

Material acknowledgement

Manufacturer: Shenzhen Yusheng Communication Equipment Co., Ltd Project model: CW 07-REBK01

product description	Address: 407-411, Floor 4, Building 2, South Taiyun Chuanggu Park, Southeast of intersection of Guangming Avenue and Dongchang Road, Guangming District, Shenzhen Item name: FPC antenna Specifications / Colors: Material code: Sample delivery date: year, month, day Version number: Note: (this cover requires supplier seal)				
appendix	☐ sample ☐ Manufacturing flow chart / 2D diagram ☐ Electrical and Mechanical Property Description (Specification) ☐ Full-size measurement report ☐ CPK report ☐ QC schedule drawing ☐ Reliability test report ☐ packaging information ☐ List of raw materials / RoHS & REACH & HF Report ☐ Bill of Materials, MSDS ☐ Environmental material questionnaire				
Supplier audit	Formulation: Li Jieyi, review: Zeng Xianghao, approval: Feng Jiwei (All of the above require manual signature, and printing is not allowed)				
The above is filled by the supplier, the following is filled by Xiao Che Technology					
discriminate	Confirmation of the person	Confirm content	Confirm the results	Signature of confirmation	Confirmation date
Technical confirmation	ID	☐ Appearance ☐ color ☐ process ☐ material			
	structure	☐ Material ☐ dimension (including the key control dimension annotation) ☐ Specification and technical requirements ☐ adaptation verification			
	hardware	☐ Specification and technical requirements (including electrical performance parameters) ☐ Adaptation to verify the effect			
	quality	☐ RoHS materials ☐ Non-RoHS materials ☐ meet the requirements of REACH ☐ Compliance with halogen free requirements ☐ other environmental requirements ☐ test standard confirmation ☐ appearance ☐ normative			

		dimension ☐ reliability confirmation			
Final confirmation	project	☐ Acknowledge the integrity of the document ☐ dimension dimensions ☐ Appearance ☐ Electrical performance parameter ☐ function ☐ effect			
condition of recognition:	☐ formal admission ☐ Limited recognition (Limited _____ PCS) ☐ disallow				
Distribution Department:	☐ Supplier ☐ Factory IQC ☐ Quality ☐ Project ☐ After-sales ☐ Customer ☐ Other _____				

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1. Overview

1.1 Scope of application

This requirement, specifies CW 07-REBK01 Antenna technical requirements and material requirements specifications.

This requirement applies to CW07-REBK01 Antenna type selection, test, and acceptance.

1.2 Project basic information

Antenna name:	<u>CW07-REBK01</u>
Antenna frequency band:	BT
Antenna material:	FPC
edition:	V0.2

2. Technical index requirements

2.1 Introduction of test items and equipment

inventory	test item	equipment
Active test	TRP,TIS	Integrated tester, microwave darkroom

2.2 Active Reporting

2.2.1 Test instructions

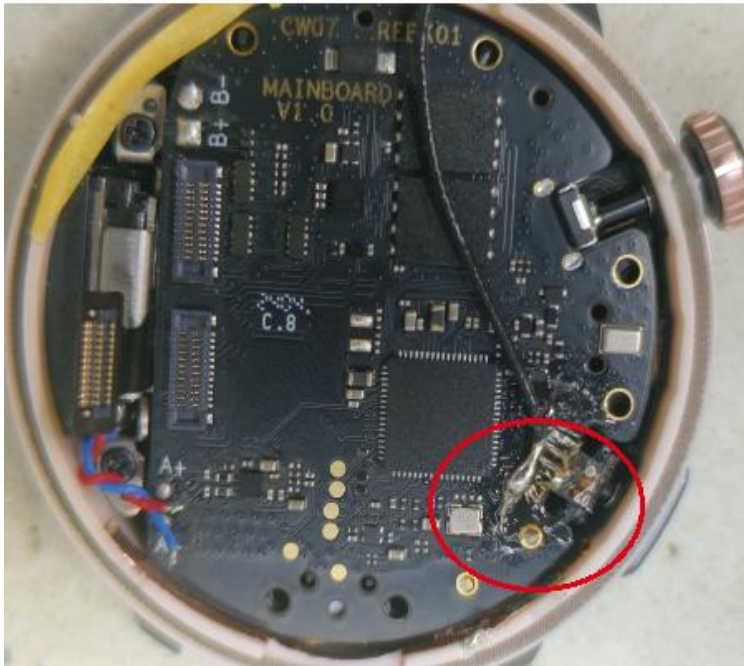
Test tools: Agilent8960 instrument, R & S CMW500, full wave far field ETS dark room, high precision positioning system and its controller and computer with automatic test program

Test environment: temperature $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity $50\% \pm 15\%$

Test method: DUT is fixed in the center of the turntable with the H plane, on the same horizontal line as the center of the horn antenna.

