

Shenzhen Kaipushen Communication Technology Co.,				
APPROVAL SHEET				
CUSTOMER Shenzhen Horn Acoustics Co., Ltd				
DESCRIPTION A855-L/BT天线/A855-L/BT antenna				
REV. NO V1.0				
CUSTOMER PART. NO H11010002120 IN098_RF_L, V1.0				
CUSTOMER PART. NO 080. A855L. 10161				
Delivery date 2025-02-12				
Supplier's address: The second floor of the Yulong Office Building, Longcheng IndustrialZone, No. 440 Longguan Avenue, Longhua District, Shenzhen				
Supplier's phone number:				
Customer acknowledges				
CUSTOMER APPROVAL				
SQE	research and development	CMF	environment protection	purchase
Samples are provided				

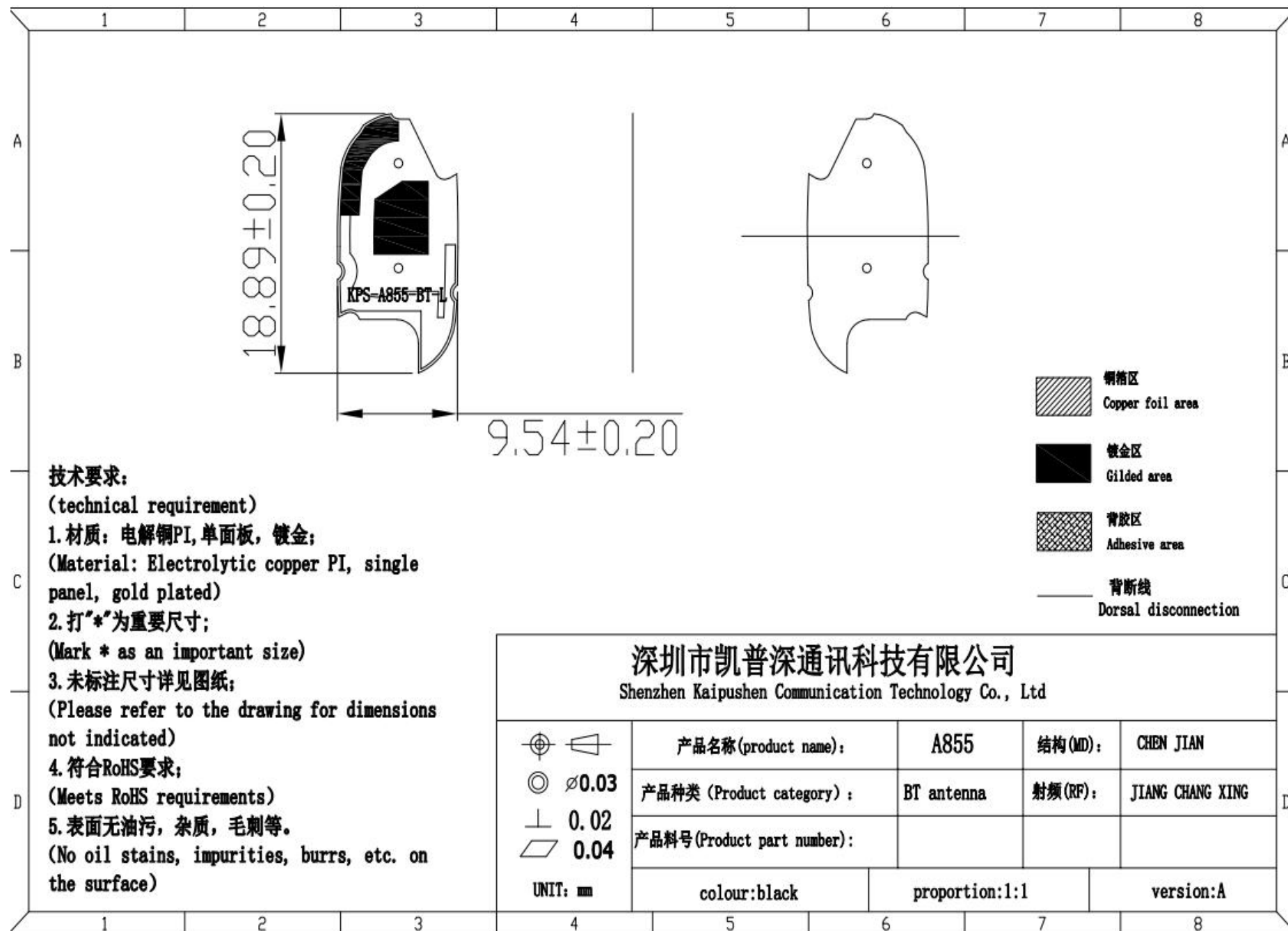
SAMPLE PR VIDE				
make	engineering	quality	environment protection	approve

