



深圳星源创科技有限公司

Shen Zhen Xing Yuan Chuang Technology Co., Ltd

规格承认书
Approval Sheet

客户名称 Customer	/	日期 Data	2024/10/21
产品名称 Product	WiFi/BT天线	客户机型 Models	AR07
料号 P/N	Main: F1181-14RB-240 Aux: F1182-14LG-100	客户料号 Customer P/N	
规格描述 Specifications	黑色FPC; Main: RF0.81四代端子黑色同轴线, 长度L=240mm, Aux: RF0.81四代端子深灰色同轴线, 长度L=100		

地址: 深圳市宝安区福永镇福海街道塘尾股份商务大厦1506

Address: 1506, Tangwei Business Building, Fuhai Street, Fuyong Town, Baoan District, Shenzhen

Tel: 0755-82103639 QQ: 487580356 Email: Stephdeng_Vis@126.com



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Specification

1.1 Electrical Properties

Characteristics	Specifications
Working Band	2.4GWiFi/BT; 5GWiFi
Antenna From	PIFA
Impedance	50 Ω
Polarization	Linear
Peak Effi	51%@2.4G; 59%@5G

1.2 Physical Properties

Characteristics	Specifications
Operating Temp	-10°C~+60°C
Storage Temp	-10°C~+70°C
Humidity	10~95%RH

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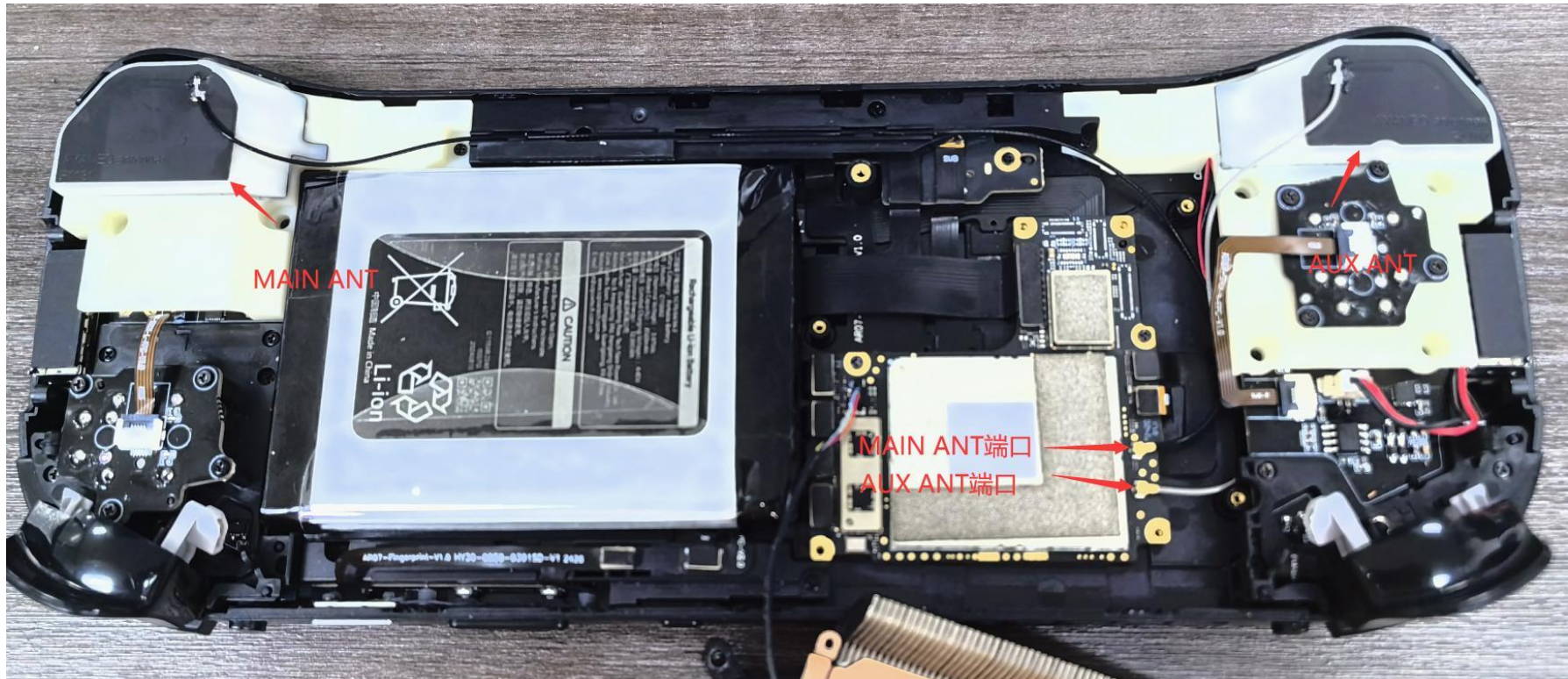
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Antenna Placement



