

Specification

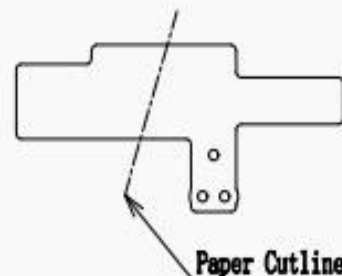
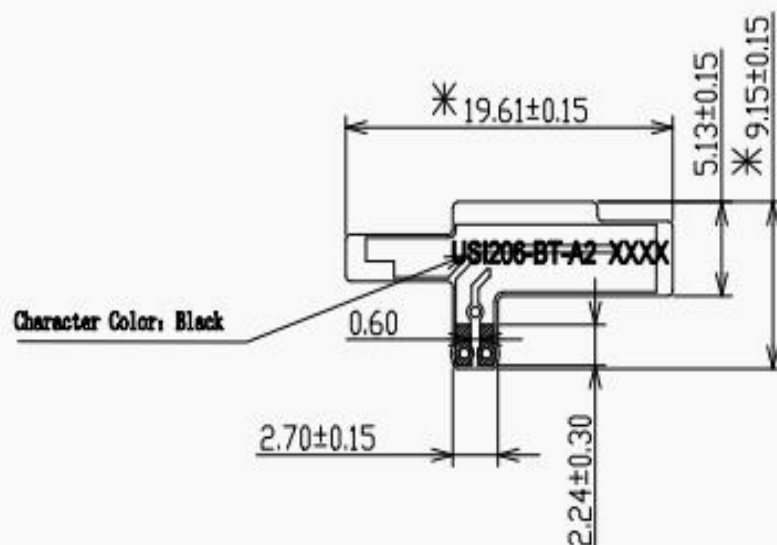
The product description	Manufacturer Zhejiang wenzhou haitong communication electronics co. LTD Specification USI206-BT-FPC/ A model/version: Product name: Antenna\2.4-2.5GHz\0dBi\multiple\Omni\PIFA\ USI206-BT-A2\HT1881-BT-FPC Material code:3101500023 Recognized USI206 items:		
Attachment:	☒ specification ☒ Engineering drawing ☒ The sample ☐ The RoHS report ☒ CPK report ☒ FAI full size ☒ Reliability test ☐ RoHS restricted substance composition sur ☒ Process control chart ☐ material certificate ☒ The packing wa ☐ safety report RoHS restricted substance composition questionnaire must be provided for all materi		
Supplier endorsement	Artificial: Review: Approval:		
Technical confirmation	Structure: Hardware: Industrial/pac Supply cooperation department Software: Components: kaging Project manager: Product manager: Engineering: Supplier quality: Customer:		
Final confirmation	Quality planning: Rohs status - Rohs material determination:		
Conditions of admission:	☒ admitted ☐ refusal to acknowledge ☐ Condition admit The following conditions shall be met: ☐ Temporary admitted Limited purchase of PCS in care		
The examination	R&d chief engineer (technical director)		Quality director
* approval by chief engineer (technical director) and quality director only for special approval			
Distribution department:	☐ IQC ☐ hardware ☐ structure ☐ software ☐ component ☐ Industrial ☐ supplier ☐ The customer ☐ Outsourcing fact ☐ ☐ SQE ☐ Other__		

Content

- 1、 Cover
- 2、 Conten
- 3、 Engineering Drawing
- 4、 Full-size Measurement Report
- 5、 CPK
- 6、 Schematic&Electrical Properties Performance and Test Report
- 7、 Manufacturing Process Flow Chart
- 8、 Reliability Test Report
- 9、 Package specification

LAB ☒ QE ☐ OQC ☒ IPQC ☒ IQC ☐ 注模 ☐ 冲压 ☒ 组装 ☒

NO.	DESCRIPTION	DESIGN	DATE
A	封样, 转量产.	DCX	2022.12.09



NOTES:

1. PART SHALL MEET ALL CHARACTERISTICS OF THE 2D DATA BASE;
2. MATERIAL SHD DRAWING;
3. PLATING ZONE: NIKEL UNDERPLATED 2-7um, HARD GOLD PLATED >0.03um;
4. PART MARKING: ACCORDING TO INDICATE LOCATION;
5. TOLERANCE:
 - 5.1. PROFILE: ± 0.2
 - 5.2. COPPER: ± 0.05
6. NEED PASS THE STANDARD TEST OF HT QUALITY DEPARTMENT;
7. DIMENSION REQUIREMENT:

7.1. 'ST' DIMENSION IS FOR STATISTICAL QUALITY CONTROL (SQ) AND C_{pk} ANALYSIS SHALL BE PERFORMED ON ALL 'ST' DRAWING DIMENSIONS ON 35 RANDOMLY SELECTED PARTS FROM A MINIMUM 500 PRODUCTION PART RUN WITH OPTIMIZED PRODUCTION PROCESS

7.2. 'C' INDICATES A CONTROLLED DIMENSION FOR FUNCTIONAL FIT PURPOSES;

8. FIRST ARTICLE: FIRST ARTICLE MEASUREMENT SHALL BE PERFORMED FOR ALL DRAWING DIMENSIONS ON 5 RANDOMLY SELECTED PARTS. THE FIRST ARTICLE DATA ALONG WITH THE NUMBERED FIRST ARTICLE SAMPLES SHALL BE FORWARDED TO HAITONG QUALITY DEPARTMENT;
9. NO CHANGE SHALL BE ALLOWED ON TOOLING OR MATERIAL SPECIFICATION WITHOUT PRIOR EXPLICIT WRITTEN APPROVAL BY HT ENGINEERING DEPARTMENT;
10. PART MUST BE COMPLIANT WITH THE REQUIREMENTS OF EU DIRECTIVE ROHS/REACH.

6. Character Color	Black
5. Printing Ink Color	Black
4. ED	0.5 OZ
3. PI	1/2 MIL
2. Adhesive	3MS471 LSE
1. Pack	PE
LEVEL	DESCRIPTION

NHAI 浙江海通通讯电子股份有限公司
ZHEJIANG HAITONG COMMUNICATION ELECTRONICS CO., LTD.

PROJECT NAME: HT1881-USI206

PRODUCT NAME: HT1881-BT

NO TOLERANCE NOTED			
ORG PLACE	Z. X	± 0.15	
TWO PLACE	Z. XX	± 0.10	
ANGULAR SIZE	Z. °	$\pm 1.0°$	
WELD DIA	Z. X	± 0.10	

APPR:		审核日期:	B.1.01.L.0865
CHKD:		HT审核日期:	
DRN:		客户编码:	3101500023

THIS DOCUMENT IS PROPERTY OF HAITONG PRECISION TECHNOLOGY LTD. IT CAN NOT BE COPIED, UPDATED AND TAKEN OUT COMPANY.	SCALE:	1/1	PAGE:	1/1	REV:	A	
	UNIT:	mm	SIZE:	A4	DESIGN NO.:	118-2830/138-534	



Product Dimension Inspection Report

The project name	USI206	Drawing specification/ver	USI206-BT-FPC/ A	Mold number/cavity number	/	Measuring time	2023. 3. 21
The sample status	Mass production,	Sample material/process	PI	Temperature, humidity	25C° 55%	Measuring the signature	Zhang ling
detection Conclusion:	There are 6 key dimensions $\leq 80\%$ in the drawing, 0 in early warning and 0 in $> 100\%$.					Signature of project manager	Zhang Xiaoli
	There are 7 pieces of general size $\leq 80\%$ on the drawing, 0 pieces of early warning, and 0 pieces of $> 100\%$.					Qc signature	Cao Jilei

The drawings specifications					Test results					Testing information							Processing opinion		Measuring tool
Size number	Size of nature	Basic dimensions	The tolerance	The tolerance	Sample 1	Sample2	Sample3	Sample4	Sample5	Tolerance range determination				Maximum deviation reference			Comments from supplier quality control/pr	Customer comments	
										≤50%	≤80%	warning	> 100%	The worst data	Tolerance percentage	Exceed the tolerance			
1	★	19.61	-0.15	0.15	19. 59	19. 55	19. 57	19. 62	19. 64	✓				19. 550	40%				C
2		2.70	-0.15	0.15	2. 65	2. 64	2. 68	2. 70	2. 69		✓			2. 640	40%				C
3	★	9.15	-0.15	0.15	9. 12	9. 18	9. 22	9. 14	9. 13	✓				9. 220	47%				C
4		2.24	-0.30	0.30	2. 22	2. 35	2. 22	2. 28	2. 29		✓			2. 350	37%				C
5		0.11	-0.03	0.03	0. 11	0. 11	0. 10	0. 12	0. 12		✓			0. 100	33%				C
6		5.13	-0.15	0.15	5. 15	5. 13	5. 12	5. 10	5. 14		✓			5. 150	13%				C

