Shenzhen Hongdezhixin Technology Co., LTD

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.3.8

Antenna test report

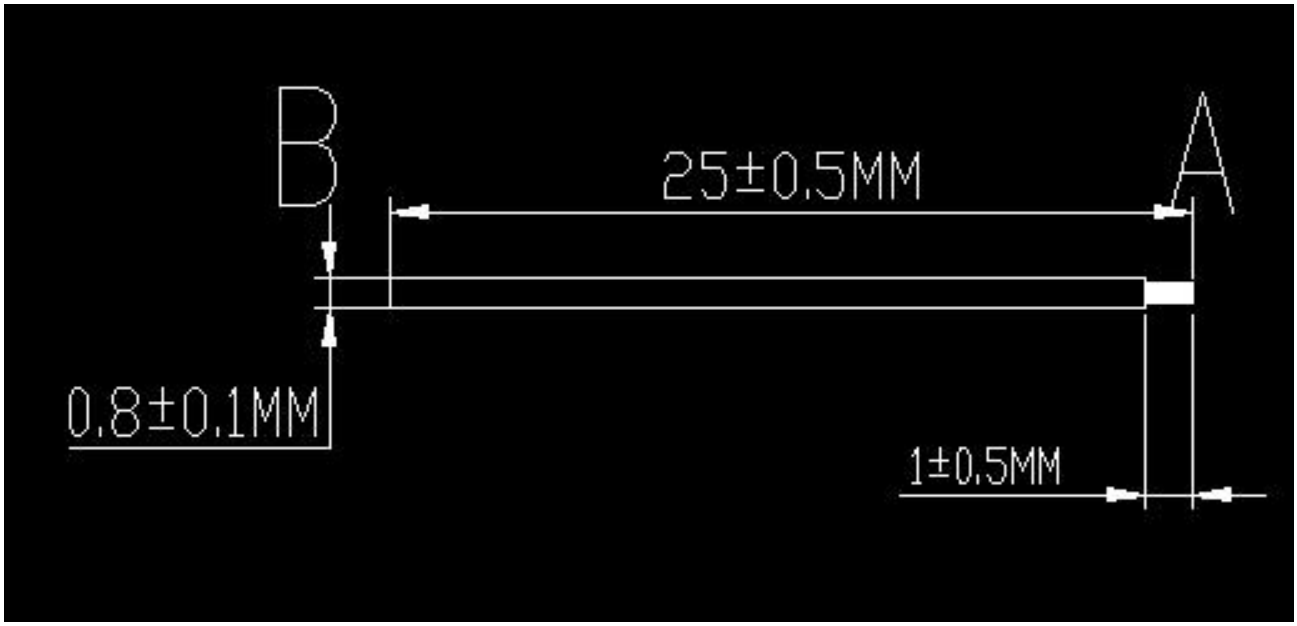
Customer Name: Shenzhen Diewei Technology Co., Ltd.

Project Name: Bluetooth Cable

Report date: 2023.3.8

Engineering confirmation	Examine and approve		Customer confirmation	
Sun Jian	Guichunlei			

Serial number		Project configuration information					
1	Working frequency band (MHz)	Blue tooth	2.4G				
2	Type of mobile phone						
3	Type of antenna						
4	Antenna feed point form	OneFeed the feet					
5	Antenna form	Type of antenna	Electronic cable				



Biuetooth cadle 25mm

Product electrical performance index	
Work 力 military range	2400- 2500MHz
Standing wave ratio	2400-2500MHz: <1.5
Antenna gain	2400-2500MHz: 3.25dBi
Radiation efficiency	2400-2500MHz: >601
impedance	50 ohm
Product materials say hands	
FPC	TV ah +PI
Product environment says hands	
Operating temperature	-30°C -+ 85 C
Rutang temperature	-30° C - + 85 ° C
Output voltage standing wave ratio	1.92V
Connection mode	Solder press

