

SPECIFICATION FOR APPROVAL

CUSTOMER :	Nokia Shanghai Bell Co.Ltd.
PART NAME :	G-1425G-B 2.4g /5g 5dBi WiFi2
PART NO. :	2.4G Φ1.13 Grey L=60mm 5G Φ1.37 Black L=220mm
DZZ NO. :	N12-4898-R0A
REV. :	V1.0

	MANUFACTURERR SIGNATURE	CUSTOMER SIGNATURE
APPROVED BY:		
DATE:		

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PCB Antenna Assembly

Specification(With housing)

1.Electrical Properties

- 1.1 Frequecy range.....2400~2500MHz&5150~5850MHz
- 1.2 Impedance.....50Ω Norminal
- 1.3 VSWR (Matching Transmit Trace on board) ...≤2
- 1.4 Radiation.....Omni
- 1.5 Gain(Peak).....5dBi
- 1.6 Polarization.....Linear
- 1.7 Admitted Power.....1W
- 1.8 Cable.....Φ1.13 cable Φ1.37 cable
- 1.9 Connector.....RF CONN

2.Physical Properties

- 2.1 Working Temperature.....-20°C ~ +65°C
- 2.2 Storage Temperature.....-30°C ~ +75°C

Antenna Design for G-1425G-B

2.4G/5G 5dBi WiFi2

V1.0

Document Number	DZZ-20211124
1st Released Date	24/11/2021
Author	Huiping Feng
Review By	Huiping Feng

Revised History

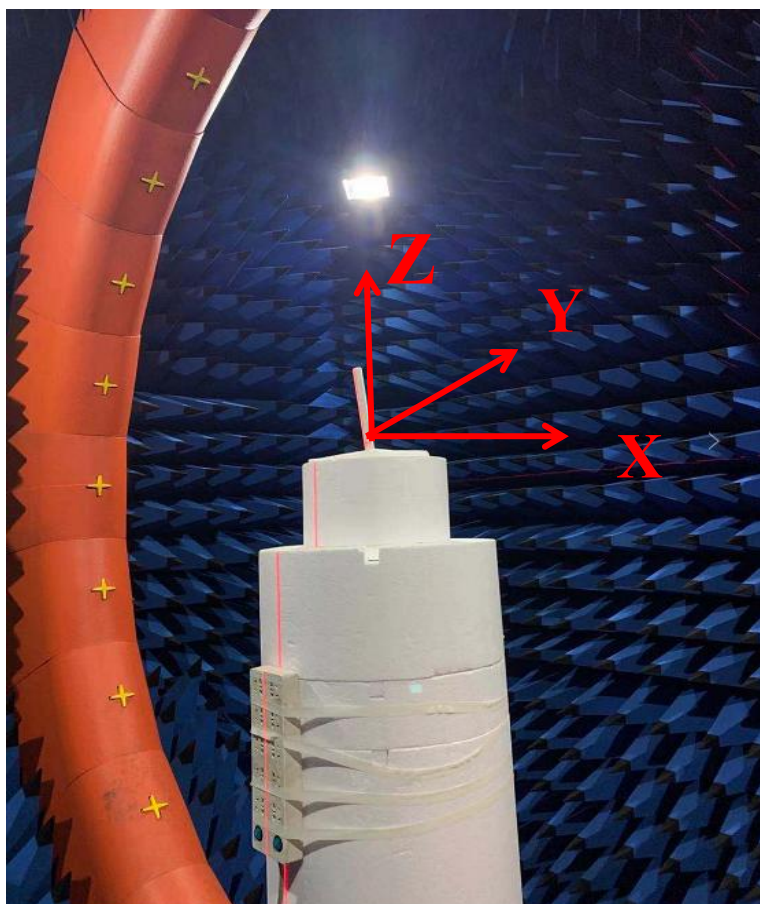
[illegible]

