



Antenna Part Specification

Project name:	R2
Material category:	L-BT antenna、 R-BT antenna
Antenna type:	monopole
Manufacturer:	Shenzhen Cicent Communication Technology Co., Ltd.
Manufacturer address:	505-506 ,ABlock,Donglian Building,Chuangye 2 road,Baoan District,Shenzhen,Guangdong,P.R china
Version:	V1.0
Date:	2025.8.15



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Change record			
Compile / change date	Reason for change	Changed content	Version
2025.8.15	First edition	First edition	V1.0

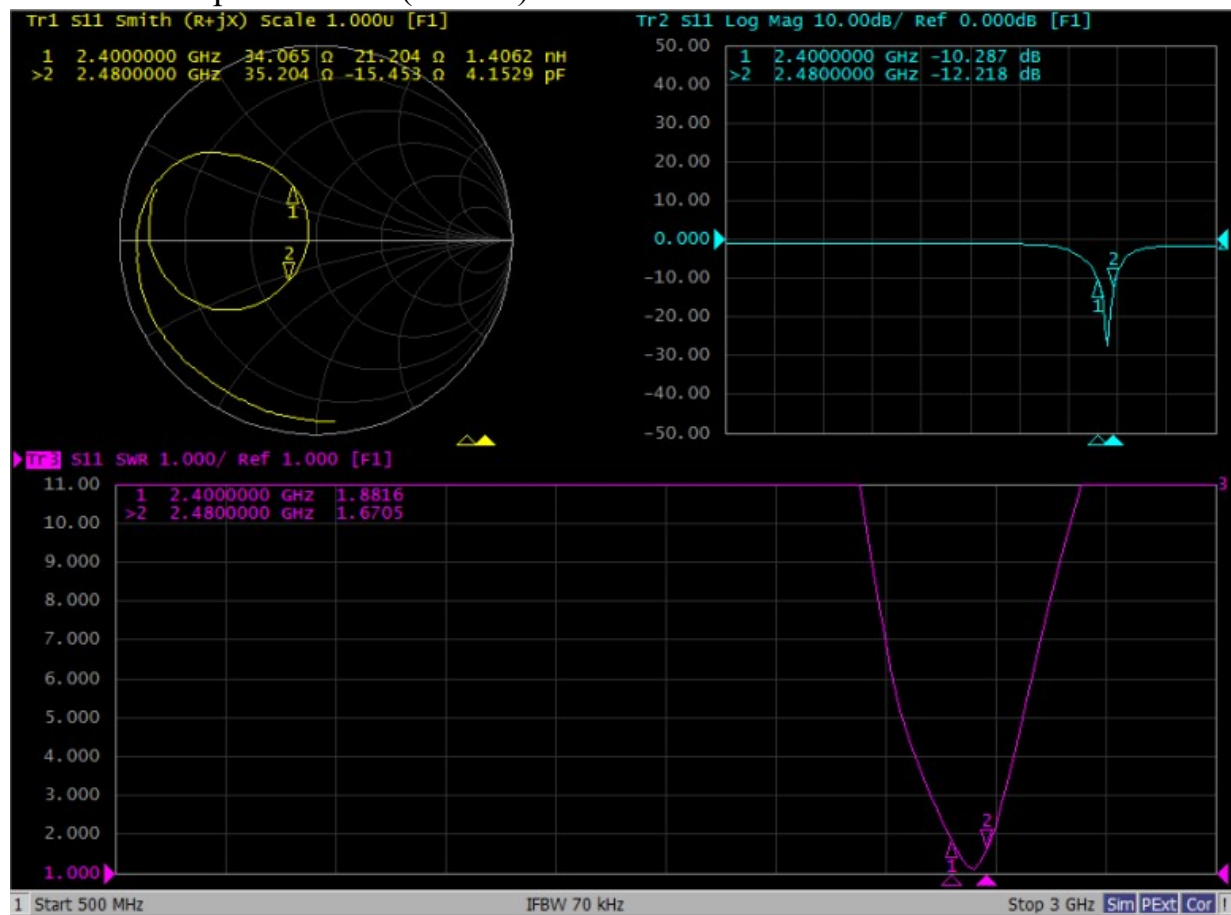


I: The report of passive data



Angilent E5071C

Antenna S11 parameter: (left ear)

