



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	TOPDON TECHNOLOGY Co., Ltd.	日期 Data	2023/06/15
产品名称 Product	FPC Antenna	客户机型 Models	GA001
料号 P/N	F788A-21RB-050	客户料号 Customer P/N	
规格描述 Specifications	FPC黑色; MI-113一代端子黑色同轴线, 长度L=50mm		

供应商承认签印 Vender Approved By	客户承认签印 Customer Approved By
	
Checked By:	Checked By:
Audit By:	Audit By:
Approval By:	Approval By:

文件修订履历表

版本 Version	修订内容 Revise The Content	修订人 Revused	核准 Approval	修订日期 Date	备注 Note

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



Content

NO.	Proect	Page NO.
1	Specification	3
2	Antenna Placement	4
3	Test Data	5~~7
4	Antenna Assembly	8
5	Notes	9



Specification

1.1 Electrical Properties

Characteristics	Specifications
Working Band	2.4G WiFi/5G WiFi
Antenna Form	PIFA
Impedance	50 Ω
Polarization	Linear
Peak Effi	24%@2.4G; 53%@5G
Peak Gain	0.63dBi@2.4G; 1.73&3.42dBi@5G

1.2 Physical Properties

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

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



深圳星源创科技有限公司

Shen Zhen Xing Yuan Chuang Technology Co., Ltd

Antenna Placement



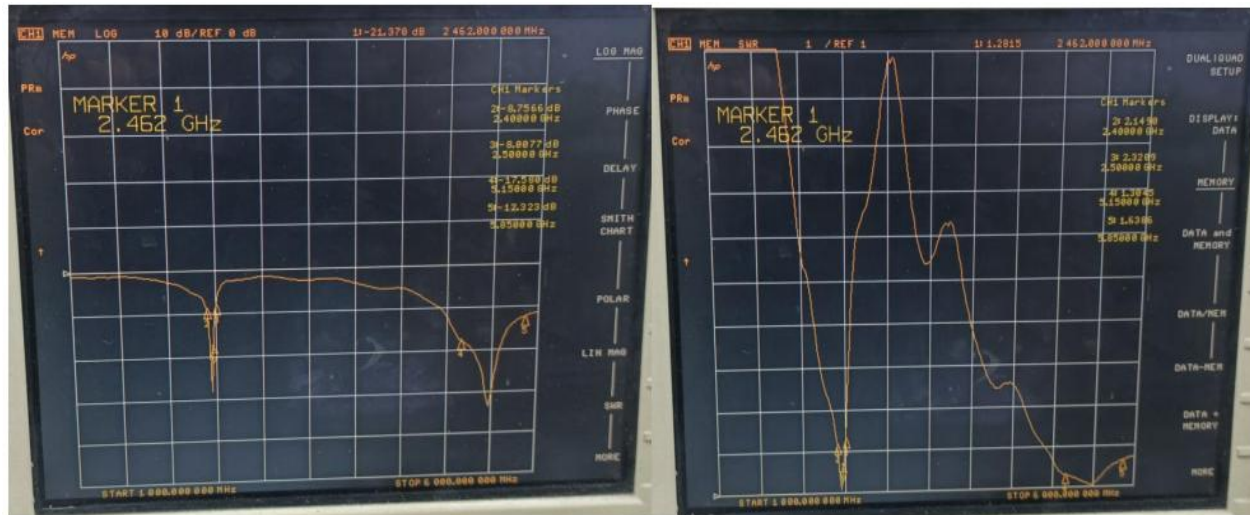
地址：深圳市宝安区福永镇福海街道塘尾股份商务大厦1506

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

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

Test Data

S11 Parameter-VSWR



Frequency (MHZ)	2400	2450	2483	5150
VSWR	2.14	2.32	1.30	1.63
Return Loss (DB)	-8.75	-8.00	-17.58	-12.33

WiFi Active Test Data

亮屏

802.11b	Frequency	TRP		TIS	
	2412	CH1 11Mbps	10.43	CH1 11Mbps	-70.75
2437	CH6 11Mbps	11.59	CH6 11Mbps	-72.83	
2467	CH11 11Mbps	11.15	CH11 11Mbps	-73.58	

802.11b	Frequency	TRP		TIS	
	2412	CH1 11Mbps	10.32	CH1 11Mbps	-78.89
2437	CH6 11Mbps	11.7	CH6 11Mbps	-80.4	
2467	CH11 11Mbps	11.48	CH11 11Mbps	-80.14	

