Antenna Part Specification

Customer name：	GuoGuang
Project name：	L03
Materialcategory：	BT Antenna
Version：	V2.0
Date：	2023.12.25

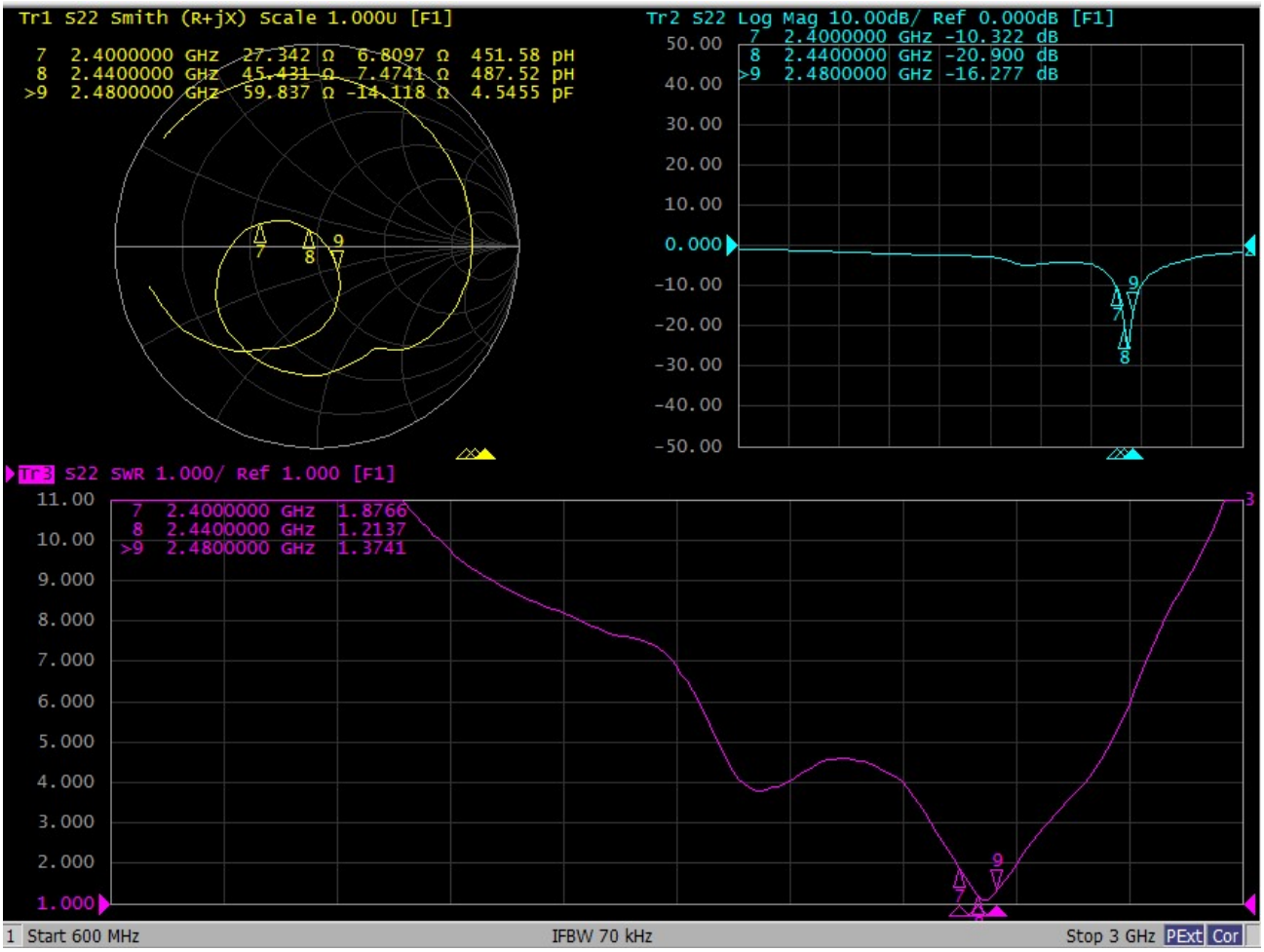
Contents

Change record			
Compile / change date	Reason for change	Changed content	Version
2023.11.22	first edition	first edition	V1.0
2023.12.25	Antenna optimization	Antenna optimization	V2.0

