

Shenzhen Kaipu Shen Communication Technology
Co., Ltd

Sample Confirmation Letter

Customer Name: Yongzhi Xing

Project Name: KPS019-18

Sample Name: WIFI Antenna

Color/Version: Black/A

Date of signature: 2024-09-002

Supplier confirmation	make	R&D personnel	structure	quality

Customer confirmation	project	appearance	structure	quality

conclusion	<input type="checkbox"/> Batch use MP	<input type="checkbox"/> Limited use () K
		<input type="checkbox"/> ROHS

Supplier Name: Shenzhen Kaipu Shen Communication Technology Co., Ltd

Supplier Address: 2nd Floor, Yulong Office Building, Longcheng Industrial Zone, No. 440 Longguan Avenue, Longhua New District, Shenzhen

Telephone: 0755-29351613

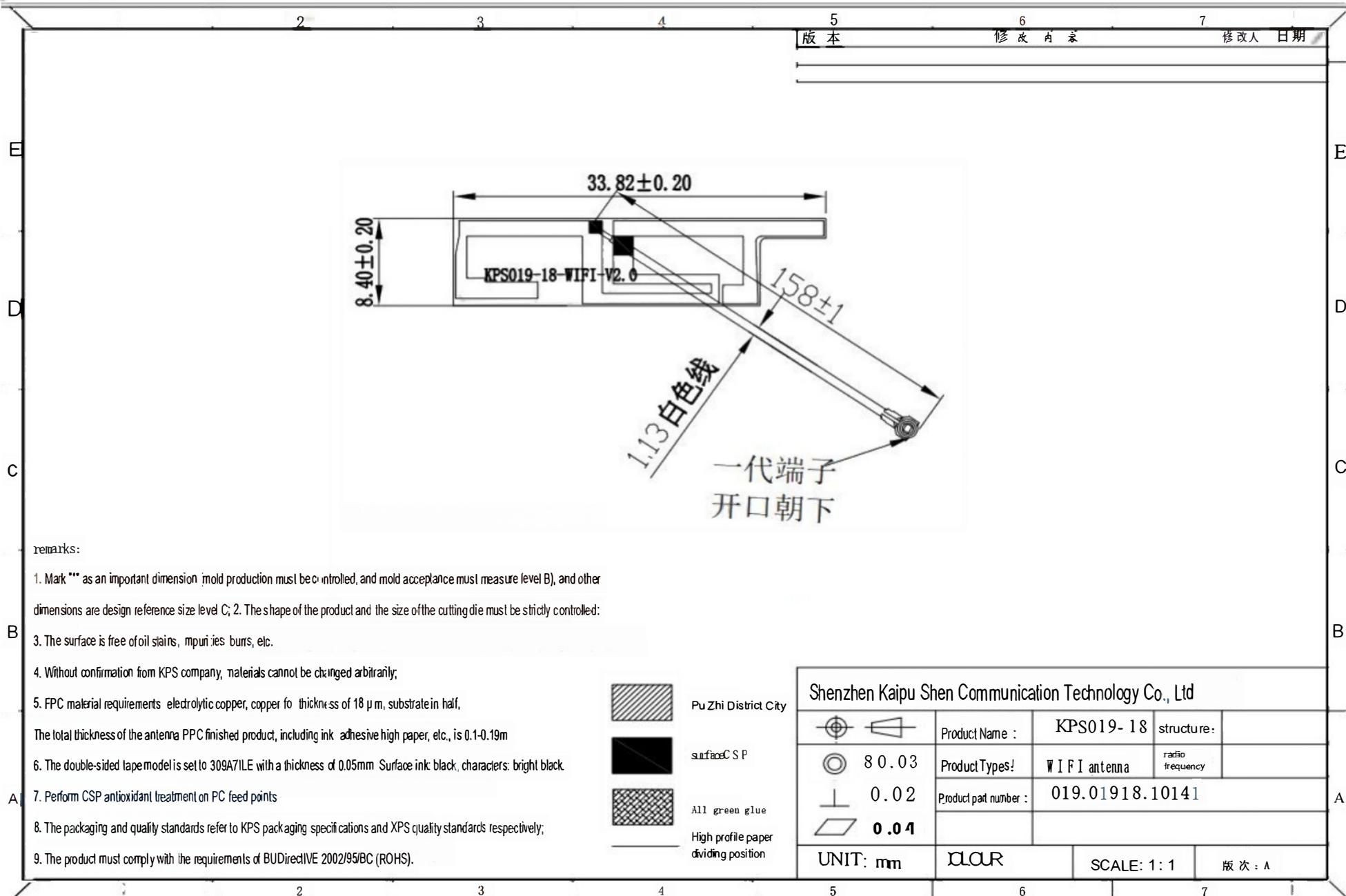
Fax: 0755-29351510

E-mail:szkpstx@szkpstx.com

catalogue

1. cover
2. catalogue
3. Antenna structure diagram
4. Antenna data
5. Full size measurement report
6. Salt spray test report
7. High and low temperature testing
8. ROHS
9. Packaging method

3.1: Antenna structure diagram



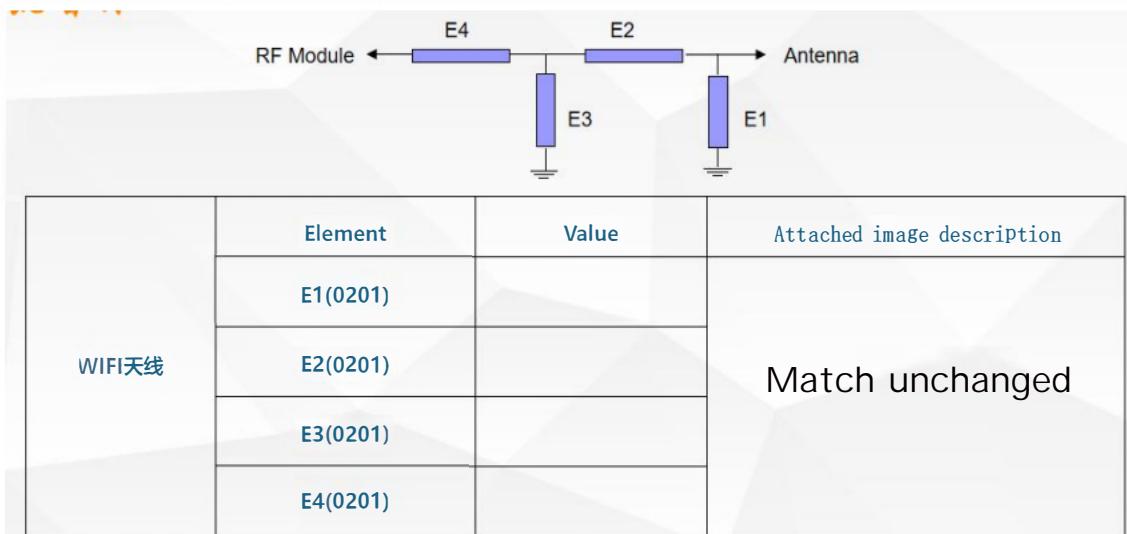
4.1 Antenna performance

4.1-1 Specification standards

The WIFI antenna operates in the frequency range of 2400M-2500M and 5100M-5800M, causing resonance.

4.1-2 The matching circuit of the antenna

Main antenna: The matching circuit is as follows:



4.2 Standing Wave Ratio (VSWR) Test

4.2-1 Test settings

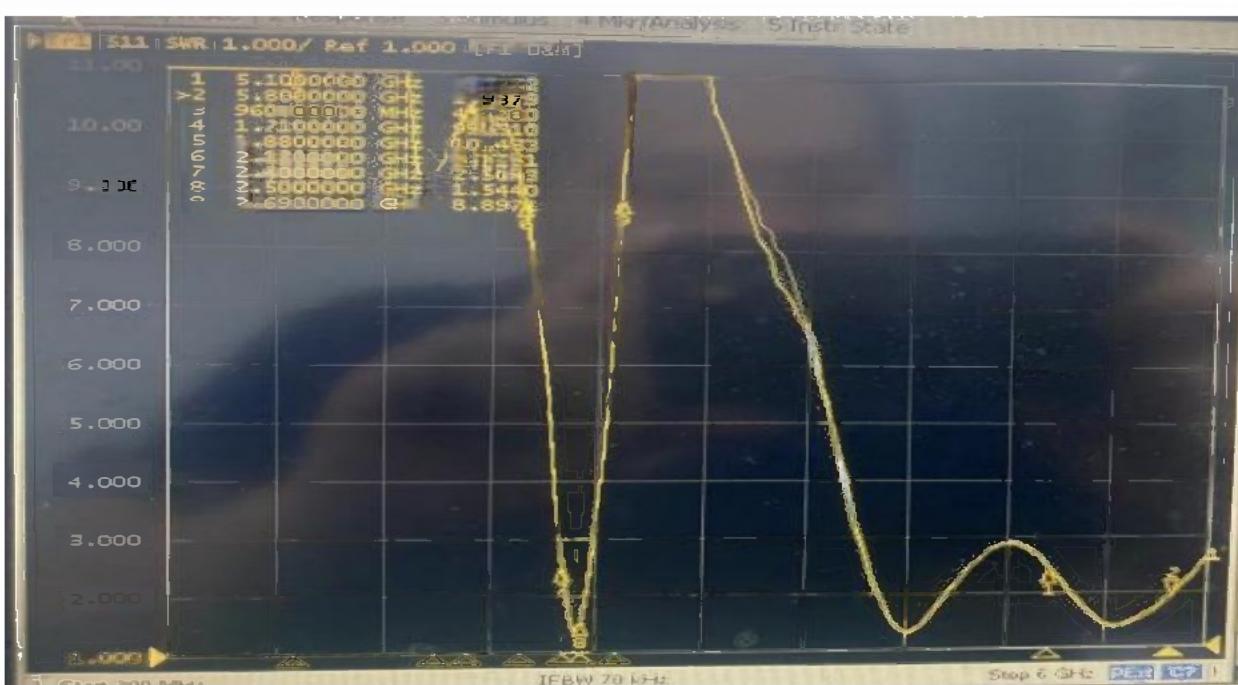
The standing wave ratio (VSWR) testing device is sequentially connected as follows: E571B network analyzer → 50 ohm coaxial cable →

150mm long copper tube \Rightarrow testing fixture

rocessing of test fixture: Use a hard cable to lead out the SMA-J connector from the 50 ohm test point of the antenna on the PCB of the machine

Connect the copper tube with a choke coil, and then connect other devices in sequence.

4.2-3 Passive test results

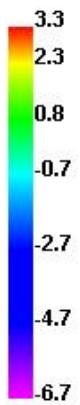
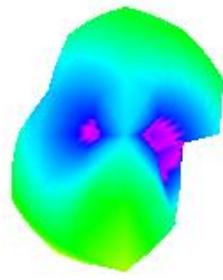


4.2-4 Whole machine active test data:

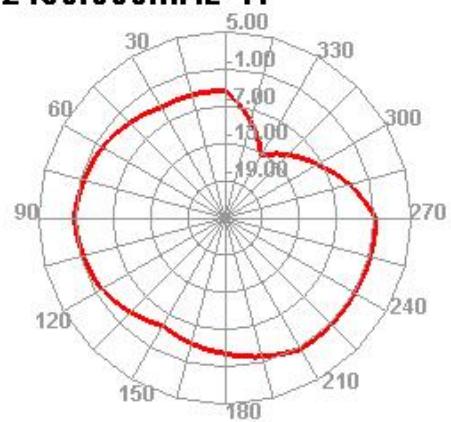
Antenna test data:

Passive Test For WIFI2.4			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	48.47	-3.15	0.56
2410	51.11	-2.91	0.69
2420	46.55	-3.32	0.31
2430	54.71	-2.62	1.24
2440	53.88	-2.69	1.37
2450	54.65	-2.62	1.54
2460	52.83	-2.77	1.23
2470	57.11	-2.43	1.53
2480	56.34	-2.49	1.4
2490	58.83	-2.3	1.53
2500	58.64	-2.32	1.72