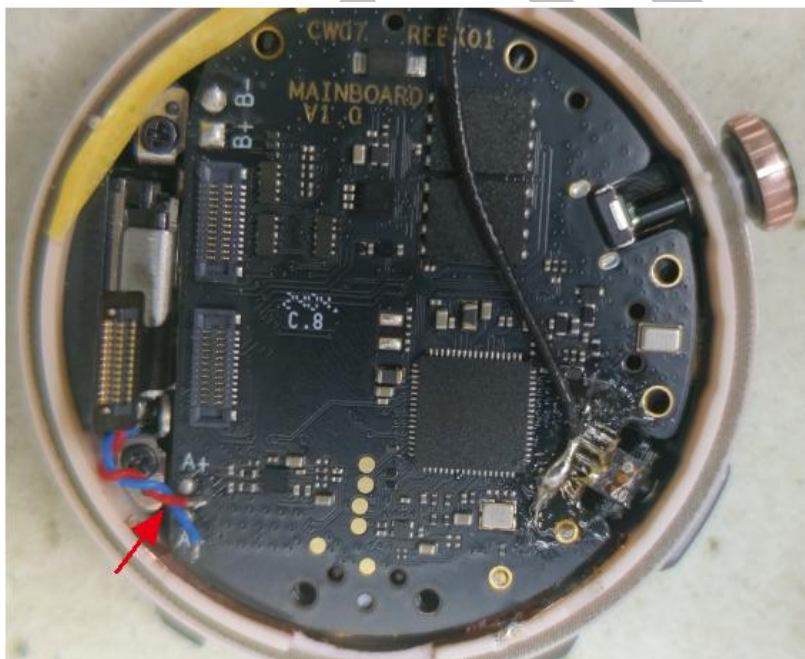
The positioning system enables the DUT to rotate in the whole sphere to satisfy the high-precision 3 D positioning. Each RF instrument and turntable controller communicate with the PC with automatic test software through the GPIB interface.

2.2.2 Schematic diagram of the modification of the antenna matching circuit



The main antenna matching is not changed, the antenna contact thimble with two, the antenna using PIFA antenna design

2.2.3 Testing conditions of antenna impedance parameters



The SPK line is rotated clockwise for three times and then welded to avoid the antenna placement



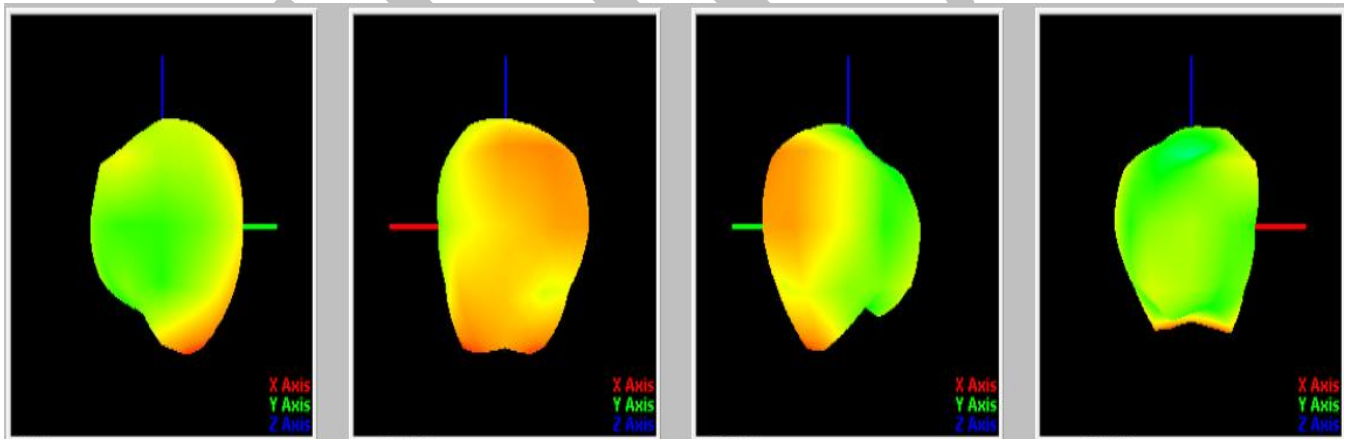
Antenna assembly, and fit on the inner side as shown in the figure