FORM-H1332 (1. 0)

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3、Structural diagram



5.1 Electrical performance

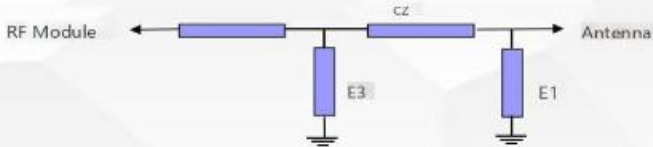
5.1-1 Specification standards

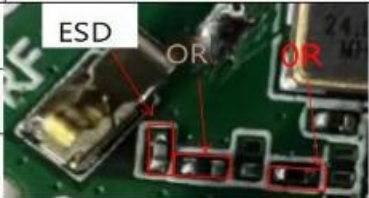
The BT antenna resonates in the operating frequency range of 2400-2500M.



Cape Deep

Bief Introduction of Project Debugging

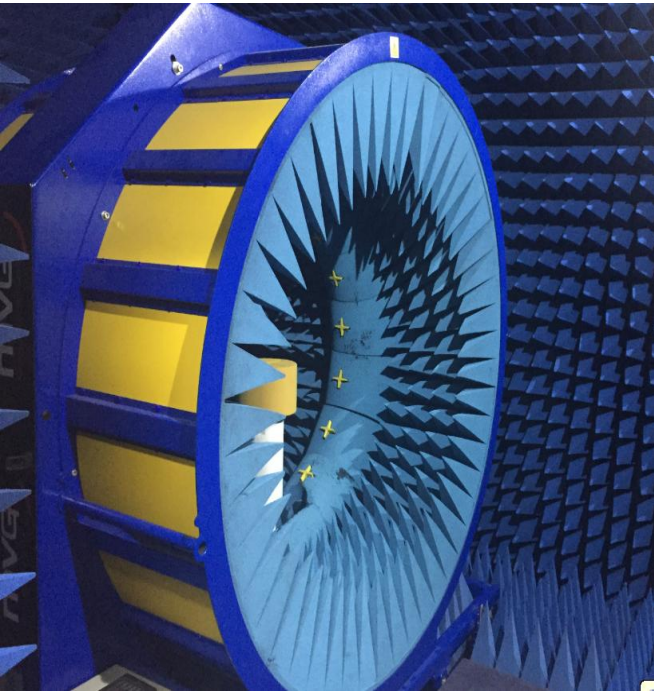


R/L	Element	Value	
	E1 (0402)	NC	
	E2 (0402)	OR	
	E3 (0402)	NC	

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5.1-2 Matching Circuits for Antennas .

