

承 认 书

APPROVAL SHEET

客户名称

CUSTOMER NAME:

产品名称

PRODUCT NAME: 内置天线 L=68mm+端子

客户料号

CUSTOMER P/N:

优比电子料号

Youbi P/N: UB01C68F2D3593A REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Eddy 	
APPROVED BY:	工程专用章 Changxing. Liu	
DATE:	2023/3/10	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	Eddy	2023-3-10

Content

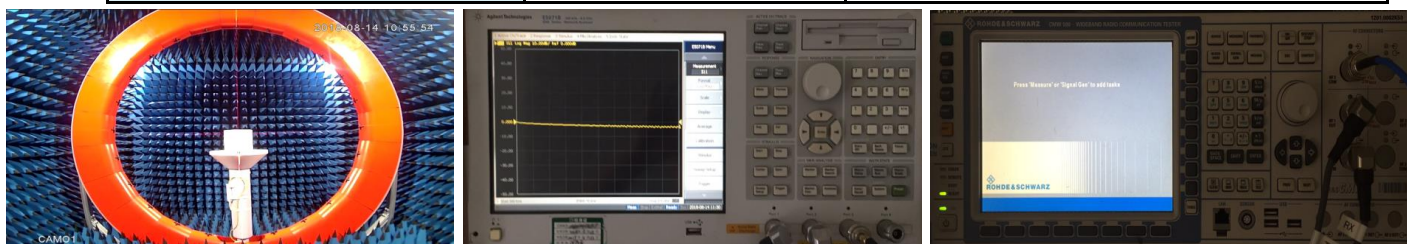
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5.-----	Radiation Pattern
6.-----	Active test data
6.-----	Antenna installation diagram
7.-----	Mechanical Specification
8.-----	Packaging

1. Electrical Specification:

Characteristics	Specifications	Unit
Outline Dimensions	30.4x17.5,L68	mm
Frequency	2400-2500;5150-5850	MHz
Impedance	50	Ω
VSWR	< 2	
Polarization	Linear Polarization	
Gain	4 REF	dBi
Efficiency	>40	%
Connector Type	MHF-1-Plug	
Operating temperature	-20℃~+85℃	
Storage Temp	-20℃~+50℃	

2. Test Items and Equipment

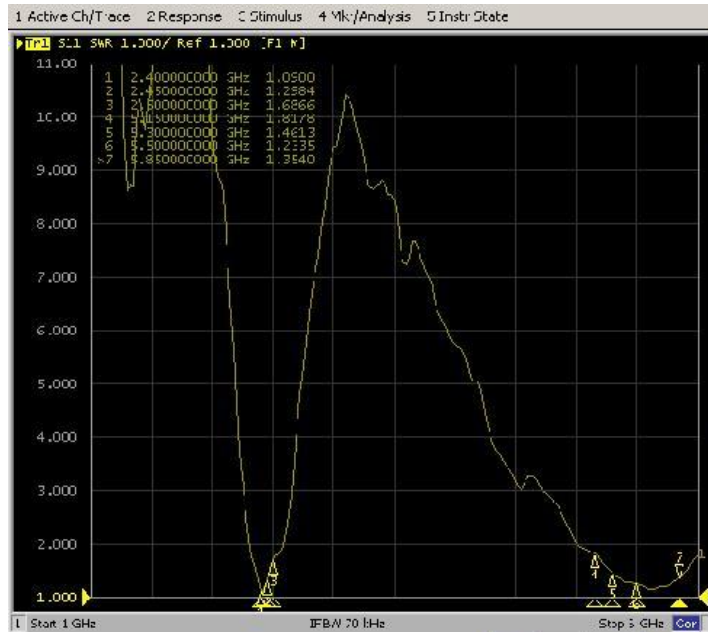
	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave darkroom (5m*5m*5m) 2.Comprehensive test instrument (CMW500)



