

规格承认书
Specification sheet

客 户	易检车服
Customer name	
客户料号	
Customer P/N	
品 名	E10-WIFI/GPS 天线，FPC L*W*T=41.9*15.8*0.25mm，表面黑色油墨白色印字，IPEX 接 1.13 黑色线，线长 155mm，ROHS
Article Description	
同讯料號	KC. IA. 00593
TOXU Part No.	
承认书号码	A20250225-001
Approval sheet No.	
日 期	2025. 02. 25
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	
李德文			
盖章 seal:		盖章 seal:	
日期 date	2025. 02. 25	日期 date	
备注 Remarks:			

目 录

catalogue

1.封面 (Cover Page)	-----page(1 to 1)
2.目录(Content)	-----page(2 to 2)
3. 变更履历(ChangeHistory Sheet)	-----page(3 to 3)
4. 产品相片(Product photos)	-----page(3 to 3)
5. 机械及电气性能(Mechanics and Electrical Specification)	-----page(4 to 4)
6. 性能报告(Performance report)	-----page(5 to 6)
7. 成品图面(Customer Drawing)	-----page(7 to 7)
8.包装规格(Packing Spec)	-----page(8 to 8)

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	2025.02.25	First Version

4. 产品相片(Product photos)



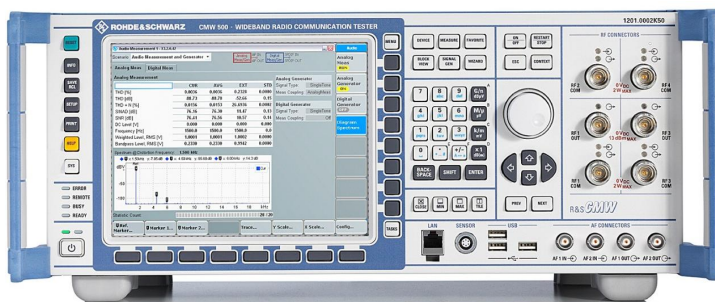
5. 机械及电气性能(Mechanics and Electrical Specification)

产品名称 (Name)	E10-WIFI/GPS	产品型号 (Model Type)	KC. IA. 00293
电 性 能 指 标 (Electrical Specifications)			
频率范围 (Frenquency Range)	2400-2500/5150-5850/1575.42MHZ	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)	3.66dBi (MAX)	带宽 (Bandwidth)	100/700/10MHZ
机 械 指 标 (Mechanical Specifications)			
尺寸 (Dimensions)	L*W*T=41.9*15.8*0.25mm	颜色 (colour)	黑色BLACK
连接器型号 (Connector)	IPEX-1	引线长度 (Cable Length)	155MM (RF1.13)
材料 Radome Material	FPC	防水 (waterproof)	不支持
工作温度 (Working Temperature)	-40℃~+85℃	存放温度 (Limit Temperature)	-40℃~+85℃
天线类型 (Antenna type)	monopole		

5 性能报告(Performance report)

5.1 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. Frequency 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: 2024.10.22, Valid until:2025.10.21	



地址：深圳市龙华区福城街道茜坑社区茜坑路 52 号

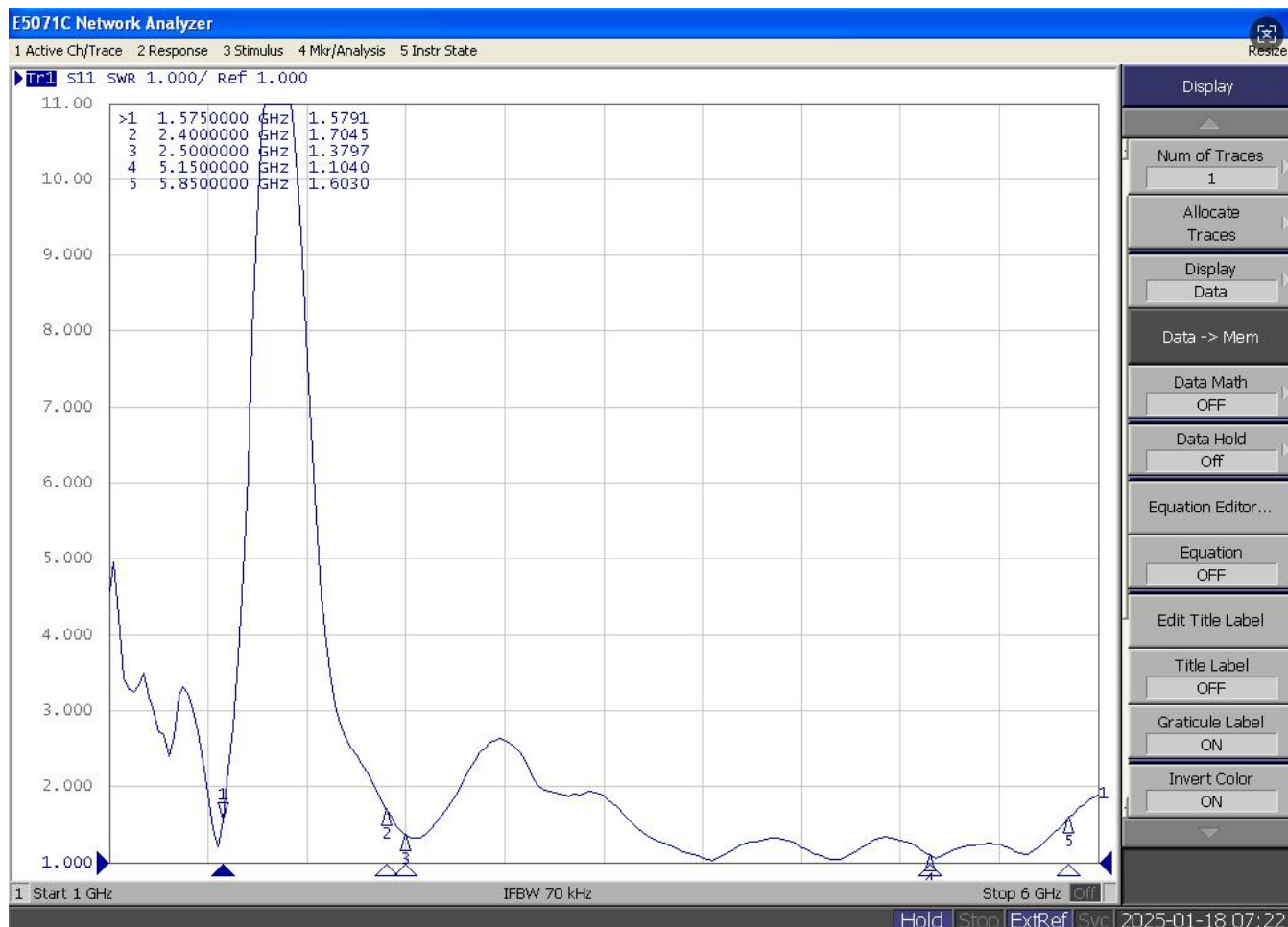
ADDRESS:5th floor, No. 52, Xikeng Road, Xikeng community, Fucheng street, Longhua District, Shenzhen

电话 (TEL) : 0755-28199597

网址 (WEB) : www.toxutech.com

5.2 性能报告(Performance report)

