

深圳市云希科技有限公司
ShenZhen Yunxi Technology Co.,Ltd.

Antenna Specification

Customer: 合悦丰

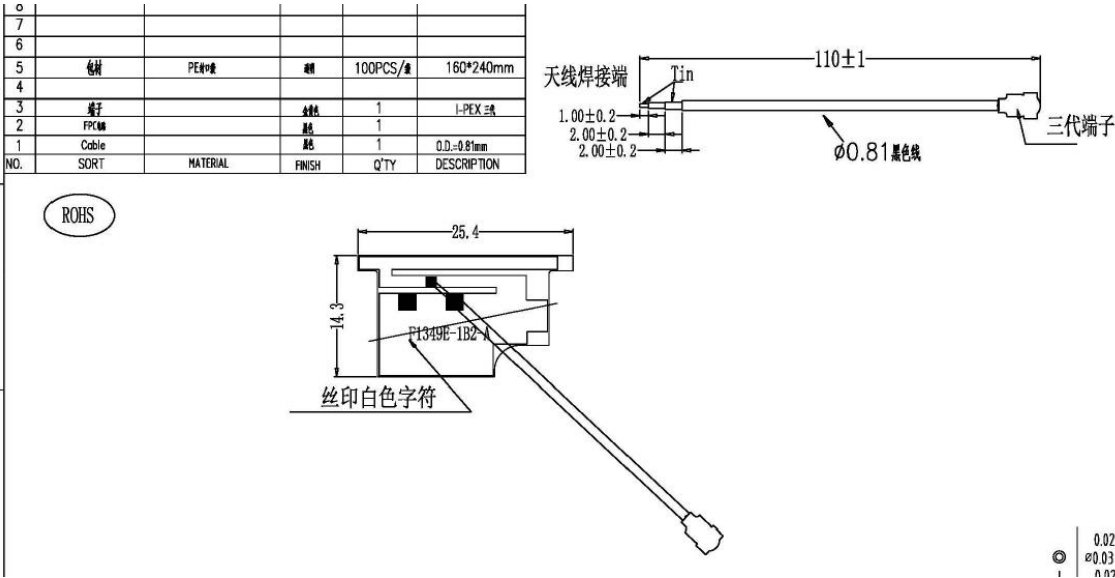
Project Name: BH706

RF Engineer:Wu Gong

Testing Date: 2024-1-24

Operating band: **WiFi**

1. Antenna size

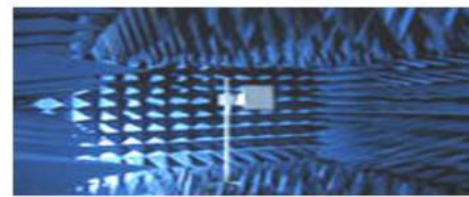
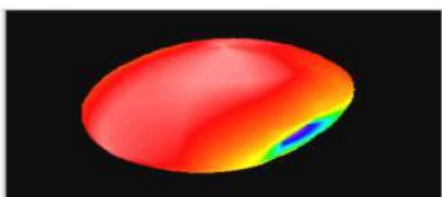


2.Project brief

NO.	ITEMS	DETAILS
1	工作频段 Operating band	BT/ WiFi
2	频率范围 Frequency range	(2400~2500MHz) (5150~5850MHz)
3	天线类型 Antenna Type	FPC
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	WIFI: F1349E-1R23B-110-A
6	输入阻抗 Input Impedance	50 (Ω)
7	增益 Gain	BT/WiFi2.4G: 1.84dBi WiFi 5G: 2.66dBi
	RF	吴工
	ME	邹工

3.Test system and equipment

	测试项目	设备
1. S参数	1. 回波损耗 2. 驻波比	网络分析仪: HP E5071C/Agilent8753D
2. 耦合功率测试	1. 发射功率 2. 接收灵敏度	GSM 测试仪: Agilent 8960 LTE 测试仪: CMW500
3. 辐射模式与增益	1. 辐射模式 2. 天线增益	1. 暗室: 7x4x3 m (ETS-3D) 2. 网络分析仪: HP Agilent8753ES



