



Shenzhen Yuhong Industrial Co., Ltd

# Parts Acknowledgment

Customer name: DONGGUAN YUANFENGLUN ELECTRONICS CO., LTD.

Product Model: A15P-1

Risuntek P/N:

Version: A

Product Name: FPC antenna

Description: A15P-1-V1.4 FPC antenna  
25.17\*5.29\*0.11mm single-sided adhesive L

Date: 2022/12/2

(Customer Signatures)

(PM)	(ME)	(QE)

(Inner Signatures)

(QE)	(ME)	(RF)
ASTON	Cindy	Jake

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# catalogue

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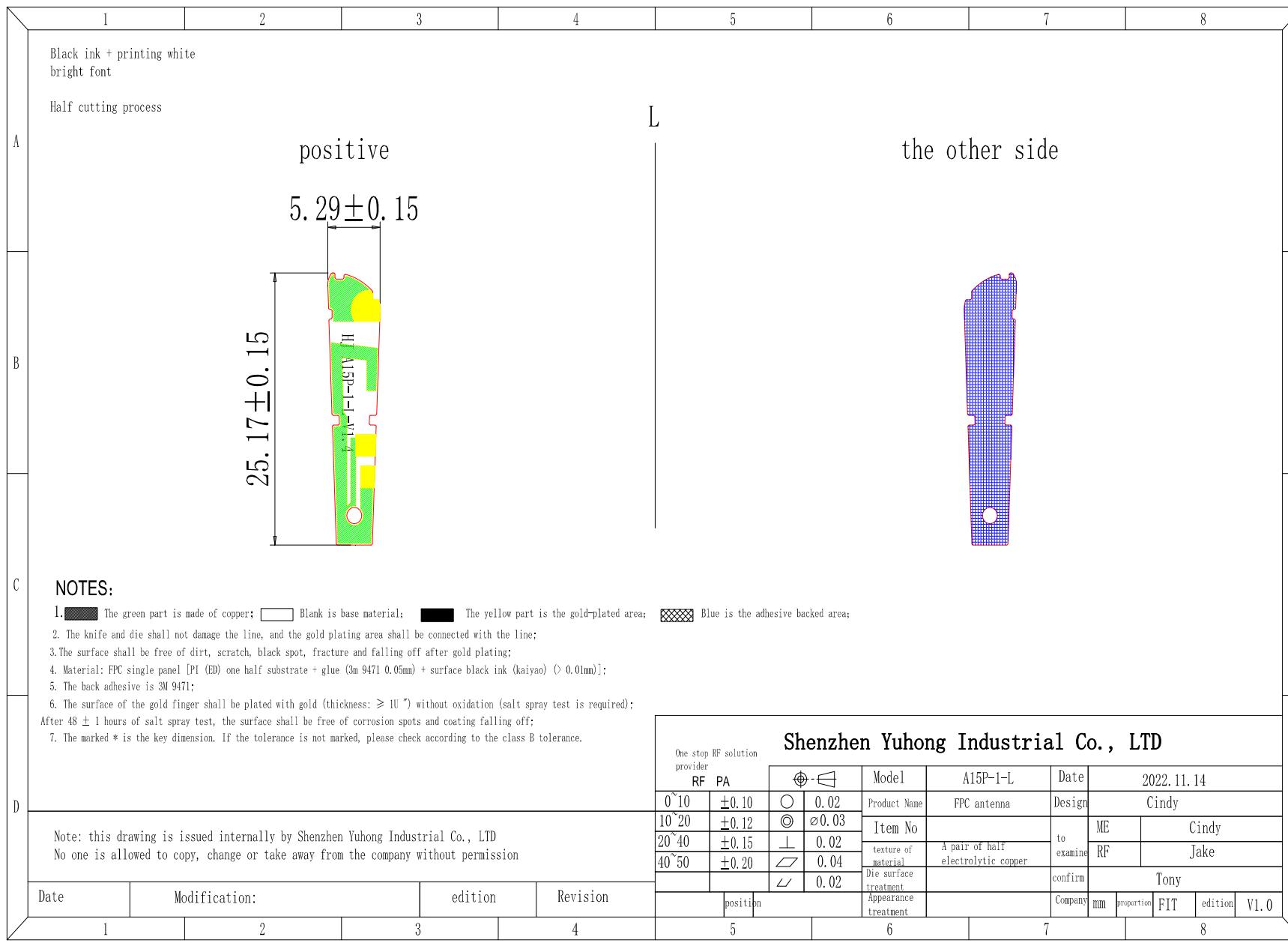
eight Packaging specification

