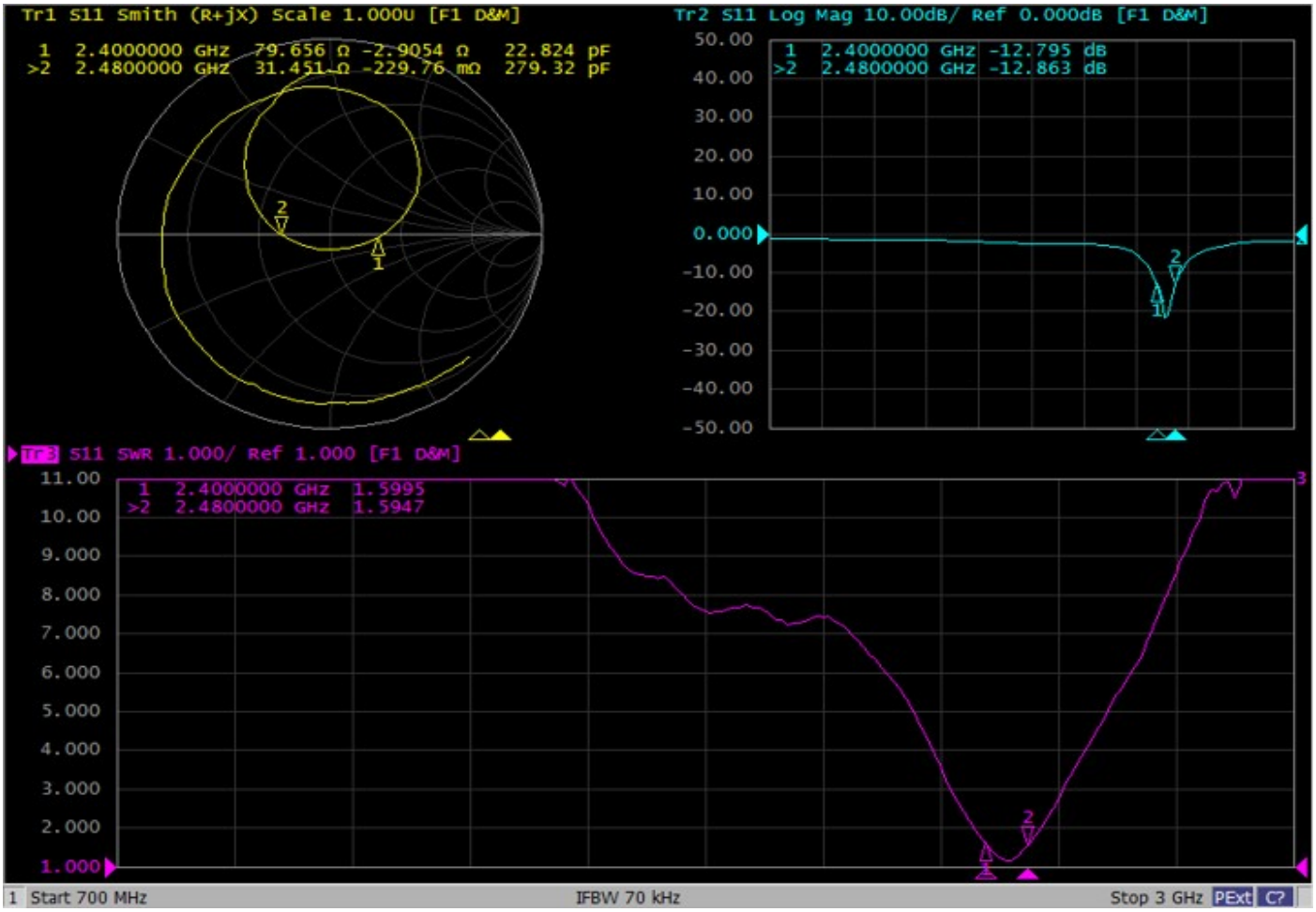
