

深圳市云希科技有限公司

ShenZhen Yunxi Technology Co.,Ltd.

Antenna test Report

Customer: 锐铭鑫

Project Name:A16

RF Engineer:Wu Gong

Testing Date:2023-7-11

Operating band: 2.4G&5.8GWIFI/BT

Model:A16

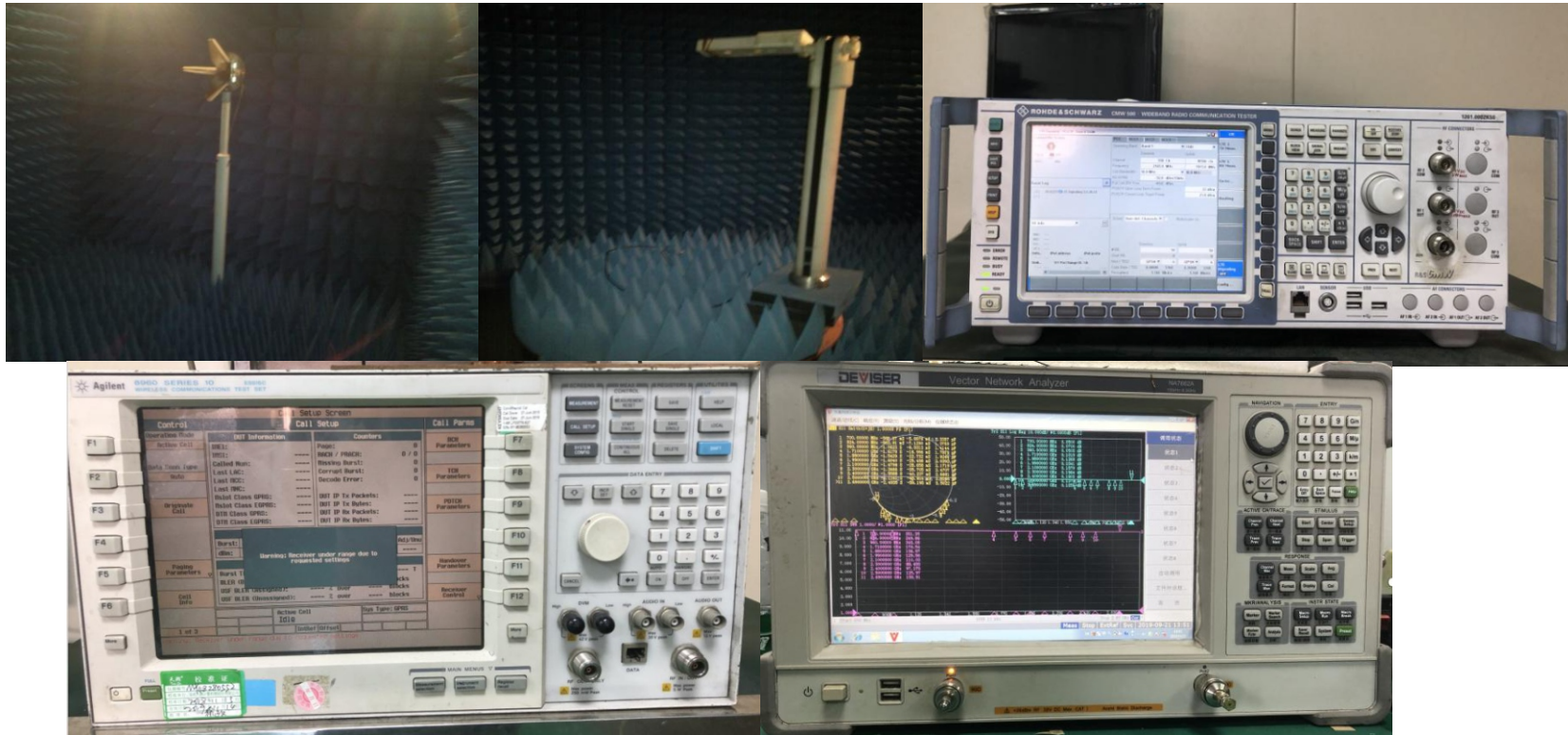


1.Project brief

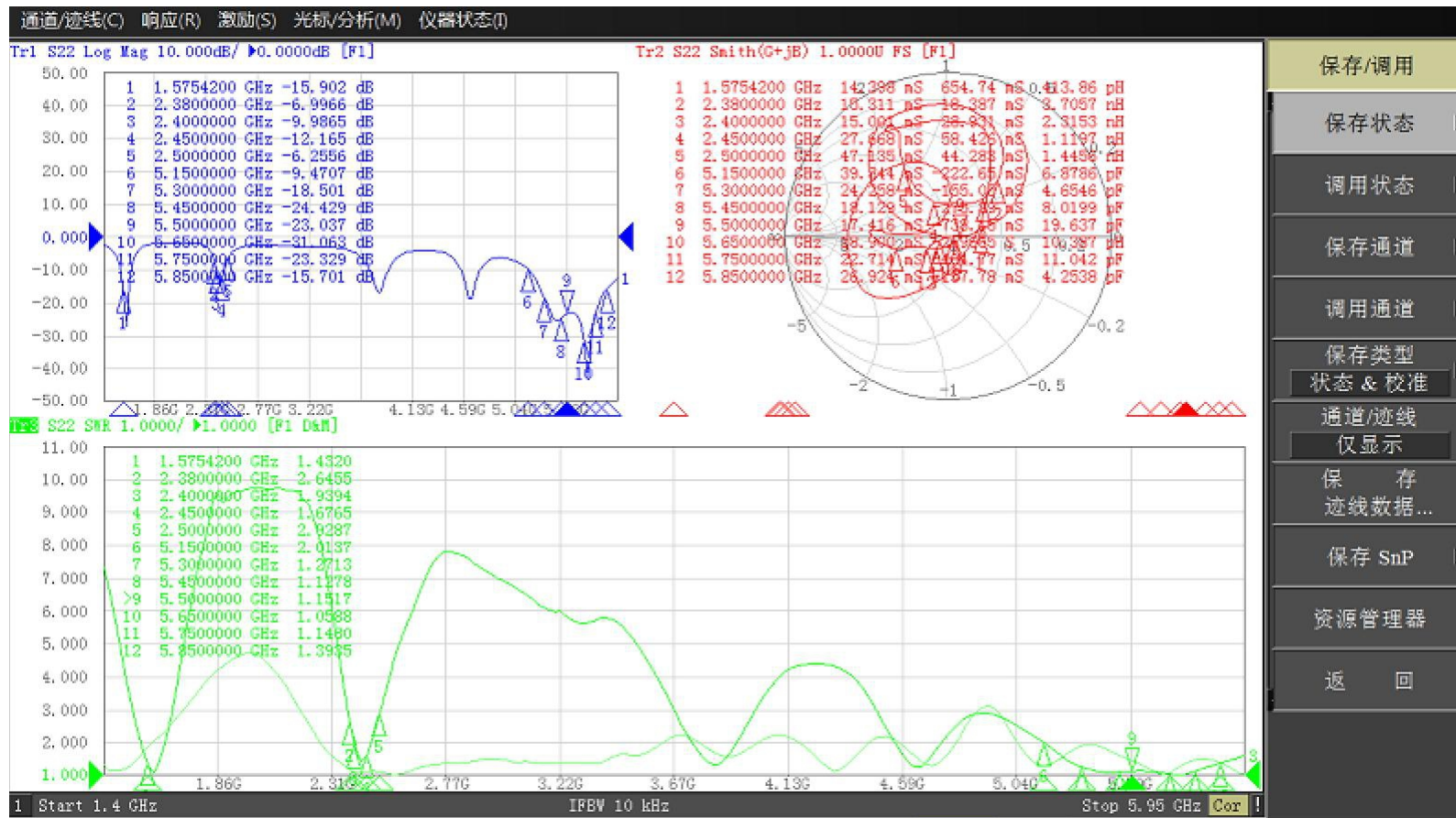
NO.	ITEMS	DETAILS
1	工作频段 Operating band	WIFI/BT
2	频率范围 Frequency range	(2400~2500MHz)(5150~5850MHz)
3	天线类型 Antenna Type	PIFA
4	天线材质及实现形式 Antenna material and implementation form	The antenna is attached to the side shell using FPC
5	天线料号 Antenna part number	T929A-1R24B-005-A
	天线料号 Antenna part number	
6	输入阻抗 Input Impedance	50 (Ω)
7	增益 Gain	

RF	吴工
ME	邹工

测试系统及测试设备



Antenna Standing Wave Diagram



保存/调用

保存状态

调用状态

保存通道

调用通道

保存类型

状态 & 校准

通道/迹线

仅显示

保存

迹线数据...