5.2.1 电压驻波比（VSWR）：



地址：深圳市龙华区福城街道茜坑社区茜坑路 52 号

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

电话（TEL）：0755-28199597

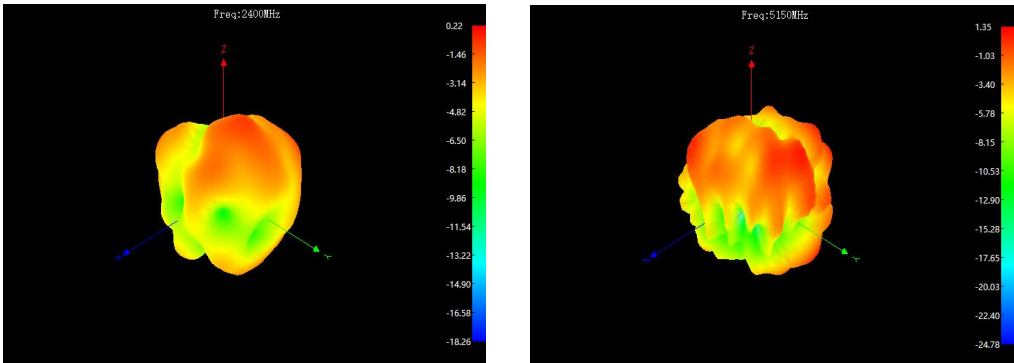
网址（WEB）：www.toxutech.com

5.2.2 效率@增益（Efficiency and Gain）：

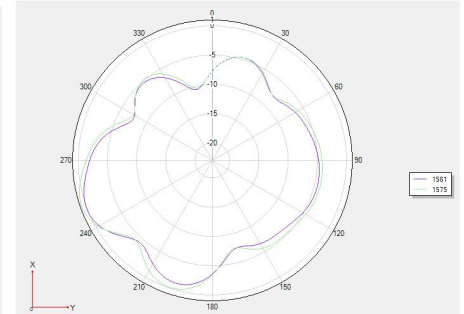
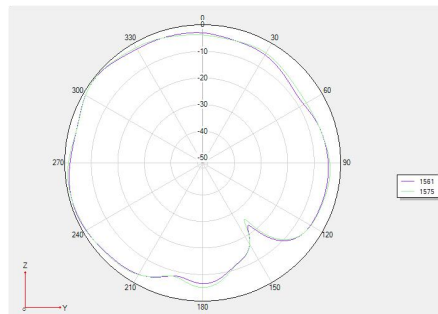
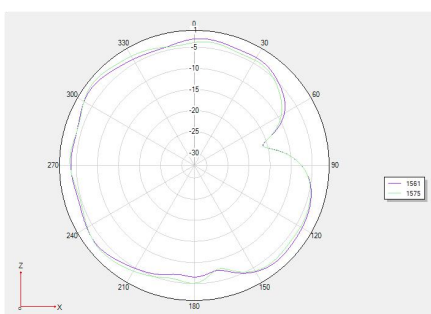
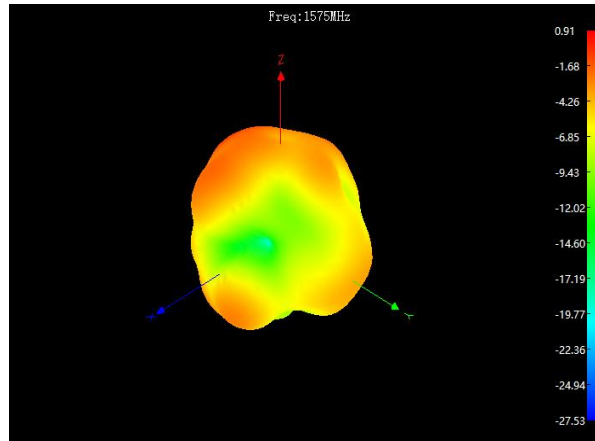
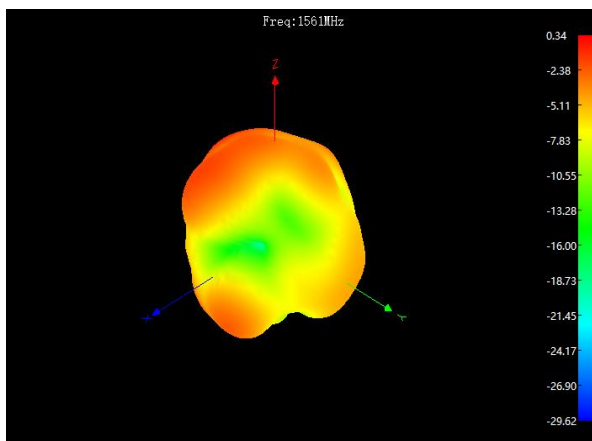
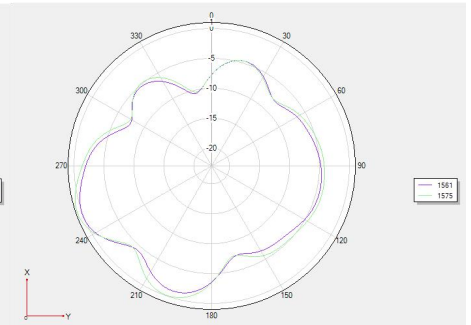
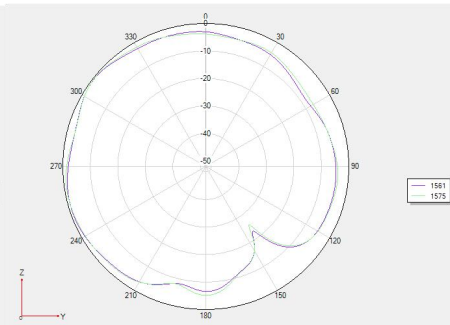
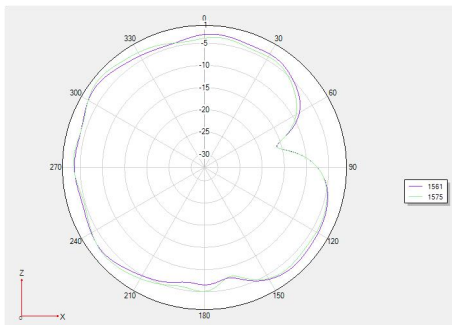
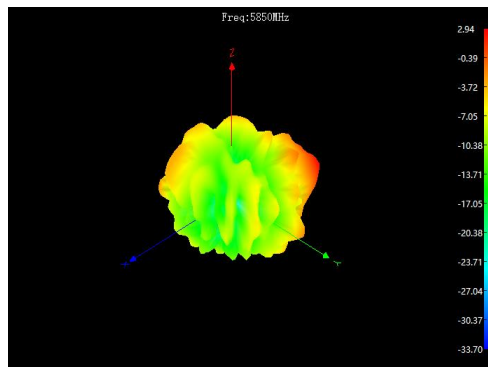
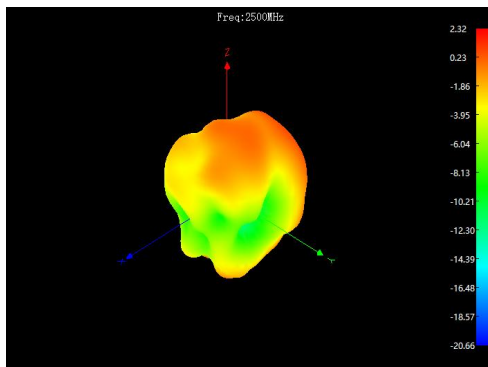
Frequency/Mhz	MaxGain/dBi	Efficiency / %	Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	0.22	41.12	5150	1.35	46.99
2410	0.41	44.2	5200	1.7	46.99
2420	0.33	44.04	5250	2.15	45.08
2430	0.93	45.73	5300	2.61	44.67
2440	1.02	47.41	5350	2.99	47.32
2450	1.03	48.02	5400	3.66	52.84
2460	1	49.54	5450	2.88	44.06
2470	0.97	52.46	5500	2.93	45.88
2480	1.67	54.98	5550	3.02	47.05
2490	1.44	47.1	5600	2.9	44.81
2500	2.32	51.29	5650	3.04	46.73
			5700	2.48	43.46
			5750	2.81	42.73
			5800	3.1	44.06
			5850	2.94	44.75

Frequency/Mhz	MaxGain/dBi	Efficiency / %	Frequency/Mhz	MaxGain/dBi	Efficiency / %
1559	0.81	39.72	1572	0.78	43.33
1560	0.73	40.23	1573	0.7	43.17
1561	0.34	40.23	1574	0.65	43.01
1562	0.55	40.37	1575	0.91	42.96
1563	0.42	40.61	1576	0.59	43.12
1564	0.32	40.65	1577	0.52	43.5
1565	0.18	40.99	1578	0.49	43.88