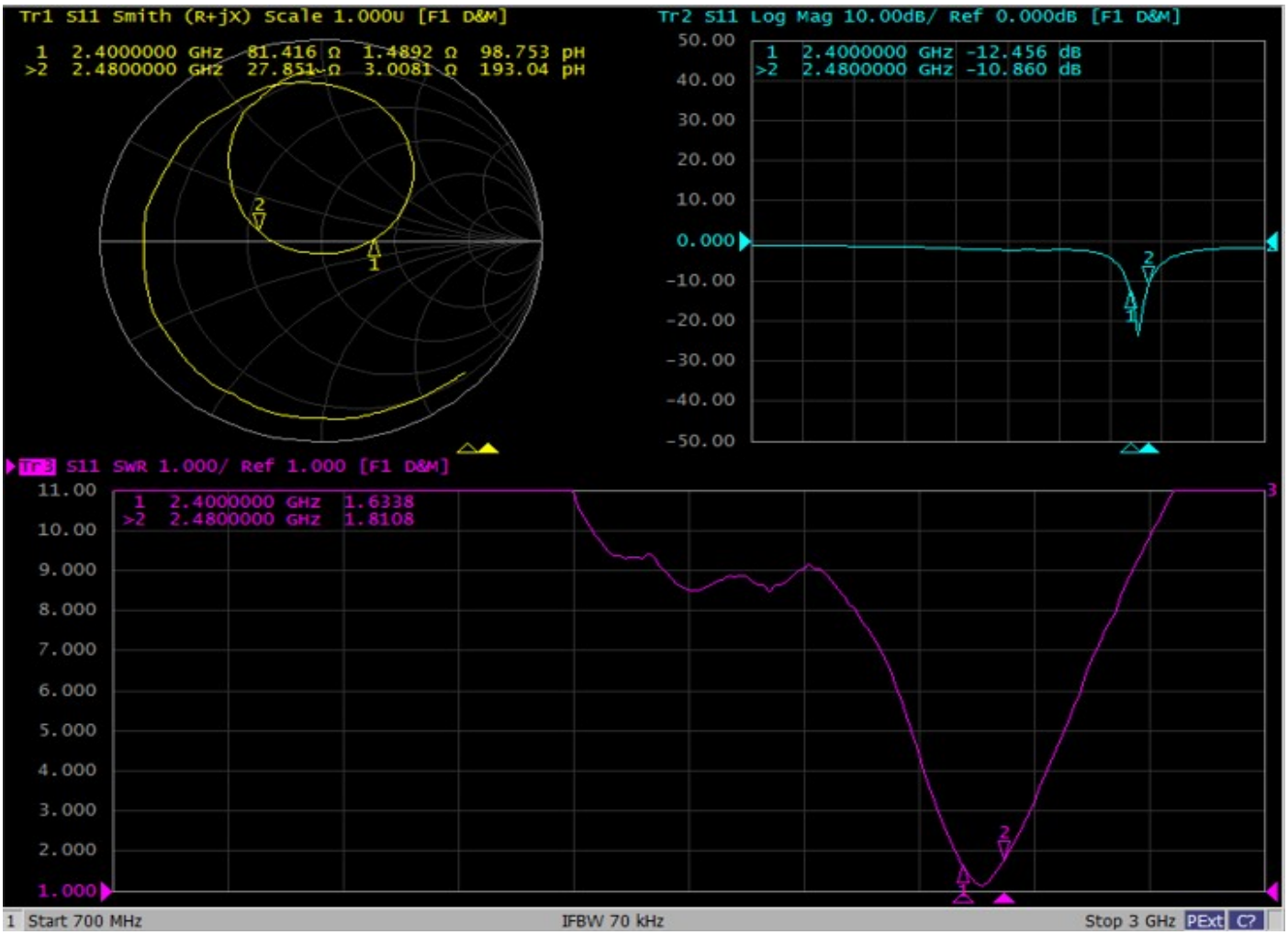
I: The report of passive data