Specification

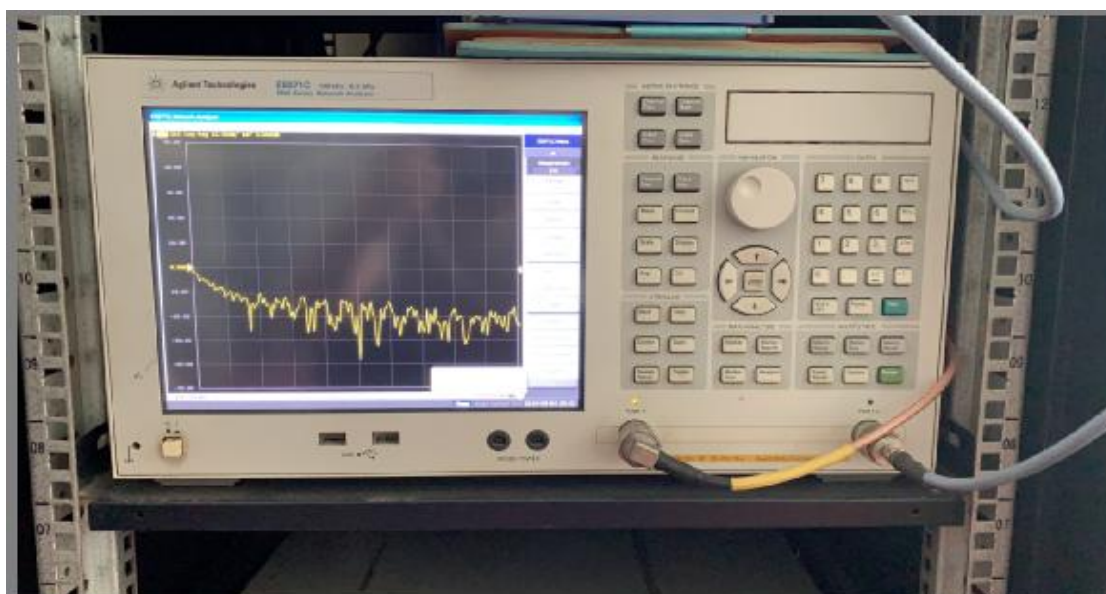
Rough description	2.4G /5G ANT
Item	Initial Specification
Dimensions	158mm*13.5mm*0.4mm
Impedance	50Ω Norminal
Test environment	With housing
Spectrum	None
Frequecy range	2400~2500MHz&5150~5850MHz
Antenna Type	Dipole
VSWR	(Matching Transmit Trace on board)≤2
Gain(Peak)	5dBi
Radiation	Omni
Polarization	Linear
Rad. efficiency	≥60%
Power	1W
Connector Type	IPEX
Cable Type	2.4G Φ1.13 coaxial cable 5G Φ1.37 coaxial cable
Cable Length	2.4G Grey L=60mm 5G Black L=220mm
Isolation	None