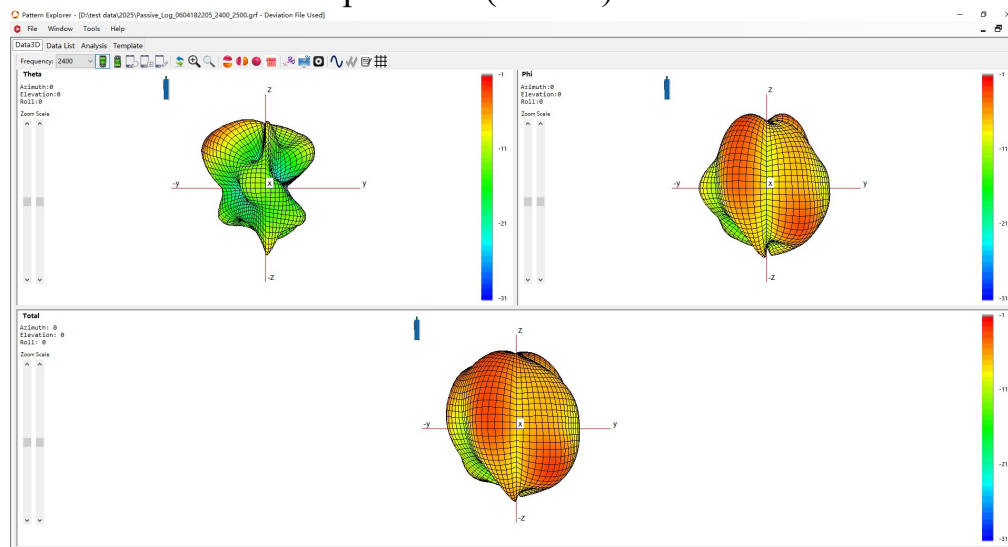




Antenna efficiency and gain: (left ear)

L			
Frequency (MHz)	Efficiency (%)	Efficiency (dB)	Gain (dBi)
2400	25.2%	-5.99	-1.75
2410	25.4%	-5.95	-1.82
2420	25.1%	-6	-1.87
2430	24.7%	-6.08	-2.06
2440	23.9%	-6.22	-2.27
2450	22.9%	-6.4	-2.53
2460	21.8%	-6.63	-2.89
2470	20.4%	-6.91	-3.25
2480	18.6%	-7.32	-3.71
AVG	23.1%	-6.39	-2.46

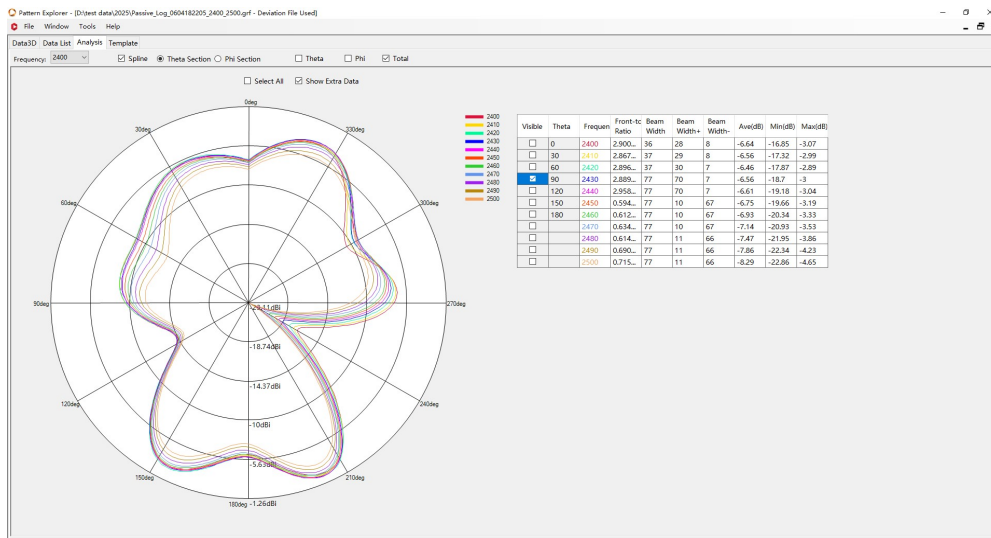
3D Antenna radiation pattern: (left ear)



