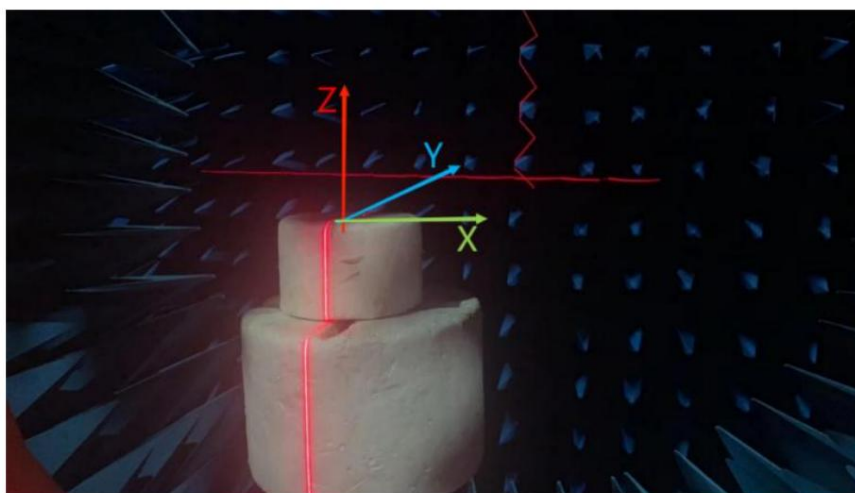
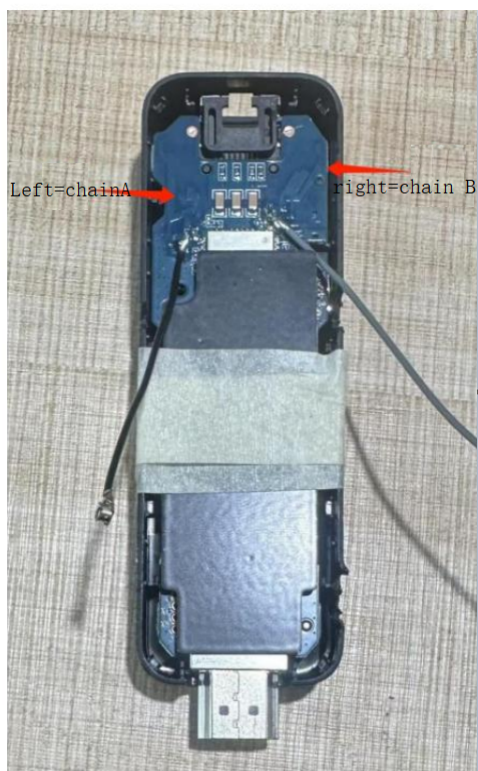