灭屏

802.11a	TRP		TIS	
	5180	CH36 6Mbps	12.81	CH36 54Mbps
5300	CH60 6Mbps	13.28	CH60 54Mbps	-70.37
5805	CH161 6Mbps	13.9	CH161 54Mbps	-70.87



Efficiency Table

Passive Test For WIFI2.4								
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)
2400	18.57	-7.31	-0.24	-2.39	4.82	13.749	-0.24	-19.35
2410	20.09	-6.97	0.19	-1.96	5.212	14.882	0.19	-18.67
2420	19.74	-7.05	0.12	-2.03	5.106	14.629	0.12	-18.37
2430	20.82	-6.81	0.26	-1.89	5.355	15.468	0.26	-20.09
2440	24.19	-6.16	0.61	-1.54	6.227	17.962	0.61	-23.4
2450	24.6	-6.09	0.6	-1.55	6.334	18.265	0.6	-25.1
2460	22.85	-6.41	0.39	-1.76	5.789	17.065	0.39	-23.62
2470	23.93	-6.21	0.61	-1.54	5.959	17.968	0.61	-19.87
2480	24.01	-6.2	0.63	-1.52	5.852	18.16	0.63	-18.01
2490	22.62	-6.46	0.33	-1.82	5.466	17.153	0.33	-19.62
2500	21.34	-6.71	0.08	-2.07	5.144	16.194	0.08	-20.6