5.2.3 3D@2D 辐射方向（3D & 2D Radiation Pattern）：



地址：深圳市龙华区福城街道茜坑社区茜坑路 52 号
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



地址：深圳市龙华区福城街道茜坑社区茜坑路 52 号

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

5.2.4 有源 OTA 测试（OTA test）

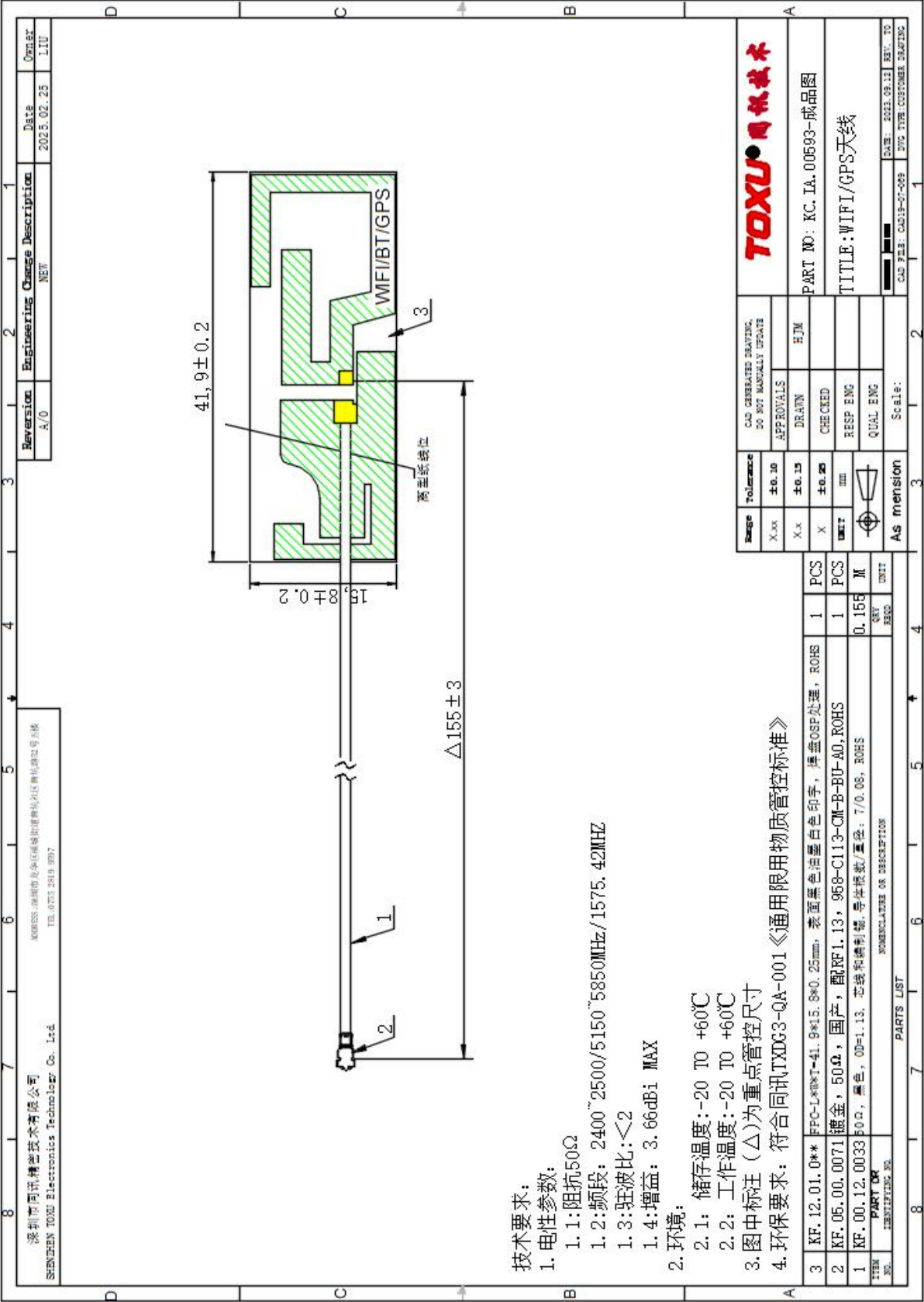
Band	Channel	Frequency	Max	Min	Total
WIFI_B (11M)	1	2412	17.33	0.97	14.02
WIFI_B (11M)	11	2462	17.85	-3.9	13.89
WIFI_B (11M)	11	2462	-68.1	-85.86	-80.92
WIFI_G (54M)	1	2412	15.66	-0.85	11.3
WIFI_G (54M)	11	2462	15.29	-5.88	11.12
WIFI_G (54M)	11	2462	-31.77	-74.51	-70.59
WIFI_N_ISM (65M)	1	5180	15.13	-5.47	10.69
WIFI_N_ISM (65M)	11	5825	15.62	-5.36	11.67
WIFI_N_ISM (65M)	11	5825	-49.82	-73.81	-69.85
WIFI_A (54M)	36	2412	16.33	0.97	12.02
WIFI_A (54M)	165	2462	15.85	-3.9	11.89
WIFI_A (54M)	165	2462	-48.1	-69.86	-67.02

5.2.4.1GNSS 实测

测试时间	2025.02.18
测试地点	同讯5楼顶
天气	晴朗
定位星数	23
冷启动定位时间	46S
最高CN值	45



6.成品图（Customer Drawing）

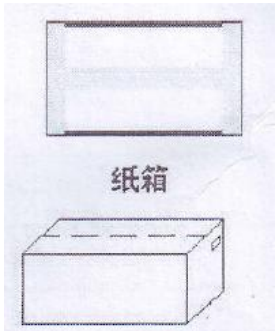


7.包装方式（Packaging）：

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.;			



PE 袋



纸箱

地址：深圳市龙华区福城街道茜坑社区茜坑路 52 号

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

规格承认书
Specification sheet

客 户	易检车服
Customer name	
客户料号	
Customer P/N	
品 名	E10-WIFI-UBS1, FPC L*W*T=32.4*11.5*0.25mm, 表面黑色油墨, IPEX 接 1.13 黑色线, 线长 280mm, ROHS
Article Description	
同讯料號	KC. IA. 00594
TOXU Part No.	
承认书号码	A20250225-002
Approval sheet No.	
日 期	2025. 02. 25
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	
李德文			
盖章 seal:		盖章 seal:	
日期 date	2025. 02. 25	日期 date	
备注 Remarks:			

目 录

catalogue

1.封面 (Cover Page)	-----page(1 to 1)
2.目录(Content)	-----page(2 to 2)
3. 变更履历(ChangeHistory Sheet)	-----page(3 to 3)
4. 产品相片(Product photos)	-----page(3 to 3)
5. 机械及电气性能(Mechanics and Electrical Specification)	-----page(4 to 4)
6. 性能报告(Performance report)	-----page(5 to 6)
7. 成品图面(Customer Drawing)	-----page(7 to 7)
8.包装规格(Packing Spec)	-----page(8 to 8)

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	2025.02.25	First Version

4. 产品相片(Product photos)



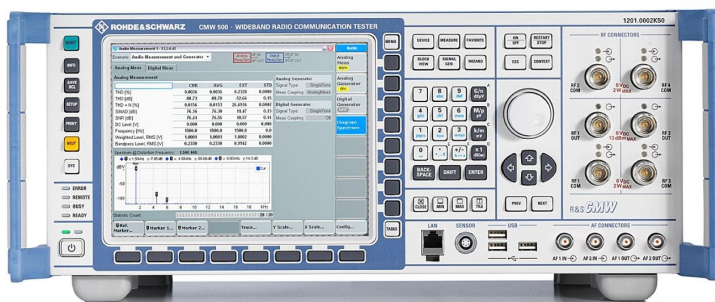
5. 机械及电气性能(Mechanics and Electrical Specification)

