

Sample Specification

Project model: ID207 /ID207-A

Sample name: BT antenna

Specification/color: black

Customer number: 3.01.ID207RF000

Material Code: 759-051-01A01

Date of signature:

Sample attributes:

☐Standard Sample; ☐Limited Sample; ☐Other Samples; Number of samples submitted
Supplier fill in:

business	project	quality

Customer fill in:

department	Confirm content	Confirmation result	Confirmation /Date
Design Department:	☐ Customer Requirement ID ☐ Color validation ☐ Surface Technology Confirmation ☐ Shell, Hardware, Key Material		
Structural/Electronic Engineer:	☐ Dimension Confirmation of 2D Drawing Files ☐ Key Control Dimension Marking ☐ Adaptation verification ☐ Shell, Hardware, Key Material ☐ Specification and Technical Requirements ☐ Electrical performance parameters ☐ function ☐ Effect		
Quality department:	☐ Test Standard Confirmation ☐ Adaptation verification ☐ Reliability Verification ☐ function ☐ Effect ☐ Appearance ☐ Standardization of Dimension Standards (Key dimensions)		
project manager:	☐ Information Integrity of Recognition Letter ☐ Specification and Technical Requirements ☐ Electrical performance parameters ☐ function ☐ Effect ☐ Appearance ☐ Standardization of Dimension Standards (Key Dimensions)		
Development Director	Approval		
Sampling order (procurement given, implementation by project manager, follow-up by engineers)			
Structural Classes (Shell, Keyboard, Hardware and TP, LCD, etc.):	project manager→ID/MD→DQA	Remarks: Please sign the samples in strict accordance with the order and confirmation of the content of recognition!	
Electronic Devices:	project manager→MD→Electronic Engineer→DQA		
Auxiliary materials:	project manager→MD→DQA		
Antenna Type	FP C antenna		

Catalog

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Change of resume

Serial number	Date of change	entry name	Edition	Change content	Remarks
1	2021.07.01	ID207、ID207-A BT antenna	V1.0	nothing	New issue

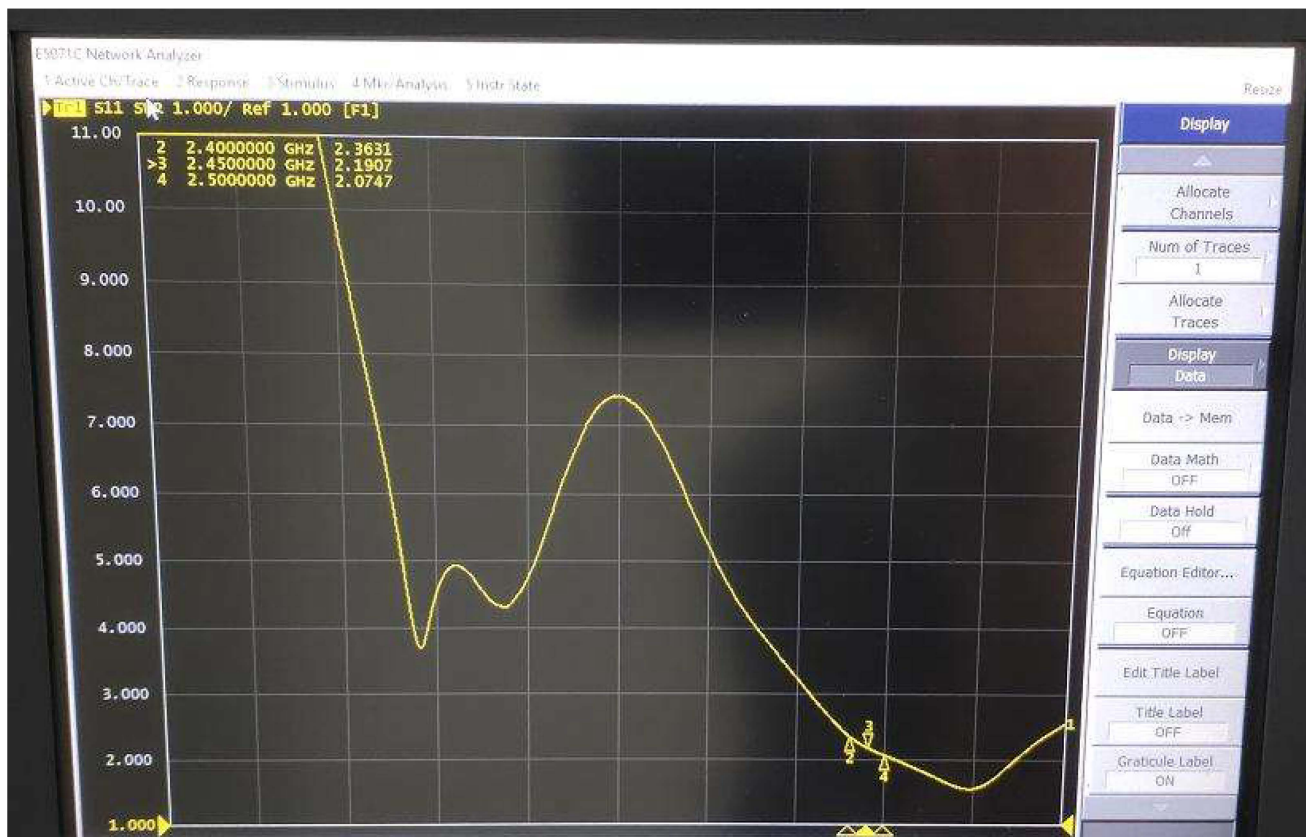
Electrical characteristics:

1. Antenna Structure



Figure antenna structure

2. Test Results

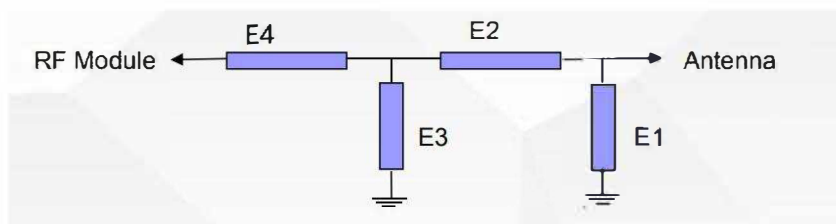


BT-Return Loss/VSWR**1.Test Repor No result from spatial test efficiency/pattern****Free space**

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	19.95	-7	-3.06
2410	21.08	-6.76	-2.66
2420	23.02	-6.38	-2.26
2430	25.25	-5.98	-1.84
2440	26.09	-5.83	-1.66
2450	26.37	-5.79	-1.55
2460	26.54	-5.76	-1.42
2470	26.81	-5.72	-1.46
2480	26.38	-5.79	-1.29
2490	25.84	-5.88	-1.22
2500	25.13	-6	-1.08

Add arm

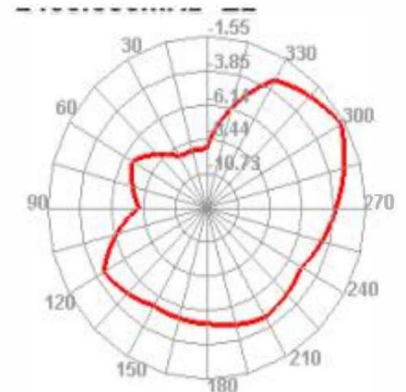
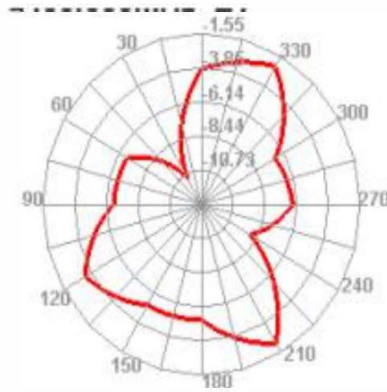
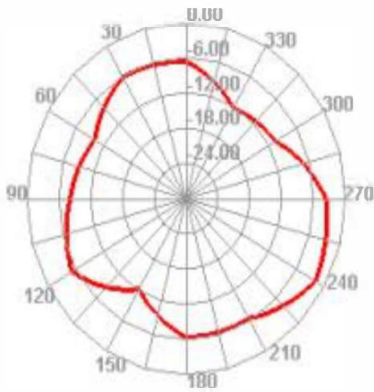
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	5.62	-12.5	-6.84
2410	6	-12.22	-6.6
2420	6.55	-11.84	-6.16
2430	7.09	-11.49	-5.8
2440	7.24	-11.41	-5.62
2450	7.24	-11.4	-5.62
2460	7.23	-11.41	-5.6
2470	7.42	-11.3	-5.47
2480	7.42	-11.3	-5.34
2490	7.5	-11.25	-5.38
2500	7.55	-11.22	-5.36
2510	7.81	-11.08	-5.35
2520	7.93	-11.01	-5.05