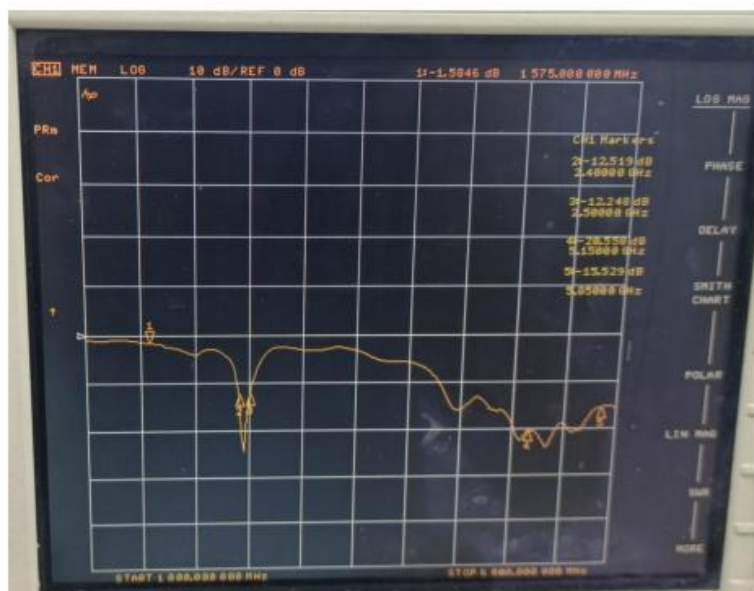
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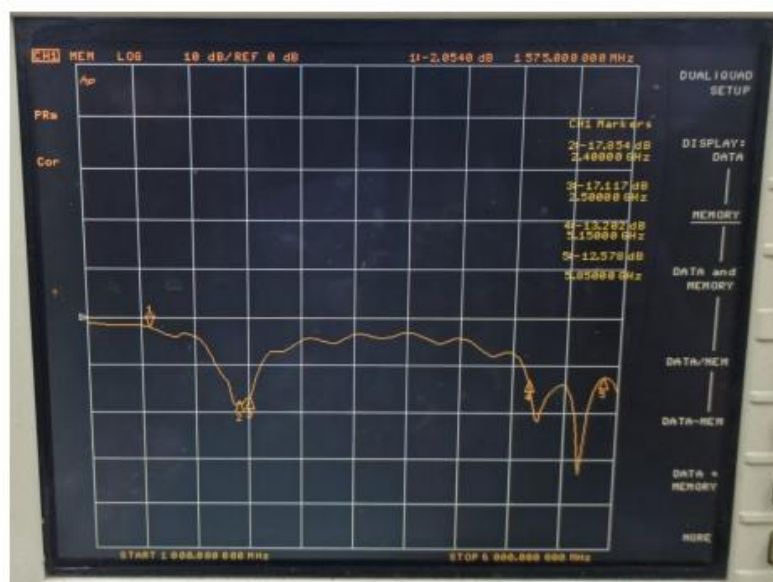
Test Data

S11 Parameter-VSWR(ANT1)



Frequency (MHZ)	2400	2500	5150	5850
Return Loss (DB)	-12.51	-12.24	-20.55	-15.52

S11 Parameter-VSWR(ANT2)



Frequency (MHZ)	2400	2500	5150	5850
Return Loss (DB)	-17.85	-17.11	-13.20	-12.57

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Efficiency Table (ANT1 2.4G) AUX ANT

Passive Test For WIFI2.4						
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)
2400	42.41	-3.73	1.1	-1.05	19.498	22.913
2410	42.09	-3.76	1.1	-1.05	19.537	22.556
2420	42.52	-3.71	1.16	-0.99	19.901	22.617
2430	40.88	-3.88	1.04	-1.11	19.373	21.511
2440	40.35	-3.94	0.95	-1.2	19.385	20.968
2450	40.84	-3.89	0.96	-1.19	19.939	20.899
2460	41.49	-3.82	0.91	-1.24	20.432	21.057
2470	42.99	-3.67	0.85	-1.3	21.31	21.676
2480	44.52	-3.51	1.16	-0.99	22.198	22.326
2490	44.49	-3.52	1.27	-0.88	22.211	22.275
2500	41.33	-3.84	0.75	-1.4	20.796	20.536

