



深圳市美禾嘉科技有限公司

Shenzhen Meihejia Technology Co., Ltd.

Antenna Test Report

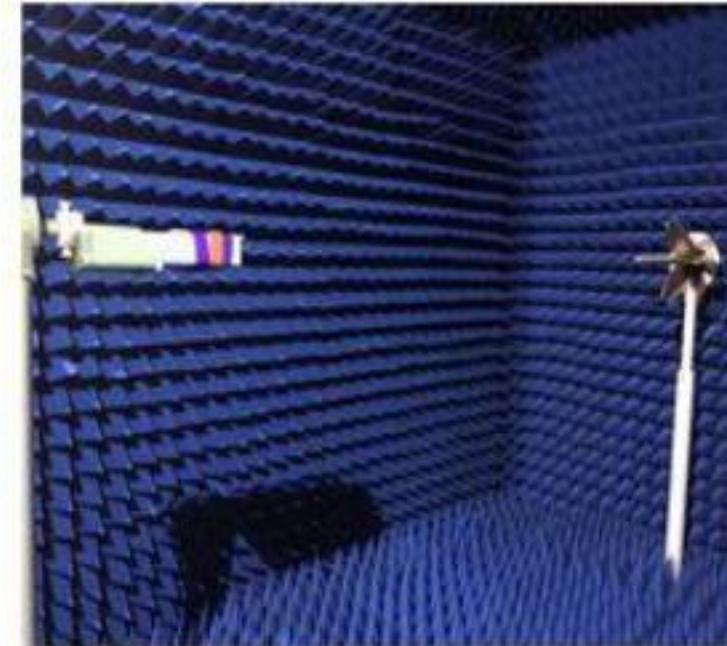
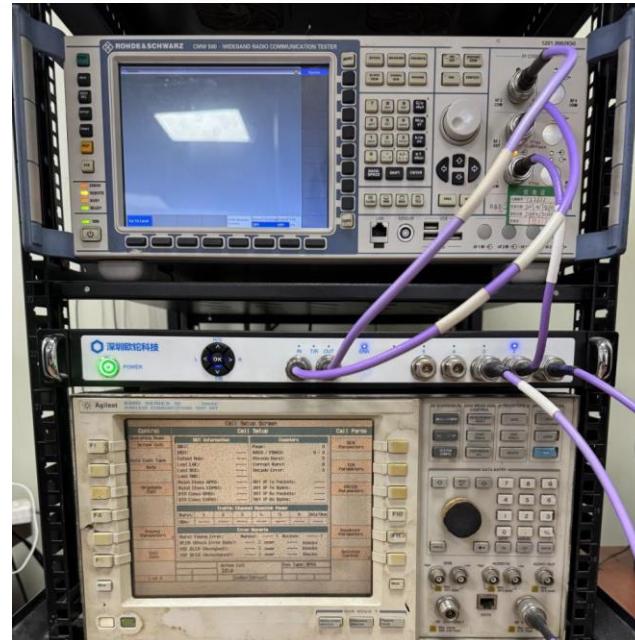


Customer Name	OyeFit	Project Name	T10
Commissioning frequency band	W/G/ B	Structure mode	FPC
RF Engineer	Cao Gong	Structural Engineer	Beam worker
Antenna Type	coaxial line + FPC	Date	2025-08-11

	Test Item	Equipment
1. S parameters (S-parameter)	1. Return Loss (Return Loss) 2. Voltage standing wave ratio (VSWR)	Network Analyzers: Agilent E5071B HP 8753D
Active testing (Active)	1. Transmit Power (TRP) 2. TIS Receiving Sensitivity ()	1. Darkroom: ETS 5x 3x 3 m (3D) Chamber ETS 7x 4x 3 m (3D) Chamber 2. Comprehensive tester: Agilent 8960 E5515B × 2 StarPoint SP6011
Passive testing (Passive)	1. Antenna Gain (Gain) 2. Efficiency Antenna Efficiency ()	1. Darkroom: ETS 5x 3x 3 m (3D) Chamber ETS 7x 4x 3 m (3D) Chamber 2. Network Analyzer: HP 8753D Agilent E5071B



