Admit it

The product description:	The manufacturer:	Welletronics Communication Technology Limited	Project type:	MP01 BT antenna
	The name of the material:	Bluetooth RF antenna	Specification/Color:	white
	Material code:	3.01.MP01F10000	Sign the sample date:	2023.02.04
	The version number:	V1.0	note:	
The attachment:	■ Description of electrical and mechanical properties (Specification) ■ Manufacturing flow chart ■ QCEngineering drawing ■ The sample ■ CPK report ■ Full size measurement report ■ Reliability test report ■ The packing way ■ Raw material list report /RoHS report/HF/REACH			
Supplier sign and approve	artificial:	audit:	approval:	

The above shall be filled in by the supplier and the following shall be filled in by Aidu

	department	**Confirm the content**				**Verify the results**	**Confirm person/date**
Technical confirmation column	Supplier quality	☐ RoHS material ☐ no RoHS material	☐Meet REACH requirements	☐ Meet halogen-free requirements	☐Other Environmental Requirements		
	ID of Design Department	☐The customer request ID	☐Color confirmation	☐Surface process confirmation	☐Shell, hardware, key material		
	Structural engineer	☐ Confirm the size of 2D drawing files ☐Specifications and technical requirements	☐Focus on size marking control ☐Electrical performance parameter	☐Adapter validation ☐function	☐Shell, hardware, key material ☐The effect		
	Hardware engineer	☐ Confirm the size of 2D drawing files ☐Specifications and technical requirements	☐Focus on size marking control ☐Electrical performance parameter	☐Adapter validation ☐function	☐Shell, hardware, key material ☐The effect		
	R&d quality	☐Test standard confirmation ☐appearance	☐Standardization of dimension marking (key dimensions)	☐ Reliability verification ☐Adapter validation	☐function ☐The effect		
Final confirmation	Project Manager	☐Acknowledge the completeness of the documents ☐Standardization of dimension marking (key dimensions)	☐Specifications and technical requirements ☐appearance	☐Electrical performance parameter	☐function ☐The effect		
Admitted conditions:	☐ Official recognition ☐ Set limit to admit ☐ Refuse to admit						
Distribution department:	☐ IQC ☐ supplier ☐ The customer ☐ after-sales ☐ SQE/ Document control ☐ other _____						

Catalog

Three 、Change history

Change of resume

Serial number	Date of change	entry name	Edition	Change content	Remarks
1	Feb 4, 2023	MP01 BT antenna	V1.0	nothing	New issue

Four、 Electrical characteristics

1.Antenna Structure

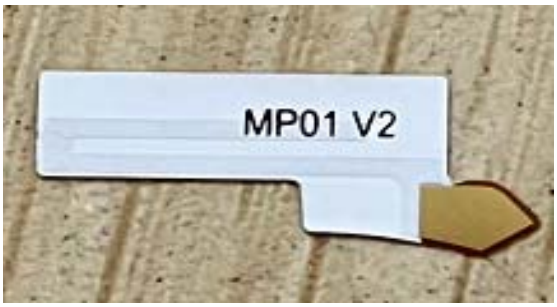


Figure antenna structure

2. Test Results

BT-Return Loss/VSWR

3. Test Repor No source by space test efficiency/pattern

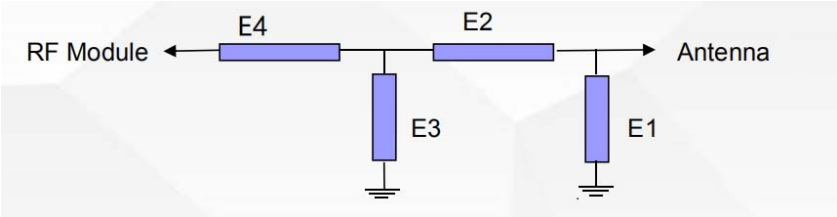
Free space

Freq	Efficiency_dB	Efficiency_Pcent	Gain
2400	-6.69	21.42	-2.53
2410	-6.95	20.19	-2.66
2420	-6.88	20.49	-2.61
2430	-7.02	19.87	-2.69
2440	-7.01	19.93	-2.6
2450	-7.12	19.41	-2.77
2460	-7.24	18.9	-2.84
2470	-7.12	19.4	-2.64
2480	-7.07	19.62	-2.58
2490	-6.91	20.36	-2.32
2500	-6.96	20.13	-2.21

