

Admit it

The product description:	The manufacturer: Welletronics Communication Technology Limited The name of the material: Bluetooth RF antenna Material code: 3.01.IDS01F1000 The version number: V1.0	Project type: IDS01 Specification/Color: white Sign the sample date: 2023.03.28 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 _____	

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Three 、 Change history**Change of resume**

Serial number	Date of change	entry name	Edition	Change content	Remarks
1	Mar 28, 2023	IDS01 BT antenna	V1.0	nothing	New issue

Four、 Electrical characteristics

1. Antenna Structure



Figure antenna structure

2. Test Results

BT-Return Loss/VSWR

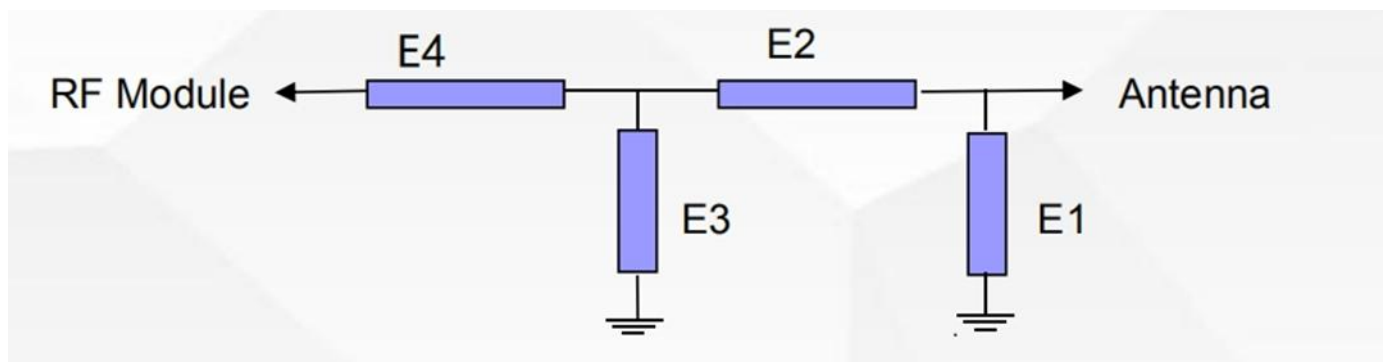


Test Repor No source by space test efficiency/pattern

Free space

Add the arm

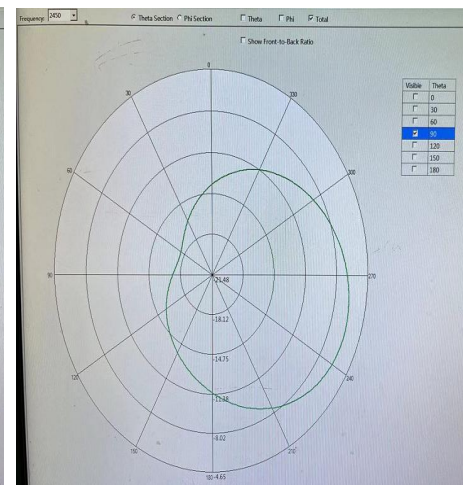
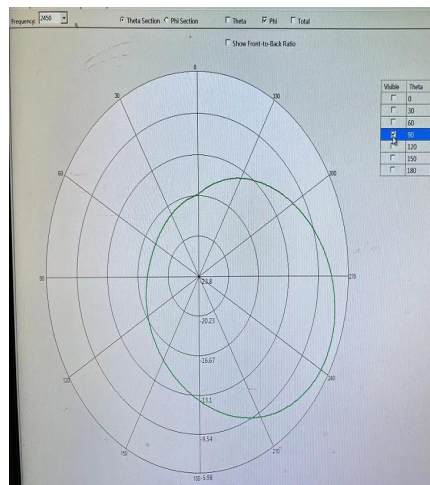
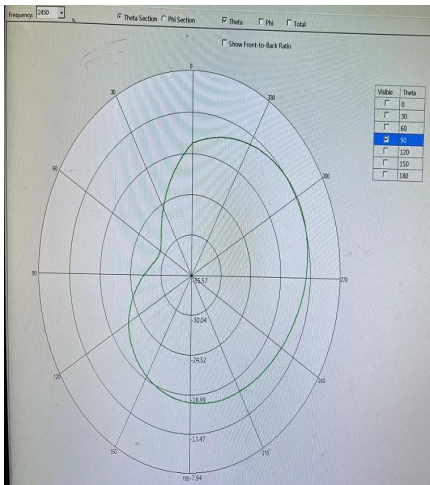
Freq	Efficien cy_dB	Efficien cy_Pcent	Gain dBi		Freq	Efficien cy_dB	Efficien cy_Pcent	Gain dBi
2400	-5.71	26.84	-1.86		2400	-9.9	10.23	-2.96
2410	-5.48	28.34	-1.83		2410	-10.34	9.25	-3.54
2420	-5.23	30.01	-1.93		2420	-10.45	9.01	-3.88
2430	-5.09	30.98	-1.81		2430	-10.66	8.59	-4.24
2440	-5.49	28.26	-2.08		2440	-10.69	8.53	-4.38
2450	-5.59	27.63	-2.07		2450	-10.83	8.25	-4.68
2460	-5.83	26.13	-2.36		2460	-10.99	7.95	-4.99
2470	-5.92	25.58	-2.38		2470	-10.9	8.13	-5
2480	-6.17	24.17	-2.49		2480	-10.8	8.31	-5.14
2490	-6.45	22.63	-2.74		2490	-10.75	8.42	-5.23
2500	-6.59	21.93	-2.96		2500	-10.96	8.02	-5.53

