

样品承认书

Parts Approval Sheet

Supplier

型号/规格: BBS-WIFI-WWXL6013159(36.7*9.4*0.2mm,
线长 140mm,一代 IPEX,2.4/5.8G-WIFI,黑色)

IPEX Type/Spec

品牌: WWXL

Brand

送样日期:

Send out Date

承认日期:

Approve Date

物料名称: 15.6 inch eCalendar WIFI ANT

Parts Name

海勤料号: T.1.06.16.000007

Parts No

样品数量 5

Quantity

文件编号:

Document No

版本: 1.0

Version

Supplier		Customer	
Approved By	Prepared By	Engineering Dept	Quality Dept
童晓燕	戴红波		

INDEX 目录

cover	1
Index	2
一、Product pictures	3
二、Test parameters	3
三、Antenna Passive Parameters.....	4
1、VSWR.....	4
2、Gain and Efficiency	4
3、2D/3D directional diagram 2D/3D.....	5
4、Active data.....	5
四、Product features.....	6
五、Drawing	7
六、Reliability testing.....	8
1、Environmental experiment	8
2、Salt spray test	9
七、Packing instruction	10

Specification for Antenna

一、Product pictures (For reference only)



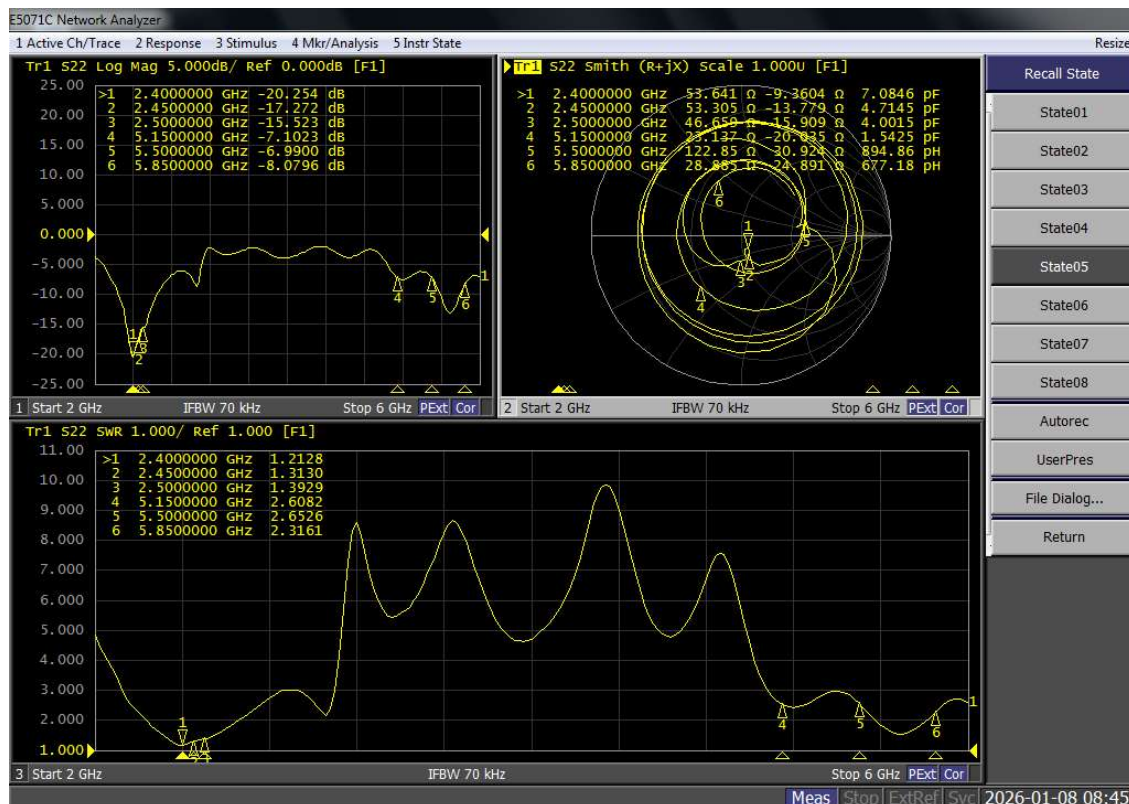
二、Test parameters

Name: Built-in antenna (WWXL6013159)		ModelType	
ELECTRICAL SPECTFICATIONS		MECHANICAL SPECTFICATIONS	
FrequencyRange 2400-2500/5150-5850MHZ		Dimensions	36.7*9.4*0.2mm
Impedance	50 Ω	Connector	IPEX
VSWR	≤ 3.0	Coaxial-cable	RG1.13 black L=140 $\pm$ 2mm
Gain	2.4G Wi-Fi: 6.05 dBi 5G: 5.98dBi/5.8G: 7.43dBi	WorkingTemperature	-45°C - +85°C
Polarization	linear Vertical	Limit Temperature	-45°C - +85°C
Radiation	Omnidirectional		

