

规格承认书
Specification sheet

客 户 Customer name	元征科技
客户料号 Customer P/N	
品 名	WT9150-WIFI/GPS/BT-FPC 黑色油墨白色印字， L*W*T=38.9*34.4*0.25MM, 接 1.13 黑色线一代端子
Article Description	L=115MM, ROHS
同讯料號 TOXU Part No.	KC. IA. 00684
承认书号码 Approval sheet No.	A20251106-003
日 期 Date	2025. 12. 09

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	
李德文			
盖章 seal:		盖章 seal:	
日期 date	2025. 12. 09	日期 date	
备注 Remarks:			

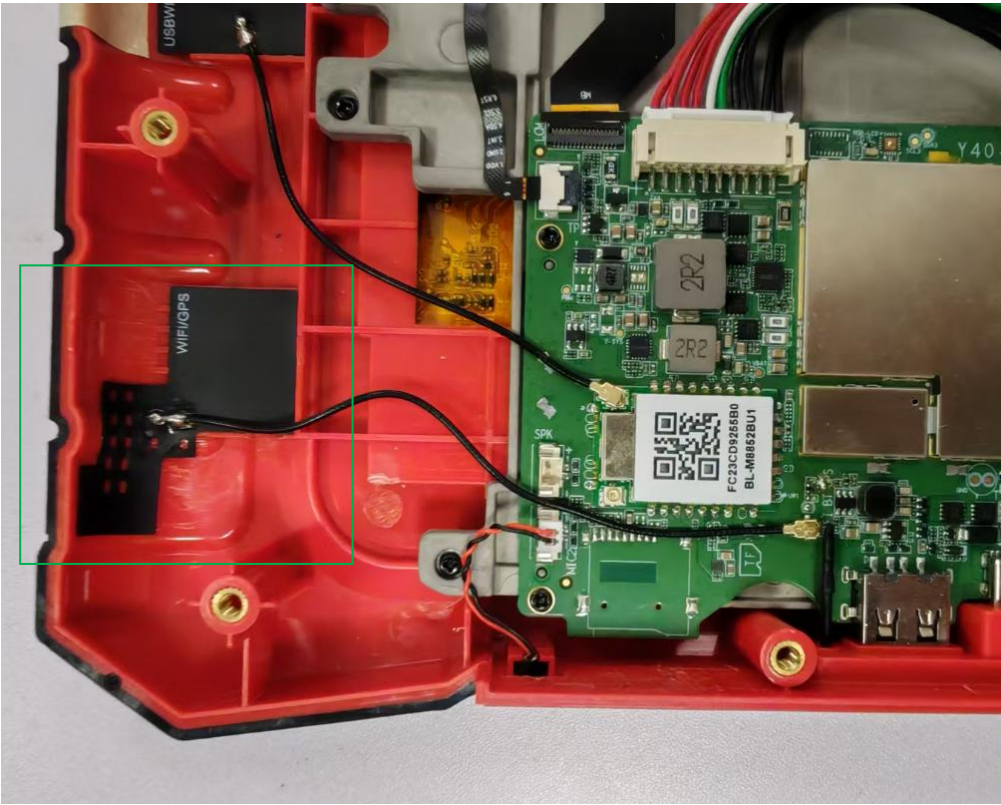
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3. 承认书变更履历

版本 (REV)	发起人 (Originator)	日期 (Date)	变更描述(Change Description)
A/1	LI	2025.11.06	First Version
A/2	Devin	2025.12.09	重调天线

4. 产品相片(Product photos):



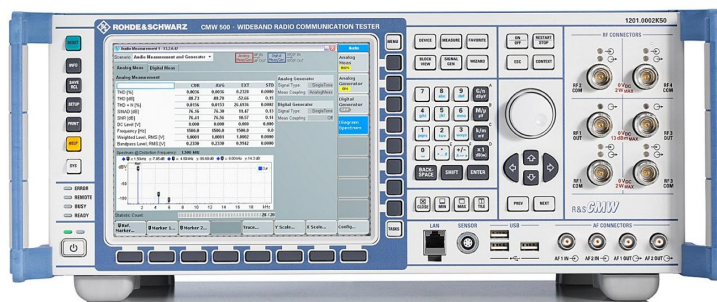
5. 机械及电气性能(Mechanics and Electrical Specification)

产品名称 (Name)	ET9150-WIFI/GPS/BT	产品型号 (Model Type)	KC. IA. 00684
电 性 能 指 标 (Electrical Specifications)			
频率范围 (Frenquency Range)	1575.42/2400-2500/5150-5850MHZ	极化方式 (Polarization)	线极化
输入阻抗 (Impedance)	50 Ω	辐射方向 (Radiation direction)	全向 omnidirectional
驻波比 (VSWR)	≦2	功率容量 (Power)	10W
增益 (Gain)	3.97 dBi (MAX)	带宽 (Bandwidth)	5/100/700MHZ
机 械 指 标 (Mechanical Specifications)			
尺寸 (Dimensions)	L*W*T=38.9*34.4*0.25MMMM	颜色 (colour)	黑色black
连接器型号 (Connector)	IPEX-1	引线长度 (Cable Length)	115MM (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)	monopole		

