

TOXU® 同讯技术

深圳市同讯技术有限公司

Customer	FCAR
Project	FV400
Antenna Revision	X/0
Product Description	FPC
Prepared by	LIDEWEN

Contact number : 15889421381

date : 2025.10.16

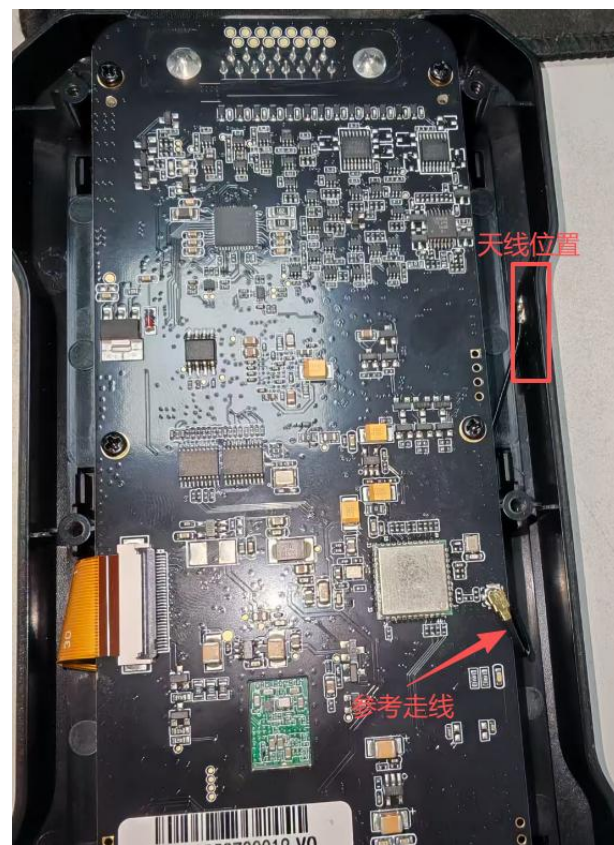
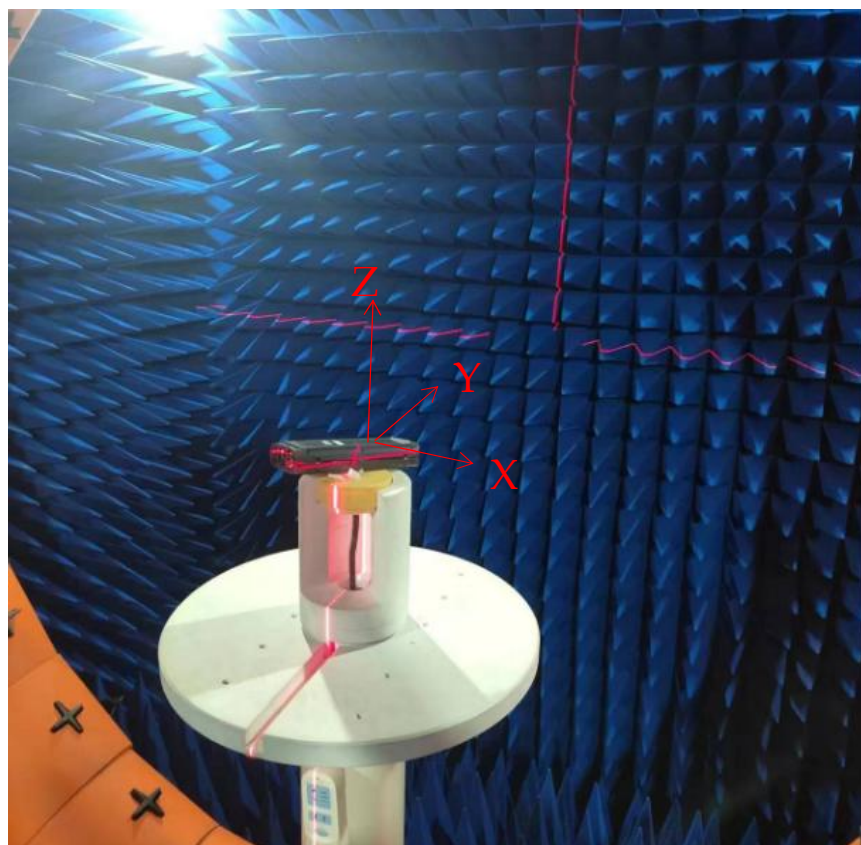
Shenzhen Tongxun Technology Co., Ltd.
No. 206, Gaoxin South 7th Road, Gaoxin Industrial Village, High-tech
Zone Community, Nanshan District, Shenzhen City



