



Antenna Part Specification

Project name:	S2
Material category:	L-BT antenna
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:	V2.0
Date:	2025.8.23



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Change record			
Compile / change date	Reason for change	Changed content	Version
2025.7.14	First edition	First edition	V1.0
2025.8.23	Antenna modification	Document Update	V2.0

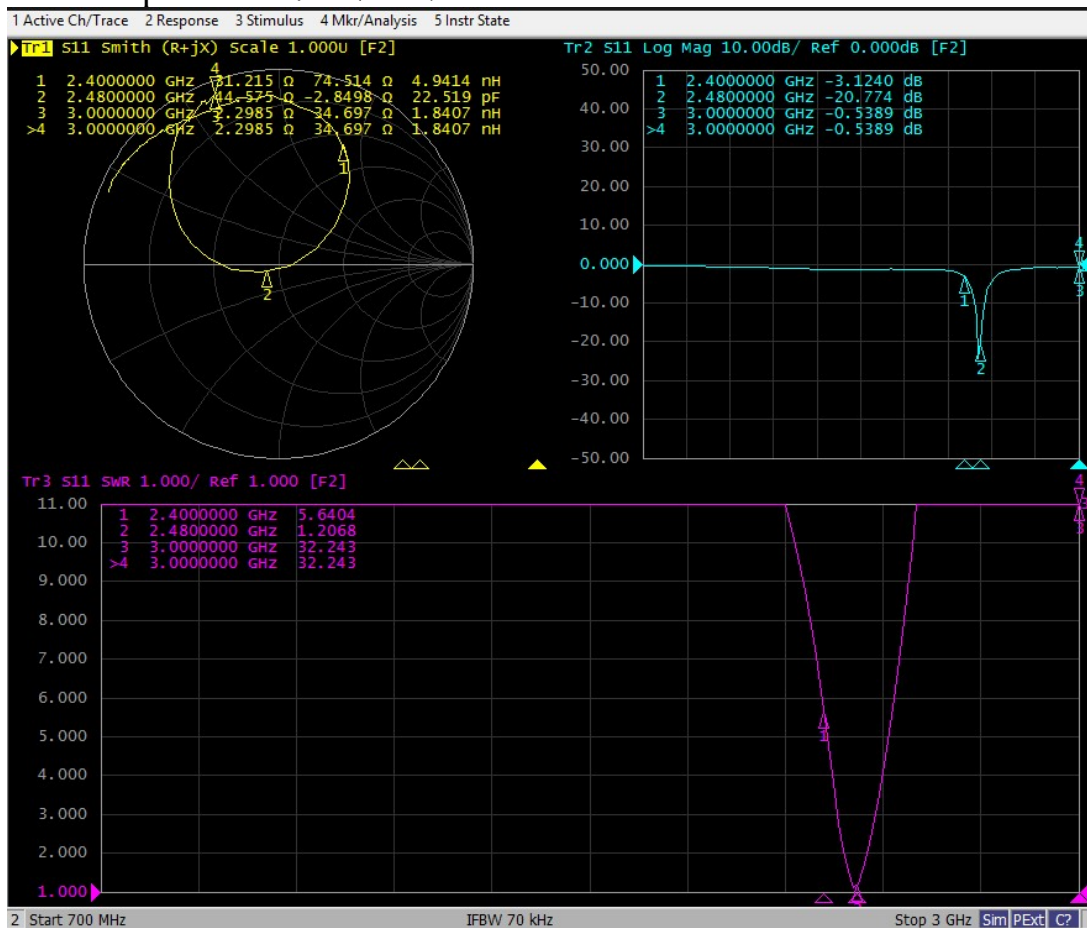


I: The report of passive data



Agilent E5071C

antenna parameter: (free)