Test Equipment

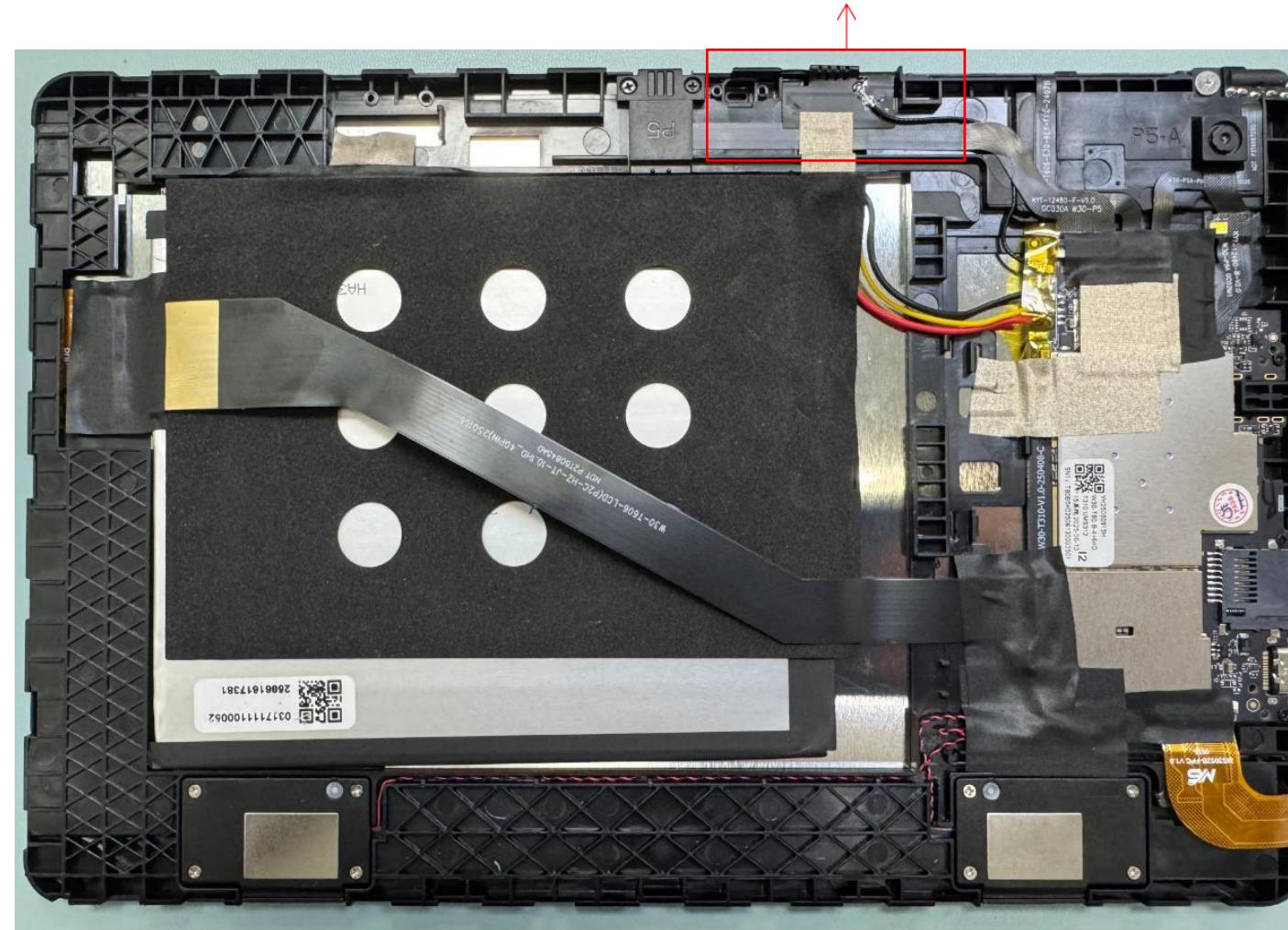


Address: F3-005, Hongfenghua Internet Creative Park, No.1 Huangtian
Gate Road, Hangcheng Street, Bao'an District, Shenzhen