Efficiency Table (ANT2 2.4G) Main ANT

Passive Test For WIFI2.4						
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)
2400	46.23	-3.35	2.97	0.82	28.667	17.566
2410	46.52	-3.32	3.21	1.06	29.172	17.345
2420	46.99	-3.28	3.31	1.16	29.86	17.128
2430	46.13	-3.36	3.19	1.04	29.644	16.49
2440	47.23	-3.26	3.2	1.05	30.653	16.578
2450	47.81	-3.2	3.22	1.07	31.337	16.476
2460	47.81	-3.2	3.18	1.03	31.611	16.203
2470	50.19	-2.99	3.28	1.13	33.366	16.82
2480	51.08	-2.92	3.18	1.03	33.987	17.091
2490	48.61	-3.13	2.7	0.55	32.274	16.335
2500	46.24	-3.35	2.26	0.11	30.625	15.612

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Efficiency Table (ANT1 5G) AUX ANT

Passive Test For WIFI5G						
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)
5150	44.38	-3.53	1.04	-1.11	24.5	19.882
5170	40.17	-3.96	0.5	-1.65	21.849	18.317
5190	45.92	-3.38	1.33	-0.82	24.696	21.223
5210	39.92	-3.99	0.57	-1.58	21.664	18.255
5230	48.09	-3.18	1.58	-0.57	26.451	21.636
5250	40.8	-3.89	0.82	-1.33	22.453	18.35
5270	47.4	-3.24	1.66	-0.49	25.845	21.551
5290	44.7	-3.5	1.03	-1.12	24.661	20.043
5310	46.22	-3.35	1.23	-0.92	25.843	20.376
5330	46.38	-3.34	1.15	-1	26.011	20.365
5350	50.25	-2.99	1.42	-0.73	27.973	22.279
5370	49.81	-3.03	1.39	-0.76	27.679	22.136
5390	45.49	-3.42	1.23	-0.92	25.385	20.106
5410	56.4	-2.49	2.32	0.17	31.724	24.68
5430	51.29	-2.9	1.95	-0.2	28.989	22.304
5450	54.65	-2.62	2.29	0.14	31.055	23.598
5470	50.37	-2.98	2.21	0.06	29.098	21.268
5490	55.09	-2.59	2.89	0.74	32.346	22.745
5510	51.68	-2.87	2.68	0.53	30.441	21.243
5530	58.37	-2.34	3.29	1.14	34.654	23.712
5550	55.32	-2.57	3.2	1.05	33.426	21.899
5570	56.97	-2.44	3.5	1.35	34.837	22.133
5590	59.35	-2.27	3.74	1.59	36.437	22.914
5610	57.36	-2.41	3.55	1.4	35.158	22.198
5630	55.11	-2.59	3.52	1.37	33.982	21.125
5650	51.24	-2.9	3.3	1.15	32.12	19.117
5670	54.89	-2.61	3.64	1.49	34.513	20.374
5690	50.81	-2.94	3.37	1.22	32.125	18.681
5710	55.41	-2.56	3.68	1.53	35.093	20.316
5730	53.33	-2.73	3.59	1.44	33.787	19.548
5750	54.85	-2.61	3.88	1.73	35.007	19.84
5770	54.76	-2.62	3.84	1.69	35.161	19.602
5790	53.27	-2.74	3.64	1.49	34.475	18.79
5810	55.09	-2.59	3.6	1.45	35.632	19.457
5830	56.12	-2.51	3.73	1.58	36.309	19.815
5850	59.09	-2.28	3.89	1.74	38.232	20.86

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Efficiency Table (ANT2 5G) Main ANT