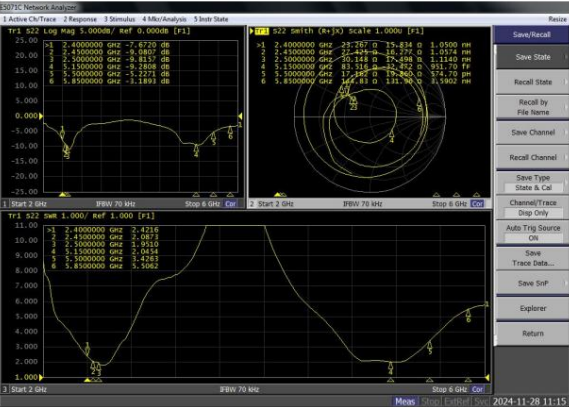
Original antenna test data report

1. Antenna (onboard antenna) and test environment diagram

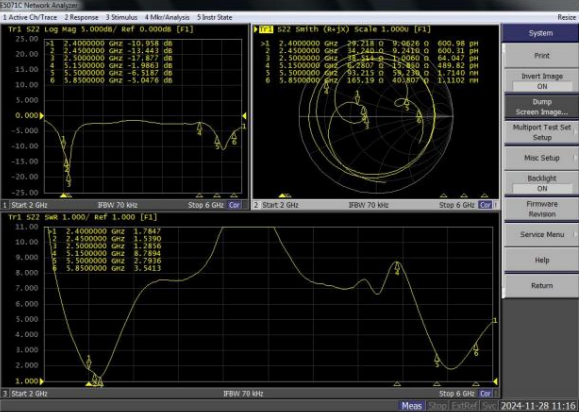


2. Antenna Standing Wave Ratio and Isolation

Left

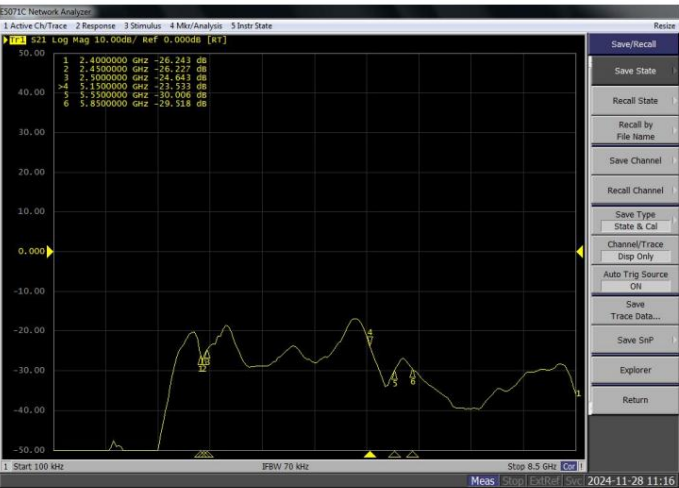


right



Isolation left/

right



3. Passive efficiency

Left

Gain&Efficiency&PhaseCenter						
Gain, Efficiency, and Phase Center						
Frequency	Gain	MinGain	CO Gain	CP Gain	Efficiency	Efficiency
Frequency (MHz)	Gain(dBi)	Minimum gain (dBi)	The main polarization Large gain (dBi)	Cross polarization Maximum Gain (dBi)	Efficiency(dB)	efficiency(%)
2400.00	2.95	-17.13	1.65	0.97	-2.98	50.36
2410.00	2.83	-17.00	1.49	0.91	-3.23	47.57
2420.00	2.90	-17.59	1.60	1.17	-2.88	51.51
2430.00	2.77	-17.27	1.38	0.83	-3.22	47.64
2440.00	2.99	-18.47	1.61	1.02	-3.01	50.02
2450.00	3.33	-17.02	1.96	1.46	-2.66	54.26
2460.00	2.75	-18.84	1.33	0.61	-3.34	46.34
2470.00	3.15	-17.46	1.82	0.97	-2.70	53.71
2480.00	3.10	-17.73	1.74	1.07	-2.67	54.07
2490.00	2.61	-17.89	1.44	0.72	-2.78	52.74
2500.00	2.59	-17.58	1.26	0.43	-2.84	51.97
Gain&Efficiency&PhaseCenter						
Gain, Efficiency, and Phase Center						
Frequency	Gain	MinGain	CO Gain	CP Gain	Efficiency	Efficiency
Frequency (MHz)	Gain(dBi)	Minimum gain (dBi)	The main polarization Large gain (dBi)	Cross polarization Maximum Gain (dBi)	Efficiency(dB)	efficiency(%)
5150.00	1.47	-33.51	1.38	-0.69	-4.76	33.40
5200.00	0.73	-29.00	0.67	-1.61	-5.36	29.07
5250.00	1.34	-21.40	1.23	-1.07	-4.82	32.93
5300.00	0.97	-19.73	0.51	-0.25	-5.10	30.87
5350.00	1.11	-24.67	0.16	0.11	-5.43	28.61
5400.00	0.48	-26.49	0.07	-0.76	-5.86	25.94
5450.00	1.13	-22.79	0.97	-0.29	-5.33	29.30
5500.00	1.75	-24.25	1.56	0.41	-5.03	31.38
5550.00	0.55	-26.10	0.39	-1.02	-6.29	23.48
5600.00	0.07	-24.25	-0.07	-1.67	-6.86	20.58
5650.00	1.57	-25.29	1.47	-0.11	-5.65	27.22
5700.00	1.73	-22.03	1.65	-0.21	-5.85	26.00

5750.00	1.24	-20.47	1.16	-0.63	-6.63	21.72
5800.00	1.80	-22.22	1.70	-0.52	-6.62	21.77
5850.00	2.32	-21.76	2.20	0.08	-6.37	23.05