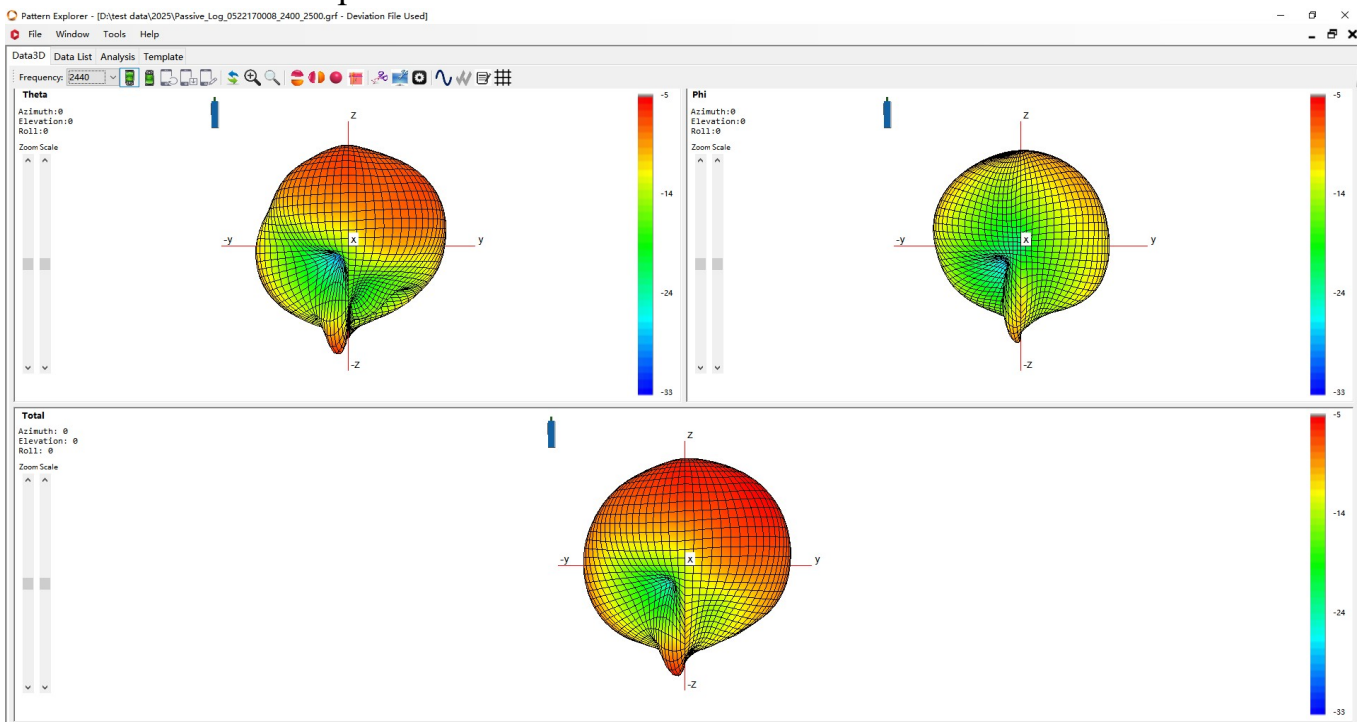




Antenna efficiency and gain: (free)

L- free			
Frequency (MHz)	Efficiency (dB)	Gain (dBi)	Efficiency (%)
2400	-10.69	-6.96	8.52
2410	-10.07	-6.25	9.84
2420	-9.56	-5.73	11.06
2430	-9.28	-5.35	11.81
2440	-9.17	-5.24	12.11
2450	-9.19	-5.21	12.06
2460	-9.39	-5.37	11.51
2470	-9.78	-5.73	10.51
2480	-10.28	-6.14	9.38
AVG	-9.71	-5.78	10.76

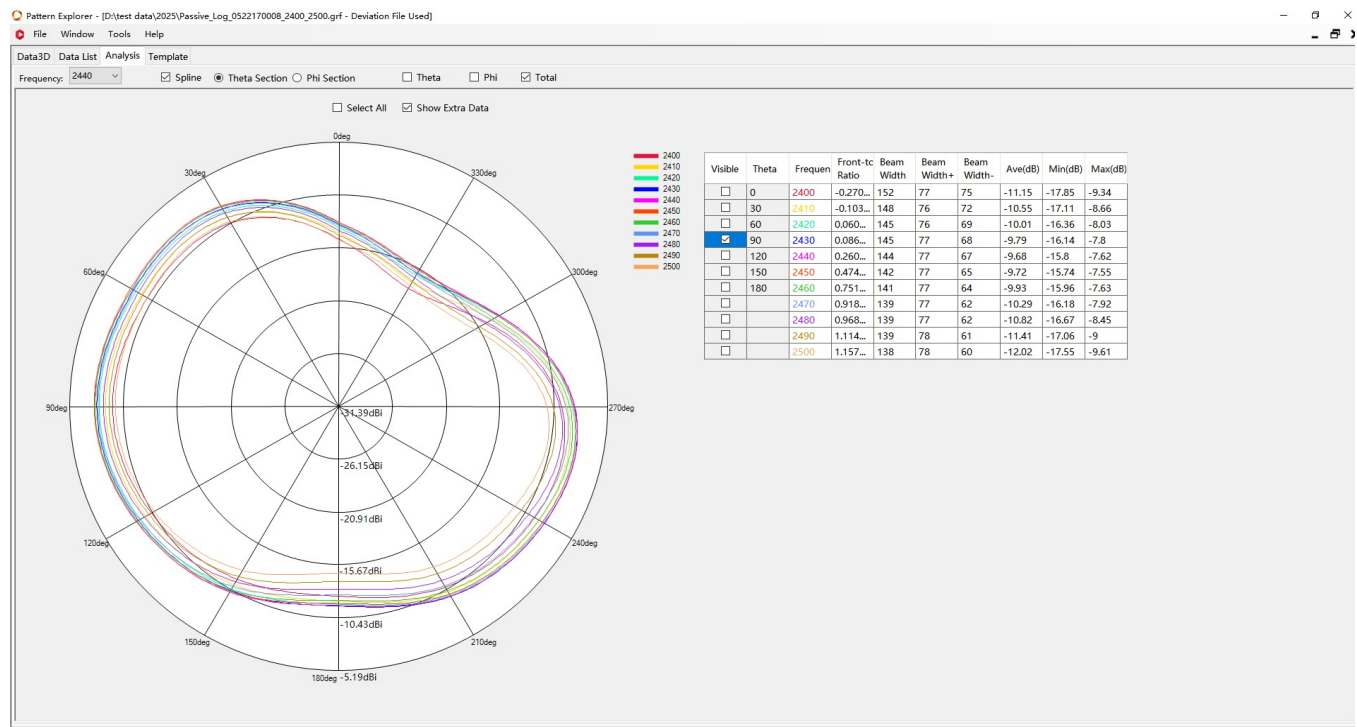
3D Antenna radiation pattern: (free)



