

Part acknowledgement Part Approval Sheet

Customer name:	HANK ELECTRONICS CO., LTD HANKAI ELECTRONICS., LTD
Product Model:	B06
Risuntek P/N:	108.01.00450
Version:	A
Prodcut Name:	B06 antenna-R
Description:	A pair of semi electrolytic copper materials, adhesive backed3M9471, 2.4-2.5GHZ R
Date:	2022/9/16

(Customer Signatures)

(PM)	(ME)	(QE)

(Inner Signatures)

(QE)	(ME)	(RF)
Aston	Cindy	James

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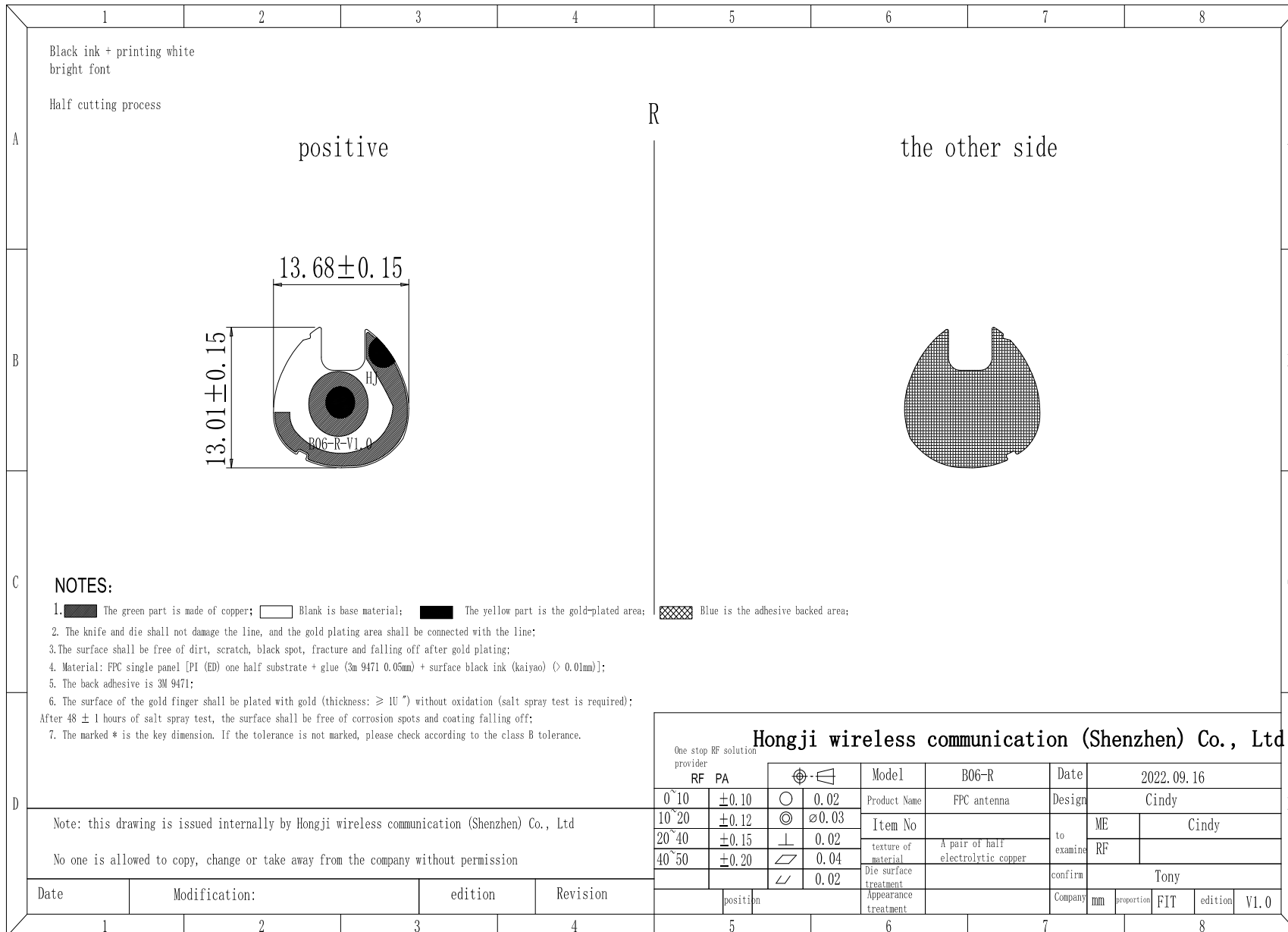
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一、Preparation / revision of change record

editi on	Revision page	Change time:	Changed by:	Reason and content of change	remarks
A0	—	2022/9/16	Cindy	First issue	
A1					
A2					
A3					
A4					
A5					
A6					