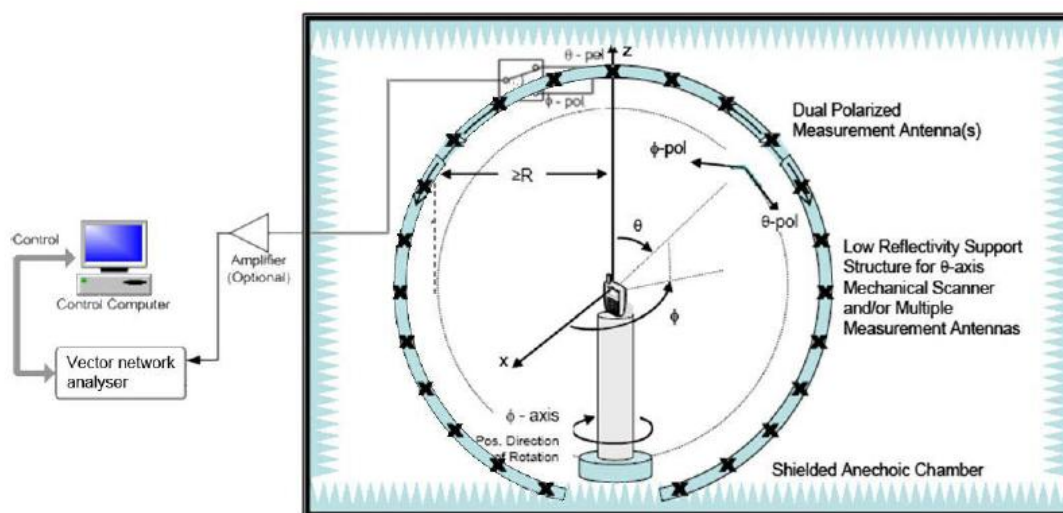
4. Antenna assembly environment processing diagram