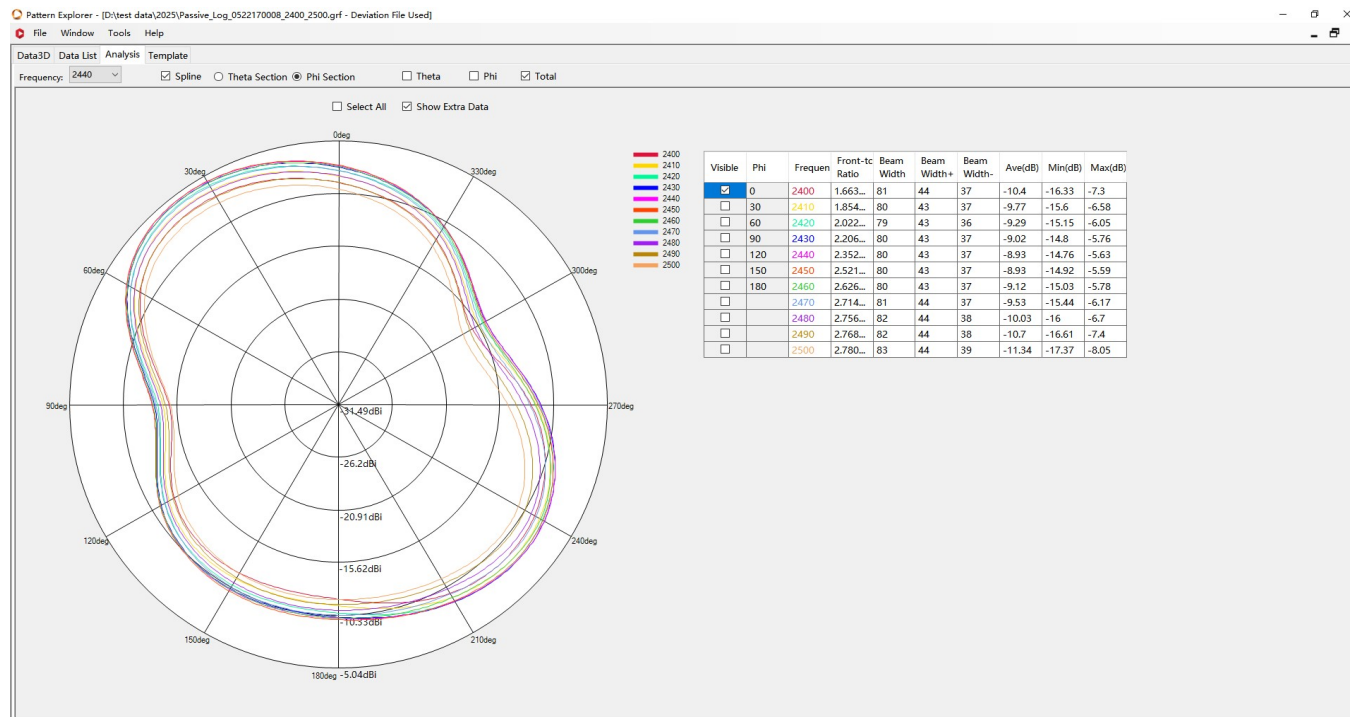


2D Antenna radiation pattern: (free)