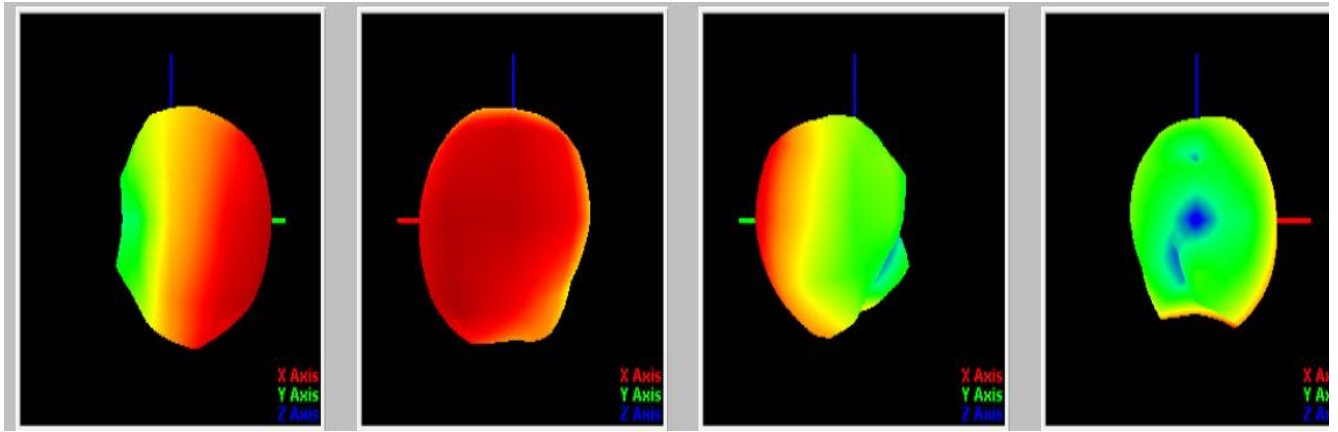
2.2.4 Testing situation of antenna efficiency parameters

FS	frequency point	productiveness%	productiveness db	gain
	2400	15.4	-8.1	-4.7
	2410	15.5	-8.1	-4.3
	2420	16.2	-7.9	-4.1
	2430	16.5	-7.8	-3.8
	2440	16.1	-7.9	-4.1
	2450	16.0	-8.0	-4.3
	2460	15.7	-8.0	-4.5
	2470	15.6	-8.1	-4.6
	2480	15.5	-8.1	-4.7
	2490	15.3	-8.2	-4.8
	2500	15.1	-8.2	-4.8

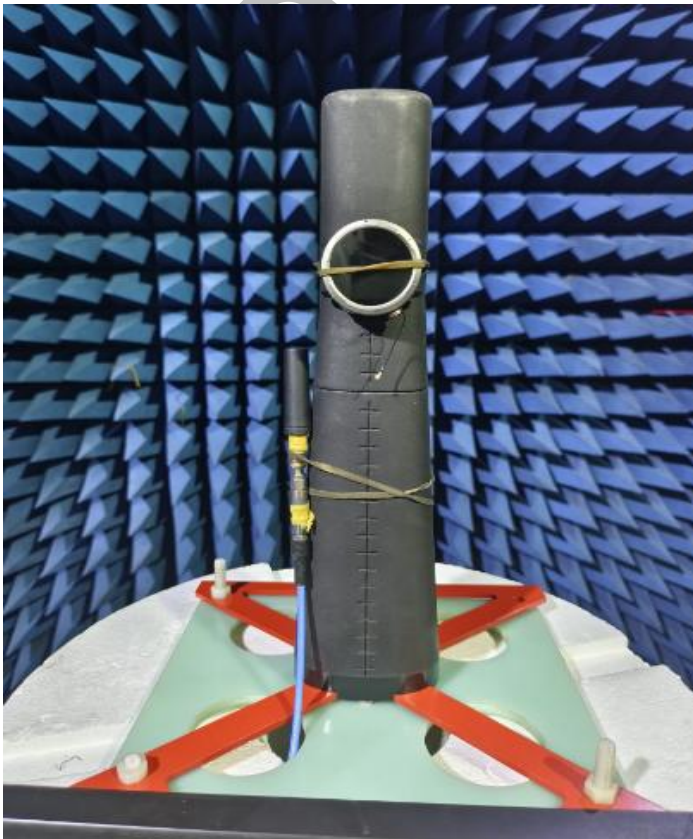
ARM	frequency point	productiveness%	productiveness db	gain
	2400	7.8	-11.1	-5.7
	2410	8.2	-10.9	-5.6
	2420	8.8	-10.6	-5.8
	2430	8.9	-10.5	-5.9
	2440	9.1	-10.4	-5.6
	2450	9.4	-10.3	-5.4
	2460	9.6	-10.2	-5.2
	2470	9.1	-10.4	-5.4
	2480	8.9	-10.5	-5.6
	2490	8.4	-10.8	-5.7
	2500	8.1	-10.9	-5.5