**Antenna**

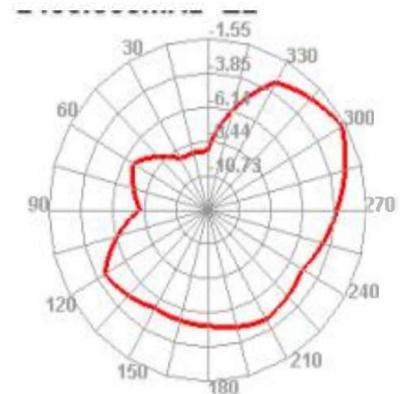
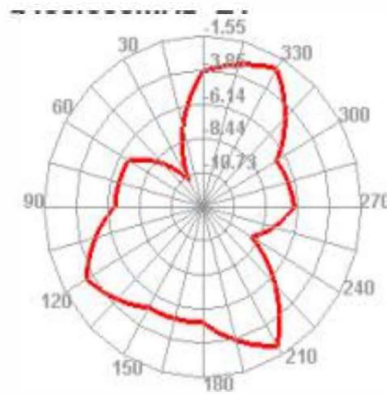
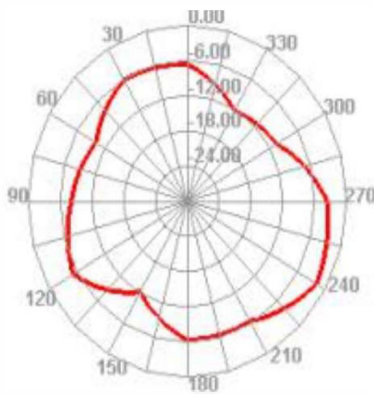
Element	Value
E1	NC
E2	OR
E3	NC
E4	

4.The direction of figure

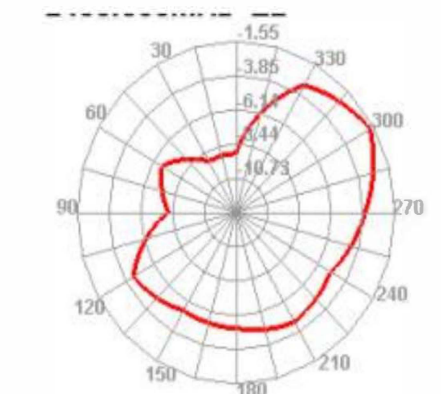
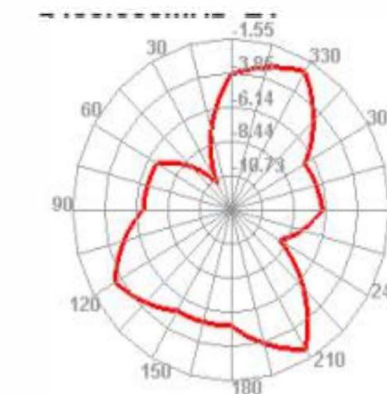
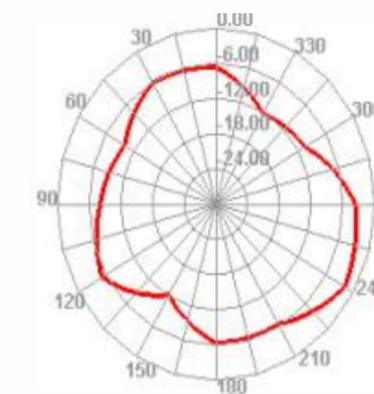
2402MHz