产品名称 (Name)	E10-WFWI-USB1	产品型号 (Model Type)	KC. IA. 00594
电 性 能 指 标 (Electrical Specifications)			
频率范围 (Frenquency Range)	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)	3.05dBi (MAX)	带宽 (Bandwidth)	100/700MHZ
机 械 指 标 (Mechanical Specifications)			
尺寸 (Dimensions)	L*W*T=32.4*11.5*0.25mm	颜色 (colour)	黑色BLACK
连接器型号 (Connector)	IPEX-1	引线长度 (Cable Length)	280MM (RF1.13)
材料 Radome Material	FPC	防水 (waterproof)	不支持
工作温度 (Working Temperature)	-40℃~+85℃	存放温度 (Limit Temperature)	-40℃~+85℃
天线类型 (Antenna type)	monopole		

5 性能报告(Performance report)

5.1 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. Frequency 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: 2024.10.22, Valid until:2025.10.21	



地址：深圳市龙华区福城街道茜坑社区茜坑路 52 号

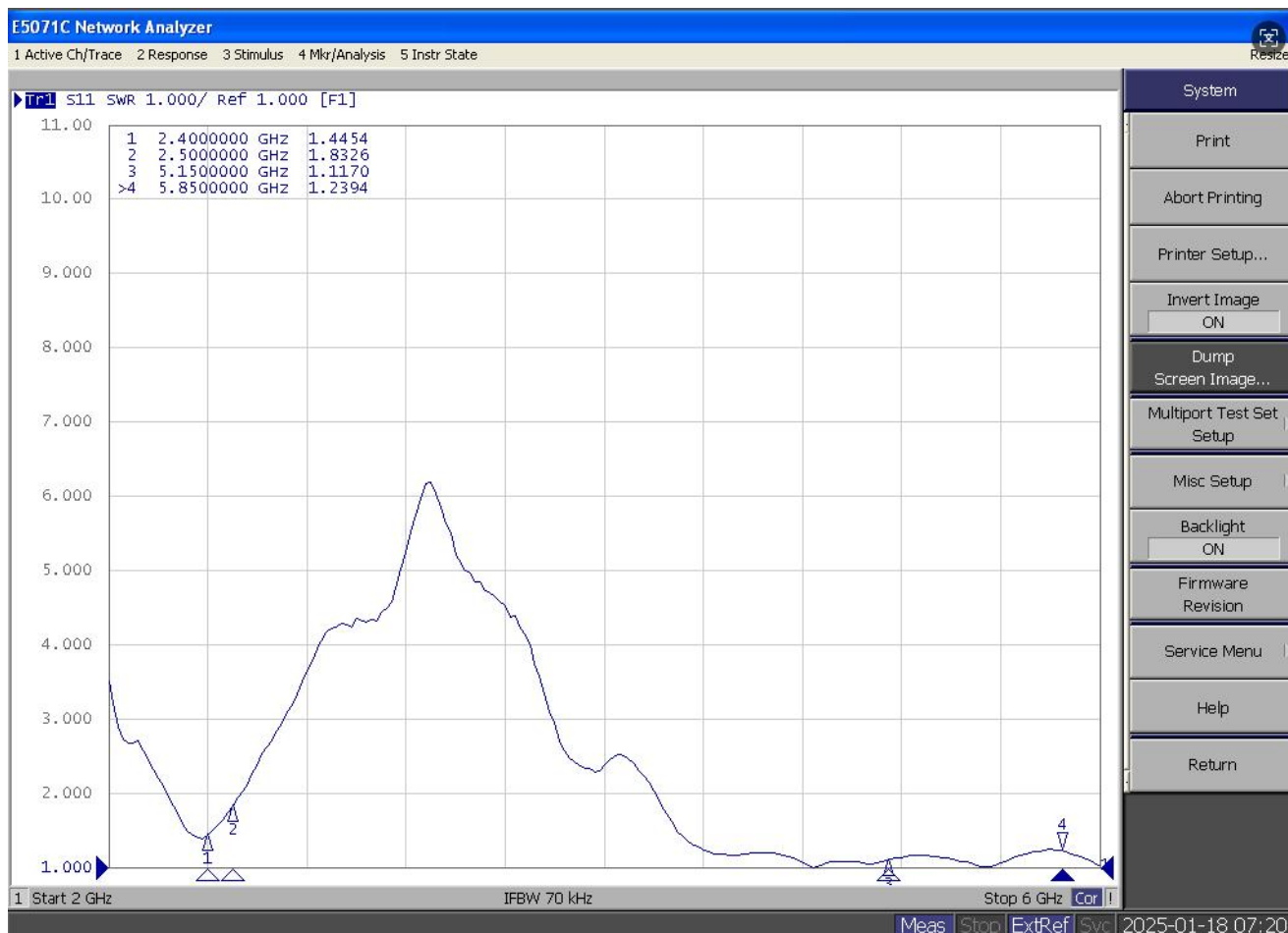
ADDRESS:5th floor, No. 52, Xikeng Road, Xikeng community, Fucheng street, Longhua District, Shenzhen

电话 (TEL) : 0755-28199597

网址 (WEB) : www.toxutech.com

5.2 性能报告(Performance report)