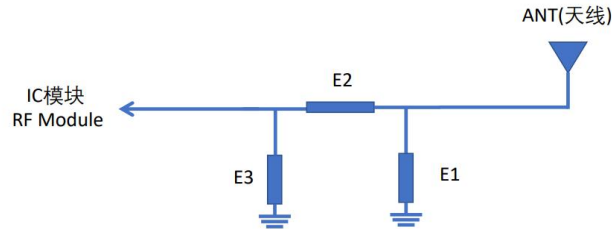
二、Product drawings



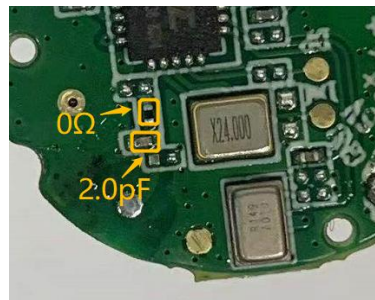
Description of electrical and mechanical properties

1、Matching circuit diagram

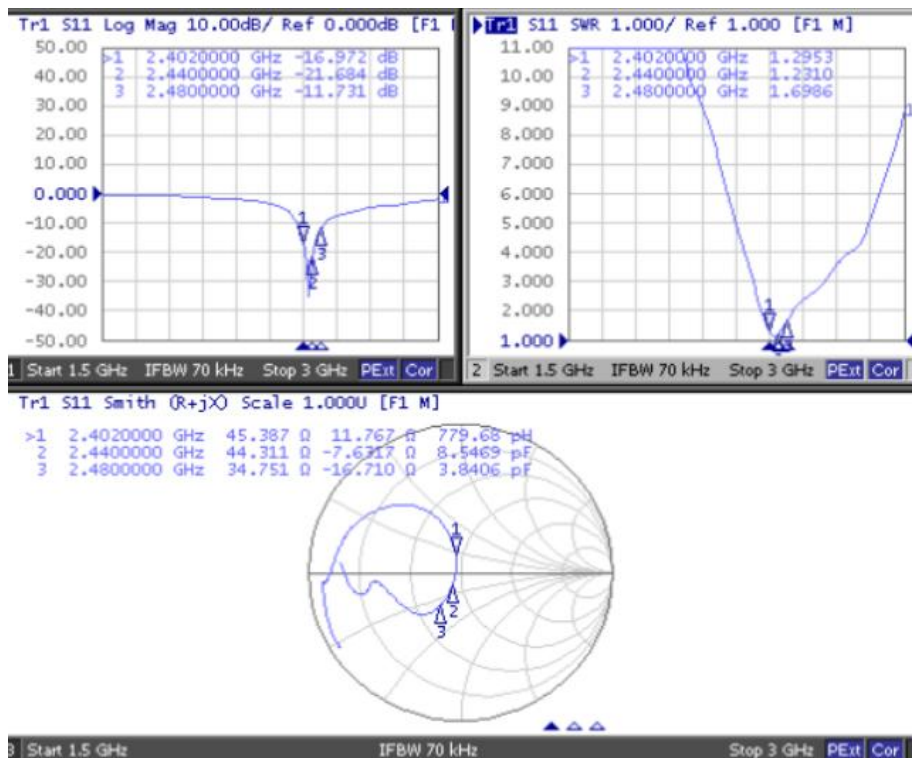
天线匹配电路说明Antenna circuit matching description



Element	Value
E1	2.0pF
E2	0Ω
E3	N/A

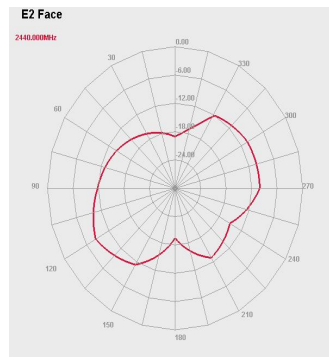
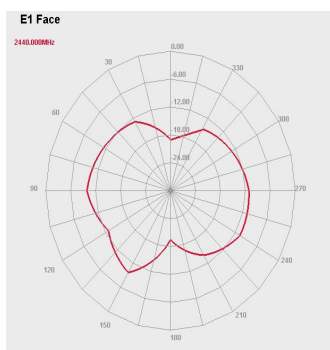
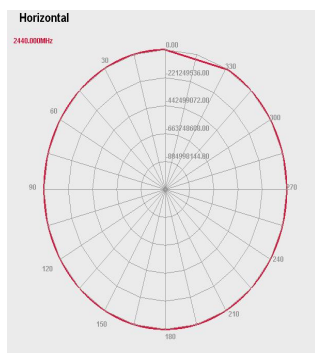


2、S11 parameters



3、Passive efficiency

Freq[MHz]	Efficiency(%)	Gain(dBi)
	free space	free space
2400	17.96	-3.95
2410	18.52	-3.74
2420	18.74	-3.59
2430	19.38	-3.63
2440	20.45	-3.57
2450	21.52	-3.78
2460	22.39	-3
2470	21.17	-3.13
2480	20.10	-3.74
2490	19.53	-3.91
2500	18.42	-3.87



4、Active OTA data

R	信道	TRP (dBm)	TIS (dBm)
free space	0	-0.33	-80.50
	39	-1.63	-80.42
	78	-1.92	-79.32