Remark:

Code description of measuring tools:

V: cubic C: quadratic BG: block gauge PG: needle gauge DG: depth gauge PG: needle gauge
P: projector DC: caliper RG: R gauge M: micrometer HG: height TC: true roundness meter
E: tool microscope F: plug gauge DT: lever table DI: depth table ★ : key



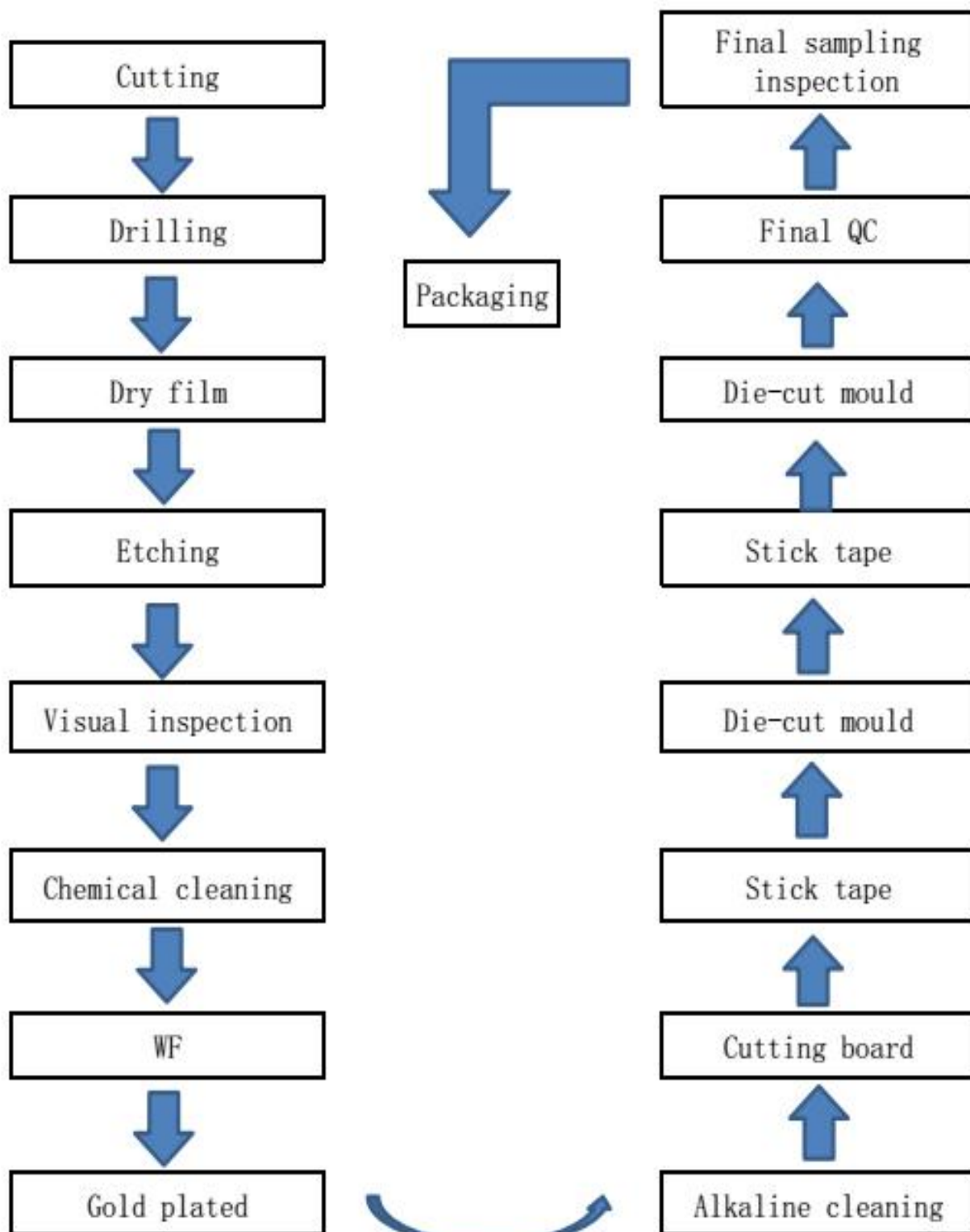
CPK Report

The product name	3101500023				supplier	Wenzhou Haitong Communication Electronics Co., Ltd.	
The customer material no.	USI206-BT-A2				That confirm	Zhang ling	
Die no.	/				Inch/mm	MM	
Acupuncture point no.	/			The name of the material		PI	
version	A				The date of	2023.3.21	
Size of the serial number	1	2					
Nominal size	19.61	9.15					
Is the tolerance	0.15	0.15					
Minus tolerance	-0.15	-0.15					
Specification limit	19.76	9.30					
Specification limit	19.46	9.00					
1	19.56	9.15					
2	19.57	9.15					
3	19.59	9.16					
4	19.57	9.17					
5	19.58	9.15					
6	19.66	9.16					
