

SPECIFICATION FOR APPROVAL

CUSTOMER: _____

CUS PARTNO: _____

PARTNAME: _____ Built-in antenna

TPTPART NO: _____ WWXL6009063

VERSION: _____ 1.0

CUS STAMP:

DATE:

Purchasing Dept	Engineering Dept	Approval

WWXL:

Date: January 23, 2023

Engineering Dept	Sales Dept	Approval
Dai Hongbo		Tong Xiaoyan

Please return one specification or one copy of it with your chop and signature of approval and retain the others for your record. In the event of an order being placed for this part number before the chop and signed with specification (or copy) is returned and without special explanation, it will be assumed that full approval have been given.

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All things connected Communications Xiangyang Limited

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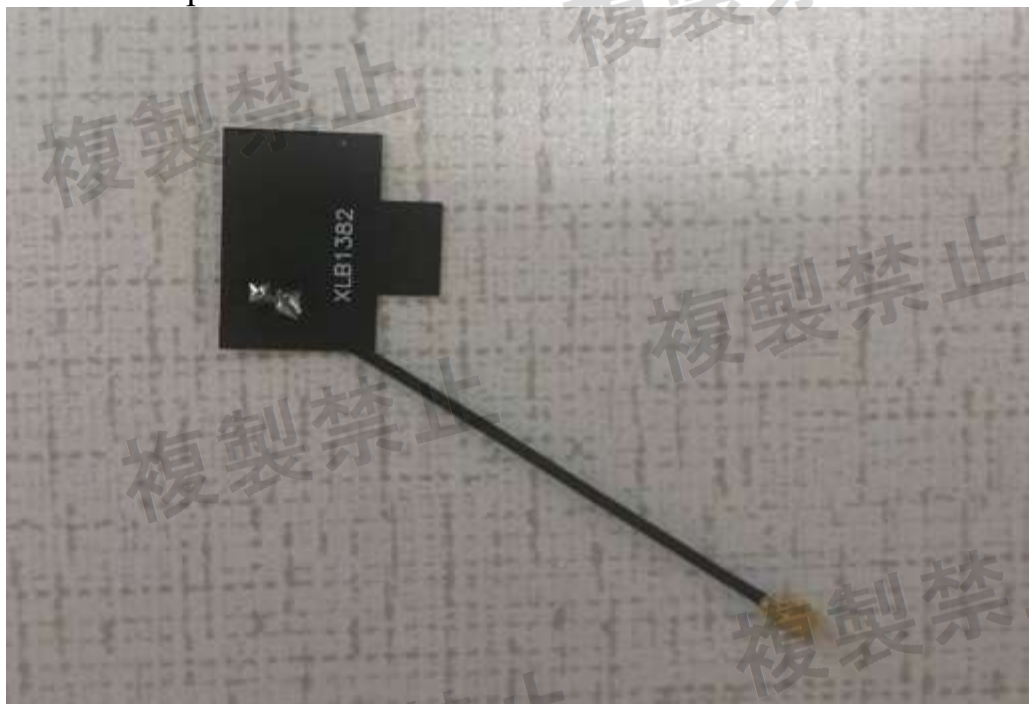
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Specification for Antenna

一、Product pictures



二、Test parameters

Name: WIFI antenna (WWXL6009063)		ModelType	
ELECTRICAL SPECTFICATIONS		MECHANICAL SPECTFICATIONS	
FrequencyRange 2400-2500/5150-5850MHz		Dimensions	19*19, 20, 2mm
Impedance	50 Ω	Connector	IPEX
VSWR	≤ 6.0	Coaxial-cable	RG1.13 black L=58 $\pm$ 2mm
Gain	1.32/5.52dBi	WorkingTemperature	-45°C - +85°C
Polarization	linear Vertical	Limit Temperature	-45°C-+85°C
Radiation	Omnidirectional		