Match

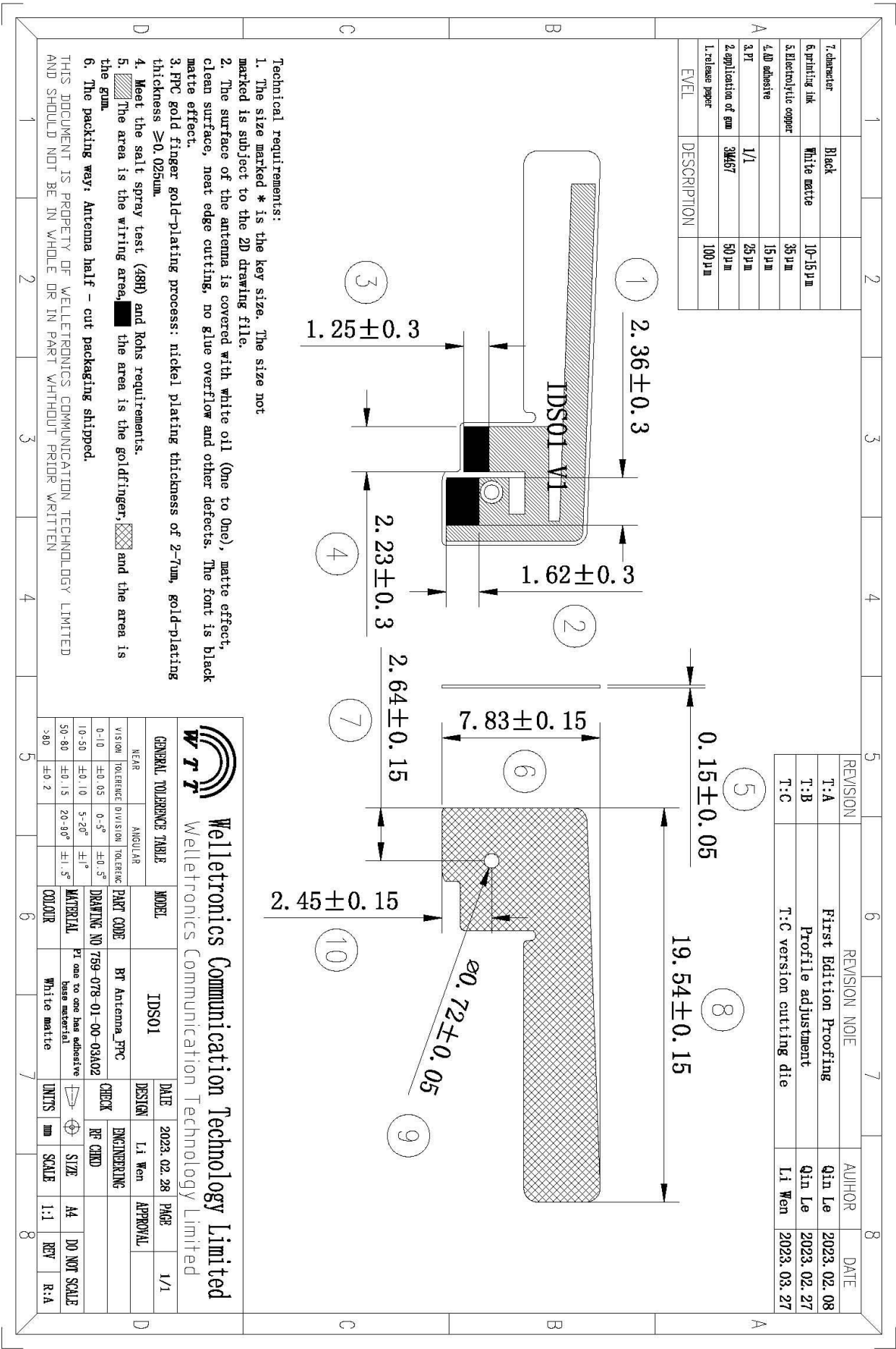
	Element	Value
Antenna	E1	
	E2	0 Ω
	E3	
	E4	0 Ω