Angilent E5071C

Left ear BT antenna S11 parameters



Right ear BT antenna S11 parameters



Efficiency and gain of left ear BT antenna:

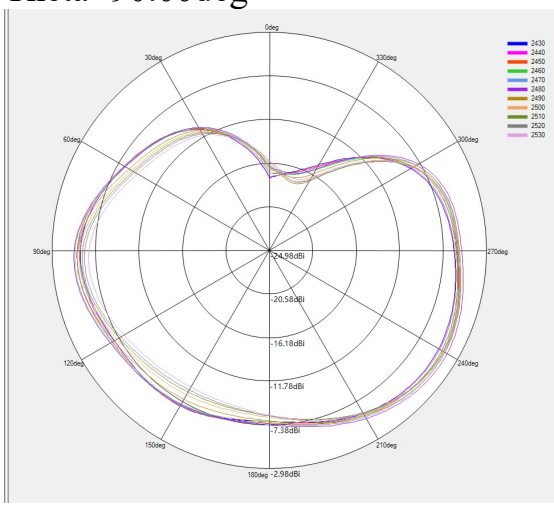
FS			
Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	-4.6	-7.8	16.6
2410	-4.2	-7.7	17.1
2420	-3.8	-7.4	18.2
2430	-3.6	-7.4	18.2
2440	-3.2	-7.1	19.6
2450	-3.0	-6.9	20.3
2460	-3.2	-7.2	19.0
2470	-3.4	-7.4	18.3
2480	-3.6	-7.5	17.8
AVG	-3.61	-7.38	18.33

Efficiency and gain of Right ear BT antenna:

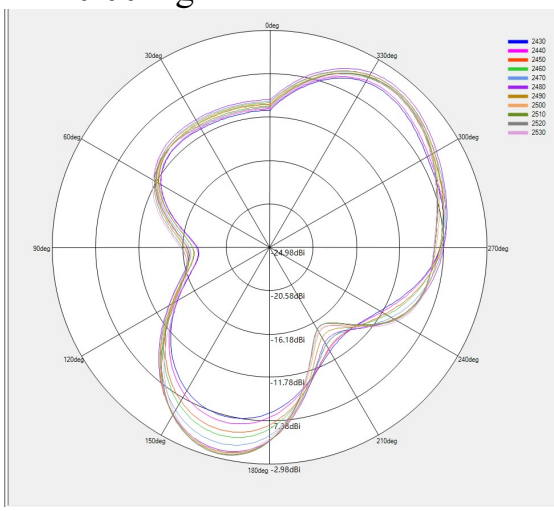
FS			
Frequency (MHz)	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	-4.6	-7.9	16.3
2410	-4.0	-7.8	16.5
2420	-3.8	-7.5	17.7
2430	-3.7	-7.5	17.6
2440	-3.4	-7.2	19.0
2450	-3.3	-7.0	19.8
2460	-3.7	-7.3	18.8
2470	-3.9	-7.4	18.2
2480	-4.3	-7.5	17.8
AVG	-3.86	-7.46	17.96

Passive 2D directional pattern of left ear BT antenna:

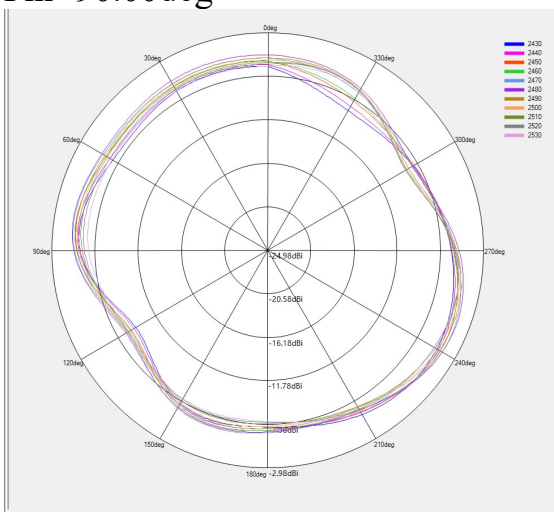
Theta=90.00deg



Phi=0.00deg

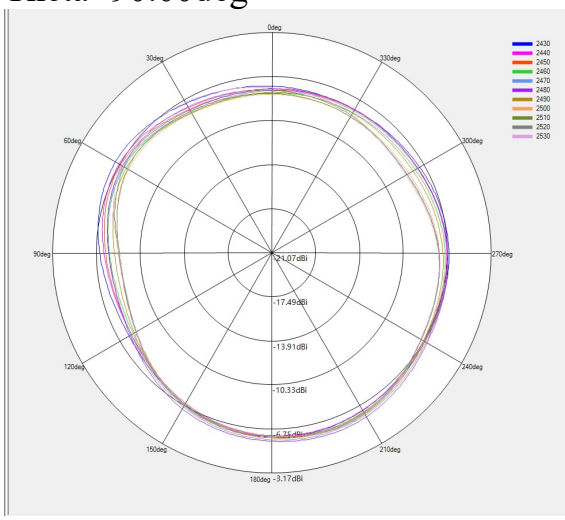


Phi=90.00deg

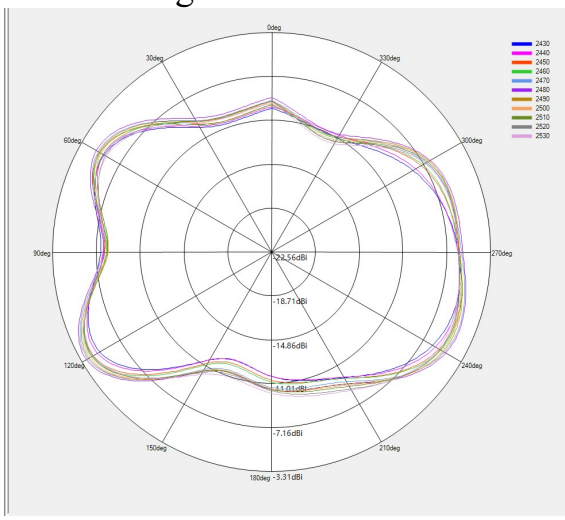


Passive 2D directional pattern of right ear BT antenna:

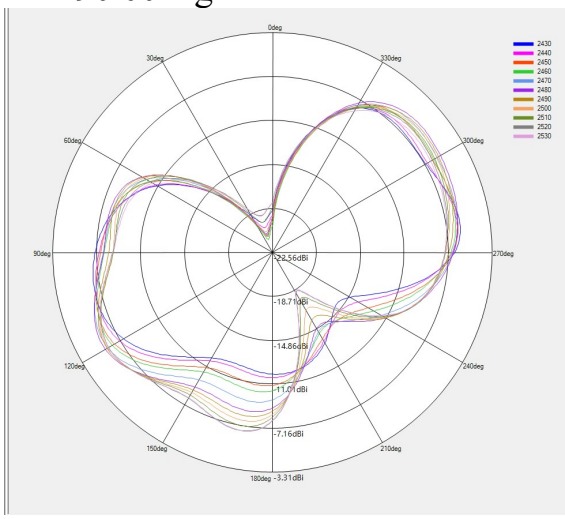
Theta=90.00deg



Phi=0.00deg



Phi=90.00deg



II：Antenna 3D darkroom data

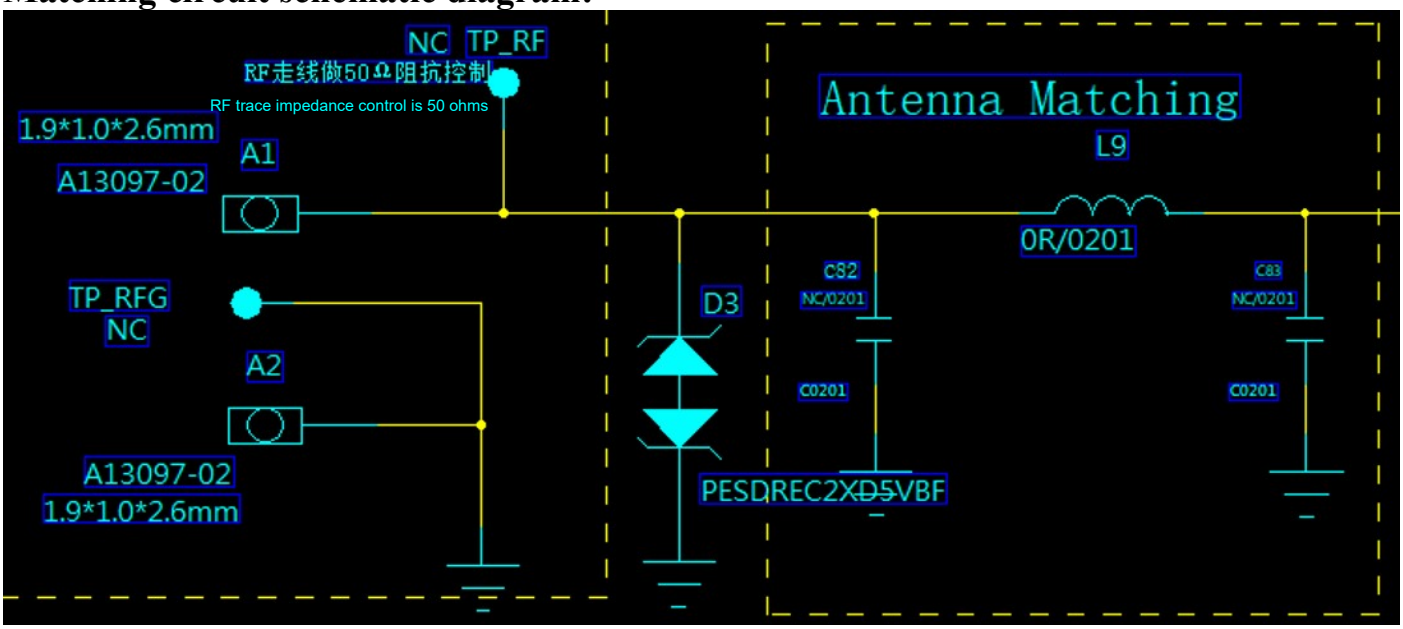
	Channel	TRP	TIS
L	0	3.0	-86.5
	39	4.5	-88.7
	78	5.6	-90.8

	Channel	TRP	TIS
R	0	3.6	-86.6
	39	4.6	-88.5
	78	5.4	-89.5

OTA Standard Chamber

III：Matching circuit

Matching circuit schematic diagram:



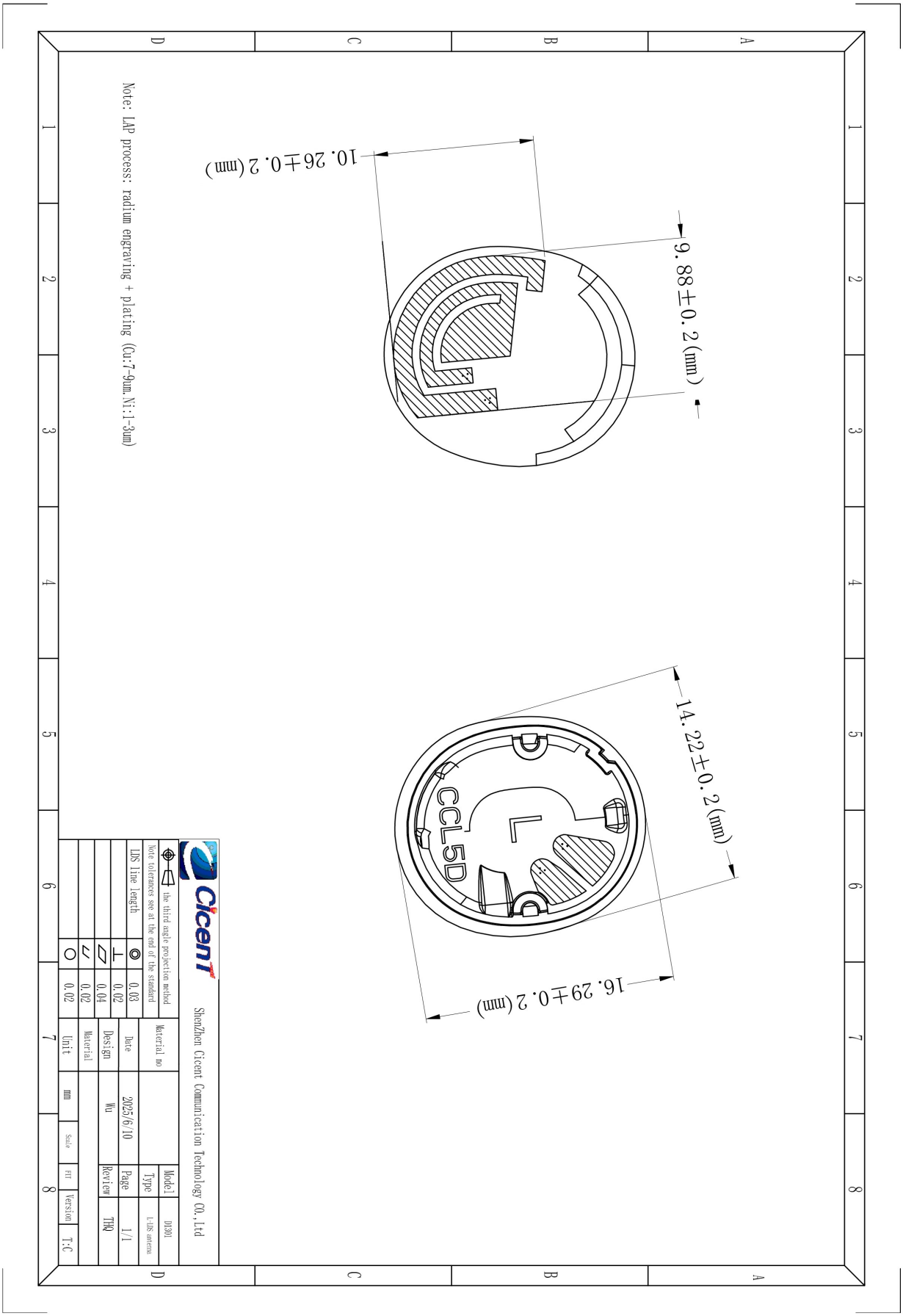
Left ear matching circuit:

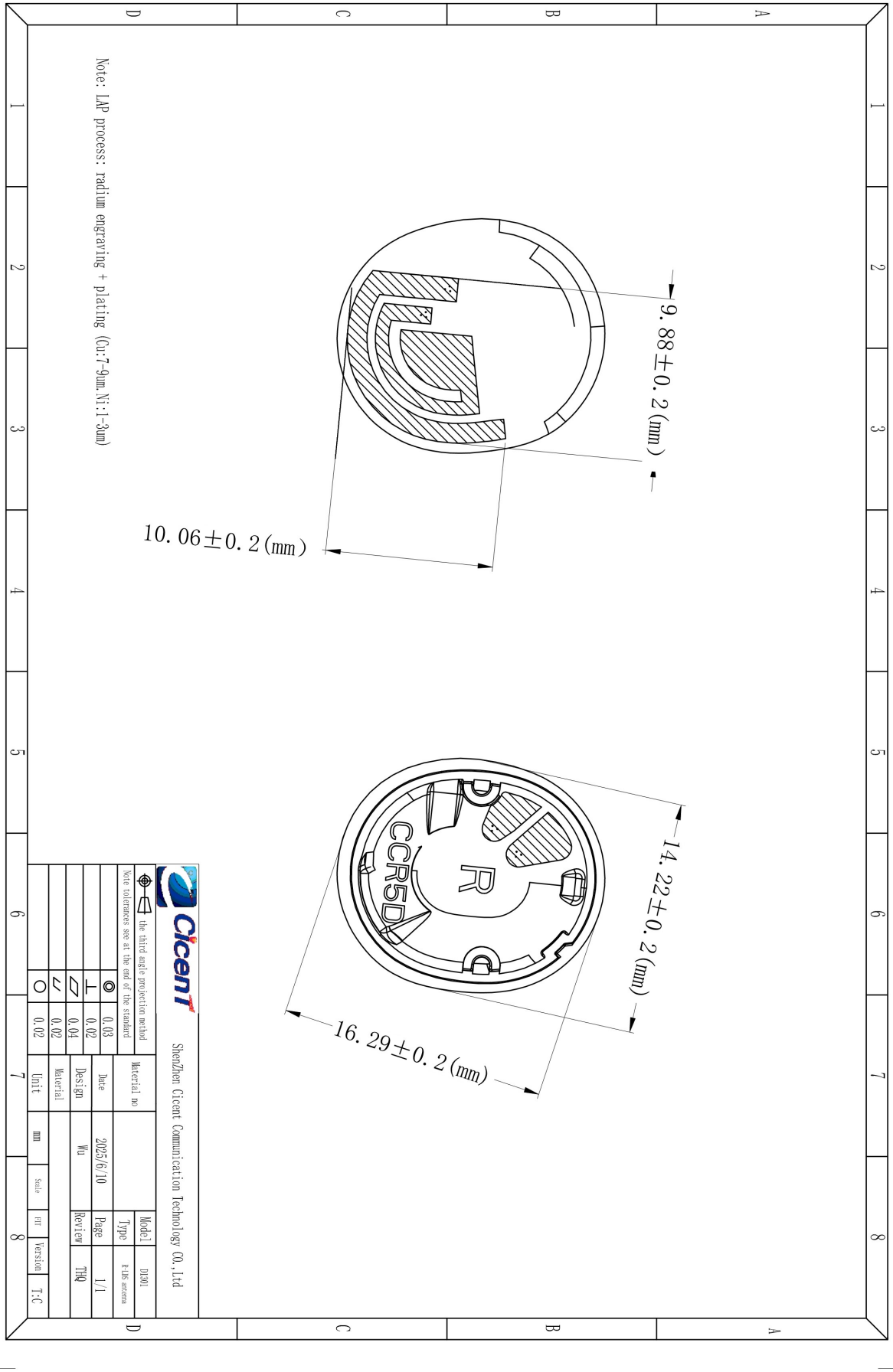
Element	Value
D3	ESD
C82	N/A
L9	3.9nH
C83	N/A

Right ear matching circuit:

Element	Value
D3	ESD
C82	N/A
L9	3.9nH
C83	N/A

IV：Structure file：




9.88±0.2(mm)
10.06±0.2(mm)
14.22±0.2(mm)
16.29±0.2(mm)
R
CCR5D
Note: LAP process: radium engraving + plating (Cu:7-9um,Ni:1-3um)
the third angle projection method
Note tolerances see at the end of the standard
Material no
0.03
0.02
0.04
0.02
0.02
Date
2025/6/10
Design
Wu
Material
Unit
mm
Scale
FIT
Version
T:C
Cicent
ShenZhen Cicent Communication Technology CO.,Ltd
Model
D1301
Type
R-LDS antenna
Page
1/1
Review
THQ