5.1-2 darkroom equipment



6.2 Standing Wave Ratio (SWR) Test

6.2-1 Test Setup

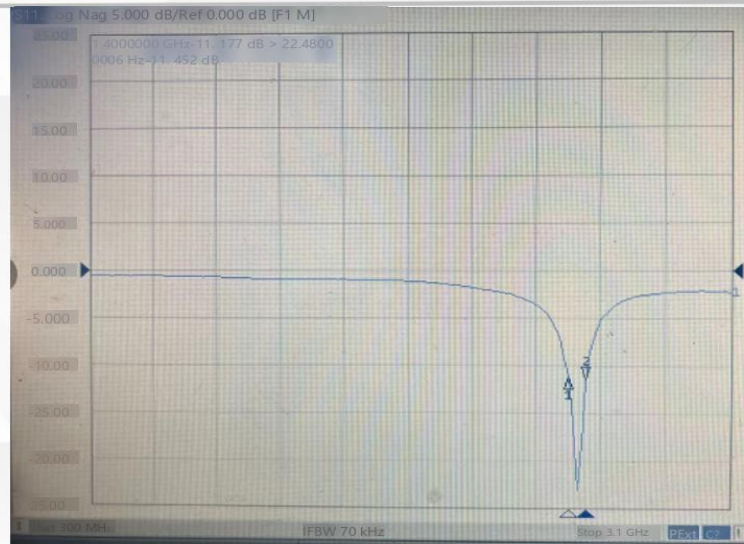
The Standing Wave Ratio (SWR) test setup is sequentially connected as follows: E5071B Network Analyzer → 50 ohm coaxial cable → 150mm long copper tube → test fixture.

Test fixture processing: from the cell phone PCB antenna 50 ohm test point with a rigid cable leads to the SMA-J connector and a set of copper tube with a choke connection, and then connected to other devices in turn.