Add the arm

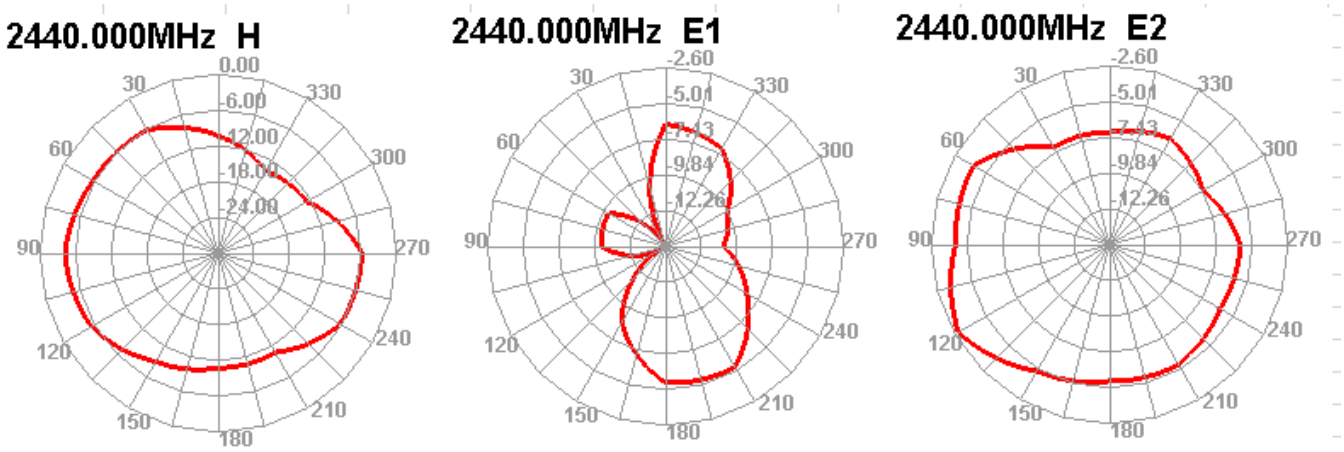
Freq	Efficiency_dB	Efficiency_Pcent	Gain
2400	-11.46	7.14	-5.13
2410	-11.88	6.49	-5.65
2420	-11.95	6.38	-5.75
2430	-12.12	6.14	-5.93
2440	-12.08	6.2	-5.93
2450	-12.2	6.03	-6.12
2460	-12.39	5.77	-6.28
2470	-12.34	5.83	-6.22
2480	-12.33	5.85	-6.07
2490	-12.32	5.87	-6.01
2500	-12.51	5.61	-6.27

