Ansheng

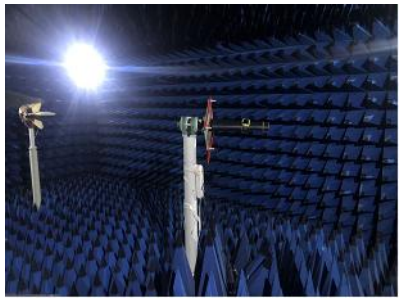
-WMC2223-

Antenna optimization debugging report

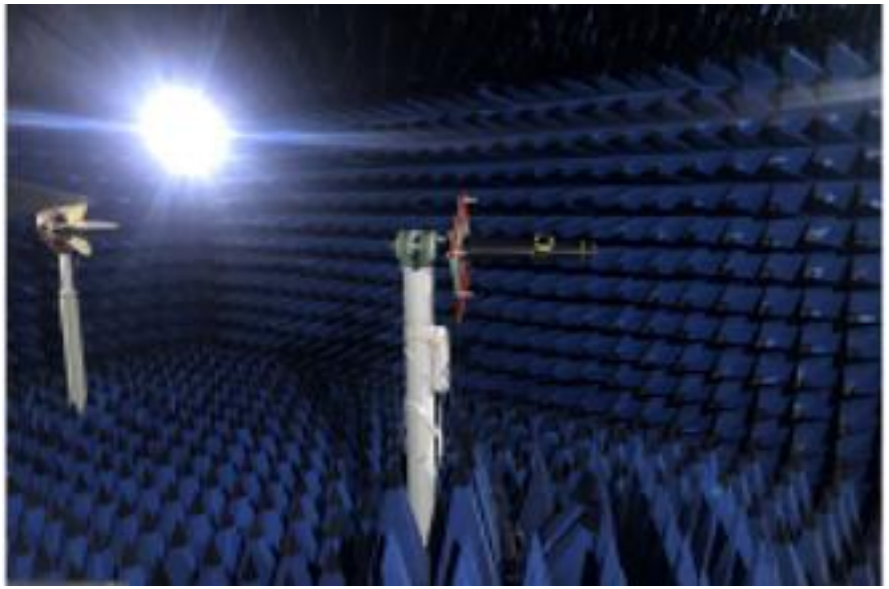
RF: He Shiyin

Date:
2023-4-23

Contact information:



development environment



We are starting from
The Internet era has moved towards the era of intelligence, and the country is building a digital society and a smart city. There will be great development potential in both the consumer electronics market and the Internet of Things market in the next 5-10 years. The field of wireless communication is very diversified, Yusheng in the future. Relying on the advantages of the customer platform of the main antenna industry and its own comprehensive strength, Strive to provide customers with market-competitive professional product solutions.

Yusheng Communications's products cover antenna applications of almost all wireless terminal equipment, including automotive antennas, high-precision measurement and mapping antennas, drone ground and satellite data navigation, high-precision positioning antennas, wireless transmission of medical equipment, consumer antennas (mobile phone antennas, PAD, laptop antennas), base station/indoor distribution antennas, smart wear antennas (smart watches, TWS headphones), security home antennas, and a variety of wireless data transmission and wireless control smart device antennas.

1. Introduction to project debugging
2. Outline of the report version
3. Antenna passive parameters
4. Antenna active parameters
5. Sum up

Introduction to project debugging

Trigger mechanism Mould	Bluetooth earphone		
Board Mould	Motherboard		
Frequency band and antenna material	Main antenna	Repeatedly Stage	Timber Nature
		2400MHz-2500MHz	FPC
Performance requirements	Perform as required by the customer		

Outline of the report version

Report Version	Reporting time	Problems solved by this antenna research and development
V0.1	2023/4/15	Initial antenna debugging report
V0.2	2023/4/23	Antenna optimization debugging report