1. Test enviroment

Satimo 24探头

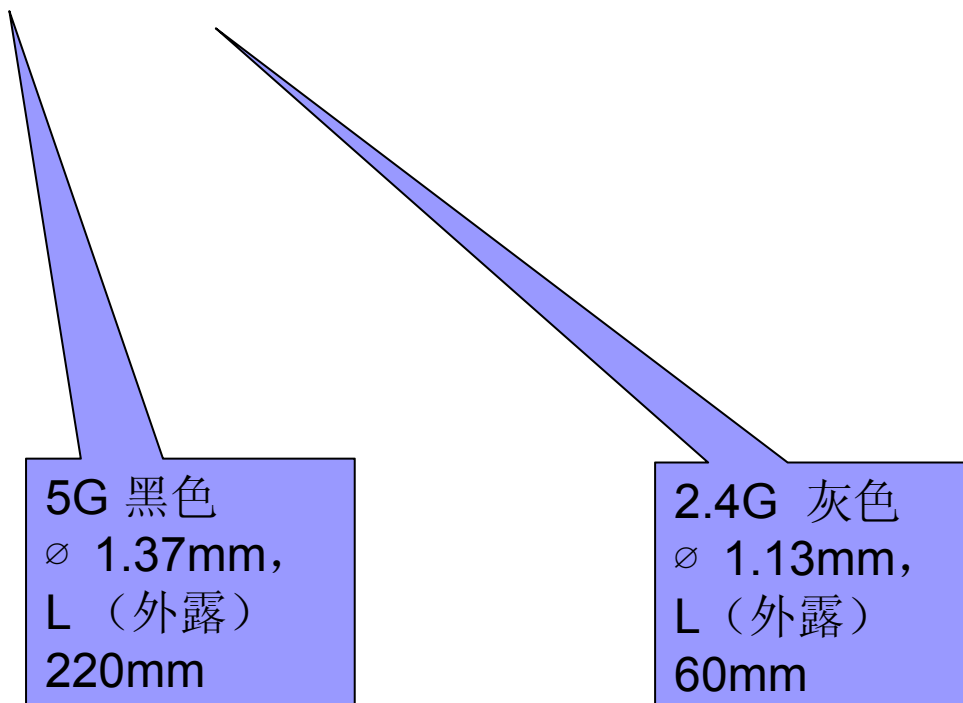


Agilent Technologies E5071C



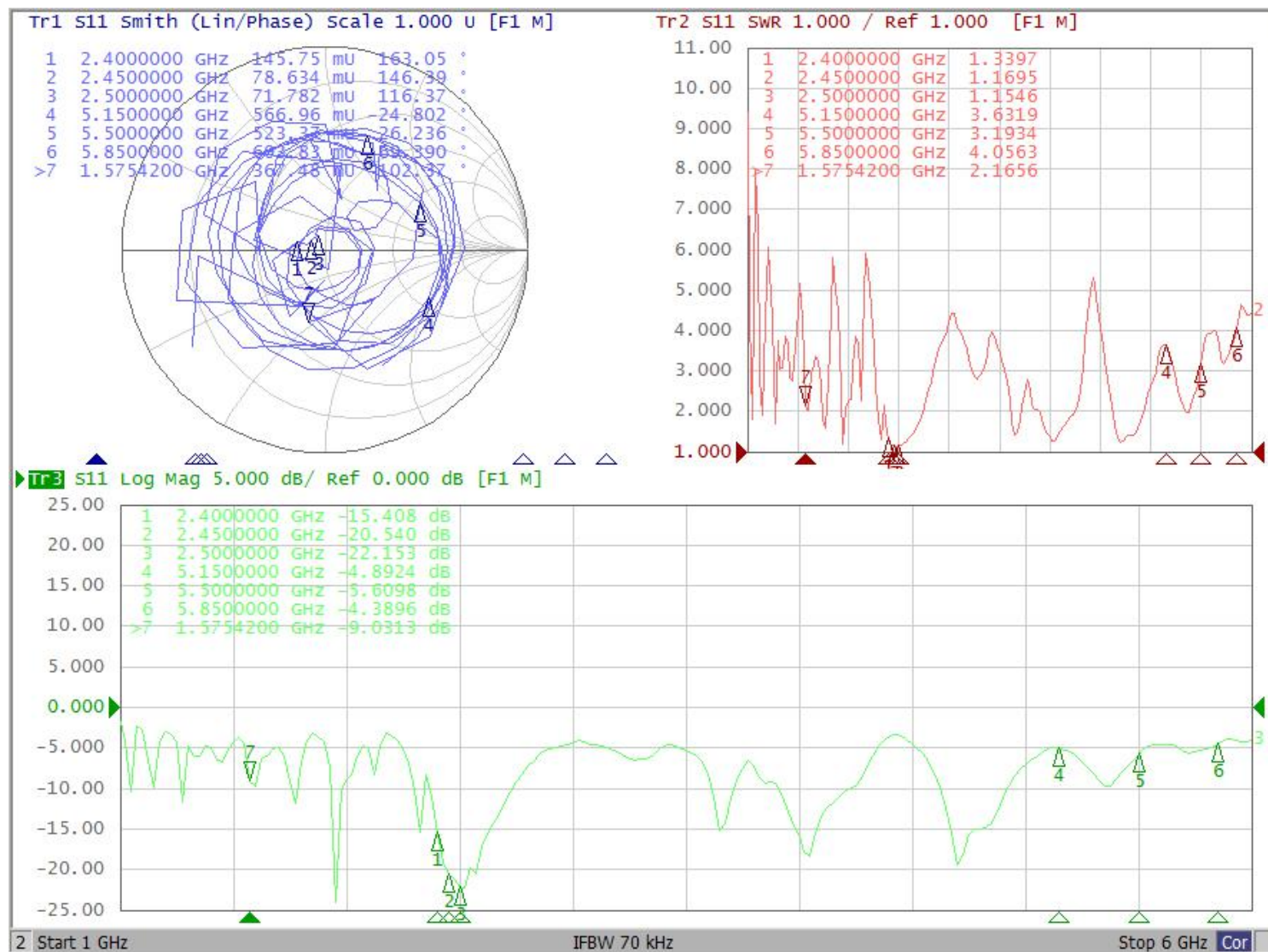