6.2-3 passive test results



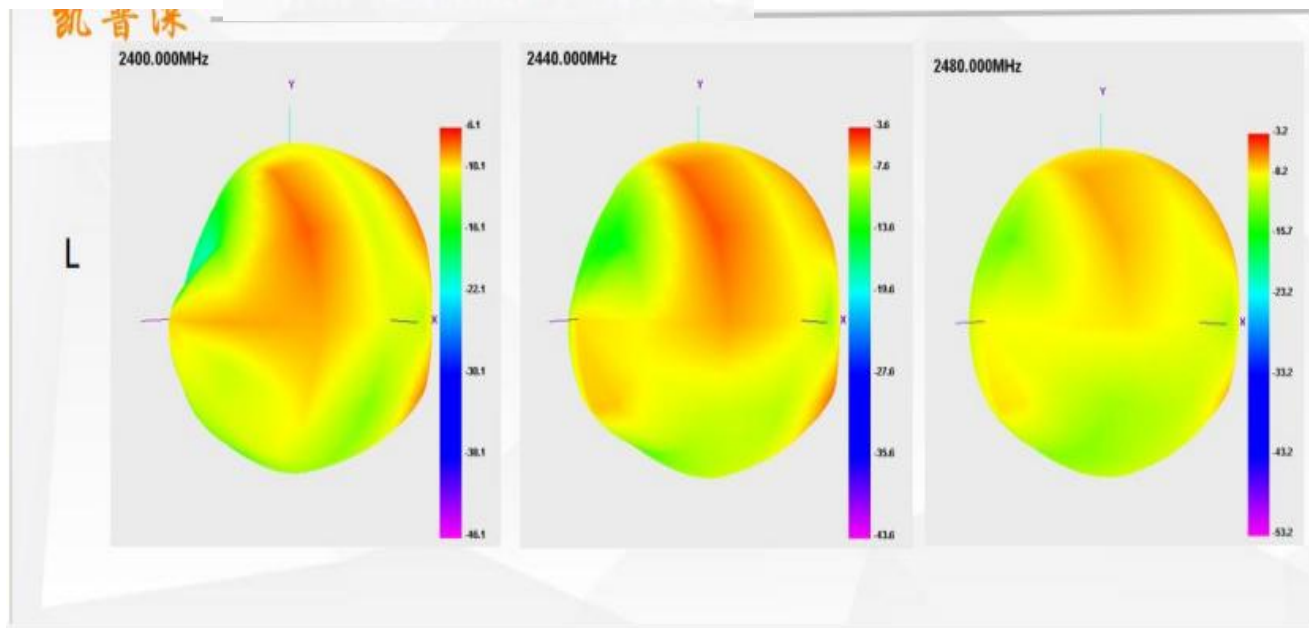
Antenna passive return loss



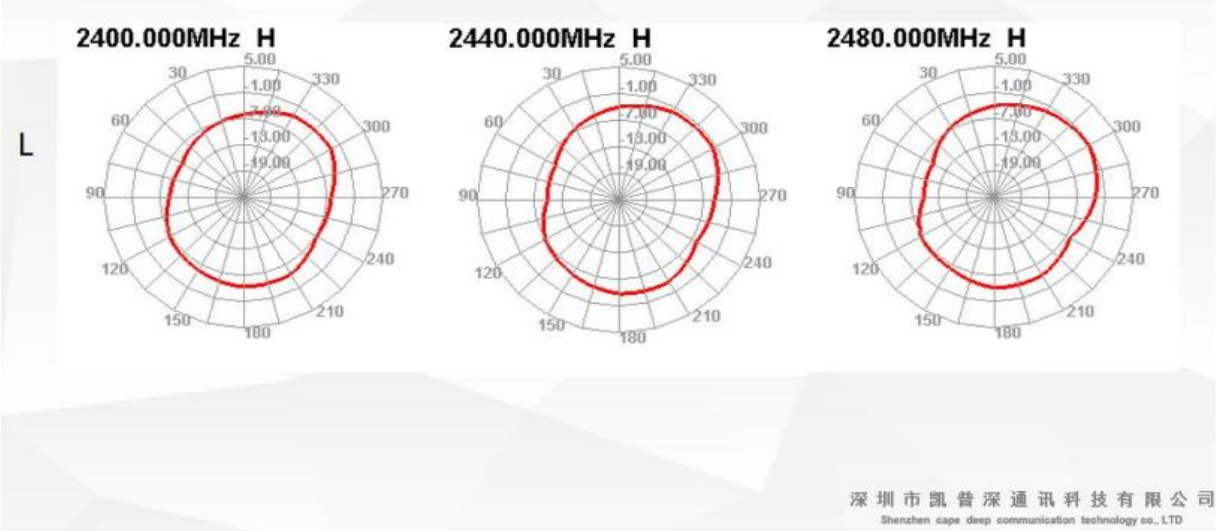
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6.2-4 whole machine passive data

Antenna Passive Apple Chart



2D directional map



Free space efficiency of antenna darkroom

L

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	25.04	-6.01	-0.4
2410	23.36	-6.32	-0.27
2420	24.2	-6.16	0.23
2430	25.17	-5.99	0.04
2440	22.99	-6.38	-0.81
2450	21.33	-6.71	-1.71
2460	22.44	-6.49	-1.7
2470	22.43	-6.49	-1.52
2480	25.59	-5.92	-0.75

Free space active data

1#L

Test Result	Bluetooth TRP		
	0	39	78
Frequency (MHz)	2402	2441	2480
Txp Ave (dBm)	0.37	4.6	4.06
Test Result	Bluetooth TIS		
	0	39	78
Frequency (MHz)	2402	2441	2480
Sens Ave (dBm)	-85.3	-86.5	-85.8

2#L

Test Result	Bluetooth TRP		
	0	39	78
Frequency (MHz)	2402	2441	2480
Txp Ave (dBm)	0.11	3.9	3.8
Test Result	Bluetooth TIS		
	0	39	78
Frequency (MHz)	2402	2441	2480
Sens Ave (dBm)	-84.9	-86.4	-86.1

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environmental treatment

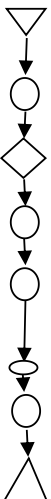
assembled in accordance with the environment of the pilot production prototype