Passive Test For WIFI5G						
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)
5150	39.44	-4.04	1.02	-1.13	21.992	17.452
5170	36.44	-4.38	0.85	-1.3	20.9	15.54
5190	38.98	-4.09	1.25	-0.9	22.18	16.797
5210	35.33	-4.52	0.93	-1.22	19.925	15.409
5230	41.06	-3.87	1.53	-0.62	23.382	17.681
5250	35.32	-4.52	1.02	-1.13	20.479	14.843
5270	40.32	-3.94	1.9	-0.25	23.281	17.038
5290	39.2	-4.07	1.81	-0.34	22.386	16.813
5310	39.6	-4.02	1.96	-0.19	22.701	16.9
5330	41.63	-3.81	2.19	0.04	24.136	17.489
5350	44.9	-3.48	2.65	0.5	25.982	18.918
5370	44.21	-3.54	2.67	0.52	25.291	18.92
5390	41.33	-3.84	2.3	0.15	23.726	17.608
5410	49.86	-3.02	3.38	1.23	28.662	21.2
5430	50	-3.01	3.52	1.37	28.698	21.305
5450	49.92	-3.02	3.76	1.61	28.691	21.225
5470	48.41	-3.15	3.6	1.45	28.094	20.315
5490	48.56	-3.14	3.61	1.46	28.531	20.033
5510	47.65	-3.22	3.63	1.48	27.932	19.72
5530	49.09	-3.09	3.81	1.66	28.824	20.264
5550	48.57	-3.14	3.5	1.35	29.145	19.429
5570	45.73	-3.4	2.98	0.83	27.923	17.81
5590	47.32	-3.25	3.16	1.01	29.001	18.321
5610	43.87	-3.58	2.81	0.66	26.831	17.042
5630	42.35	-3.73	2.45	0.3	26.124	16.223
5650	39.48	-4.04	1.84	-0.31	24.722	14.758
5670	41.02	-3.87	1.74	-0.41	25.543	15.479
5690	37.97	-4.21	1.59	-0.56	23.49	14.483
5710	40.63	-3.91	1.9	-0.25	25.297	15.328
5730	38.9	-4.1	1.59	-0.56	24.525	14.376
5750	39.9	-3.99	1.62	-0.53	25.168	14.728
5770	39.89	-3.99	1.93	-0.22	24.943	14.947
5790	38.78	-4.11	2.08	-0.07	24.163	14.622
5810	40.23	-3.95	2.63	0.48	25.126	15.1
5830	41.71	-3.8	3.1	0.95	25.832	15.878
5850	44.02	-3.56	3.39	1.24	26.614	17.403

