



Shanghai Chuangmi Technology Co., Ltd.

Antenna Type

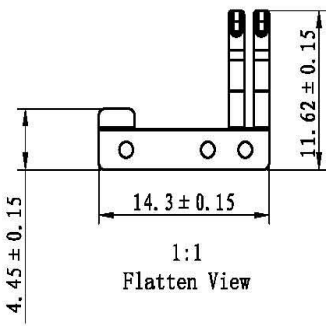
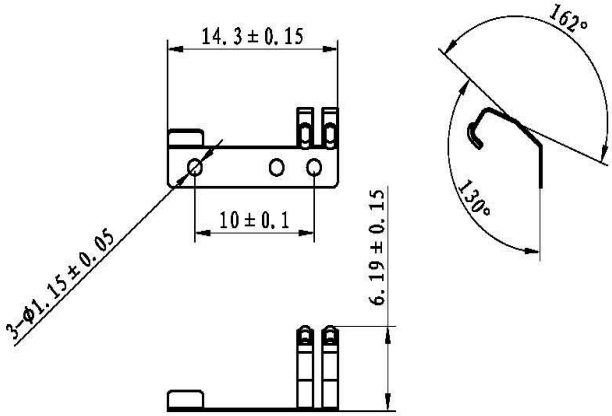
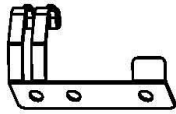
Part Description	Manufacturer: Kunshan Yunzhihong Electronic Technology Co. LTD. Product Name: YH0001_WIFI_MTL Part No.: S1C1431ZZZF	Description: SUS301 (T=0.15) Project: IMI_IPC016_A01
Attachments:	<input checked="" type="checkbox"/> Specification <input checked="" type="checkbox"/> Drawing <input checked="" type="checkbox"/> CPK Report <input checked="" type="checkbox"/> FAI Report <input checked="" type="checkbox"/> QC Flow Chart <input type="checkbox"/> Material Verification Sheet	<input checked="" type="checkbox"/> Sample <input checked="" type="checkbox"/> RoHS Report <input checked="" type="checkbox"/> Reliability Report <input checked="" type="checkbox"/> RoHS Questionnaire <input checked="" type="checkbox"/> Packing Content <input type="checkbox"/> Safety Report
Vendor	Design	Check Approval:
Technology Check	Mechanical Hardware	ID Sourcing
	Software Keypart	Engineering SQE
	Project Manager Product Manager	Customer
Final Check	Quality Planning	Rohs Status <input checked="" type="checkbox"/> RoHS <input type="checkbox"/> Non-RoHS
Approval condition	<input type="checkbox"/> Approved <input type="checkbox"/> Reject	
Approval condition	<input type="checkbox"/> Conditional Approved Conditions: <input type="checkbox"/> Temporary Approved Limited _____ Pcs for purchasing	
Approval by	RD Leader (Technology Director)	Quality Director
	* Audit by Technology Director or Qunality director on the conditions of special approval	
Distribute	<input type="checkbox"/> IQC <input type="checkbox"/> hardware <input type="checkbox"/> ME <input type="checkbox"/> Software <input type="checkbox"/> Components <input type="checkbox"/> ID <input type="checkbox"/> Vendor <input type="checkbox"/> Customer <input type="checkbox"/> outsourcing <input type="checkbox"/> Engineering <input type="checkbox"/> SQE <input type="checkbox"/> Others _____	



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REVISION	ECO#	REVISION NOTE	AUTHOR	DATE
AO		Initial version for Tool making	WENFENG	18-8-29
A1		Hole added, antenna cutdown 0.3mm	WENFENG	18-9-13



No deformation and others defects in the package.

Notes:

1. Part should be meets the 3D model.
2. Material: SUS301
3. Meet the quality requirements.
4. Material grain direction is allowed 45 to 90 degree with bend line.
5. Burr should be below 0.02mm.
6. FAI: 5pcs for full dimensions.
7. No change on material without engineering department.
8. Accord with RoHS requirement.

Part Name	YH0001-WIFI-MTL	Drawing No.	YH.CM.01.0001	
		Cust. part No.	S1C1431ZZZF	
Material	SUS301	Weight	Scale	
			g	2:1
		Total 1 Page	1st Page	
		Kunshan YZH Electric and Technology Co.Ltd.		