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三、Antenna Passive Parameters:

1. VSWR



2、Gain and Efficiency:

Gain&Efficiency&PhaseCenter								
frequency (MHz)	gain (dBi)	efficiency (%)	frequency (MHz)	Gain (dBi)	Efficiency (%)	frequency (MHz)	Gain (dBi)	efficiency (%)
2400	6.05	70.31	5150	5.39	55.72	5700	6.74	53.21
2410	5.93	67.45	5200	5.75	57.28	5750	7.03	56.75
2420	5.73	63.24	5250	5.98	57.15	5800	7.36	58.08
2430	5.73	61.52	5300	6.38	58.48	5850	7.43	58.21
2440	5.7	65.46	5350	6.68	61.38			
2450	5.62	65.46	5400	7.04	65.16			
2460	5.44	63.39	5450	6.91	61.94			
2470	5.33	61.09	5500	6.67	57.68			
2480	5.16	56.49	5550	6.58	54.83			
2490	4.93	55.34	5600	6.42	52.6			
2500	4.96	56.89	5650	6.8	55.21			

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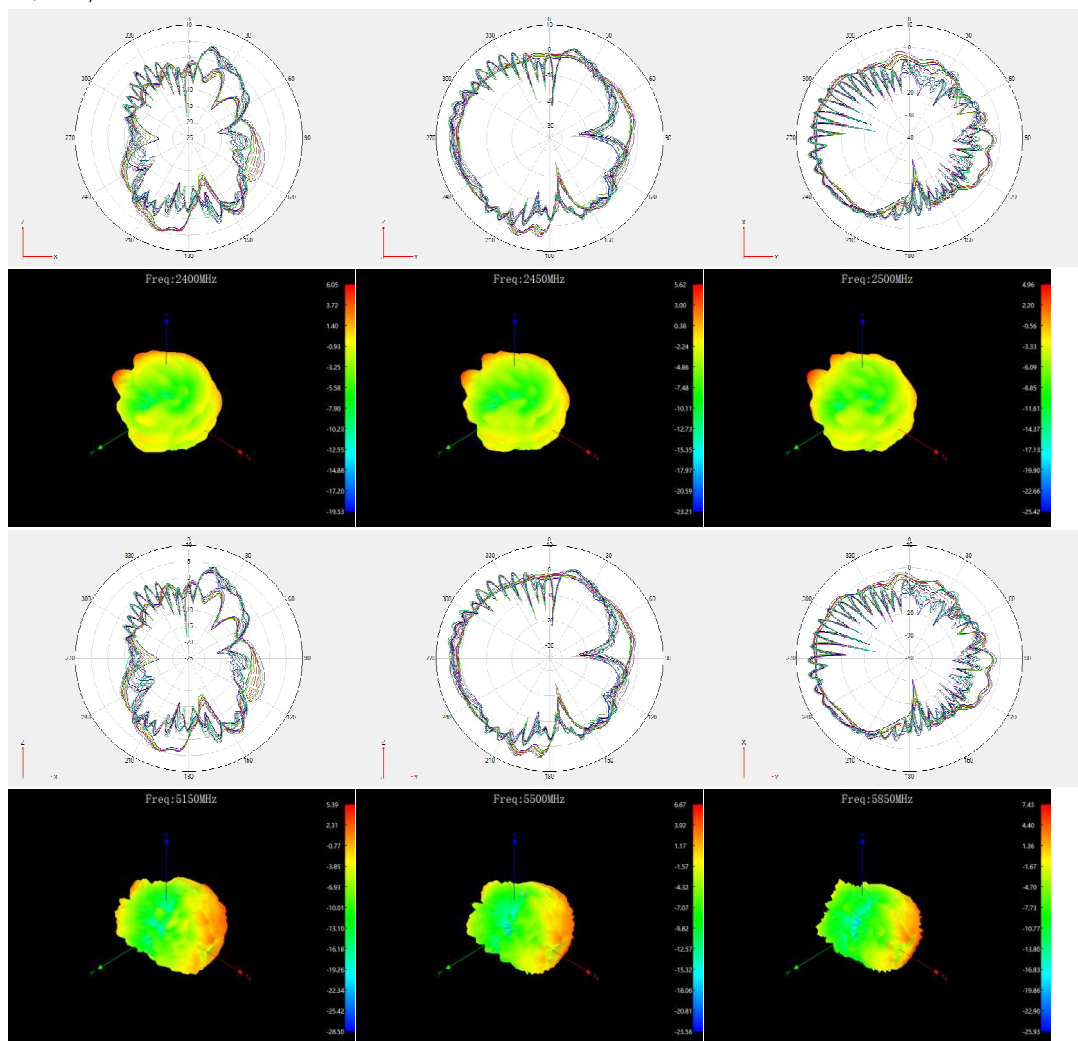
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3、2D/3D directional