3. S Parameter

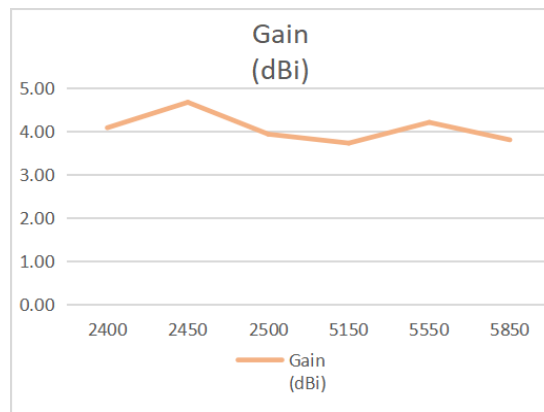
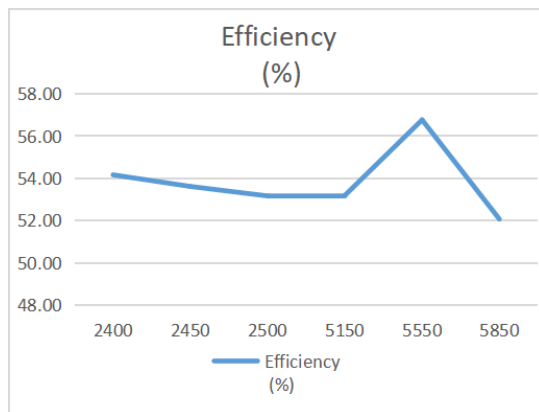
Frequency (MHz)	VSWR
2400	1.09
2450	1.29
2500	1.68
5150	1.81
5300	1.46
5500	1.23
5850	1.35

* Voltage Standing Wave Ratio(VSWR)
Return Loss(RL)
 $RL=20*\log_{10}[(VSWR+1)/(VSWR-1)]$



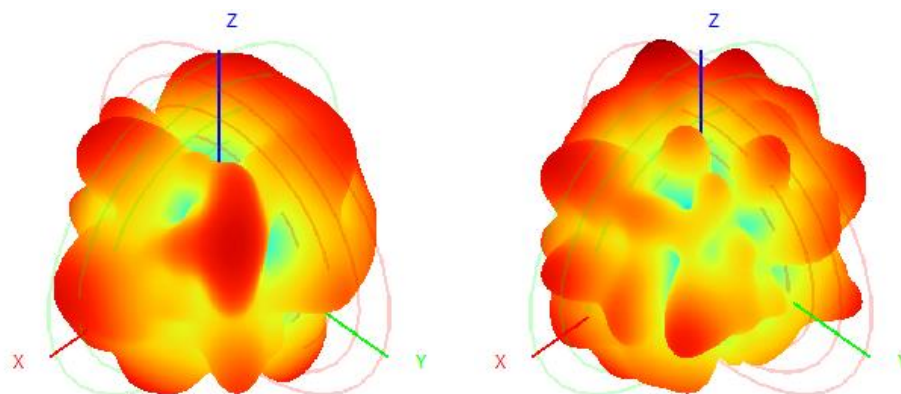
4. Efficiency and Gain

Frequency (MHz)	2400	2450	2500	5150	5550	5850
Efficiency (%)	54.17	53.62	53.17	53.20	56.77	52.08
Gain (dBi)	4.09	4.67	3.94	3.73	4.21	3.81