CPK Report

	Part Number	S1C1431ZZZF		Vendor	Kunshan Yunzhihong Electronics and Technology Co.,Ltd.	
	Description	IPC016 WIFI MTL		Inspected	Sinfo Pan	
	Tool Number	YZH00135		Inches/MM	MM	
	Cavity	1		Material Name	Metal	
				Material Code	SUS 301 3/4H	
	Revision	A0		Date	3-Sep-18	
Dim. Designator)	1	2	3			
Nominal	14.30	6.19				
+ Tolerance	0.15	0.15				
- Tolerance	-0.15	-0.15				
Upper Limit	14.45	6.34		0.00		0.00
Lower Limit	14.15	6.04		0.00		0.00
1	14.386	6.239				
2	14.341	6.197				
3	14.366	6.216				
4	14.381	6.219				
5	14.375	6.197				
6	14.356	6.257				
7	14.341	6.199				
8	14.386	6.197				
9	14.381	6.196				
10	14.373	6.199				
11	14.366	6.197				
12	14.341	6.296				
13	14.385	6.199				
14	14.356	6.192				
15	14.341	6.196				
16	14.385	6.199				
17	14.386	6.197				
18	14.341	6.196				
19	14.386	6.333				
20	14.381	6.197				
21	14.375	6.196				
22	14.386	6.194				
23	14.341	6.197				
24	14.388	6.196				
25	14.396	6.199				
26	14.341	6.197				
27	14.395	6.196				
28	14.356	6.199				
29	14.381	6.197				
30	14.391	6.196				
31	14.382	6.197				
32	14.375	6.196				
MAX.	14.40	6.33	0.00	0.00		0.00
MIN.	14.34	6.19	0.00	0.00		0.00
AVERAGE	14.37	6.21	#DIV/0!	#DIV/0!		#DIV/0!
STDEV	0.02	0.03	#DIV/0!	#DIV/0!		#DIV/0!
CP	2.65	1.60	#DIV/0!	#DIV/0!		#DIV/0!
Cpk	1.40	1.40	#DIV/0!	#DIV/0!		#DIV/0!
TOOLING						

Audit:

Editor:

Date:

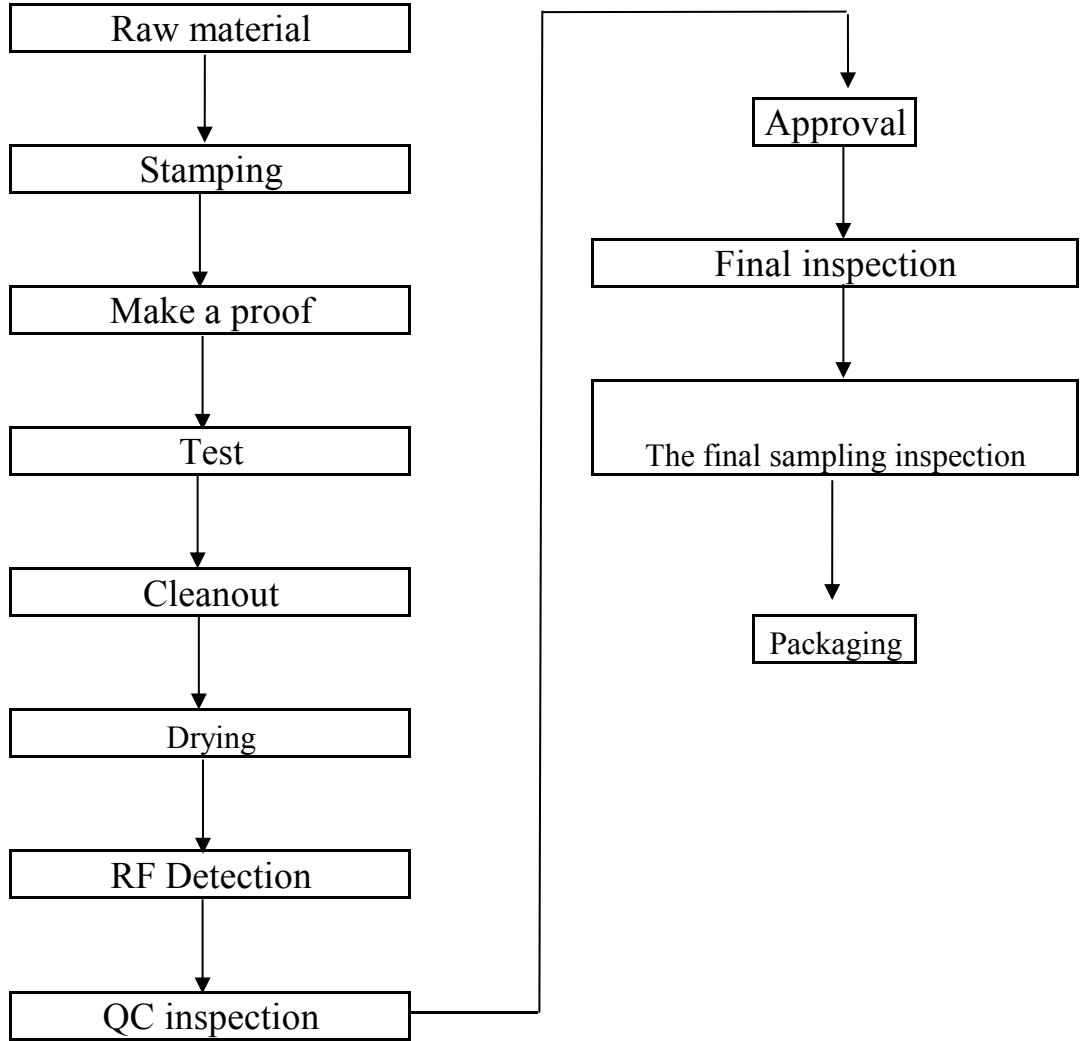
Kunshan Yunzhihong Electronic Technology Co., Ltd.