Theta=90°



Phi=0°





Phi=90°

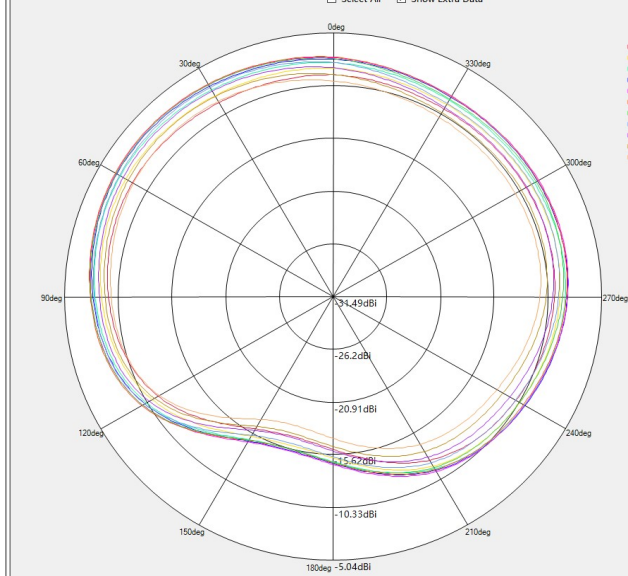
Pattern Explorer - (D:\test\data\2025\Passive_Log_0522170008_2400_2500.grf - Deviation File Used)

File Window Tools Help

Data3D Data List Analysis Template

Frequency: 2440 ☒ Spline ☐ Theta Section ☒ Phi Section ☐ Theta ☐ Phi ☒ Total

☐ Select All ☒ Show Extra Data



2400
2410
2420
2430
2440
2450
2460
2470
2480
2490
2500

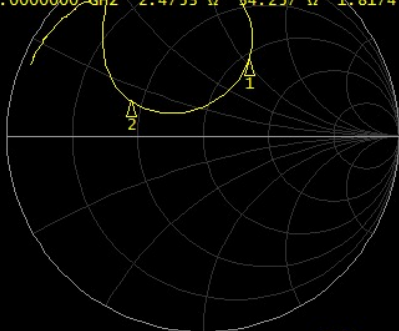
Visible	Phi	Frequen	Front-1c	Beam	Beam	Beam	Ave(dB)	Min(dB)	Max(dB)
☐	0	2400	1.389...	61	0	61	-9.79	-16.19	-8.62
☐	30	2410	1.661...	60	0	60	-9.15	-15.33	-7.88
☐	60	2420	1.729...	61	0	61	-8.6	-14.94	-7.25
☒	90	2430	1.991...	59	0	59	-8.29	-14.78	-6.84
☐	120	2440	2.147...	239	179	60	-8.16	-14.67	-6.72
☐	150	2450	2.323...	236	176	60	-8.16	-14.85	-6.67
☐	180	2460	2.611...	229	169	60	-8.35	-14.89	-6.8
☐		2470	2.659...	229	168	61	-8.73	-15.44	-7.15
☐		2480	2.851...	225	164	61	-9.24	-16.01	-7.56
☐		2490	2.992...	222	162	60	-9.87	-16.47	-8.12
☐		2500	3.003...	222	161	61	-10.49	-17.29	-8.73

antenna S11 parameter: (headform)

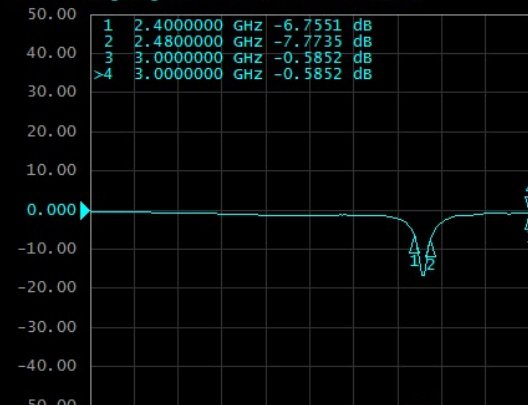
1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Tr1 S11 Smith (R+jX) Scale 1.000u [F2]