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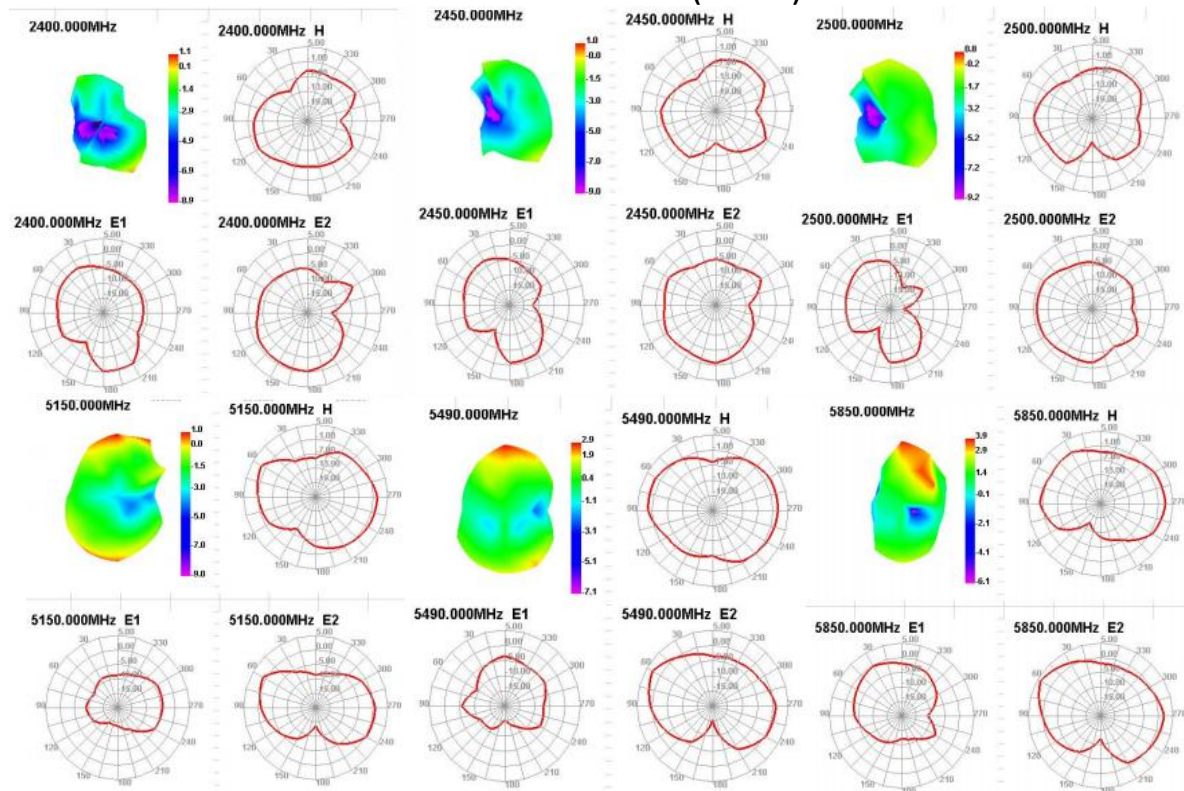
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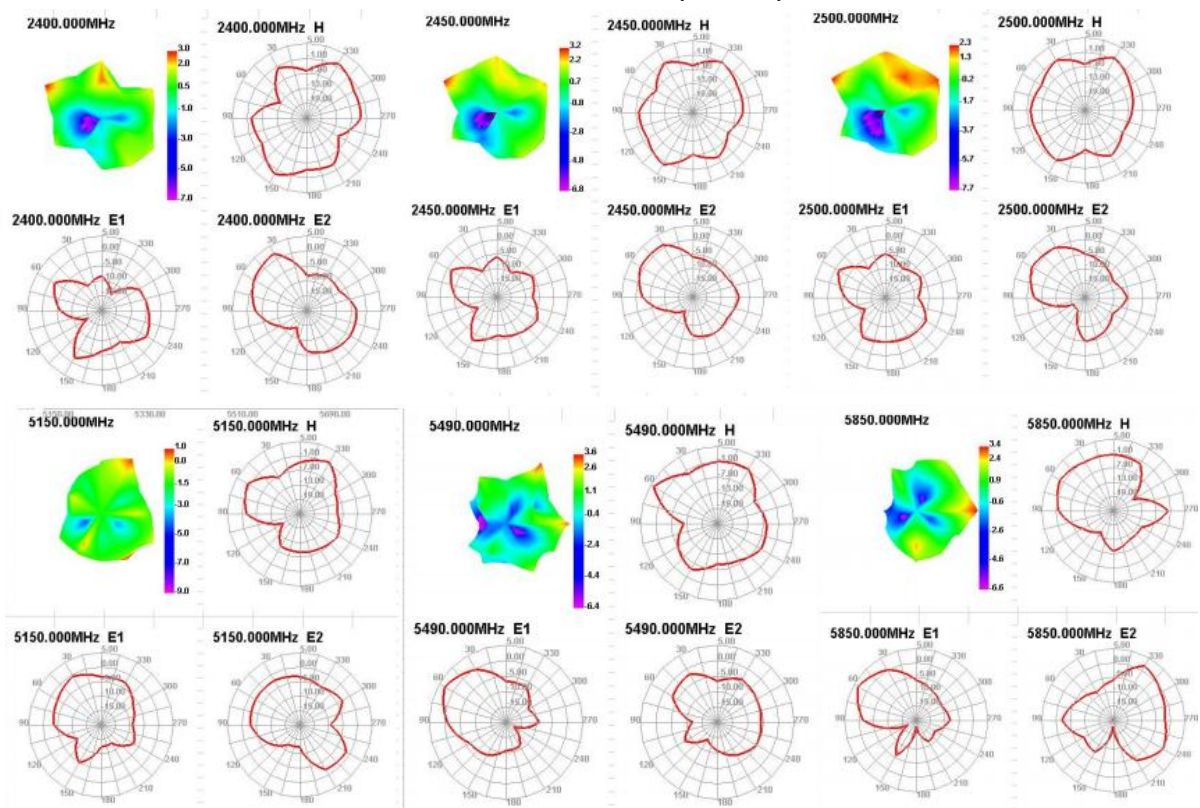
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Radiation Pattern(ANT1)



Radiation Pattern(ANT2)



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WiFi Active Test Data

802.11b	Frequency	TRP		TIS	
	2412	CH1 11Mbps	12.6	CH1 11Mbps	-80.11
	2437	CH6 11Mbps	13.56	CH6 11Mbps	-80.3
	2467	CH11 11Mbps	12.72	CH11 11Mbps	-80.81
802.11a		TRP		TIS	
	5180	CH36 6Mbps	12.27	CH36 54Mbps	-70.43
	5300	CH60 6Mbps	12.4	CH60 54Mbps	-68.87
	5805	CH161 6Mbps	12.25	CH161 54Mbps	-70.36

