RK80 Project antenna specification

Customer name: BenNiaoWuLian

Customer name: RK80

Product name: FPC antenna

Size of product: WIFI

Material code:

Change Content CV:

order number	edition	state	Start and end date	person liable	page number	remarks
1	editio princeps	editio princeps	2025-11-24	Li Jieyi	9	

The Supplier acknowledges the signature of the following documents:

Responsible person / date		IQC/ date	Review / Date	Approval / Date
MD				
RF				

The Demander acknowledges the signature (please send it back after the confirmation):

The demander's judgment result: □ qualified □ unqualified			
Development & Design Engineer / Date	SQE Engineer / Date	Purchasing Leader / Date	Development Manager approval / date

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1. Overview

1.1 Scope of application

This requirement specifies the antenna technical requirements and material requirements specifications for RK80 products.

This requirement applies to the selection, testing and acceptance of RK80antennas.

1.2 Project basic information

Antenna name:	**RK80**
Antenna frequency:	BT
Antenna material:	FPC

2. Technical index requirements

2.2.1 Introduction of test items and equipment

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

2.2.2 Test instructions

Test tools: Agilent8960 instrument, R & SCMW500, full wave far field ETS dark room, high precision positioning system and its controller and computer with automatic test program

Test environment: temperature 22℃± 3℃, humidity 50% ± 15%

Test method: DUT is fixed in the center of the turntable 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.