5.2.1 电压驻波比（VSWR）：



地址：深圳市龙华区福城街道茜坑社区茜坑路 52 号

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

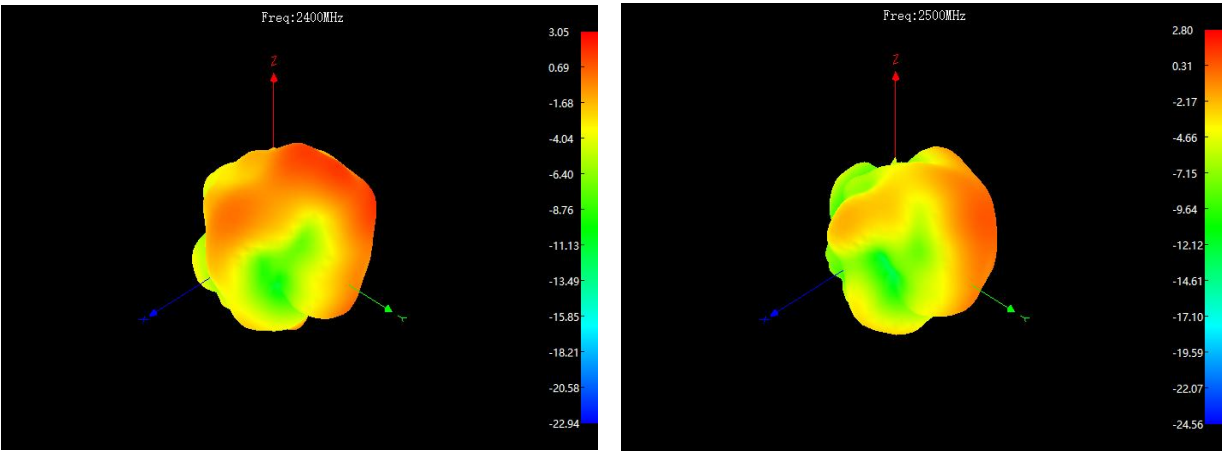
电话（TEL）：0755-28199597

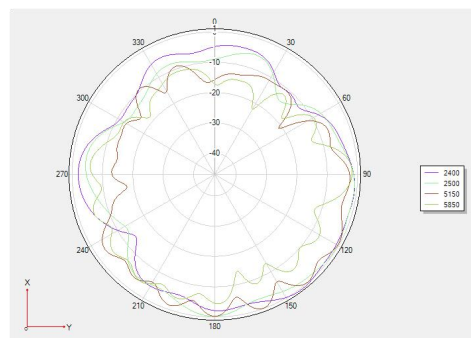
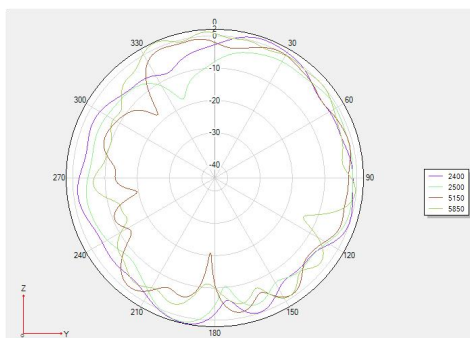
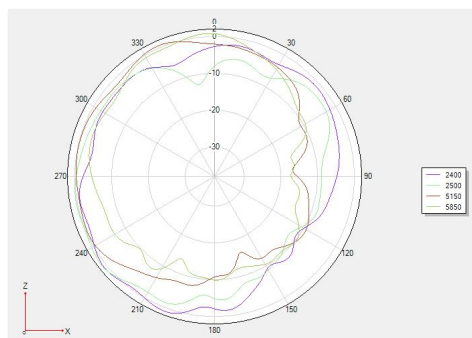
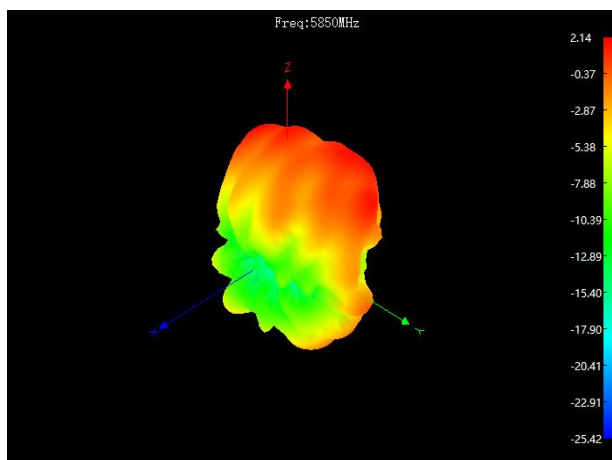
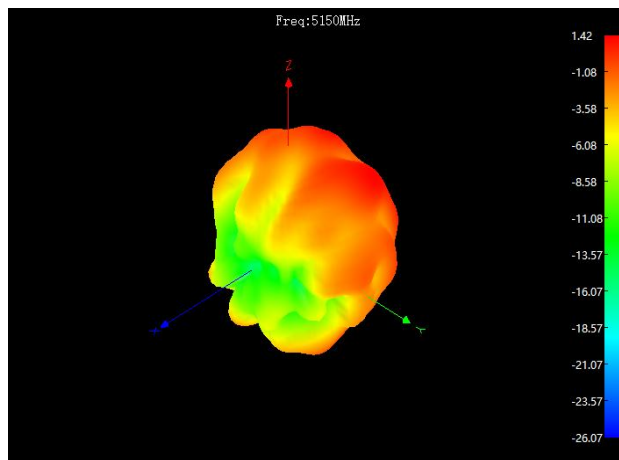
网址（WEB）：www.toxutech.com

5.2.2 效率@增益（Efficiency and Gain）：

Frequency/Mhz	MaxGain/dBi	Efficiency / %	Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	3.05	49.43	5150	1.42	54.95
2410	3.01	50.93	5200	1.72	56.23
2420	2.32	49.89	5250	1.97	54.58
2430	2.65	49.66	5300	2.19	54.08
2440	2.36	49.2	5350	2.41	56.62
2450	2.38	45.71	5400	2.87	61.66
2460	2.22	45.92	5450	2.02	51.88
2470	2.3	46.03	5500	2.63	49.66
2480	2.73	47.26	5550	2.52	50.93
2490	2.49	48.06	5600	2.44	47.42
2500	2.8	45.26	5650	2.36	46.67
			5700	2.06	47.21
			5750	2.22	44.98
			5800	1.8	44.87
			5850	2.14	45.29

5.2.3 3D@2D 辐射方向（3D & 2D Radiation Pattern）：





5.2.4 有源 OTA 测试 (OTA test)

Band	Channel	Frequency	Max	Min	Total
WIFI_B (11M)	1	2412	16.66	-0.42	14.1
WIFI_B (11M)	11	2462	16.51	-11.88	13.66
WIFI_B (11M)	11	2462	-68.84	-84.94	-81.25
WIFI_G (54M)	1	2412	13.8	-3.16	11.29
WIFI_G (54M)	11	2462	14.6	-1.74	12.74
WIFI_G (54M)	11	2462	-56.26	-72.61	-70.05
WIFI_N_ISM (65M)	1	2412	13.97	-3.16	10.47
WIFI_N_ISM (65M)	11	2462	14.77	-1.08	11.92
WIFI_N_ISM (65M)	11	2462	-57.2	-73.13	-70.27
WIFI_A (54M)	36	5180	23.34	-3.09	17.57
WIFI_A (54M)	165	5825	18.68	-4.35	13.38
WIFI_A (54M)	165	5825	-43.6	-66.83	-63.37

