Contents

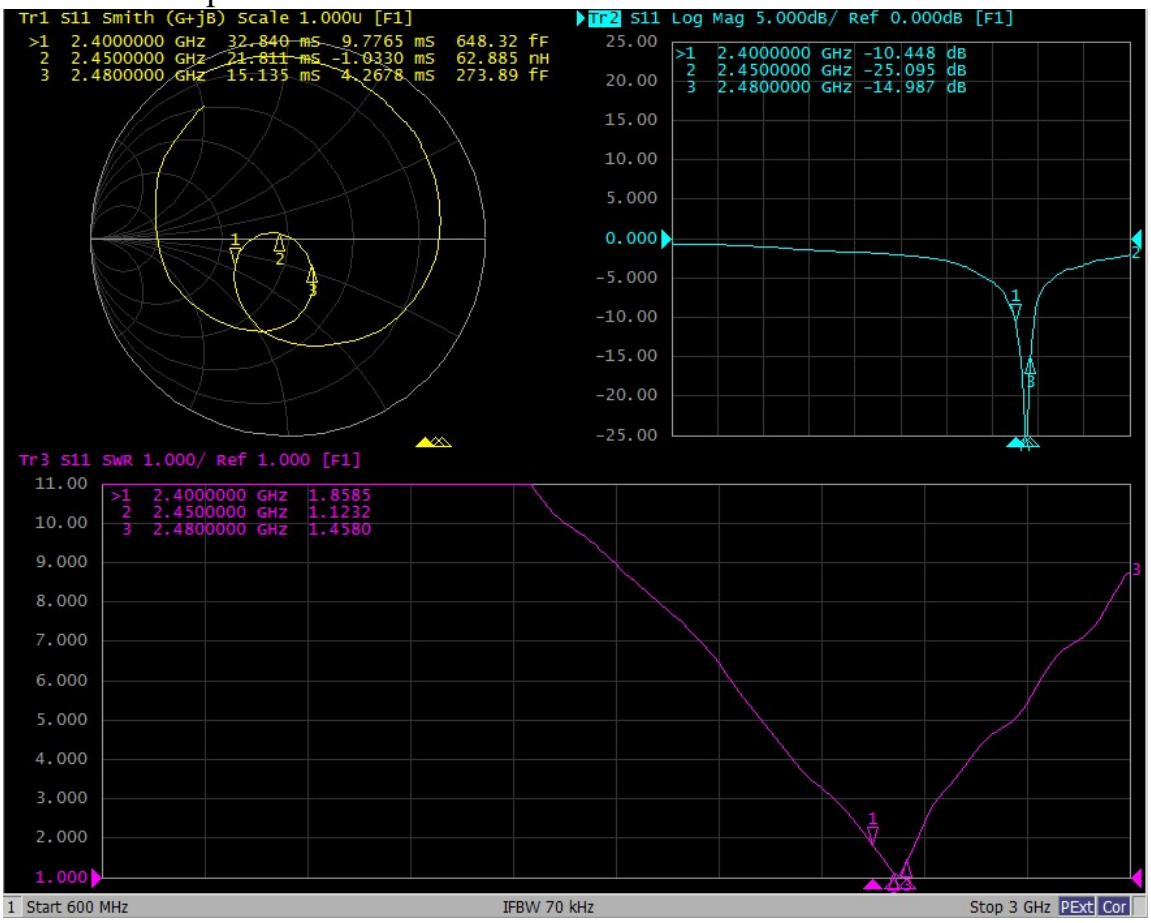
I: The report of passive data 3
II：Active test data..... 6
III：Antenna matching..... 7
IV：Environmental treatment 8
V：Antenna structure diagram file 9

Change record			
Compile / change date	Reason for change	Changed content	Version
2025.10.27	First edition	First edition	V1.0
2026.1.7	Drawing Update	Data update	V2.0

