



Antenna Part Specification

Customers:	Best Link Chip
Project name:	EPA713
Material category:	R- BT antenna
Antenna type:	monopole antenna
Version:	V4.0
Date:	2024.10.10

Manufacturer: Shenzhen Sixun Communication Technology Co., Ltd
Address: A505/506, Donglian Building, Chuangye 2nd Road, Dalang Community, Xin'an Street, Bao'an District, Shenzhen City, Guangdong Province, China



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Change record			
Compile / change date	Reason for change	Changed content	Version
2024.07.25	First edition	First edition	V1.0
2024.09.12	Antenna performance optimization	Antenna performance optimization	V2.0
2024.10.09	Antenna optimization, increase hand tear position	Antenna optimization, increase hand tear position	V3.0
2024.10.10	Cancel the manual tearing position	Cancel the manual tearing position	V4.0

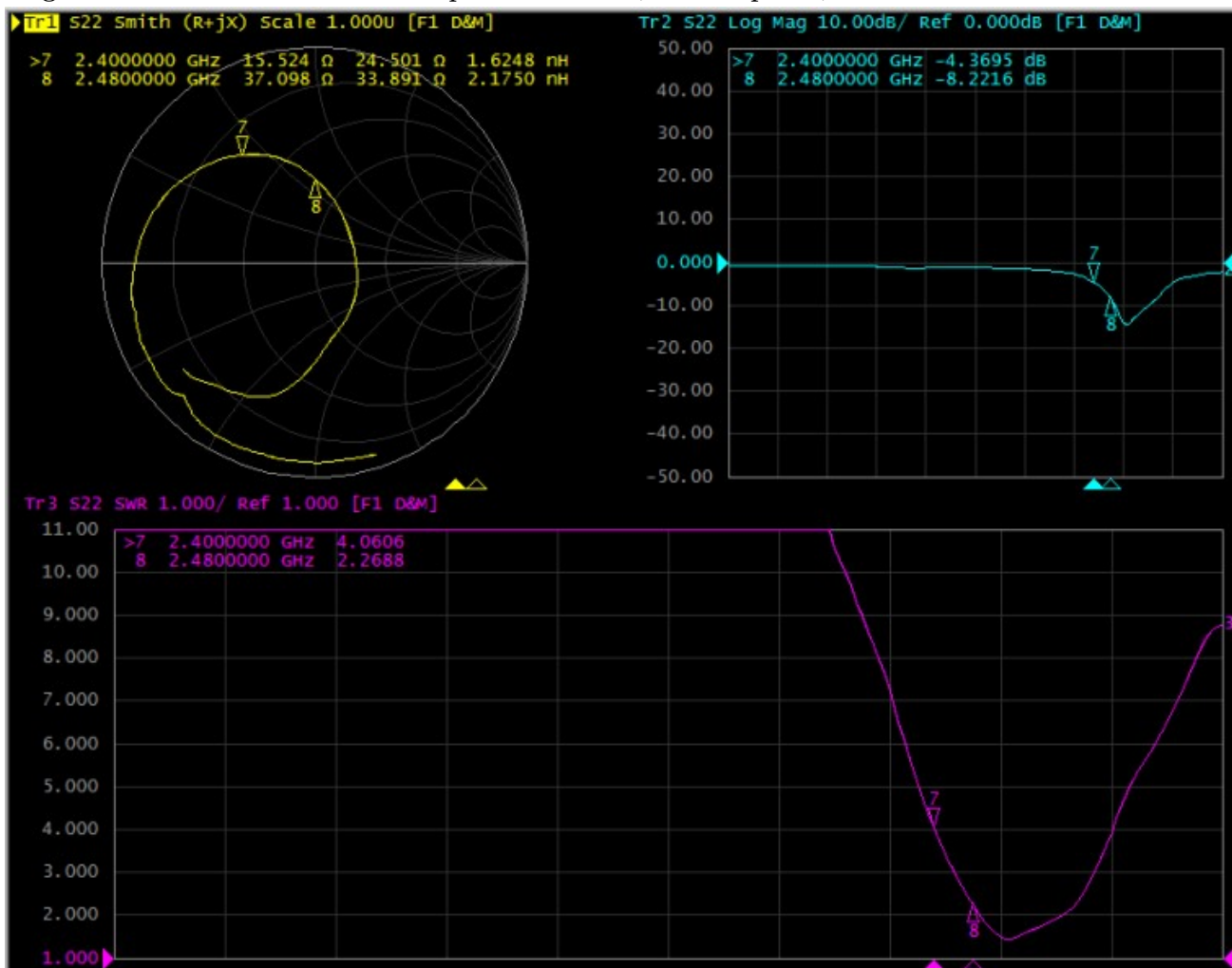


I: The report of passive data



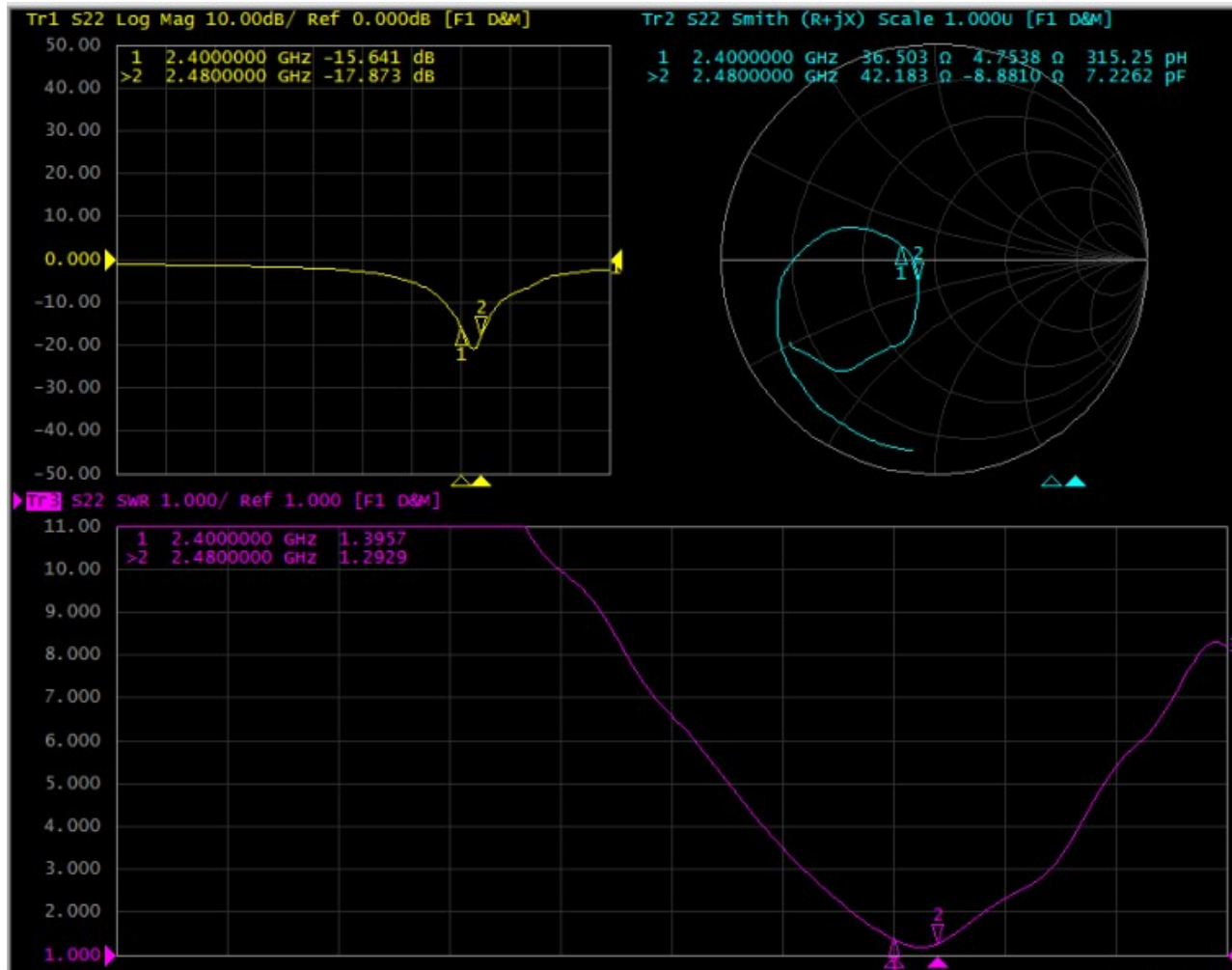
Angilent E5071C

Right ear BT antenna S11 parameter (Free space)





Right ear BT antenna S11 parameters (Head)

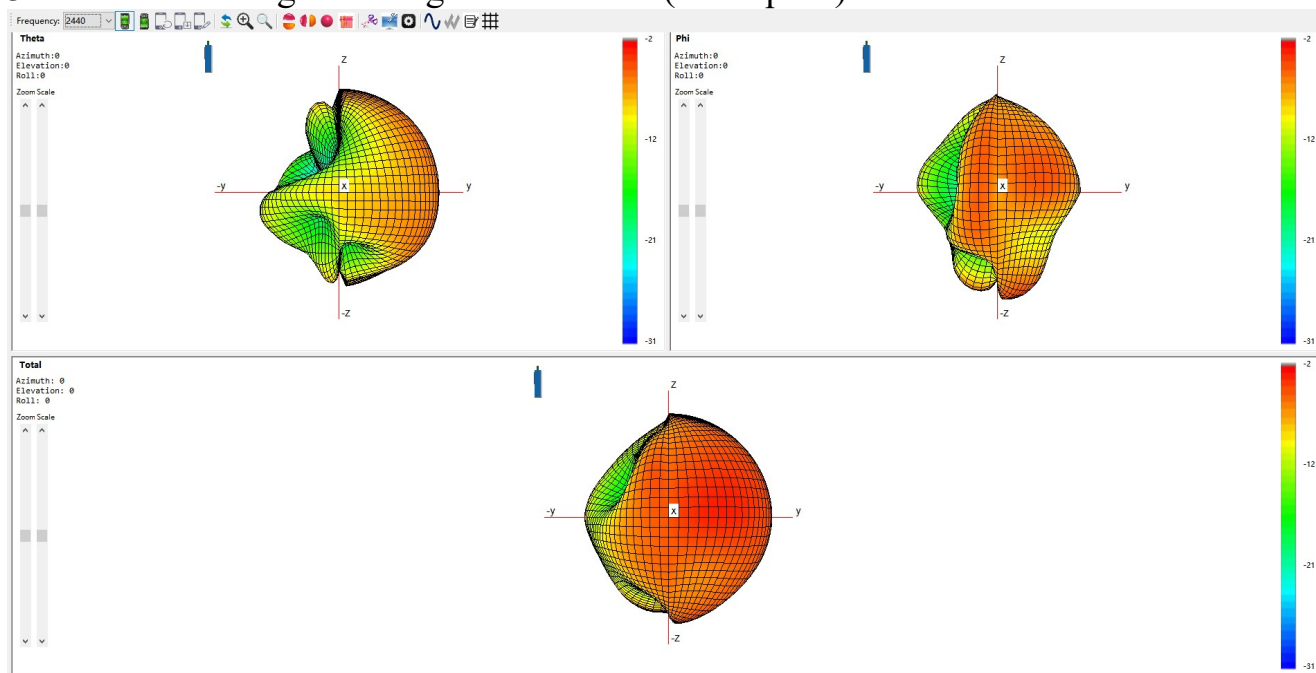


Right ear BT antenna efficiency and gain:

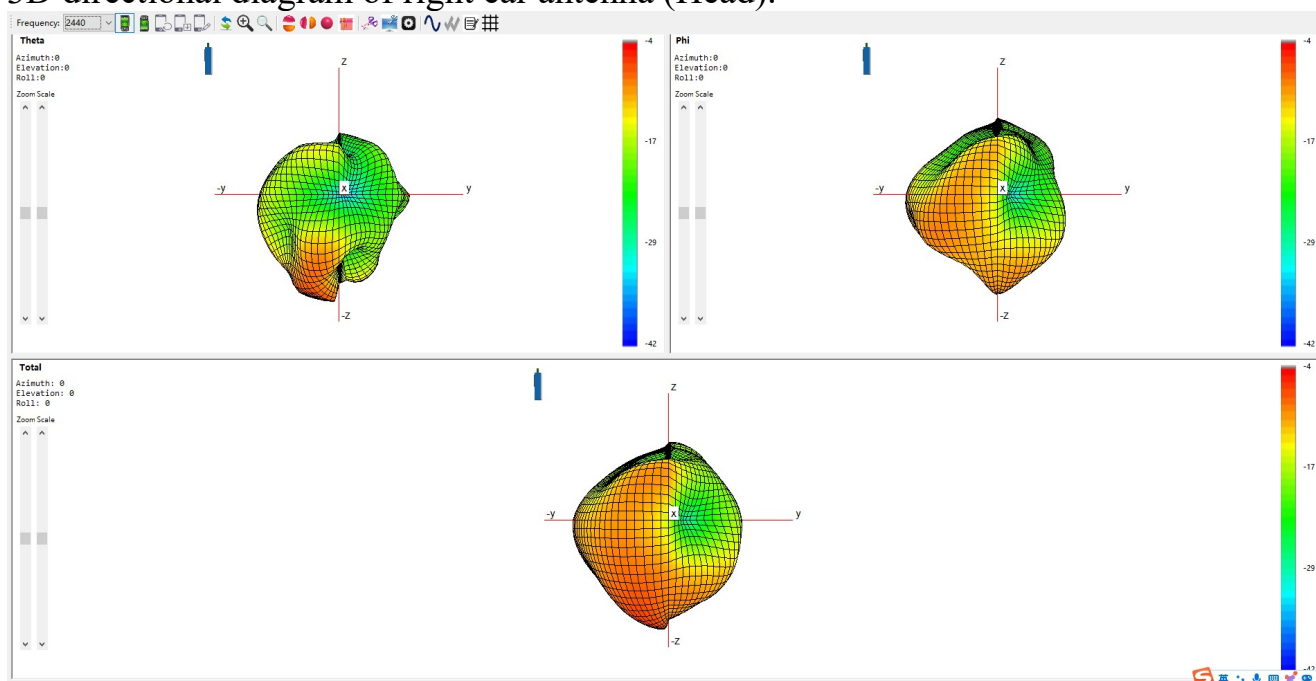
Free space				Head			
Freq (MHz)	Gain	Eff_dB	Eff (%)	Freq (MHz)	Gain	Eff_dB	Eff (%)
2400	-3.7	-6.9	20.3	2400	-4.7	-11.5	7.1
2410	-3.4	-6.6	21.7	2410	-4.8	-11.5	7.1
2420	-3.0	-6.4	22.8	2420	-5.1	-11.5	7.0
2430	-2.9	-6.4	22.9	2430	-5.7	-11.9	6.4
2440	-2.9	-6.5	22.6	2440	-6.4	-12.4	5.8
2450	-2.7	-6.3	23.4	2450	-6.8	-12.5	5.7
2460	-2.6	-6.3	23.3	2460	-6.9	-12.7	5.4
2470	-2.1	-6.0	25.0	2470	-6.8	-12.5	5.7
2480	-1.6	-5.7	27.1	2480	-6.6	-12.2	6.0
2490	-1.5	-5.7	27.1	2490	-6.8	-12.3	5.9
2500	-1.4	-5.6	27.5	2500	-6.9	-12.3	5.9
average value	-2.5	-6.2	24.0	average value	-6.1	-12.1	6.2