Antenna position

1. Three-in-one antenna installation position

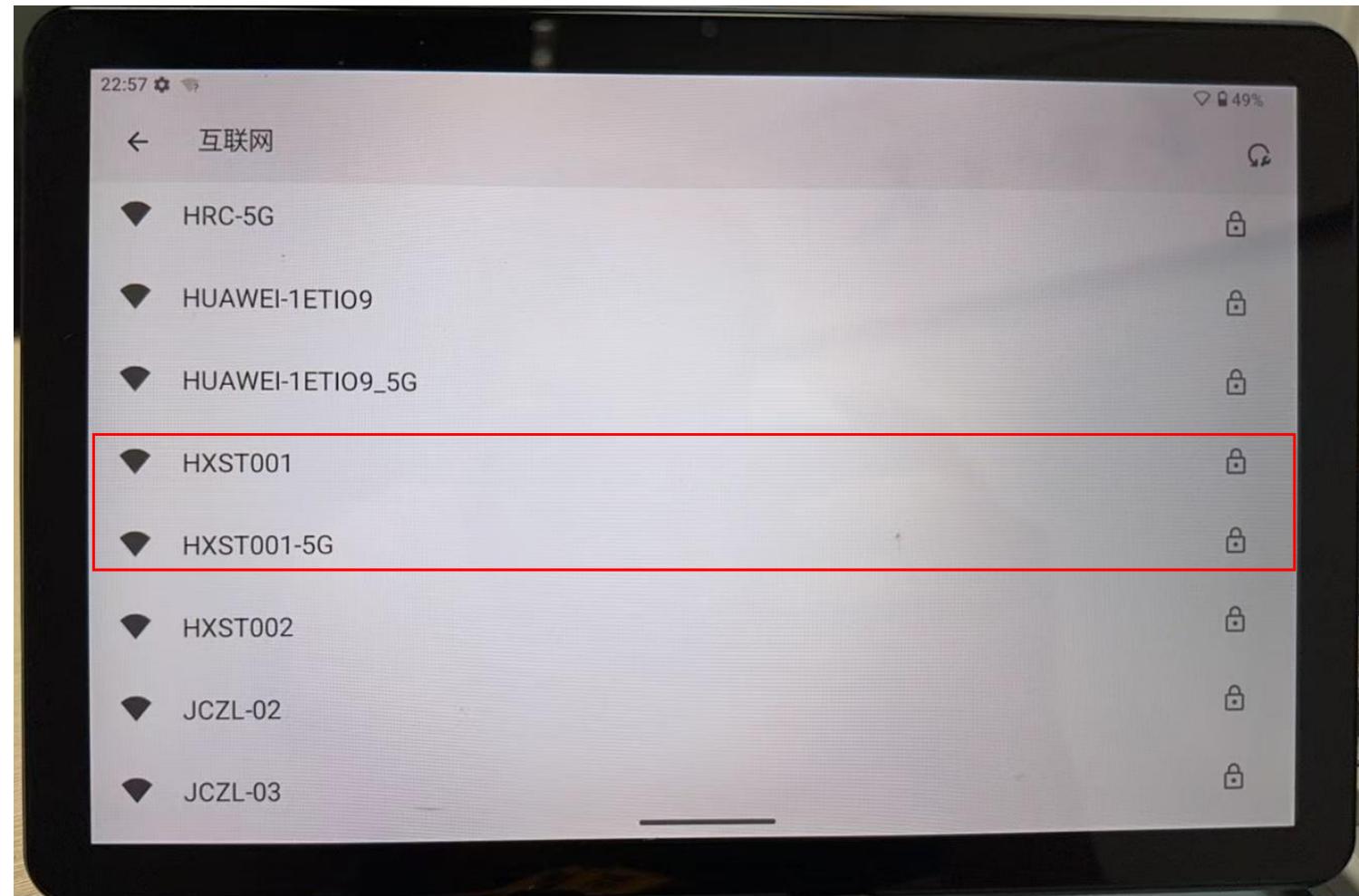


Address: F3-005, Hongfenghua Internet Creative Park, No.1 Huangtian
Gate Road, Hangcheng Street, Bao'an District, Shenzhen