Survey report

						Serial	D20180903			
Customer	Chuangmi		Product name	IPC016		Amount	5pcs			
Part Number	S1C1431ZZF		Orig. Date	3-Sep-18		Proving time	3-Sep-18		NO	A
Sampling plan	GB/T2828.1-2012 Sampling plan					test level	A normal sampling plan AQL=0.4			
NO	inspection item	inspection item		Norm		sampling quantity	Allowable number of defective products	Measurement of the number of defective products	DecideOK/NG	
1	Appearance	eyeballing n		Surface stains, black spots			0	0	OK	
2	Colour	Visual chromatic aberration, color		The same batch can not have obvious visual color			0	0	OK	
3	Size	Part of the real world measurement value							Decide OK/NG	
		1	2	3	4	5				
7	14.3±0.15	14.38	14.37	14.32	14.32	14.39				OK
	6.19±0.15	6.18	6.16	6.21	6.14	6.13				OK
8	11.62±0.15	11.66	11.68	11.59	11.62	11.60				OK
10	Continuity test	Test the conduction status of all								OK
11	Network component consistency	Test the consistency of the welded product								OK
Decide (OK/NG)		OK								
					Producer	zhengjinjin		Notari	huangjin	

Process Flow Chart

Customer	Shanghai Chuangmi Technology Co., LTD.	Written By	Feng Wen	Orig. Date	3-Sep-18
Part Number	S1C1431ZZZF	Revised By	Xuehua Lan	Revised Date	3-Sep-18
Description	YH0001_WIFI_MTL	Approved By	Sinfo Pan	Approved Date	3-Sep-18



QC engineering drawing

Customer		Chaungmi	Written By	huang qing	Orig. Date	3-Sep-18	
Part Number		S1C1431ZZZF	Revised By	/	Revised Date	/	
Description		IPC016	Approved By	lai wei jiang	Approved Date	3-Sep-18	
Section	Serial number	Process flow chart		Control point	Facility	Frock	Monitoring and measuring device
Quality department	1	<pre> graph TD A[Material Inspect] -- NG --> B[Reject] A -- OK --> C[incoming material storage] C --> D[Stamping debugging] D --> E{FAI} E -- NG --> D E -- OK --> F[Punch] F --> G{IPQC} G -- N --> H[Reject record] H --> I[Scrap] G -- OK --> J[Clean] I --> J J --> K[Full dimensions] K --> L[Package] L --> M{OQC} M -- O --> N[storage] N --> O[Shipment] </pre>		Material composition/environmental protection/Specification/appearance			Quantity/label material proof/spectrum analyzer/caliper/micrometer/visual
Warehouse department	2			First in first out Storage conditions			The ERP system Temperature, hygrometer
Stamping department	3			Stamping parameters	60T Punching machine	Mould: CFK72-3237-A	Visual Check record
Quality department	4			1. For full size, please refer to the drawing 2, appearance			Height indicator/gage/caliper/micrometer/visual
Stamping department	5			Appearance	60Tpunch	Mould: CFK72-3237-A	Visual
Quality department	6			1. For key dimensions, please refer to the drawing 2, appearance			Height indicator/gage/caliper/micrometer/visual
Packaging division	7			Appearance (defective surface)			Visual
Packaging division	7			Appearance (surface dirt, grease, oxidation, etc.)			Visual
Packaging division	8			Appearance			Visual
Quality department	9			The key size			Height instrument/gage/caliper/micrometer/visual
Warehousing	10			Quantity/Label Storage conditions			Visual Temperature, hygrometer
Warehousing department	11	Quantity/Label Storage conditions			Visual		