Content

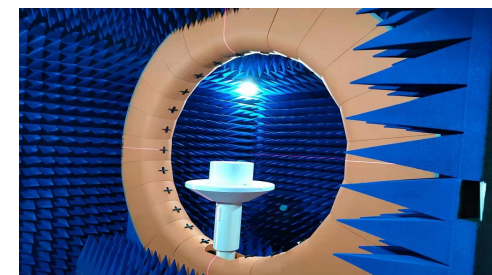
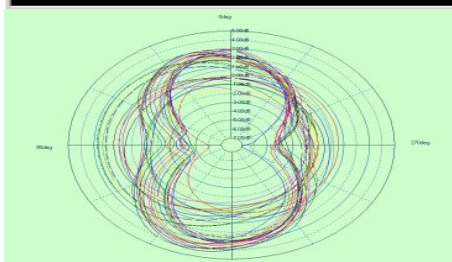
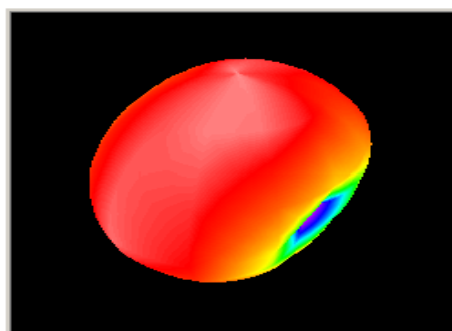
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1. Test scenario and antenna location



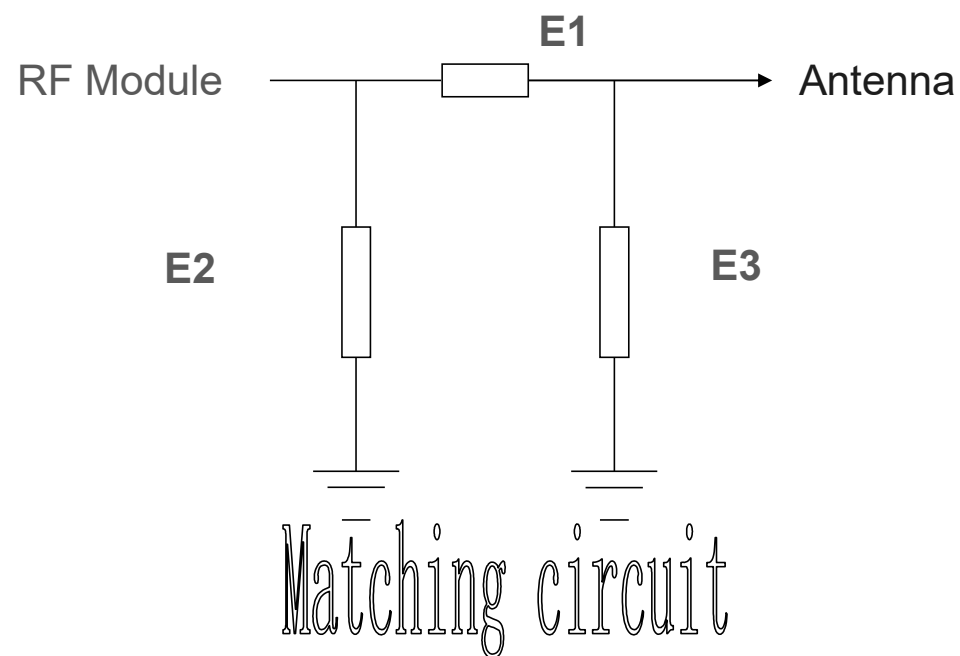
2. Test System

Sequence Number	Test Item	equipment
1. S parameter	VSWR	Agilent 5071C & Agilent 5062A
2. OTA Test	TRP&TIS	Agilent 8960 E5515C& Agilent 4438C&CMW500 &CMW270 ETS&SATIMO
3. Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C