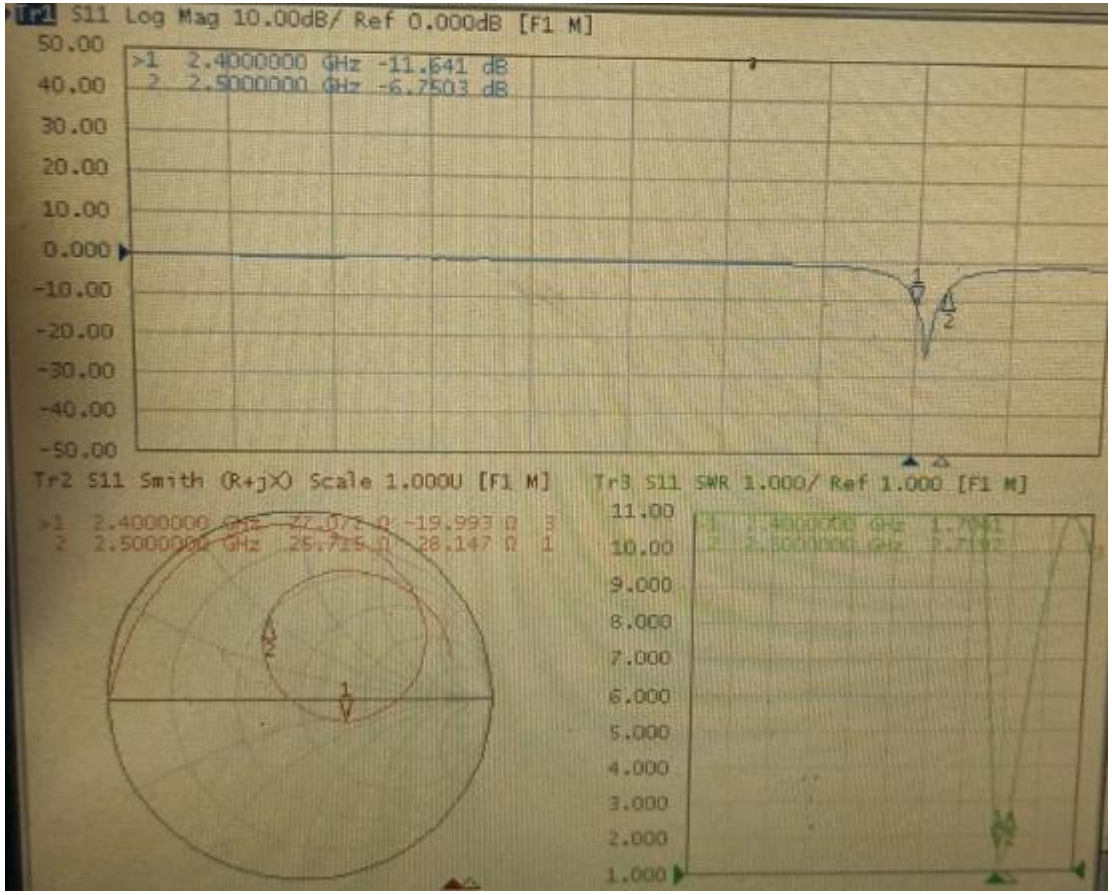
Logic board conduction data

Left ear		
0	7.67	-91
39	7.59	-91
78	7.24	-91

Right ear		
0	7.38	-91
39	8.46	-91
78	8.72	-91

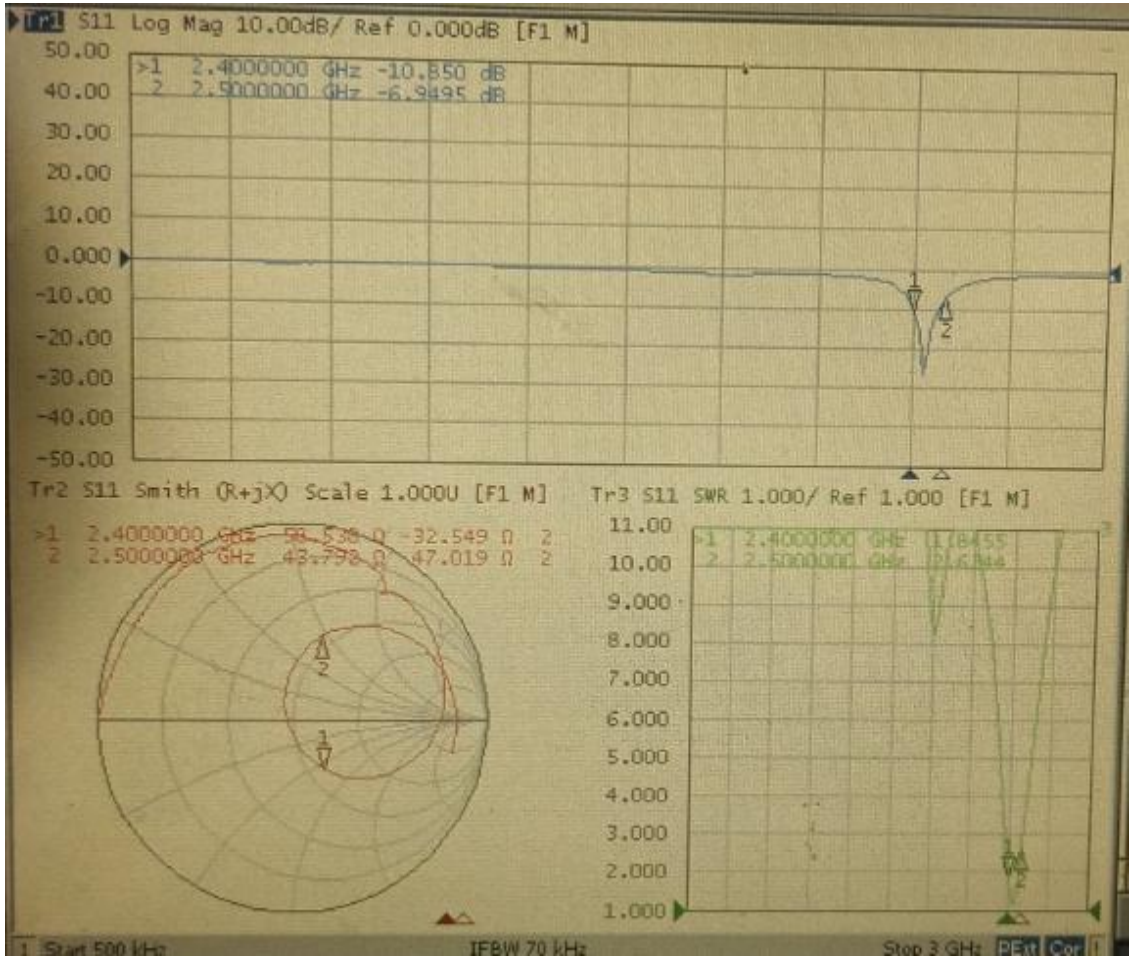
Left ear antenna passive data

Freq	Effi (%)	Gain (dBi)
2400.0	19.26%	-1.73
2410.0	19.53%	-1.20
2420.0	20.16%	-0.70
2430.0	21.57%	-0.23
2440.0	22.81%	-0.88
2450.0	23.41%	-0.65
2460.0	22.69%	-0.98
2470.0	21.77%	-0.16
2480.0	20.59%	-1.90
2490.0	19.48%	-1.97
2500.0	18.33%	-2.38