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# one、Preparation / revision change resume

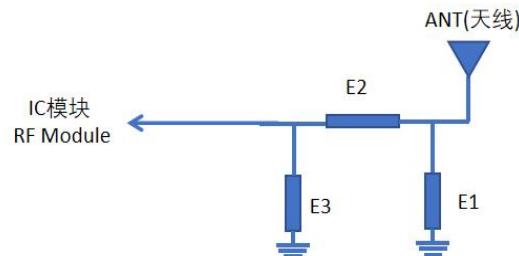
editi on	Revision page	Change time	Changed by	Reason and content of change	remarks
A0	—	2022/12/2	Cindy	Antenna form of the first version	
A1					
A2					
A3					
A4					
A5					
A6					

## two、Product drawings



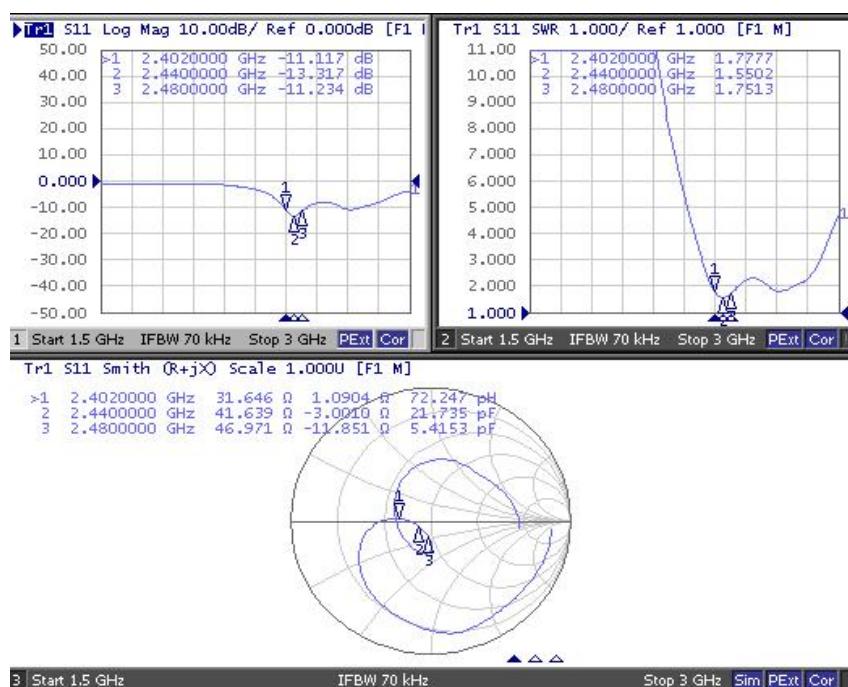
### 三、Electrical and mechanical properties

1、Match the circuit diagram



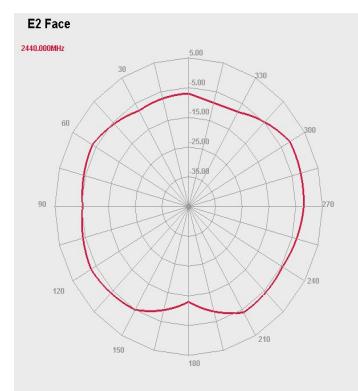
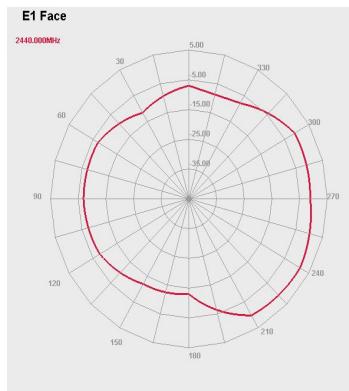
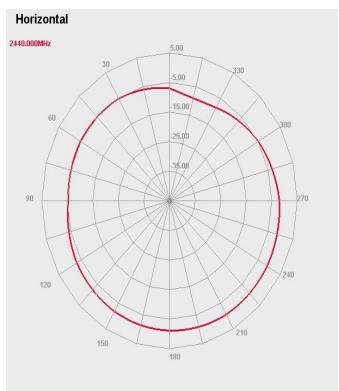
L	
Main Antenna	
Element	
E1 (0201)	N/C
E2 (0201)	1.5nH
E3 (0201)	N/C