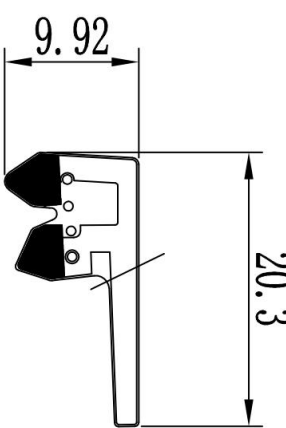
2.2.5, with a passive orientation diagram





2.2.6 Antenna test environment



A										由 Autodesk 教育版产品制作																																																																																																													
skills requirements: 1. PFC substrate specifications: 2. Electroplating specifications: 3. Surface ink requirements: 4. Reliability requirements: 5. Tolerance requirements: 6. Key control size: 7. Environmental requirements: 8. Packaging requirements:										PI substrate:										Electrolytic copper (half to half)																																																																																																			
										Double-sided tape:										9471																																																																																																			
										Nickel plated: 38um:										Gilded: 0.025um																																																																																																			
										Surface ink color:										Matt black																																																																																																			
										Printing font color:										BLACK																																																																																																			
Printing font height:										According to drawings																																																																																																													
1. Reliability test: salt spray test\rubber friction test\alcohol resistance test\100 grid test. 2. The front ink, the surface of the ink is required to be folded in half without cracking, scratching, etc.										Heads																																																																																																													
1. Shape tolerance ± 0.10 ; 2. Copper foil circuit tolerance ± 0.05 ; 3. The position of the copper foil to the shape is ± 0.15 ; 4. Hole-to-hole position tolerance ± 0.10 ; hole-to-shape position tolerance ± 0.15 ; 5. The size tolerance of gold finger is ± 0.20 . 6. For other unmarked dimensions, refer to 2D drawings.																																																																																																																							
The dimensions marked with numbers are regarded as important dimensions, and the others refer to 2D drawings										Shenzhen Yu Sheng Communication Equipment Co., Ltd.																																																																																																													
D										10°10										±0.10										○										0.02										Model										CM07-FRBM01										DATE										20240314																																							
										20°20										±0.12										◎										0.03										Name										BT-FPC										Design										JFB																																							
										20°40										±0.15										⊥										0.02										Part NO										604008-1A										Review										MD										JFB																													
										40°50										±0.20										∇										0.04										Material quality										Electrolytic copper (half to half)										RF										CKH																																							
																				∇										0.02										Gold surface treatment																				confirm																																																											
DATE										Modify the content										Version										Revise										位置																				UNIT										mm										proportion										FIT										Revised										R:A									
1										2										3										4										5										6										7										8																																																	



Shenzhen Yusheng Communication Equipment Co., LTD

4. Bill Of Material



Shenzhen Yusheng Communication Equipment Co., LTD

Shenzhen Yusheng Communication Equipment Co., LTD

604008 (GW07-RFBK01) BOM表

edition: R:A

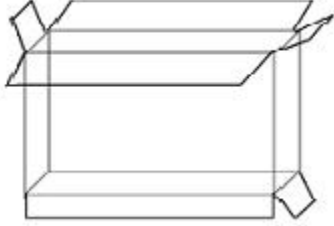
client: 604

Type of aircraft: 604008

Set a date: 2024/03/14

Item	*Material code	*Material name	name	*Machine type	Specification and model	colour	*UNIT .	dosage	remark
1	604008-IA-TA	BT-FPC		GW07-RFBK01	BLACK BT-FPC Electrolytic copper weld 20.30*9.92*0.12 mm	black	PCS	1	
1.1	604008-IA-01-TA	BT-FPC		GW07-RFBK01	BLACK BT-FPC Electrolytic copper weld 24.52*5.58*0.12MM	black	PCS	1	
verify: examine: manufacture: FJW									

5. Package schematic diagram

Packaging method diagram		
product name	LDS antenna	
Project model	<u>CW07-REBK01</u>	
File details	Carton Size 1: 270*260*200MM Carton Size 2: 260*200*200MM Carton Size 3: Depending on the order quantity / volume	
	Boating method	Depending on the project situation
	Total number of binning	Packaging by order quantity
labeling requirement	Tag Size 1: Universal use 100 * 100mm Tag Size 2: According to customer requirements	
matters need attention		
1. Due to the limitation of order quantity, the packing method of each material is the size of the box according to the total quantity of the order or the physical volume		
2. Storage temperature: room temperature		
3. Preservation conditions: store them in a cool and dry place		