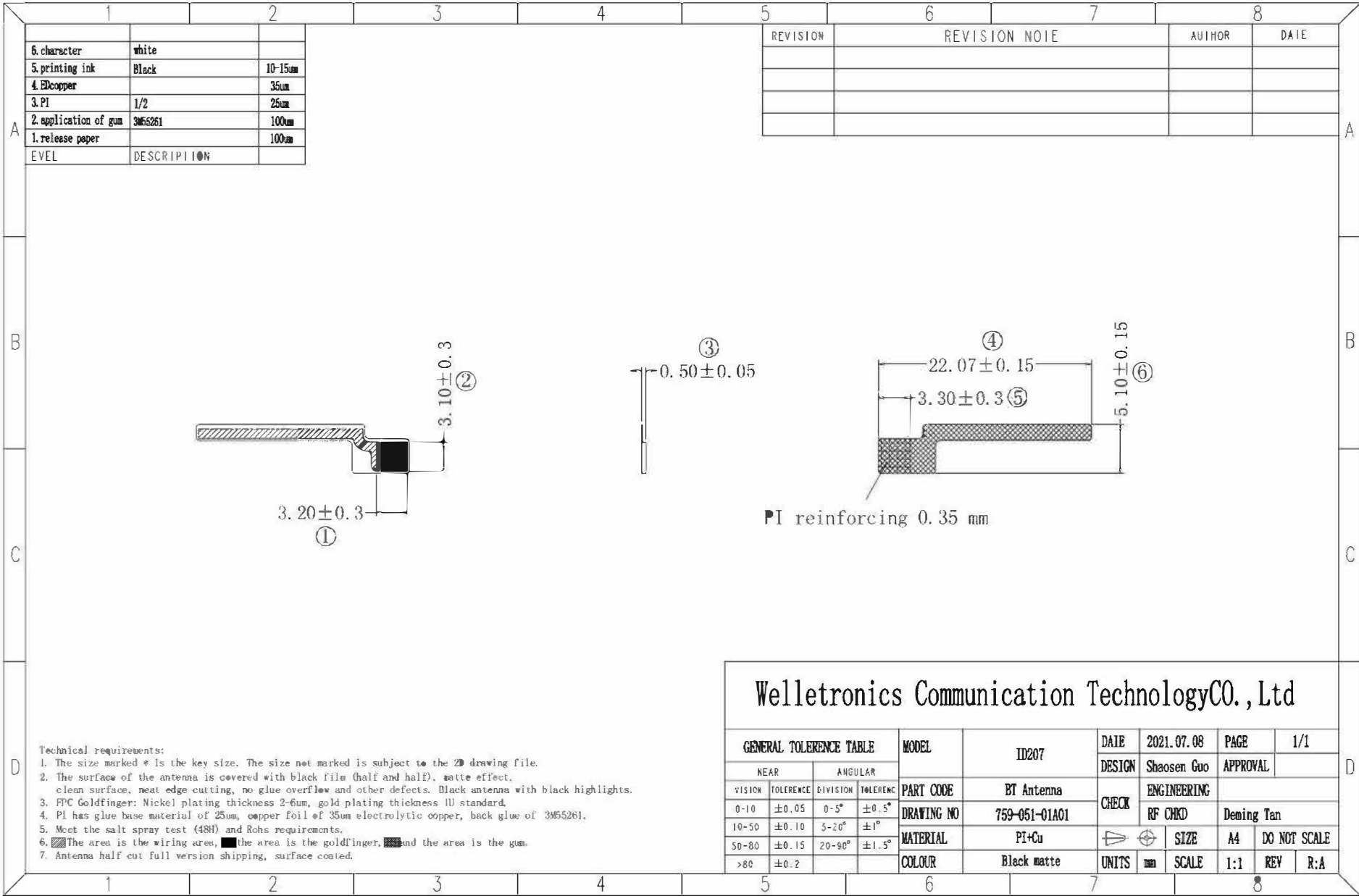
2440MHz



2480MHz



五.2D drawings



[illegible]

