睿班
RFI-LAB

Testing Report

Customer：Dellking

Project name： E2

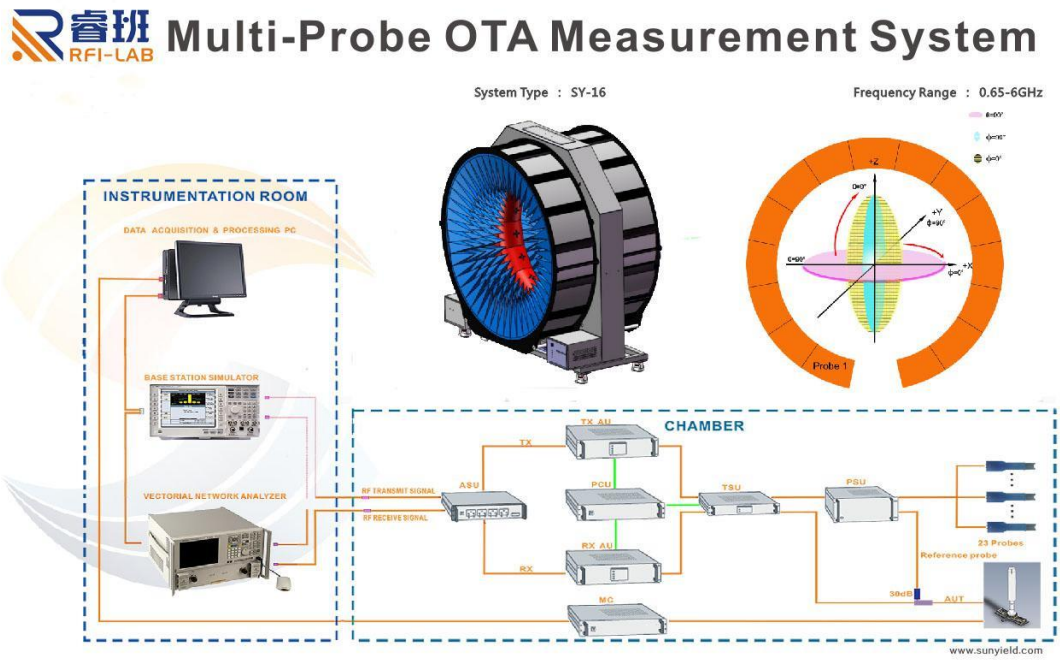
Testing Date： 2018-6-28

Testing Location：Rui Ban Laboratory

Testing Equipment: 3D Darkroom, Agilent5071B

Testing sample: 2.4G Bluetooth Antenna

1. Schematic diagram of microwave darkroom test.



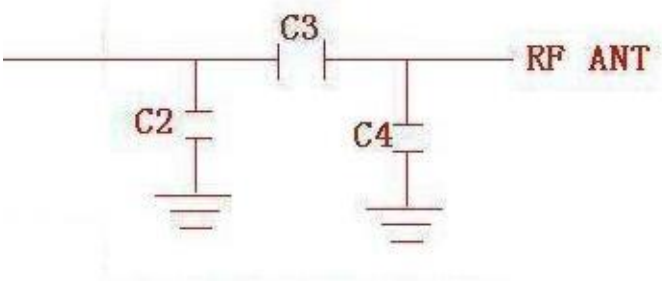
2. Project Description

This report summarizes the electrical performance test results of the Dellking E2 project's 2.4-2.5GHz W Bluetooth antenna, including the antenna's S11 parameter, gain, efficiency, and 2D directional pattern