Reliability test report

Customer	Chuangmi	Written By	WENFENG	Orig. Date	3-Sep-18
Part Number	S1C1431ZZZF	Revised By	Xuehua Lan	Revised Dat	3-Sep-18
Description1	YH0001_WIFI_MTL	Approved By	Sino Pan	Approved Date	3-Sep-18
Trail date: August 20, 2018			Theexperimentalcode: 20180810001		
Testmethod: Salt spray test					
Sample	Name	IPC016_WIFI_MTL	The thickness	NI	AU
	Texture	Shrapnel		2-8um	≥0.03um
	Preexperimental appearance	OK	Quantit v	7 PCS	
Experiment condition	Experimental time: 8:00 on the 8th to 8:00 on the 10th				
	Spray time: 48 hours		Moisturizing time: 48 hours		
	Laboratory temperature: 35°C±2°C		Pressure barrel temperature: 46°C±2°C		
	Laboratory relative humidity: 65%—75%		Atmospheric pressure: 101-02 kPa		
	NaCl concentration: 5%±0.5%		PH value: 6.5-7.2 (neutral))		
The experiment described	Postexperimental appearance	OK			
	Appearance after removal of corrosion products	OK			
Experimental result	OK				
Remark					
Producer:XIANGZHIWEI Confirm:HUANG QING Audit:LAI WEIJING					

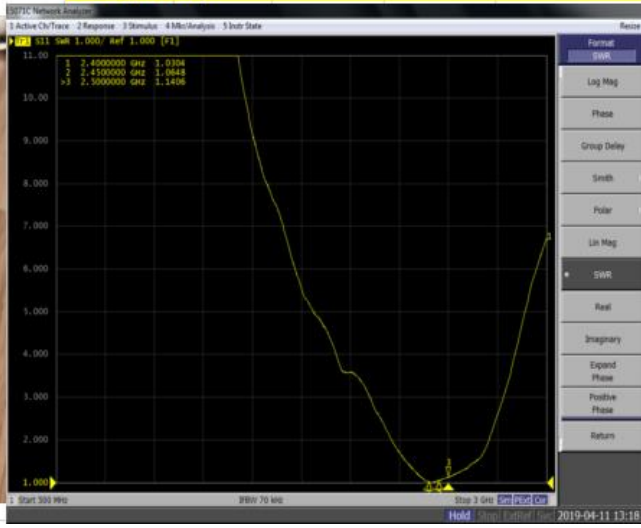
Antenna Performance Report

Customer	Chuangmi	Written By	WENFENG	Orig. Date	3-Sep-18
Part Number	S1C1431ZZZF	Revised By	Xuehua Lan	Revised Date	3-Sep-18
Description1	YH0001_WIFI_MTL	Approved By	Sinfo Pan	Approved date	3-Sep-18

IPC016 antenna report 20190411

Test engineer LSHIQ

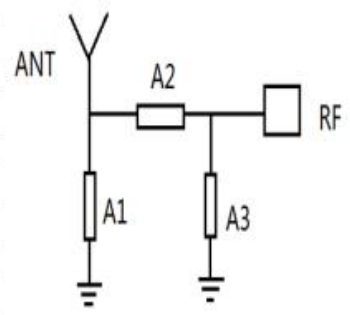
Machine images S11 (VSWR)



Antenna Efficiency

Matching circuit

F (MHz)	Eff (%)	Eff (dB)	Gain(dBi)
2400	53.34	-2.73	2.13
2410	53.52	-2.71	2.11
2420	56.87	-2.45	3.42
2430	55.88	-2.53	2.05
2440	56.25	-2.50	2.57
2450	57.87	-2.38	3.43
2460	58.59	-2.32	2.29
2470	56.34	-2.49	2.12
2480	53.23	-2.74	2.25
2490	54.43	-2.64	2.41
2500	55.25	-2.58	3.18