2. Test Antennas' setup and enviroment

With housing



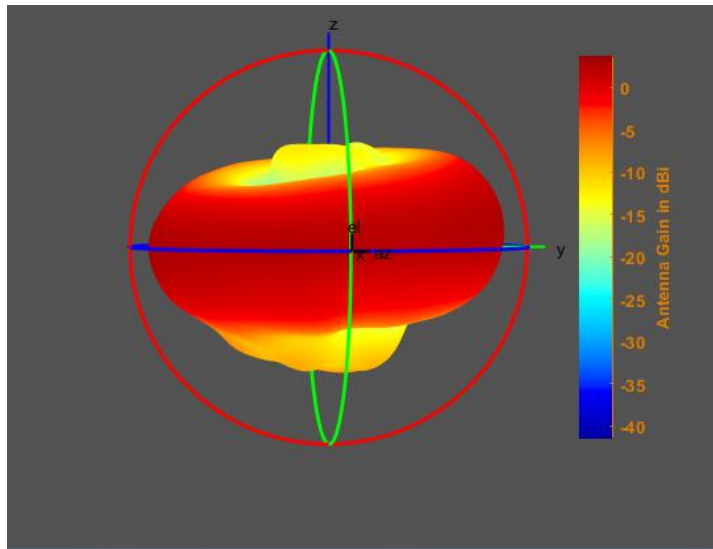
3. 2.4G Grey $\varnothing$ 1.13mm, L 60mm