3. Item picture

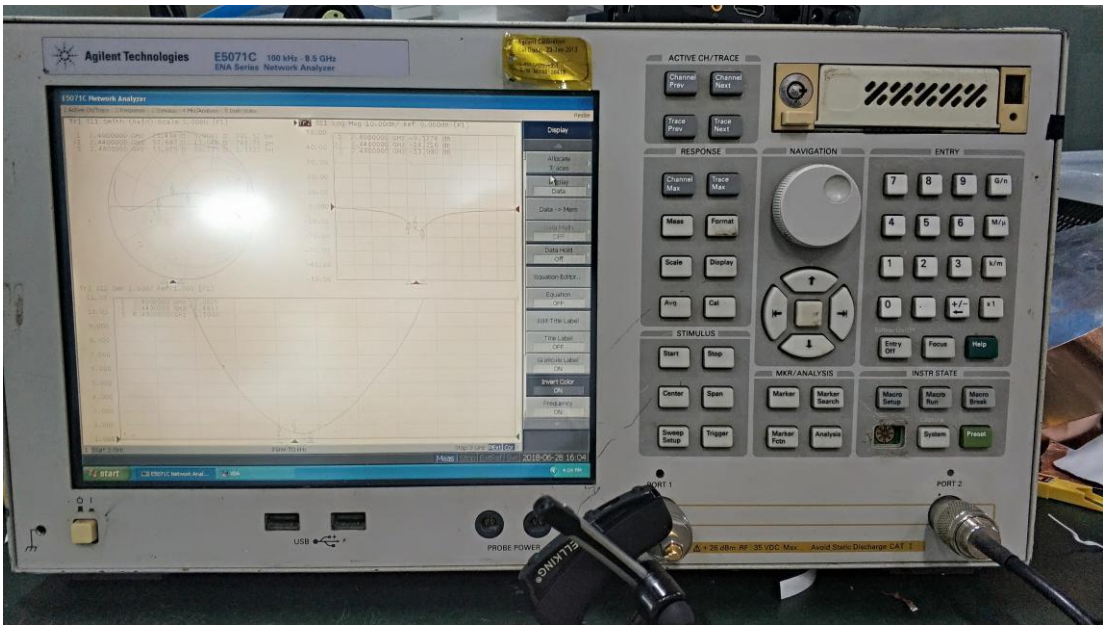
4. Antenna structure dimension diagram and precautions for mass production assembly.