7	19.60	9.13					
8	19.59	9.18					
9	19.59	9.11					
10	19.55	9.17					
11	19.59	9.17					
12	19.59	9.17					
13	19.57	9.14					
14	19.59	9.10					
15	19.61	9.20					
16	19.58	9.10					
17	19.66	9.15					
18	19.63	9.15					
19	19.65	9.12					
20	19.55	9.14					
21	19.57	9.16					
22	19.57	9.16					
23	19.62	9.14					
24	19.57	9.10					
25	19.61	9.15					
26	19.64	9.12					
27	19.62	9.14					
28	19.60	9.19					
29	19.66	9.21					
30	19.62	9.18					
31	19.65	9.14					
32	19.58	9.20					
MAX.	19.66	9.21					
MIN.	19.55	9.10					
AVERAGE	19.60	9.15					
STDEV	0.03	0.03					
CP	1.52	1.74					
Cpk	1.42	1.72					
Measuring tool	Secondary yuan	Secondary yuan					

Review: Wu Xiaoyu

Zhang ling2023.3.21

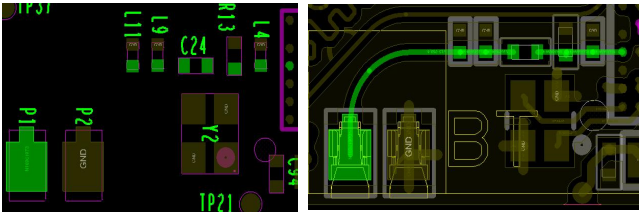
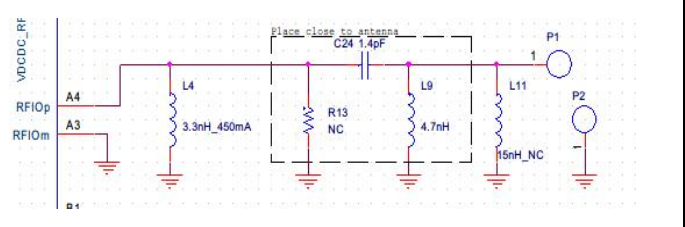
part name	USI206-BT-A2	make	RenKankan	production date	2023/3/21
the customer	MaxEye	confirm	LinHaifeng	confirmation date	2023/3/21