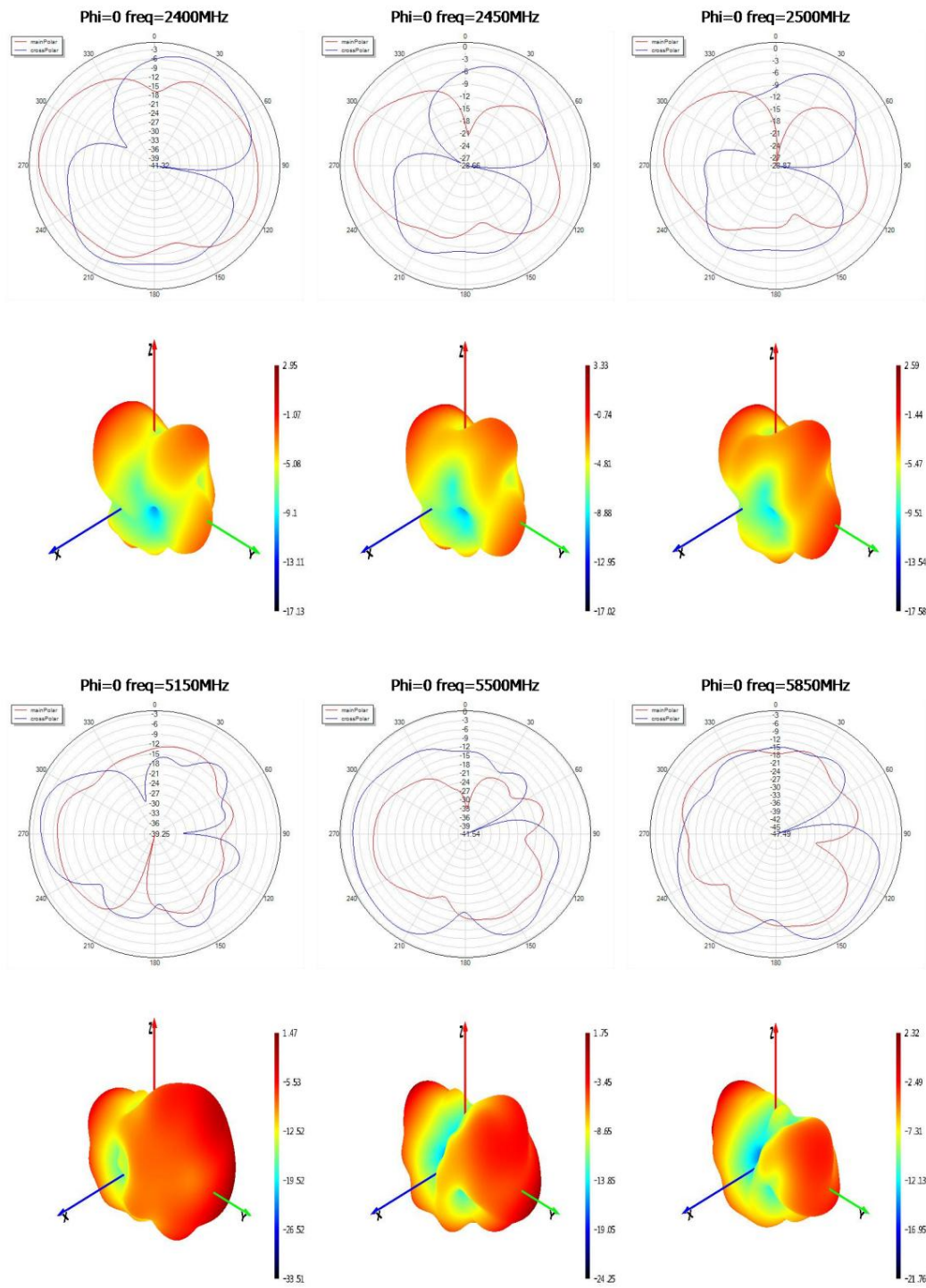
right

Gain&Efficiency&PhaseCenter						
Gain, Efficiency, and Phase Center						
Frequency	Gain	MinGain	CO Gain	CP Gain	Efficiency	Efficiency
Frequency (MHz)	Gain(dBi)	Minimum gain (dBi)	The main polarization Large gain (dBi)	Cross polarization Maximum Gain (dBi)	Efficiency(dB)	efficiency(%)
2400.00	2.71	-13.17	1.66	1.34	-3.19	47.96
2410.00	2.40	-13.76	1.31	1.12	-3.48	44.92
2420.00	2.76	-13.15	1.74	1.13	-3.14	48.48
2430.00	2.49	-13.53	1.20	1.10	-3.32	46.56
2440.00	2.58	-12.46	1.47	1.07	-3.18	48.14
2450.00	3.32	-11.64	1.86	1.71	-2.73	53.36
2460.00	2.40	-11.22	1.18	0.94	-3.33	46.44
2470.00	2.95	-10.47	1.49	1.45	-2.82	52.29
2480.00	2.85	-10.33	1.48	1.45	-2.73	53.37
2490.00	2.60	-11.43	1.26	1.20	-2.84	51.98
2500.00	2.32	-12.73	1.06	0.73	-2.92	51.03
Gain&Efficiency&PhaseCenter						
Gain, Efficiency, and Phase Center						