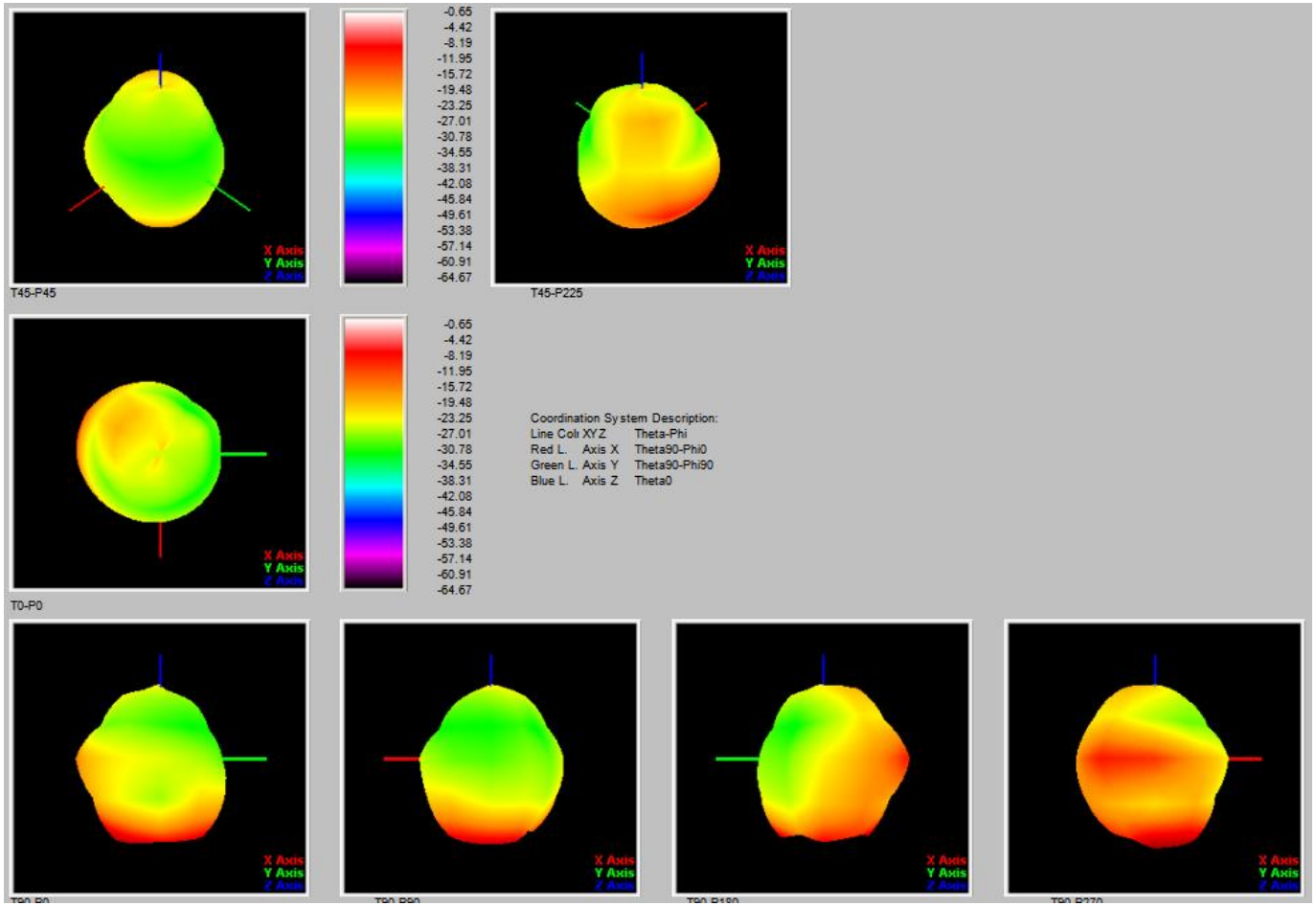


Right-ear antenna passive data

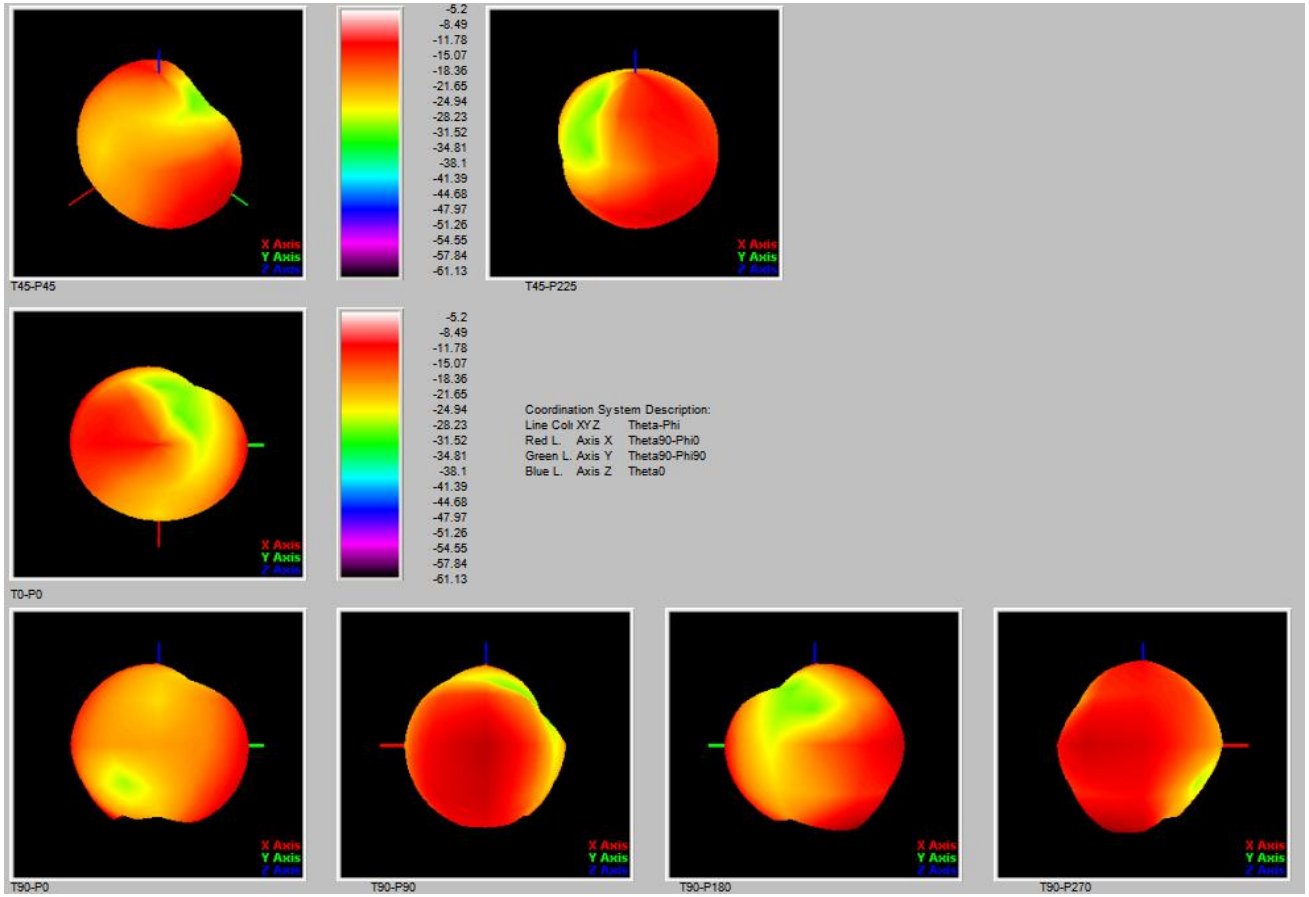
Freq	Effi （%）	Gain (dBi)
2400.0	20.42%	-1.11
2410.0	21.63%	-0.85
2420.0	22.54%	-0.82
2430.0	23.18%	-0.58
2440.0	23.29%	-0.85
2450.0	22.46%	-0.78
2460.0	21.71%	-1.12
2470.0	20.65%	-1.78
2480.0	19.88%	-1.61
2490.0	18.37%	-1.93
2500.0	17.28%	-2.55