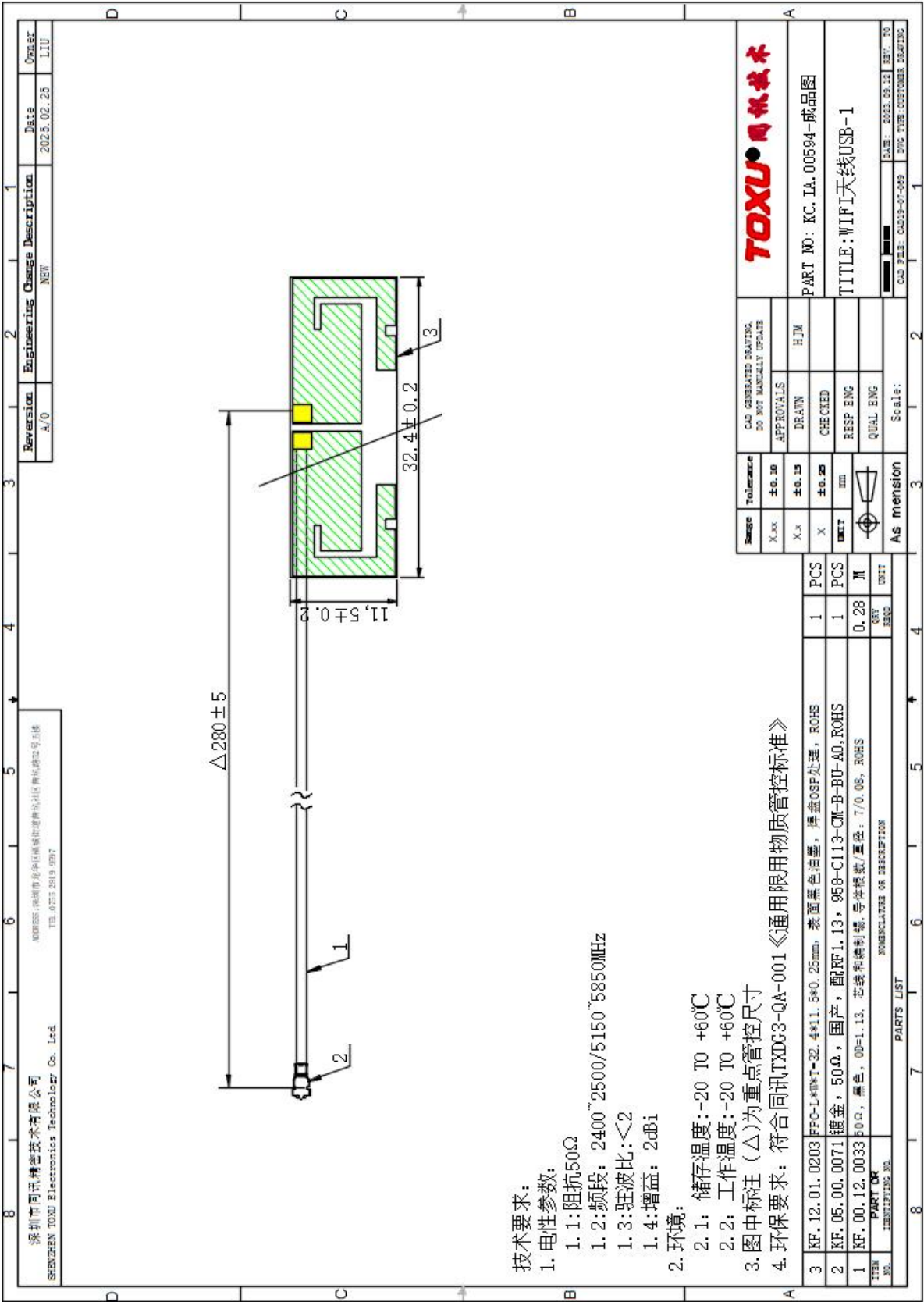
地址：深圳市龙华区福城街道茜坑社区茜坑路 52 号

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.成品图（Customer Drawing）

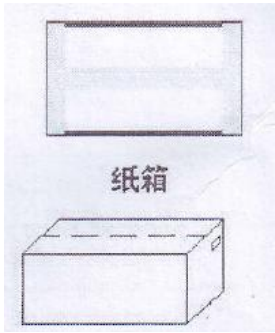


7.包装方式（Packaging）：

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.;			



PE 袋



纸箱

地址：深圳市龙华区福城街道茜坑社区茜坑路 52 号

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

规格承认书
Specification sheet

客 户	易检车服
Customer name	
客户料号	
Customer P/N	
品 名	E10-WIFI-UBS2, FPC L*W*T=32.4*11.5*0.25mm, 表面黑色油墨, IPEX 接 1.13 黑色线, 线长 140mm, ROHS
Article Description	
同讯料號	KC. IA. 00595
TOXU Part No.	
承认书号码	A20250225-003
Approval sheet No.	
日 期	2025. 02. 25
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	
李德文			
盖章 seal:		盖章 seal:	
日期 date	2025. 02. 25	日期 date	
备注 Remarks:			

目 录

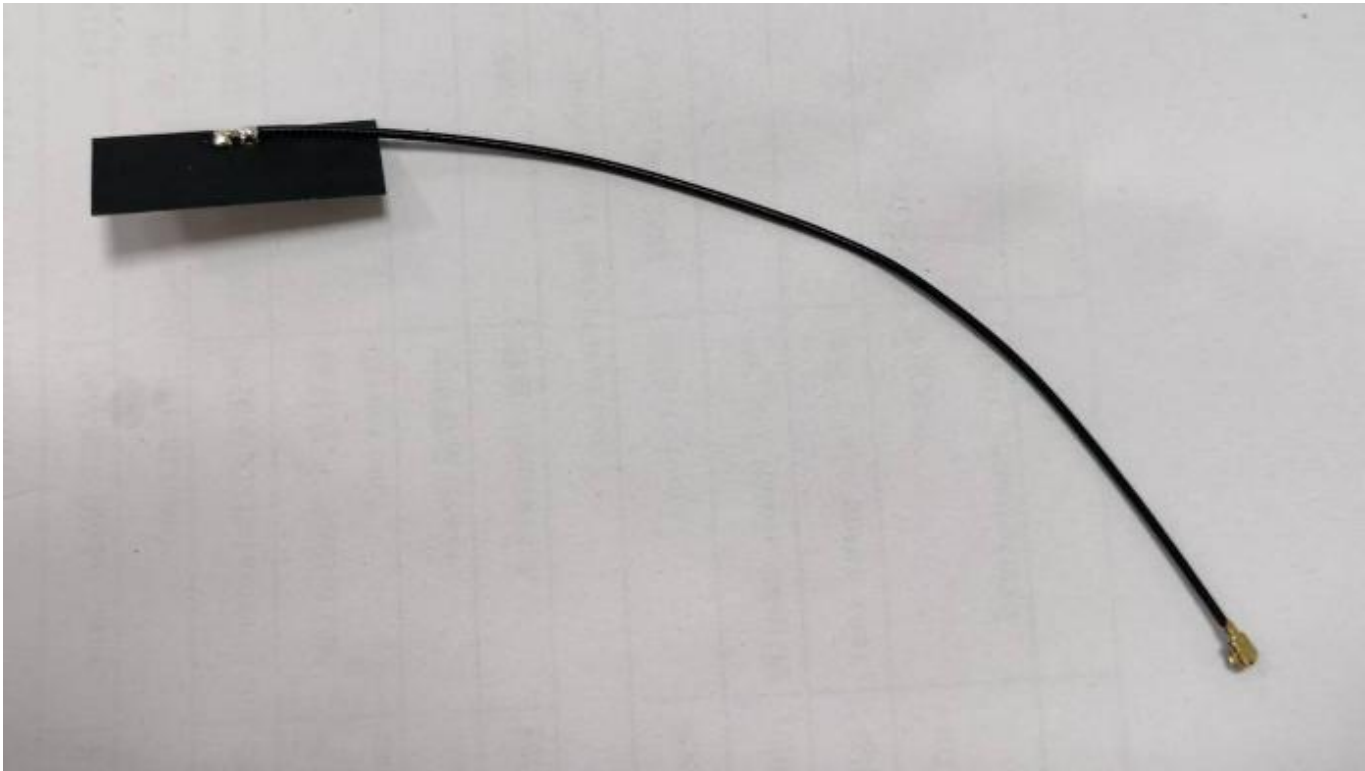
catalogue

1.封面 (Cover Page)	-----page(1 to 1)
2.目录(Content)	-----page(2 to 2)
3. 变更履历(ChangeHistory Sheet)	-----page(3 to 3)
4. 产品相片(Product photos)	-----page(3 to 3)
5. 机械及电气性能(Mechanics and Electrical Specification)	-----page(4 to 4)
6. 性能报告(Performance report)	-----page(5 to 6)
7. 成品图面(Customer Drawing)	-----page(7 to 7)
8.包装规格(Packing Spec)	-----page(8 to 8)

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	2025.02.25	First Version

4. 产品相片(Product photos)



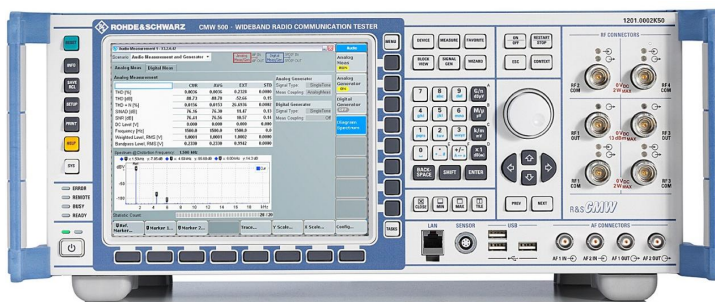
5. 机械及电气性能(Mechanics and Electrical Specification)

产品名称 (Name)	E10-WFWI-USB2	产品型号 (Model Type)	KC. IA. 00595
电 性 能 指 标 (Electrical Specifications)			
频率范围 (Frenquency Range)	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)	6.08dBi (MAX)	带宽 (Bandwidth)	100/700MHZ
机 械 指 标 (Mechanical Specifications)			
尺寸 (Dimensions)	L*W*T=32.4*11.5*0.25mm	颜色 (colour)	黑色BLACK
连接器型号 (Connector)	IPEX-1	引线长度 (Cable Length)	140MM (RF1.13)
材料 Radome Material	FPC	防水 (waterproof)	不支持
工作温度 (Working Temperature)	-40℃--+85℃	存放温度 (Limit Temperature)	-40℃--+85℃
天线类型 (Antenna type)	monopole		

5 性能报告(Performance report)