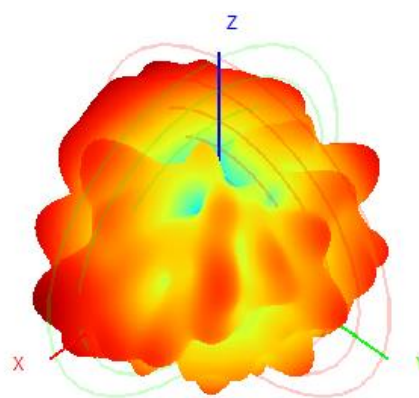
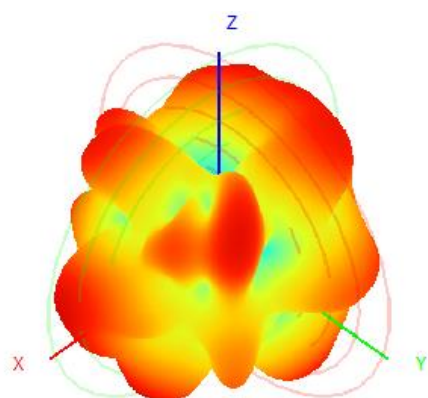
5. Radiation Pattern

5-1 Antenna 3D Radiation Pattern



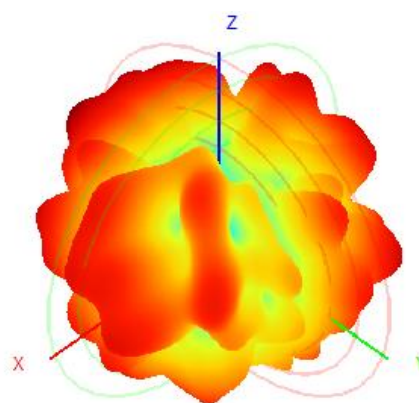
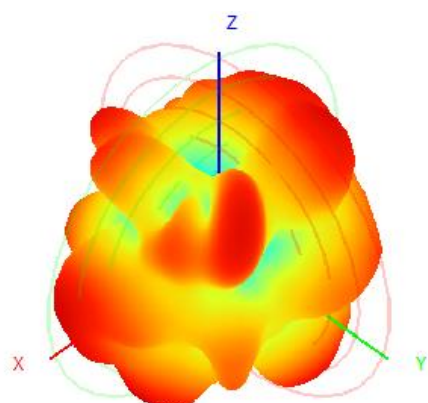
2400MHz