Frequency	Gain	MinGain	CO Gain	CP Gain	Efficiency	Efficiency
Frequency (MHz)	Gain(dBi)	Minimum gain (dBi)	The main polarization Large gain (dBi)	Cross polarization Maximum Gain (dBi)	Efficiency(dB)	efficiency(%)
5150.00	-2.15	-22.53	-2.29	-4.20	-7.07	19.63
5200.00	-1.40	-20.34	-1.54	-3.77	-6.39	22.96
5250.00	0.14	-18.03	-0.08	-2.38	-5.19	30.29
5300.00	0.48	-18.35	0.11	-1.80	-5.43	28.67
5350.00	0.97	-18.10	0.55	-0.84	-5.06	31.16
5400.00	2.24	-17.16	1.80	0.65	-4.11	38.77
5450.00	3.31	-15.78	2.83	1.65	-3.26	47.22
5500.00	3.81	-14.36	3.46	2.36	-3.00	50.10
5550.00	3.67	-12.29	3.27	1.95	-3.12	48.73

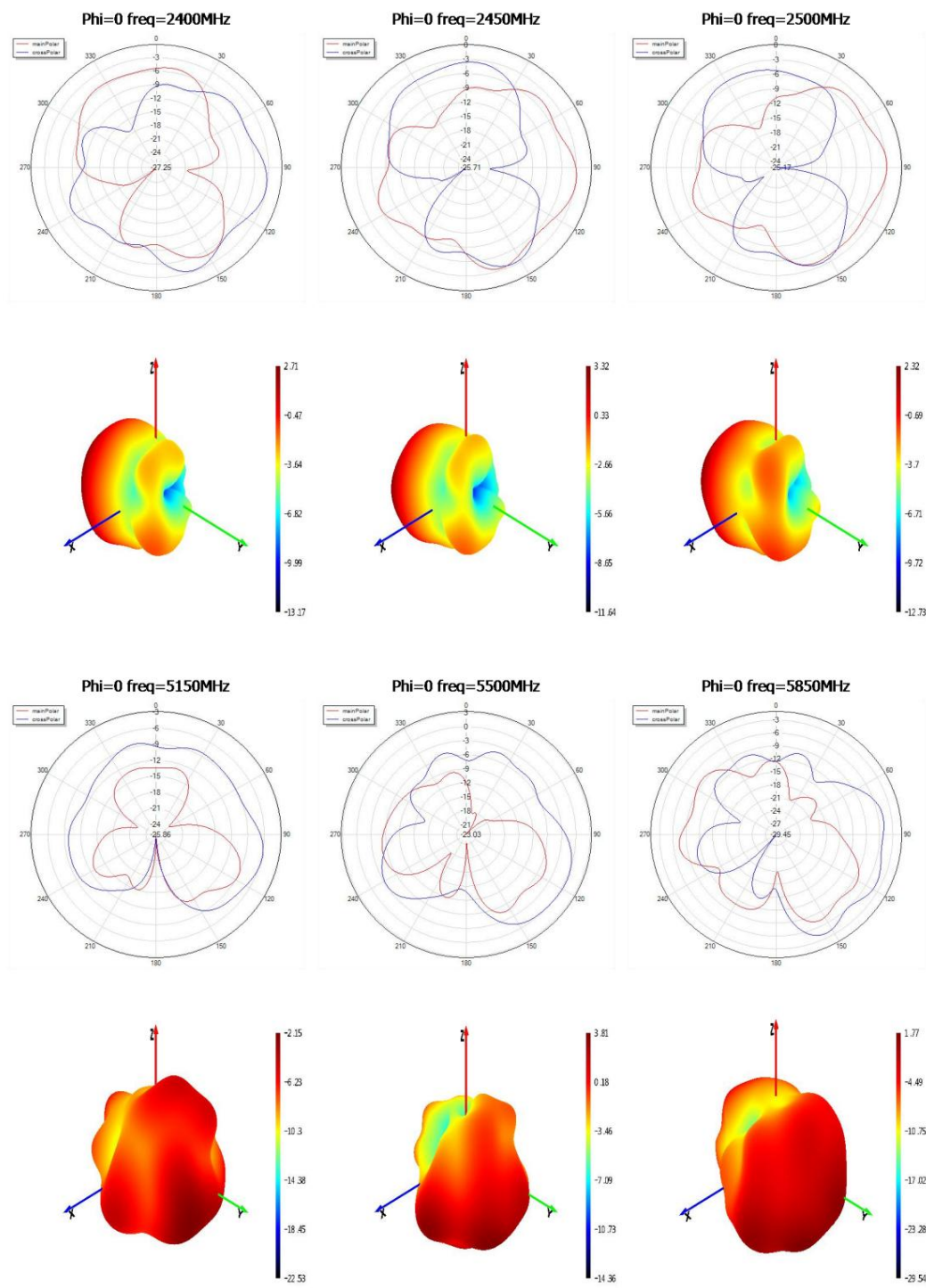
5600.00	3.83	-12.71	3.30	1.79	-3.38	45.89
5650.00	4.75	-11.87	4.28	2.61	-2.73	53.39
5700.00	4.41	-12.12	3.84	1.95	-3.34	46.39
5750.00	3.39	-17.97	2.75	0.81	-4.45	35.85
5800.00	2.56	-24.63	1.86	0.29	-5.13	30.69
5850.00	1.77	-29.54	1.12	0.28	-5.77	26.48