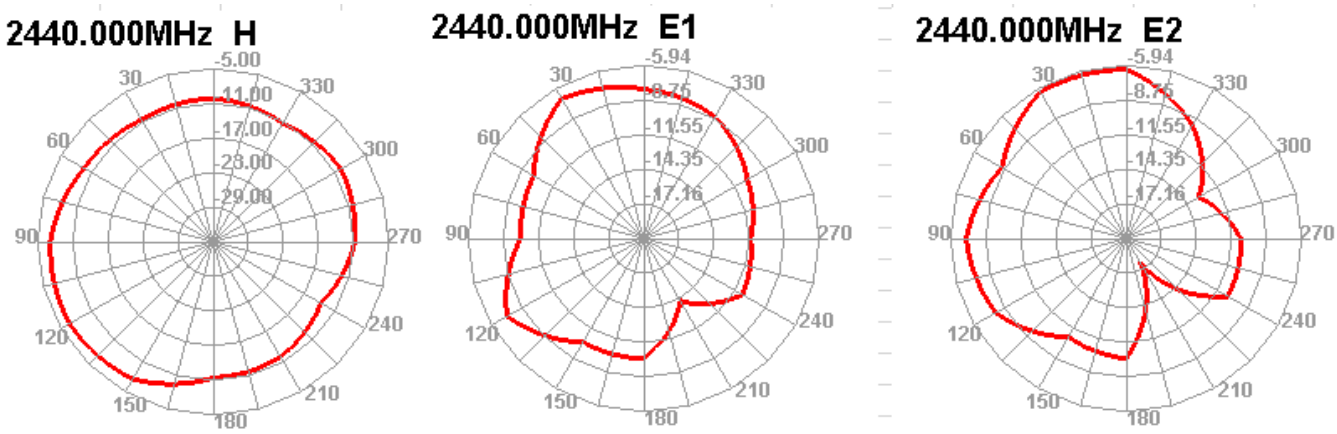
Match



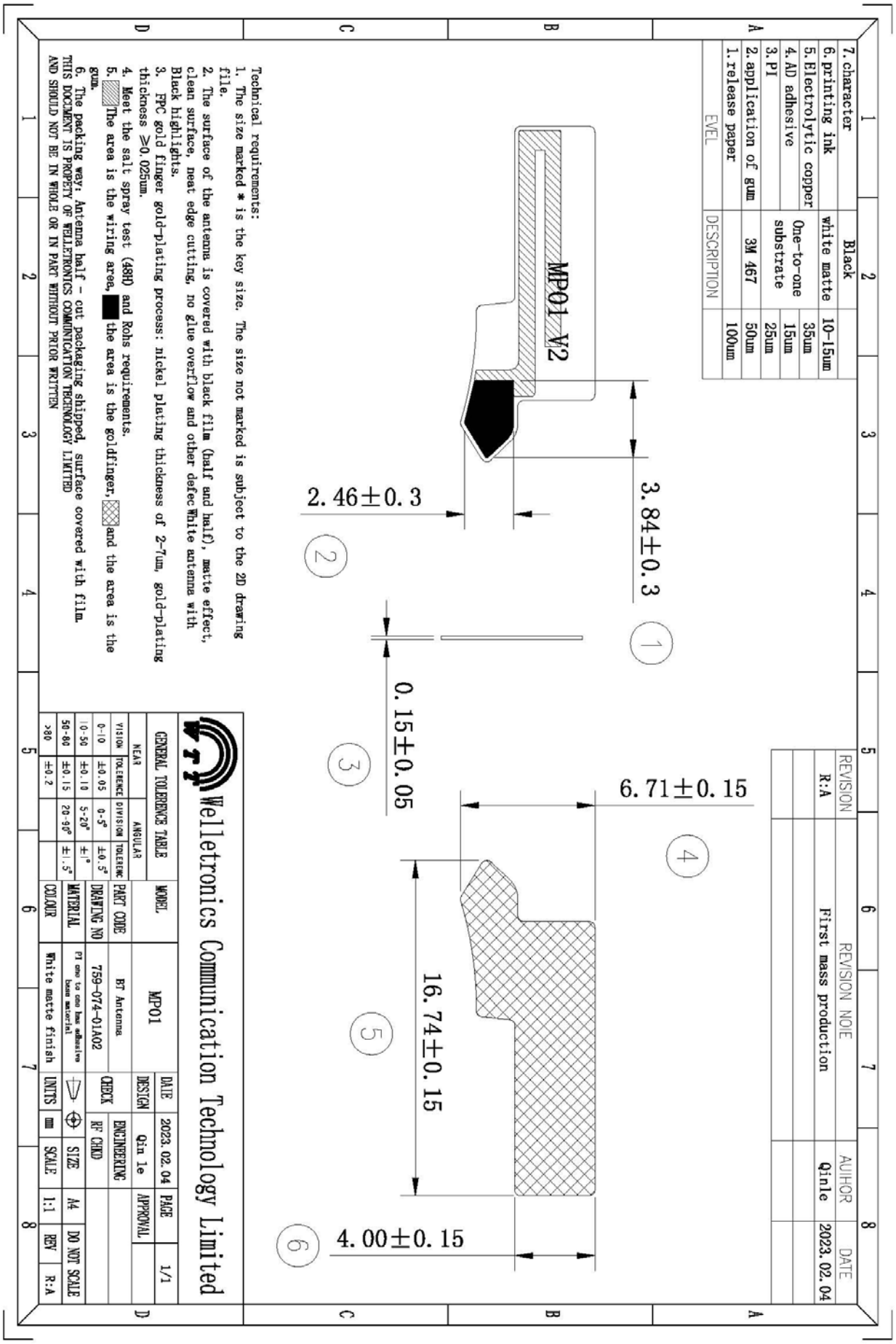
	Element	Value
The antenna	E1	1.8PF
	E2	2.2nh
	E3	
	E4	