2. S11 parameter



### 3. Passive efficiency

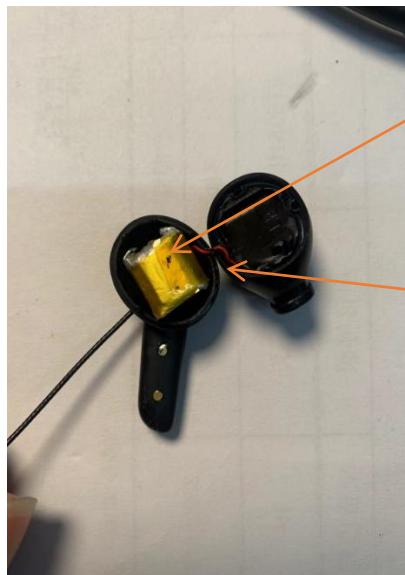
L				
	增益(dBi)	效率(dB )	效率 (%)	
2400	-0.3	-5.8	26.9	
2410	-0.5	-5.7	27.8	
2420	-0.5	-5.5	28.6	
2430	-0.4	-5.4	29.4	
2440	-0.5	-5.2	30.5	
2450	-0.3	-5.4	29.4	
2460	-0.4	-5.7	27.6	
2470	-0.7	-5.8	27.1	
2480	-0.6	-5.9	26.3	
2490	-0.8	-6.0	25.2	
2500	-0.9	-6.3	25.0	



#### 4. Active data

L				
	channel	TRP (dbm)	TIS (dbm)	
Free space	0	3.7	-89.3	
	39	3.6	-90.4	
	78	3.0	-89.6	
	channel	TRP (dbm)	TIS (dbm)	
Second generation head die	0	-7.2	-79.6	
	39	-6.3	-80.1	
	78	-6.5	-80.2	

#### 5. Environmental treatment



The battery position is shown in the figure. The battery cable length is 25MM. No stranded cable is required

The horn wire is placed as shown in the figure. The horn wire is 25MM long and the twisted wire is processed with 2 turns

## four、Full-size measurement report

Prepared by: Zhang Qinghua

Reviewed by: maoluping

Date 2022/12/2

# five、CPK Report

## Shenzhen Yuhong Industrial Co., Ltd

<b>Project name</b>	A15P-1-L-V1.4		<b>Customer</b>	DONGGUAN YUANFENGUN ELECTRONICS CO., LTD.			
<b>Description</b>	antenna		<b>Inspected</b>	Cindy			
<b>Material</b>	One pair and half electrolytic copper		<b>Inches/MM</b>	mm			
<b>Revision</b>	A		<b>Date</b>	2022/12/2			
<b>Dim. Designator</b>	25.17	5.29					
<b>Upper Limit</b>	25.32	5.44					
<b>Lower Limit</b>	25.02	5.14					
1	25.18	5.29					
2	25.16	5.31					
3	25.17	5.27					
4	25.21	5.33					
5	25.17	5.33					
6	25.19	5.30					
7	25.17	5.28					
8	25.23	5.27					
9	25.21	5.33					
10	25.22	5.33					
11	25.20	5.28					
12	25.24	5.33					
13	25.21	5.31					
14	25.15	5.34					
15	25.23	5.32					
16	25.16	5.30					
17	25.23	5.33					
18	25.17	5.33					
19	25.23	5.34					
20	25.24	5.27					
21	25.16	5.33					
22	25.20	5.33					
23	25.19	5.30					
24	25.20	5.31					
25	25.16	5.27					
26	25.20	5.28					
27	25.19	5.27					
28	25.15	5.34					
29	25.22	5.33					
30	25.19	5.28					
31	25.21	5.31					
32	25.19	5.27					
MAX.	25.24	5.34					
MIN.	<b>25.15</b>	<b>5.27</b>					
AVERAGE	<b>25.19</b>	<b>5.31</b>					
STDEV	<b>0.03</b>	<b>0.03</b>					
CP	<b>1.81</b>	<b>1.94</b>					
Cpk	<b>1.51</b>	<b>1.72</b>					
<b>TOOLING(测量工具)</b>	卡尺	卡尺					