4. Active data:

Test mode: 802.11b11Mbps BW 20M

Test	Wifi 2G TRP			Test	Wifi 2G TIS		
1CH	1	6	13	CH	1	6	13
Frequency (MHz)	2412	2437	2472	Frequency (MHz)	2412	2437	2472
TRP(dBm)	13.7	15.12	17.53	TIS(dBm)	-81.46	-81.23	-82.92

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Test mode: 802.11a 54Mbps BW 20M

Test	Wifi 5G TRP				Test	Wifi 5G TIS		
CH	36	100	165		CH	36	100	165
Frequency (MHz)	5180	5500	5825		Frequency (MHz)	5180	5500	5825
TRP(dBm)	13.03	13	13.99		TIS(dBm)	-74.42	-74.66	-75.47

四、Product characteristics产品特点

1. Choose high-quality FPC and radio frequency cable, self-attenuation;
2. Stable performance, long life;
3. The standing wave in frequency band is good.

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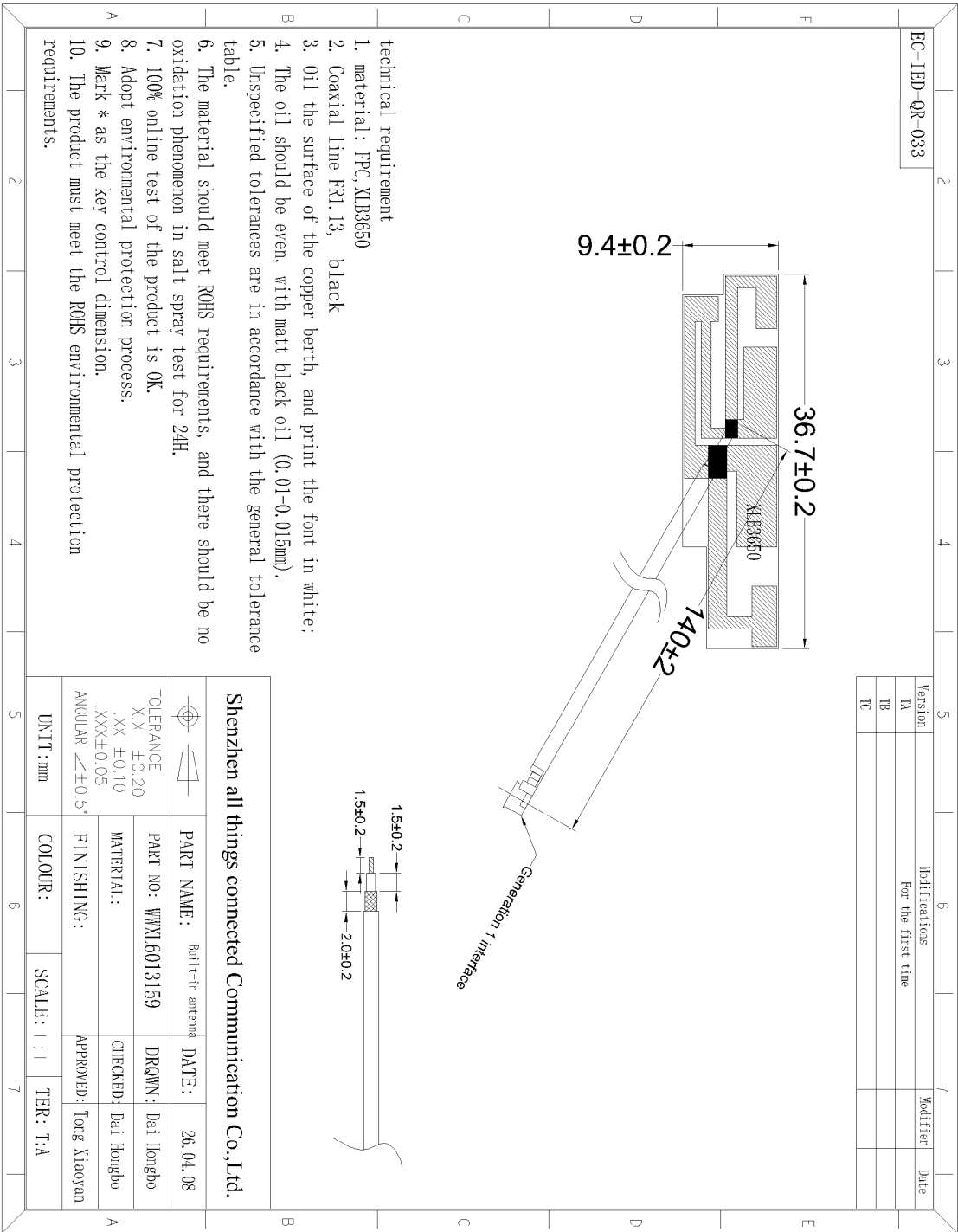
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五、Drawing