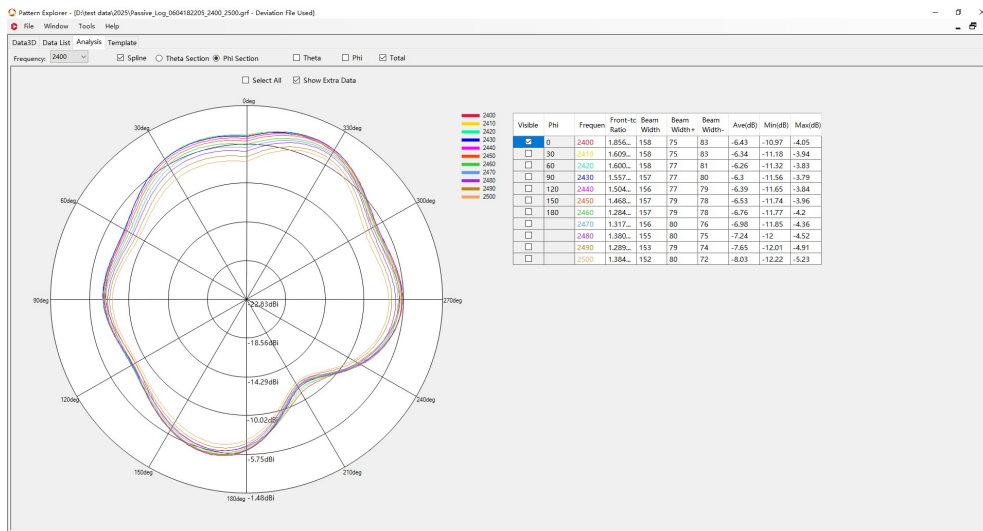


2D Antenna radiation pattern: (left ear)