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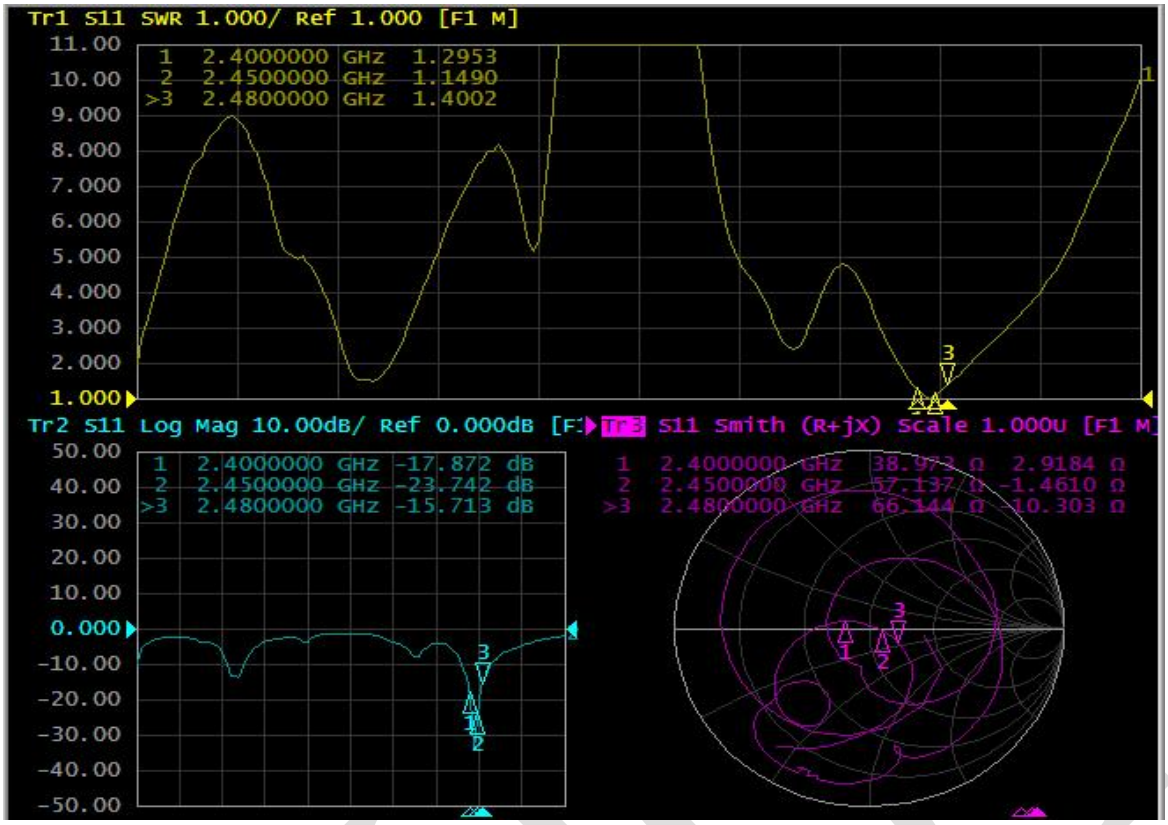
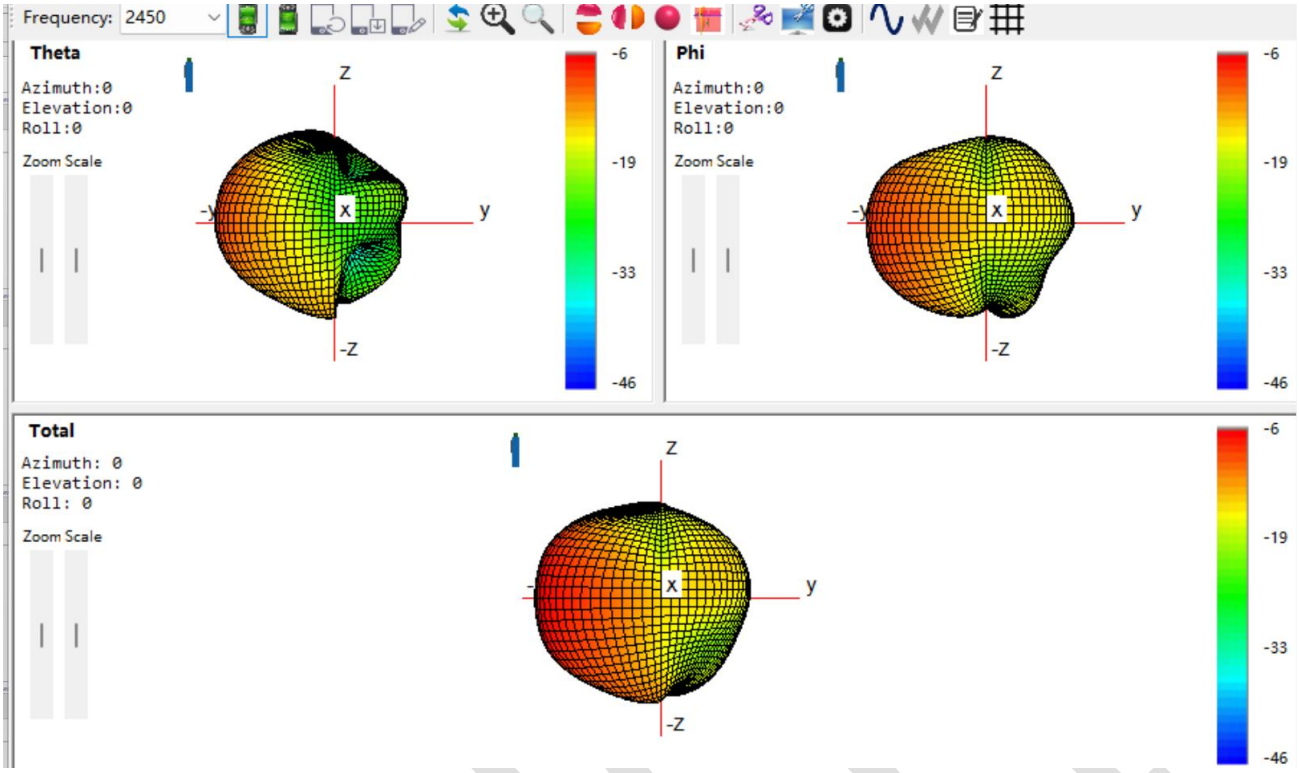
2.2.3 Passive antenna parameter

