

规格承认书
Specification sheet

客 户	元 征
Customer name	
客户料号	
Customer P/N	
品 名	WiFi+GPS 天线,FPC 黑色油墨白色印字 L*W=24.9*24.4MM。 1.13 黑色线接一代端子 L=80MM, ROHS。WiFi + GPS antenna, FPC with black ink and white printing, dimensions: 24.9 * 24.4 mm.
Article Description	1.13 black wire connected to a first-generation terminal, length = 80 mm, RoHS compliant.
同讯料號	KC. IA. 00645
TOXU Part No.	
承认书号码	A20250804-001
Approval sheet No.	
日 期	2025. 08. 04
Date	

承认填写栏 Signature confirmation			
供应商确认（供方填写栏） Supplier signature		客户承认（需方填写栏） Customer signature	
刘观音生			
盖章 seal:		盖章 seal:	
日期 date	2025. 08. 04	日期 date	
备注 Remarks:			

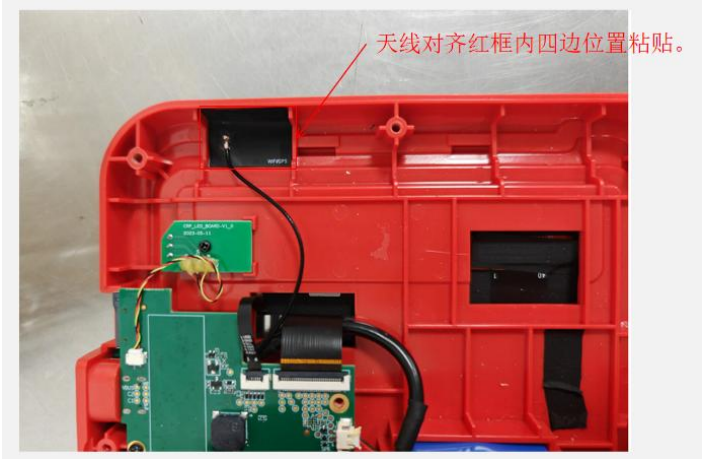
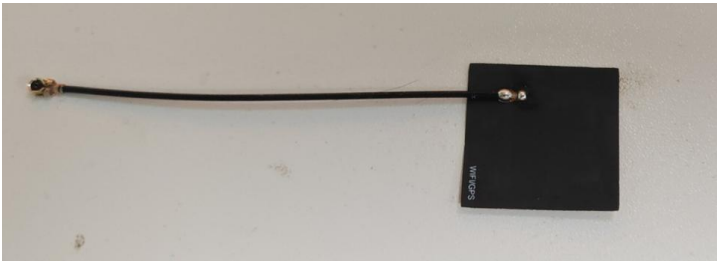
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3. 承认书变更履历

版本 (REV)	发起人 (Originator)	日期 (Date)	变更描述(Change Description)
A/1	LIU	2025.08.04	First Version

4. 产品相片@安装位置(Product photos@install):



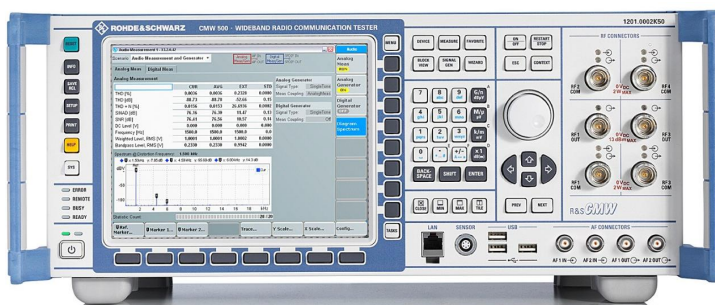
5. 机械及电气性能(Mechanics and Electrical Specification)

产品名称 (Name)	WiFi+GPS天线	产品型号 (Model Type)	KC. IA. 00645
电 性 能 指 标 (Electrical Specifications)			
频率范围 (Frequency Range)	1560-1580/2400-2500/5150-5850MHZ	极化方式 (Polarization)	线极化linear
输入阻抗 (Impedance)	50 Ω	辐射方向 (Radiation direction)	全向 omnidirectional
驻波比 (VSWR)	≤2.0	功率容量 (Power)	10W
增益 (Gain)	3.82dBi (MAX)	带宽 (Bandwidth)	14/100/700MHZ
机 械 指 标 (Mechanical Specifications)			
尺寸 (Dimensions)	24.9*24.4*0.25MM	颜色 (colour)	黑色black
连接器型号 (Connector)	IPEX	引线长度 (Cable Length)	80MM (RF1.13)
材料 Radome Material	FPC	防水 (waterproof)	/
工作温度 (Working Temperature)	-40℃-85℃	存放温度 (Limit Temperature)	-40℃-85℃
天线类型 (Antenna type)	IFA		