3D directional diagram of right ear antenna (Free space):



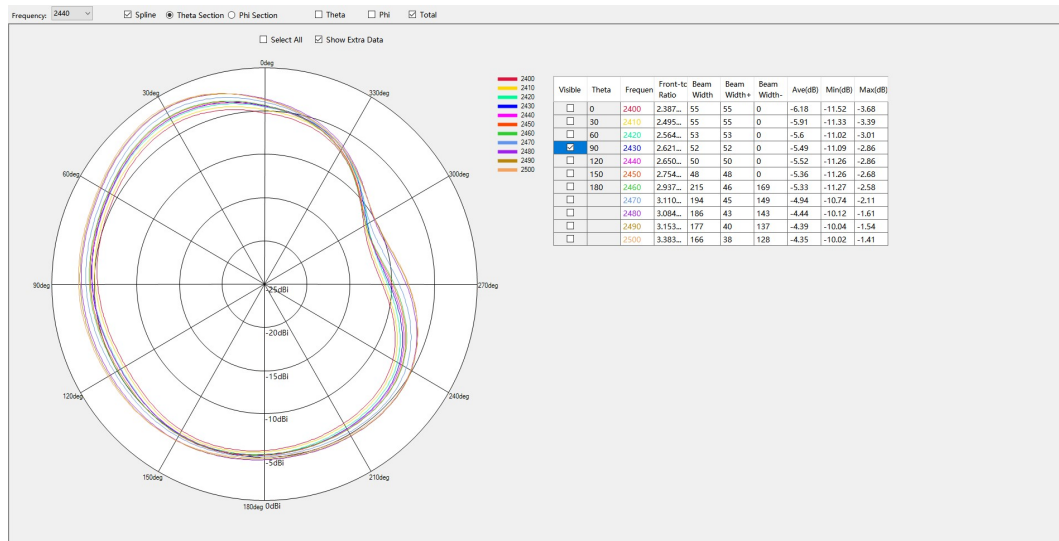
3D directional diagram of right ear antenna (Head):



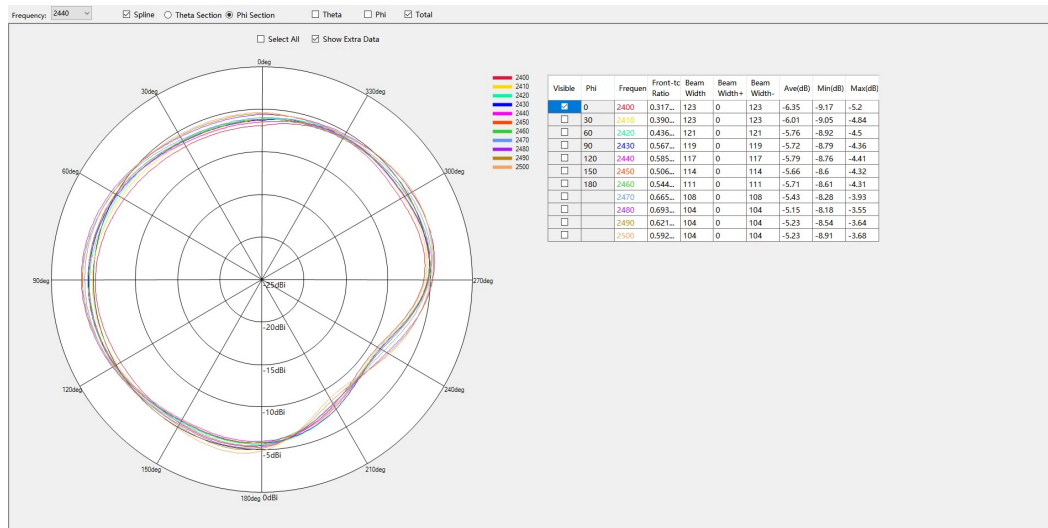


2D directional pattern of right ear antenna (Free space):