BT Test

测试环境：开放空间(通道)

测试工具：蓝牙音响

测试距离：10/m

结果：播放音乐流畅，无杂音。



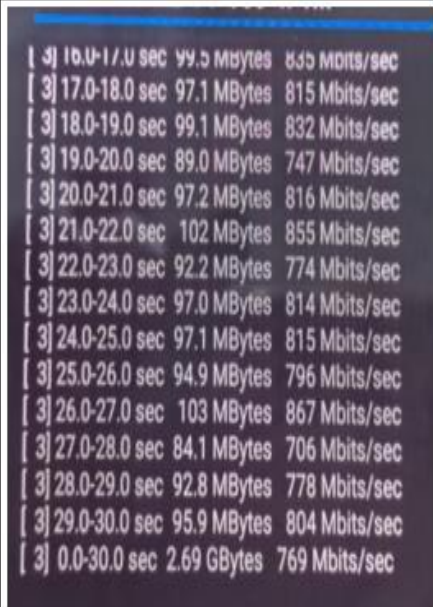
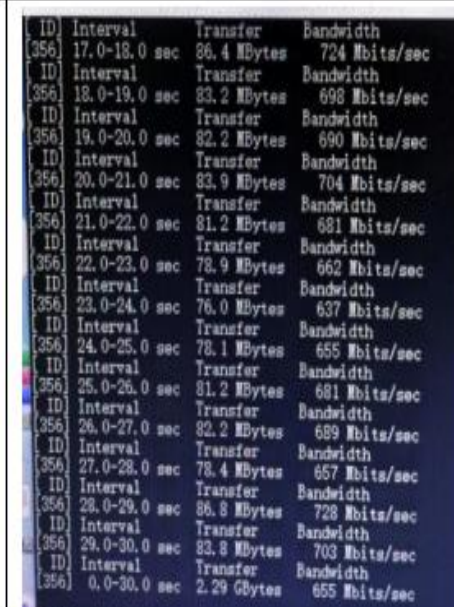
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Throughput Test (2.4G)

上行	225M	下行	222M
图片		图片	

Throughput Test (5G)

上行	769M	下行	655M
图片		图片	

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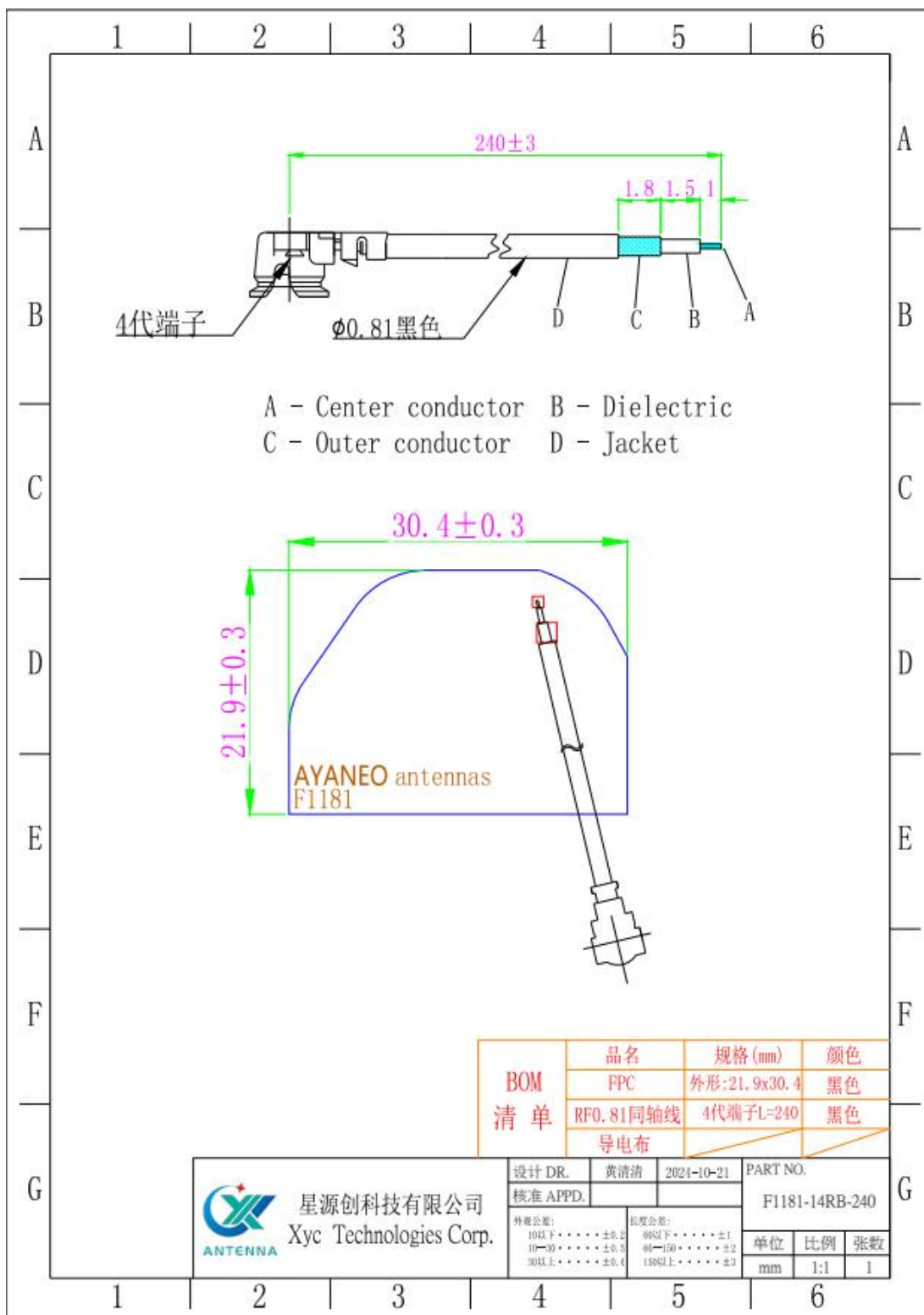
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Antenna Assembly