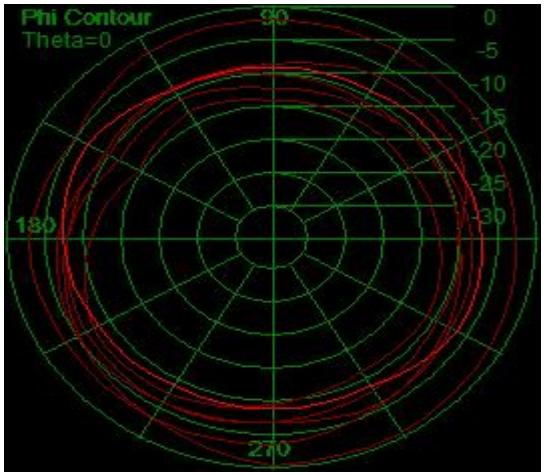
parameter
-Direction map

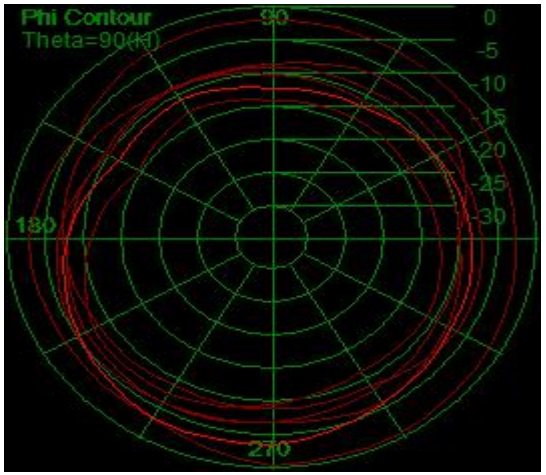


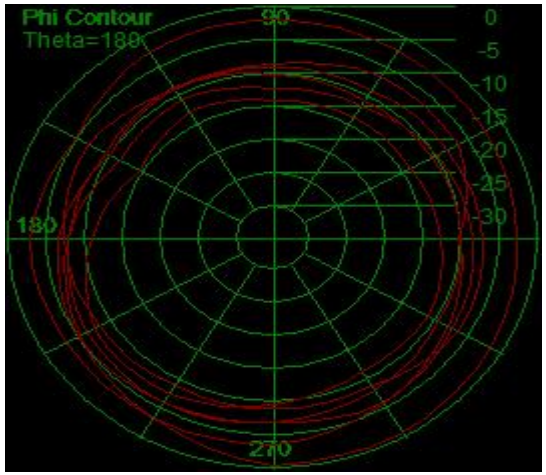
right-ear antenna -Direction map

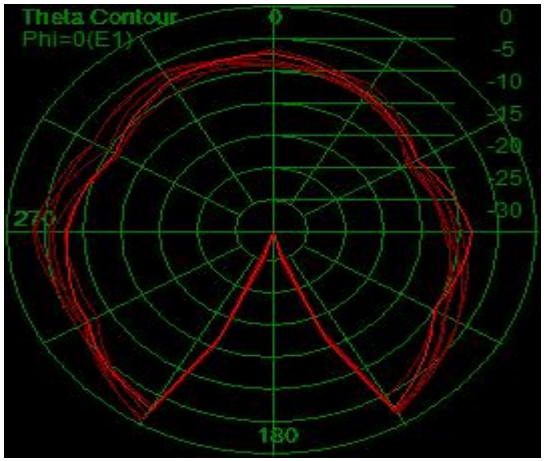


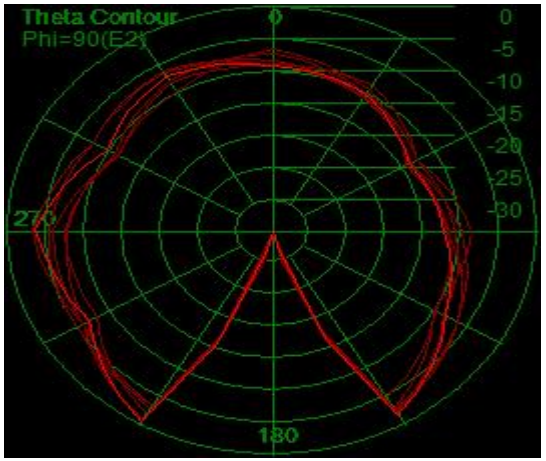