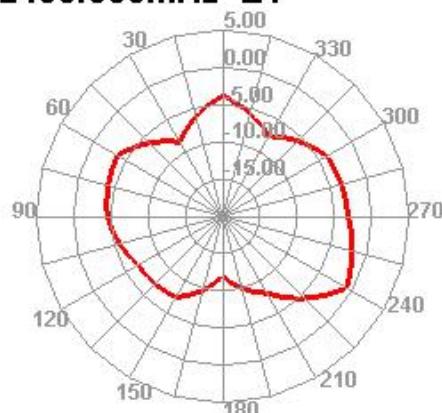
2450.000MHz



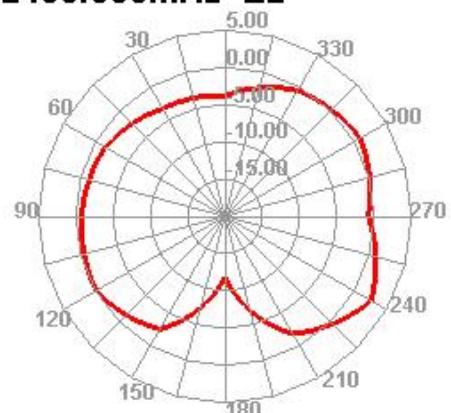
2450.000MHz H



2450.000MHz E1



2450.000MHz E2



Full size measurement report

	customer	Yongzhi Xing		Project Name		KPS019-18					Material Science	Electrolytic copper
	supplier	Kaipu Shen		Measurement tools		pixiv		Measurement unit		MM	Measurement date	2024/9/2
size	upper limit	+ TOL.	- TOL.	lower limit	Actual testing1	Actual testing2	Actual testing3	Actual testing4	Actual testing5	UPPER \leq 100%	LOWER \leq 100%	
1	33.82	34.02	0.20	0.20	33.62	33.80	33.82	33.75	33.85	33.82	15%	35%
2	8.40	8.60	0.20	0.20	8.20	8.45	8.40	8.38	8.42	8.40	25%	10%
3	158.00	159.00	1.00	1.00	157.00	158.00	158.05	158.02	158.00	158.00	5%	0%
4	The following blank space											
5												
6												
7												
8												
9												
10												

Table: He Ye

Reviewed by: Wu Xingtuo

Salt spray test report

date: 2/9/2024

project	KPS019-18-FPC天线		Customer Name	Yongzhi Xing		
supplier	Shenzhen Kaipu Shen Communication Technology Co., Ltd		National testing standards	GB/T 2423. 2-2008		
Sample situation	Sample quantity: 5PCS					
Test time	24 H					
Test type	<input checked="" type="checkbox"/> NSS	<input type="checkbox"/> ASS	<input type="checkbox"/> CASS			
Experimental conditions	Salt solution: 5%		PH:7. 0			
	Temperature inside the box: 35° C		relative humidity: 85%			
	Spray mode: <input checked="" type="checkbox"/> continuity <input type="checkbox"/> intermission		Compressed air pressure: 1kg/cm ²			
	Salt spray settling rate: 1-2ml/80cm ² /h		Mist collection: 1. 4ml/80cm ² /h			
	Test cycle: _1_A cycle		Spray time: 24 h			
test result	Appearance after the experiment: The appearance is intact and undamaged, with no significant changes.					
	Coating: No peeling or rusting					
	Surface spraying and screen printing: no peeling or bubbles					

explain:

1. The standard for salt spray test operation shall be implemented in accordance with the national standard GB/T2423.17-2008 of the People's Republic of China
2. The judgment criteria for test piece results shall be implemented in accordance with the national standard GB/T6461-02 of the People's Republic of China

High/Low Temperature Test Record

Product Name	KPS019-18		Customer Name	Yongzhi Xing
Test quantity	5 pcs		date of observation	2/9/2024
Number of cycles	1		time	24H
Test conditions: high temperature: + 65° humidity: 90 % low temperature: - 20° Testing time: high temperature: 24 H low temperature: 24 H				
Test project	Unrecycled testing		Loop testing	
	Serial number	After high temperature	After low temperature	After high temperature
1	OK	OK		
2	OK	OK		
3	OK	OK		
4	OK	OK		
5	OK	OK		
6	OK	OK		
Shortage after testing:				
Cause analysis:				
Improvement measures:				
experimental result : <input checked="" type="checkbox"/> qualified <input type="checkbox"/> unqualified				

Review: Wu Xingtuo

Record: He Ye

Packaging method

Customer Name	Yongzhi Xing	Material Name:	KPS019-18-FPC antenna
Packaging quantity:	1箱	packaging:	Cardboard box
Packing quantity:		Packaging method:	Sealed pocket packaging



Figure 1: Single piece packaging



Figure 2: Packing and



Figure 3: View of the packaging box (front, side, top)



Figure 4: Outer box label