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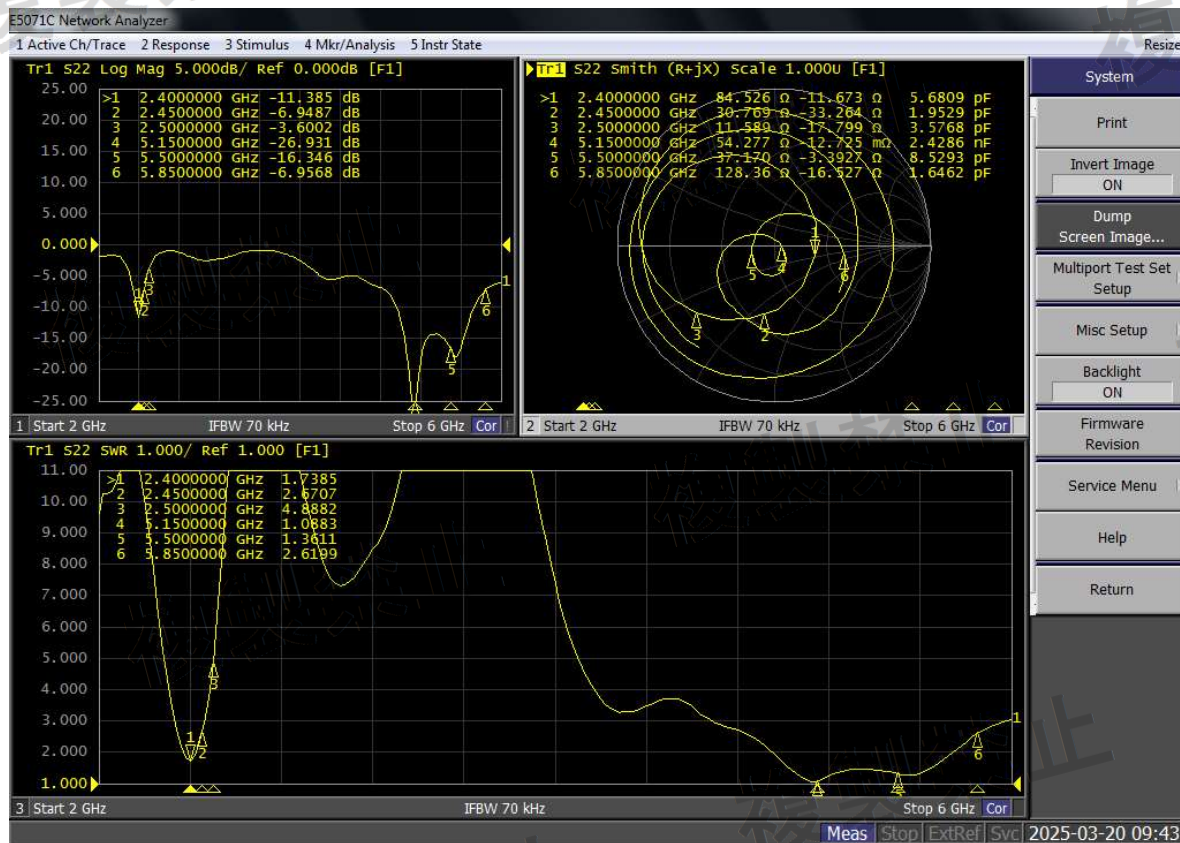
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三、Antenna Passive Parameters:

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	2.63	39.45	5150	5.98	60.81	5700	4.76	51.17
2410	2.58	39.63	5200	6.13	62.52	5750	4.78	52.6
2420	2.36	38.9	5250	6.38	64.57	5800	4.71	54.58
2430	1.95	37.07	5300	5.93	61.52	5850	4.42	53.33
2440	1.44	35.08	5350	5.55	58.34			
2450	1.29	33.73	5400	5.91	59.43			
2460	1.24	32.89	5450	5.89	59.29			
2470	1.01	31.48	5500	5.72	55.34			
2480	0.5	28.58	5550	5.85	54.45			
2490	0.04	26.24	5600	5.56	55.08			
2500	-0.49	23.01	5650	5.25	52.84			

