

# Shenzhen Kaipushen Communication Technology Co., Ltd

## Sample approve sheet

客户名称: Youchuangyi

项目名称: Q28

样品名称: BT aerial

颜色: black

签样日期: 2023-02-07

Supplier confirmed	Make	R&D	Structure	Quality

Customer confirmed	Item	Appearance	Structure	Quality

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

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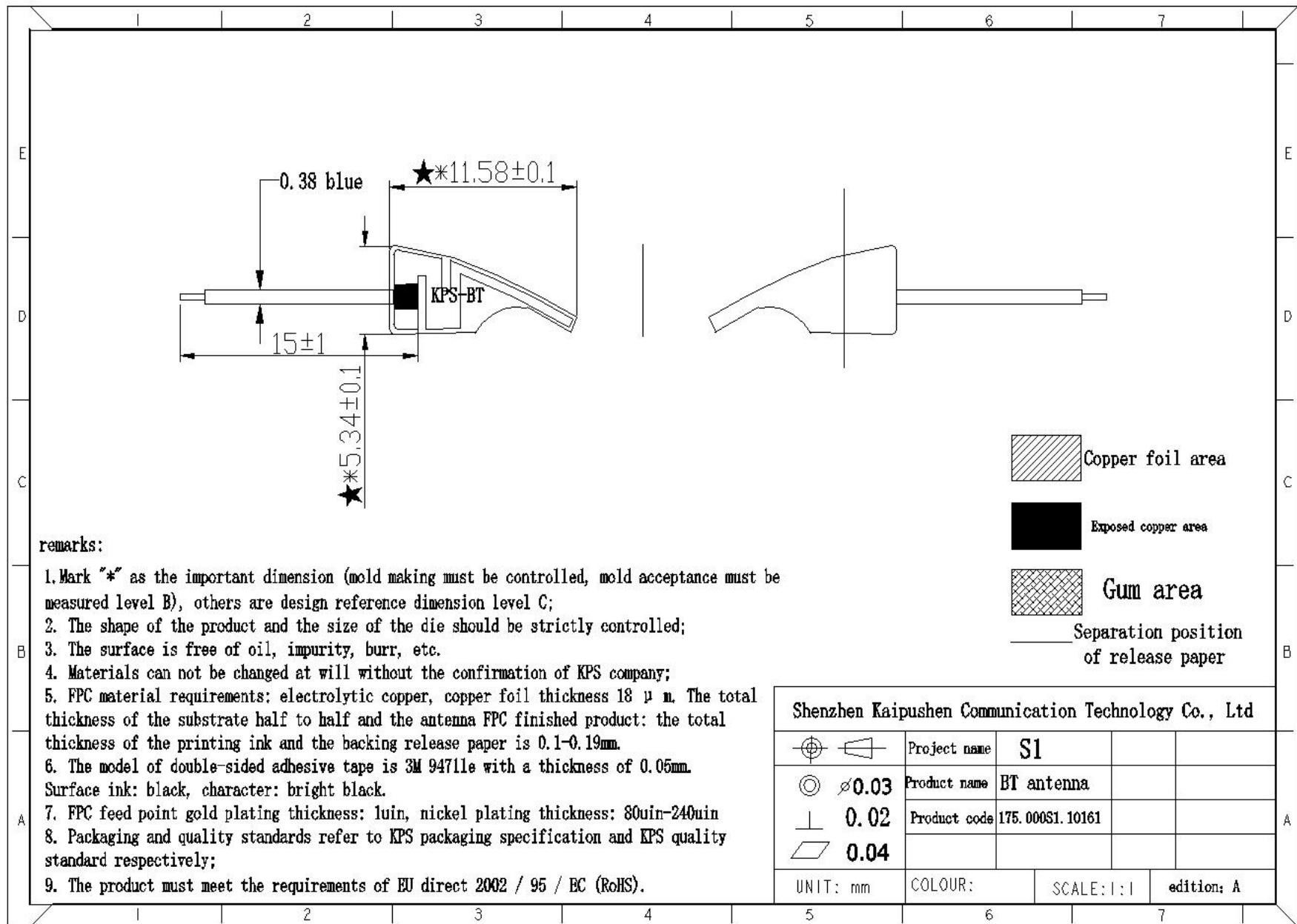
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### 3.1: Antenna ICD diagram