WIFI/BT天线装配位置

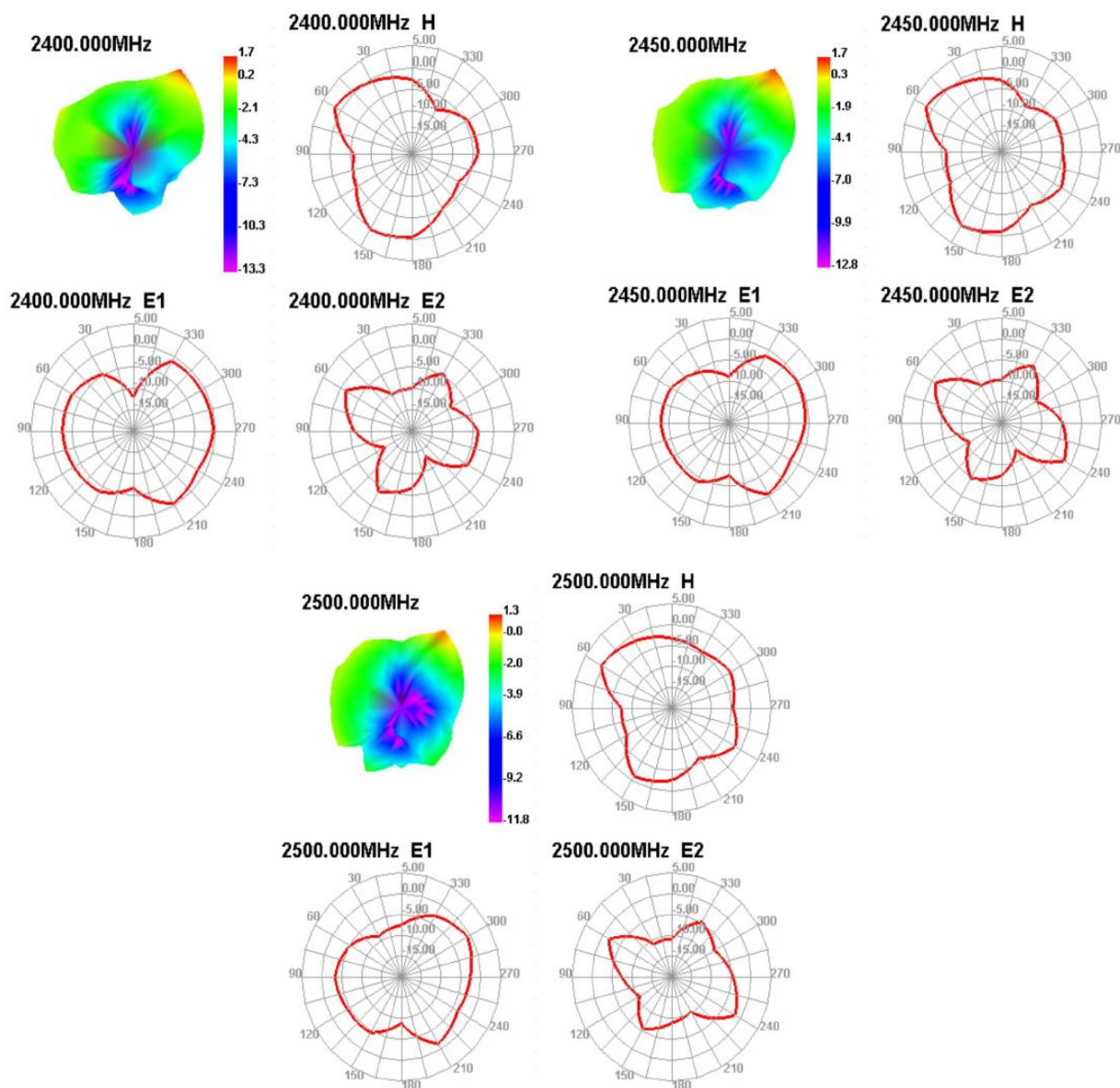
5. Antenna Performance Test

Antenna gain, efficiency and radiation pattern test setup



6. Antenna testing efficiency

Passive Test For WIFI2.4										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenuat Hor	Attenuat Ver
2400	52.13	-2.83	1.68	-0.47	26.227	25.899	1.68	-13.31	47.79	47.89
2410	49.32	-3.07	1.5	-0.65	24.848	24.472	1.5	-13.59	47.82	47.98
2420	50.4	-2.98	1.84	-0.31	25.425	24.972	1.84	-13.46	47.98	48.5
2430	51.03	-2.92	1.78	-0.37	26.059	24.974	1.78	-13.51	47.99	48.32
2440	51.92	-2.85	1.79	-0.36	26.877	25.04	1.79	-13.29	48.18	48.34
2450	53.6	-2.71	1.73	-0.42	27.96	25.638	1.73	-12.82	48.44	48.53
2460	53.74	-2.7	1.74	-0.41	28.106	25.632	1.74	-12.35	48.39	48.66
2470	51.36	-2.89	1.48	-0.67	26.84	24.523	1.48	-12.04	48.46	48.64
2480	49.98	-3.01	1.31	-0.84	26.111	23.871	1.31	-12.04	48.45	48.45
2490	48.68	-3.13	1.35	-0.8	25.394	23.288	1.35	-11.77	48.47	48.36
2500	47.59	-3.23	1.28	-0.87	24.786	22.802	1.28	-11.78	48.29	48.19



Passive Test For 5G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5150	41.64	-3.8	2.09	-0.06	17.316	24.325	2.09	-17.55	56.83	56.92
5220	44.21	-3.54	2.02	-0.13	19.165	25.047	2.02	-22.75	56.86	56.77
5290	57.69	-2.39	2.48	0.33	25.898	31.795	2.48	-15.17	57.77	58.2
5360	50.23	-2.99	1.2	-0.95	23.027	27.207	1.2	-11.57	57.02	57.31
5430	43.9	-3.57	0.49	-1.66	20.284	23.621	0.49	-14.33	57.54	58.29
5500	53.55	-2.71	1.09	-1.06	24.374	29.176	1.09	-19.54	58.73	59.56
5570	43.07	-3.66	0.36	-1.79	19.524	23.541	0.36	-14.05	59.49	60.34
5640	42.08	-4.94	0.07	-2.08	14.585	17.493	0.07	-12.79	60.22	60.97
5710	54.39	-2.65	2.66	0.51	24.903	29.483	2.66	-13.18	60.22	61.13
5780	43.6	-3.6	1.74	-0.41	20.047	23.557	1.74	-14.6	60	60.7
5850	44.18	-3.55	1.83	-0.32	19.96	24.215	1.83	-14.34	60.78	61.7