I: The report of passive data

Angilent E5071C

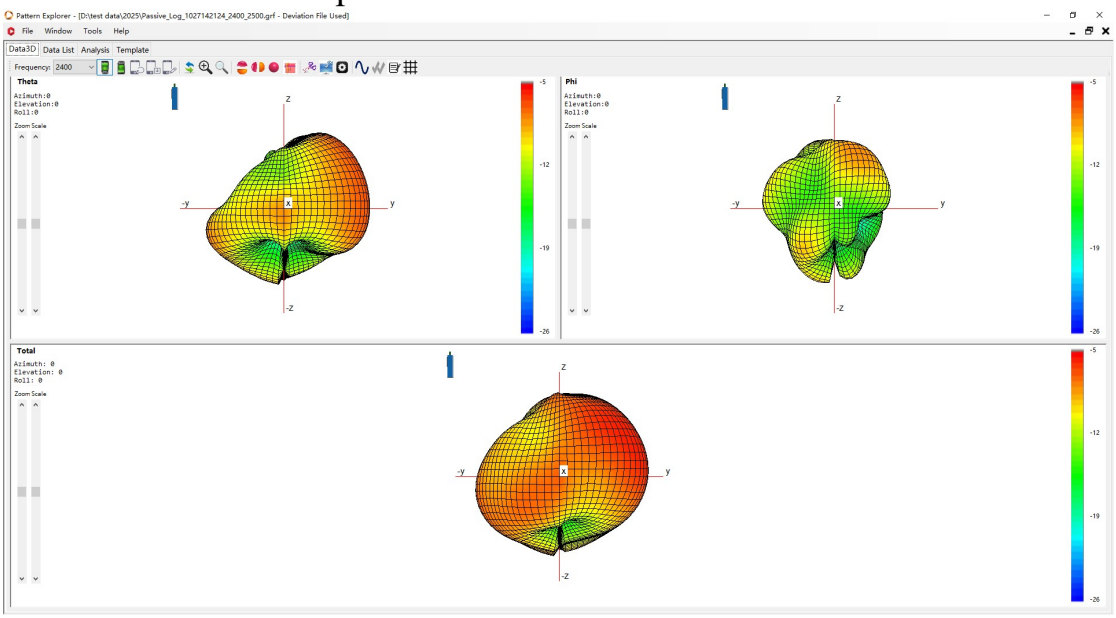
Antenna S11 parameter：



Antenna efficiency and gain:

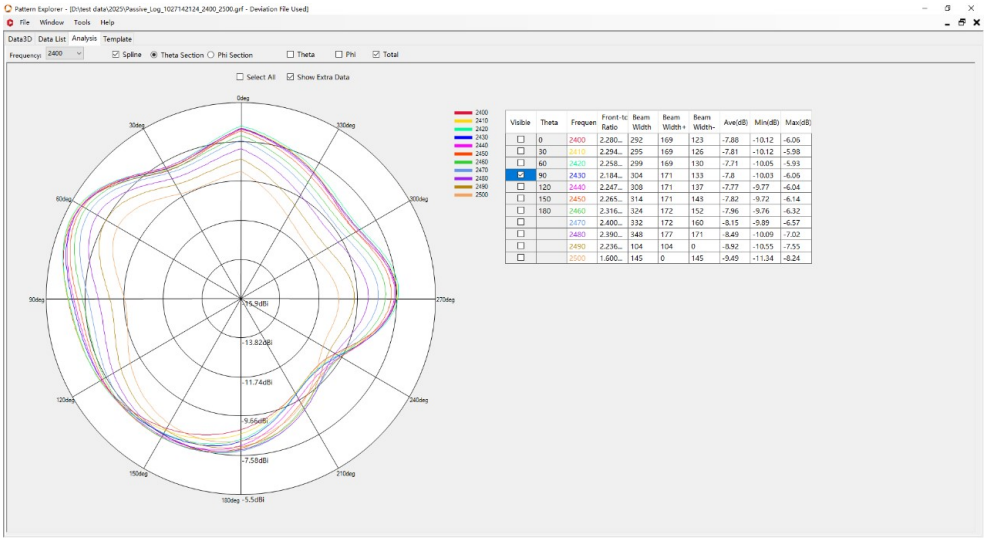
R			
Frequency (MHz)	Efficiency (%)	Efficiency (dB)	Gain (dBi)
2400	14.8%	-8.3	-5.7
2410	15.1%	-8.2	-5.6
2420	15.4%	-8.1	-5.6
2430	15.4%	-8.1	-5.6
2440	15.4%	-8.1	-5.7
2450	15.5%	-8.1	-5.7
2460	15.2%	-8.2	-5.7
2470	14.8%	-8.3	-5.7
2480	14.1%	-8.5	-5.7
AVG	15.1%	-8.2	-5.7