保存 SnP

资源管理器

返回

Antenna assembly environment processing diagram



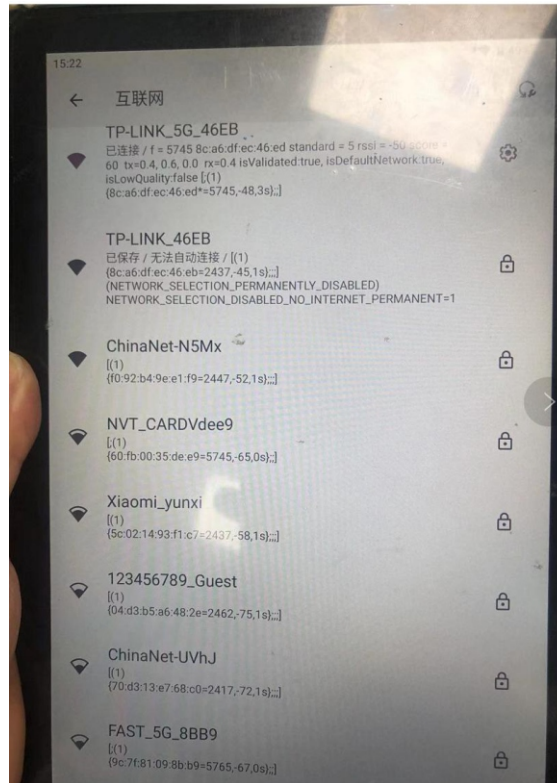
As shown in the figure: WiFi antenna assembly position



As shown in the figure: The motherboard shielding cover here should be fully grounded with conductive cotton and the screen

As shown in the figure: the motherboard here should be fully grounded with conductive cotton and the rear shell

