



Antena Test Report

Shenzhen Hongxin
Technology Electronics
Co., Ltd.

ADD:2nd Floor, West Side,
Building C10, Xin'an Second
Industrial Zone, Guxing
Community, Xixiang
Subdistrict, Bao'an District,
Shenzhen



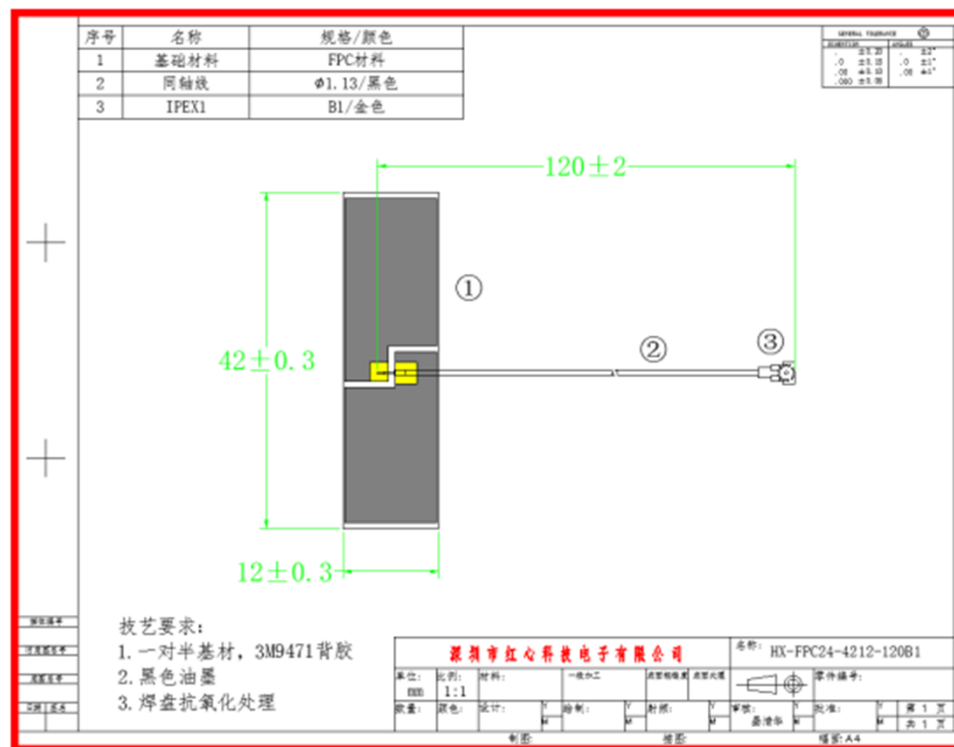
客户名称	乐行天下	客户项目负责人	周生
项目名称	2.4G FPC天线	调试频段	2400-2500MHz
天线型号	HX-FPC24-4212-120B1	测试日期	2024-11-15
射频工程师	庄工	结构工程师	黄工

深圳市红心科技电子有限公司
电话: 0755-23205219 官网: <http://www.hxrf-antenna.com/>
地址: 深圳市宝安区西乡街道固兴社区新安第二工业区C10栋西面2楼