5. Matching Instructions (N/A)

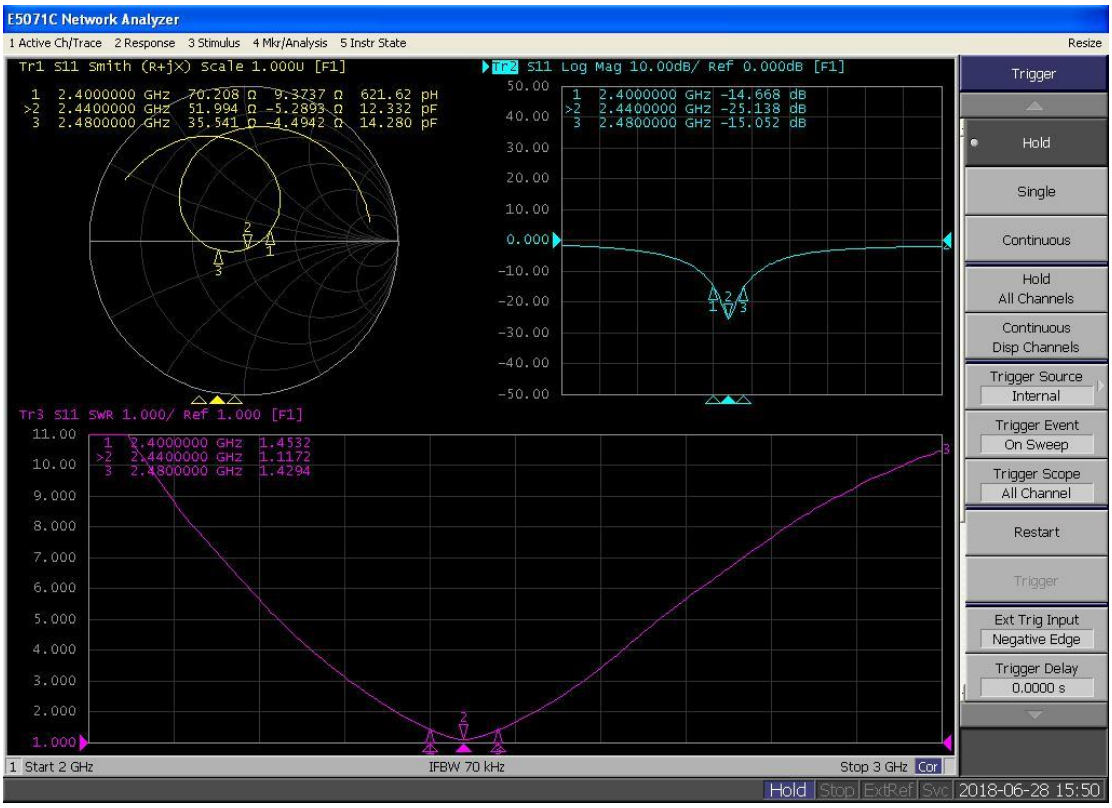


6. Passive Antenna Test Data:

6.1 Antenna network analyzer test

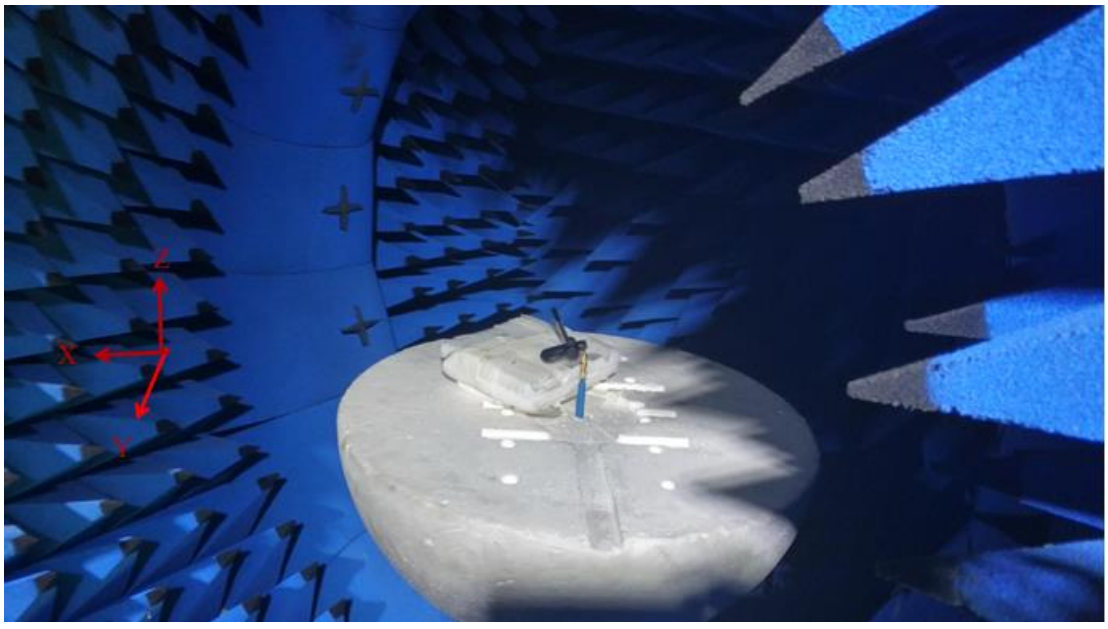


6.2 S11 Parameter data:



6.3 Antenna Anechoic Chamber Test

6.3.1 Physical placement diagram

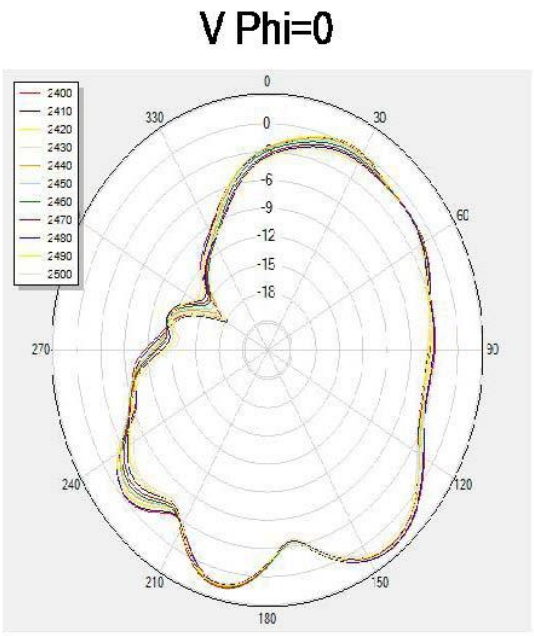


6.3.2 Gain and Efficiency

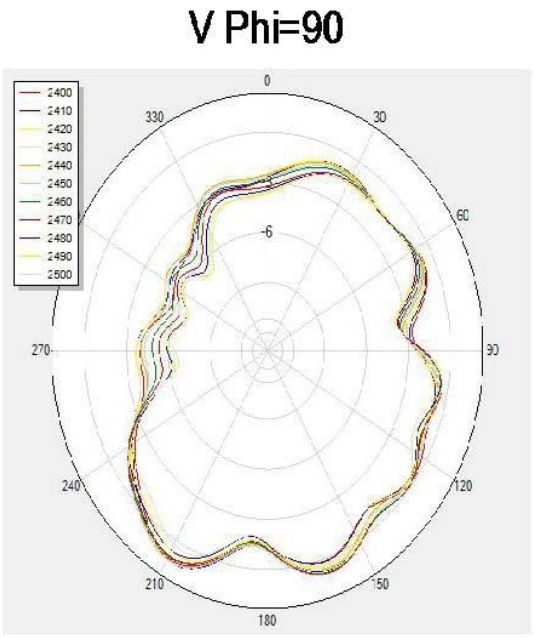
频率Frequency/MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
增益Gain/dBi	2.54	2.49	2.29	2.24	2.11	2.17	2.09	2.05	1.79	1.82	1.45
效率efficency/%	51%	52%	52%	52%	52%	53%	51%	50%	51%	50%	51%