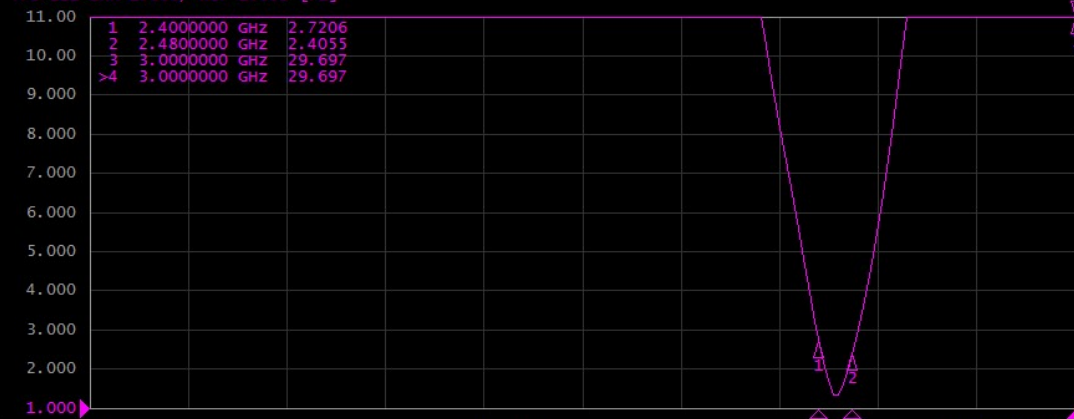
1	2.4000000	GHz	53.348	Ω	53.350	Ω	3.5379	nH
2	2.4800000	GHz	21.845	Ω	9.3775	Ω	601.80	pH
3	3.0000000	GHz	2.4753	Ω	34.257	Ω	1.8174	nH
>4	3.0000000	GHz	2.4753	Ω	34.257	Ω	1.8174	nH



Tr2 S11 Log Mag 10.00dB/ Ref 0.000dB [F2]



Tr3 S11 SWR 1.000/ Ref 1.000 [F2]



2 Start 700 MHz

IFBW 70 kHz

Stop 3 GHz Sim PExt C?

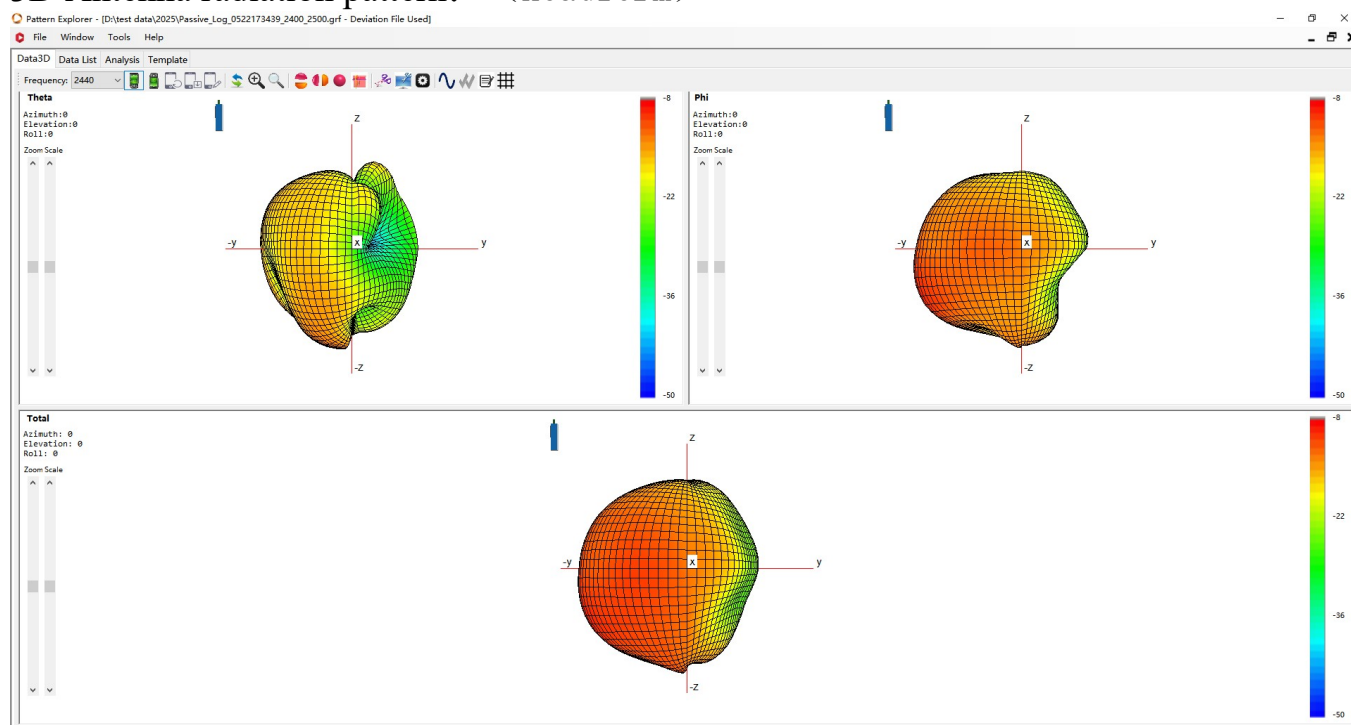
CC-JL-RD-36V1.0



Antenna efficiency and gain: (headform)