5150MHz



2450MHz

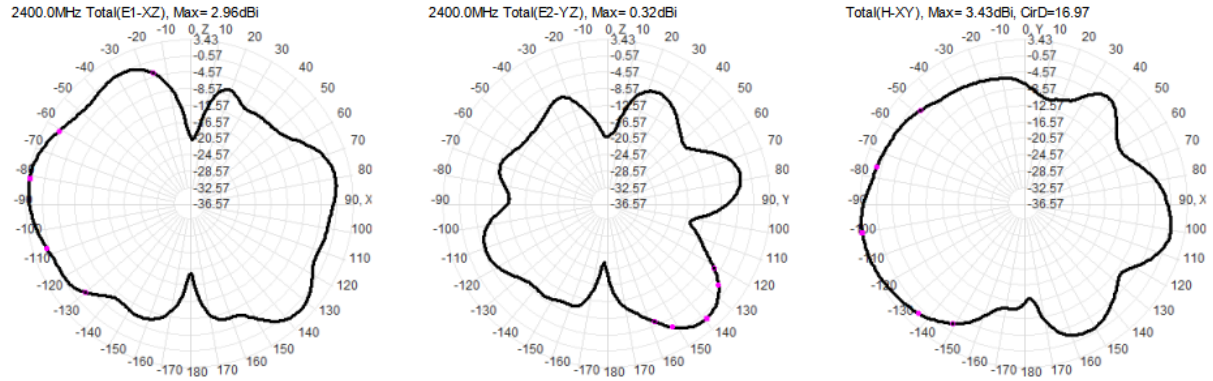
5550MHz



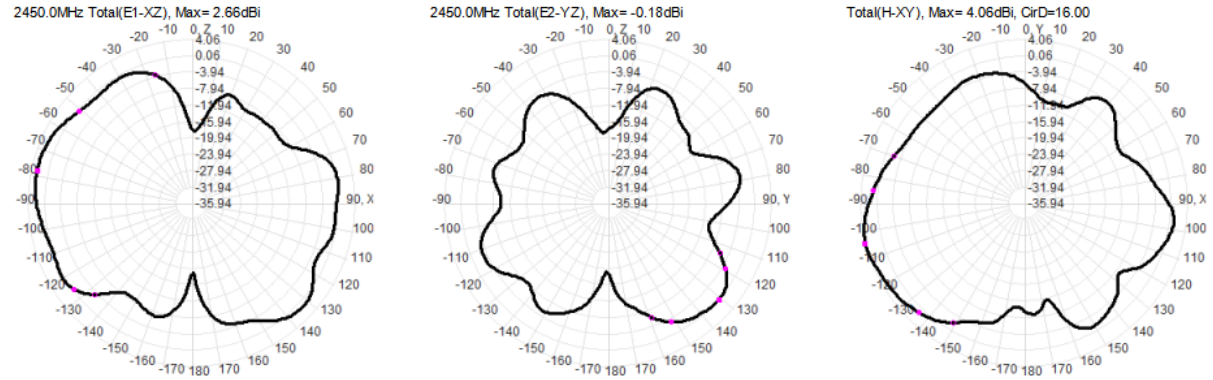
2500MHz

5850MHz

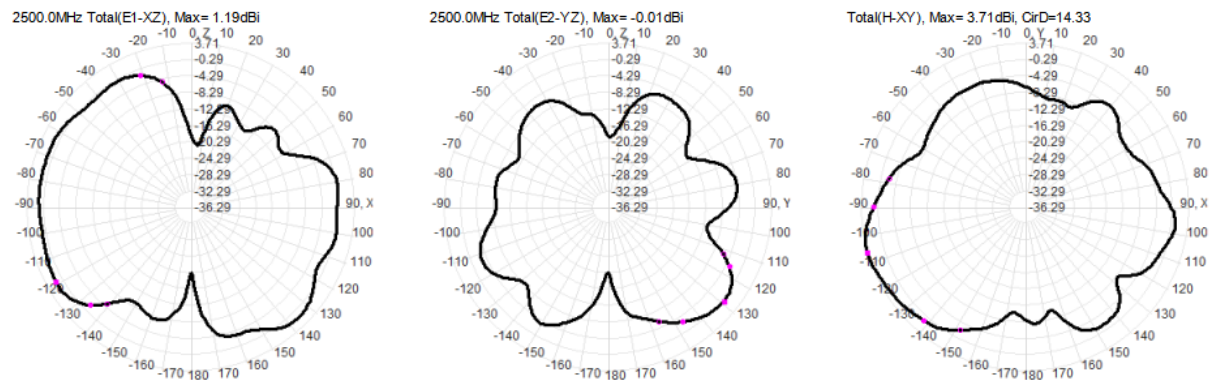
5-2 Antenna 2D Radiation Pattern



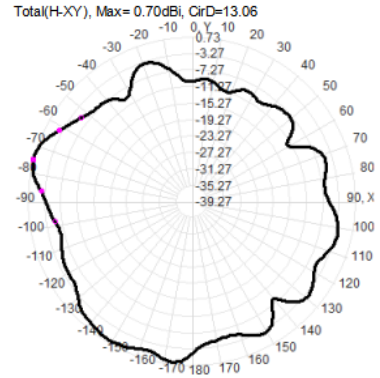
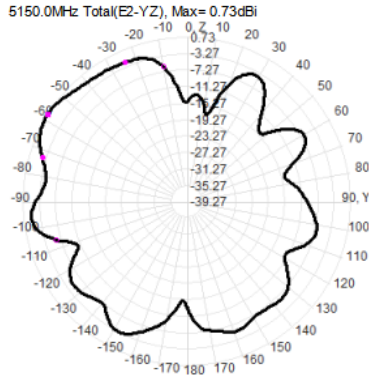
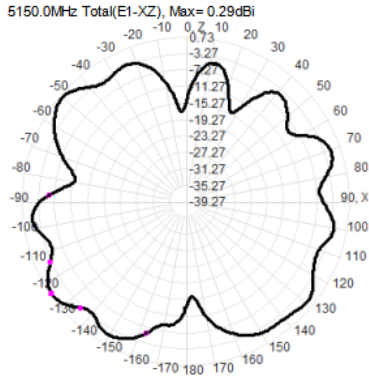
2400MHz