CPK Report

CPK Report					
Part Number	759-051-01A01		Vendor	WTT	
Description	ID207 BT antenna		Inspected		
Tool Number			Inches/MM	mm	
Cavity			Material Name	FPC	
			Material Code		
Revision	R:A		Date	10-Jul-21	
Dim. Designator	3	4	3	4	5
Nominal	22.07	5.10			
+ Tolerance (All)	0.15	0.15			
- Tolerance	-0.15	-0.15			
Upper Limit	22.22	5.25			
Lower Limit	21.92	4.95			
1	22.10	5.12			
2	22.11	5.07			
3	22.05	5.10			
4	22.07	5.09			
5	22.06	5.11			
6	22.03	5.06			
7	22.06	5.03			
8	22.09	5.11			
9	22.08	5.09			
10	22.10	5.07			
11	22.08	5.08			
12	22.07	5.11			
13	22.12	5.12			
14	22.05	5.09			
15	22.11	5.16			
16	22.09	5.07			
17	22.05	5.06			
18	22.01	5.02			
19	22.11	5.11			
20	22.03	5.10			
21	22.00	5.12			
22	22.01	5.15			
23	22.12	5.06			
24	22.08	5.03			
25	22.12	5.11			
26	22.08	5.09			
27	22.00	5.07			
28	22.06	5.08			
29	22.05	5.12			
30	22.04	5.14			
MAX.	22.12	5.16			
MIN.	22.00	5.02			
AVERAGE	22.07	5.09			
STDEV	0.04	0.03			
CP	1.38	1.47			
Cpk	1.36	1.39			
TOOLING	CMV	CMV	CMV	CMV	CMV

Approved By: Junfeng Lv

Written By: Jie Xiao

 Welletronics Communication Technology CO., Ltd

Environment-Concerned Substance report

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

Names of material and type : ID207 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
	Cadmiun and its compounds	100	759-051-01A01	NO	/	10-Jul-21
	Lead and its compounds	1000		NO	/	10-Jul-21
	Chromium VI and its compounds	1000		NO	/	10-Jul-21
	Mercury and its compounds	1000		NO	/	10-Jul-21
	Poly brominated Biphenyls (PBBS)	1000		NO	/	10-Jul-21
	Poly brominated Diphenyl ethers(PBDES)	1000		NO	/	10-Jul-21

(Contact Person) : Tianhua Liu

(Position) : Quality Manager

(TEL): 0755-33870801-617

e-Mail: qc1@wtt-china.com

(Date) : 10-Jul-26

Salt spray test

Salt spray test								
Customer		Written By	Jie Xiao	Orig. Date	10-Jul-21			
Part Number	759-051-01A01	Revised By	Junfeng Lv	Revised Date	10-Jul-21			
Description1	ID207 BT antenna	Approved By	Tianhua Liu	Approved Date	10-Jul-21			
Date of trial	9 PM. On In Jul 8, 2021							
	9 PM. In Jul 10, 2021							
	A total of 48 hours of continuous spray							
Experimental operation	1. Test operation status							OK
	2. Test box temperature							35°C
	3. Saturated Air Bucket Temperature							47°C
	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 (°C)	Saturated Air Barrel Temperature (°C)	compressed air pressure (kg/cm ²)	Machine running condition	Remarks	
	8, On In Jul, 17:00 P.M	8	35	47	1kg/cm ²	OK		
	9, On In Jul, 1:00 A.M	16	35	47	1kg/cm ²	OK		
	9, On In Jul, 9:00 P.M	24	35	47	1kg/cm ²	OK		
9, On In Jul, 17:00 P.M	32	35	47	1kg/cm ²	OK			
10, On In Jul, 1:00 A.M	40	35	47	1kg/cm ²	OK			
10, On In Jul, 9:00 P.M	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: Junfeng Lv