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 analyzar (Aglient E5071C)
The whole machine of Passive parameters	1. Freqency 2. Gain 3. Radiation Patten	1.3D microwarve darkroom (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: 2025.10.22, Valid until:2026.10.21	



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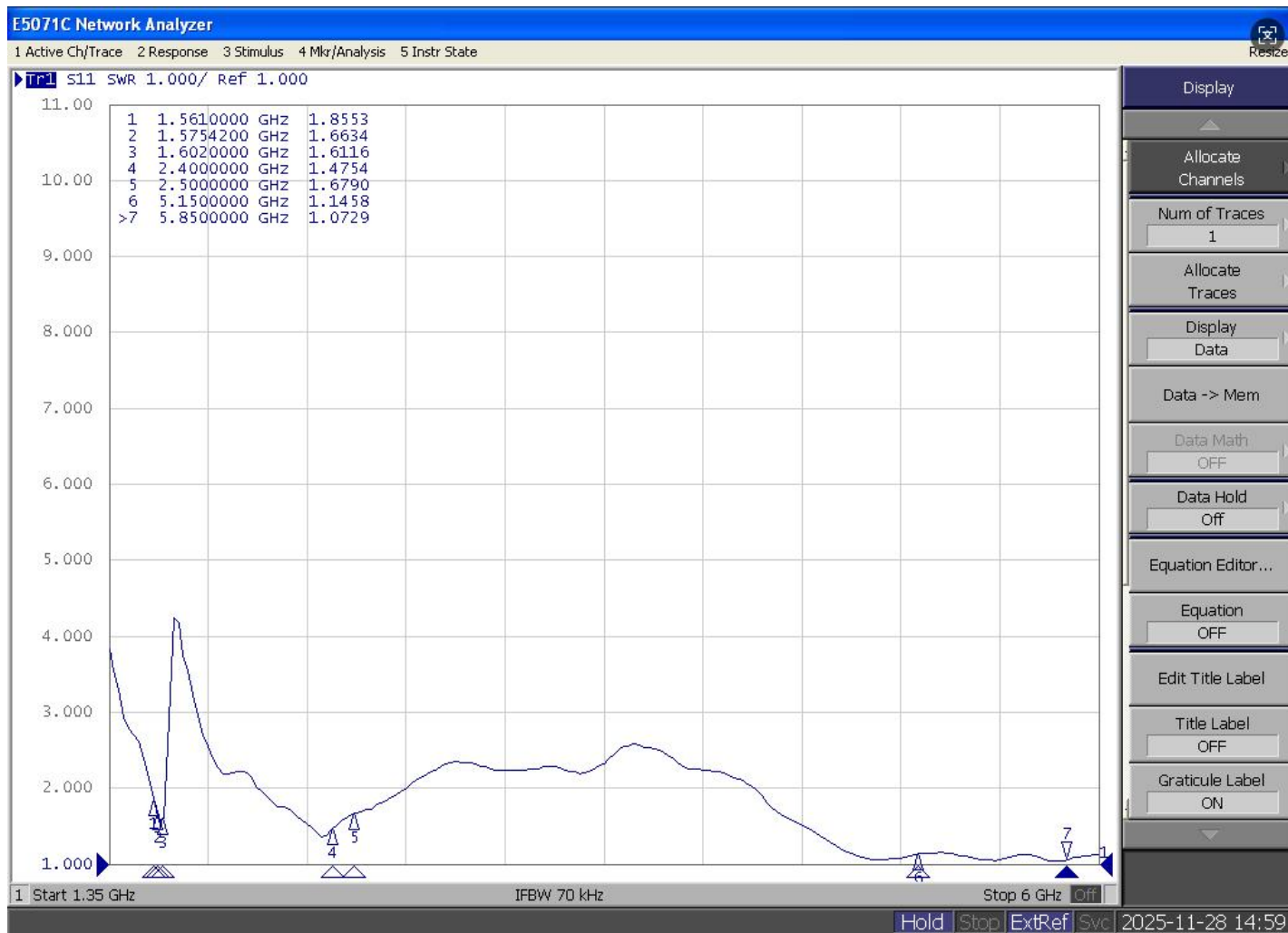
ADDRESS:5th floor, No. 52, Xikeng Road, Xikeng community, Fucheng street, Longhua District, Shenzhen