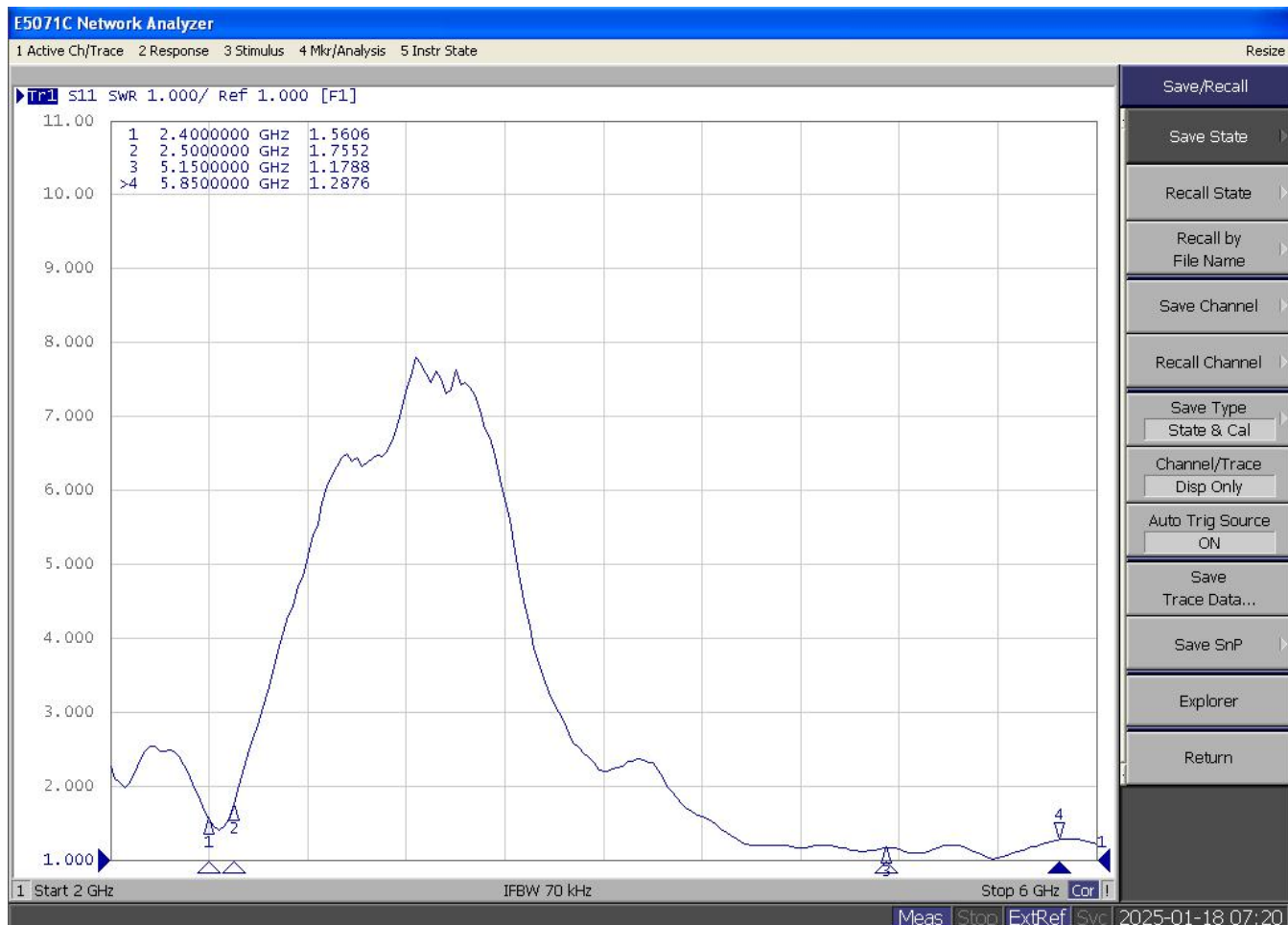
5.1 测试项目及设备 Test Items and Equipment

	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. Frequency 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: 2024.10.22, Valid until:2025.10.21	



5.2 性能报告(Performance report)

5.2.1 电压驻波比（VSWR）：



地址：深圳市龙华区福城街道茜坑社区茜坑路 52 号

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

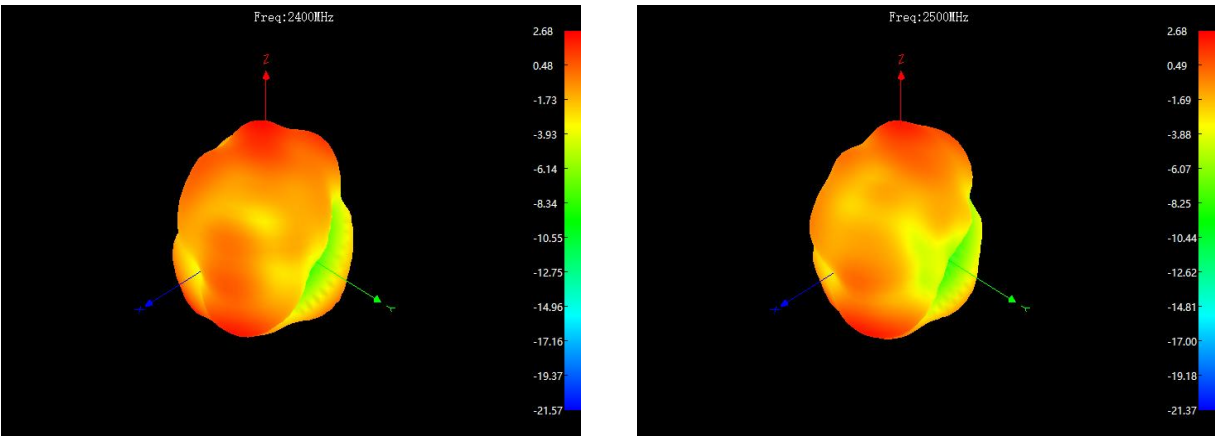
电话（TEL）：0755-28199597

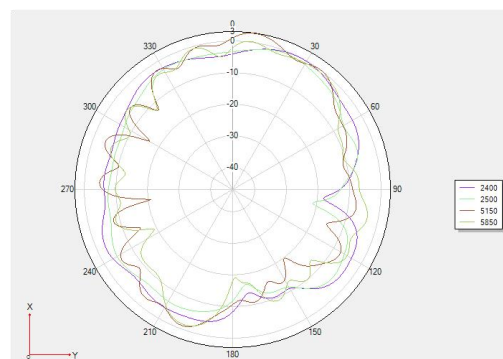
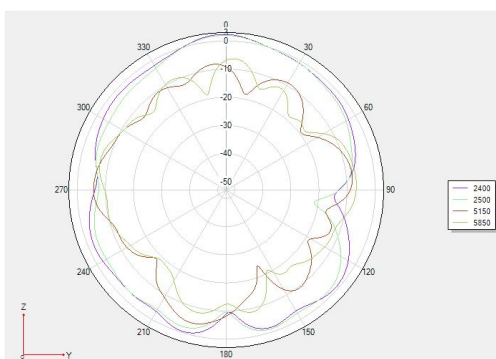
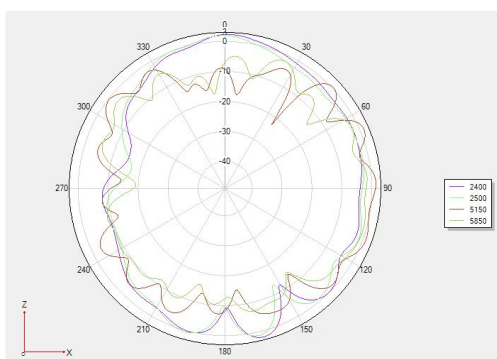
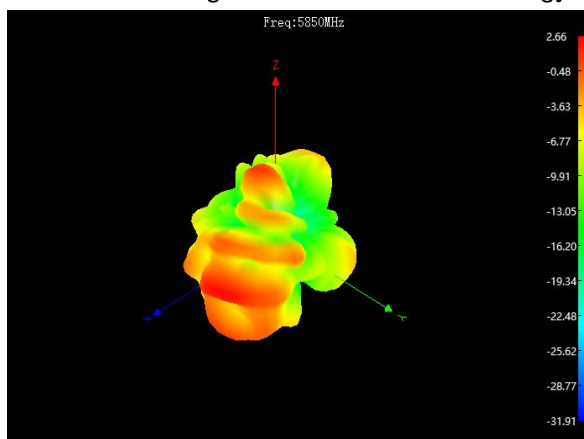
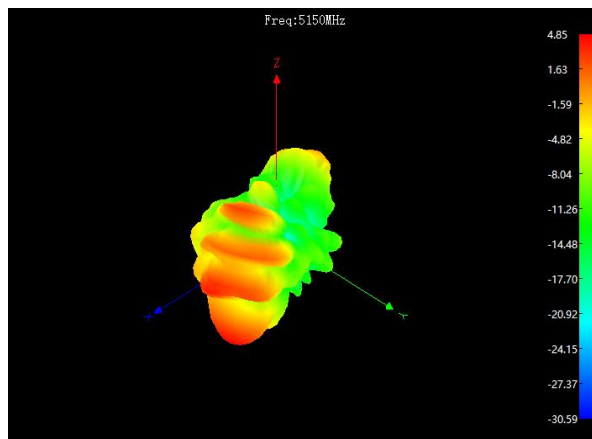
网址（WEB）：www.toxutech.com