Actual measurement of the antenna

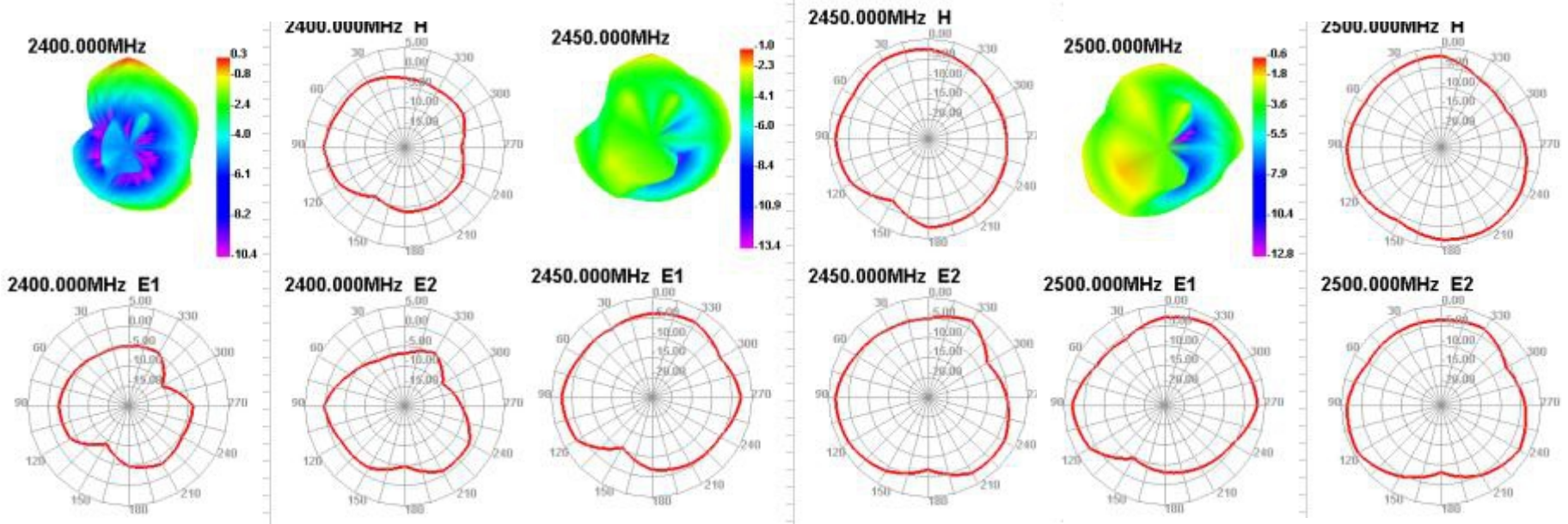


3D.TRP & TIS in free-space

Test Result	Wifi 2G TRP			Application Information		Test Result	Wifi 5G TRP				
	1	7	13		04Version	5.230.336		36	64	149	165
Frequency (MHz)	2412	2442	2472		TotalTime	16m 40s 879ms	Frequency (MHz)	5180	5320	5745	5825
TRP (dBm)	11.07	12.16	11.97		AdditionalInfor	802.11b : 11Mbps	TRP (dBm)	10.49	10.52	10.69	10.86
NHPRP (dBm)	9.52	11.54	10.41				NHPRP (dBm)	7.93	8.08	9.38	9.42
MAX (dBm)	14.54	15.76	15.66				MAX (dBm)	14.4	14.71	15.44	14.76
EIRP_peak	14.54	15.76	15.66				EIRP_peak	14.4	14.71	15.44	14.76
Min (dBm)	0.61	3.57	-3.12			A16	Min (dBm)	-11.66	-2.06	-1.18	-1.9
Attenuation Horiz	20.68	20.8	21.12				Attenuation Horiz	30.11	29.33	30.42	30.9
Attenuation Vertic	21.16	21.06	21.2				Attenuation Vertic	29.54	28.25	30.38	31.08
Test Result	ifi 2G TIS			Application Information		Test Result	ifi 5G TIS				
	13				04Version	5.230.336		149			
Frequency (MHz)	2472				TotalTime	22m 44s 432ms	Frequency (MHz)	5745			
TIS (dBm)	-81.79				AdditionalInfor	802.11a : 54Mbps	TIS (dBm)	-72.28			
NHPIS (dBm)	-80.24						NHPIS (dBm)	-70.97			
RSSIAve	11.81						RSSIAve	10.83			
MaxPosRSSI	14.48						MaxPosRSSI	14.53			
MaxPosSens	-84.46						MaxPosSens	-75.99			
MAX (dBm)	15.5						MAX (dBm)	15.65			
EIS_peak	15.5						EIS_peak	15.65			
Min (dBm)	-3.27						Min (dBm)	-1.09			
Attenuation Horiz	20.96						Attenuation Horiz	30.68			
Attenuation Vertic	21.05						Attenuation Vertic	30.42			