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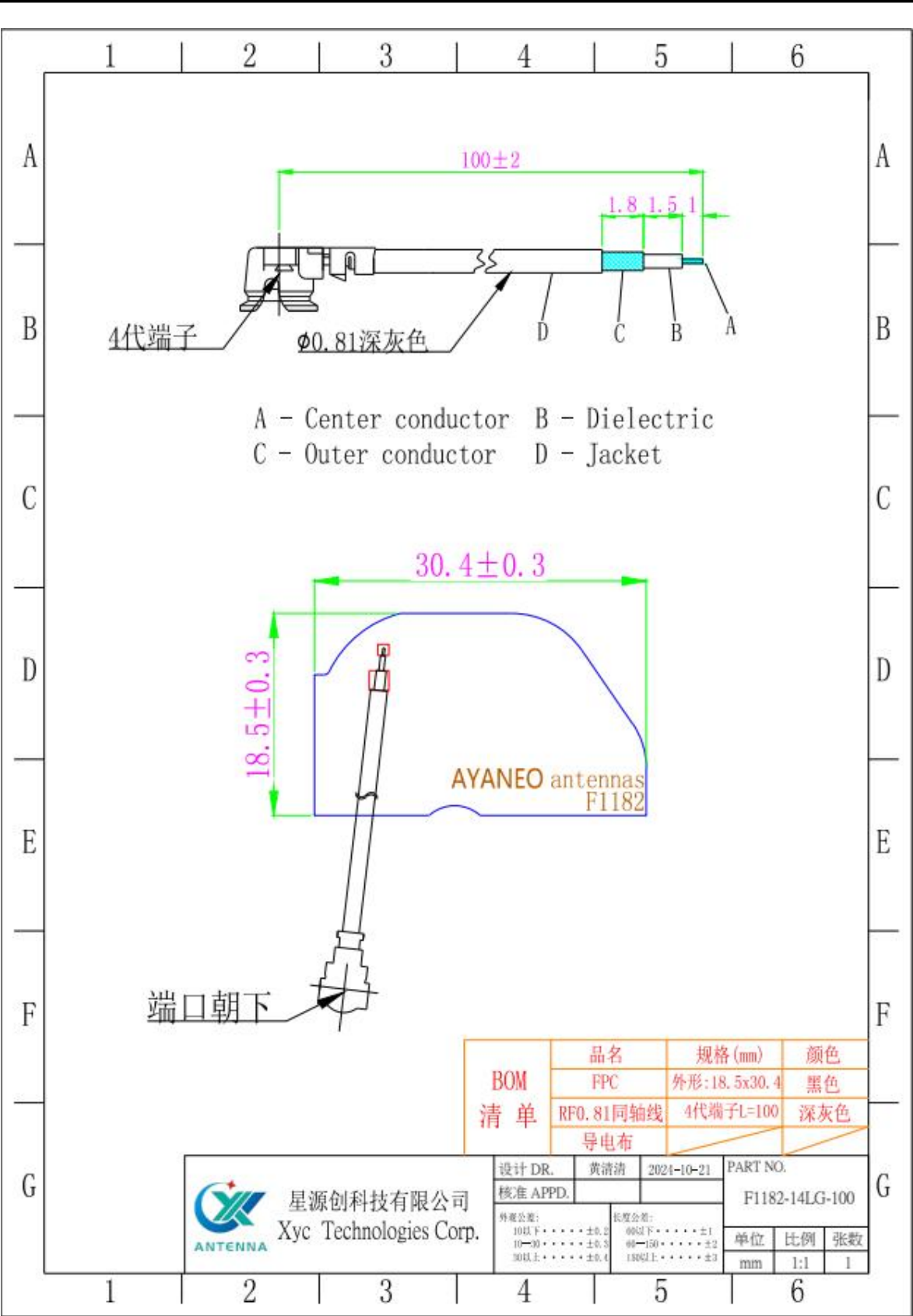