3.1 2.4G S11 VSWR Smith test results

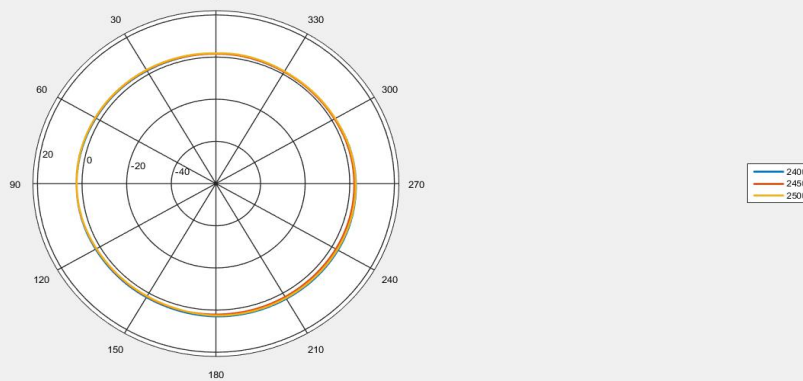


3.2 2.4G radiation pattern

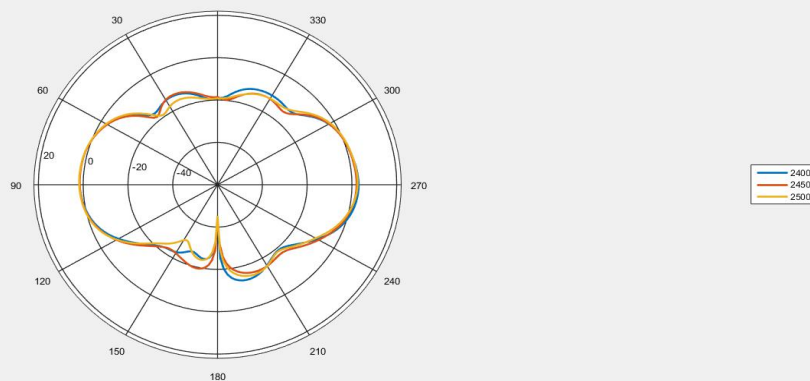
2.45GHz



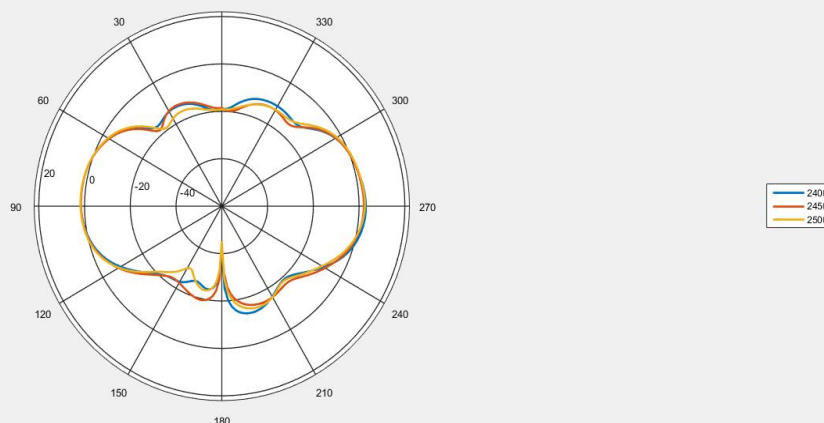
X-Y



X-Z



Y-Z

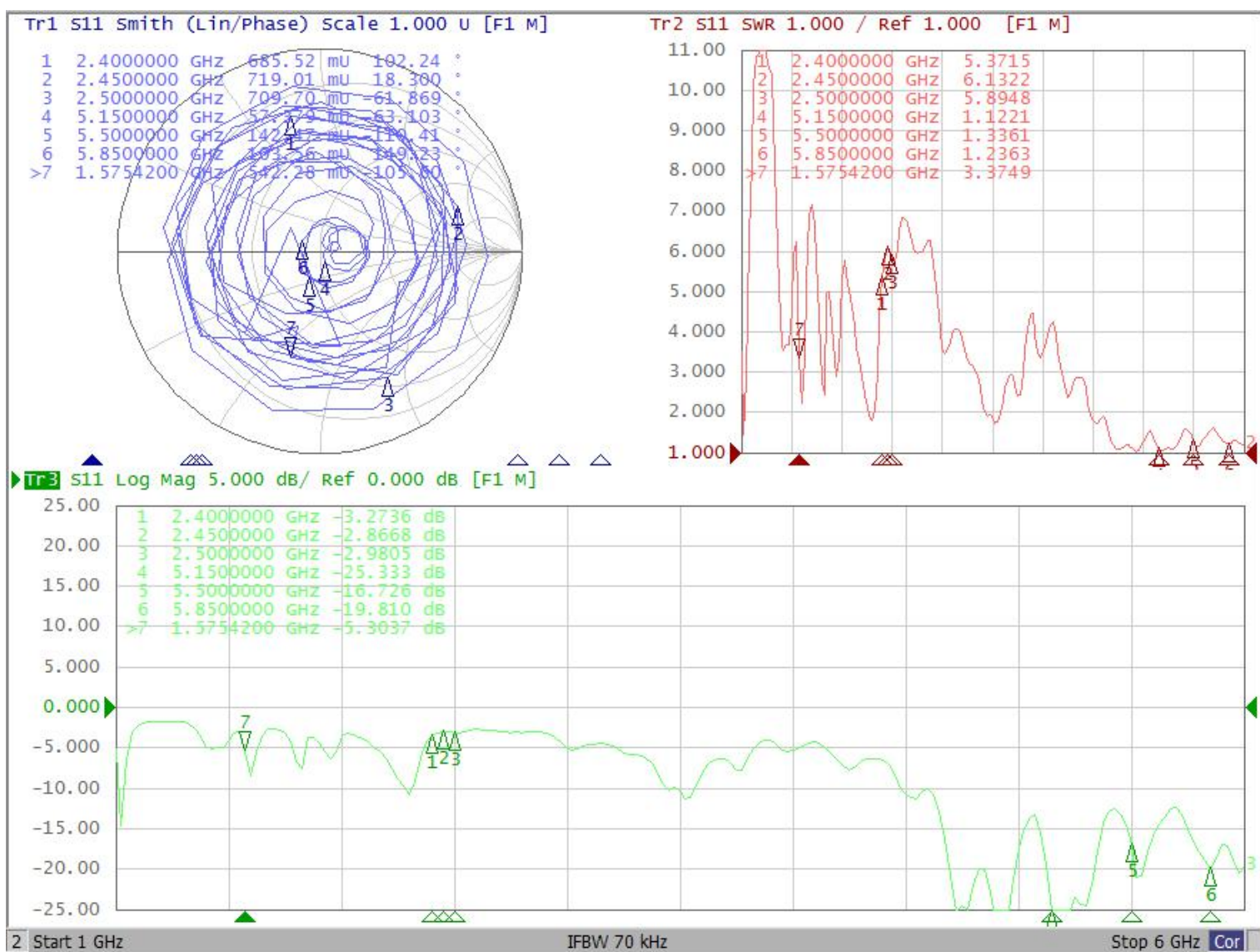


3.3 2.4G Effi

Freq	Effi	Gain
(MHz)	(%%)	(dBi)
2400	66.56	4.62
2410	66.14	4.57
2420	67.78	4.61
2430	68.84	4.65
2440	67.85	4.57
2450	66.98	4.65
2460	68.24	4.68
2470	67.89	4.54
2480	67.54	4.49
2490	67.72	4.57
2500	66.22	4.55