4. 2D3D Direction Diagram

Left



right



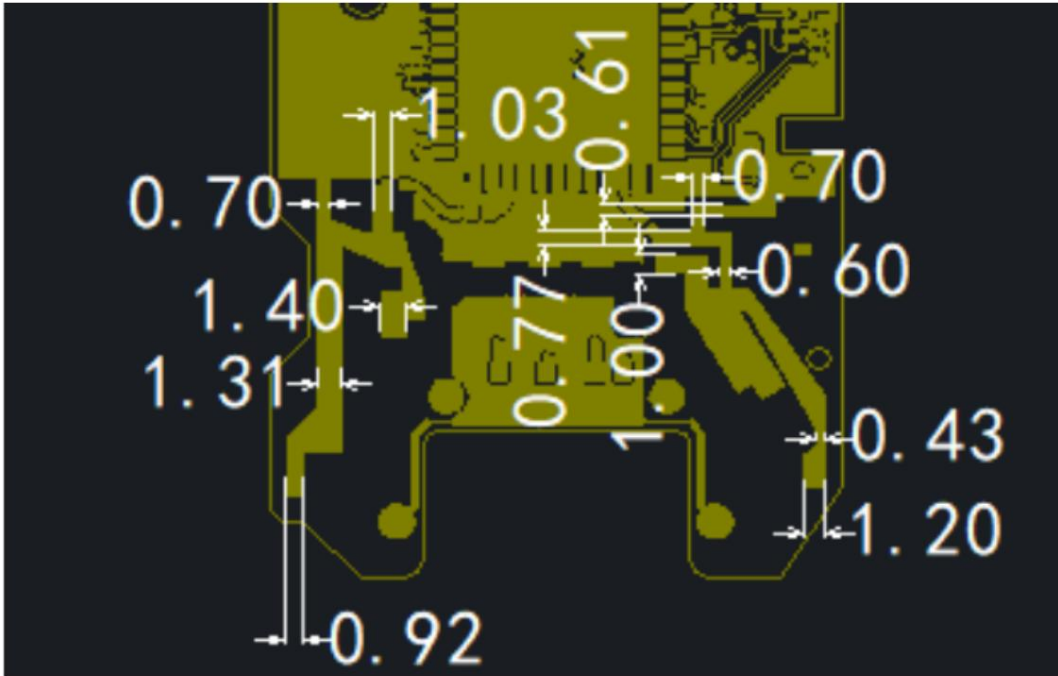
5. Active Data

Test	Wifi 2G TRP				Test	Wifi 2G TIS		
CH	1	6	13		CH	1	6	13
Frequency (MHz)	2412	2437	2472		Frequency (MHz)	2412	2437	2472
TRP(dBm)	20.65	21.03	21.65		TIS(dBm)	-60.46		

Test mode: 802.11a 54Mbps BW 20M

Test	Wifi 5G TRP				Test	Wifi 5G TIS		
CH	36	100	165		CH	36	100	165
Frequency (MHz)	5180	5500	5825		Frequency (MHz)	5180	5500	5825
TRP(dBm)	14.27	13.74	14.04		TIS(dBm)	-71.4	-74.02	-74.67

6. Antenna size (unit: mm)



Antenna manufacturer: Shenzhen All Things Connected Communications Co., Ltd.

Address: Room 1101, Building T4, Fangdacheng, Longzhu 4th Road, Taoyuan Street, Nanshan District, Shenzhen

2024.11.28