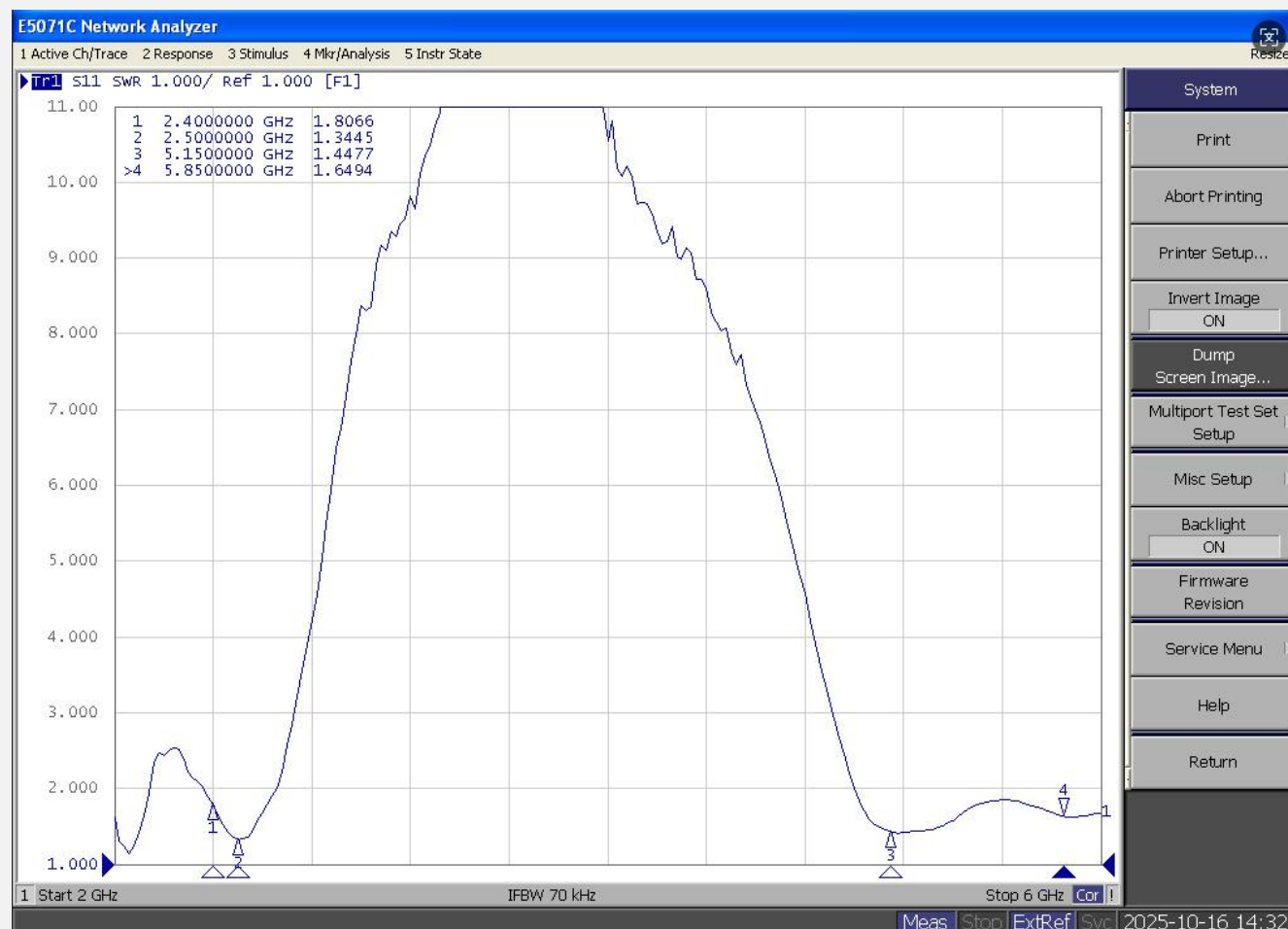


2.1.Antenna Matching Network

Element	Value
E1(0402)	0Ω
E2(0402)	NC
E3(0402)	NC
是否修改匹配	否

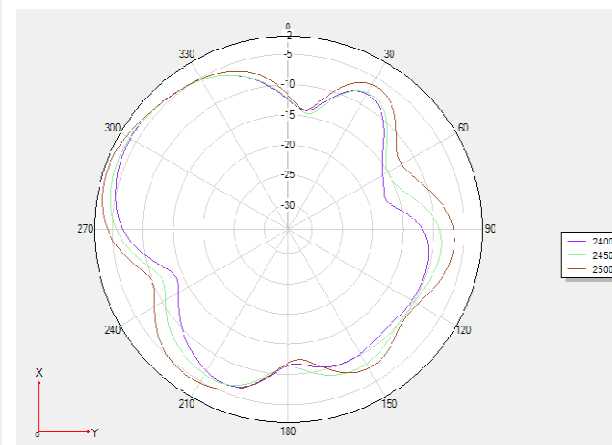