3.The direction of figure

BT Arm pattern



Five、The 2D drawings



Full-scale measurement report

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Seven、Cpk Report

CPK Report

Part Number	759-078-03A02		Vendor	WTT	
Description	IDS01-BT antenna-FPC		Inspected		
Tool Number			Inches/MM	mm	
Cavity			Material Name	FPC	
			Material Code		
Revision	R:A		Date	28-Mar-23	
Dim. Designator	1	4			
Nominal	2.36	2.23			
+ Tolerance (All	0.30	0.30			
- Tolerance	-0.30	-0.30			
Upper Limit	2.66	2.53			
Lower Limit	2.06	1.93			
1	2.34	2.25			
2	2.35	2.26			
3	2.34	2.27			
4	2.33	2.28			
5	2.37	2.40			
6	2.40	2.39			
7	2.60	2.30			
8	2.50	2.27			
9	2.40	2.40			
10	2.39	2.27			
11	2.33	2.30			
12	2.34	2.34			
13	2.41	2.30			
14	2.42	2.29			
15	2.40	2.31			
16	2.40	2.38			
17	2.54	2.35			
18	2.50	2.30			
19	2.40	2.29			
20	2.41	2.34			
21	2.42	2.30			
22	2.41	2.37			
23	2.41	2.30			
24	2.42	2.40			
25	2.40	2.45			
26	2.39	2.29			
27	2.33	2.28			
28	2.34	2.31			
29	2.42	2.27			
30	2.45	2.35			
MAX.	2.60	2.45			
MIN.	2.33	2.25			
AVERAGE	2.41	2.32			
STDEV	0.06	0.05			
CP	1.58	1.94			
Cpk	1.34	1.36			
TOOLING	CMM	CMM			

Approved By: Kun Yao

Written By: Li Yu Er



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 : IDS01-BT antenna-FPC 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
	Cadninnm and its compounds	100	759-078-03A02	NO	/	28-Mar-23
	Lead and its compounds	1000		NO	/	28-Mar-23
	Chromium VI and its compounds	1000		NO	/	28-Mar-23
	Mercury and its compounds	1000		NO	/	28-Mar-23
	Poly braminated Biphenyls (PBBS)	1000		NO	/	28-Mar-23
	Poly braminated Diphenyl ethers(PBDES)	1000		NO	/	28-Mar-23

(Contact Person) : Tianhua Liu

(Position) : Quality Manager

(TEL): 0755-33870801-617

e-Mail: qc1@wt-china.com

(Date) : 28-Mar-23

Nine、Salt spray test

Salt spray test								
Customer	AiDu	Written By	Li Yu Er	Orig. Date	28-Mar-23			
Part Number	759-078-03A02	Revised By	Kun Yao	Revised Date	28-Mar-23			
Description1	IDS01-BT antenna-FPC	Approved By	TianHua Liu	Approved Date	28-Mar-23			
Date of trial	Starting at 09.00 on Mar 26, 2023							
	And end at 09.00 on Mar 28, 2023							
	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/cm ²	
	Time	Testing time	Laboratory thermometer (℃)	Saturated Air Barrel Temperature (℃)	compressed air pressure (kg/cm ²)	Machine running condition	Remarks	
	17:00 on Mar 26	8	35	47	1kg/cm ²	OK		
	1:00 on Mar 27	16	35	47	1kg/cm ²	OK		
	9:00 on Mar 27	24	35	47	1kg/cm ²	OK		
	17:00 on Mar 27	32	35	47	1kg/cm ²	OK		
	1:00 on Mar 28	40	35	47	1kg/cm ²	OK		
9:00 on Mar 28	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		
2								
3								
4								
Remarks:								