Wifi Antenna test

Test
environment:
in the office
Distance from the
router: about 15
meters





Active data

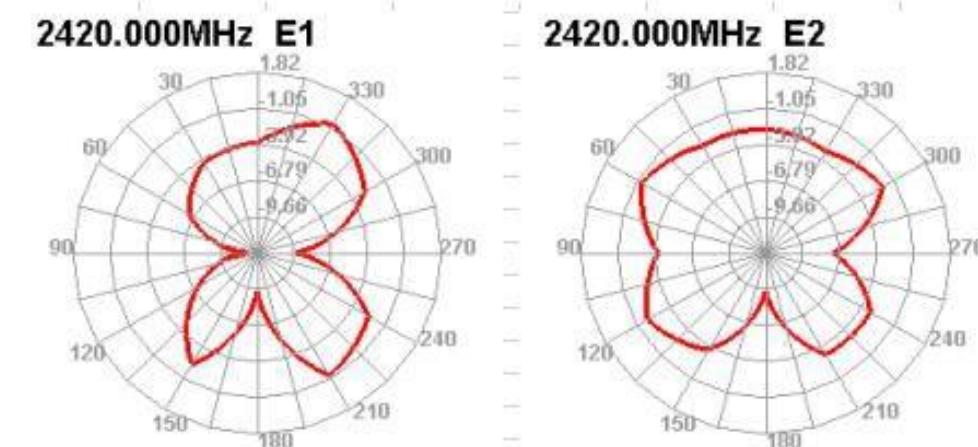
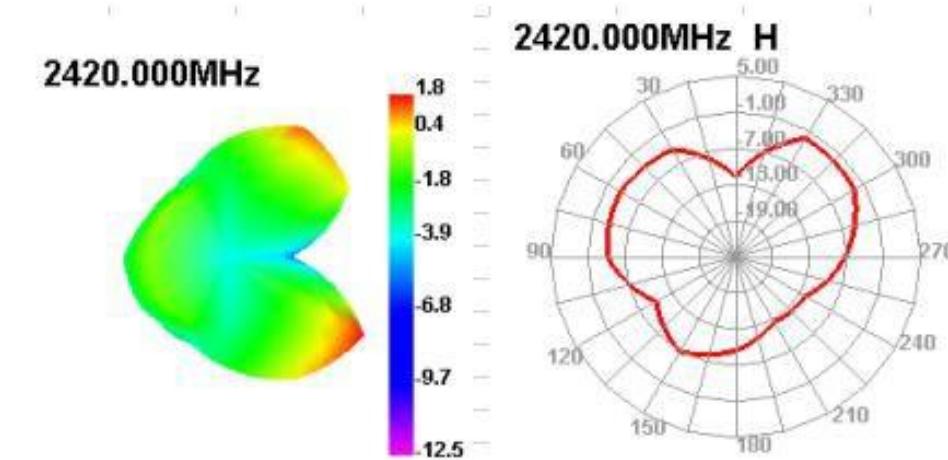
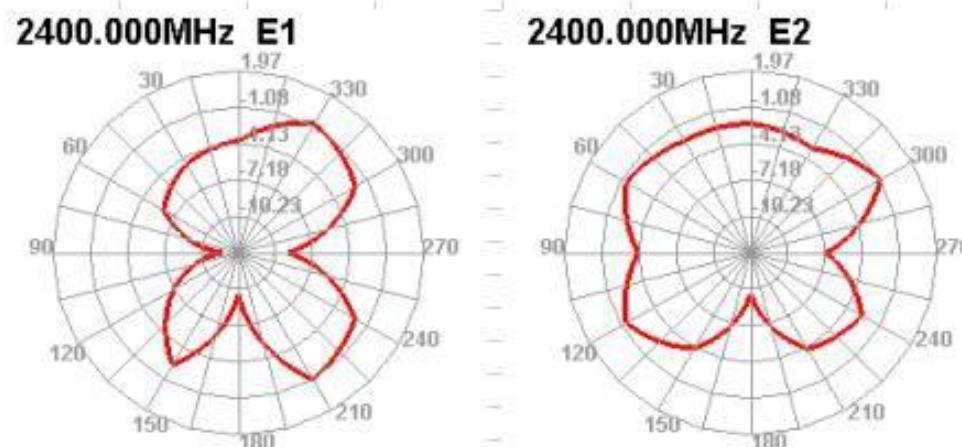
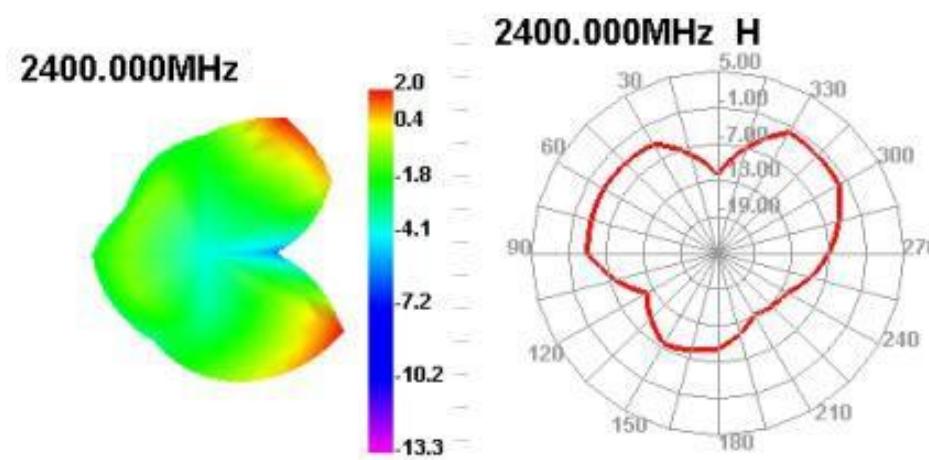
Band	channel	DataRate	TRP	DataRate	TIS	Band	channel	DataRate	TRP	DataRate	TIS
WIFI2.4G 802.11b	1	11Mbps	13.05	11Mbps	-81.53	WIFI-5G 802.11A	36	54Mbps	10.57	54Mbps	-69.84
	7		13.50				64		10.32		
	11		13.60				149		10.13		