Antenna efficiency and gain

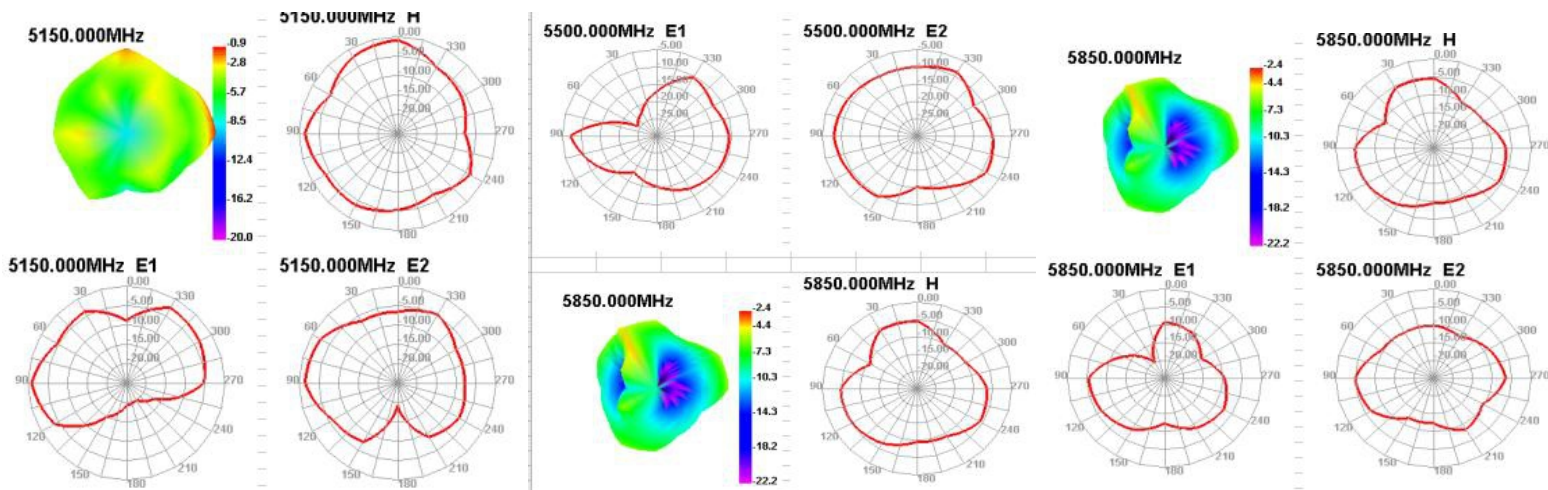
Passive Test For WIFI2.4										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenuat Hor	Attenuat Ver
2400	44.21	-3.54	0.25	-1.9	16.605	27.604	0.25	-10.35	48.04	48.09
2410	39.03	-4.09	-0.44	-2.59	15.195	23.837	-0.44	-11.02	47.59	47.64
2420	39.89	-3.99	-0.53	-2.68	16.292	23.602	-0.53	-11.48	47.92	48.01
2430	36.47	-4.38	-1.13	-3.28	15.596	20.871	-1.13	-12.63	47.46	47.57
2440	37.27	-4.29	-1.17	-3.32	16.512	20.759	-1.17	-13	47.72	47.88
2450	38.96	-4.09	-1.03	-3.18	17.723	21.235	-1.03	-13.36	47.65	47.81
2460	39.43	-4.04	-0.93	-3.08	18.274	21.154	-0.93	-13.6	47.84	47.97
2470	39.91	-3.99	-0.89	-3.04	18.795	21.114	-0.89	-13.29	47.92	48.04
2480	41.41	-3.83	-0.75	-2.9	19.716	21.691	-0.75	-13.09	47.86	47.88
2490	44.99	-3.47	-0.5	-2.65	21.689	23.3	-0.5	-12.64	48.2	48.18
2500	44.23	-3.54	-0.58	-2.73	21.449	22.785	-0.58	-12.85	48.05	47.98