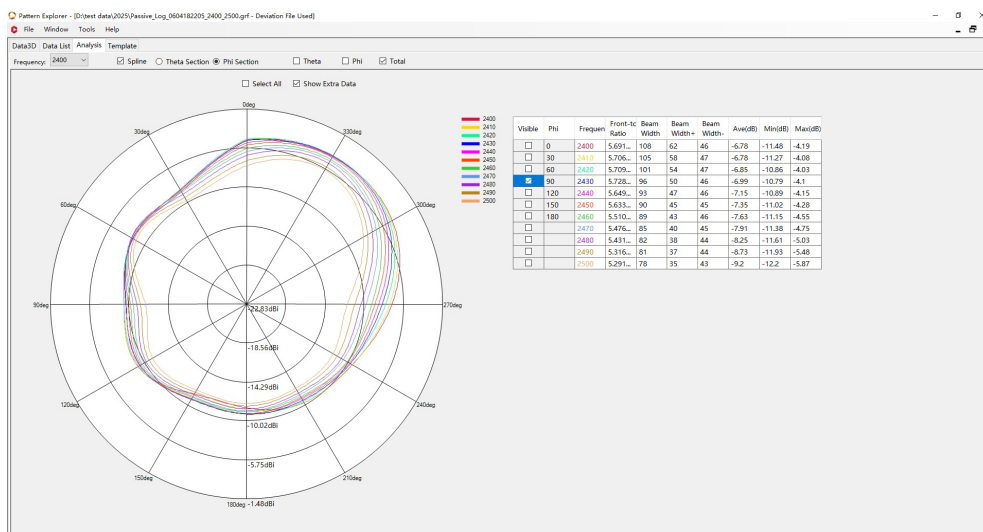
Theta=90°



Phi=0°

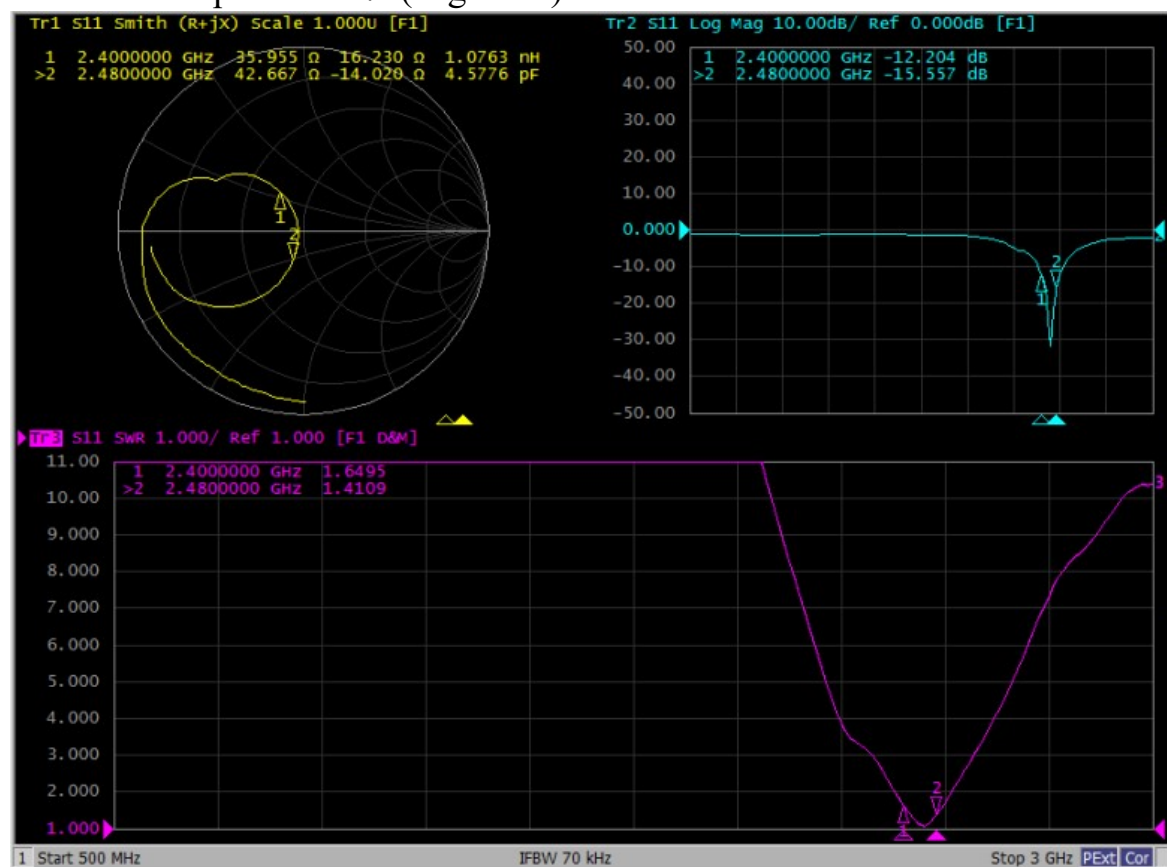


Phi=90°





Antenna S11 parameter: (Right ear)

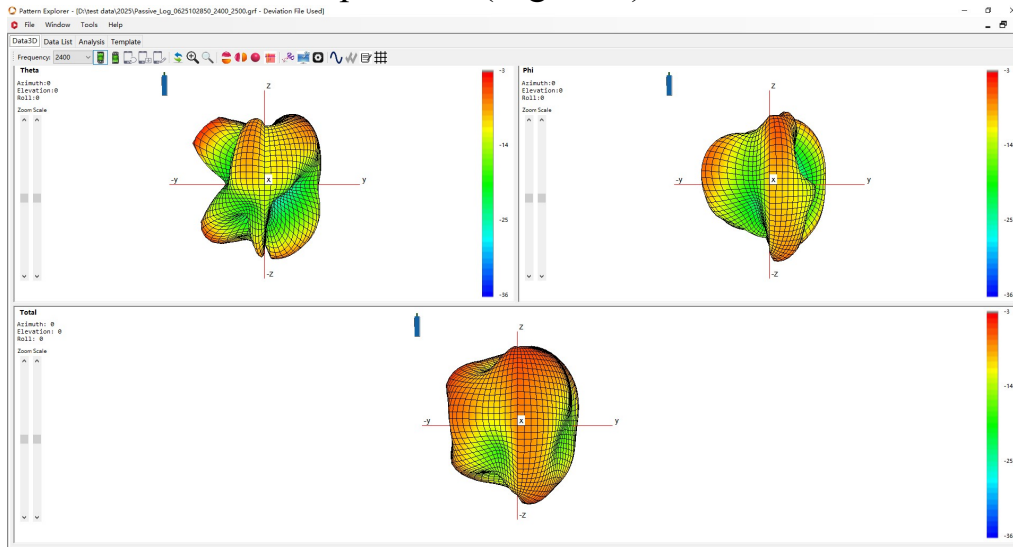


Antenna efficiency and gain: (Right ear)