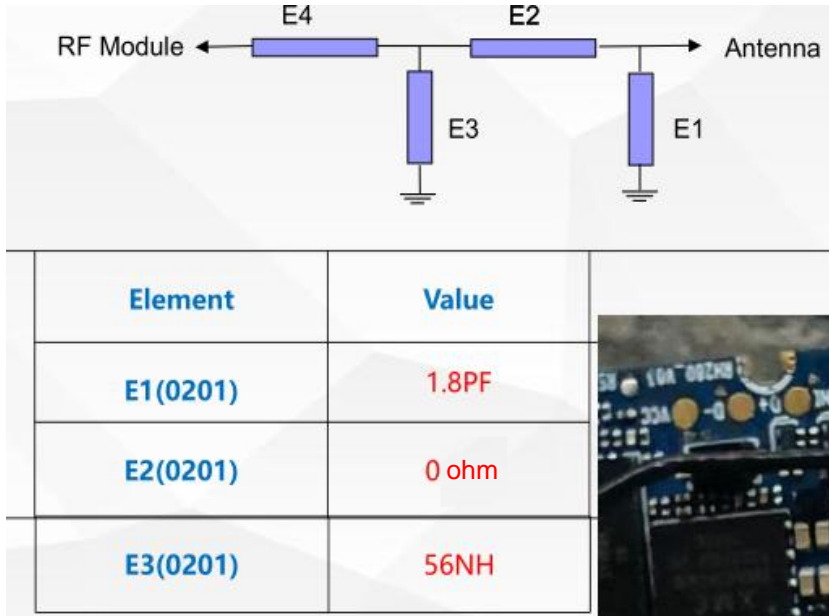
## 4.1 Aerial function

### 4.1-1 Specificatin standard

The operating frequency band of the antenna is 2402 - 2480m, which generates resonance

### 4.1-2 Aerial matching circuit

Matching circuit as follows:



## 4.2 Standing wave ratio (vswr) test

### 4.2-1 Test settings

The standing wave ratio test device is connected in turn: E571B Network analyzer → 50 Ohm Coaxial line of Cable → 150mm long copper pipe → test fixture.

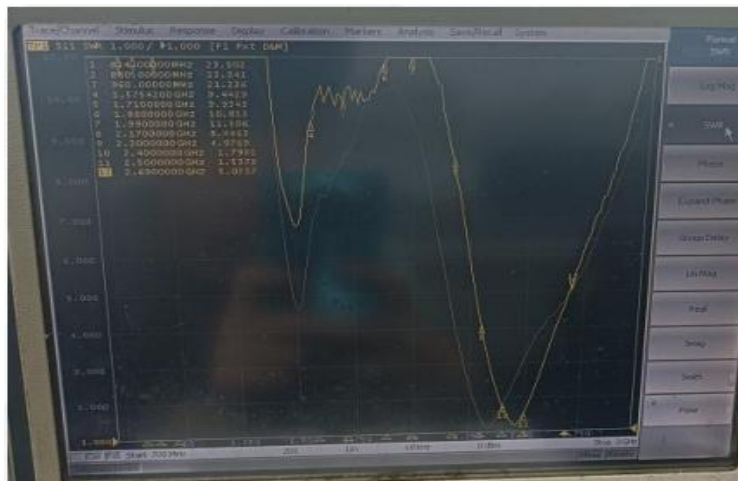
Treatment of test fixture: Use a hard cable to lead out from the 50 ohm test point of the antenna on the PCB of the machine u... SMA-J The joint is connected with the copper pipe with choke ring, and then connected with other devices.