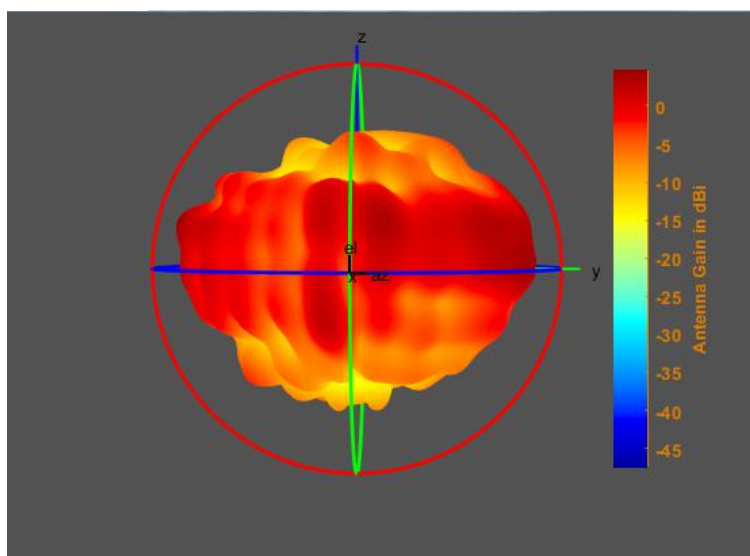
4. 5G Black $\varnothing$ 1.37mm, L 220mm