L- headform			
Frequency (MHz)	Efficiency (dB)	Gain (dBi)	Efficiency (%)
2400	-10.66	-16.41	2.28
2410	-10.00	-15.79	2.64
2420	-9.35	-15.25	2.98
2430	-9.01	-14.94	3.21
2440	-8.70	-14.72	3.37
2450	-8.47	-14.60	3.47
2460	-8.43	-14.62	3.45
2470	-8.59	-14.82	3.29
2480	-8.81	-15.12	3.08
AVG	-9.11	-15.14	3.09

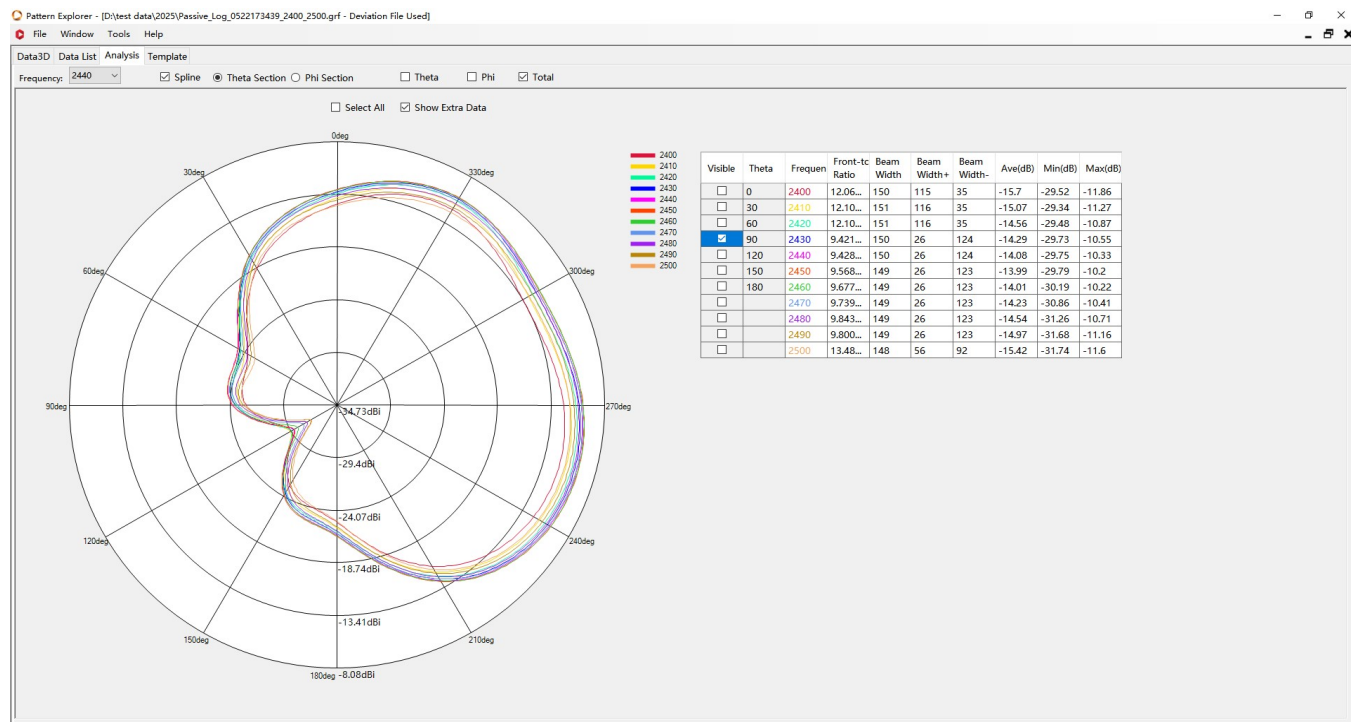
3D Antenna radiation pattern: (headform)