Approved By: Kun Yao

Written By: Li Yu Er

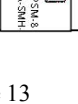
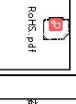
Ten、 High and Low Temperature Testing

High and Low Temperature Testing							
Customer	AiDu		Written By	Li Yu Er	Orig. Date	28-Mar-23	
Part Number	759-078-03A02		Revised By	Kun Yao	Revised Date	28-Mar-23	
Description1	IDS01-BT antenna-FPC		Approved By	TianHua Liu	Approved Date	28-Mar-23	
Test time	Starting at 08:30 on 20 Mar ,2023					Hot test (80℃)	
	Ending at 08:30 on 22 Mar ,2023						
	Starting at 08:35 on 22 Mar ,2023					Room temperature test (20℃)	
	Ending at 10:35 on 22 Mar ,2023						
	Starting at 10:40 on 22 Mar ,2023					low temperature test (-40℃)	
	Ending at 10:40 on 23 Mar ,2023						
	Starting at 10:45 on 23 Mar ,2023					Room temperature test (20℃)	
	Ending at 12:45 on 23 Mar ,2023						
	Starting at 12:50 on 23 Mar ,2023					High Temperature and Humidity Test (80℃)	
	Ending at 12:50 on 25 Mar ,2023						
	Starting at 12:55 on 25 Mar ,2023					Room temperature test (20℃)	
	Ending at 14:55 on 25 Mar ,2023						
	Total 150H Test						
Experimental operation	Time		Test time (h/m)	Test box temperature (℃)	Air humidity intest box(%)	Machine running condition	Remarks
	19-Mar-23	08 :30 A.M	24	79.91℃		OK	High temperature section
	21-Mar-23	08:30 A.M	48	80.01℃		OK	
	21-Mar-23	10 :35 A.M	2	20.07℃		OK	normal temperature section
	22-Mar-23	10:40 A.M	24	-39.91		OK	low temperature section
	23-Mar-23	10 :40 A.M	48	-40.02		OK	
	23-Mar-23	12 :45 P.M	2	19.97		OK	normal temperature section
	24-Mar-23	12 :50 P.M	24	79.92		OK	High temperature and high humidity section
	24-Mar-23	12 :50 P.M	48	80.04	95.07	OK	
	24-Mar-23	14 :55 P.M	2	20.01	95.10	OK	normal temperature section
NO	Post-test status				Determine	Remarks	
1	No Foaming Abnormality On Ink Surface				OK		
2							
3							
4							

Revised By: Kun Yao

Written By: Li Yu Er

Eleven、Material quality proves

Material quality proves																
Customer		AiDu		Written By		Li Yu Er		Orig. Date		28-Mar-23						
Part Number		759-078-03A02		Revised By		Kun Yao		Revised Date		28-Mar-23						
Description		IDS01-BT antenna-FPC		Approved By		Tianhua Liu		Approved Date		28-Mar-23						
The serial number	Subpart Name	Material Name	Material supplier	Test Report No. of Hazardous Material	Hazardous substance content											
					Cd	Pb	Hg	Cr+6	PBB	PBDE	DIBP	DEHP	DBP	BBP	Inspection date	Note
1	Base material	Electrolytic copper	Cai Lungti	ROHS/SHAEC23001049106	ND	ND	ND	ND	ND	ND	ND	ND	ND	2023-2-15		
2	Resistance welding	PSM-800 FSDM-A/ SMH-800	You Li	ROHS/ETR22705905 HF/ETR22705913 SVHC/ETR21805831A02	ND	ND	ND	ND	ND	ND	ND	ND	ND	2022-8-5	  	 
3	The back glue	467 of gum	3m	ROHS/CANEC2205384301 HF/CANEC2205384302	ND	ND	ND	ND	ND	ND	ND	ND	ND	2022-9-14	 	
4	character	FQR-1000A	Ao Kai	ROHS/A2220584091101001E	ND	ND	ND	ND	ND	ND	ND	ND	ND	2023-1-6	 	
5	electroplated	Nickel plated gold	Jiahongtai	ROHS/A2220171849101001C	ND	ND	ND	ND	ND	ND	ND	ND	ND	2022-5-14		

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

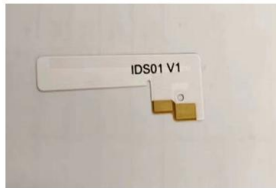


Figure 1: single layer blister tray or other forms



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:	759-078-03A02	
The product name:	IDS01 BT antenna-FPC	
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:Li Wen