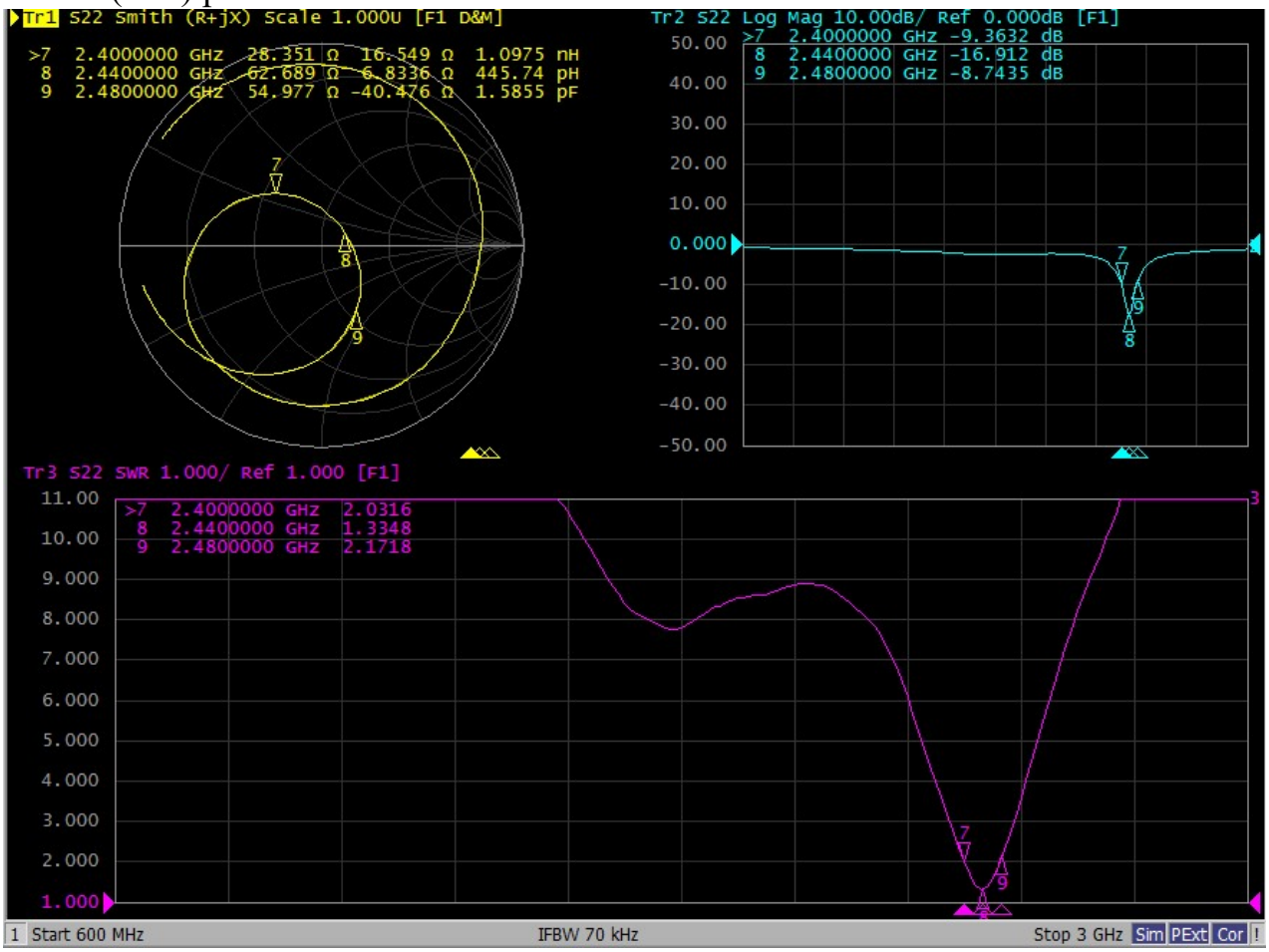
I：The report of passive data

Angilent E5071C

VSWR(S11) parameter（L）：



VSWR(S11) parameter（R）：



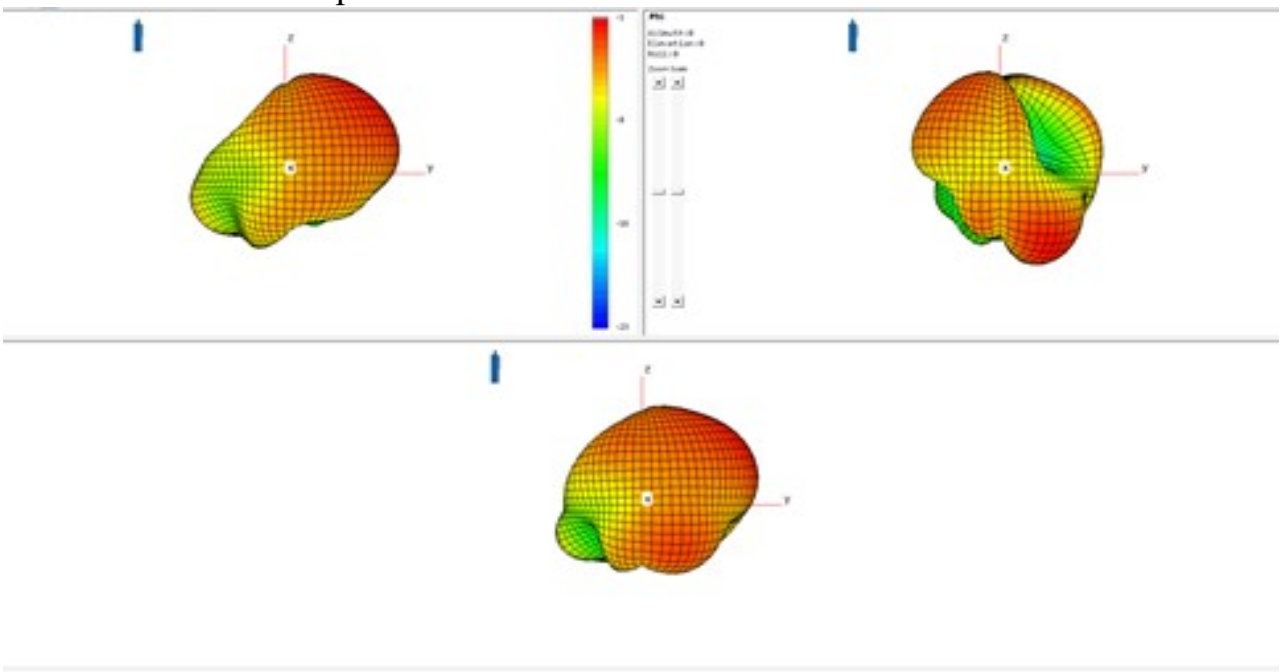
Efficiency（L）：

2400-2480 MHz （L）			
Frequency（MHz）	Efficiency	Efficiency (dB)	Gain (dBi)
2400	31.8%	-5.0	-1.2
2410	33.0%	-4.8	-1.1
2420	34.4%	-4.6	-1.1
2430	33.3%	-4.8	-1.2
2440	31.6%	-5.0	-1.3
2450	32.2%	-4.9	-1.2
2460	31.7%	-5.0	-1.4
2470	33.0%	-4.8	-1.1
2480	33.9%	-4.7	-0.7
Average value	32.8%	-4.8	-1.1