3. The direction of figure





Five、The 2D drawings



Six、Full-scale measurement report

Full-scale measurement report

Vendor		Material name	FPC	Part NO	759-074-01A02	Tool Number		Cav. Number		Unit		Comments
WTT		Material Code		Part Name	MP01 BT antenna			Rev	R:A	☐ INCHES ☑ MILLIMETERS		
Date		03-Feb-23		MEASURED DIMENSION			% TOLERANCE USED		DISPOSITION		ACCEPTABLE VARIANCE	
DIM. #	DIMENSION	DRAWING ZONE	+ TOL.	- TOL.	NOTE	SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4	SAMPLE 5	UPPER	LOWER	0%-25%	25%-50%	50%-75%	75%-100%	100%+	Re-Measure	Accept	Fix Tool	Accept With Variance	DIMENSION	+ TOL.	- TOL.
1	3.84		0.30	0.30		3.84	3.81	3.80	3.82	3.84	0%	13%	X											
2	2.46		0.30	0.30		2.43	2.50	2.54	2.43	2.42	27%	13%		X										
3	0.15		0.05	0.05		0.15	0.15	0.15	0.15	0.15	0%	0%	X											
4	6.71		0.15	0.15		6.69	6.72	6.70	6.72	6.73	13%	13%	X											
5	16.74		0.15	0.15		16.75	16.74	16.76	16.73	16.75	13%	7%	X											
6	4.00		0.15	0.15		4.02	3.97	4.02	3.96	3.96	13%	27%		X										

Seven、Cpk Report

CPK Report

Part Number	759-074-01A02		Vendor	WTT	
Description	MP01 BT antenna		Inspected	肖洁	
Tool Number			Inches/MM	mm	
Cavity			Material Name	FPC	
			Material Code		
Revision	R;A		Date	3-Feb-23	
Dim. Designator	4	5			
Nominal	6.71	16.74			
+ Tolerance(All	0.15	0.15			
- Tolerance	-0.15	-0.15			
Upper Limit	6.86	16.89			
Lower Limit	6.56	16.59			
1	6.69	16.75			
2	6.72	16.74			
3	6.70	16.76			
4	6.72	16.73			
5	6.73	16.75			
6	6.70	16.72			
7	6.75	16.73			
8	6.72	16.75			
9	6.73	16.70			
10	6.71	16.78			
11	6.76	16.76			
12	6.73	16.80			
13	6.71	16.73			
14	6.70	16.72			
15	6.65	16.77			
16	6.69	16.68			
17	6.71	16.69			
18	6.65	16.73			
19	6.68	16.75			
20	6.77	16.70			
21	6.72	16.78			
22	6.75	16.72			
23	6.76	16.77			
24	6.65	16.81			
25	6.70	16.67			
26	6.72	16.73			
27	6.75	16.75			
28	6.76	16.78			
29	6.77	16.79			
30	6.65	16.68			
MAX.	6.77	16.81			
MIN.	6.65	16.67			
AVERAGE	6.72	16.74			
STDEV	0.04	0.04			
CP	1.40	1.37			
Cpk	1.35	1.37			
TOOLING	CMM	CMM			

Approved By: Kun Yao

Written By: Jie Xiao

Welletronics Communication TechnologyCO.,Ltd

Environment-Concerned Stbstance report

supplier′s Name ： Welletronics Communication Technology CO.,Ltd （Raw material Manufacturer）： Welletronics Communication Technology CO.,Ltd

Names of material and type ：MP01 BT antenna RoHS test report NO.