Efficiency and Gain

Passive Test For WIFI2.4										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	52	-2.84	1.97	-0.18	30.553	21.45	1.97	-13.28	52.03	53.99
2410	51.46	-2.89	1.91	-0.24	29.764	21.698	1.91	-13.96	51.99	53.84
2420	49.65	-3.04	1.82	-0.33	28.728	20.919	1.82	-12.53	52.04	53.98
2430	47.45	-3.24	1.34	-0.81	27.212	20.238	1.34	-12.37	52.23	54.02
2440	51.31	-2.9	1.58	-0.57	29.006	22.304	1.58	-11.82	52.54	54.25
2450	54.34	-2.65	1.86	-0.29	30.165	24.177	1.86	-12.18	52.64	54.11
2460	52.27	-2.82	1.72	-0.43	28.879	23.393	1.72	-12.26	52.59	54.02
2470	49.21	-3.08	1.56	-0.59	26.886	22.326	1.56	-12.13	52.66	54.04
2480	49.87	-3.02	1.54	-0.61	27.027	22.846	1.54	-11.42	53.06	54.43
2490	56.13	-2.51	2	-0.15	30.048	26.081	2	-11.86	53.33	54.57
2500	54.88	-2.61	1.81	-0.34	29.232	25.65	1.81	-11.87	53.11	54.29