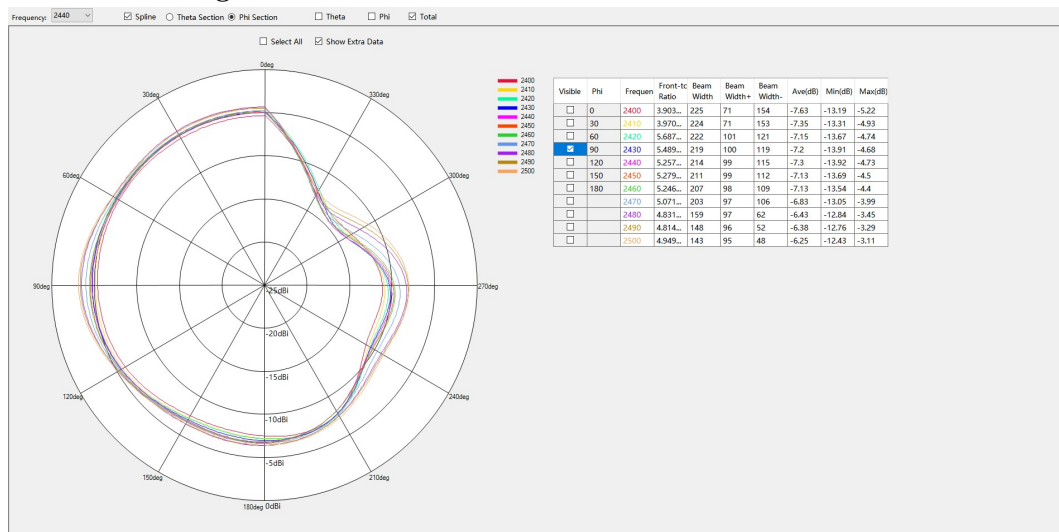
Theta=90. 00deg



Phi=0. 00deg



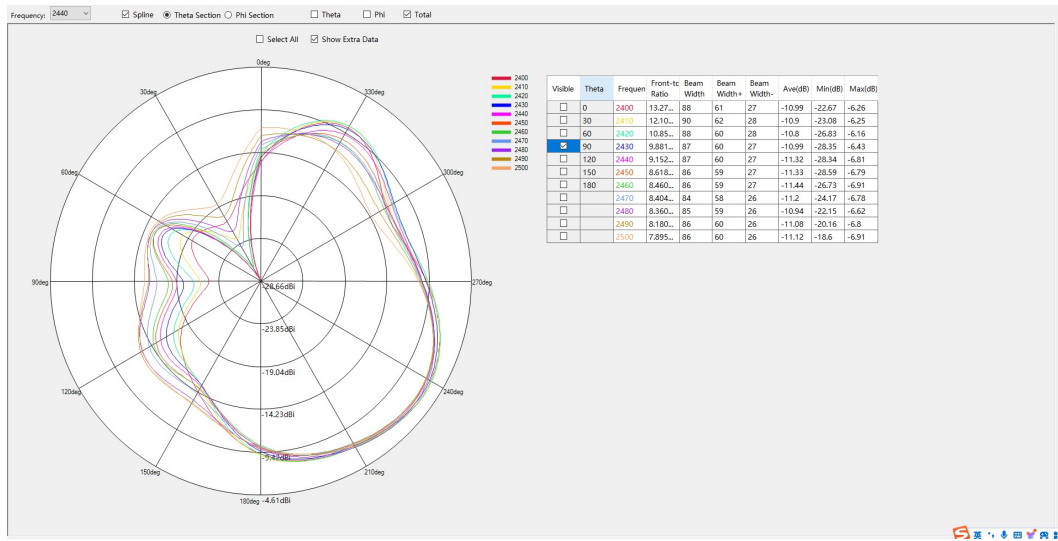
Phi=90. 00deg



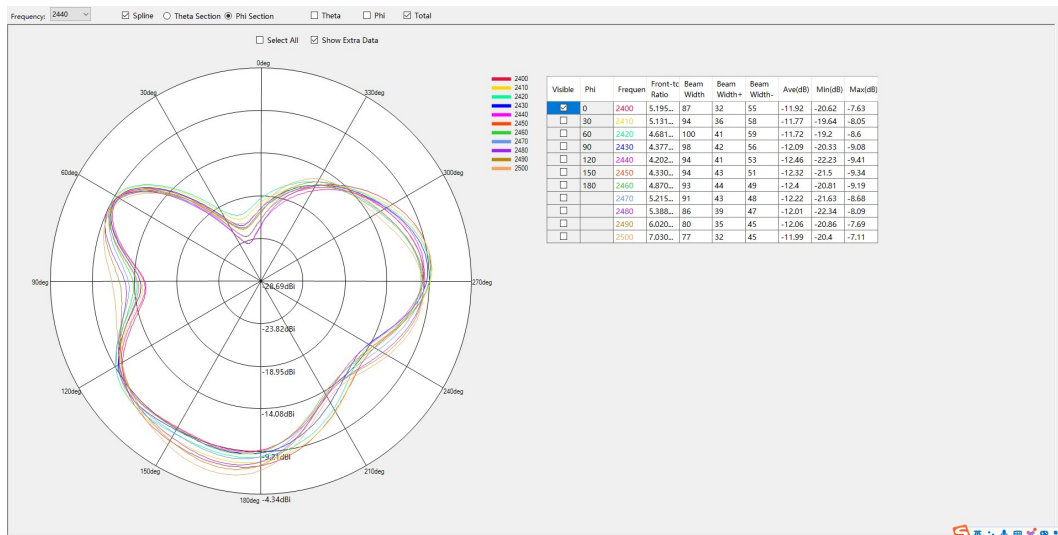


2D directional diagram of right ear antenna (Head):

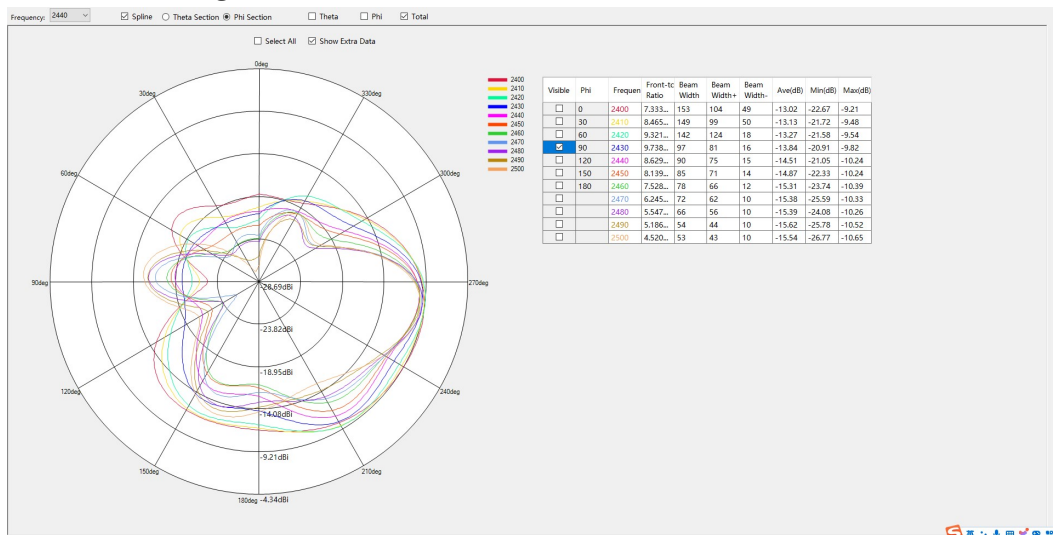
Theta=90.00deg



Phi=0.00deg



Phi=90.00deg





II: 3D Active test report of antenna

		Free space		Head	
	Channel	TRP (dBm)	TIS (dBm)	TRP (dBm)	TIS (dBm)
R	CH 0	1.3	-87.9	-6.1	-79.5
	CH 39	2.8	-89.3	-5.4	-81.2
	CH 78	3.5	-89.8	-5.5	-81.0