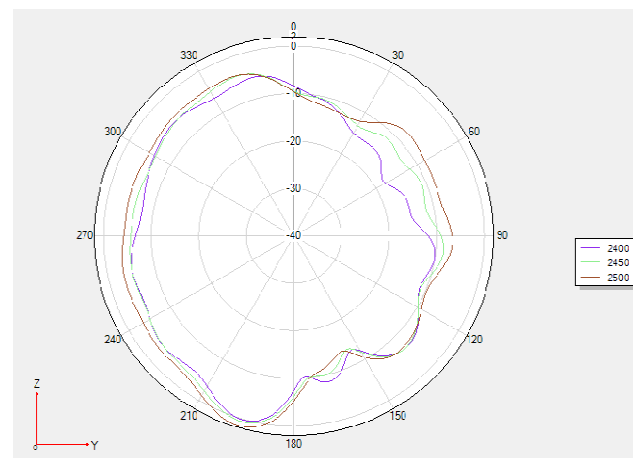
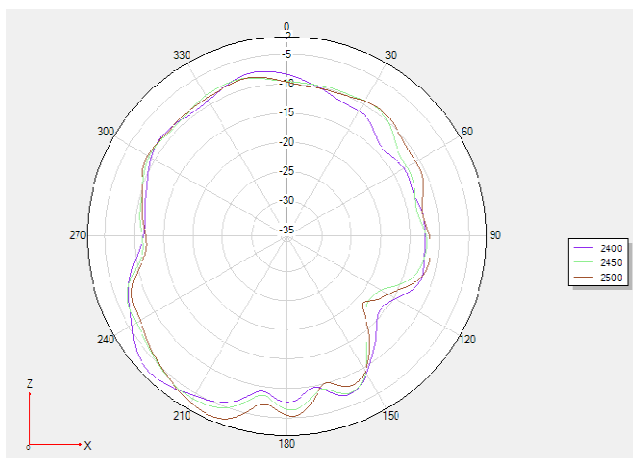
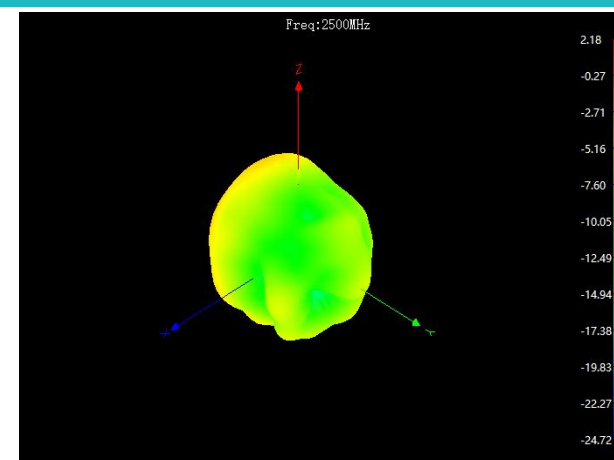
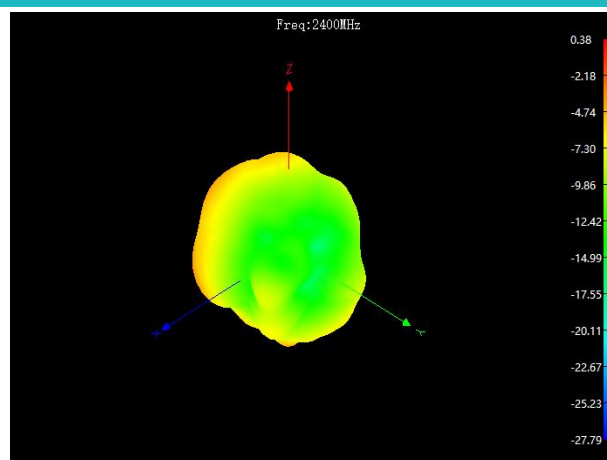