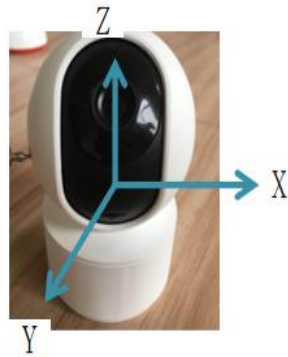


Element	Value
A1(0201)	0.5PF
A2(0201)	3.6nH
A3(0201)	N/A

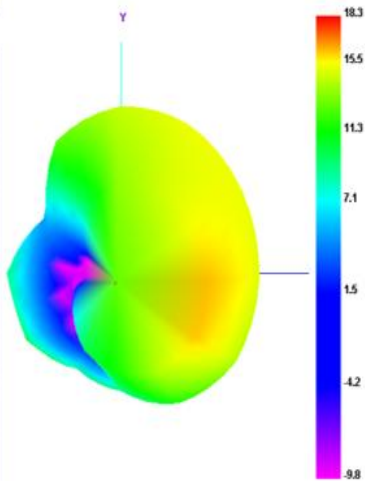
Pattern

Antenna Radiation Pattern

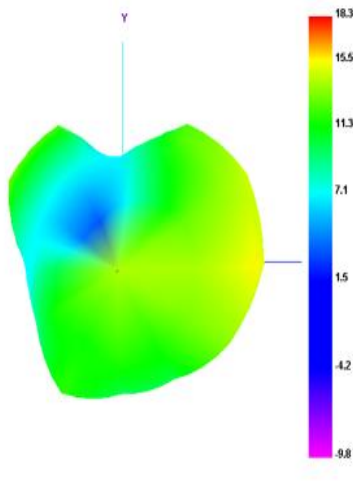
2412MHz



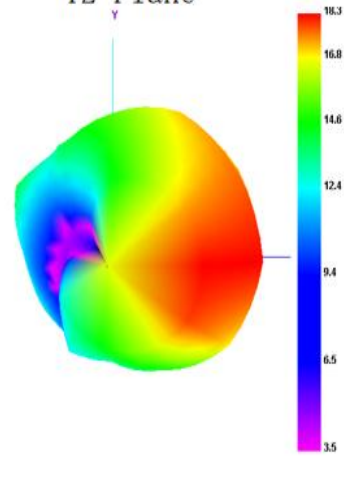
XY Plane



XZ Plane

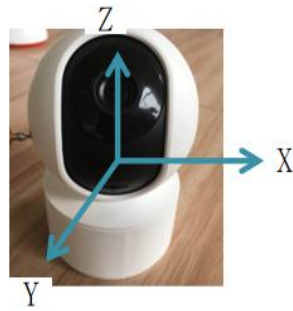


YZ Plane



Antenna Radiation Pattern

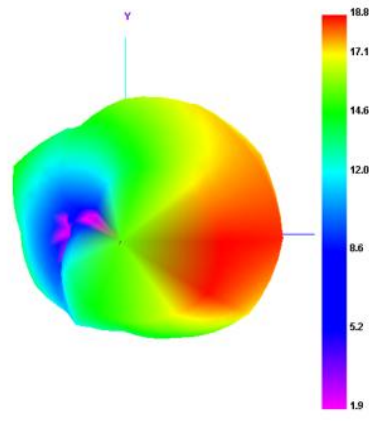
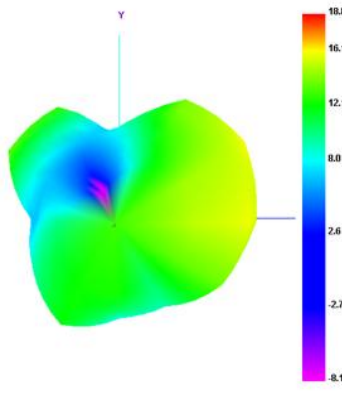
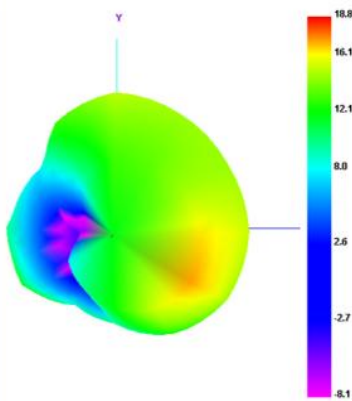
2442MHz