6 性能报告(Performance report)

6.1 测试项目及设备 Test Items and Equipment

	测试项目 Test Items	测试设备 Test Equipment
S Parameter	1. Return loss 2. VSWR	network analyzer (E5071C)
The whole machine of Passive parameters	1. Efficiency 2. Gain 3. Radiation direction	1.3D Microwave room (4M*3M*3M) 2.Network analyzer
The whole machine of Active parameters	1. TRP 2. TIS	1.3D microwave darkroom (4M*3M*3M) 3. Comprehensive test instrument 4. (CMW500)(E7515E)
Instrument calibration	Once a year, Last calibration: 2024.10.22, Valid until:2025.10.21	



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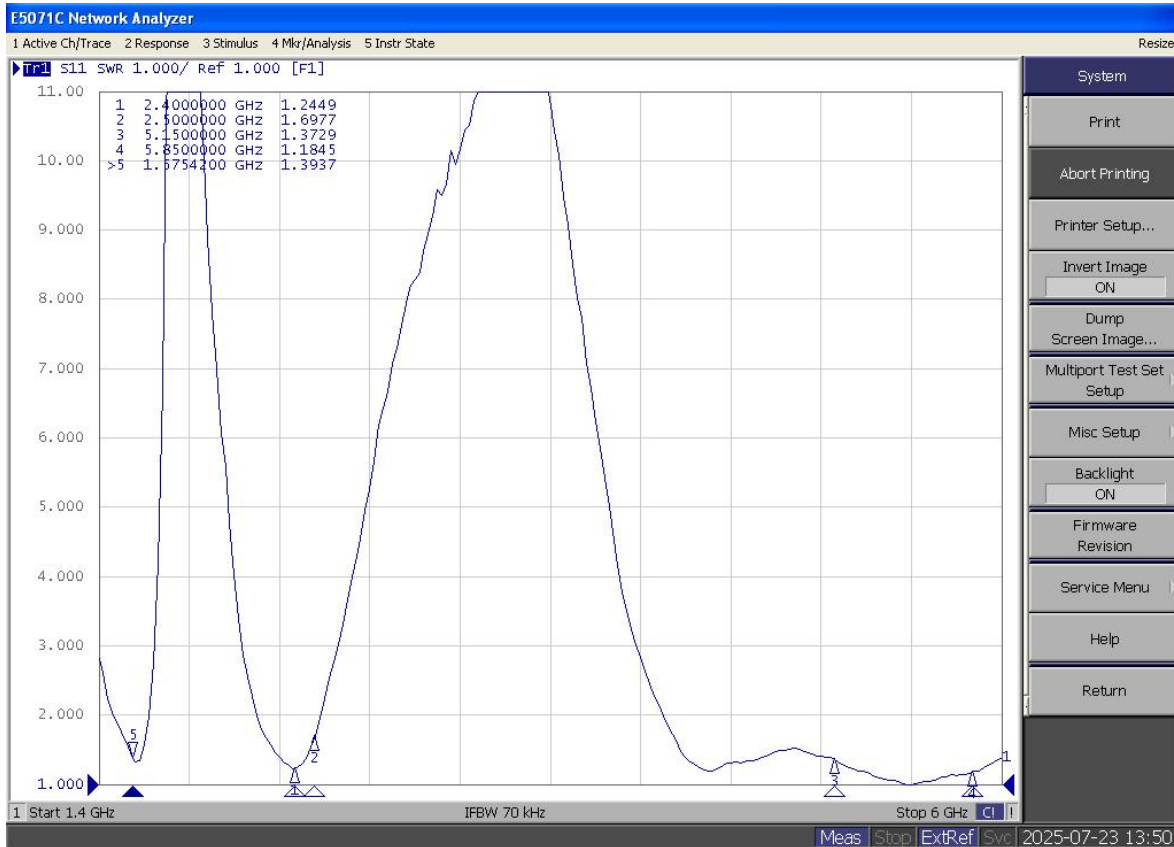
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电话 (TEL) : 0755-28199597

网址 (WEB) : www.toxutech.com

6.2 性能报告(Performance report)

6.2.1 电压驻波比（VSWR）：



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6.2.3 效率@增益（Efficiency and Gain）：