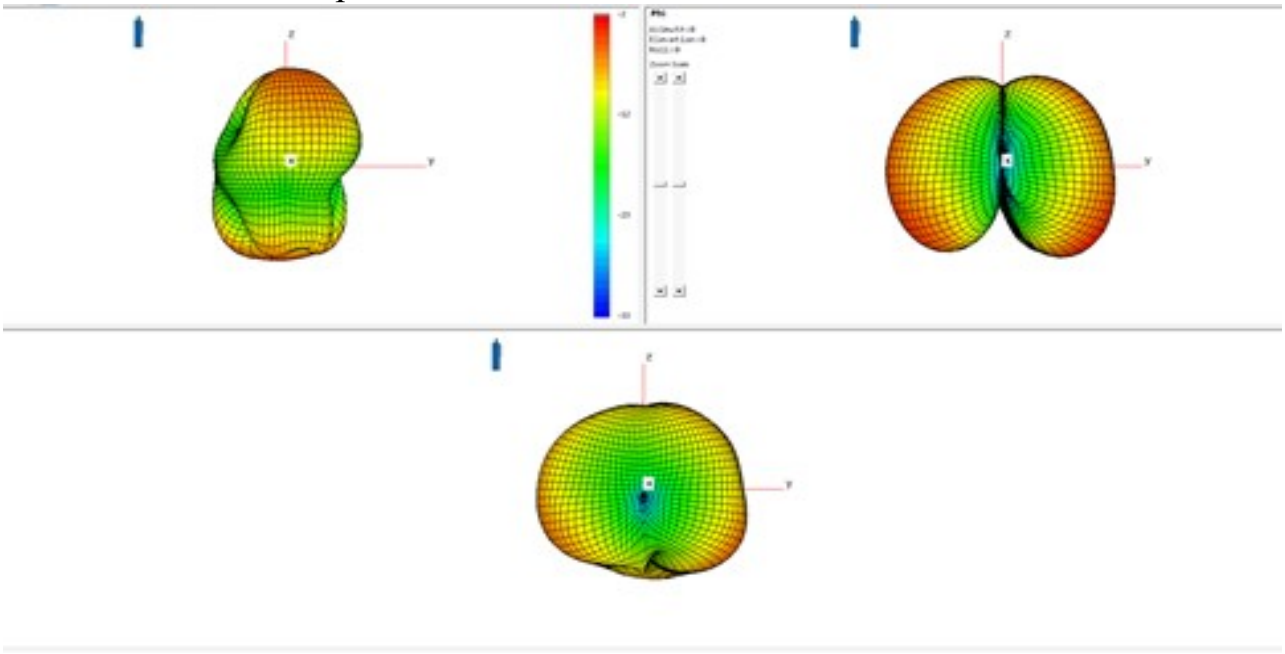
Efficiency（R）：

2400-2480 MHz （R）			
Frequency（MHz）	Efficiency	Efficiency (dB)	Gain (dBi)
2400	30.9%	-5.1	-1.9
2410	30.3%	-5.2	-1.9
2420	30.1%	-5.2	-1.9
2430	29.0%	-5.4	-1.9
2440	28.3%	-5.6	-2.0
2450	27.3%	-5.8	-2.1
2460	27.0%	-6.2	-2.4
2470	26.2%	-6.2	-2.1
2480	25.2%	-6.3	-2.1
Average value	28.3%	-5.7	-2.0

3D Antenna radiation pattern（L）:

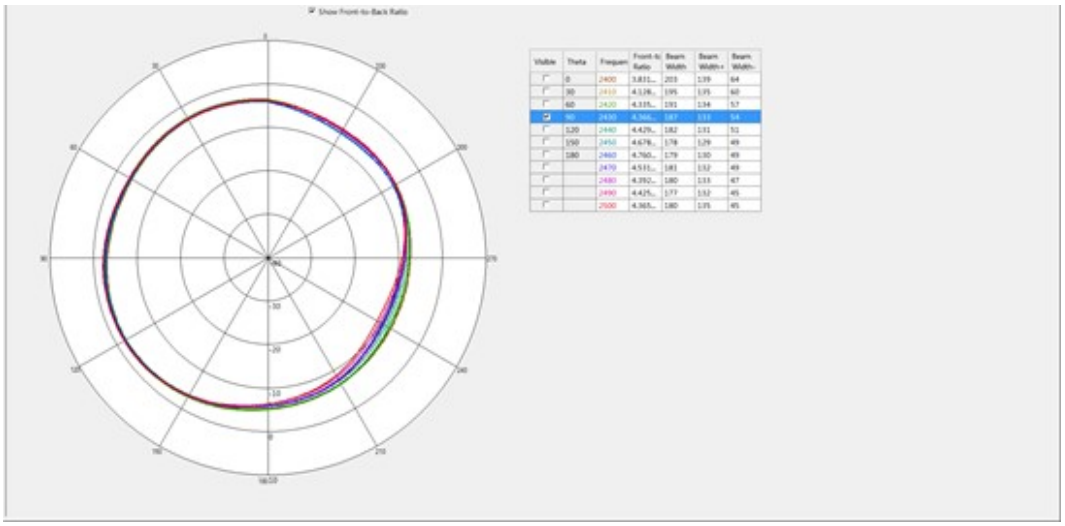


3D Antenna radiation pattern（R）:

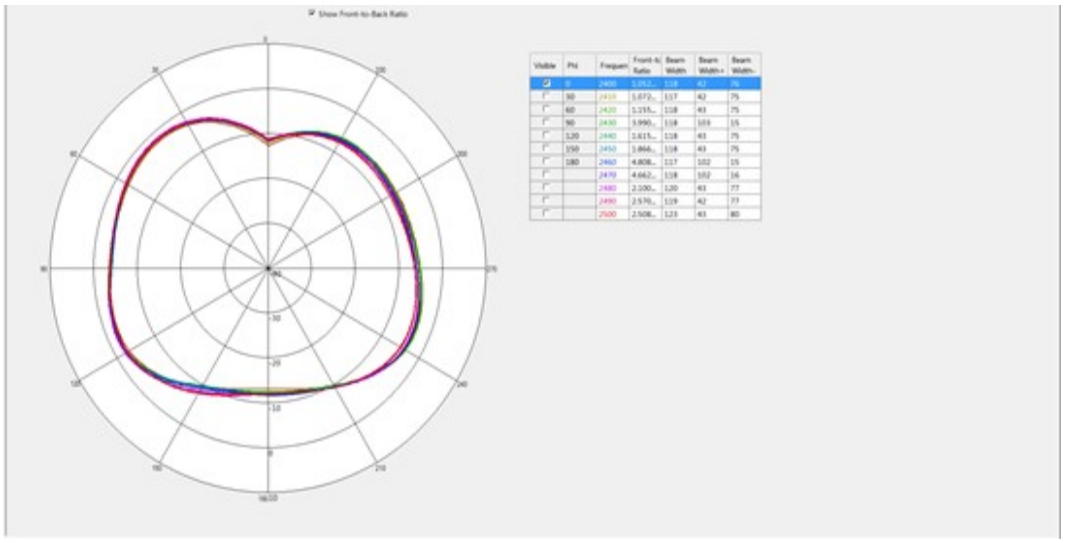


2D Antenna radiation pattern（L）:

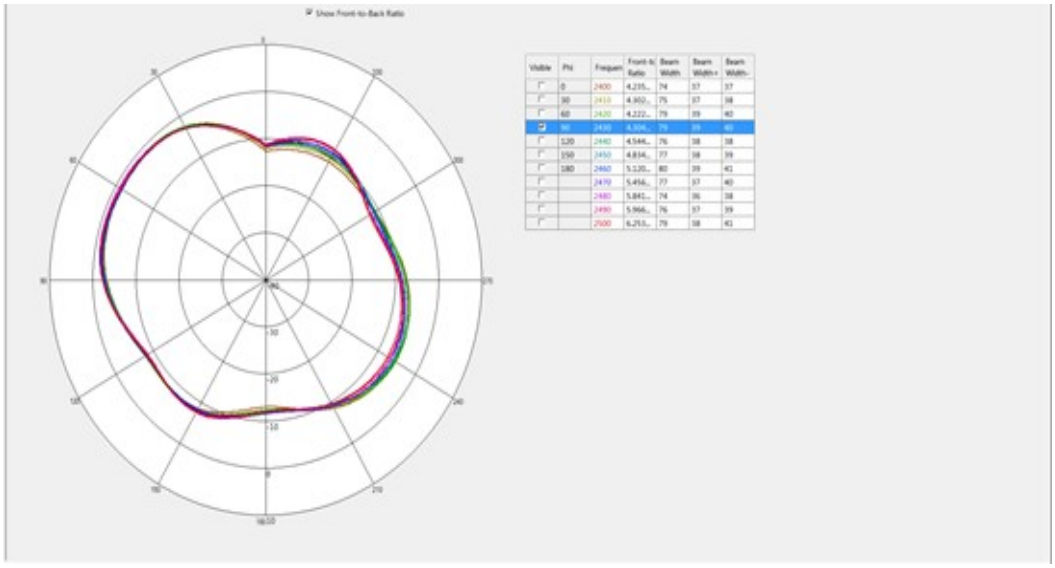
Theta=90°



Phi=0°

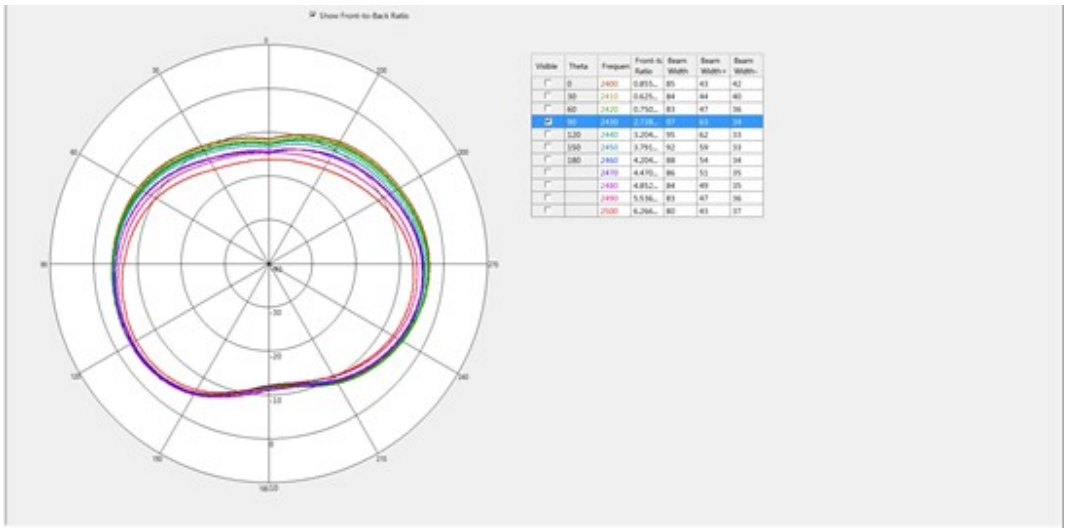


Phi=90°

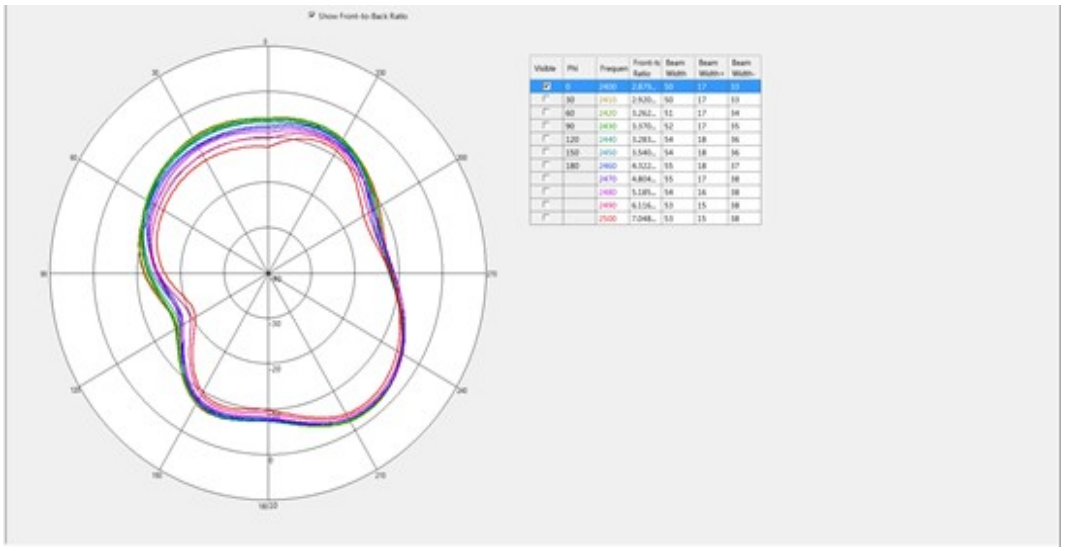


2D Antenna radiation pattern（R）:

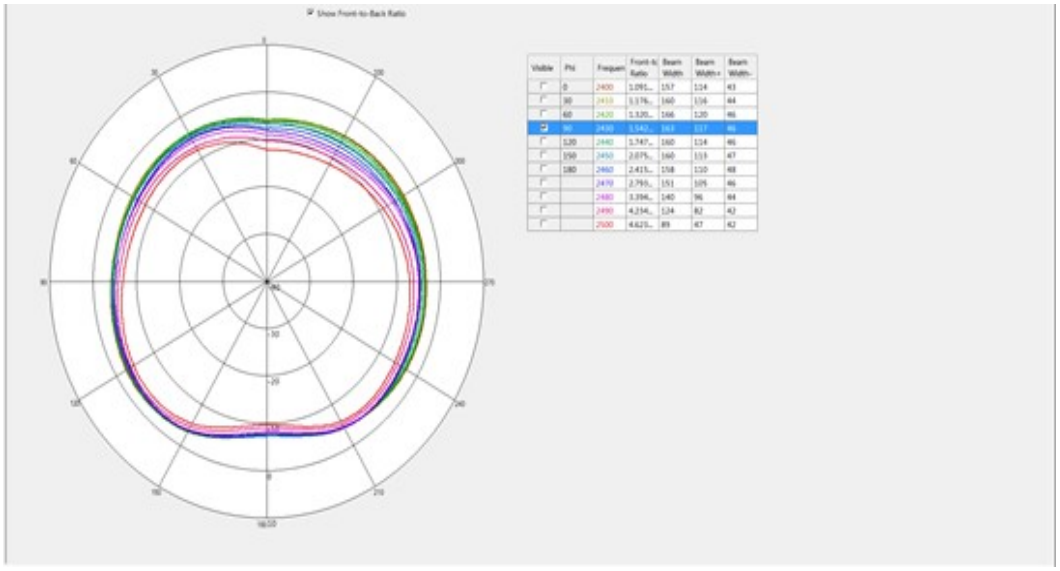
Theta=90°



Phi=0°



Phi=90°



II：3D Active test report of antenna

free space	Channel	TRP（dBm）	TIS（dBm）
L	CH 0	5.9	-90.6
	CH 39	6.1	-90.1
	CH 78	6.3	-90.7

free space	Channel	TRP（dBm）	TIS（dBm）
R	CH 0	5.7	-89.4
	CH 39	5.9	-89.8
	CH 78	5.4	-89.3

headform	Channel	TRP（dBm）	TIS（dBm）
L	CH 0	1.5	-85.5
	CH 39	2.0	-85.9
	CH 78	2.2	-86.2

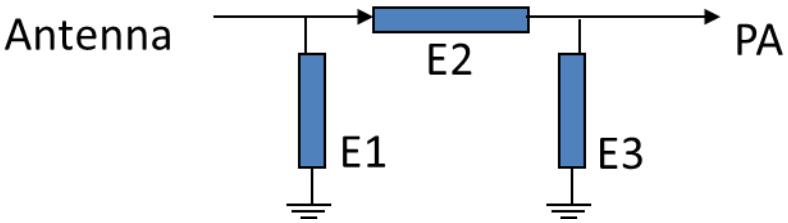
headform	Channel	TRP（dBm）	TIS（dBm）
R	CH 0	1.5	-85.4
	CH 39	1.9	-85.9
	CH 78	2.3	-86.2

