

Shenzhen Kaipushen Communication Technology Co., Ltd

Sample approve sheet

Customer: Leqi

Item name: 4180

Sample name: ZigBee aerial -2

Description/color: black

Release Date: 2022/6/23

Supplier confirmed	Make	R&D	Structure	Quality
	Liu Xiao meng 2022-07-22			

Customer confirmed	Item	Appearance	Structure	Quality

Conclusion	☐ MP use ☐ Limited use () K
------------	---

☐ ROHS

Supplier name: Shenzhen Kaipushen Communication Technology Co., Ltd

Supplier address: 2nd Floor, Building 1, Yulong Building, Longcheng Industrial Zone, No.440, Longguan Avenue, Longhua District, Shenzhen

Tel: 0755-29351613

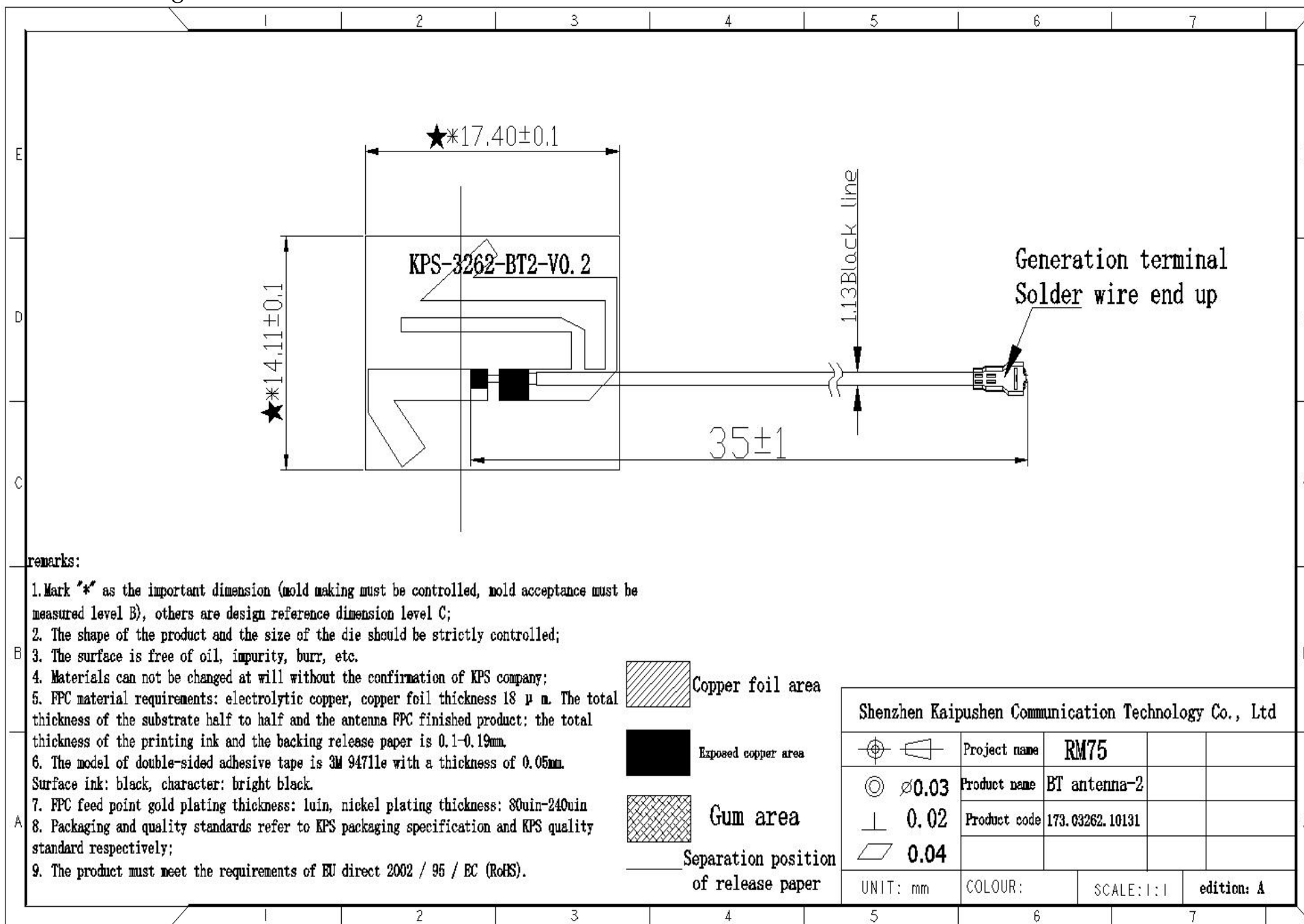
Fax: 0755-29351510

E-mail: szkpstx@szkpstx.com

Contents

- 1、 Cover
- 2、 Contents
- 3、 ICD Drawing(BT aerial)
- 4、 Aerial data
- 5、 Full dimensional measurement report
- 6、 Salt spray test report
- 7、 High-low temperature test
- 8、 Package