Full dimensional measurement report

	Customer	Horn		Item name		A855		Specifications				Material	Electrolytic copper
	Supplier	Kemp Deep		Measure tools		Quadratic		Measure unit		mm		Measure date	2025/2/12
NO.	(DIMENSION)	upper limit	+ TOL.	- TOL.	lower limit	Actual testing 1	Actual testing 2	Actual testing 3	Actual testing 4	Actual testing 5	Actual testing6	UPPER≦100%	LOWER≦100%
1	18.89	19.09	0.20	0.20	18.69	18.92	18.88	18.85	18.92	18.88	18.80	15%	45%
2	9.54	9.74	0.20	0.20	9.34	9.48	9.55	9.58	9.60	9.52	9.53	30%	30%
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

tabulation: Jian Chen

To examine: XingTuoWU

 天线专家				QC schedule drawing			file number		KPS--QPA-QA004		Enactment Date			
Shenzhen cape deep communication technology co., LTD							file version		A/01		Page		page 1	
technological process			Control focus		management responsibility	method		Inspection method			corrective action			
Order Number	Main Proce	project name	aControl Project	Regulatory standards	person liable	Normal sampling	person in charge	Inspection method	Examines the tool	Record type	Solution			
		begin												
1		Receiving	quantity/product name/specifications	《Engineering BOM》 《Material receiving	Material clerk					《Electronic account》	Contact the supplier and issue 《returning note》			
2		Incoming	specifications/model/pack	《Engineering BOM》 《Sampling inspection plan	IQC	MA=0.25 MI=0.65	IQC	1.visual 2. Machine	Two dimensional	《IQC incoming inspection record	Inspection: OK, stamped with pass seal. The inspection ng shall be labeled as nonconforming product and issued at the same time 《8D Report			
3		material	quantity/product name/specifications	《 production instruction》 《Material receiving	Material clerk					《Material requisition and				
4		pack	pack quantity/indicate	《Finished product packaging operation	packager									
5		Deliver y	product appearance bad record Dimensional test	《Engineering BOM》 《Sampling inspection plan	OQC	MA=0.25 MI=0.65	OQC	1.visual 2. Machine	Two dimensiona	《OQC finished product inspection	If the number of times of the same type of the same type missing in the daily inspection is greater, OQC issues the 8D			
6		deliver y	product namespecification quantity	《Finished product shipping operation instruction 》	Material clerk					《Electronic account》				
		finish												
character	Revision date	Revised content				Revised ;	Acknowledged	Fiction		auditin g		appro val		
①														
②								date		date		date		
③														

Shenzhen Kaipushen Communication Technology Co., Ltd				file NO		
				Enactment Date		
	FPC antenna inspection specification			Page		
				edition	A0	
1. Purpose and purpose: rigorous testing , Control the use of defective products and ensure product quality requirements.						
2. applicable scope: FPC aerial.						
3. content						
	item	content	tool	Inspection standards and technical requirements	Defect Description	stratum
	packin g	characteristic	visual	The outer package is clearlylabeled, Indicate, product name、 specifications、 quantity、 date、	The identification is not clear and cannot be identified.	MIN
		Matter	visual	Uniform packaging, Clean and tidy, unabroken , No impact on handling 、 Storage, No wrong installation 、 mixed 、 Less clothes.	Inconsistent packaging, Dirty、 damp、 damaged., Affect handling 、 Storage.	MIN
	appeara nce	surface	visual	FPC is not damaged、 Copper Exposed、 dehiscence、 chromatic aberration、 Yijiao,Gold finger is free of oxidation and brittle crack.	FPC is damaged、 Copper Exposed、 dehiscence、 chromatism、 rubber overflowing ,Oxidation of golden finger、 Brittle crack 。	MAJ
	structu re	measurement	vernier caliper	Board size (dimensions) Same as template	The size is different from the sample 。	MAJ
		Material	sample plate	Same as template 。	Material is different from template	MAJ
	perform ance	Electroplate	electro plating Machine	Golden finger degree golden brightness, coverage rate 100%	The gold plating is not bright,or the gold plating coverage is low.	MAJ
		forced jointing	chassis	FPC is pasted on its enclosure consistent with the preset pasting position,None.	FPC is pasted on its enclosure,Inconsistent with the preset pasting position ,More or less .	MAJ
	Formulate :				auditing :	Approve:

RoHS restricted substance composition questionnaire

(Information of supplied products)												
(Customer name)		Description of Material/model		entry name		manufacturer				Green material identification		
Horn		BTantenna		A855		Shenzhen Kaipushen Communication Technology Co., Ltd				/		
(Product composition information)												
(Order Number)	(Component Name)	(Component part number)	(Component supplier)	Third party test report		Content of restricted substances PPM						remarks
				date	number	(Pb)	(Cd)	(Hg)	(Cr ⁶⁺)	(PBB)	(PBDE)	
1	3M adhesive backing	/	3M, USA	2023/12/27	SHAEC23021627701	O	O	O	O	O	O	
2	Kwai Lengti	/	Kwai Lengti	2024/1/12	SHAEC24000428806	O	O	O	O	O	O	
3	Solder resist ink	/	ouli Industr	2024/6/14	ETR24600712	O	O	O	O	O	O	
4	Electroplating/Gold Nickel	/	Xinda Sheng	2024/3/26	A2240158803101001E	O	O	O	O	O	O	
5	Character ink	/	Chuan Yu	2023/10/13	ETR23A00862M01	O	O	O	O	O	O	
Note:	1. Please indicate whether the content of the six restricted substances is compliant or non-compliant by ○ and ×; compliance is indicated by											
	2, PPM limit value: cadmium <100PPM; lead/mercury/hexavalent chromium/PBB/PBDE <1000PPM.											
	3. The total amount of lead, hexavalent chromium, mercury and cadmium in packaging materials shall not exceed 100 ppm.											
	4. This form should be completed in full and stamped by the supplier; here the supplier refers to the direct trading party. (Provide stamped paper or scanned PDF file)											

Salt spray test report

Date: 2025 年 02月 12日				
product name	A855		Customer	Horn
Supplier	Shenzhen Kaipushen Communication Technology Co., Ltd		National Test standard	GB/T 2423.2-2008
Sample situation	Sample qty: 5PCS			
	Coating: Gold plated ≥0.5U"			
Test start and end time	From 9:00 am on February 10, 2025 to 9:00 am on February 12, 2025, a total of 48 hours			
Test type	☒ NSS	☐ ASS		☐ CASS
Test condition	Salt solution: 5%			PH:7.0
	Chamber temp: 35° C			Relative humidity: 85%
	Spray way: ☒ Continuous ☐ 间歇 intermittent			Compressed air pressure: 1kg/cm²
	Salt spray sedimentation rate: 1- 2ml/80cm2/h			Fog fluid collection: 1.4ml/80cm2/h
	Test cycle: __1__cycle			Spray time: 48h
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	A855		Customer name	Horn	
Test qtu	6 pcs		Test date	2025年2月12日	
Cycle number	1		Time	48H	
TestCondition: High temp: + 65degrees Humidity: 90 % RH Low temp: - 25 度degree Test time: high temp: 48 H low temp: 48 H					
Test item	Uncycled test			Cycled test	
No	After high temp	After low temp	After high temp	After low temp	
1	OK	/			
2	OK	/			
3	OK	/			
4	OK	/			
5	OK	/			
6	OK	/			
After test deficiency:					
Reason analysis:					
Improvement measures:					
Test results: √ Pass Fail					

(Packing)

Customer:	Horn	Material name	FPC aerial
packing qty	one carton	Packing material	Carton
Qty/carton		Packing way	Ziplock bag (Single packaging of blister discs for adhesive assembly)



Picture 1:Single package



Picture 2: Packing way



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



Picture 4:packing label

notes: If the antenna needs to be attached for processing, it should be packaged and shipped according