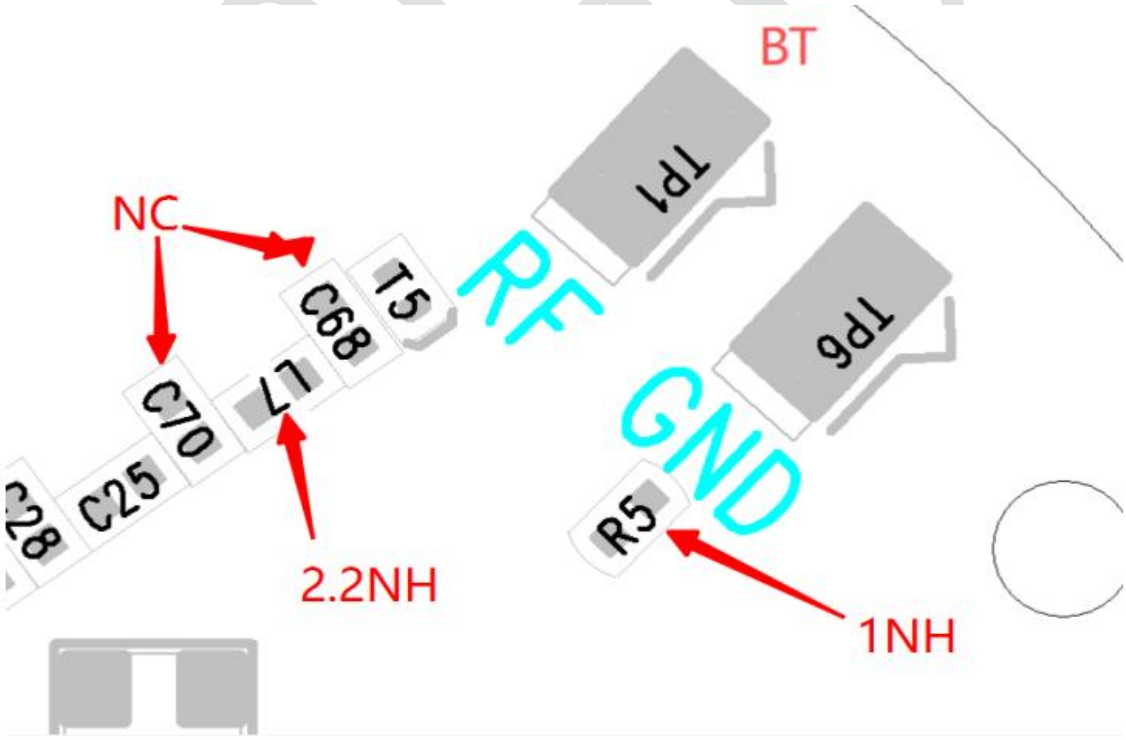


Freq (MHz)	Effi (%)	Gain （dBi）
2400	4.6	-14.1
2410	5.2	-13.8
2420	5.4	-13.5
2430	6.1	-12.9
2440	6.7	-12.5
2450	7.3	-12.1
2460	6.8	-12.7
2470	5.9	-13.2
2480	5.6	-13.3