parameter -Plan

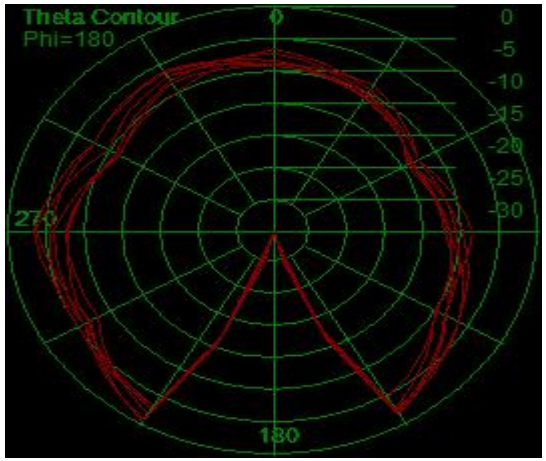




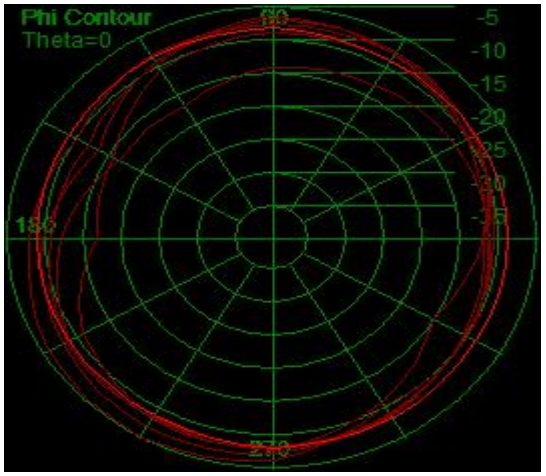


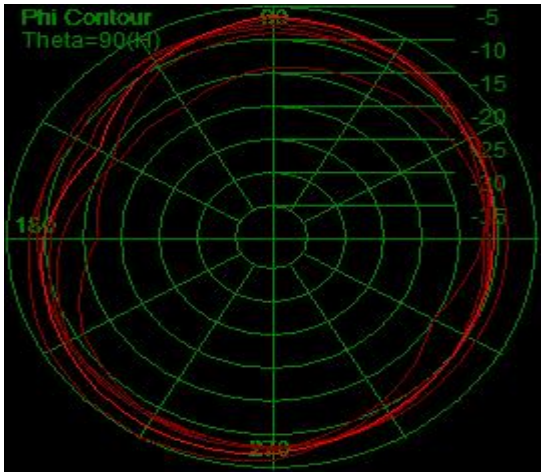


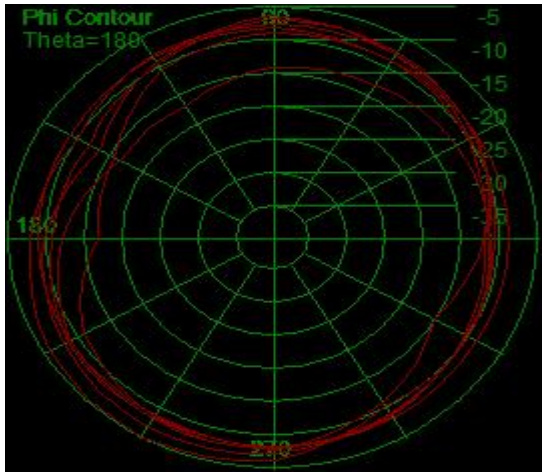


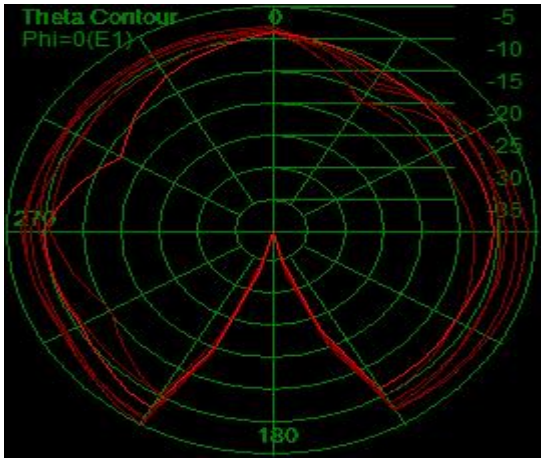


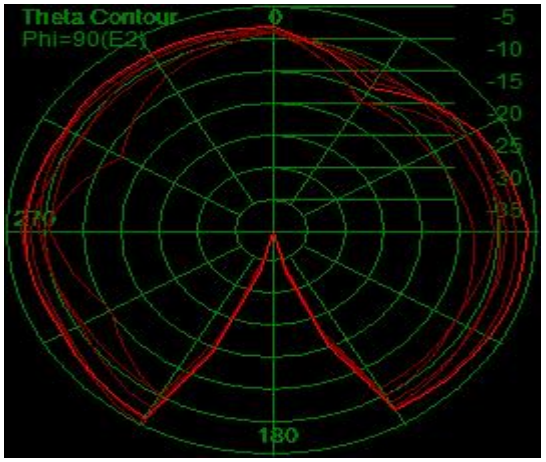