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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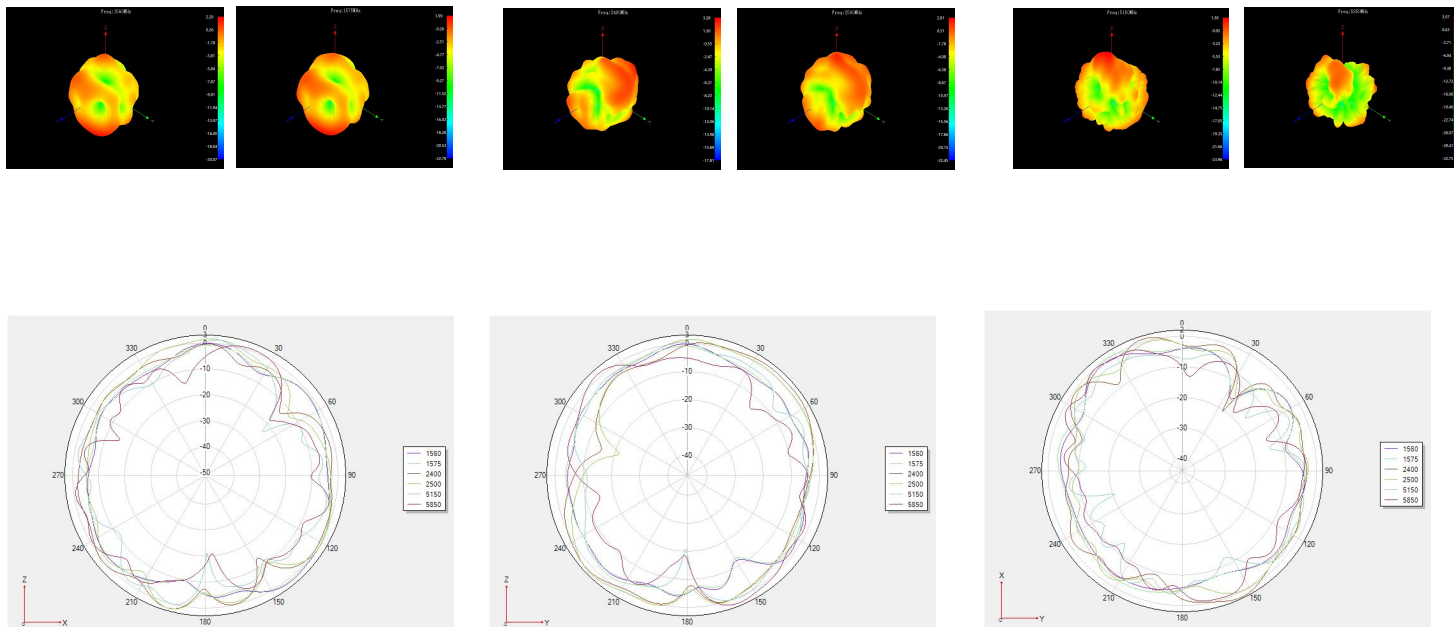
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6.2.2 效率@增益（Efficiency and Gain）：

Frequency/Mhz	MaxGain/dBi	Efficiency / %	Frequency/Mhz	MaxGain/dBi	Efficiency / %	Frequency/Mhz	MaxGain/dBi	Efficiency / %
1555	1.98	45.74	2400	3.28	74.3	5150	1.38	67.62
1560	2.29	46.03	2410	2.9	68.39	5200	1.15	65.34
1565	1.59	48.75	2420	2.11	66.83	5250	1.85	66.21
1570	2.23	45.77	2430	2.75	70.79	5300	1.95	65.51
1575	1.99	44.27	2440	2.45	68.55	5350	2.58	60.17
1580	2.45	42.46	2450	2.53	64.86	5400	2.93	66.5
1585	1.78	42.27	2460	2.49	64.57	5450	2.19	61.21
1590	2.5	43.25	2470	2.39	65.61	5500	2.55	61.3
1595	1.71	41.3	2480	2.85	65.92	5550	2.54	60.46
1600	1.43	47.61	2490	2.5	68.39	5600	2.32	59.72
1605	1.95	46.1	2500	2.81	68.87	5650	2.18	51.69
						5700	2.58	51.02
						5750	3.03	51.02
						5800	3.16	50.93
						5850	3.97	53.55

6.2.3 3D@2D 辐射方向（3D & 2D Radiation Pattern）



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6.2.4 有源 OTA 测试（OTA testing）：