Frequency/MHz	MaxGain/dBi	Efficiency / %	Frequency/MHz	MaxGain/dBi	Efficiency / %
1560	2.56	51.88	5150	2.11	59.7
1565	2.48	52.21	5200	2.25	59.84
1570	2.4	52.58	5250	2.74	59.84
1575	2.93	51.09	5300	2.42	59.16
1580	3.13	53.95	5350	2.64	60.26
			5400	3.17	62.83
2400	3.56	56.23	5450	3.11	62.53
2410	3	55.21	5500	3.05	61.23
2420	2.95	55.21	5550	3.15	63.14
2430	2.6	53.67	5600	2.61	64.57
2440	2.67	52.86	5650	2.5	67.76
2450	2.55	51.05	5700	2.75	61.82
2460	2.78	52.13	5750	2.99	63.45
2470	2.53	52.44	5800	2.62	60.79
2480	2.91	52.12	5850	3.82	62.81
2490	2.51	52.97			
2500	2.85	54.33			

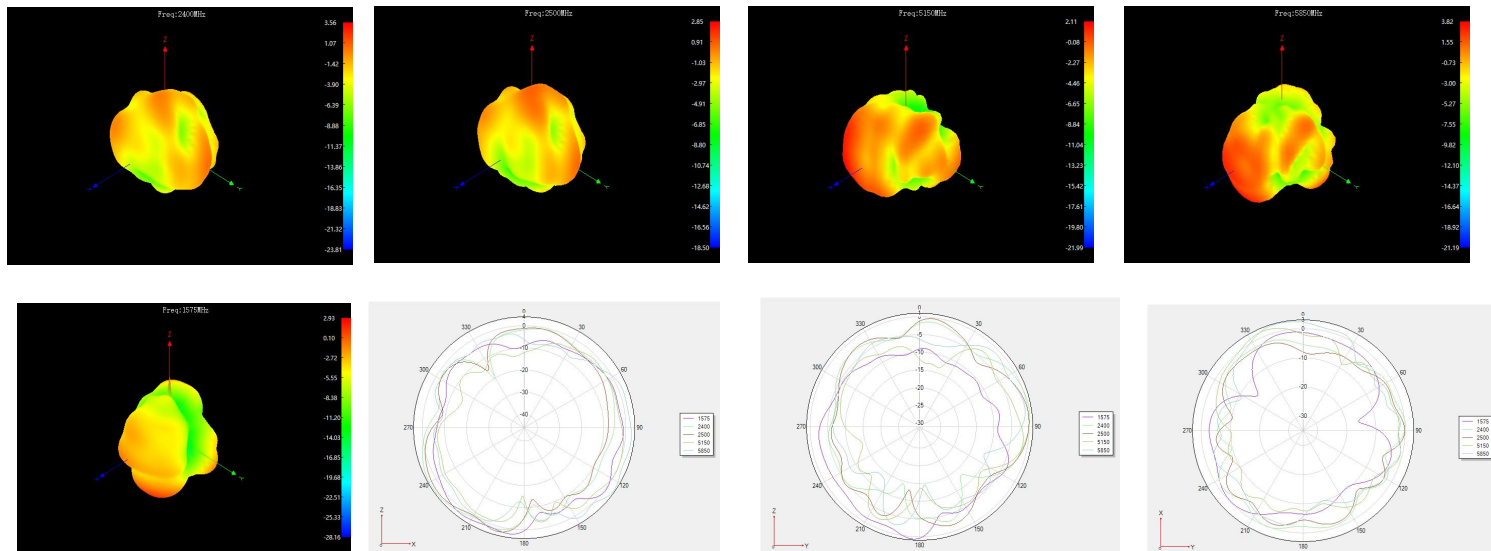
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6.2.4 3D@2D 辐射方向 (3D & 2D Radiation Pattern) :



6.2.5 发射功率@接收灵敏度 TRP@TIS Active testing

Band	Channel	Frequency	Max	Min	Total
WIFI_B (11M)	1	2412	17.94	1.93	14.45
WIFI_B (11M)	11	2462	17.28	5.64	14.28
WIFI_B (11M)	11	2462	-73.24	-85.9	-82.89
WIFI_G (54M)	1	2412	15.53	-0.67	12.34
WIFI_G (54M)	11	2462	15.36	2.86	12.17
WIFI_G (54M)	11	2462	-61.67	-74.93	-71.84
WIFI_N_ISM (65M)	1	2412	15.05	-0.12	11.89
WIFI_N_ISM (65M)	11	2462	15.55	3.29	12.52
WIFI_N_ISM (65M)	11	2462	-57.71	-71.8	-68.77
WIFI_A (54M)	36	5180	14.93	-3.89	10.75
WIFI_A (54M)	165	5825	14.75	-3.41	10.25
WIFI_A (54M)	165	5825	-54.09	-77.21	-72.22