Antenna fixture

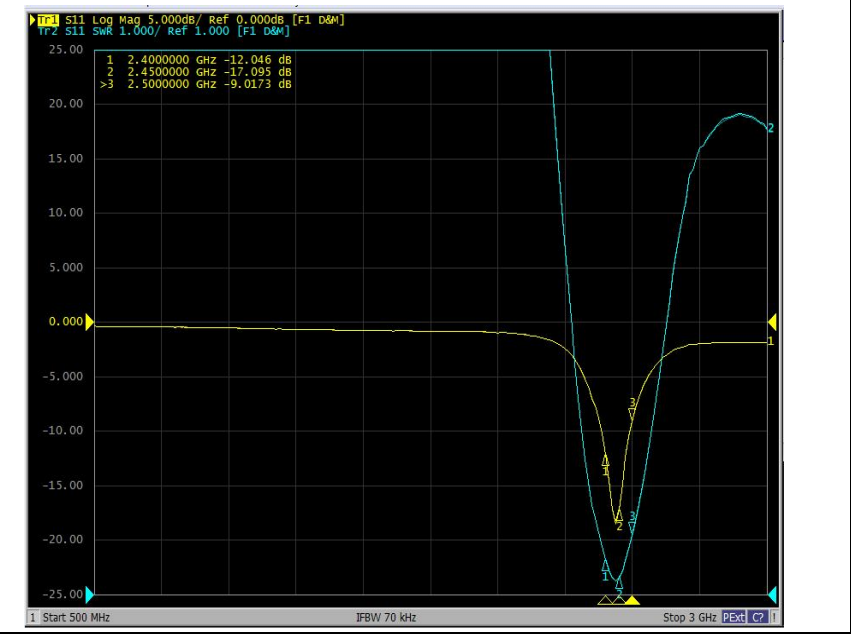


Matching circuit



Number	original state	Current state
L4	3.3nH	3.3nH
R13	NC	NC
C24	1.5pF	OR
L9	4.7nH	NC
L11	NC	NC

ReturnLoss & VSWR

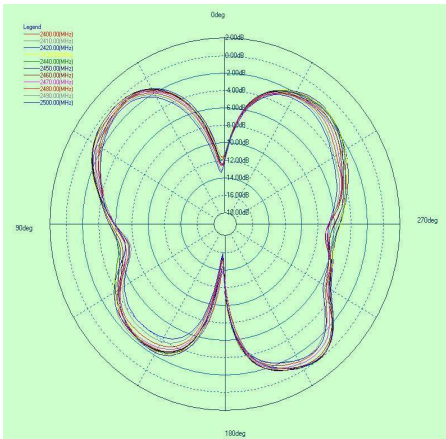


Efficiency

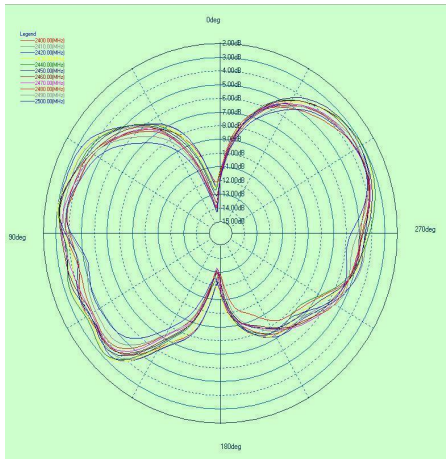
Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)
2400	36.3	-4.4	0.3
2410	37.9	-4.2	0.5
2420	40.4	-3.9	0.6
2430	42.6	-3.7	0.8
2440	43.4	-3.6	1.0
2450	43.2	-3.7	1.1
2460	42.5	-3.7	1.2
2470	41.6	-3.8	1.0
2480	40.5	-3.9	0.8
2490	39.5	-4.0	0.5
2500	37.6	-4.2	0.3

Radiation pattern

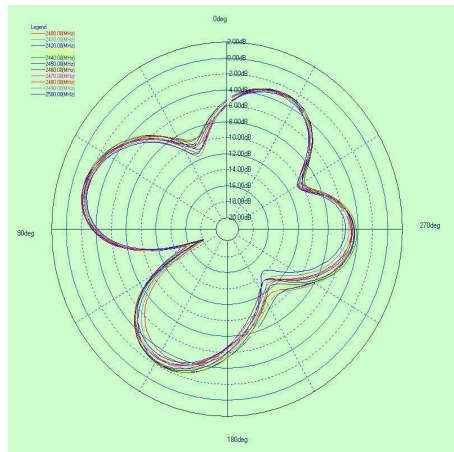
2400-2500MHz H plane



2400-2500MHz E1 plane



2400-2500MHz E2 plane



(Constant temperature and humidity)