3D Antenna radiation pattern：



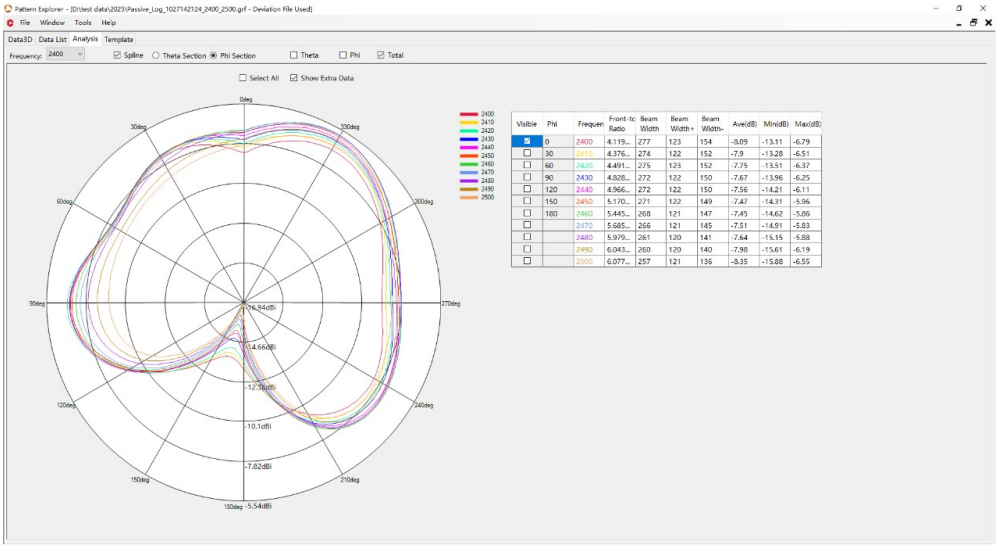
2D Antenna radiation pattern:

Theta=90°



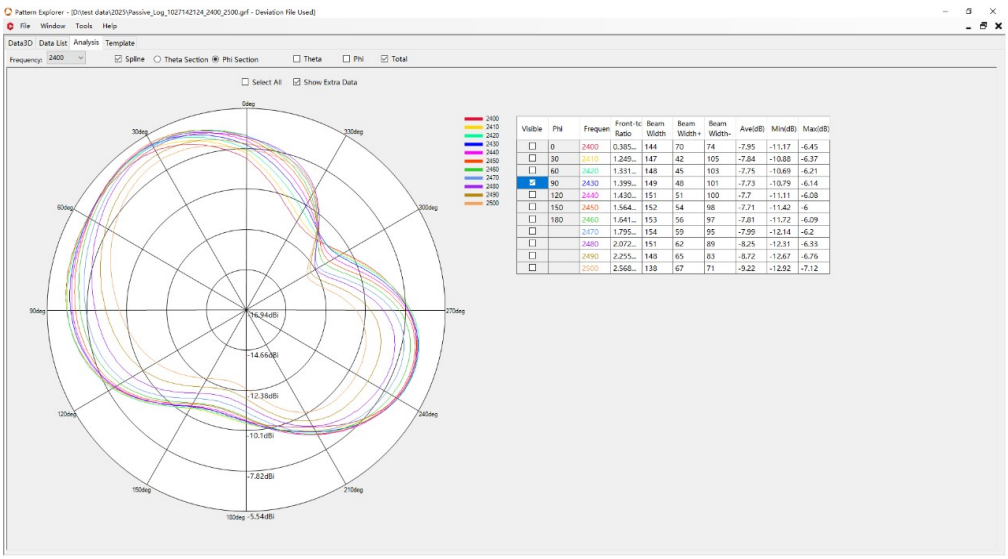
Visible	Theta	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-	Ave(dB)	Min(dB)	Max(dB)
☐	0	2400	2.280...	292	169	123	-7.88	-10.12	-6.06
☐	30	2410	2.294...	295	169	126	-7.81	-10.12	-5.98
☐	60	2420	2.258...	299	169	130	-7.71	-10.05	-5.93
☑	90	2430	2.184...	304	171	133	-7.8	-10.03	-6.06
☐	120	2440	2.247...	308	171	137	-7.77	-9.77	-6.04
☐	150	2450	2.265...	314	171	143	-7.82	-9.72	-6.14
☐	180	2460	2.316...	324	172	152	-7.96	-9.76	-6.32
☐		2470	2.400...	332	172	160	-8.15	-9.89	-6.57
☐		2480	2.590...	348	177	171	-8.49	-10.09	-7.02
☐		2490	2.236...	104	104	0	-8.92	-10.55	-7.55
☐		2500	1.600...	145	0	145	-9.49	-11.34	-8.24