Written By: Jie Xiao

High and Low Temperature Testing

High and Low Temperature Testing

Customer		Written By	Jie Xiao	Orig. Date	10-Jul-21		
Part Number	759-051-01A01	Revised By	Junfeng Lv	Revised Date	10-Jul-21		
Description1	ID207 BT antenna	Approved By	Tianhua Liu	Approved Date	10-Jul-21		
Test time	On In Jul 4, 2021, 8: 30 began				Hot test (80℃)		
	In Jul 6 to 2021 08:30 end						
	In Jul 6 to 2021 08:30 begin				Room temperature test(20℃)		
	Until 10:35 on In Jul 6, 2021						
	On In Jul 6, 2021 10:40: begin				low temperature test(-40℃)		
	On In Jul 8, 2021 10:40: when finished						
	End of In Jul 8, 2021 at 10:45				Room temperature test(20℃)		
	Until 12:45 on 8 In Jul 2021						
	Start at 14:50 on In Jul 8, 2021				High Temperature and Humidity Test(80℃)		
	End at 14:50 on In Jul 10, 2021						
	Start at 14:55 on In Jul 10, 2021				Room temperature test(20℃)		
	End at 16:55 on In Jul 10, 2021						
	Total 150H Test						
	Experimental operation	Time		Test time(h/m)	Test box temperature(℃)	Air humidity intest box(℃)	Machine running condition
02-Jun-21		08 :30 A.M	24	79.91℃		OK	High temperature section
03-Jun-21		08:30 A.M	48	80.01℃		OK	
03-Jun-21		10 :35 A.M	2	20.07℃		OK	normal temperature section
04-Jun-21		10:40 A.M	24	-19.91		OK	low temperature section
05-Jun-21		10 :40 A.M	48	-20.02		OK	
05-Jun-21		12 :45 P.M	2	19.97		OK	normal temperature section
06-Jun-21		12 :50 P.M	24	79.92		OK	High temperature and high humidity section
09-Jun-21		12 :50 P.M	48	80.04	0.95	OK	
09-Jun-21		14 :55 P.M	2	20.01	0.9507	OK	normal temperature section
NO	Post-test status				Determine	Remarks	
1	No Foaming Abnormality On Ink Surface				OK		
2							
3							
4							

Revised By: Junfeng Lv

Written By: Jie Xiao

Stripping force test report

Peeling strength test report						
Tape model		3M55261	Number of parking		5PCS	
Experimental environment		23±1°	Relative humidity		50±5% RH	
Gummed paper specification		100mm*20mm	Copper foil specifications		150mm*25mm	
The test conditions	1.Stripping Angle 90°2.Peeling speed: 50mm/ min					
Decision criteria	Pressure sensitive adhesive acuity 0.5 KGF/cm					
The device under test	Peel strength testing machine					
The test results	The serial number	Actual test conditions and phenomena			determine (OK/NG)	note
		The Angle	speed	Stripping degree		
	1	90°	50 mm/min	0.71kgf	OK	
	2	90°	50 mm/min	0.67kgf	OK	
	3	90°	50 mm/min	0.70kgf	OK	
	4	90°	50 mm/min	0.68kgf	OK	
	5	90°	50 mm/min	0.70kgf	OK	

Material quality proves

Material quality proves

Customer				Written By		Jie Xiao				Orig. Date		10-Jul-21				
Part Number		759-051-01A01		Revised By		Junfeng Lv				Revised Date		10-Jul-21				
Description		ID207 BT antenna		Approved By		Tianhua Liu				Approved Date		10-Jul-21				
The serial number	Part name	The name of the material	manufacturers	Test Report No.	Hazardous substance content										Inspection date	note
					Cd	Pb	Hg	Cr+6	PBB	PFDE	DBP	DMHP	BBP	DBP		
1	FPC The main antenna	Copper foil substrate	caifun ge di	SHAEC2013249004/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2021. 9. 3	 ROHS 有害物质 PDF
		Black ink	li you	CE/2020/93185/93193	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2021. 9. 28	 CE_2020_93185 ROHS 黑色系列
		Transparent ink	chuan yu	A2200236929101002C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2021. 07. 27	 CE_2020_31126; KTM-310F8K2 Ink
		gold	jia hong tai	CANEC2023183701/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2021. 10. 4	 电镀ROHS检测报告.pdf
		gum	3M	ETR20B00512M01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2021. 11. 10	 55281 MSDS 2015.pdf

Shipment of 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

	Product material no:	759-051-01A01	
	The product name:	ID207 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:		