2.2.4 BT Apple Chart/Direction Chart-Arm

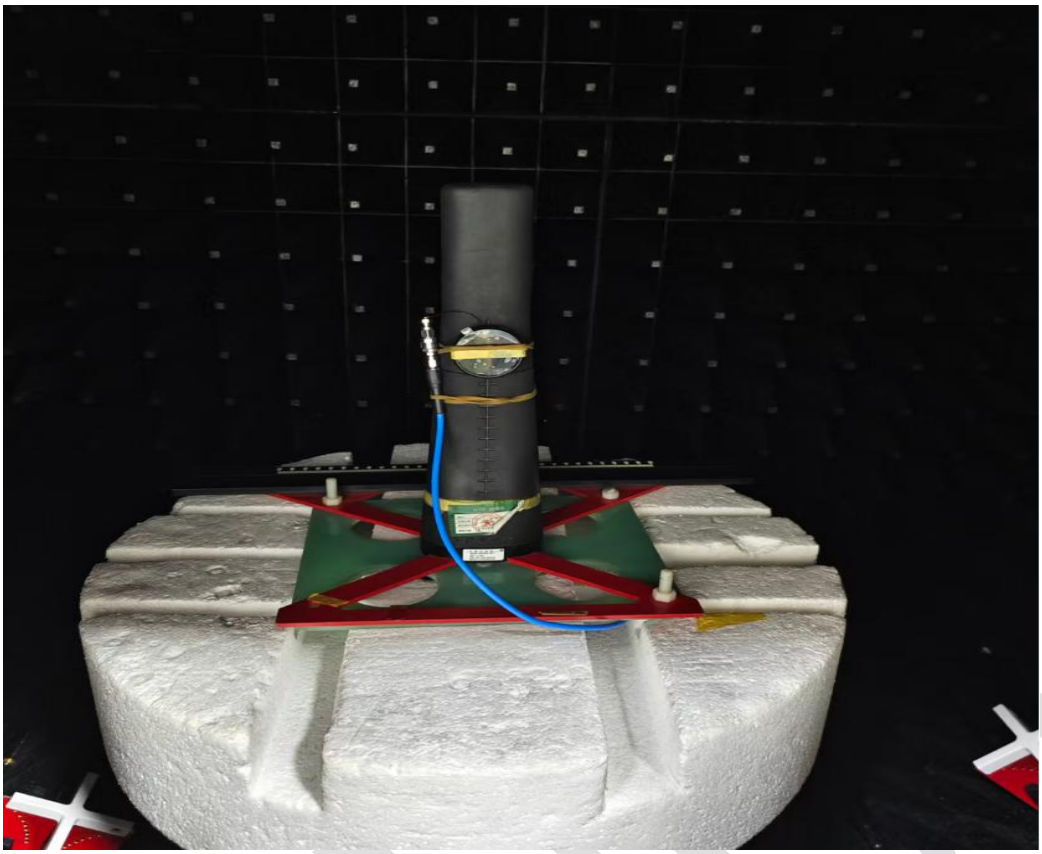


2.2.5 Antenna loading coil-BT



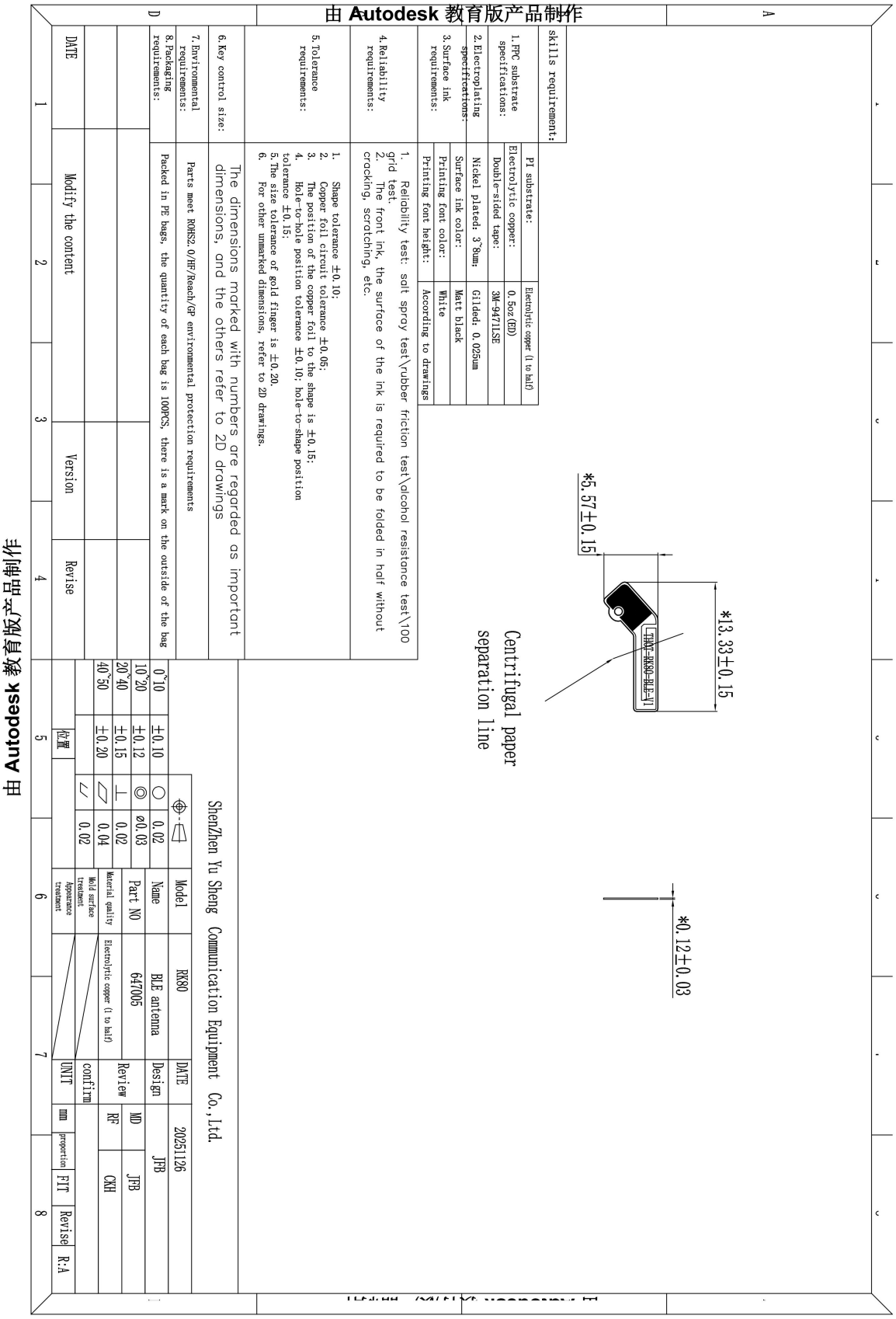
1、主路并位NC，串2.2NH，回地1NH

2.2.6 Test image



3. Engineering drawing

3.1 FPC antenna



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4. Bill of Materials

深 圳 市 昱 晟 通 讯 备 有 限 公 司

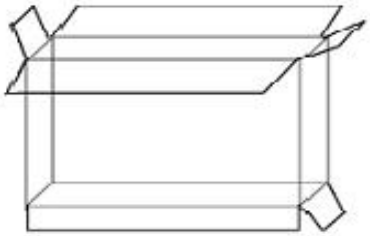
Shenzhen Yusheng Communication Equipment Co.,LTD

647005（RK80）BOM

edition: R:A　　client: 647　　Type of aircraft: 647005　　Set a date: 2025/11/26

Item	*Material code	*Material name	name	*Machine type	Specification and model	colour	*UNIT.	dosage	remark
1	647005-IA-RA	BLE-FPC		RK80	BLACK GSM-FPC weldCoaxial line	black	PCS	1	
1.1	647005-IA-01-RA	BLE-FPC		RK80	BLACK BLE-FPC Electrolytic copper weld 13.33*5.57*0.12MM	black	PCS	1	
verify:					examine:				

5. Package drawing

Packaging method diagram		
product name	FPC antenna	
P / N	647005	
Project model	RK80	
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	Packaging by order quantity
	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		

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