3. ICD Drawing



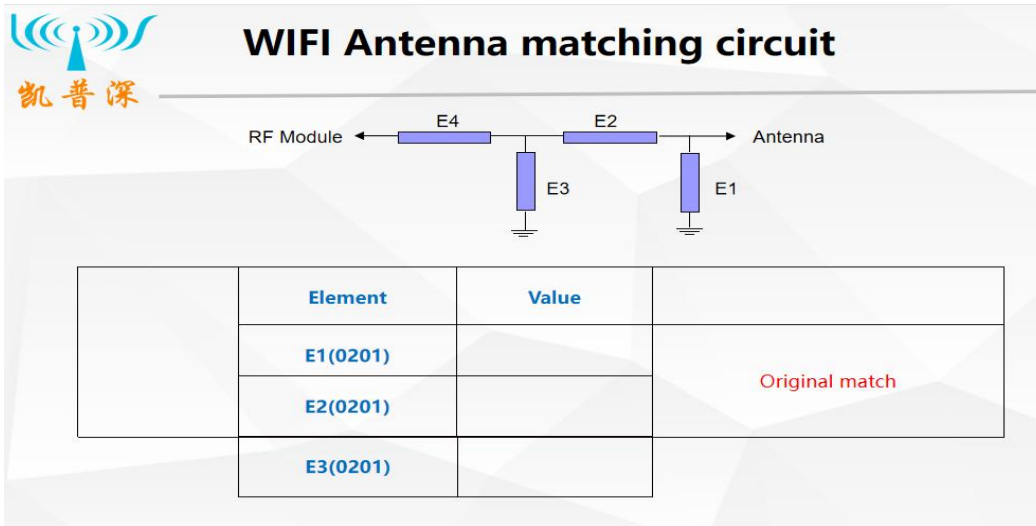
4.1 Aerial function

4.1-1 Specificatin standard

The working frequency band of wifi antenna produces resonance at 2400m-2500m

4.1-2 Matching circuit of antenna.

The antenna matching circuit is as follows:



4.2 Standing wave ratio test (VSWR) :

4.2-1 Test settings

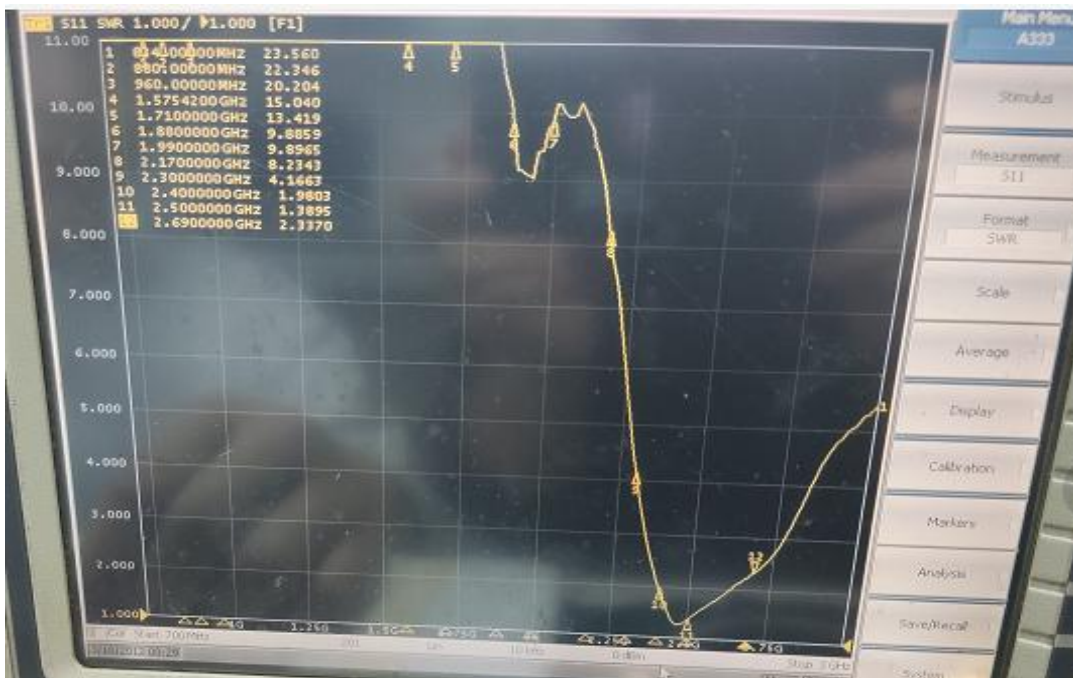
The standing wave ratio test device is connected in turn: E571B Network analyzer → 50Ω coaxial line → 0Ω cable → 150mm long copper pipe → test fixture.