R			
Frequency (MHz)	Efficiency (%)	Efficiency (dB)	Gain (dBi)
2400	19.0%	-7.21	-2.26
2410	19.8%	-7.03	-2.02
2420	20.6%	-6.87	-1.75
2430	21.0%	-6.78	-1.61
2440	21.4%	-6.7	-1.45
2450	21.5%	-6.68	-1.42
2460	21.6%	-6.66	-1.42
2470	21.3%	-6.72	-1.51
2480	20.9%	-6.8	-1.61
AVG	20.8%	-6.83	-1.67

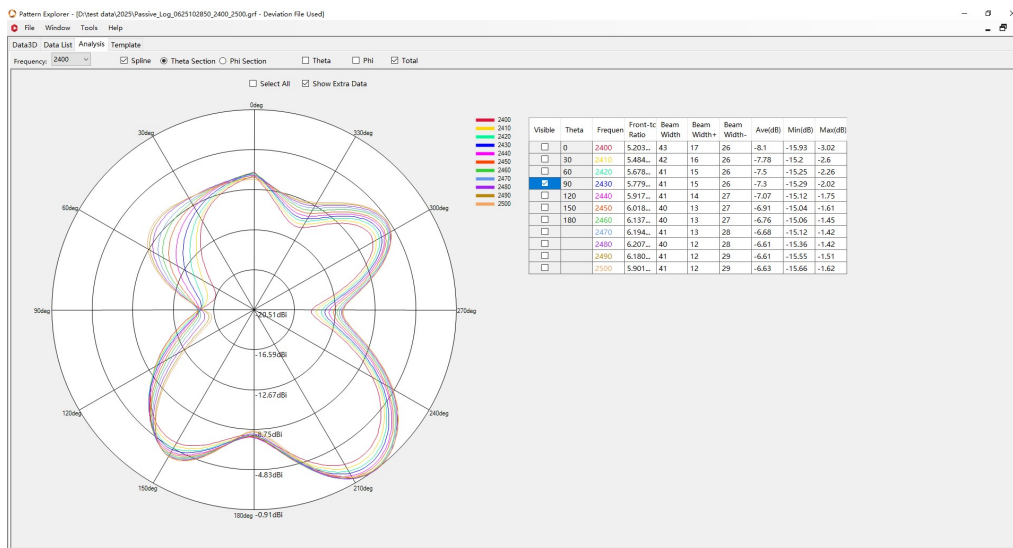


3D Antenna radiation pattern: (Right ear)



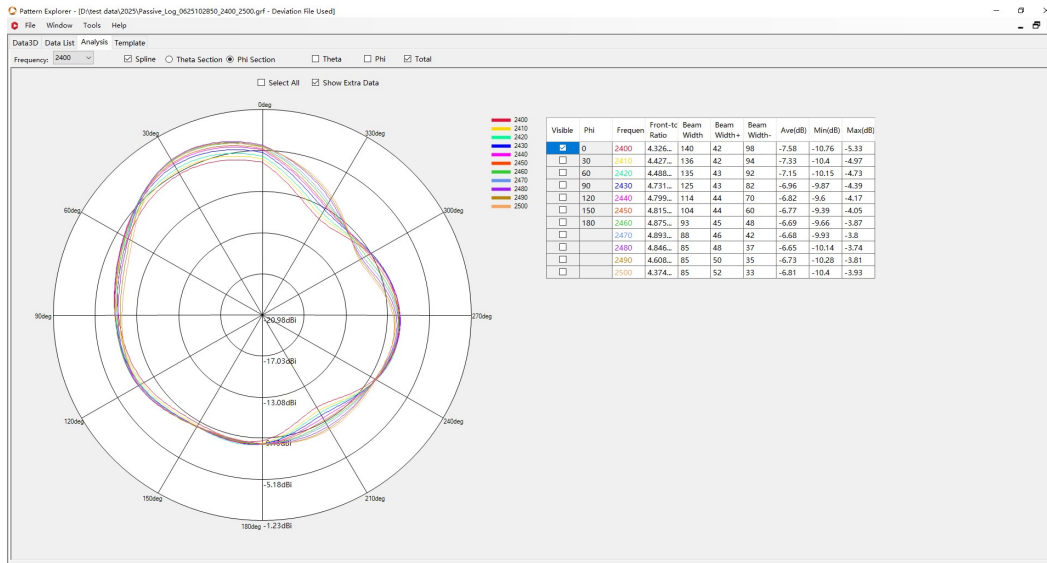
2D Antenna radiation pattern: (Right ear)