4.1 5G S11 VSWR Smith test results

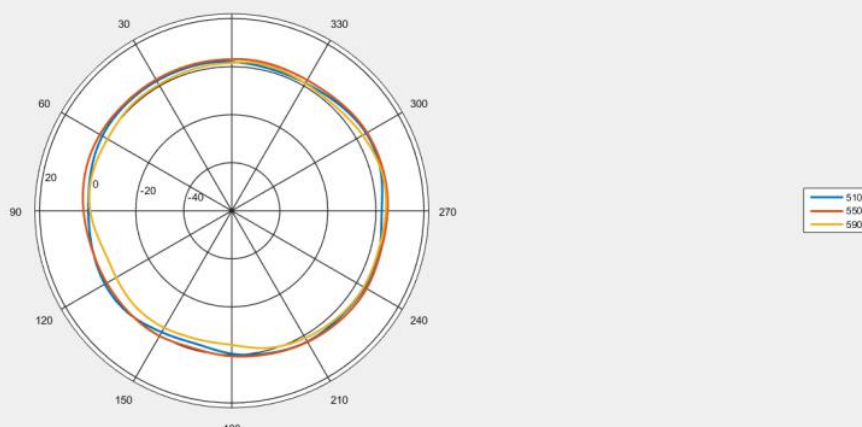


4.2 5G radiation pattern

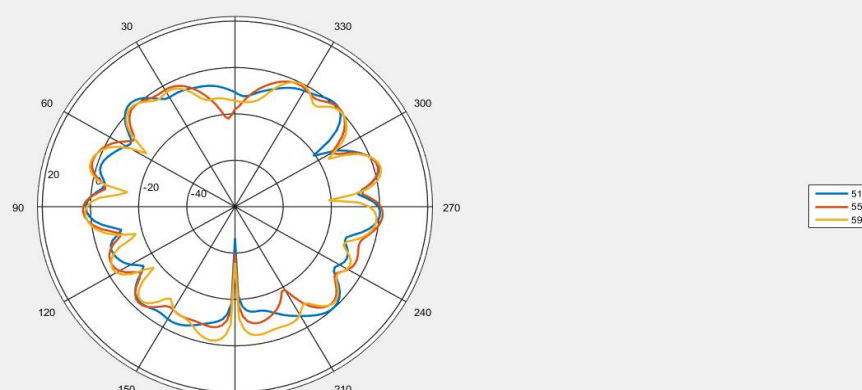
5.5GHz



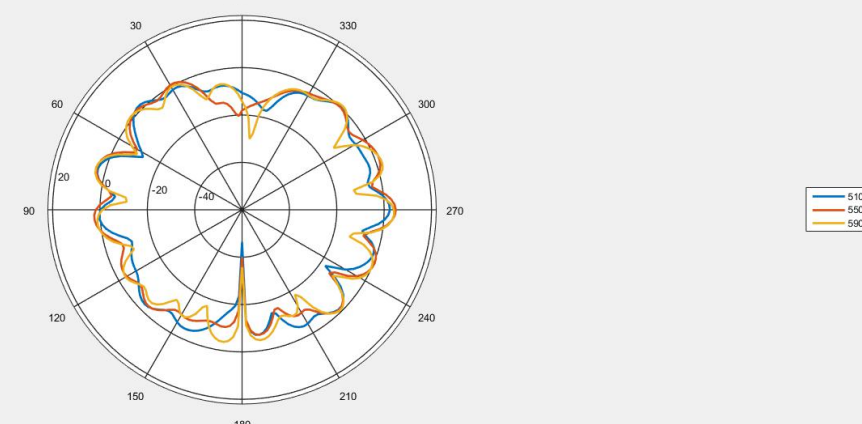
X-Y



X-Z



Y-Z



4.3 5G Effi

Freq (MHz)	Effi (%%)	Gain (dBi)
5100	63.24	4.42
5200	64.63	4.51
5300	65.34	4.54
5400	67.79	5.04
5500	69.45	5.01
5600	68.63	4.84
5700	67.33	4.86
5800	66.48	4.97
5900	65.21	4.69

5.Summary

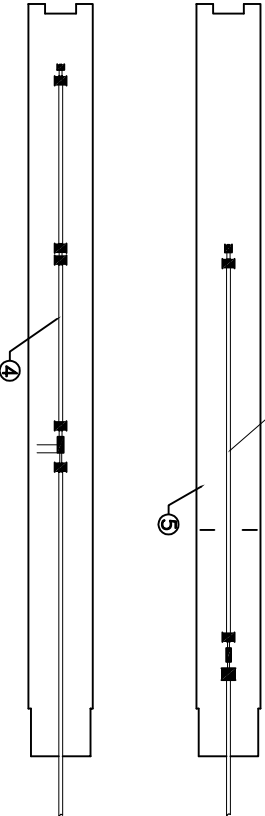
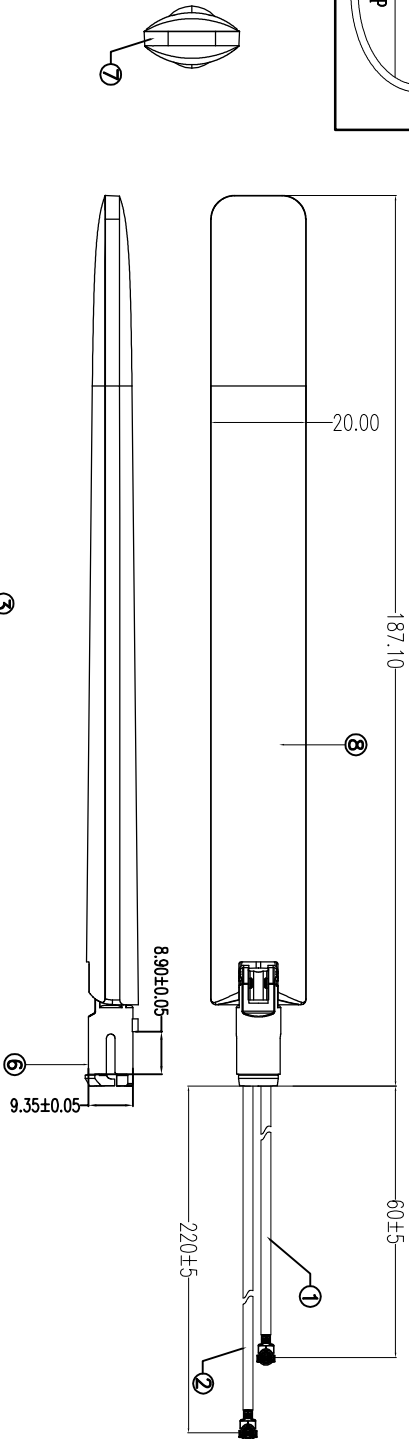
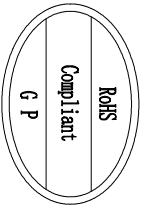
5.1 Impedance, VSWR and LOGMAG

2.4G_Gery_60mm_5dBi antenna				(unit in GHz)
Item \Frequency	2.4	2.45	2.5	criteria
VSWR	1.33	1.16	1.15	≤ 2
LOGMAG	-15.4	-20.5	-22.1	≤ -10