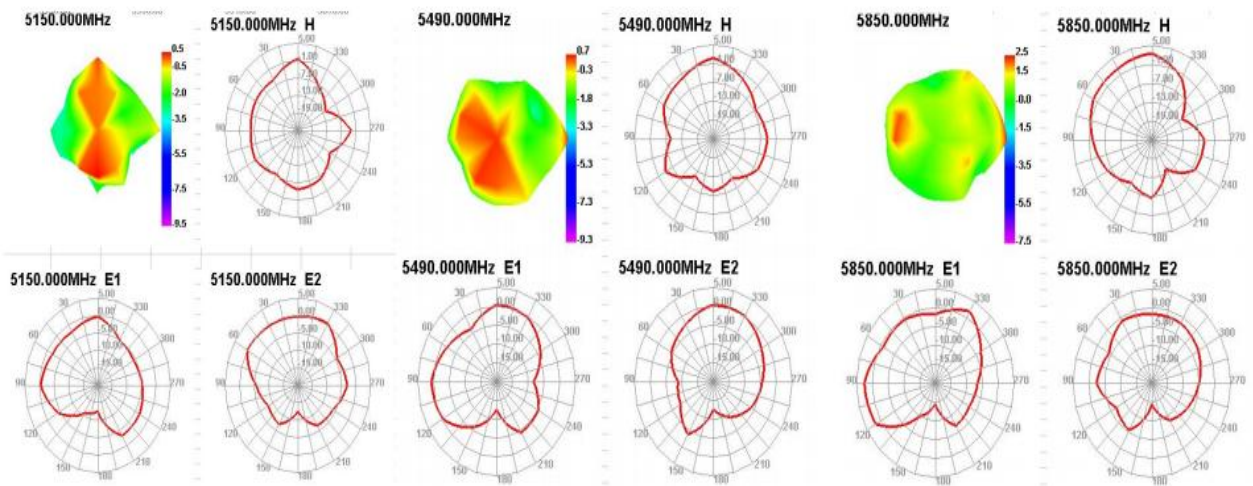
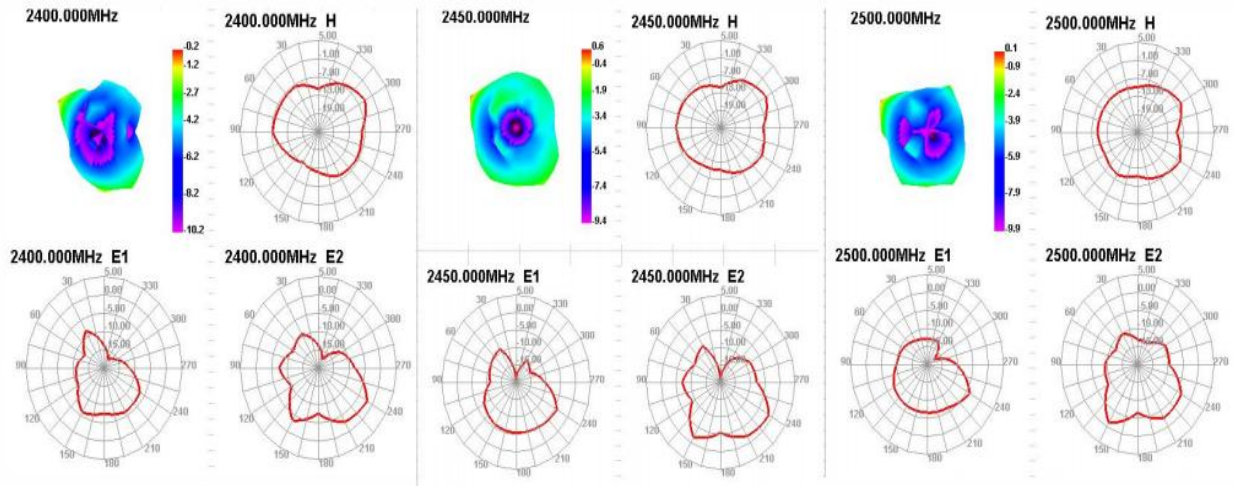
Passive Test For WIFI5G								
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)
5150	35.26	-4.53	0.47	-1.68	22.9	12.36	0.47	-17.66
5170	35.18	-4.54	0.74	-1.41	23.004	12.178	0.74	-16.37
5190	36.81	-4.34	1.19	-0.96	24.188	12.619	1.19	-15.93
5210	41.08	-3.86	1.73	-0.42	27.175	13.906	1.73	-15.98
5230	38.06	-4.19	1.48	-0.67	25.595	12.468	1.48	-19.65
5250	43.6	-3.61	2.2	0.05	29.594	14.005	2.2	-20.33
5270	42.91	-3.67	2.35	0.2	29.015	13.895	2.35	-18.75
5290	47.14	-3.27	2.82	0.67	31.881	15.26	2.82	-18.11
5310	41.82	-3.79	2.26	0.11	28.501	13.317	2.26	-20.25
5330	43.55	-3.61	2.41	0.26	29.906	13.643	2.41	-21.37
5350	43.42	-3.62	2.31	0.16	29.702	13.719	2.31	-18.67
5370	43.68	-3.6	2.24	0.09	29.623	14.054	2.24	-18.12
5390	37.55	-4.25	1.58	-0.57	25.471	12.078	1.58	-19.59
5410	44.25	-3.54	2.21	0.06	30.049	14.203	2.21	-19.32
5430	37.46	-4.26	1.26	-0.89	25.069	12.388	1.26	-17.64
5450	42.21	-3.75	1.35	-0.8	27.518	14.69	1.35	-16.41
5470	39.01	-4.09	0.78	-1.37	25.07	13.941	0.78	-16.81
5490	40.09	-3.97	0.7	-1.45	25.811	14.274	0.7	-17.5
5510	40.55	-3.92	0.78	-1.37	26.12	14.435	0.78	-19.03
5530	43.05	-3.66	1.51	-0.64	27.619	15.431	1.51	-19.93
5550	46.07	-3.37	2.01	-0.14	29.707	16.363	2.01	-19.99
5570	44.81	-3.49	2.01	-0.14	29.378	15.435	2.01	-18.2
5590	48.57	-3.14	2.46	0.31	32.32	16.252	2.46	-18.22
5610	47.68	-3.22	2.61	0.46	31.577	16.099	2.61	-19.11
5630	51.91	-2.85	3.11	0.96	34.089	17.825	3.11	-15.86
5650	48.06	-3.18	2.91	0.76	31.658	16.4	2.91	-15.03
5670	52.09	-2.83	3.24	1.09	34.656	17.435	3.24	-14.7
5690	48.44	-3.15	3	0.85	32.106	16.33	3	-17.02
5710	50.85	-2.94	3.22	1.07	33.333	17.516	3.22	-16.95
5730	53.09	-2.75	3.42	1.27	34.63	18.463	3.42	-15.09
5750	48.07	-3.18	2.85	0.7	31.542	16.532	2.85	-16.88
5770	50.68	-2.95	2.93	0.78	33.333	17.344	2.93	-16.83
5790	47.19	-3.26	2.43	0.28	30.683	16.51	2.43	-17.24
5810	50.34	-2.98	2.58	0.43	32.35	17.989	2.58	-17.69
5830	50.02	-3.01	2.42	0.27	32.215	17.805	2.42	-19.5
5850	53.02	-2.76	2.49	0.34	34.218	18.802	2.49	-19.86