Phi=0°



Visible	Phi	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-	Ave(dB)	Min(dB)	Max(dB)
☑	0	2400	4.119...	277	123	154	-8.09	-13.11	-6.79
☐	30	2410	4.376...	274	122	152	-7.9	-13.28	-6.51
☐	60	2420	4.491...	275	123	152	-7.75	-13.51	-6.37
☐	90	2430	4.828...	272	122	150	-7.67	-13.96	-6.25
☐	120	2440	4.966...	272	122	150	-7.56	-14.21	-6.11
☐	150	2450	5.170...	271	122	149	-7.47	-14.31	-5.96
☐	180	2460	5.445...	268	121	147	-7.45	-14.62	-5.86
☐		2470	5.685...	266	121	145	-7.51	-14.91	-5.83
☐		2480	5.979...	261	120	141	-7.64	-15.15	-5.88
☐		2490	6.043...	260	120	140	-7.98	-15.61	-6.19
☐		2500	6.077...	257	121	136	-8.35	-15.88	-6.55

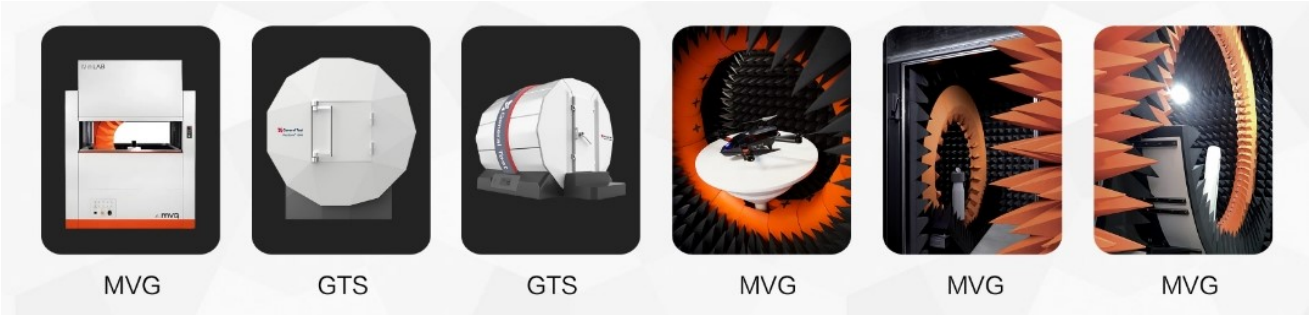
Phi=90°



Visible	Phi	Frequen	Front-to Ratio	Beam Width	Beam Width+	Beam Width-	Ave(dB)	Min(dB)	Max(dB)
☐	0	2400	0.385...	144	70	74	-7.95	-11.17	-6.45
☐	30	2410	1.249...	147	42	105	-7.84	-10.88	-6.37
☐	60	2420	1.331...	148	45	103	-7.75	-10.69	-6.21
☑	90	2430	1.399...	149	48	101	-7.73	-10.79	-6.14
☐	120	2440	1.430...	151	51	100	-7.7	-11.11	-6.08
☐	150	2450	1.564...	152	54	98	-7.71	-11.42	-6
☐	180	2460	1.641...	153	56	97	-7.81	-11.72	-6.09
☐		2470	1.795...	154	59	95	-7.99	-12.14	-6.2
☐		2480	2.072...	151	62	89	-8.25	-12.31	-6.33
☐		2490	2.255...	148	65	83	-8.72	-12.67	-6.76
☐		2500	2.568...	138	67	71	-9.22	-12.92	-7.12

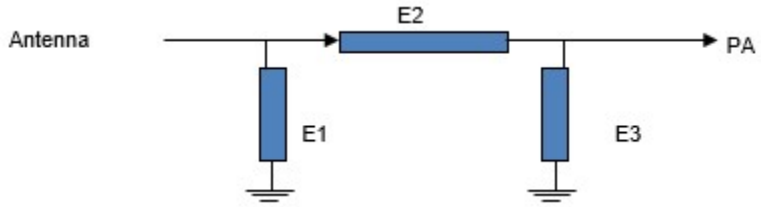
II：Active test data

		free	
7#	Channel	TRP	TIS
R	CH 0	7.6	-90.4
	CH 39	8.2	-91.4
	CH 78	7.8	-91.0
		head model	
7#	Channel	TRP	TIS
R	CH 0	2.1	-85.0
	CH 39	3.0	-86.6
	CH 78	3.4	-87.1