Band	Channel	Frequency	Max	Min	Total
WIFI_B (11M)	1	2412	17.71	3.7	13.68
WIFI_B (11M)	11	2462	17.17	2.2	13.69
WIFI_B (11M)	11	2462	-75.12	-89.01	-85.58
WIFI_G (54M)	1	2412	15.25	1.12	11.36
WIFI_G (54M)	11	2462	15.14	0.33	11.35
WIFI_G (54M)	11	2462	-63.17	-77.01	-73.31
WIFI_A (54M)	36	5180	12.61	-2.5	9.09
WIFI_A (54M)	165	5825	12.97	-3.96	9.89
WIFI_A (54M)	165	5825	-60.28	-76.35	-72.76

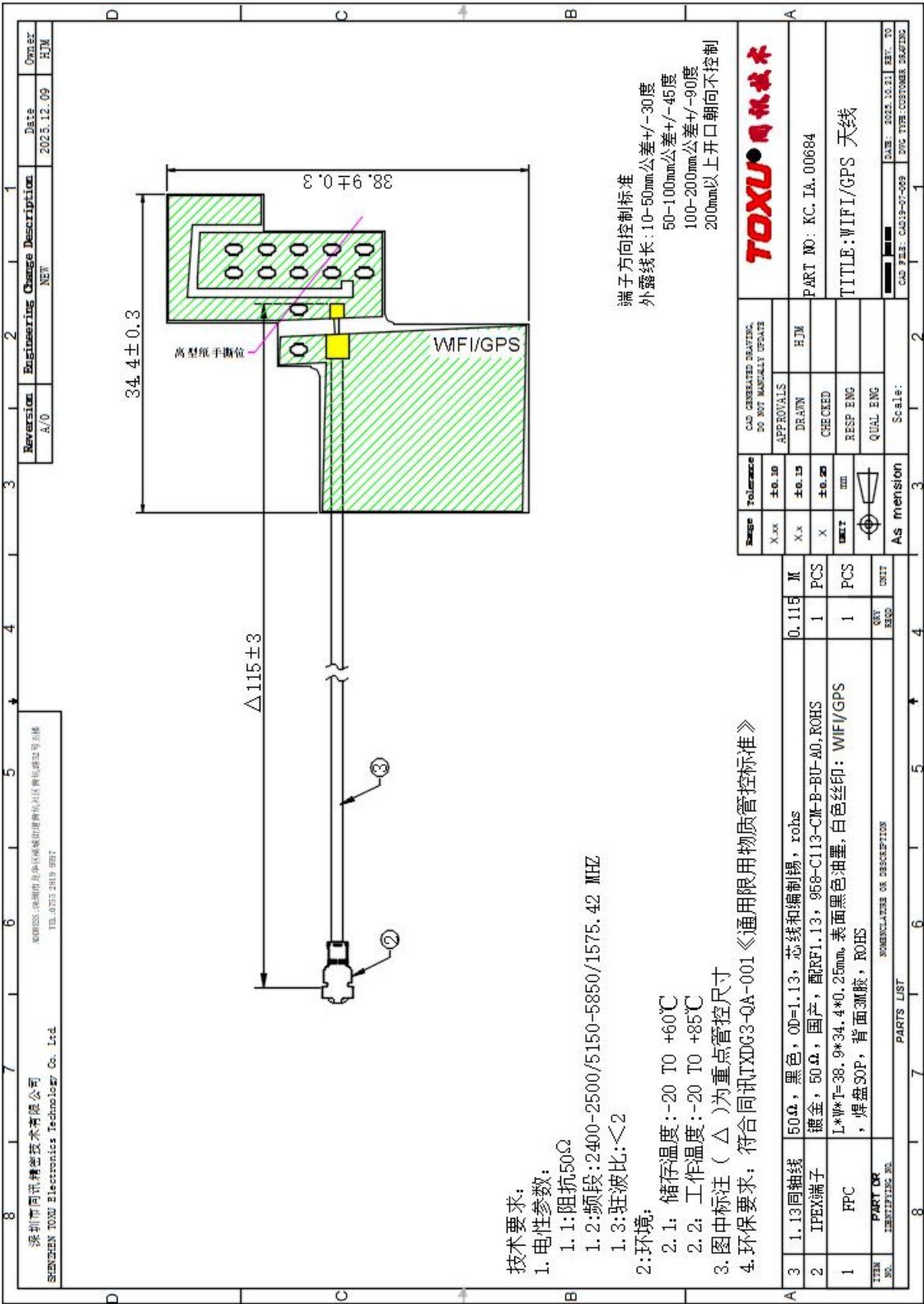
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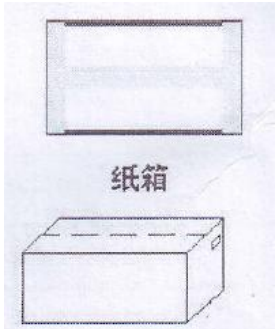
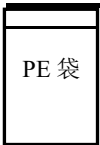
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7.成品图（Customer Drawing）



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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