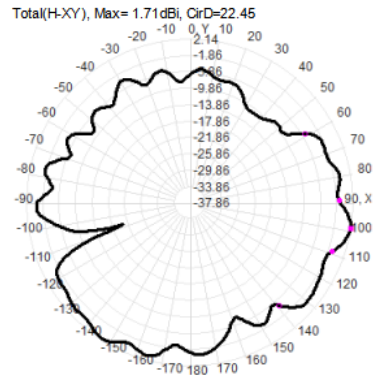
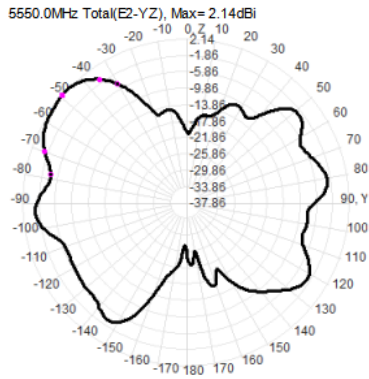
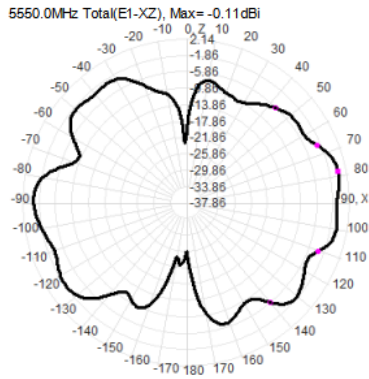
2450MHz



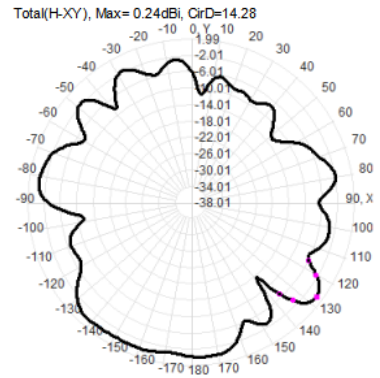
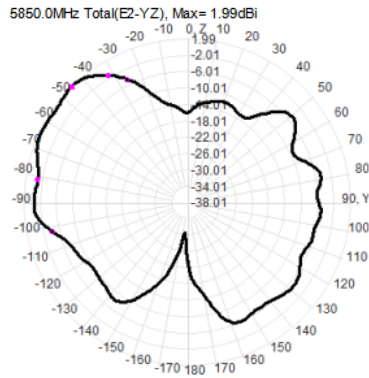
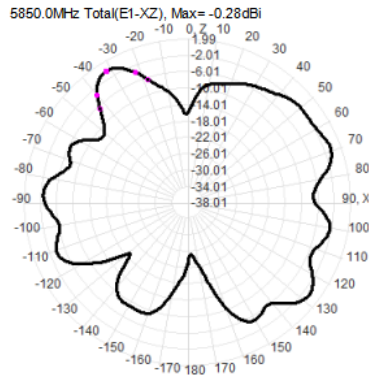
2500MHz