表单编号: HT-FM-PZ112

(Product name)		USI206-BT-A2		(Part number)		3101500023		(laboratory temperature)		25℃		(Report No.)		ER20230315001	
(Date)		2023.3.15		(documentation)		(Product design specification)		(laboratory humidity)		66%		(Client Dept.)		RenKankan	
(Experiment reasons)		☒ (new product) ☐ (ECN later) ☐ (product to be out spec) ☐ (daily Experiment)						(Housing tool cavity)		/		(Metal tool)		/	
(Quantity)		5PCS		(Description)		(There is no abnormality in the appearance)		(Plastic material)		/		(Metal material)		/	
(Order)	(Experiment project)	(Samples Qty.)	(Experiment equipment)	(Experiment method)			(Experiment note of product)			(Experiment result)			(Conclude)		
1	(salt spray test)	5PCS	(Salt spray tester)	(The product was put into the salt spray test box of 5 % NaCl concentration for 48 hours at 35 °C 2 °C)			After 48 hours of salt spray, the appearance of the product is not oxidized, and the coating is peeling off)			(No oxidation, the coating shedding phenomenon)			OK		
(Approved by): WuXiaoyu				(Checked by): /				(Name of operator): ZhangLing							



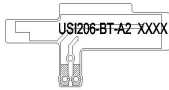
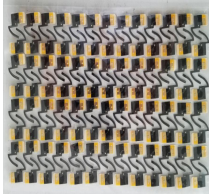
Survey of restricted substance composition

Product information supplied													
Customer material code		Material name/model number		Supplier material no		manufacturers				Green material identification			
3101500023		USI206-BT-A2		B.1.01.L.0865		Haitong communication electronics co. LTD							
Product composition information													
The serial number	Part name	Parts material,	Component supplier	Third-party test report		Limit material content PPM							note
				The date of	Serial number	(Pb)	(Cd)	(Hg)	(Cr ⁶⁺)	(PBB)	(PBDE)	(Br)	
1	USI206-BT-A2	Base material	Haitong communication	2022/2/21	SHAEC2202460503	○	○	○	○	○	○	○	
		Ink		2022/8/5	ETR22705905 ETR22705913	○	○	○	○	○	○	○	
		Glue		2022/1/12	CANEC2200386501 CANEC2200386502	○	○	○	○	○	○	○	
		Text ink		2022/2/26	A2220059575101001E	○	○	○	○	○	○	○	
		Gold plated		2022/1/15	A2220013873101005E A2220013873101004E	○	○	○	○	○	○	○	
Note: 1. Please use xx and × to indicate whether the content of the six restricted substances is compliant or not;The compliance person is expressed as "zero";Noncompliance is expressed as "x". 2. PPM limit value: cadmium <100 PPM.Lead/mercury/hexavalent chromium /PBB/PBDE<1000 PPM. 3. The total amount of lead, hexavalent chromium, mercury and cadmium in the packaging materials shall not exceed 100ppm. 4.Br< 900 ppm, Cl< 900 ppm, Br + Cl< 1500 ppm 4. Please fill in this form and seal it.(provide stamped paper or scanned PDF document) 5. If the limited substance exceeds the standard but meets the exemption terms, please explain in the remarks. 6. The third-party test report shall be valid for one year													

Fill in person:WangXiujuan

Company/department: quality department

Seal:

General requirements			
1. Explain customer name, project name, model number, 2. Picture description of inner and outer boxes, packing method, number of layers, quantity of single layer, etc 3. Fill in the name and quantity of packaging materials in the remarks column 4. Signature and date of quality supervisor			
The picture is for reference only, has not made the goods in large quantities, is not the real product.Process the same 1. Photos of individual product packaging  2. Single layer packaging photo 		Product material no. :	3101500023
		The product name	USI206-BT-A2
		Product version:	A
		The packing way	PE film packaging
		Inside the box	Layer: each layer
		20 packets	20layer 1000
		carton	Quantity of inner container: 20*1000=20000
3. Photos stacked on all floors of the box  Picture of the smallest package in the case 		Remark:	
5. Photo of the label on the smallest package in  6. Photos after the whole package is sealed 		Pictures are only for your reference.	
7. Picture of the face of the label on the surface of the entire carton 		1. Storage conditions: temperature: 17 ° C - 23 ° C, humidity: 55 rh - 65 rh (2) stored in low temperature, low humidity, no corrosive gas environment.Please use it within one week after opening the package.	
		Signature: Cao Jilei	