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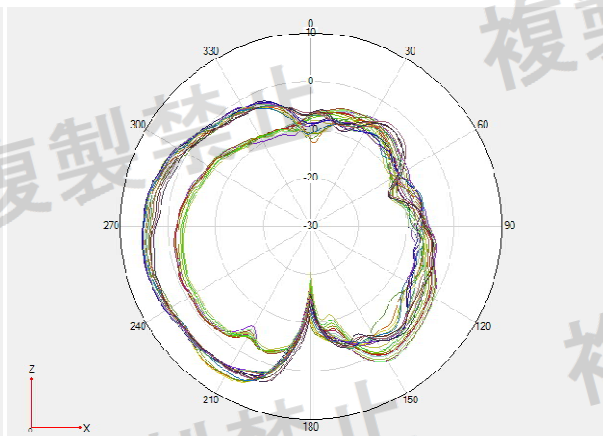
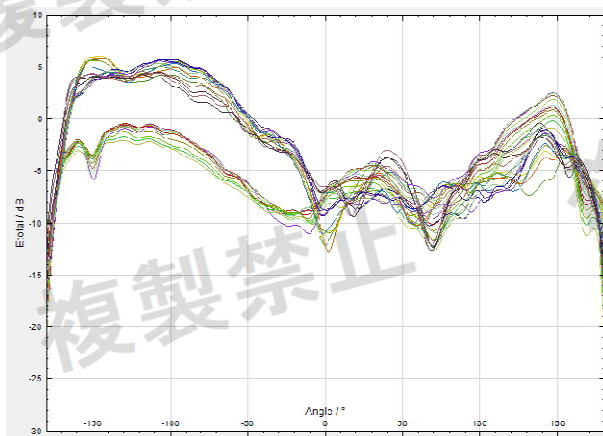
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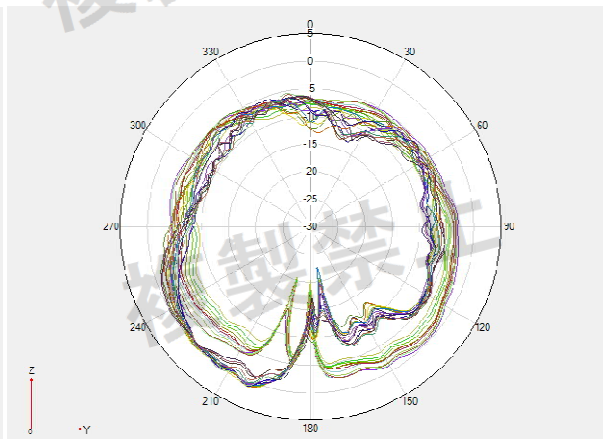
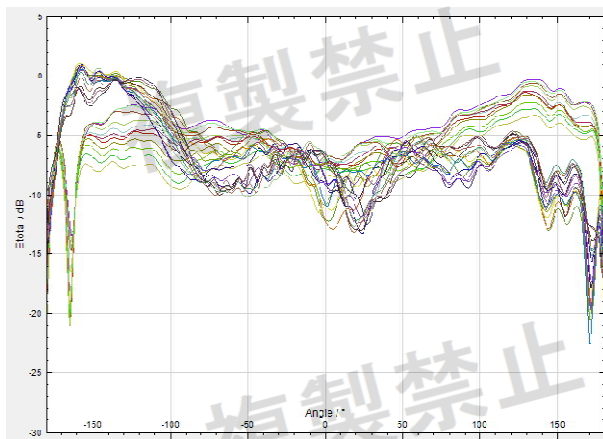
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3、2D/3D directional