5150MHz



5550MHz



5850MHz

6. Active test data

Item	Measurement	Azimuths	Elevations	Standard	Band	Channel	Frequency	Total
1	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	1	2412	16.67
2	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	1	2412	-77.46
3	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	6	2437	15.78
4	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	6	2437	-83.65
5	TRP	Every30	Every30	WIFI (AP)	WIFI_B (11M)	11	2462	15.34
6	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_B (11M)	11	2462	-81.91
7	TRP	Every30	Every30	WIFI (AP)	WIFI_A (54M)	36	5180	18.57
8	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_A (54M)	36	5180	-75.16
9	TRP	Every30	Every30	WIFI (AP)	WIFI_A (54M)	100	5500	17.53
10	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_A (54M)	100	5500	-74.1
11	TRP	Every30	Every30	WIFI (AP)	WIFI_A (54M)	165	5825	17.63
12	TIS(EIRP)	Every30	Every30	WIFI (AP)	WIFI_A (54M)	165	5825	-72.91

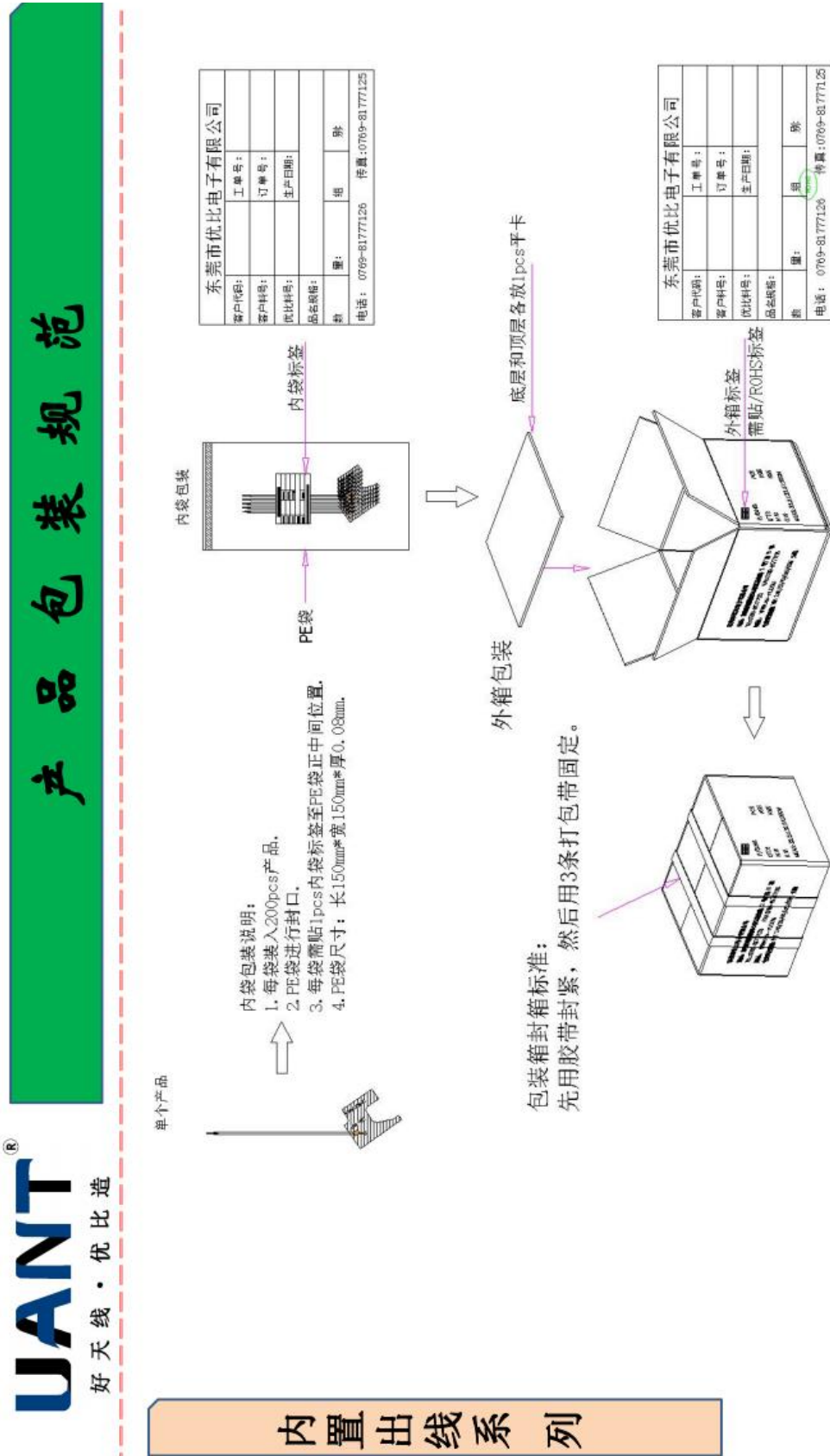
7. Antenna installation diagram



8. Mechanical Specification

A	B	C	D	E	F	G																													
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> RoHS COMPLIANT </div>																																			
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>ECN NO.</th> <th>DATE</th> <th>DRAFTER</th> </tr> <tr> <td>A</td> <td>First Sample</td> <td>/</td> <td>2023. 3. 10</td> <td>Yongxin</td> </tr> </table>		REV.	DESCRIPTION	ECN NO.	DATE	DRAFTER	A	First Sample	/	2023. 3. 10	Yongxin	<p style="text-align: center;">Specification:</p> <p style="text-align: center;">Frequency Rang: 2400-2500; 5150-5850MHZ</p>		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;"> GENERAL TOLERANCE: CUST. P/N: </td> <td colspan="2" style="text-align: center;"> UANT® 东莞市优比电子有限公司 Dongguan Youbi Electronics Co., Ltd </td> </tr> <tr> <td style="width:30%;"> TITLE.: 2.4/5.8G FPC 内置天线 L=68mm±2端子 </td> <td colspan="3"></td> </tr> <tr> <td> P/N.: UB01C68F2D3593A </td> <td colspan="3"></td> </tr> <tr> <td> REV. A </td> <td> UNITS mm </td> <td> SCALE 1 : 1 </td> <td> APPR.: Changxing.Liu </td> </tr> <tr> <td colspan="2"></td> <td> CHECK.: Di.llon </td> <td> DRAW.: Yongxin </td> </tr> </table>		GENERAL TOLERANCE: CUST. P/N:		UANT® 东莞市优比电子有限公司 Dongguan Youbi Electronics Co., Ltd		TITLE.: 2.4/5.8G FPC 内置天线 L=68mm±2端子				P/N.: UB01C68F2D3593A				REV. A	UNITS mm	SCALE 1 : 1	APPR.: Changxing.Liu			CHECK.: Di.llon	DRAW.: Yongxin
REV.	DESCRIPTION	ECN NO.	DATE	DRAFTER																															