### 4.2-2 Voltage standing wave ratio test:

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

Fre (MHZ)	2400	2450	2480	
VSWR	1.7	1.3	1.5	

### 4.2-3 Passive test results



Antenna passive test data :

Free

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	22.12	-6.55	-5.25
2410	23.08	-6.37	-4.87
2420	24.53	-6.10	-4.37
2430	24.47	-6.11	-4.18
2440	25.56	-5.92	-3.85
2450	25.96	-5.86	-3.69
2460	26.03	-5.85	-3.53
2470	24.24	-6.15	-3.74
2480	25.03	-6.02	-3.5

Hand model

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	8.76	-10.57	-6.99
2410	8.89	-10.51	-6.82
2420	9.11	-10.40	-6.76
2430	9.25	-10.34	-6.55
2440	9.58	-10.19	-6.21
2450	9.61	-10.17	-6.08
2460	9.37	-10.28	-6.38
2470	8.9	-10.51	-6.65
2480	8.99	-10.46	-6.71
2490	9.1	-10.41	-6.47
2500	8.98	-10.47	-6.73

# Full dimensional measurement report

	connection	Youchuangyi		entry name		Q28							Material	Electrolytic copper
	supplier	Kaipushen		Measuring tools		Quadratic		Measure unit		MM			Measure dat	2023/2/2
NO.	Size	Upper	+ TOL.	- TOL.	Lower	Act mea 1	Act mea 2	Act mea 3	Act mea 4	Act mea 5	Act mea 6	Act mea7	UPPER $\leq$ 100%	LOWER $\leq$ 100%
1	11.58	11.68	0.10	0.10	11.48	11.60	11.60	11.56	11.57	11.56	11.61	11.60	30%	20%
2	5.34	5.44	0.10	0.10	5.24	5.36	5.32	5.32	5.32	5.36	5.36	5.32	20%	20%
3	15.00	16.00	1.00	1.00	14.00	15.30	15.20	14.80	14.80	15.20	14.80	14.70	30%	30%
4														
5														
6														
7														
8														
9														
10														
11														

Tabulation: Jian Chen

auditing : XingtuoWU

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## Salt spray test report

Date: 2023 年 02 月 05日

Item	Q28-FPC aerial	Customer	Youchuangyi
Supplier	Shenzhen Kaipushen Communication Technology Co., Ltd	National Test standard	GB/T 2423.2-2008
Sample situation	Sample qty: 5PCS		
	Base material: Electrolytic copper with glue on one side and one half		
Test time	共计 24 H		
Test type	<input checked="" type="checkbox"/> NSS	<input type="checkbox"/> ASS	<input type="checkbox"/> CASS
Test condition	Salt solution: 5%		PH:7.0
	Chamber temp: 35° C		Relative humidity: 85%
	Spray way; <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> intermittent		Compressed air pressure: 1kg/cm <sup>2</sup>
	Salt spray sedimentation rate: 1-2ml/80cm <sup>2</sup> /h		Fog fluid collection: 1.4ml/80cm <sup>2</sup> /h
	Test cycle: <u>1</u> 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: XingtuoWu	

# High-low temperature test record

Product name	Q28	Customer name	Youchuangyi	
Test qtu	5 pcs	Test date	2023年2月5日	
Cycle number	1	Time	24H	
TestCondition:				
High temp: + <u>65</u> °C      Humidity: <u>90</u> % RH				
Low temp: - <u>20</u> °C				
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: <span style="font-size: 1.5em;">√</span> PASS                        Fail				

Auditing : XingtuoWU

Record: Jian Chen



# Packing

Customer:	Youchuangyi	Material name:	Q28-FPC aerial
packing qty:	one carton	Packing material:	Carton
Qty/carton:		Packing way:	Ziplock bag



图一

Picture 1:Single package



图二

Picture 2: Packing way



图三

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



图四

Picture 4:packing label

Fiction: MinghuiLI

Auditing : Xxingtuowu



凯普深

# Antenna pattern