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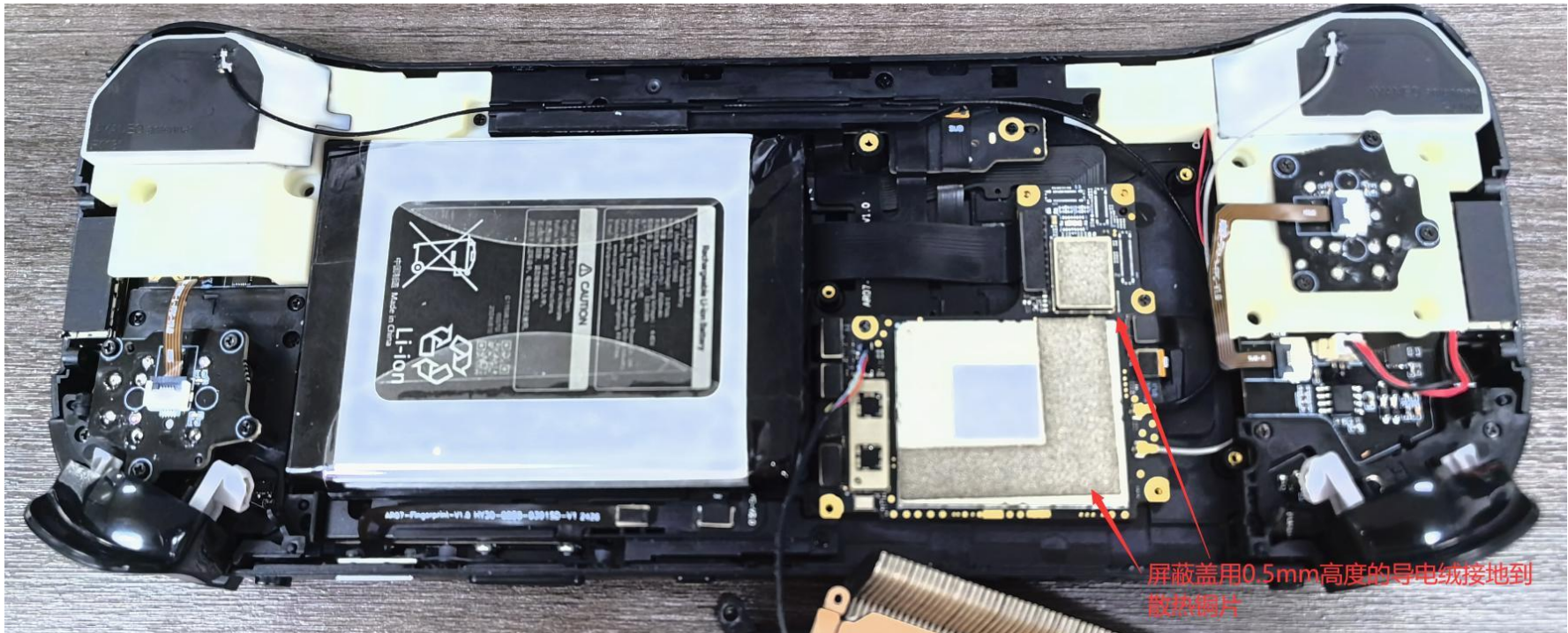
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