A	First Sample	/	2023. 3. 10	Yongxin																															
GENERAL TOLERANCE: CUST. P/N:		UANT® 东莞市优比电子有限公司 Dongguan Youbi Electronics Co., Ltd																																	
TITLE.: 2.4/5.8G FPC 内置天线 L=68mm±2端子																																			
P/N.: UB01C68F2D3593A																																			
REV. A	UNITS mm	SCALE 1 : 1	APPR.: Changxing.Liu																																
		CHECK.: Di.llon	DRAW.: Yongxin																																
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>ITEM</th> <th>PART NAME</th> <th>DESCRIPTION</th> <th>QTY</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>FPC</td> <td>FPC Antenna radiator, PI Black</td> <td>1</td> </tr> <tr> <td>2</td> <td>Cable</td> <td>1.13 Coaxial cable, Black</td> <td>1</td> </tr> <tr> <td>1</td> <td>Connector</td> <td>MHF-1-Plug connector, Phosphor brass gold plated</td> <td>1</td> </tr> </tbody> </table>		ITEM	PART NAME	DESCRIPTION	QTY	3	FPC	FPC Antenna radiator, PI Black	1	2	Cable	1.13 Coaxial cable, Black	1	1	Connector	MHF-1-Plug connector, Phosphor brass gold plated	1	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>GENERAL TOLERANCE:</th> <th>CUST. P/N:</th> </tr> <tr> <td>X. XX ±0.25</td> <td>TITLE.:</td> </tr> <tr> <td>XX ±0.3</td> <td>2.4/5.8G FPC 内置天线</td> </tr> <tr> <td>XXX ±0.5</td> <td>L=68mm±2端子</td> </tr> <tr> <td>XXX ±2.0</td> <td>P/N.: UB01C68F2D3593A</td> </tr> <tr> <td>ANGLE: ±0.5°</td> <td>REV. A</td> </tr> <tr> <td></td> <td>UNITS mm</td> </tr> <tr> <td></td> <td>SCALE 1 : 1</td> </tr> </table>		GENERAL TOLERANCE:	CUST. P/N:	X. XX ±0.25	TITLE.:	XX ±0.3	2.4/5.8G FPC 内置天线	XXX ±0.5	L=68mm±2端子	XXX ±2.0	P/N.: UB01C68F2D3593A	ANGLE: ±0.5°	REV. A		UNITS mm		SCALE 1 : 1
ITEM	PART NAME	DESCRIPTION	QTY																																
3	FPC	FPC Antenna radiator, PI Black	1																																
2	Cable	1.13 Coaxial cable, Black	1																																
1	Connector	MHF-1-Plug connector, Phosphor brass gold plated	1																																
GENERAL TOLERANCE:	CUST. P/N:																																		
X. XX ±0.25	TITLE.:																																		
XX ±0.3	2.4/5.8G FPC 内置天线																																		
XXX ±0.5	L=68mm±2端子																																		
XXX ±2.0	P/N.: UB01C68F2D3593A																																		
ANGLE: ±0.5°	REV. A																																		
	UNITS mm																																		
	SCALE 1 : 1																																		