right-ear antenna -Plan

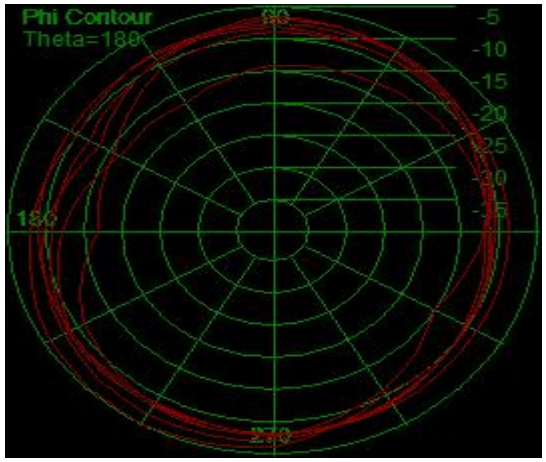


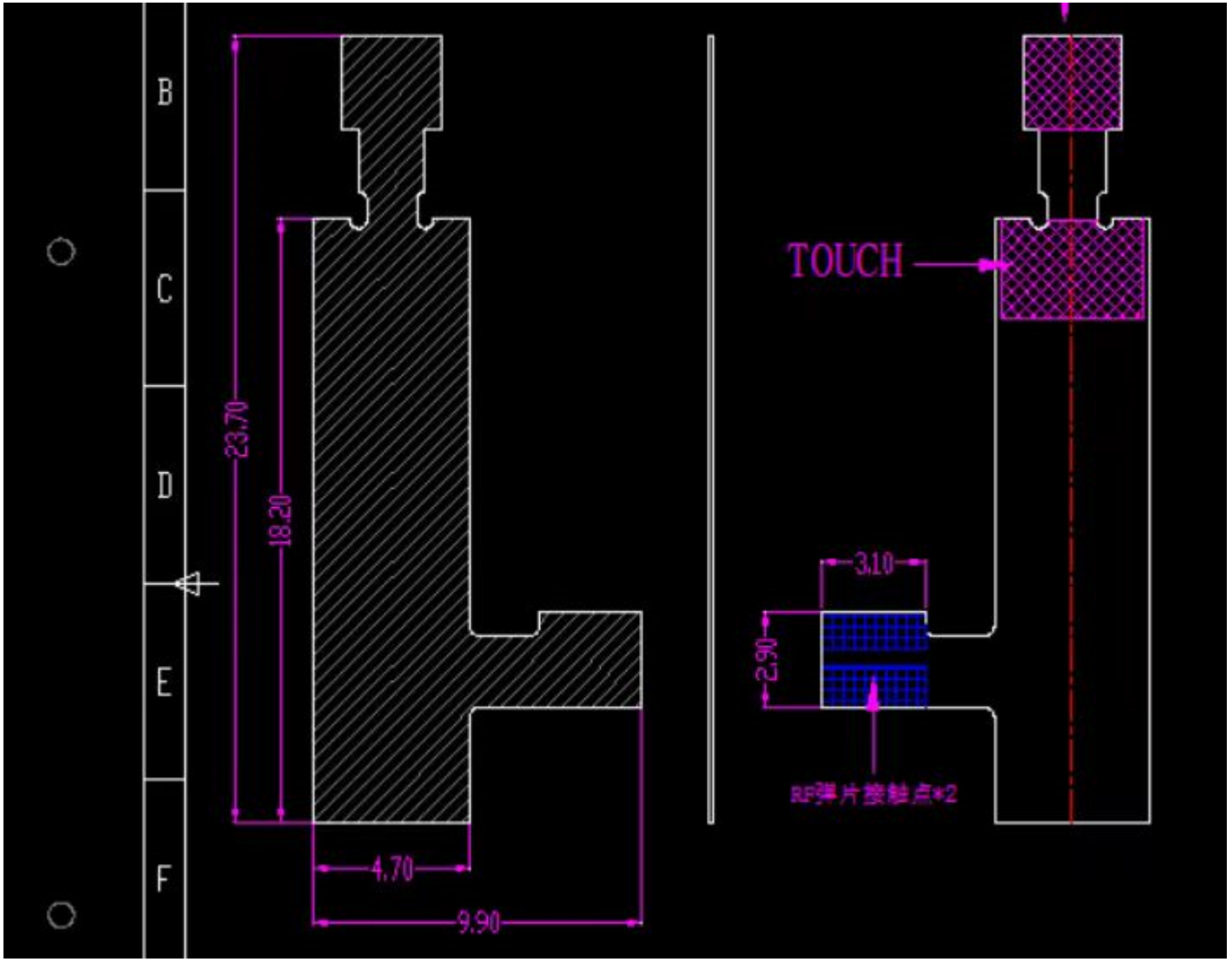











B
C
D
E
F
23.70
18.20
4.70
9.90
TOUCH
3.10
2.90
RF弹片接触点*2

Thank you!

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