Name of hazardous substance	Threshold value ppm (mg/Kg)	If yes, which products/part numbers	Do you products contain this substance (Yes or No)	How much ppm (mg/kg)	Implement schedule
Cadminm and its compounds	100	759-074-01A02	NO	/	03-Feb-23
Lead and its compounds	1000		NO	/	03-Feb-23
Chromium VI and its compounds	1000		NO	/	03-Feb-23
Mercury and its compounds	1000		NO	/	03-Feb-23
Poly bramjnated Biphenyls (PBBS)	1000		NO	/	03-Feb-23
Poly bramjnated Diphenyl ethers(PBDES)	1000		NO	/	03-Feb-23

（Contact Person）：Tianhua Liu （Position）： Quality Manager （TEL): 0755-29076623

e-Mail：qc1@wt-china.com （Date）： 03-Feb-23

Eight 、The RoHS report

Nine、Salt spray test

Salt spray test

Customer	AiDu	Written By	Jie Xiao	Orig. Date	3-Feb-23
Part Number	759-074-01A02	Revised By	Kun Yao	Revised Date	3-Feb-23
Description1	MP01 BT antenna	Approved By	TianHua Liu	Approved Date	3-Feb-23
Date of trial	Starting at 09.00 on 1-Feb-23				
	And end at 09.00 on 3-Feb-23				
	A total of 48 hours of continuous spray				

Experimental operation								
	1、Test operation status						OK	
	2、Test box temperature						35℃	
	3、Saturated Air Bucket Temperature						47℃	
	4、Specific gravity of salt spray test						5%	
	5、Specimen supported angle						30°	
	6、Compressed air pressure						1kg/cm²	
	Time		Testing time	Laboratory thermometer (℃)	Saturated Air Barrel Temperature (℃)	compressed air pressure (kg/cm2)	Machine running condition	Remarks
	17:00 on	1-Feb	8	35	47	1kg/cm^2	OK	
	1:00 on	2-Feb	16	35	47	1kg/cm^2	OK	
	9:00 on	2-Feb	24	35	47	1kg/cm^2	OK	
	17:00 on	2-Feb	32	35	47	1kg/cm^2	OK	
	1:00 on	3-Feb	40	35	47	1kg/cm^2	OK	
	9:00 on	3-Feb	48	35	47	1kg/cm^2	OK	

NO	Post-test status	Determine	Remarks
1	No oxidation on coating surface and no foammg and falling off of ink	OK	5PCS
2			
3			
4			

Remarks:

Approved By: Kun Yao

Written By: Jie Xiao

Ten、 High and Low Temperature Testing

High and Low Temperature Testing

Customer	AiDu	Written By	Jie Xiao	Orig. Date	3-Feb-23
Part Number	759-074-01A02	Revised By	Kun Yao	Revised Date	3-Feb-23
Description1	MP01 BT antenna	Approved By	TianHua Liu	Approved Date	3-Feb-23

Test time	Starting at 08:30 on 29-Jan-23	Hot test (60℃)
	Ending at 08:30 on 29-Jan-23	
	Starting at 08:35 on 29-Jan-23	Room temperature test(20℃)
	Ending at 10:35 on 29-Jan-23	
	Starting at 10:40 on 29-Jan-23	low temperature test(-20℃)
	Ending at 10:40 on 31-Jan-23	
	Starting at 10:45 on 31-Jan-23	Room temperature test(20℃)
	Ending at 12:45 31-Jan-23	
	Starting at 12:50 31-Jan-23	High Temperature and Humidity Test(60℃)
	Ending at 12:50 2-Feb-23	
	Starting at 12:55 on 2-Feb-23	Room temperature test(20℃)
	Ending at 14:55 on 2-Feb-23	
	Total 150H Test	