9. Packaging

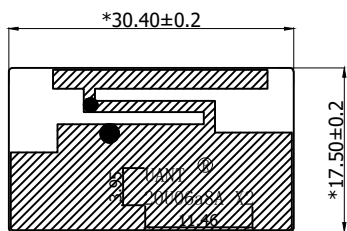


注: 此份包装规范适用于FPC, PCB天线类的线材总长<90mm带ipex和不带ipex产品, 属于通用类型.

1. **中号纸箱**装10000pcs产品每箱.

ROHS

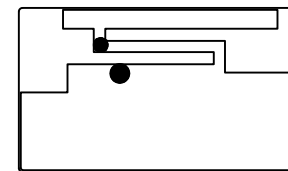
版本	日期	变更内容
A	2022-12-09	新发行



防焊漆



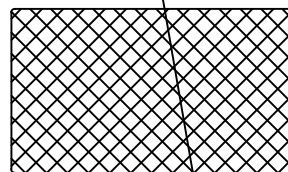
铜箔线路



焊点

0.20±0.1

离型纸切口



背面

Controlld Document
受控文件

2. 4GHz

备注:

1. FPC板: PI, 一对半;
2. 正面黑色防焊漆处理, 焊点OSP处理;
3. 丝印白色字体, 位置如图;
4. 背胶: 背胶3M 9471;
5. 未标注尺寸公差±0.1mm;
6. 带 * 号为重点管控尺寸;
7. 产品须符合RoHS 要求.

XXX.	±1.0	核准
XX.	±0.5	
X.	±0.3	审核
.X	±0.2	
.XX	±0.1	制图
柯友杰		

1	FPC	1	PCS	PI;黑油
序号	名称	用量	单位	规格描述
客 户:		UANT [®] 东莞市优比电子有限公司 好天线·优比造 Dongguan UB Electronic Co.,Ltd		
客户料号:				
产品名称:				
优比料号: 20U06a8A				
版本	单位	比例	大小	页码
A	mm	1:1	A4	1/1