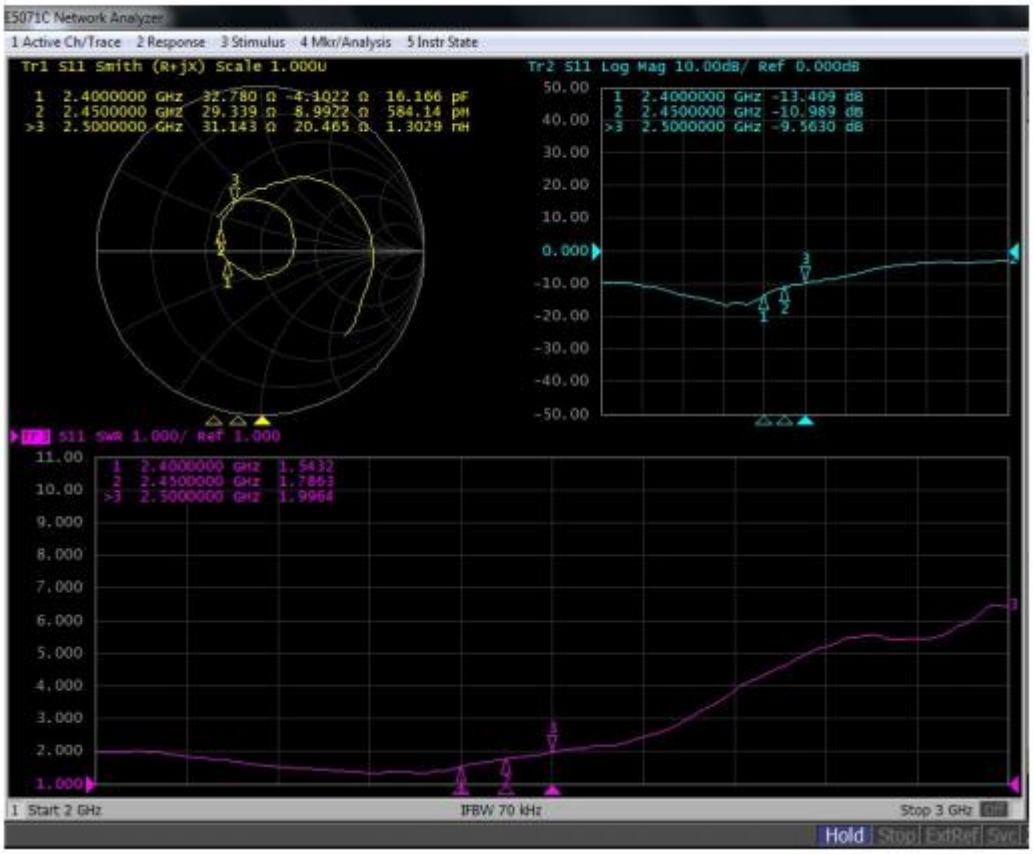
1.3 Test equipment

Equipment	Model No.	Serial No.	Manufacturer	Calibration date	Next calibration date
16 probe microwave chamber	3*3*2.5	RFI-LAB-RF-A00	SUNYIELD	2021.3.15	2023.3.14
Network Analyzer	E5071C	RFI-LAB-RF-A02	Agilent	2022.5.13	2023.5.12
Network Analyzer	E5071C	RFI-LAB-RF-C02	KEYSIGHT	2022.5.13	2023.5.12

1.4 Test environment

Temperature	22.9℃
Humidity	60%RH
Pressure	100.15kPa

3.3.1 S11 parameters



3.3.2 S11 test data

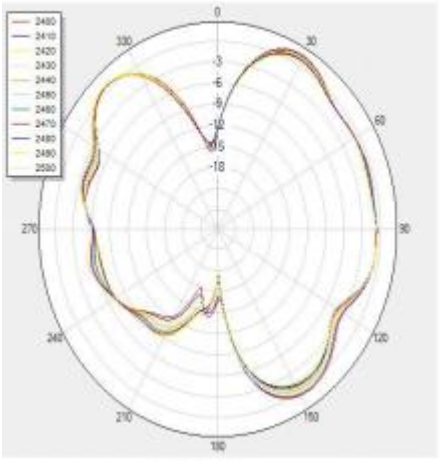
Frequency/MHz	2400	2450	2500
VSWR	1.5432	1.7863	1.9964

3.3.3 Typical free space efficiency and gain

Frequency/MHz	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain/dBi	3.25	3.13	2.99	2.99	2.86	2.98	2.89	2.85	2.9	2.78	2.5
Efficiency/%	59.21	58.08	56.64	55.73	54.97	55.35	53.78	53.75	54.12	53.50	52.05

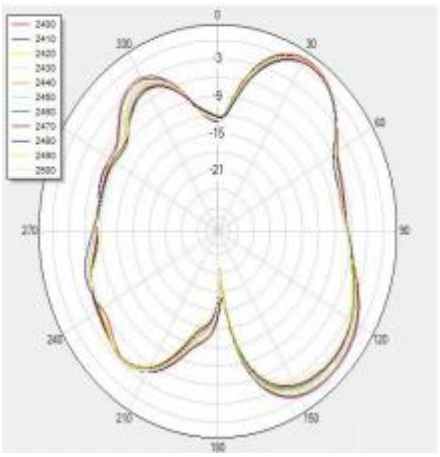
(1) X-Z Plane:

V Phi=0



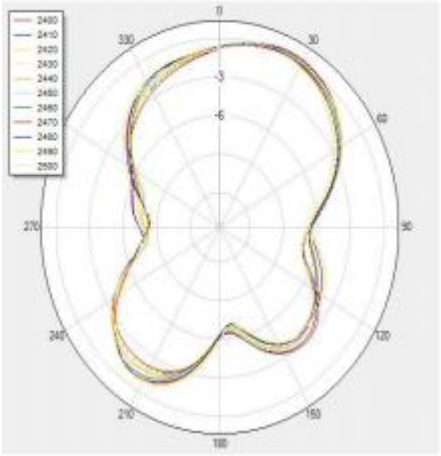
(2) Y-Z Plane:

V Phi=90



(3) X-Y Plane:

H Theta=90



Typical Free Space 3D Radiation Pattern at 2.45GH