Treatment of test fixture: Use a hard cable to lead out from the 50 ohm test point of the antenna on the PCB of the machine u...SMA-JThe joint is connected with the copper pipe with choke ring, and then connected with other devices.

4.2-2 Voltage standing wave ratio test :

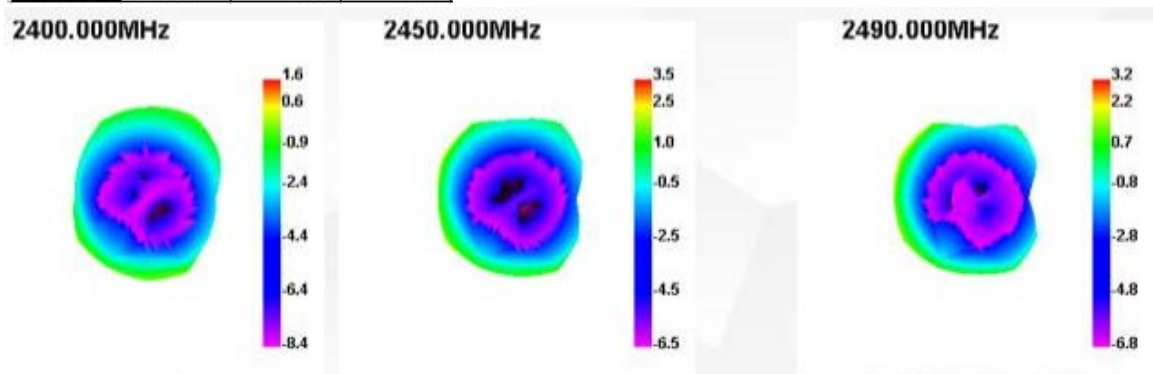
The following table shows: WIFISTanding wave ratio of edge frequency points of antenna operating frequency band:

Fre (MHZ)		2400	2450	2500
VSWR		1.5	1.3	1.6

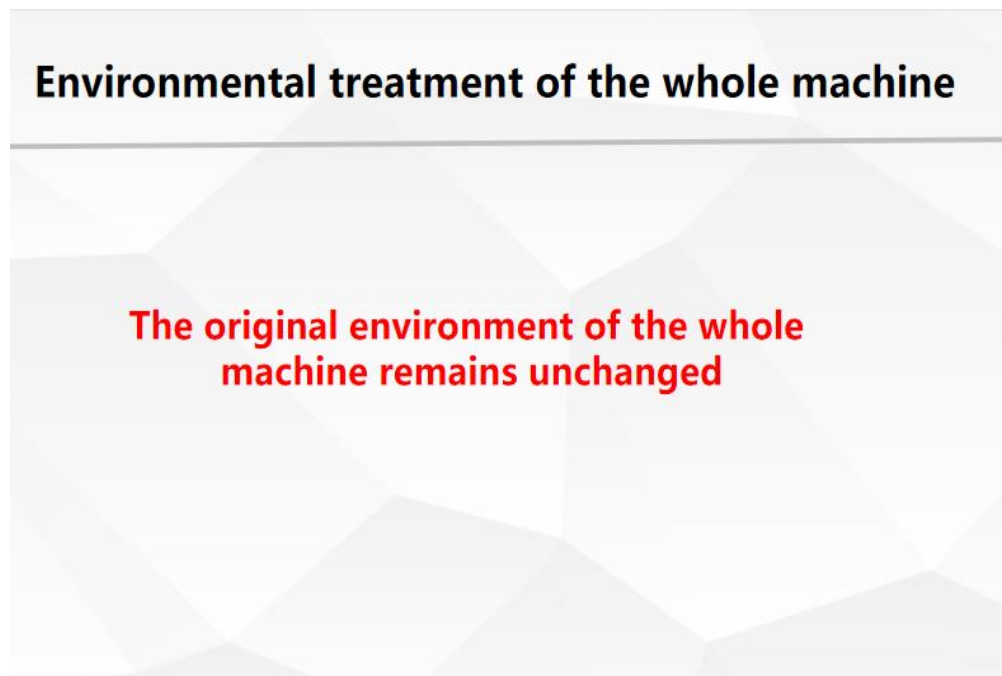


4.2-3 Passive test results

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	30.07	-5.22	-0.17
2410	29.3	-5.33	-0.22
2420	30.19	-5.2	0.05
2430	32.07	-4.94	0.31
2440	31.38	-5.03	0.23
2450	32.1	-4.93	-0.34
2460	32.76	-4.85	-0.01
2470	32.05	-4.94	-0.07
2480	30.06	-5.22	0.76
2490	32.73	-4.85	1.3
2500	36.92	-4.33	1.92



4.3 Environmental manipulation:



Full dimensional measurement report

	Customer	Leqi		Item name		3262							Material	Electrolytic copper
	Supplier	Kaipushen		Measure tools		Quadratic		Measure unit		MM			Measure date	2022/7/28
NO	dim	URL	+ TOL.	- TOL.	LR	actual 1	actual 2	actual 3	actual 4	actual 5	actual 6	actual 7	UPPER ≤ 100%	LOWER ≤ 100%
1	17.40	17.50	0.10	0.10	17.30	17.41	17.38	17.38	17.37	17.42	17.42	17.42	20%	30%
2	14.11	14.21	0.10	0.10	14.01	14.09	14.13	14.13	14.13	14.09	14.08	14.09	20%	30%
3														
4														
5														
6														
7														
8														
9														
10														
11														

Tabulation: Jian Chen

Examine and Verify :Wu Xingtuo

Salt spray test report

Date: 2022 年 07 月 28日

Item	4180-FPC aerial	Customer	Leqi			
Supplier	Shenzhen Kaipushen Communication Technology Co., Ltd	National Test standard	GB/T 2423.2-2008			
Sample situation	Sample qty: 5PCS					
	Base material:Half to one-third electrolytic copper with glue					
Test time	Total 24H					
Test type:	☒ NSS	☐ ASS	☐ CASS			
Test condition	Salt solution: 5%		PH:7.0			
	Chamber temp: 35° C		Relative humidity: 85%			
	Spray way: ☒ continuation ☐ intermittence		Compressed air pressure: 1kg/cm ²			
	Salt spray sedimentation rate: 1-2ml/80cm ² /h		Fog fluid collection: 1.4ml/80cm ² /h			
	Test cycle: __1__cycle		Spray time: 24 h			
Test results	Appearance after test:appearance intact, without obvious change					
	Coating: no spalling, no rust					
	Surface spraying, silk screen: no falling off, no bubbles.					
Explanation: 1、 Salt spray test operating standards in accordance with the People's Republic of China national standard GB/T2423.17-2008 implementation. 2、 The test piece results are determined according to the national standard GB/ T6451-02 of the People's Republic of China.						
Operator by/date: Jian Chen Approved by/date: Wu Xingtuo 2022.07.29						

High-low temperature test record

Product name	4180	Customer name	Leqi	
Test qtu	5 pcs	Test date	2022年7月28日	
Cycle number	1	Time	24H	
Test Condition: High temp: + <u>65</u> degrees Humidity: <u>90</u> % RH Low temp: - <u> </u> / <u> </u> degree Test time: high temp: <u>24</u> H low temp: <u>24</u> H				
Test item	Uncycled test		Cycled test	
No	After high temp	After low temp	After high temp	After low temp
1	OK	OK		
2	OK	OK		
3	OK	OK		
4	OK	OK		
5	OK	OK		
6	OK	OK		
After test deficiency::				
Reason analysis:				
Improvement measures:				
Test results: ✓ Pass Fail				

Packing

Customer:	Leqi	Material name:	4180-FPC aerial
packing qty:	one carton	Packing material:	Carton
Qty/carton:		Packing way:	Ziplock bag



Picture 1:Single package



Picture 2: Packing way



Picture 3: Packing view (front, side, top)



Picture 4:packing

Fiction: LiMinghui

auditing: Wu Xingtuo