Prepared by

: \_\_\_\_\_ aston

Checked by

: \_\_\_\_\_ Cindy

Approved by

: \_\_\_\_\_ Jake

# 六、Environmental management substance component deployment table

## The Parts List of Environmental Management Substances

Product Information		Supplier Contact Information		Report type		Confirm the result		remarks	
Part name	FPC The antenna	Compony Name	Shenzhen Yuhong Industrial Co., Ltd		<input checked="" type="checkbox"/> RoHS 2.0	<input type="checkbox"/>		Metal provides RoHS 4 items and other 10 items	
Risuntek P/N		Contact Name/Title	Aston		<input checked="" type="checkbox"/> HF	<input type="checkbox"/>		Cl&br for non-metallic parts	
Supplier's P/N	A15P-1-L-V1.4	Date:YY/MM/DD	2022/12/2		<input checked="" type="checkbox"/> CP65	/		Parts in contact with skin	
Manufacturing site	Dongguan	E-mail address			<input checked="" type="checkbox"/> REACH	<input type="checkbox"/>		According to the latest SVHC list	
Total weight (g)		Tel. No.	13714345069		<input checked="" type="checkbox"/> other ( )	/		Such as be, pops, pfos/pfoa, etc	
					<input checked="" type="checkbox"/> MSDS	<input type="checkbox"/>		Article 17. Seal and validity	

No.	Customer item number	Part name	Homogeneous material	Test Report No.	Test Date (YY/MM/DD)	Test result (ppm)												Test report	MSDS
						Pb	Cd	Hg	Cr6+	PBB	PBE	Cl	Br	DEHP	DBP	BBP	DIBP		
1	A15P-1-L-V1.4	Base material	CAI Lunge Di	SHAEC2202460504	2022. 4. 08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	 电解中文ROHS (1).PDF	 基材MSDS.pdf
2		ink	Youri black oil	ETR22705905 ETR22705913	2022/8/5	ND	ND	ND	ND	ND	ND	434	ND	ND	ND	ND	ND	 PS-800 ROHS(黑色油墨).pdf  PS-800(黑色油墨).pdf	 MSDS_PS-800黑色油墨.pdf
3		Gummed paper	3M9471	CANEC2200386501 CANEC2200386502	2022/1/12	ND	ND	ND	ND	ND	ND	162	ND	ND	ND	ND	ND	 9471MSDS-ROHS-1-13.pdf  9471MSDS-ROHS-1-2.pdf	 MSDS 3M9471白色.pdf
4		Gold plated	To get rich	A2210513116101001E / A2210513116102001E	2021/10/15	ND	ND	ND	ND	ND	ND	124	ND	ND	ND	ND	ND	 9471MSDS-ROHS-2-1.pdf  9471MSDS-ROHS-2-2.pdf	 中文版PCB镀镍金层MSDS.pdf
5		White character ink	Chuan yu	ETR22A01347M01	2021/10/29	ND	ND	ND	ND	ND	ND	625	ND	ND	ND	ND	ND	 ETR22A01347M01(150W)ROHS.pdf	 MSDS ZSR-150白色文字墨.pdf