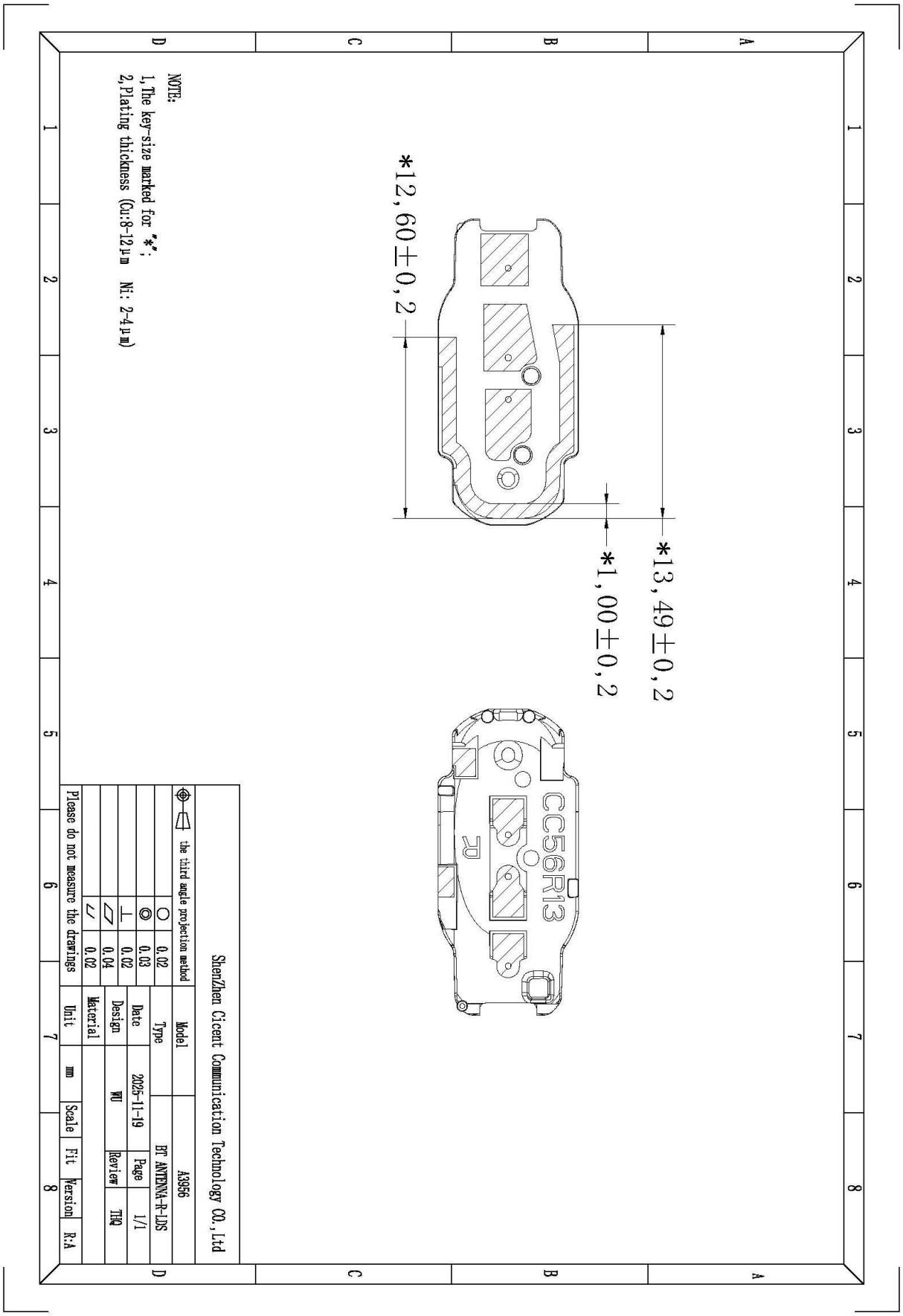


OTA Standard Chamber

III：Antenna matching



Element	Value
E1(0201)	7.5nH
E2(0201)	3.9nH
E3(0201)	N/A

Note: The matching circuit of the right ear antenna is connected in parallel with a 7.5nH inductor at position E1 and in series with a 3.9nH inductor at position E2.

V：Antenna structure diagram file