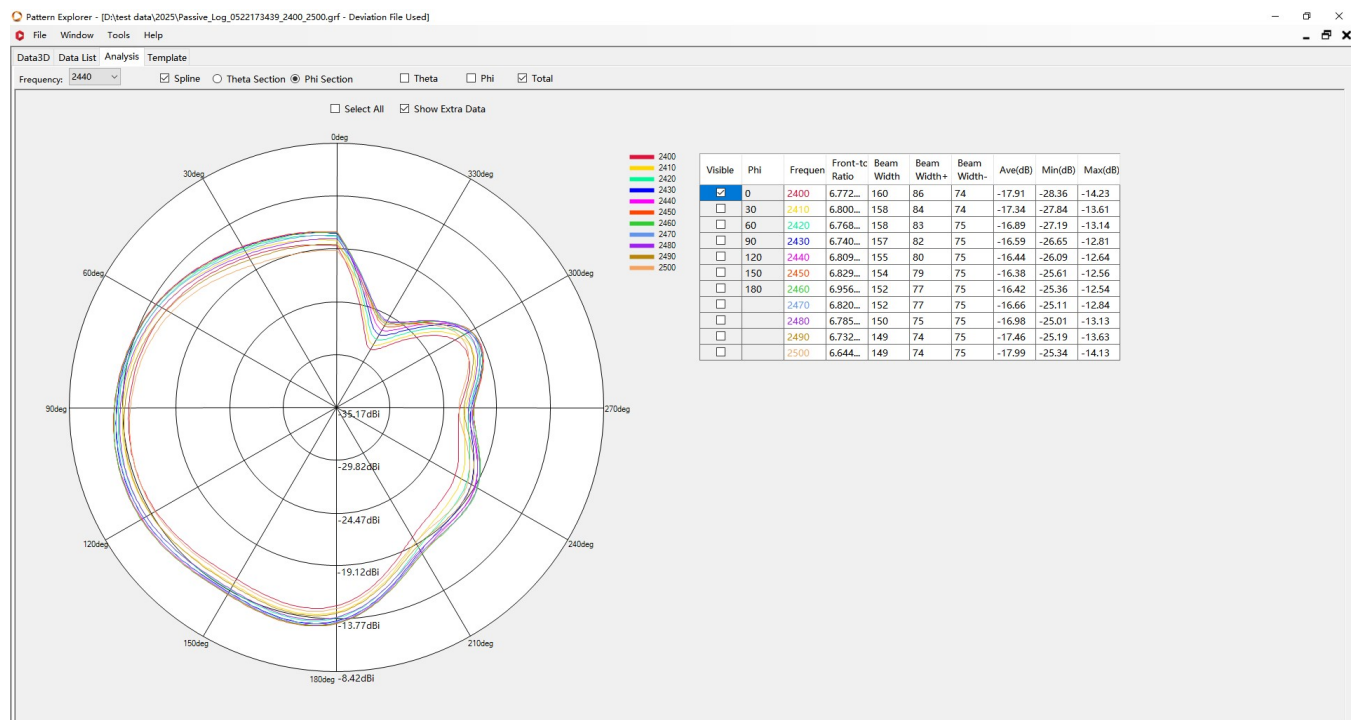


2D Antenna radiation pattern: (headform)

