

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

Antenna Specification

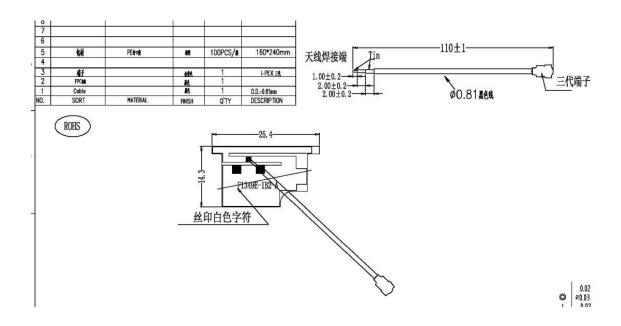
Customer: 合悦丰 Project Name: BH706

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

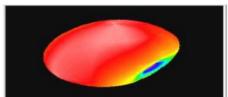
	测试项目	设备		
1. S参数	 回波损耗 驻波比 	网络分析仪: HP E5071C/Agilent8753D		
2. 耦合功率测试	1. 发射功率 2. 接收灵敏度	GSM 测试仪: Agilent 8960 LTE 测试仪: CMW500		
3. 辐射模式与增益	1. 辐射模式 2. 天线增益	1. 暗室: 7x4x3 m (ETS-3D) 2. 网络分析仪: HP Agilent8753ES		

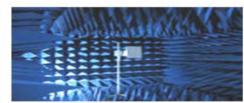














4. Antenna assembly environment processing diagram

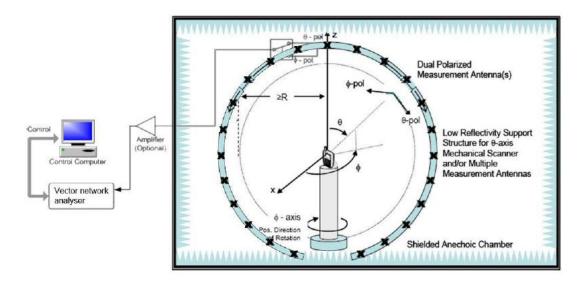


WIFI/BT天线装配位置



5. Antenna Performance Test

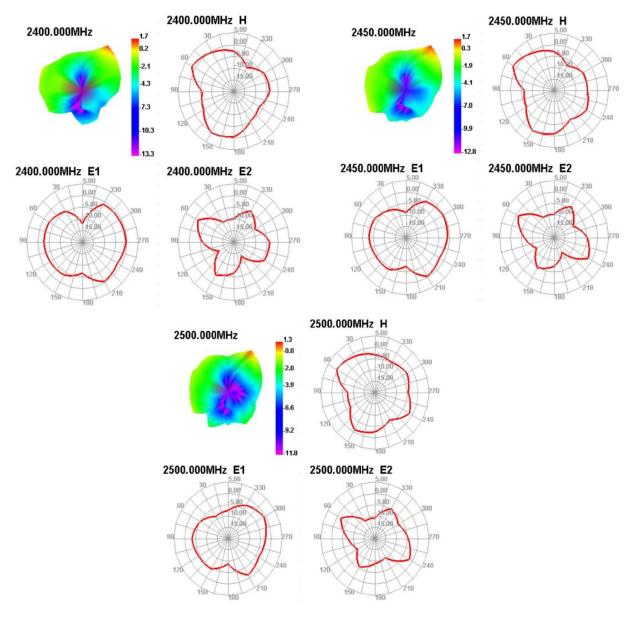
Antenna gain, efficiency and radiation pattern test setup





6.Antenna testing efficiency

- 11										
Passive Test For WIFI2.4										
Freq	Effi	Effi	Gain	Gain	UHIS	DHIS	Max	Min	Attenut	Attenut
(MHz)	(%)	(dB)	(dBi)	(dBd)	(%)	(%)	(dB)	(dB)	Hor	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	Effi	Effi	Gain	Gain	UHIS	DHIS	Max	Min	Attenut	Attenut
(MHz)	(%)	(dB)	(dBi)	(dBd)	(%)	(%)	(dB)	(dB)	Hor	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