Theta=90°

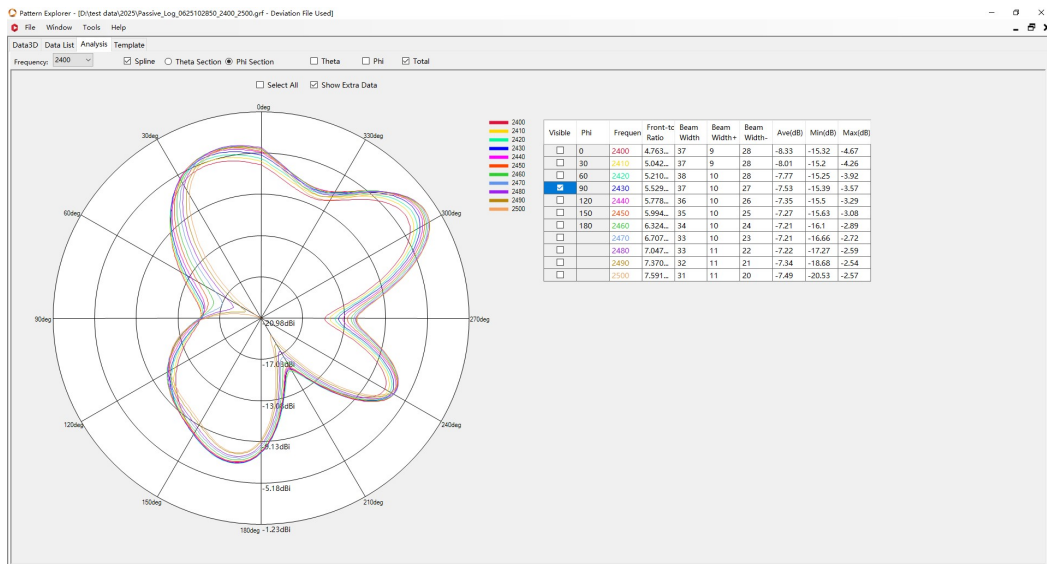




Phi=0°



Phi=90°





II: 3D Active test report of antenna

		free		headform	
	Channel	TRP	TIS	TRP	TIS
L	CH 0	8.1	-88.9	3.1	-84.1
	CH 39	8.5	-90.6	4.3	-85.1
	CH 78	8.6	-90.3	5.0	-85.4
	AVG	8.4	-89.9	4.2	-84.9

		free		headform	
	Channel	TRP	TIS	TRP	TIS
R	CH 0	7.7	-88.1	3.5	-84.1
	CH 39	8.0	-89.3	4.1	-85.5
	CH 78	7.6	-89.1	4.2	-85.6
	AVG	7.8	-88.8	3.9	-85.1



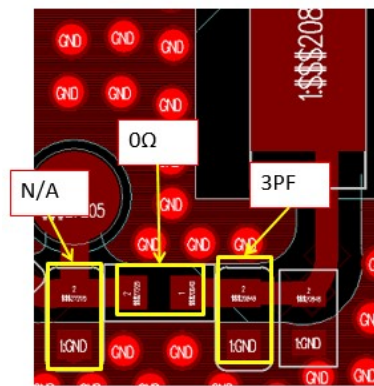
OTA Standard Chamber



III: Matching circuit

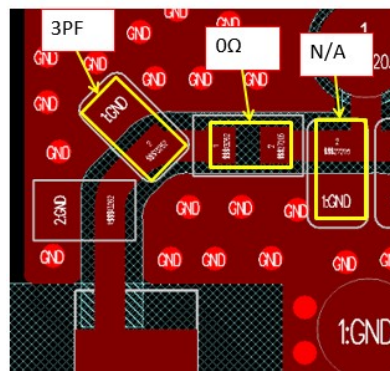
left ear:

Element	Value
E1	ESD
C31(0201)	3PF
L3(0201)	0Ω
C29(0201)	N/A



Right ear:

Element	Value
E1	ESD
C31(0201)	3PF
L3(0201)	0Ω
C29(0201)	N/A



Note: L ear only uses signal shrapnel; R ear requires the use of signal shrapnel and GND shrapnel.



IV: Antenna structure diagram file