Efficiency and Gain



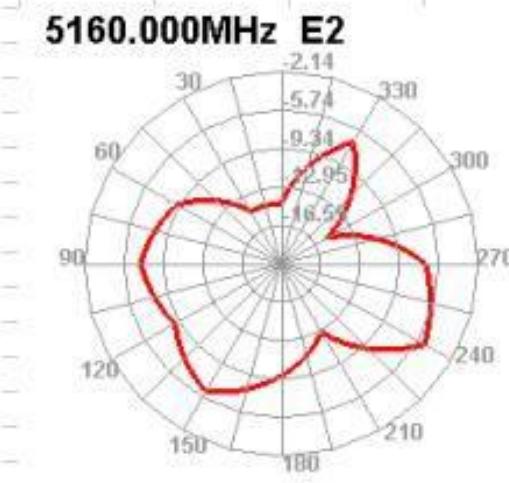
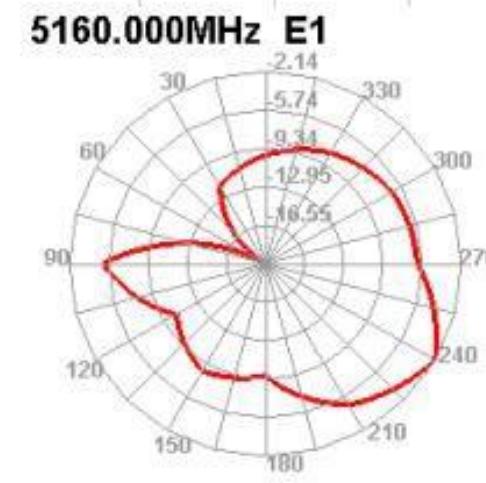
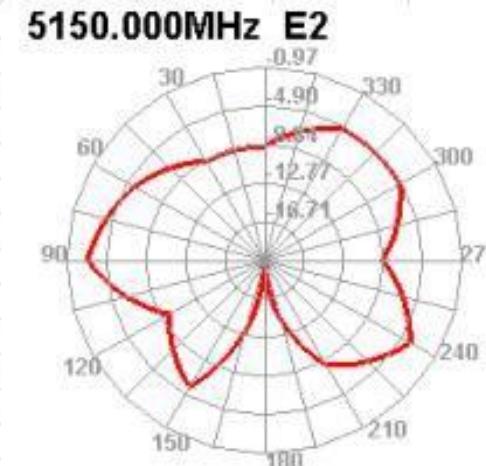
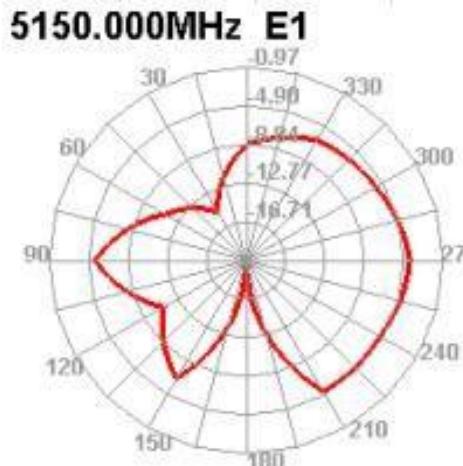
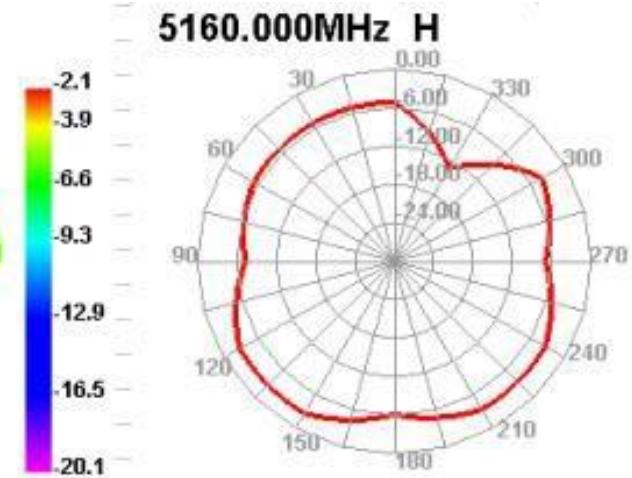
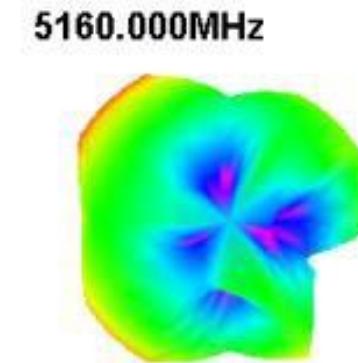
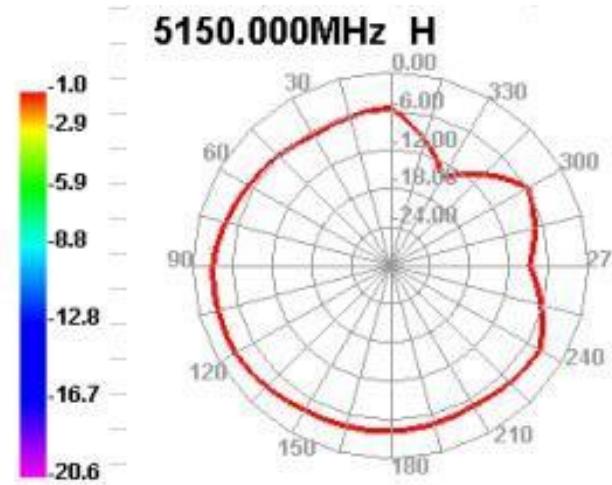
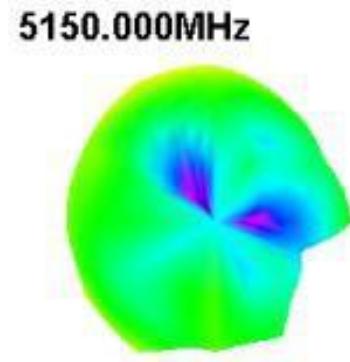