四、Full size measurement report

	code	108.01.00450		Part name		FPC antenna		Specifica tions	B06 -R FPC antenna				Material Science	FPC (1 half)
	supplier	Hung Kai wireless		Measurin g tools		Two dimensional element		Unit of measureme		MM			Measurement date:	2022.09.16
NO.	尺寸 (DIMENSIO N)	upper limit	+ TOL.	- TOL.	Lower limit	Measured 1	Measured 2	Measured 3	Measured 4	Measured 5	Measured 6	Measured 7	UPPER \cong 100%	LOWER \cong 100%
B06-R	13.68	13.83	0.15	0.15	13.53	13.692	13.677	13.682	13.688	13.672	13.691	13.689	8%	5%
	13.01	13.16	0.15	0.15	12.86	13.021	13.008	12.996	12.986	12.992	13.018	13.011	7%	16%
Tabulation: Cindy			to examine: James					Date: 2022/9/16						

五、CPK Report

Hongji wireless communication (Shenzhen) Co., Ltd

Project name	B06-R			Customer	HANK ELECTRONICS CO., LTD HANKAI ELECTRONICS.,LTD				
Description	antenna			Inspected	Cindy				
Material	One half electrolytic copper			Inches/MM	mm				
Revision	A			Date	2022/09/16				
Dim. Designator	13.68	13.01							
Upper Limit	13.83	13.16							
Lower Limit	13.53	12.86							
1	13.71	13.08							
2	13.75	13.03							
3	13.75	13.09							
4	13.71	13.08							
5	13.69	13.03							
6	13.75	13.09							
7	13.77	13.02							
8	13.71	13.09							
9	13.69	13.06							
10	13.70	13.06							
11	13.74	13.08							
12	13.77	13.03							
13	13.73	13.08							
14	13.72	13.04							
15	13.74	13.04							
16	13.74	13.07							
17	13.75	13.05							
18	13.74	13.04							
19	13.75	13.02							
20	13.70	13.05							
21	13.69	13.06							
22	13.76	13.05							
23	13.71	13.02							
24	13.74	13.04							
25	13.73	13.09							
26	13.70	13.06							
27	13.69	13.05							
28	13.72	13.06							
29	13.74	13.06							
30	13.73	13.09							
31	13.72	13.04							
32	13.69	13.06							
MAX.	13.77	13.09							
MIN.	13.69	13.02							
AVERAGE	13.73	13.06							
STDEV	0.02	0.02							
CP	2.03	2.25							
Cpk	1.41	1.55							
TOOLING	calipers	calipers							

Prepared by : Aston Checked by : cindy Approved by : James

六、 Expanded list of environmental management substance parts

The Parts List of Enviromental Management Substances

Product Information		Supplier Contact Information	
Part name	FPC antenna	Compony Name	Hongji wireless communication (Shenzhen) Co., Ltd
Risuntek P/N	108.01.00450	Contact Name/Title	Aston
Supplier's P/N	B06-R	Date:YY/MM/DD	2022/9/16
Manufacturering site	Dongguan	E-mail address	
Total weight (g)		Tel. No.	13714345069

Report type		Confirmation results		remarks
<input checked="" type="checkbox"/>	RoHS 2.0	<input type="checkbox"/>		Metal provides 4 RoHS items and other 10 items
<input checked="" type="checkbox"/>	HF	<input type="checkbox"/>		CL & br for non-metallic parts
<input checked="" type="checkbox"/>	CP65	/		Parts in contact with skin
<input checked="" type="checkbox"/>	REACH	/		According to the latest SVHC list
<input checked="" type="checkbox"/>	other ()	/		Such as be, pops, PFOS / PFOA, etc
<input checked="" type="checkbox"/>	MSDS	<input type="checkbox"/>		Article 17, seal, 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	PBDE	Cl	Br	DEHP	DBP	BBP	DIBP		
1	108.01.00450	base material	Cai lungedi	SHAEC2202460504	2022. 2. 21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	电测中文ROHS (1).PDF	基材MSDS.pdf
2		printing ink	Youli black oil	ETR21805816	2021/9/6	ND	ND	ND	ND	ND	ND	434	ND	ND	ND	ND	ND	ETR21805816 PS-800黑色油墨.pdf PS800-SGS(油墨 黑色系列).pdf	MSDS_PS-800黑色油墨.pdf
3		Gummed paper	3M9471	SHAEC2118730101	2021/9/4	ND	ND	ND	ND	ND	ND	162	ND	ND	ND	ND	ND	2470-SGS-9471E(9472LE, 9671LE).pdf 2470-SGS-9471E(9472LE, 9671LE).pdf	MSDS_3M9471 白色.pdf
4		gold-plated	Get rich	A2210513116101001E / A2210513116102001E	2021/12/10	ND	ND	ND	ND	ND	ND	124	ND	ND	ND	ND	ND	电测中文ROHS.PDF 电测中文ROHS.PDF	中文电测FPC镀锡金层MSDS.pdf
5		White ink	Chuan Yu	ETR21A04957M01	2021/10/29	ND	ND	ND	ND	ND	ND	625	ND	ND	ND	ND	ND	ETR21A04957M01 ZSR-150白色文字油墨.pdf	MSDS_ZSR-150 白色文字油墨.pdf