6.3.3 Directional diagram (2.4GHz)

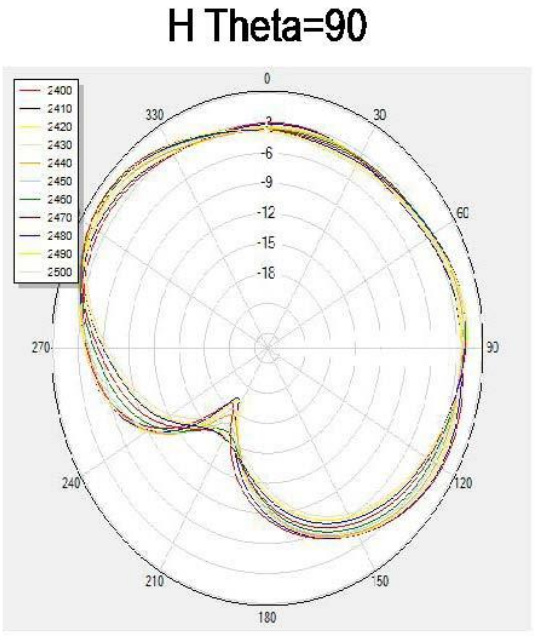
(1) X-Z:



(2) Y-Z


V Phi=90
2400
2410
2420
2430
2440
2450
2460
2470
2480
2490
2500
0
30
60
90
120
150
180
210
240
270
300
330
-6

(3) X-Z


H Theta=90
2400
2410
2420
2430
2440
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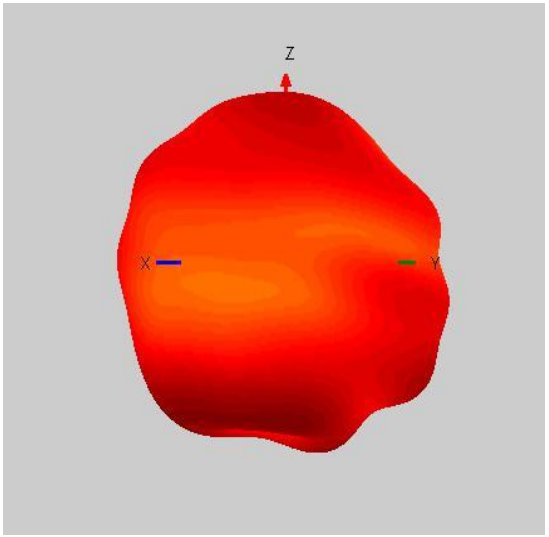
2460
2470
2480
2490
2500
0
30
60
90
120
150
180
210
240
270
300
330
-3
-6
-9
-12
-15
-18

2.45GHz 3D Directional diagram:



7. Project Summary:

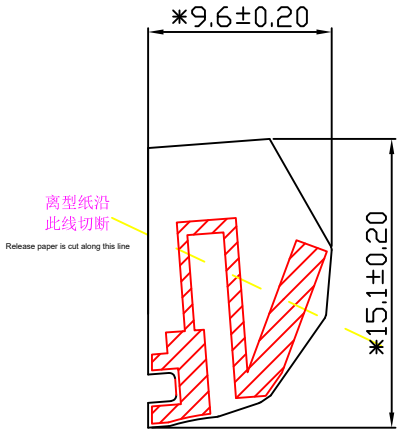
In summary, this is the complete passive testing of the Dellking E2 headphones. Due to the good clearance around the antenna and only one button, the antenna effect is quite ideal. As can be seen from the above test data, the VSWR and return loss are good, the directional pattern is relatively balanced, the efficiency is high, and the gain is excellent. It belongs to an excellent level.

Shenzhen B&T Technology Group Co., Ltd.

2018-6-28

Unit: mm

A1			18-07-03



				E2-14.6X10.3-FPC-A1
0.	±0.15		1:1	
0.0	±0.1			
0.00	±0.05			
0°	±1°			