Antenna efficiency and gain

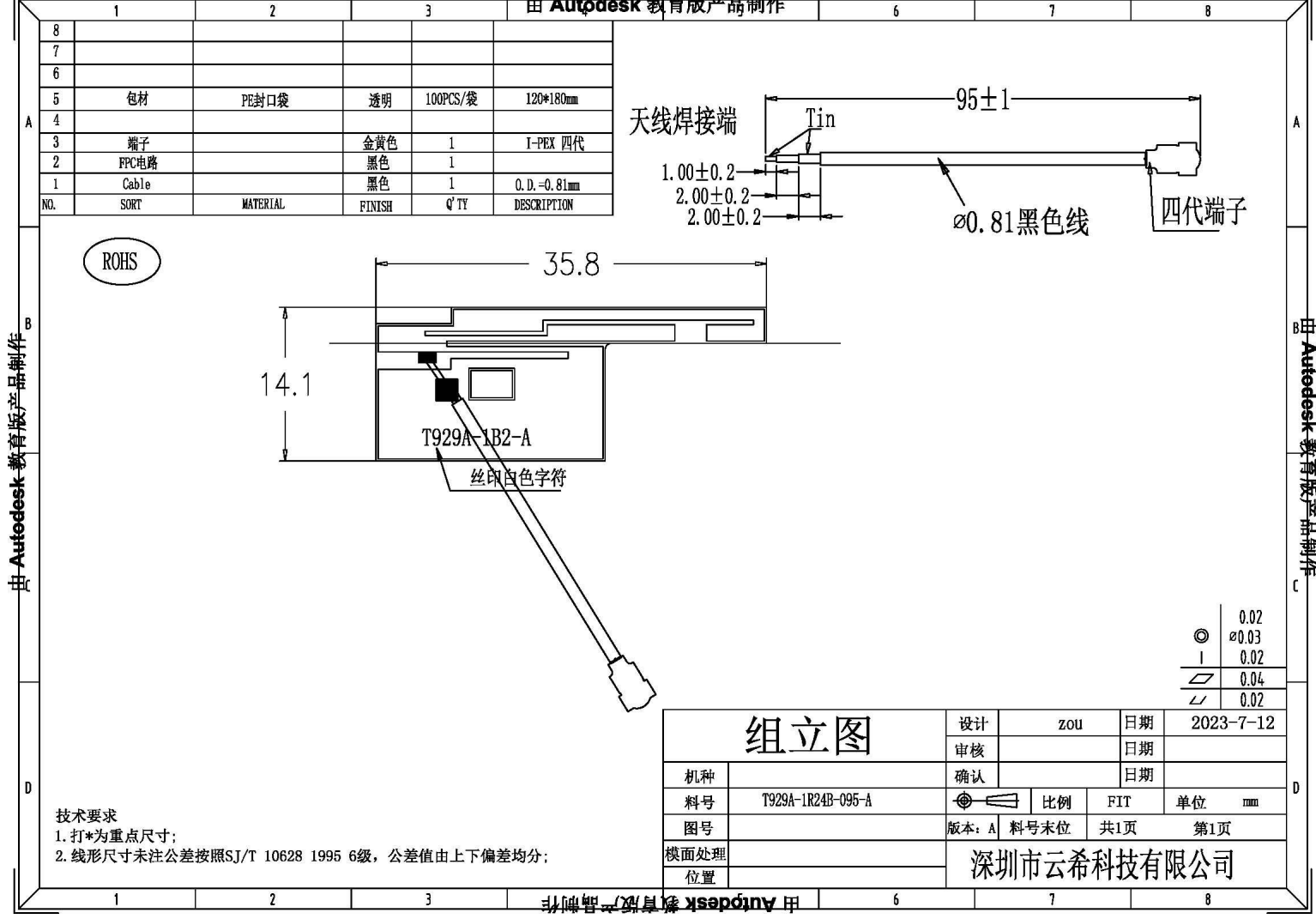
Passive Test For WIFI5.8

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5150	37.69	-4.24	1.97	0.82	24.06	13.631	1.97	-17.58	48.04	48.09
5220	35.96	-4.44	1.89	0.74	22.919	13.045	1.89	-19.27	47.59	47.64
5290	38.14	-4.19	1.16	1.01	24.164	13.973	1.16	-19.48	47.92	48.01
5360	34.72	-4.59	1.69	0.54	21.95	12.771	1.69	-20.79	47.46	47.57
5430	35.93	-4.44	1.88	0.73	22.593	13.341	1.88	-21.24	47.72	47.88
5500	39.5	-4.03	1.36	1.21	24.718	14.78	1.36	-20.51	47.65	47.81
5570	39.25	-4.06	1.78	-0.37	24.877	14.373	1.78	-16.09	61.58	60.04
5640	34.57	-4.61	1.59	-0.56	22.25	12.323	1.59	-16.2	61.83	60.01
5710	37.78	-4.23	1.31	-0.84	23.89	13.887	1.31	-16.24	61.95	60.43
5780	38.15	-4.19	1.79	-0.36	24.489	13.661	1.79	-17.23	62.32	60.73
5850	38.73	-4.12	1.68	-0.47	25.004	13.728	1.68	-16.64	62.15	60.4





四：结构图纸



Note: If there are any unclear or questionable locations regarding this project, please contact me promptly