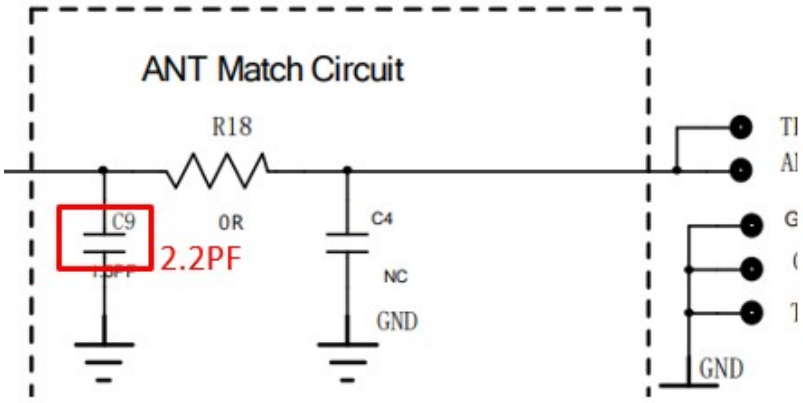
OTA Standard Chamber

III：Matching circuit

L-matching circuit

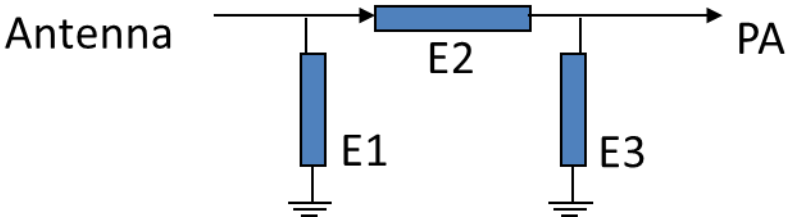
Number	Value
C4	NA
R18	0Ω
C9	2. 2PF

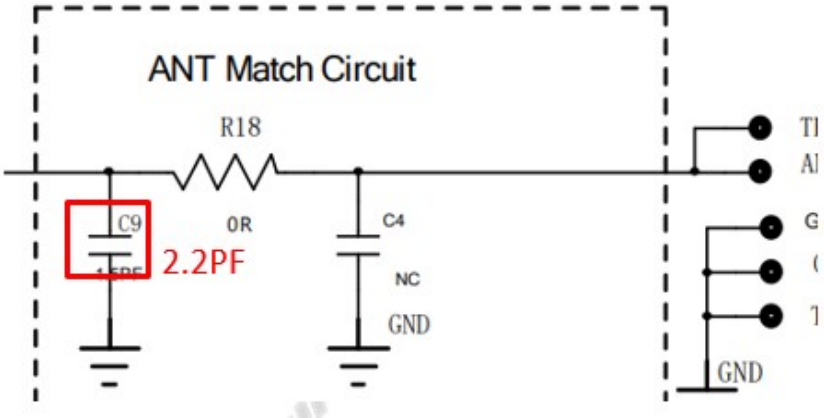




R-matching circuit

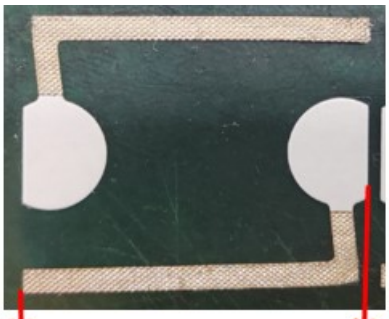
Number	Value
C4	NA
R18	0Ω
C9	2. 2PF



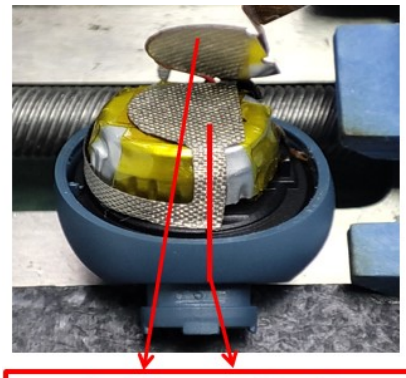


IV：Environmental treatment

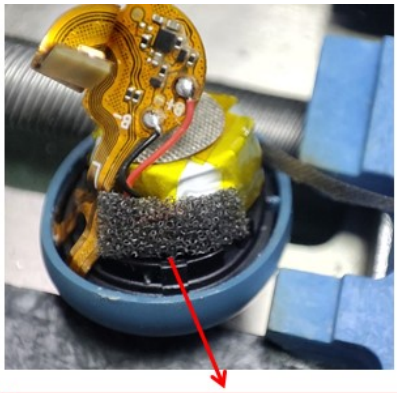
The environmental treatment and extension of the left ear horn cavity are illustrated as follows



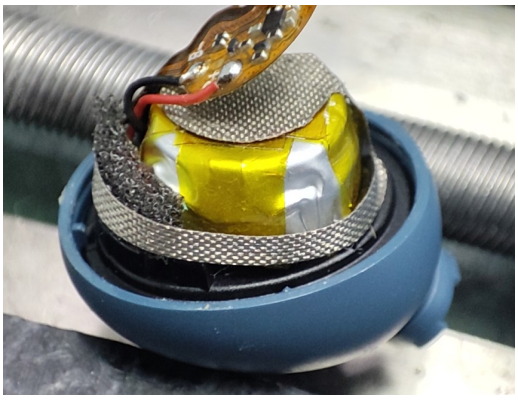
The length of the conductive cloth is 24mm (the original length of the conductive cloth was 25.5mm, which needs to be subtracted by 1.5mm)