5G_Black_220mm_5dBi antenna				(unit in GHz)
Item \Frequency	5.15	5.5	5.85	criteria
VSWR	1.12	1.33	1.23	≤ 2
LOGMAG	-25.3	-16.7	-19.8	≤ -10

5.2 3D Peak Gain & Efficiency

Frequency (GHz)	Peak Gain (dBi)	Efficiency (%)
2.4	4.62	66.5
2.45	4.65	66.9
2.5	4.55	66.2
5.10	4.4	63.2
5.50	5.0	69.4
5.90	4.7	65.2



备注:

1. 标注“*”为重点尺寸, 未标公差尺寸按照 ± 0.15 检测
2. 未标注尺寸请依图纸.
3. 符合ROHS

Rev			
1	2	3	4
Description			
New drawing			
Date			
Remark			

Project									
G-1425-B-5DB									
PartName									
外置天线2									
Part No.									
N12-4898-ROA									
Material									
N/A									
Approved by									
MD 田进									
RF 冯惠平									
Unit									
mm									
Scale									
1:1									
Rev									
A									

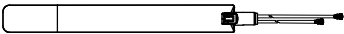
No.	Name	Material	Color	Treatment	Amount	Remark
9	固定柱	POM	白色		2	
8	杆套	ABS	白色		1	
7	塞子	PC/PBT	白色		1	
6	下固	PC/PBT	白色		1	
5	PCB	FR4/双面板	黑色		1	
4	5G过渡线	1.37低损线	黑色		1	
3	2.4G过渡线	1.37低损线	白色		1	
2	5G射频线	1.37低损线一代端子	黑色		1	
1	2.4G射频线	1.13低损线一代端子	灰色		1	

深圳得自在科技有限公司
SHEN ZHEN Be Comfortable CO., LTD

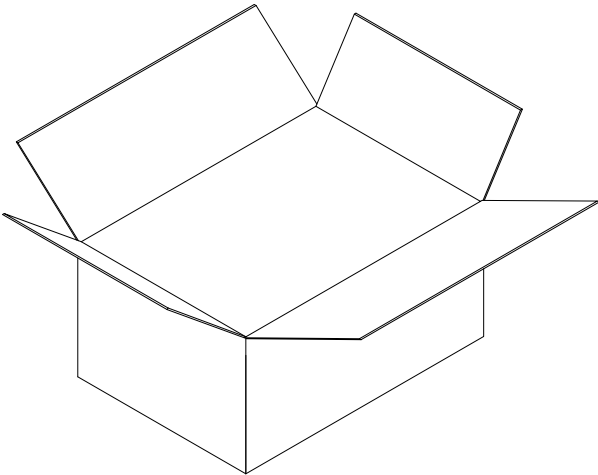
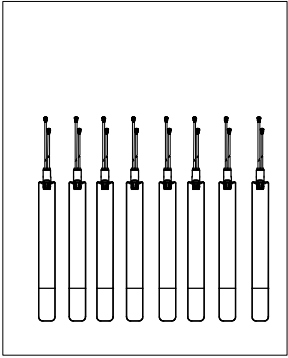
成品名称： G-1425-B-5DB外置天线

版本： A

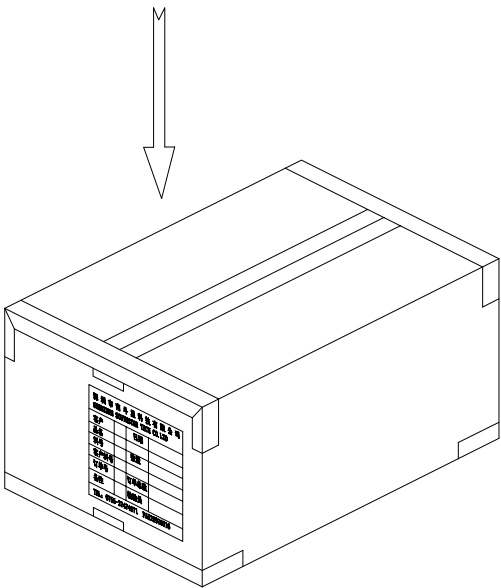
一：成品天线



二：用PE袋装起来



四：装一箱，以实际包装为准



五：封箱,外箱贴我司生产标签和
ROHS标签.

批准: _____

确认: _____

拟制:田进