XY Plane

XZ Plane

YZ Plane



Antenna Radiation Pattern

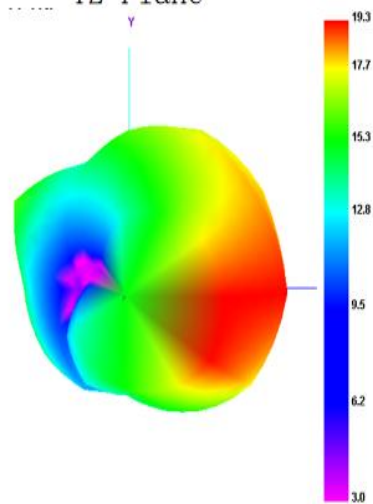
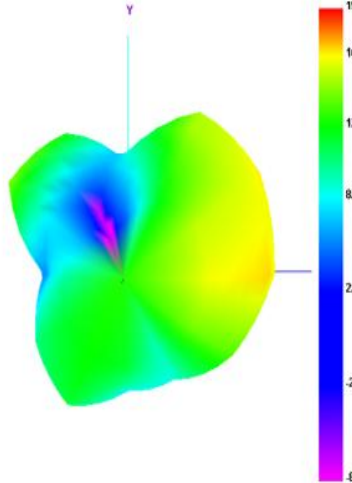
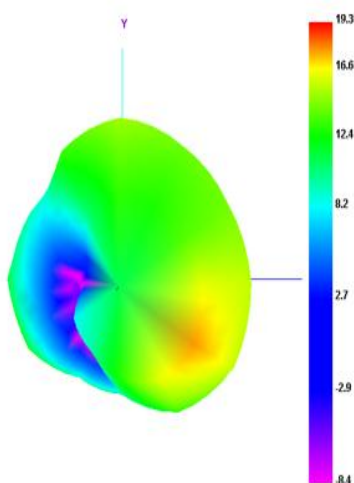
2462MHz



XY Plane

XZ Plane

YZ Plane



Antenna gain

F(MHz)	Eff (%)	Eff (dB)	Gain(dBi)
2400	53.34	-2.73	2.13
2410	53.52	-2.71	2.11
2420	56.87	-2.45	3.42
2430	55.88	-2.53	2.05
2440	56.25	-2.50	2.57
2450	57.87	-2.38	3.43
2460	58.59	-2.32	2.29
2470	56.34	-2.49	2.12
2480	53.23	-2.74	2.25
2490	54.43	-2.64	2.41
2500	55.25	-2.58	3.18

RoHS Limited Substance Composition Questionnaire

Supplier : Kunshan Yunzhihong Electronic Technology Co. LTD

Product Information														
Product name	Client project name	Supplier material no	Manufacturer	Green material identification										
S1C1431ZZZF	IMI_IPC016_A01	YH0001_WIFI_MTL	Kunshan Yunzhihong Electronics and Technology Co. LTD	/										
Product composition information														
NO	Name of parts	Parts material,	Component supplier	Third-party test report		PPM limit substance content								Remark
				Date	Serial number	(Pb)	(Cd)	(Hg)	(Cr ⁶⁺)	(PBB)	(PBDE)	(Br)	(Cl)	
1	SUS301			April 22, 2019	SZXEC1901037402	○	○	○	○	○	○	○	○	
<p>Note: 1、 Please indicate whether the content of the six restricted substances is in compliance or not in terms of ○ and ×;The compliance person is represented by ○;Non-compliance is expressed as ×.</p> <p>2. PPM limit value: cadmium <100PPM;Lead/mercury/hexavalent chromium /PBB/PBDE<1000PPM</p> <p>3. The total amount of lead, hexavalent chromium, mercury and cadmium in packaging materials shall not exceed 100ppm.</p> <p>4. This form should be completed and stamped by the supplier.(Provide stamped paper or scanned PDF document)</p> <p style="color: red;">5. If the limited substance exceeds the standard but complies with the exemption clause, please explain in the remarks.</p>														

Producer: wenfeng

Company/Department: Quality Department

Package

General requirements:

1. Describe the customer name, project name and model.
2. Picture description of internal and external boxes, packing method at delivery, number of layers, number of single layer, etc
3. Fill in the name and quantity of packaging materials in the remarks column
4. Signature of quality supervisor, date



Figure 1: Single layer small box or other form



Figure 2: Basic packing method of inner case



Figure 3: Packing case

Part Number:	S1C1431ZZZF	
Part name:	YH0001_wifi_mtl	
Part version:	A	
Wayofpacking :	Small box + cardboard + inner carton + outer carton	
Inner box	Plies:	2
Carton	Inner box qty	18
Commmets:		
Sign:		