5.2.2 效率@增益（Efficiency and Gain）：

Frequency/Mhz	MaxGain/dBi	Efficiency / %	Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	2.68	51.4	5150	4.85	48.02
2410	2.53	52.84	5200	4.99	47.67
2420	2.45	53.21	5250	5.29	46.64
2430	2.59	53.95	5300	5.15	46.14
2440	2.35	52.84	5350	5.22	47.15
2450	2.26	51.17	5400	6.08	47.27
2460	2.22	51.88	5450	5.13	46.42
2470	2.15	52.84	5500	4.9	45.62
2480	2.57	51.52	5550	5.11	41.06
2490	2.27	53.58	5600	4.69	45.31
2500	2.68	53.33	5650	4.77	44.97
			5700	3.55	43.58
			5750	3.5	43.38
			5800	3.46	41.24
			5850	2.66	42.31

5.2.3 3D@2D 辐射方向（3D & 2D Radiation Pattern）：





5.2.4 有源 OTA 测试 (OTA test)

Band	Channel	Frequency	Max	Min	Total
WIFI_B (11M)	1	2412	16.66	-0.42	14.1
WIFI_B (11M)	11	2462	16.51	-11.88	13.66
WIFI_B (11M)	11	2462	-68.84	-84.94	-81.25
WIFI_G (54M)	1	2412	13.8	-3.16	11.29
WIFI_G (54M)	11	2462	14.6	-1.74	12.74
WIFI_G (54M)	11	2462	-56.26	-72.61	-70.05
WIFI_N_ISM (65M)	1	2412	13.97	-3.16	10.47
WIFI_N_ISM (65M)	11	2462	14.77	-1.08	11.92
WIFI_N_ISM (65M)	11	2462	-57.2	-73.13	-70.27
WIFI_A (54M)	36	5180	23.34	-3.09	17.57
WIFI_A (54M)	165	5825	18.68	-4.35	13.38
WIFI_A (54M)	165	5825	-43.6	-66.83	-63.37

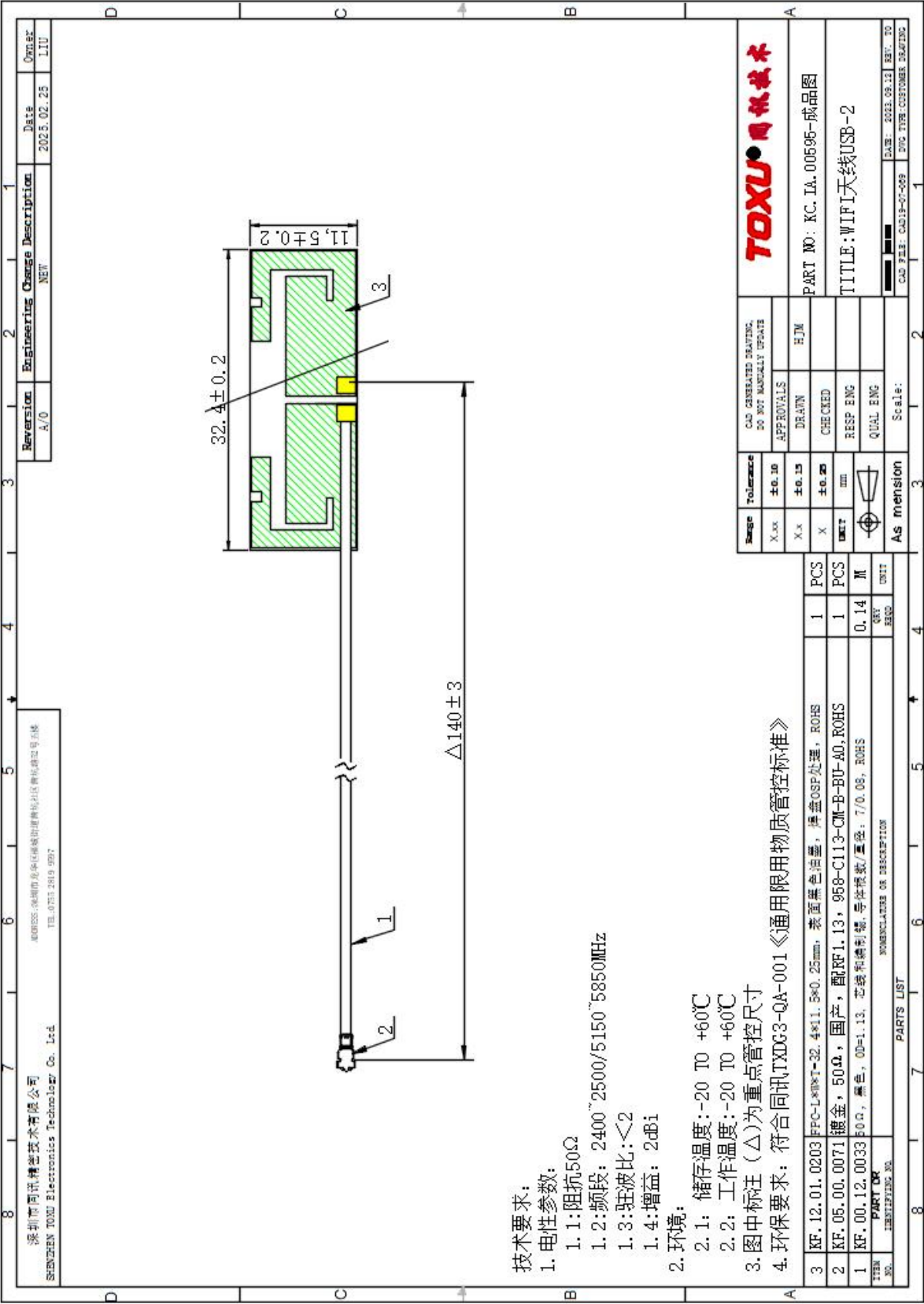
地址：深圳市龙华区福城街道茜坑社区茜坑路 52 号

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

电话 (TEL) : 0755-28199597

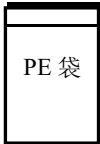
网址 (WEB) : www.toxutech.com

6.成品图（Customer Drawing）

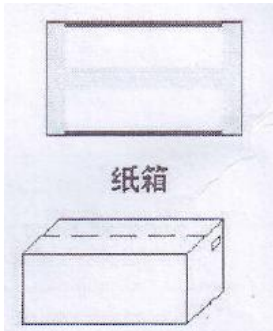


7.包装方式（Packaging）：

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.;			



PE 袋



纸箱

地址：深圳市龙华区福城街道茜坑社区茜坑路 52 号

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