Theta=90°

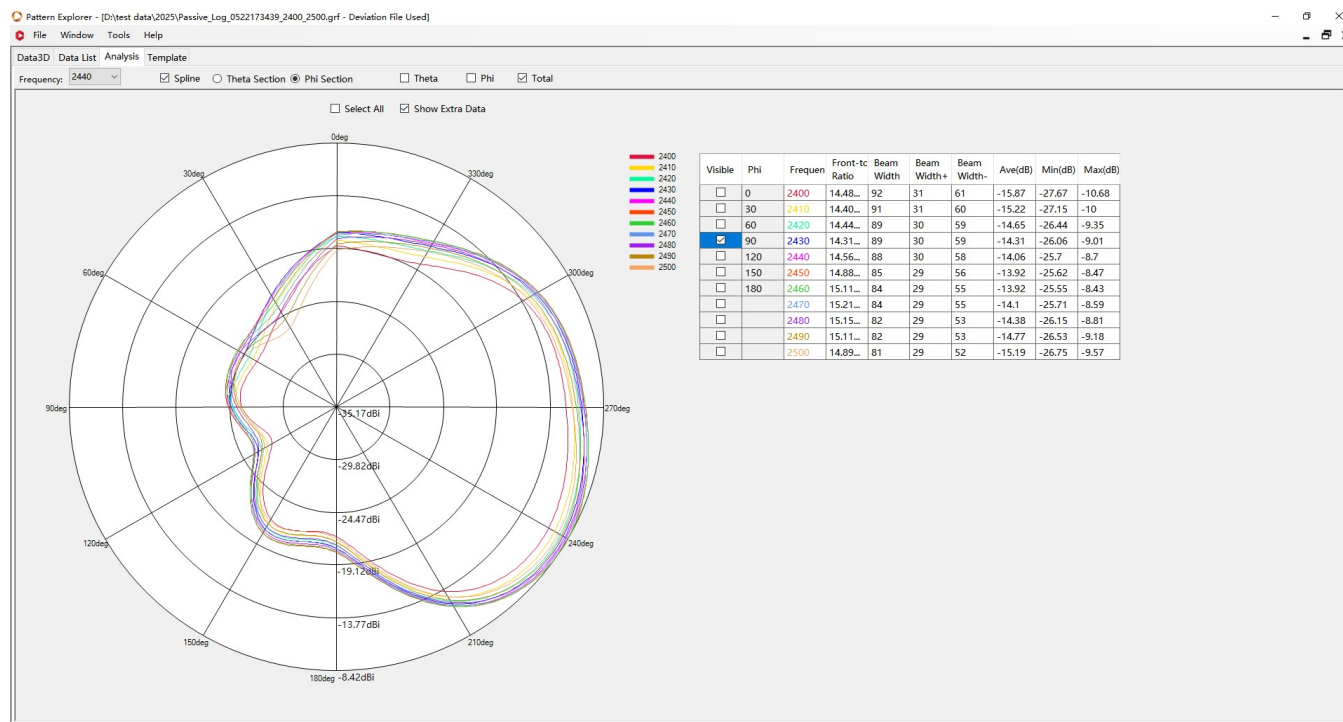


Phi=0°



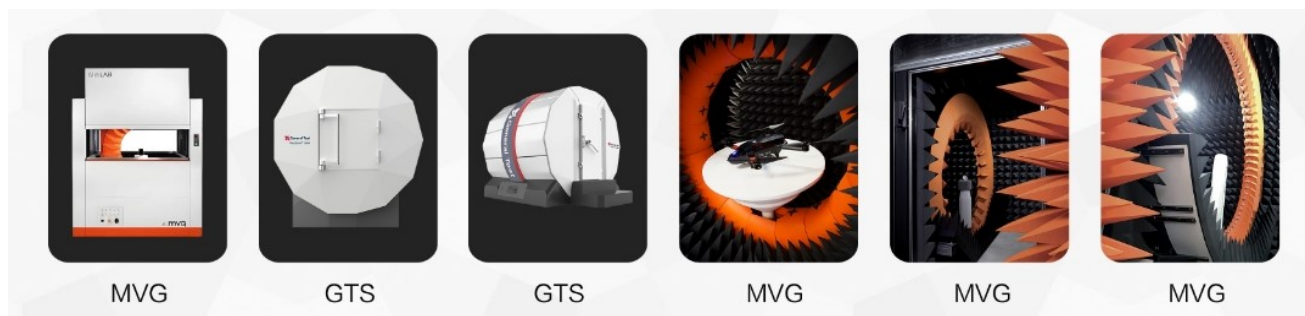


Phi=90°



II: 3D Active test report of antenna

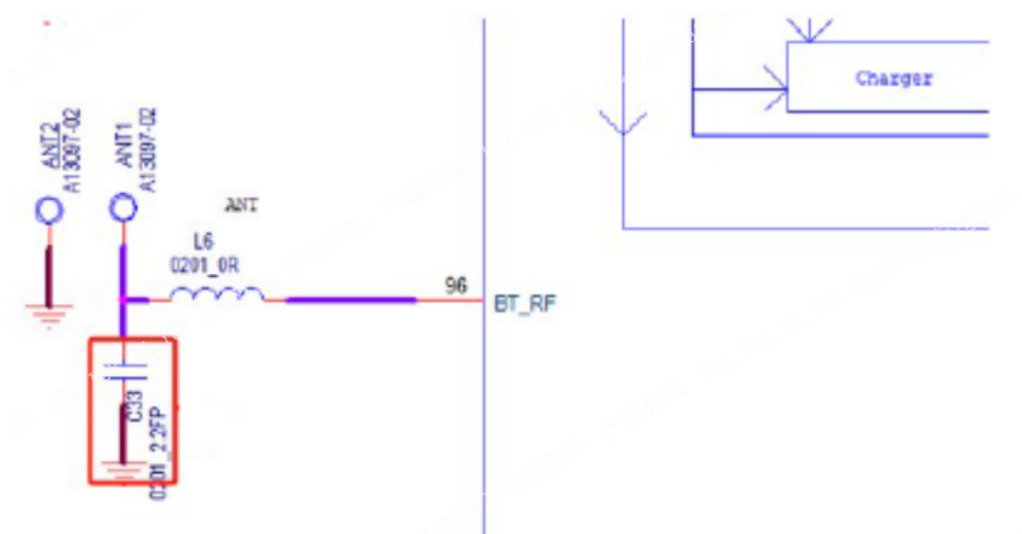
		free		headform		conduction	
	Channel	TRP (%)	TIS (%)	TRP (%)	TIS (%)	power	sensitivity
L	CH 0	-0.1	-85.0	-3.7	-80.5	13.7	-95.5
	CH 39	2.3	-86.9	-1.4	-82.9	14.5	-95.5
	CH 78	5.1	-88.6	0.5	-83.6	14.2	-95.5



OTA Standard Chamber



III: Antenna matching circuit





IV: Antenna structure diagram file