Efficiency and Gain

Passive Test For WIFI5.8										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5150	23.45	-6.3	-0.97	-3.12	10.716	12.729	-0.97	-20.64	67.1	67.06
5200	28.62	-5.43	-0.75	-2.9	12.947	15.669	-0.75	-18.08	66.82	66.31
5250	35.67	-4.48	0.15	-2	14.146	21.524	0.15	-16.76	66.81	66.91
5300	34.22	-4.66	-0.43	-2.58	14.334	19.886	-0.43	-16.55	67.46	67.1
5350	43.1	-3.66	0.41	-1.74	16.438	26.661	0.41	-15.91	67.85	68.05
5400	48.62	-3.13	1.05	-1.1	19.726	28.899	1.05	-13.75	68.31	68.3
5450	45.82	-3.39	1.99	-0.16	16.624	29.198	1.99	-20.82	68.63	69.56
5500	38.87	-4.1	1.32	-0.83	14.642	24.229	1.32	-17.87	69.22	69.75
5550	37.57	-4.25	0.35	-1.8	13.182	24.391	0.35	-16.87	70.49	71.74
5600	39.86	-3.99	2.97	0.82	13.852	26.013	2.97	-15.01	70.64	72.39
5650	33.7	-4.72	1.72	-0.43	10.928	22.776	1.72	-19.27	70.41	70.91
5700	35.58	-4.49	1.72	-0.43	12.142	23.436	1.72	-15.5	70.26	71.01
5750	32.33	-4.9	1.92	-0.23	12.275	20.058	1.92	-15.51	69.85	70.95
5800	34.86	-4.58	1.32	-0.83	13.086	21.771	1.32	-16.35	69.93	71.14
5850	30.01	-5.23	0.77	-1.38	13.087	16.922	0.77	-17.65	70.26	70.23



Efficiency and Gain



Address: F3-005, Hongfenghua Internet Creative Park, No.1 Huangtian
Gate Road, Hangcheng Street, Bao'an District, Shenzhen

GPS star search test

G P S measured effect of cold start is as follows:

C N value 3 above 40

C N value 3 5 above 8 actual positioning 1 0

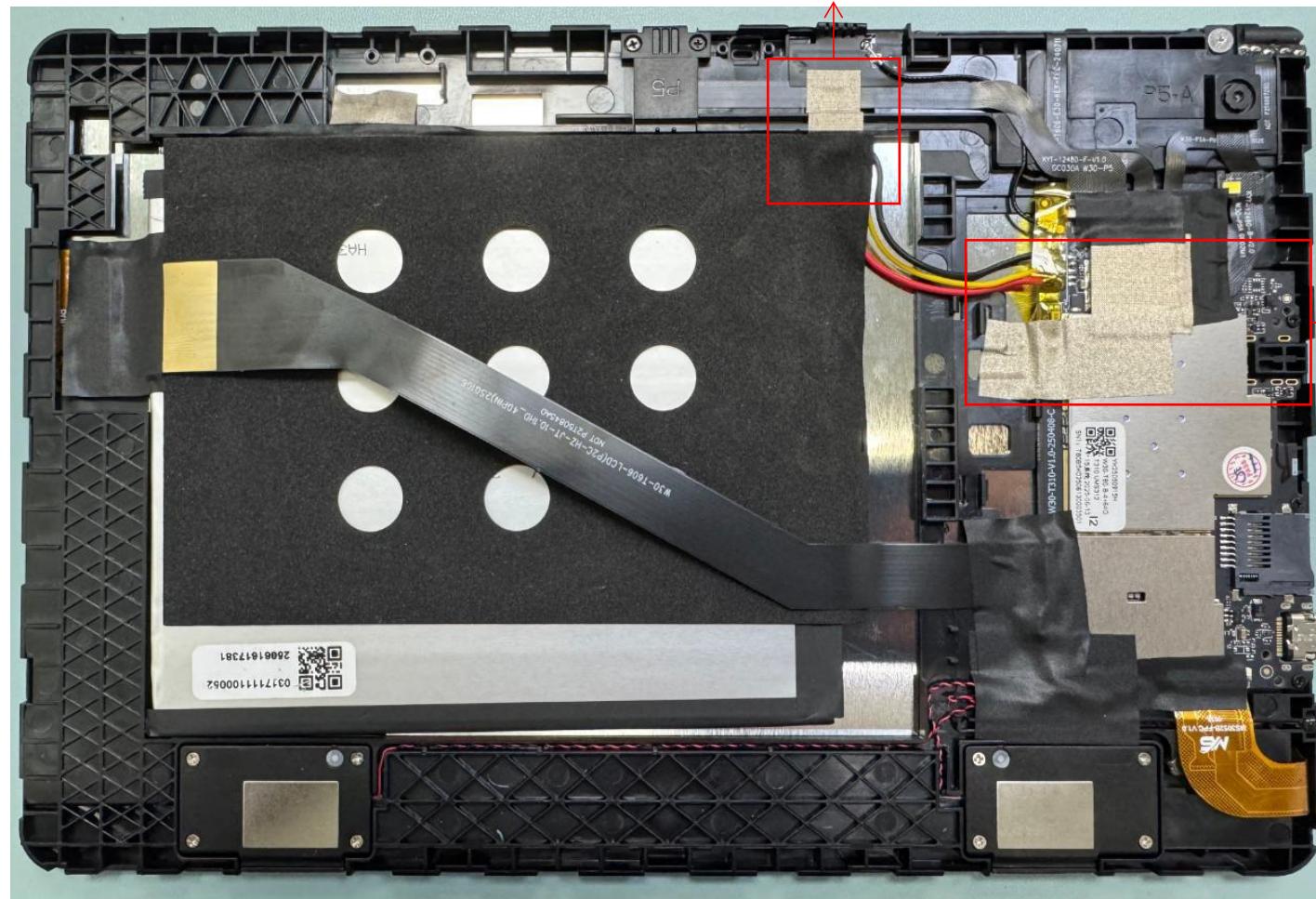
Remarks:

The G P S star search test will vary depending on the time period and region. The above data are the best data for our outdoor test.



Environmental treatment

1. The copper leakage position of the antenna is pasted with conductive cloth and the screen is grounded.



4. The conductive cloth grounding screen is pasted on this position of the mainboard
5. The conductive cotton is pasted on the back of the mainboard to ground the screen



Better service for customers

Contact: Xiong Gan 17688765727

Address: Room 3005, Hongfenghua Creative Park, No.1 Huangtian Gate, Hangcheng Street, Bao 'an District, Shenzhen