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

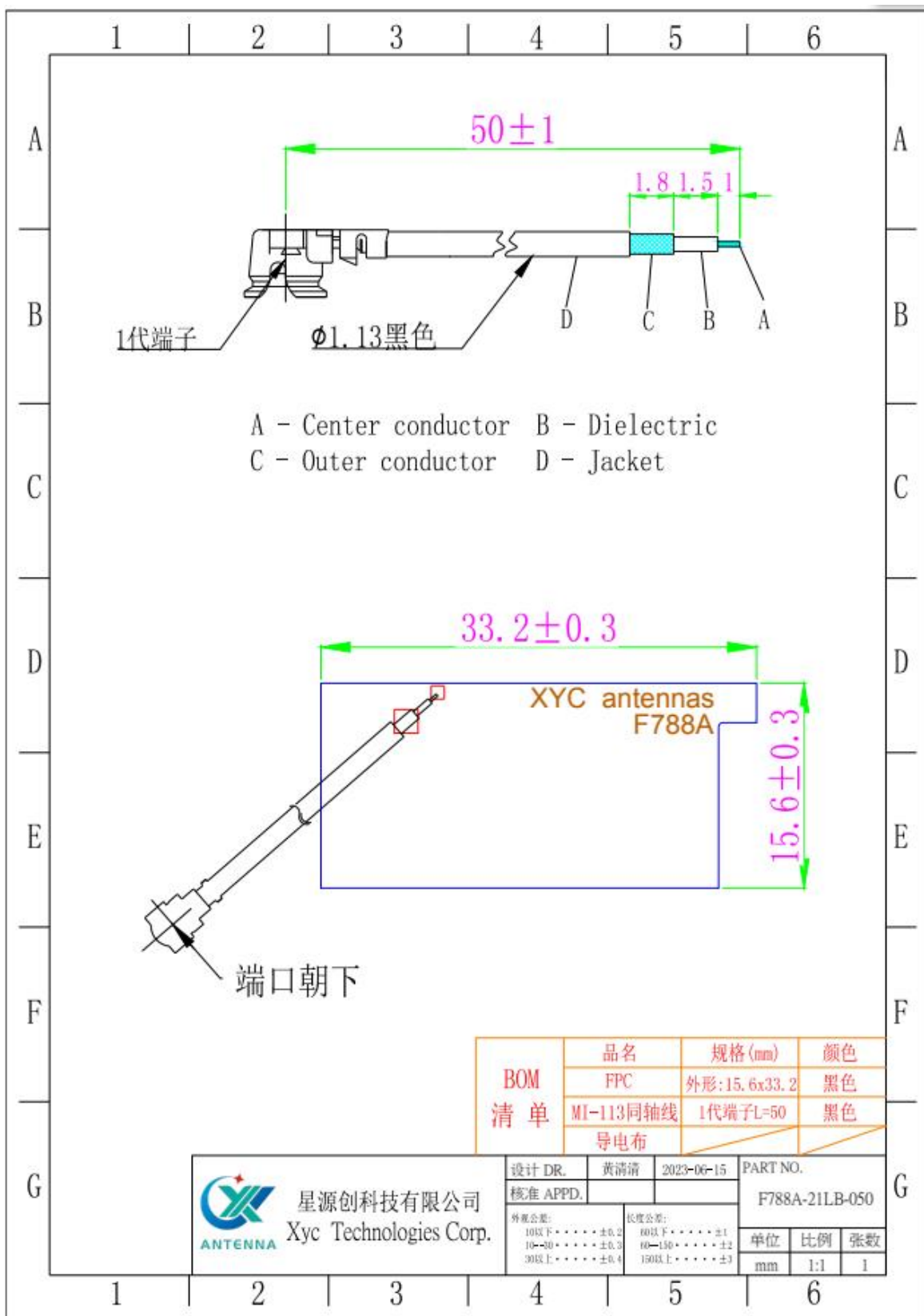
Tel: 0755-82103639 QQ: 487580356 Email: Stephdeng_Vis@126.com

Radiation Pattern





Antenna Assembly



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



深圳星源创科技有限公司

Shen Zhen Xing Yuan Chuang Technology Co., Ltd

Notes



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