2.2. VSWR



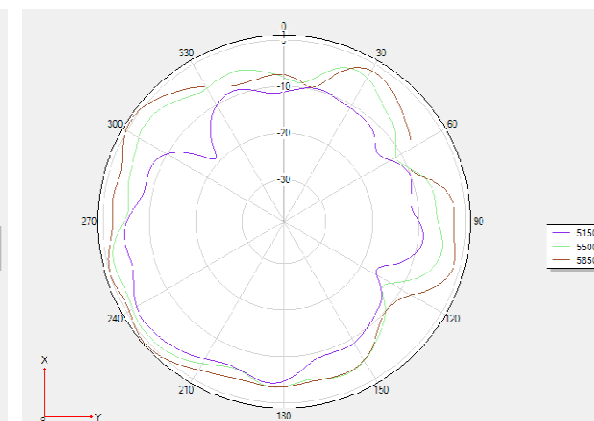
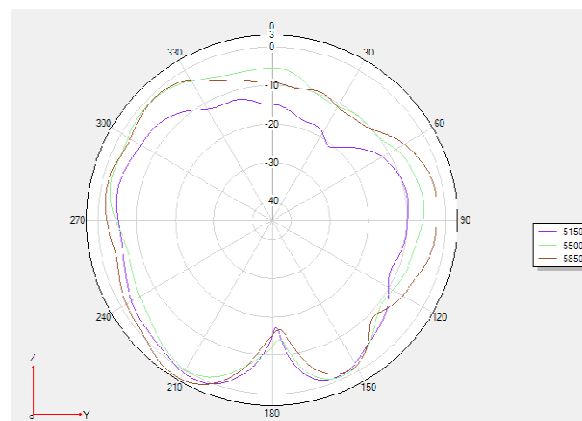
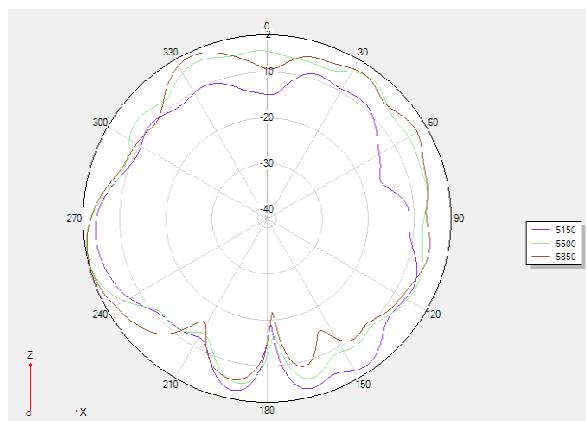
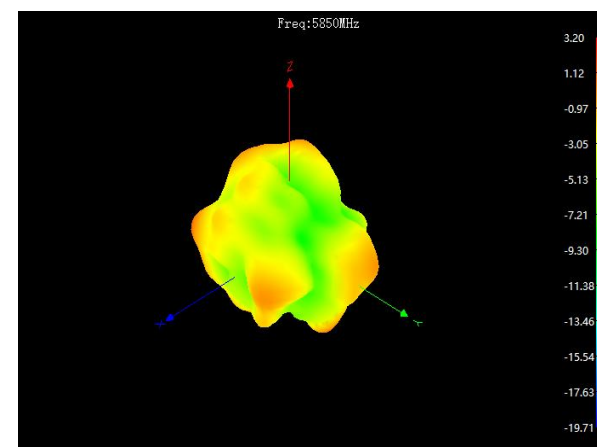
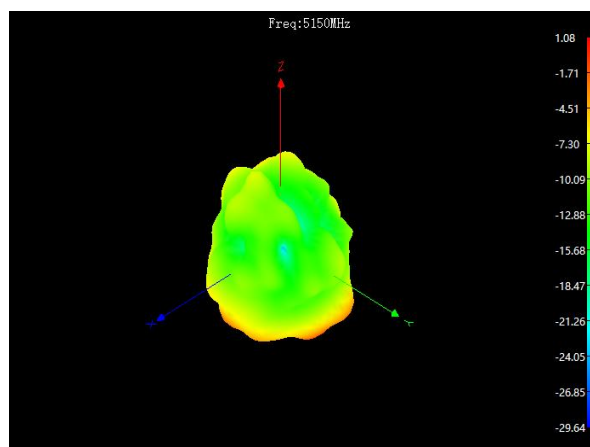
2.3. GAIN & Efficiency

Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	0.38	42.59
2410	1.33	44.88
2420	0.86	45.94
2430	1.08	44.32
2440	1.08	45.28
2450	0.79	46
2460	1.09	45.23
2470	1.05	45.13
2480	1.7	45.1
2490	1.34	46.6
2500	2.18	47.23



2.3. GAIN & Efficiency

Frequency/Mhz	MaxGain/dBi	Efficiency / %
5150	1.08	43.84
5200	1.16	45.16
5250	1.32	45.27
5300	1.03	45.35
5350	1.37	46.88
5400	0.89	49.89
5450	0.47	49.55
5500	1.06	50.93
5550	1.19	52.48
5600	0.88	51.4
5650	1.12	52.36
5700	1.61	54.08
5750	1.82	55.08
5800	1.92	53.95
5850	3.2	60.26



3. Conclusion

The PCB motherboard matching circuit has not been modified, and the passive standing wave of the antenna is below 2.0. When testing the efficiency and gain in the microwave laboratory, the testing efficiency and gain basically meet the requirements. Attention should be paid to the position of the antenna sticker during installation! If you have any other questions, please feel free to contact us by phone. Thank you!