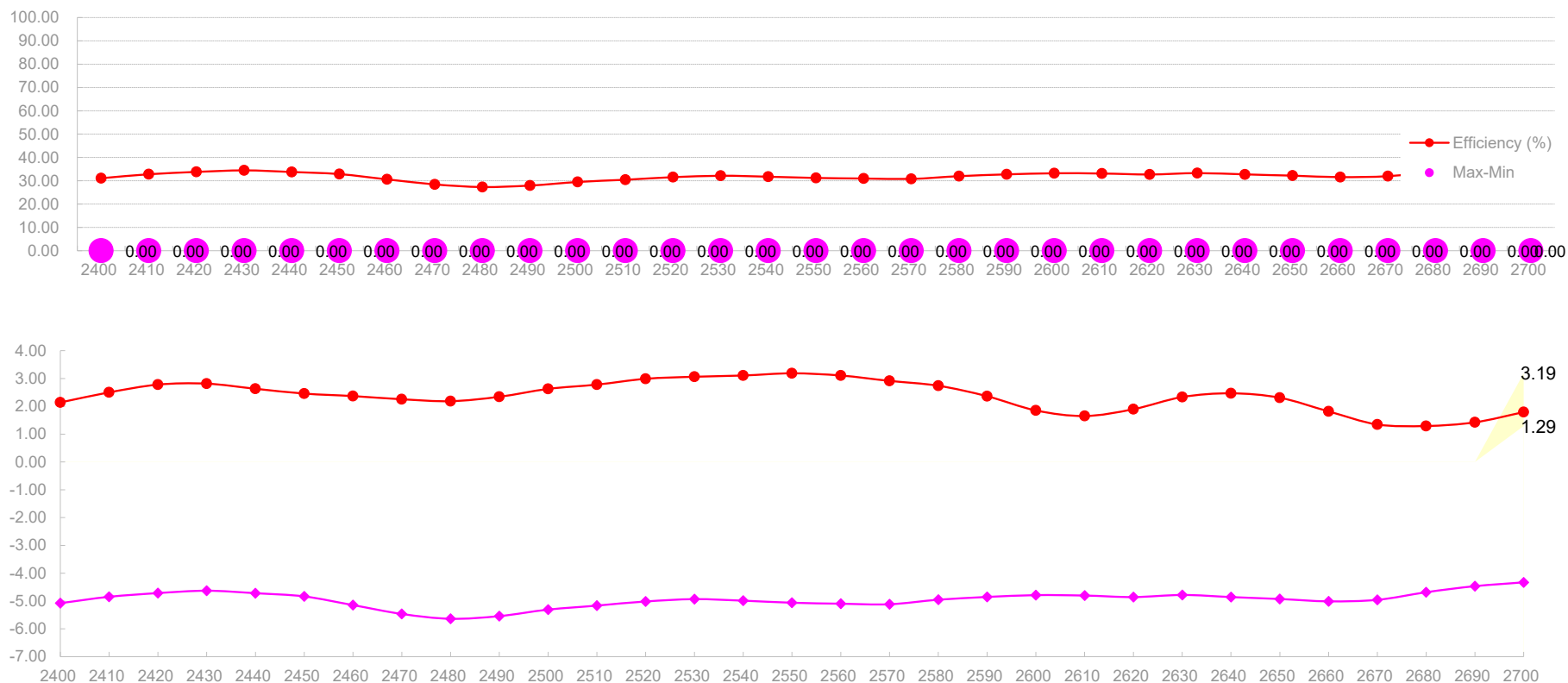


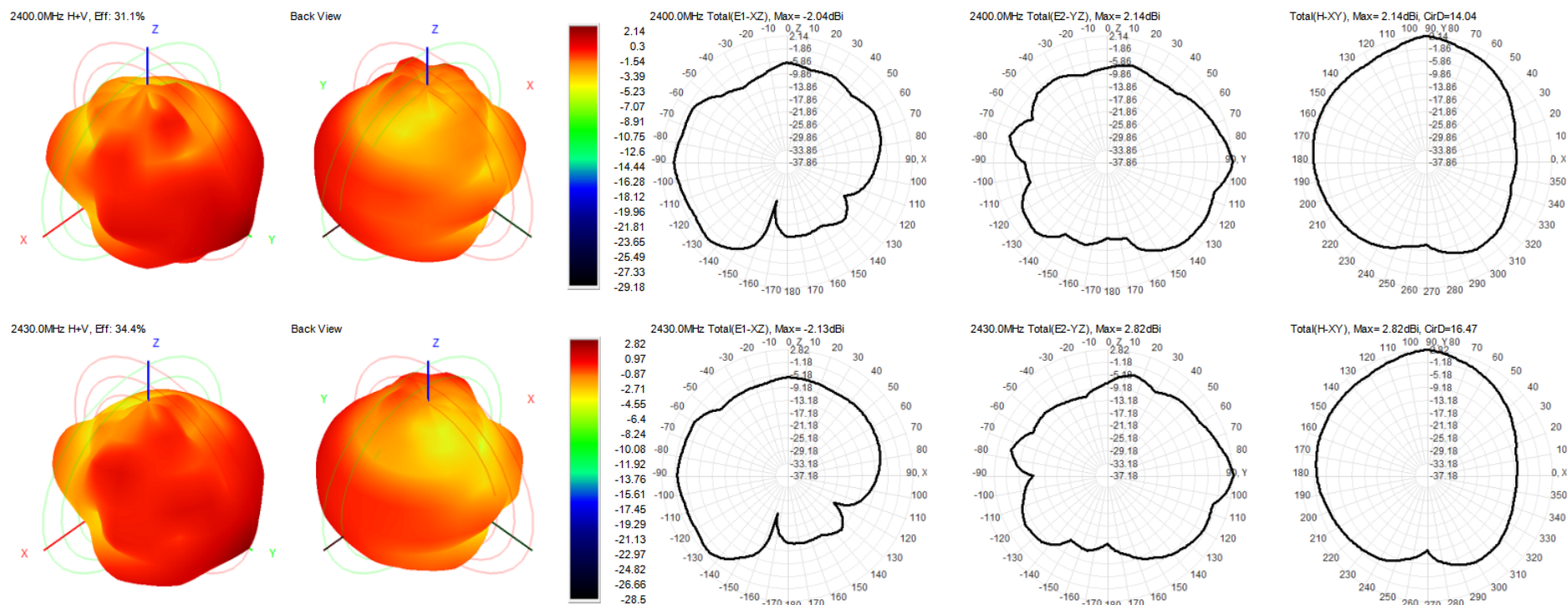
Contents

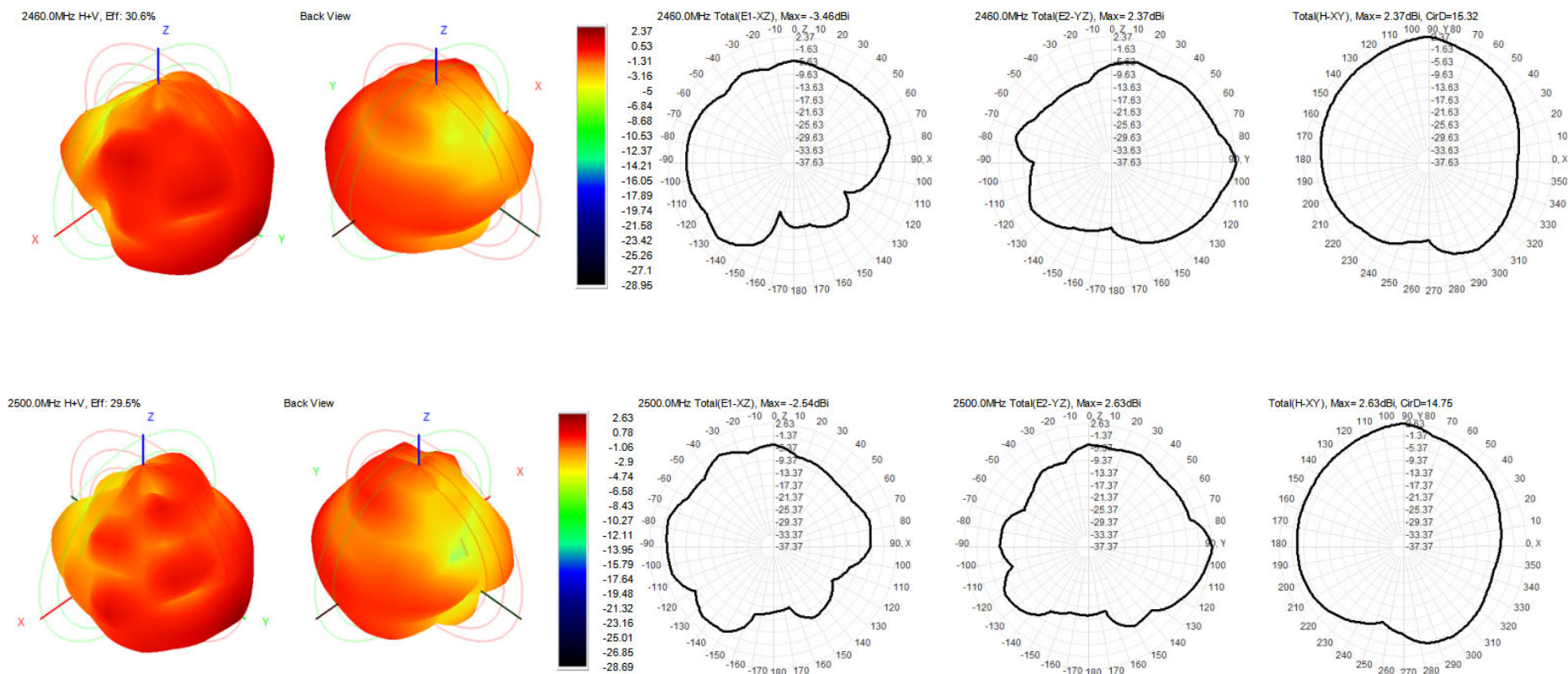
- 1: Antenna Overview & Dimension
- 2: The test project
 - 1. Antenna Matching Network
 - 2. VSWR
 - 3. Gain & Efficiency
 - 4. 3D Date
- 5. The Free Space 3D Date/The Free Space 2D Date 3 :
Ground processing



Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Efficiency (dBi)	-5.08	-4.85	-4.71	-4.63	-4.72	-4.83	-5.14	-5.46	-5.64	-5.54	-5.31
Gain (dBi)	2.14	2.50	2.78	2.82	2.63	2.46	2.37	2.25	2.19	2.34	2.63
Efficiency (%)	31.08	32.77	33.77	34.44	33.74	32.85	30.59	28.42	27.30	27.93	29.47
Directivity (dB)	7.22	7.35	7.49	7.44	7.35	7.29	7.51	7.72	7.82	7.88	7.93
Peak Gain Position (Theta)	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Peak Gain Position (Phi)	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Efficiency ThetaPol (%)	21.10	22.64	23.83	24.72	24.79	24.57	23.21	21.61	20.74	21.04	22.13
Efficiency PhiPol (%)	9.98	10.13	9.94	9.72	8.95	8.29	7.38	6.81	6.57	6.89	7.34
Upper Hem. Efficiency (%)	17.37	18.53	19.20	19.64	19.31	18.89	17.47	16.09	15.42	15.72	16.54
Lower Hem. Efficiency (%)	13.71	14.23	14.57	14.81	14.43	13.96	13.12	12.33	11.88	12.20	12.93
T90(H)圆度	14.04	14.82	16.03	16.47	16.19	15.67	15.32	15.14	15.70	15.25	14.75
Gain 15deg (dBi)											
E1(XZ)波瓣宽度	93.00	92.00	93.00	94.00	97.00	99.00	101.00	71.00	66.00	57.00	53.00
E1(XZ)前后比	4.34	4.82	5.22	5.38	5.10	4.62	3.76	3.06	2.83	2.83	3.16
E2(YZ)波瓣宽度	27.00	26.00	26.00	25.00	25.00	26.00	26.00	26.00	29.00	30.00	29.00
E2(YZ)前后比	7.98	8.79	9.63	10.14	10.66	10.79	10.88	10.74	10.47	10.22	10.19
最大增益处轴比(P)	18.76	20.05	21.69	22.27	20.81	18.99	18.69	21.61	28.85	34.39	20.89
顶点(Theta=0)处轴比(P)	23.32	22.85	23.27	25.45	28.14	31.81	46.59	44.36	39.66	46.74	42.04
仰角10度最差(大)轴比(P)	62.66	49.99	52.59	52.99	54.74	69.84	77.78	55.76	59.61	56.19	72.60
Hc(XY)波瓣宽度	49.00	50.00	51.00	54.00	62.00	68.00	64.00	61.00	57.00	53.00	49.00
Hc(XY)前后比	8.28	8.64	8.93	8.63	8.36	8.08	8.20	8.02	7.65	7.24	6.84
左旋圆极化效率(%)	20.11	21.14	21.60	22.04	21.71	21.02	19.22	17.51	16.75	17.18	18.17
右旋圆极化效率(%)	10.97	11.63	12.18	12.41	12.03	11.83	11.37	10.90	10.55	10.75	11.30







THANKS

签名：周锟炜