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六、Reliability testing

1、Environmental experiment

High and low temperature and humidity test report						
test project	High temperature, low temperature and constant humidity test					
name	Built-in antenna (WWXL6013159)		date		2026.04.08	
device	Constant temperature and humidity test box network analyzer		Quantity		5PCS	
Inspectin standards	1. There are no defects such as peeling off, cracks, wrinkles, etc. on the metal surface; non-metal parts must not have defects such as discoloration, cracking, deformation, degumming. 2. The electrical test meets the design requirements; the voltage standing wave ratio test is satisfactory.					
Test name		request	experiment method	Actual test data	result	
					sample	Assessm ent result
High temperature test	Temperature (°C) Test sample temperature stabilization time (H) Test duration (h) Recovery time (h)	+85±3 1 2 1	9 according to GB2423. 1-89 Method	+87 1.2 2.3 1	1	qualified
					2	qualified
					3	qualified
					4	qualified
					5	qualified
Low temperature test	Temperature (°C) Test sample temperature stabilization time (h) Test duration (h) Recovery time (h)	-45±3 1 2 1	8th in accordance with GB2423. 1-89 Method	-46 1.2 2.4 1.1	1	qualified
					2	qualified
					3	qualified
					4	qualified
					5	qualified
Constant Damp Heat Test	Temper ature (°C) Relative humidity (%)	+40±2 90-95 21 1	According to GB2423. 3-93 Section 5 Method	+42 92 22 1.1	1	qualified
					2	qualified
					3	qualified
					4	qualified

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	Test duration (h) Recovery time (h)				5	qualified
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b. Salt spray test

Salt fog test report				
Test item	Salt spray test			
Name	Built-in antenna (WWXL6013159)		date of observation	2026.04.08
Device name	Salt spray corrosion test box		Test quantity	5 PCS
Test method	The test samples were put into the modulated salt solution test chamber and salt spray corrosion chamber for continuous spray test			
Salt solution concentration	52g/L	PH Value of Salt Solution: 6.5-7.2		Test cycle: 24h
Actual test data	55g/L	PH Value of Salt Solution: 6.8		Test cycle: 26h
Test standard	Tests were carried out according to GB/T10125 "Artificial Atmosphere Corrosion Test and Salt Spray Test"; Results According to GB/T6461-2002 "Metal and other inorganic coatings on metal substrates after corrosion test are samples and specimens"			
Test result				
NO	Corrosion resistance grade	Actual test data	Assessment result	Remarks
1	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
2	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
3	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
4	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
5	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	

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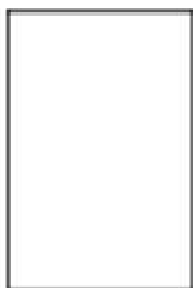
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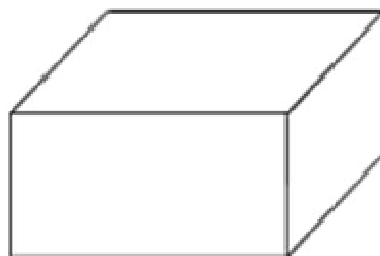
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七. Packing instructions



100PCS/Pouch



30Pouch/1Caron