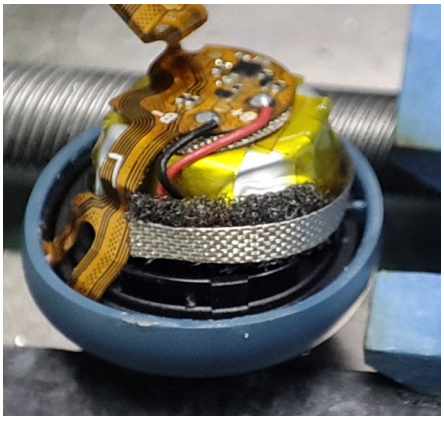


Attention! The grounding of the conductive cloth and the reinforcing plate of the FPC cable should ensure good grounding or the resistance at the connection should be within 10 Ω! Conductive cloth needs to be placed in a straight direction! Then stick it to the right

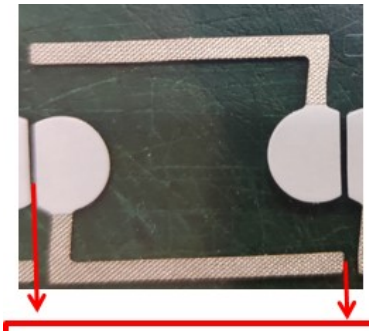


Stick foam at the end (foam length is about 8.5-10mm) so that the end of the conductive cloth can be attached to the foam upwards

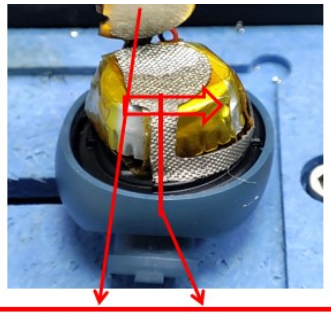




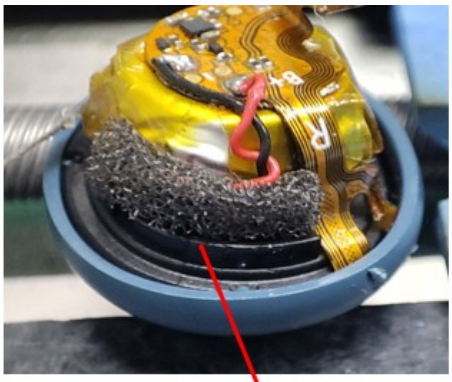
The environmental treatment and extension of the right ear horn cavity are illustrated as follows



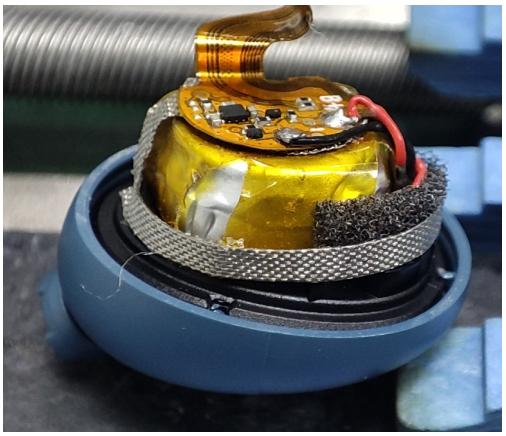
The length of the conductive cloth is 24mm (the original length of the conductive cloth was 25.5mm, which needs to be subtracted by 1.5mm)

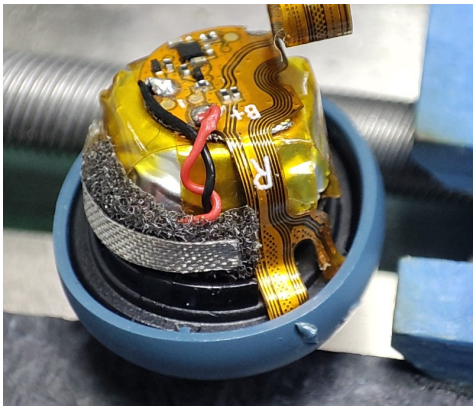


Attention! The grounding of the conductive cloth and the reinforcing plate of the FPC cable should ensure good grounding or the resistance at the connection should be within 10 Ω! Conductive cloth needs to be placed in a straight direction! Then stick it to the right



Stick foam at the end (foam length is about 8.5-10mm) so that the end of the conductive cloth can be attached to the foam upwards





V：Structure file