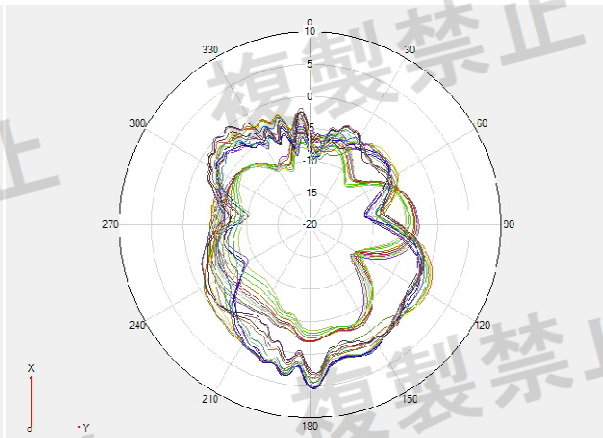
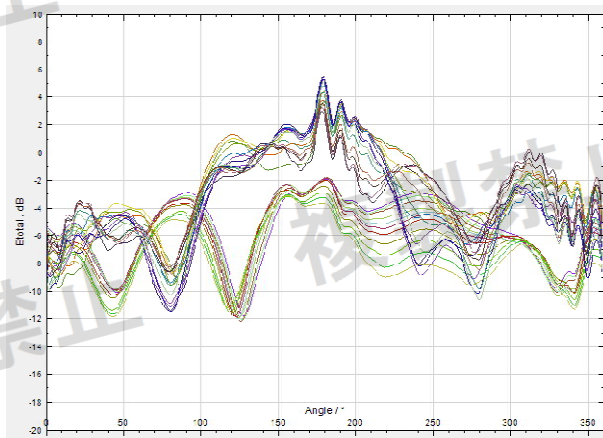
Phi 0 2D



Phi 90 2D



Theta 90 2D



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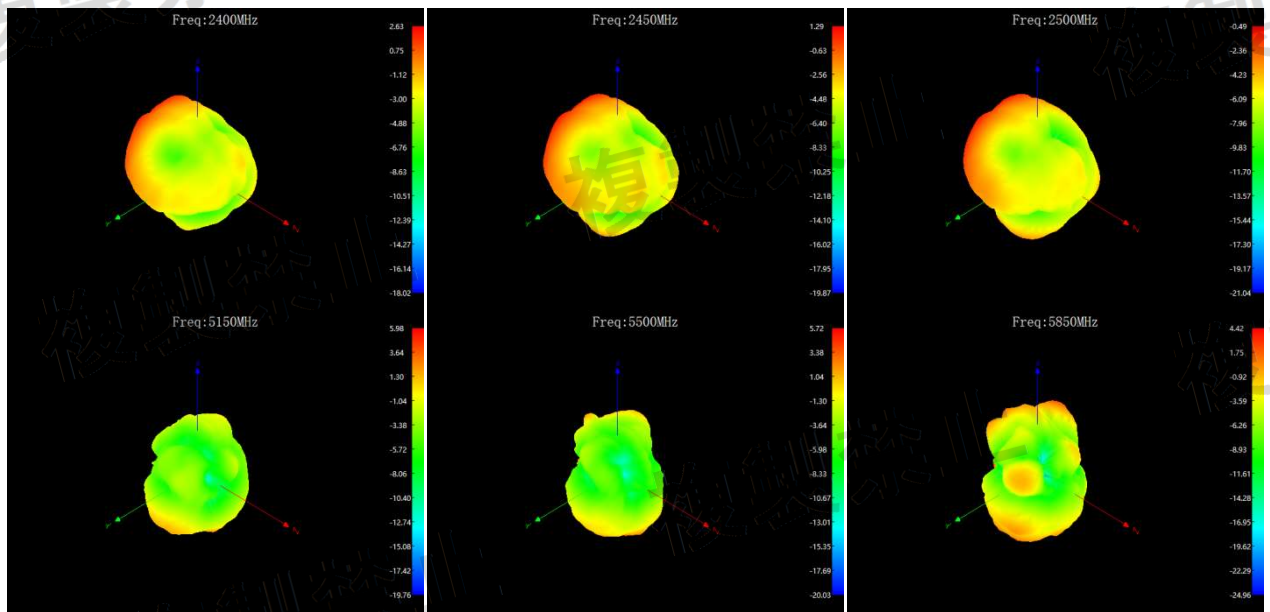
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3D