Experimental operation	Time		Test time(h/m)	Test box temperature(℃)	Air humidity intest box(%)	Machine running condition	Remarks
	29-Jan-23	08 :30 A.M	24	59.91℃		OK	High temperature section
	30-Jan-23	08:30 A.M	48	60.01℃		OK	
	30-Jan-23	10 :35 A.M	2	20.07℃		OK	normal temperature section
	31-Jan-23	10:40 A.M	24	-19.91		OK	low temperature section
	01-Feb-23	10 :40 A.M	48	-20.02		OK	
	01-Feb-23	12 :45 P.M	2	19.97		OK	normal temperature section
	02-Feb-23	12 :50 P.M	24	59.92		OK	High temperature and high humidity section
	03-Feb-23	12 :50 P.M	48	60.04	95	OK	
	03-Feb-23	14 :55 P.M	2	20.01	95.10	OK	normal temperature section

NO	Post-test status	Determine	Remarks
1	No Foaning Abnormality On Ink Surface	OK	
2			
3			
4			

Revised By: Kun Yao Written By: Jie Xiao

Eleven、Material quality proves

Material quality proves

Customer	AiDu	Written By	Jie Xiao											Orig. Date	3-Feb-23		
PartNumber	759-074-01A02	Revised By	Kun Yao											Revised Date	3-Feb-23		
Description	MP01 BT antenna	Approved By	TianHua Liu											Approved Date	3-Feb-23		
The serial number	Part name	The name of the material	Material supplier	Hazardous substance content										Test LAB	Test Date	Test Report No. of Hazardous Material	Test Report Attachment	MSDS Attachment
				Pb	Cd	Hg	Cr6+	PBBS	PBDE	DEHP	DBP	BBP	DIBP	Cl	Br					
1	Base material	Cai Lungeti	Electrolytic copper	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SGS	2023-2-21	SHAEC2202460504	电解中文ROHS(1).PDF	成品MSDS_2019.pdf
2	The back glue	3m agents	467 of gum	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	143	ND	SGS	2023-4-8	ROHS/CANEC2205384301 HF/CANEC2205384302	附胶-3M467-HF.pdf 附胶-3M467-ROHS.pdf	467 468 9667 9668 MSDS报告
3	ink	You li	PSM-800 FSDM-A/SMH-800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	253	ND	SGS	2022-8-5	ROHS/ETR22705905 HF/ETR22705913	RoHS10项.pdf 卤素.pdf	安全资料表Safety Data Sheet.pdf
4	character	Ao kai	FCR-1000A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	CTI	2023-1-22	ROHS/A22200235891001E HF/A22200235891002E	S22022301801C1).pdf	亿晶顺质量环境管理体系支持性文件
5	electroplate	Jiahongtai	Nickel plated gold	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	CTI	2023-5-14	A22201718491010 01C	A22201718491001C.pdf	物质安全数据.pdf

Twelve、Shipment packaging

Packing

General requirements:

1.State customer name, project name, model number,

2.The pictures show the inner and outer cases, the packing method when shipping, the number of layers, the quantity of single layer, etc

3.Fill in the name and quantity of packing materials in the remarks column

4.Signature of quality supervisor, date

Figure 1: single layer blister tray or other forms

Figure 2: basic packing method of inner box

Figure 3: packing case

Figure 4: outer packing label

Figure 5: stacking of packing cases.

Product material no:	759-074-01A02	
The product name:	MP01 BT antenna	
Product version:	R:A	
The packing way:	Full page half cut package shipping	
Blister tray	very dish:	1000pcs/bag
carton	Each box number:	20000pcs/bag
note:		

Put each 1000pcs into PE bag with protective film protection;20 bags in one case, 20000pcs.

Signature: qinle 2023-2-4