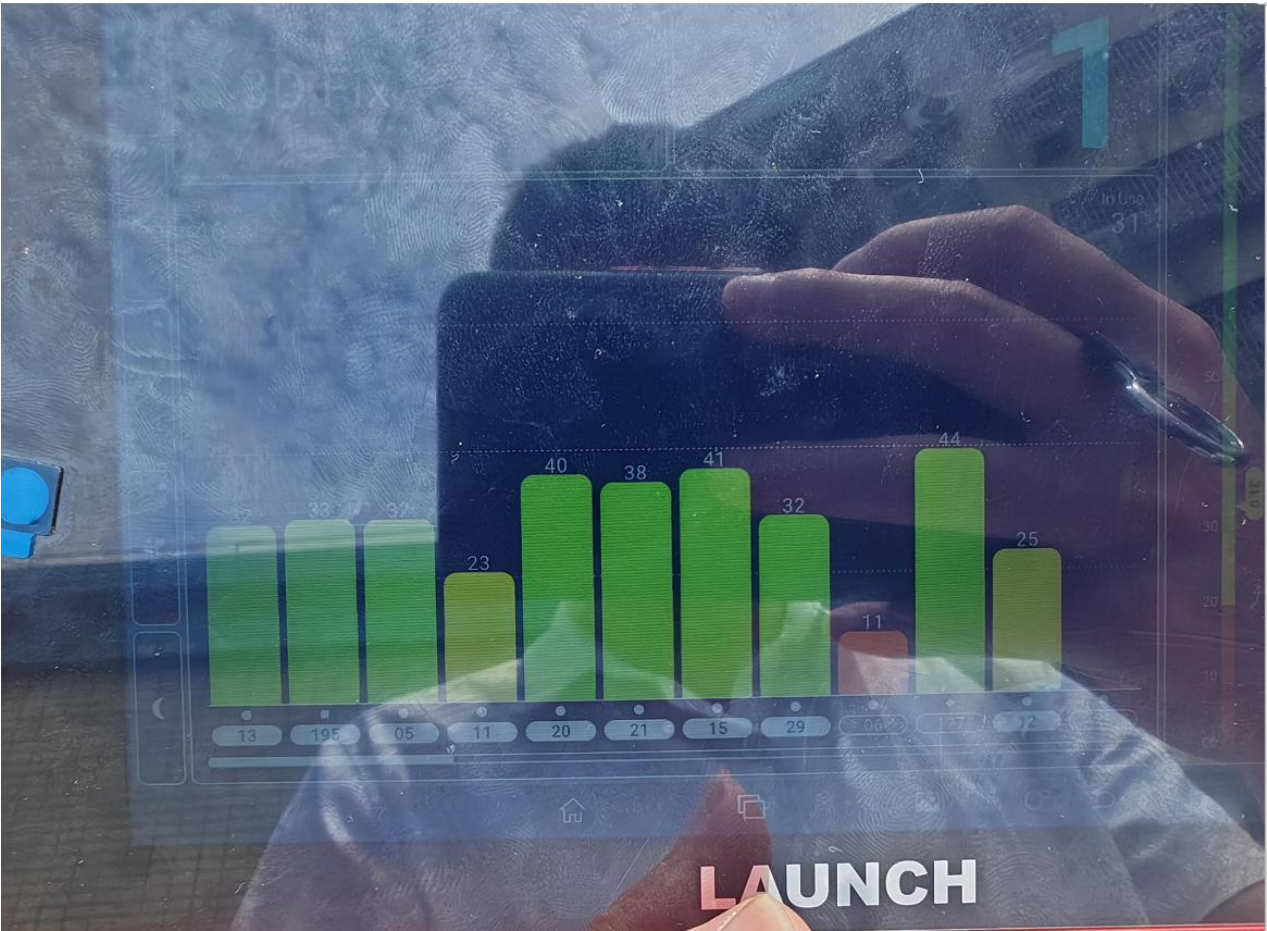
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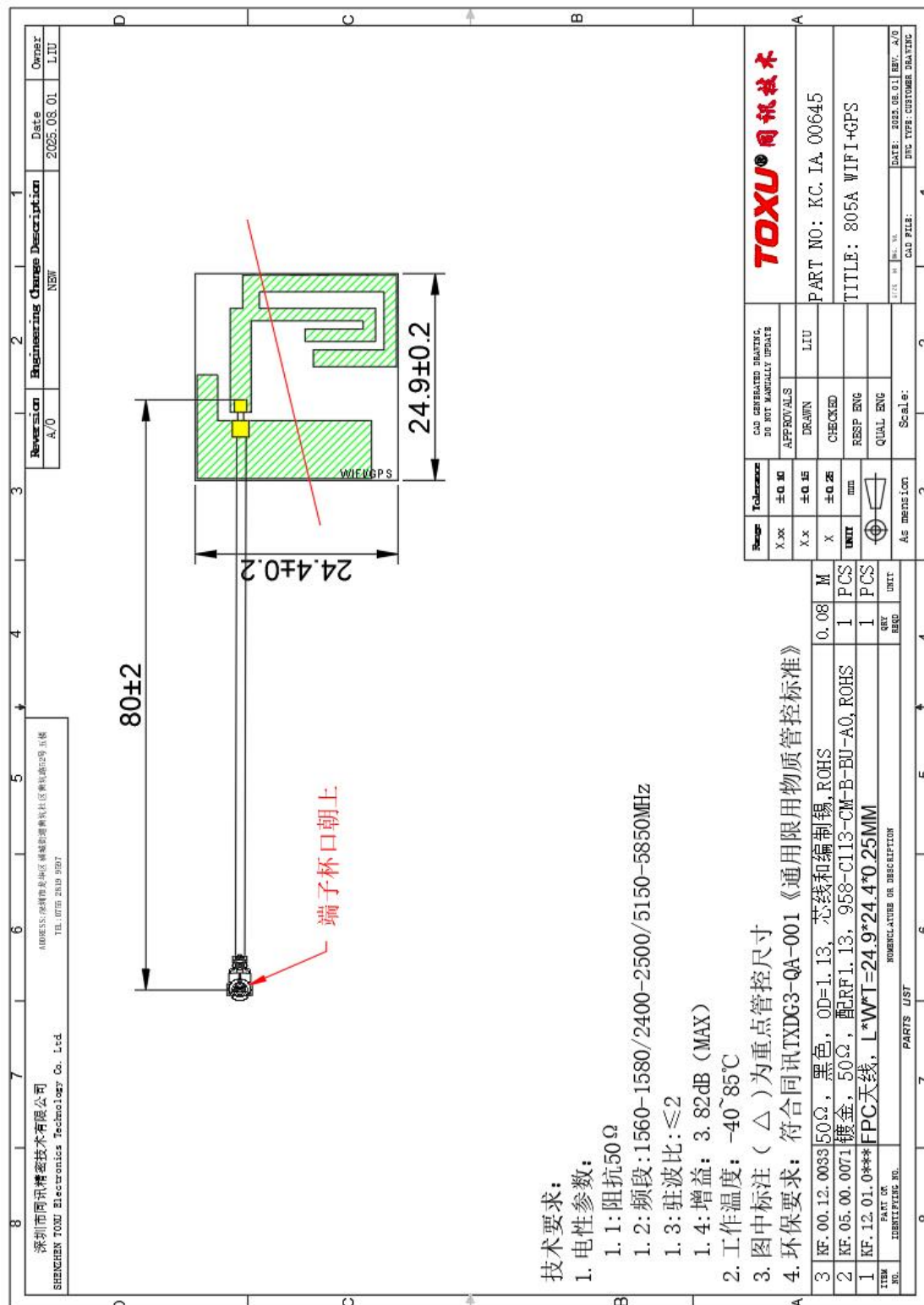
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6.2.6 信噪比 SNR(Signal to Noise Ratio)



有效卫星数量	31
最高值	44
定位精度	1M
天气	阴
地点	同讯五楼顶

7.成品图 (Customer Drawing)



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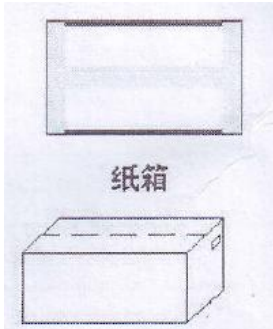
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8. 包装方式（Packaging）：

Product number: XXXXX			
Product model: XXXXX			
一、Label requirements:			
Customer	xxx		
supplier	XXXXXX		
Material coding	xx		
Product model	xx		
Number	XXX PCS	Factory date	X X X
Remarks			
二、Boxing:			
Job description:			
1. Inner packaging:			
XXpcs A bag			
2. External packaging:			
Xx PCS ;			
3. Matters needing attention:			
a. Whether to add partition and pearl cotton;			
b. Label attachments, such as ROHS, etc.;			



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