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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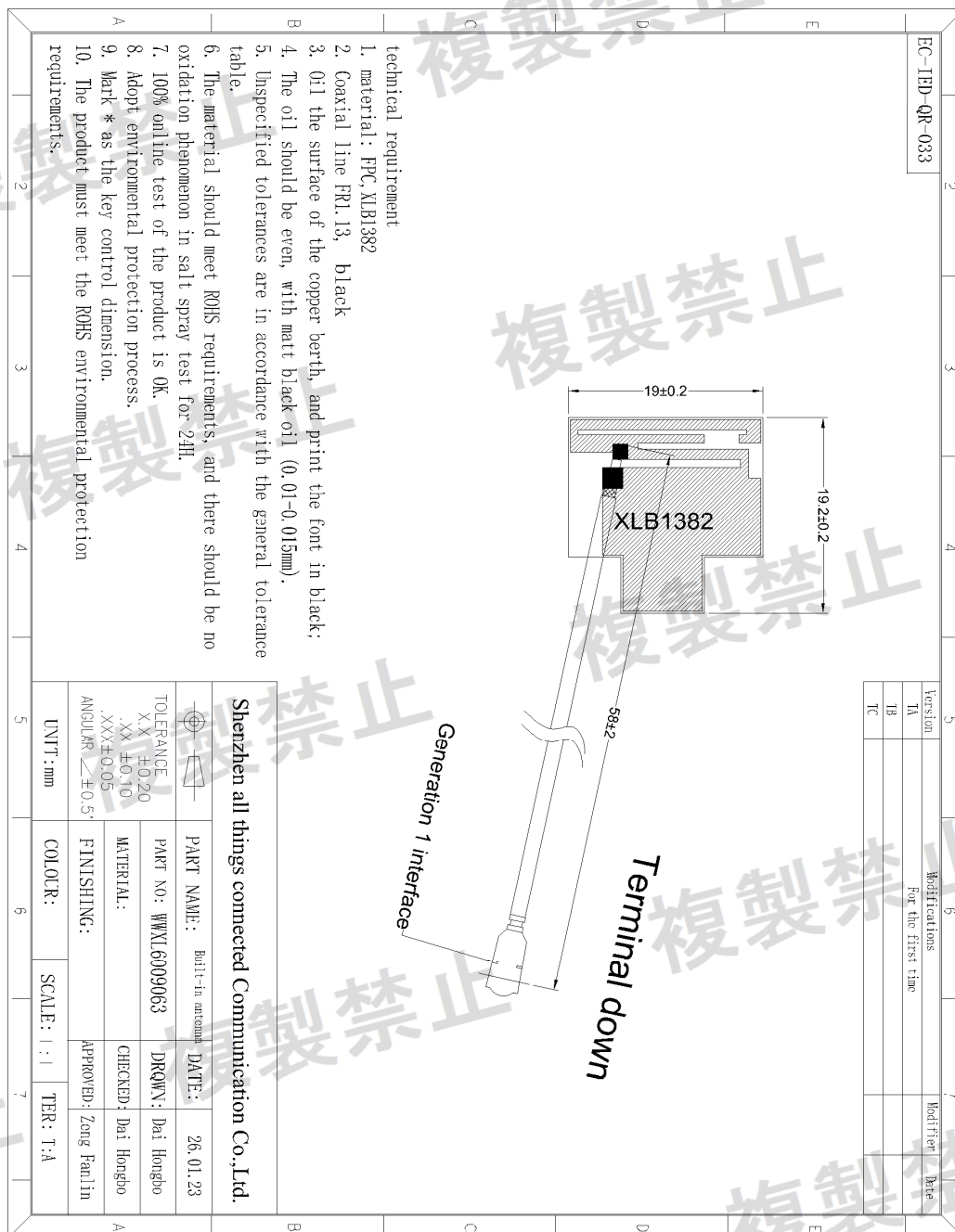
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五、Drawing

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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 (WWXL6009063)			date	2026.01.23	
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	Pilot projects 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 (WWXL6009063)	date of observation	2026.01.23	
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	

七. Packing instructions



100PCS/Pouch



30Pouch/1Caron

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