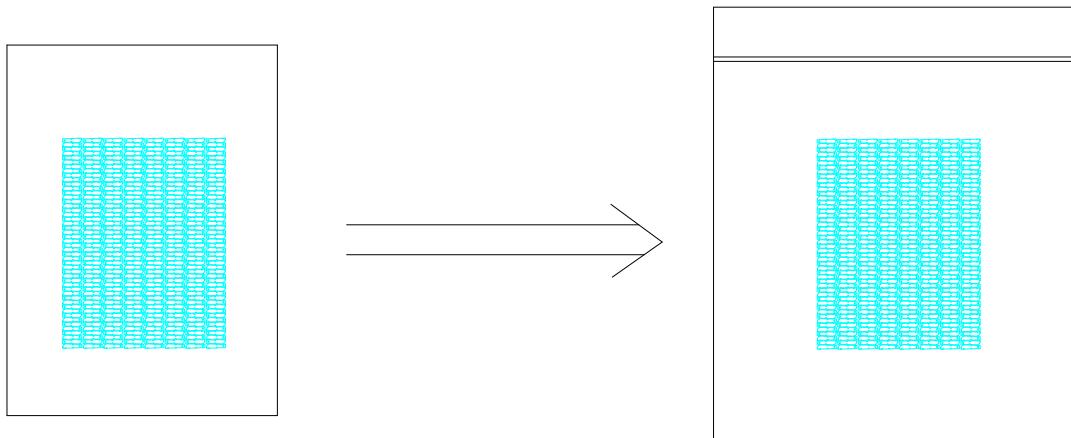
## seven、Reliability test report

customer		DONGGUAN YUANFENGLUN ELECTRONICS CO., LTD.		entry name	A15P-1-L-V1.4 FPC antenna
Test time:		2022/11/02--2022/11/04		Number of tests	5PCS for each test item
Serial number	Test items	Test instrument	test method	Criteria:	determine
1	Salt spray test	Salt spray test machine	The tested products were placed in the salt spray testing machine containing 5% $\pm$ 1%NaCl solution. The laboratory temperature was 35°, the pressure barrel temperature was 47°, and the pressure was 1kgf/cm <sup>2</sup> . The test lasted for 48 hours. The product shall be placed at 45°. After the test, the product shall be taken out, washed and dried for inspection	Appearance after test: The appearance is intact without significant change. Coating: no peeling, no corrosion. Surface spraying, screen printing: no off, no bubbles to determine	PASS
2	Cold and hot shock	Constant temperature and humidity box	Put the test product flat in the testing machine, set the test conditions, high temperature is 85°C, a cycle test for 24 hours; The low temperature was -30°C, and the test was conducted for 2 cycles. The test was started after setting. At the end of the test, the product was removed for inspection after 2 hours of recovery.	There is no change in color, gloss, surface appearance, hardness, scratch, crack, warping or electrical damage.  Be judged as qualified	PASS
备注:					
Tabulation: Aston		Reviewed by: Cindy		Approved by: Jake	

## eight、Packing

Material no:		The product name:	FPC antenna
Product specification:	A15P-1-L FPC antenna	Packaging materials:	Seal pockets, cartons
Number of packages:	5000PCS/package	The packing way:	5000pcs/ package, one box of 1-16 packages
Packing quantity:	80000PCS		

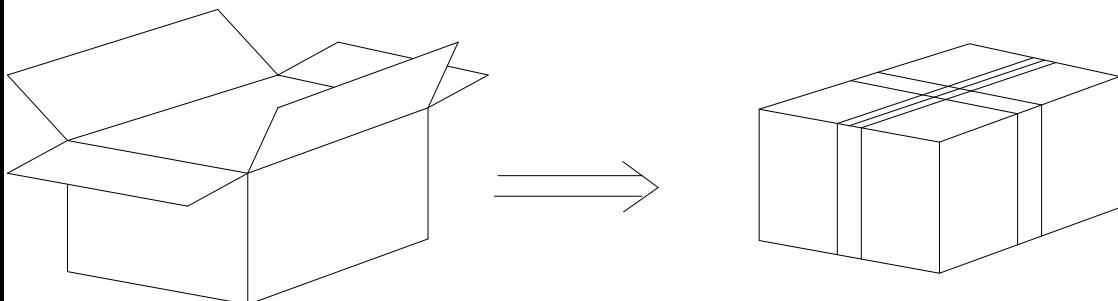
### 1、Small package



FPC antenna (full plate half cut shipment): 250\*220

PE bag 5000PCS antenna

### 2、The big package



One box of 1-16 bags (5000-80000pcs antenna)

3、Note: FPC products are manufactured by half cutting,

Small package quantity: 5000pcs / bag;

Large package quantity: 5000-80000pcs / box

### 4. Precautions:

4.1 the storage of products shall ensure that the ambient temperature is between  $-10^{\circ}\text{C} \sim +24^{\circ}\text{C}$ , the humidity is less than 90%, the warehouse is free of rain leakage, the ground is moisture-proof, and the surrounding of the warehouse is protected from acid fog and salt fog. The storage period of the product is 180 days;

4.2 the products can be transported by land, water and air, and shall be protected from rain during transportation;

4.3 stacking requirements: XXX;

(other requirements, such as: no throwing from height, etc.)

Draw up: Aston

to examine: Cindy

approval: Jake