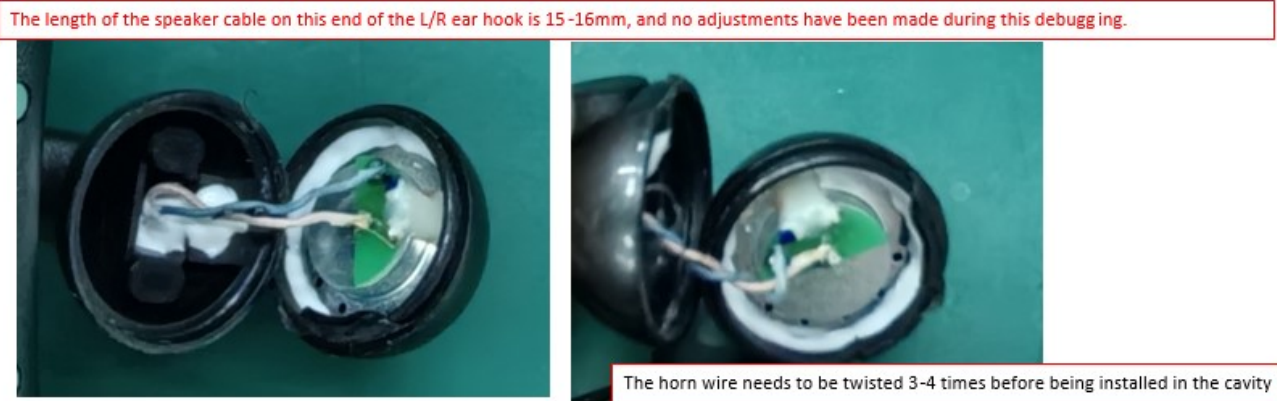
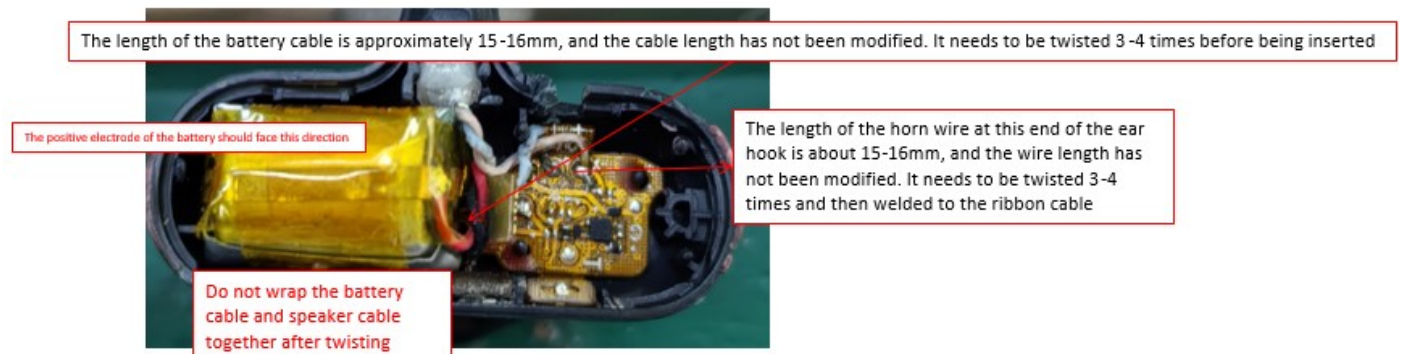
OTA Standard Chamber

1.2pF capacitance

Microstrip layout showing a 1.2pF capacitance. The layout includes a microstrip line, a 33NH component, a 24 component, and a 1.2pF capacitance. The capacitance is represented by two parallel microstrip segments, with the value "1.2pF" indicated by a red arrow.



V: Schematic diagram of complete machine installation





VI: Structure file

