total efficiency test

4.3.1 The definition of coordinate system/ Satimo SG24



The coordinate system of Chamber



The production test position

4.3.2 The test result of total efficiency and total gain

690MHz-960MHz

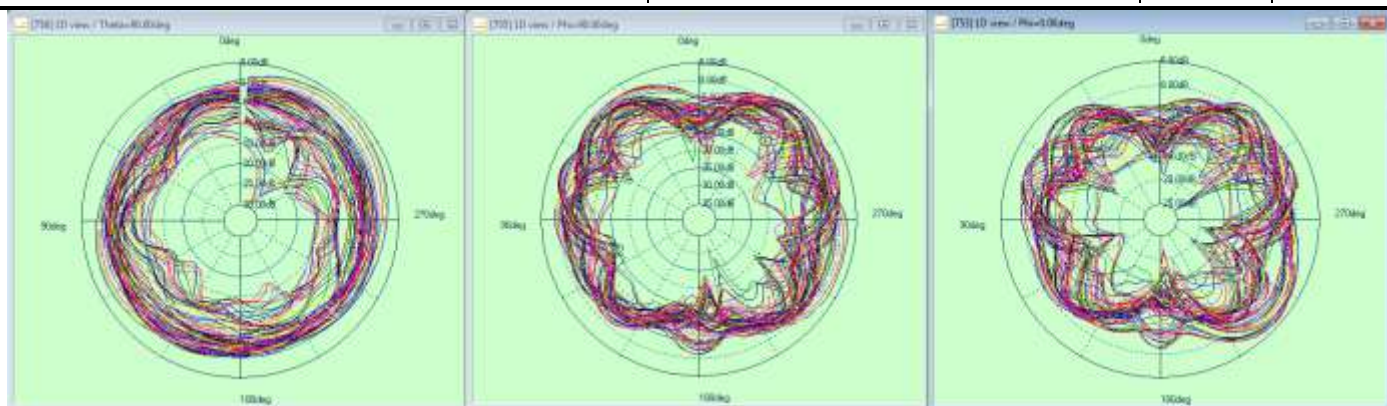
Frequency	Efficiency(%)	Gain (dBi)
690MHz	6%	-7.13
720MHz	13%	-4.32
750MHz	50%	2.06
780MHz	38%	1.22
810MHz	71%	3.77
840MHz	79%	4.21
870MHz	63%	3.39
900MHz	41%	1.45
930MHz	66%	3.45
960MHz	70%	3.47
AVG	50%	1.16

1710MHz-2700MHz

Frequency	Efficiency(%)	Gain (dBi)
1710MHz	26%	-1.42
1770MHz	23%	-2.18
1830MHz	40%	0.39
1890MHz	33%	-0.88
1950MHz	43%	0.89
2010MHz	53%	2.34
2070MHz	54%	2.32
2130MHz	42%	1.35
2300MHz	40%	2.23
2330MHz	46%	2.46
2360MHz	44%	2.47
2390MHz	34%	1.41
2520MHz	30%	1.02
2580MHz	25%	-0.29
2640MHz	30%	0.64
2700MHz	30%	1.34
AVG	37%	0.88

4.3.3 The antenna radiation pattern(1D View)/ (1D View)

690MHz-2700MHz



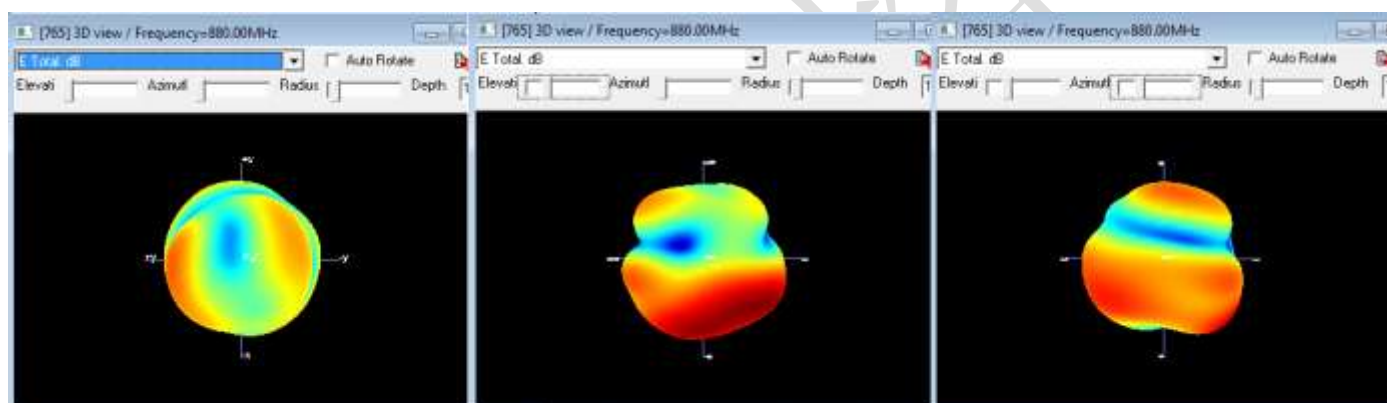
XOY

YOZ

XOZ

4.3.4 The antenna radiation pattern(3D View)/ (3D View)

Frequency/880MHz

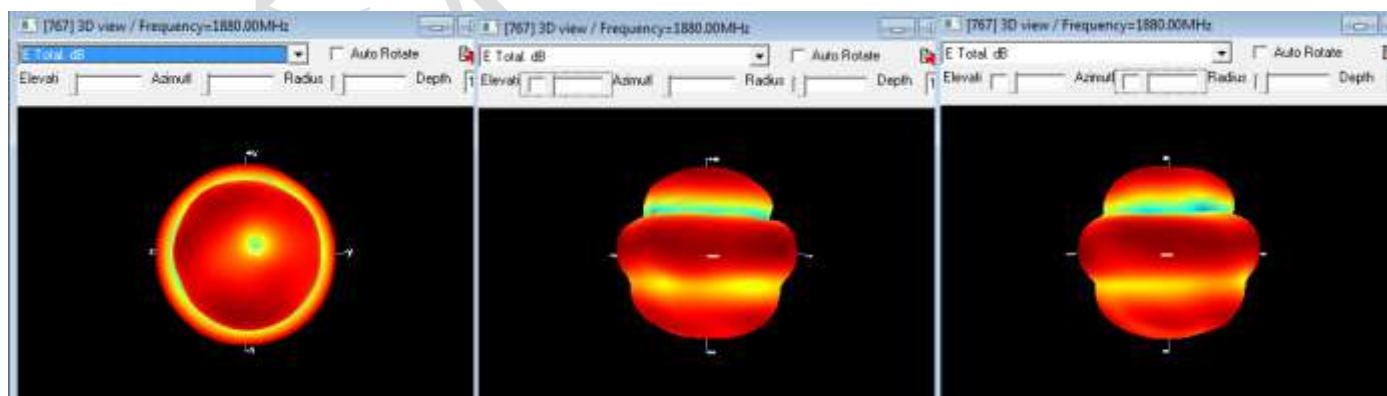


XOY

YOZ

XOZ

Frequency/1880MHz



XOY

YOZ

XOZ

Frequency/2300MHz

