

KC2881 project antenna material requirements specification

Customer name: Kingchuang

Customer product name: KC2881

Antenna Type: Integral Antenna

Product specifications: Please refer to the BOM for details

Material code: 9003169

Resume:

order number	edition	state	Start and end dates	person liable	page number	remarks
1	editio princeps	editio princeps	2025-8-6	Li Jieyi	11	

Supplier acknowledges signature:

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

Signatory acknowledges and signs (please send it back after signing):

Supplier's judgment result: ☐ Qualified ☐ Unqualified			
Development Engineer/Date	SQE engineer/date	Purchasing Officer/Date	Approved by Development Manager/Date

Catalogue

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1. Overview

1.1 Scope of application

This requirement specifies the antenna technical requirements and material requirements specifications for KC2881 products.

This requirement applies to the antenna selection, testing and acceptance of KC2881 products.

2. Technical index requirements

2.1 Test items and equipment introduction

inventory	test item	equipment
S11 parameters	Standing wave ratio, return loss	network analyzer
In-situ testing	TRP,TIS	Comprehensive tester, microwave anechoic chamber
Non-invasive testing	Gain, efficiency	Network analyzer

2.2.1 Test description

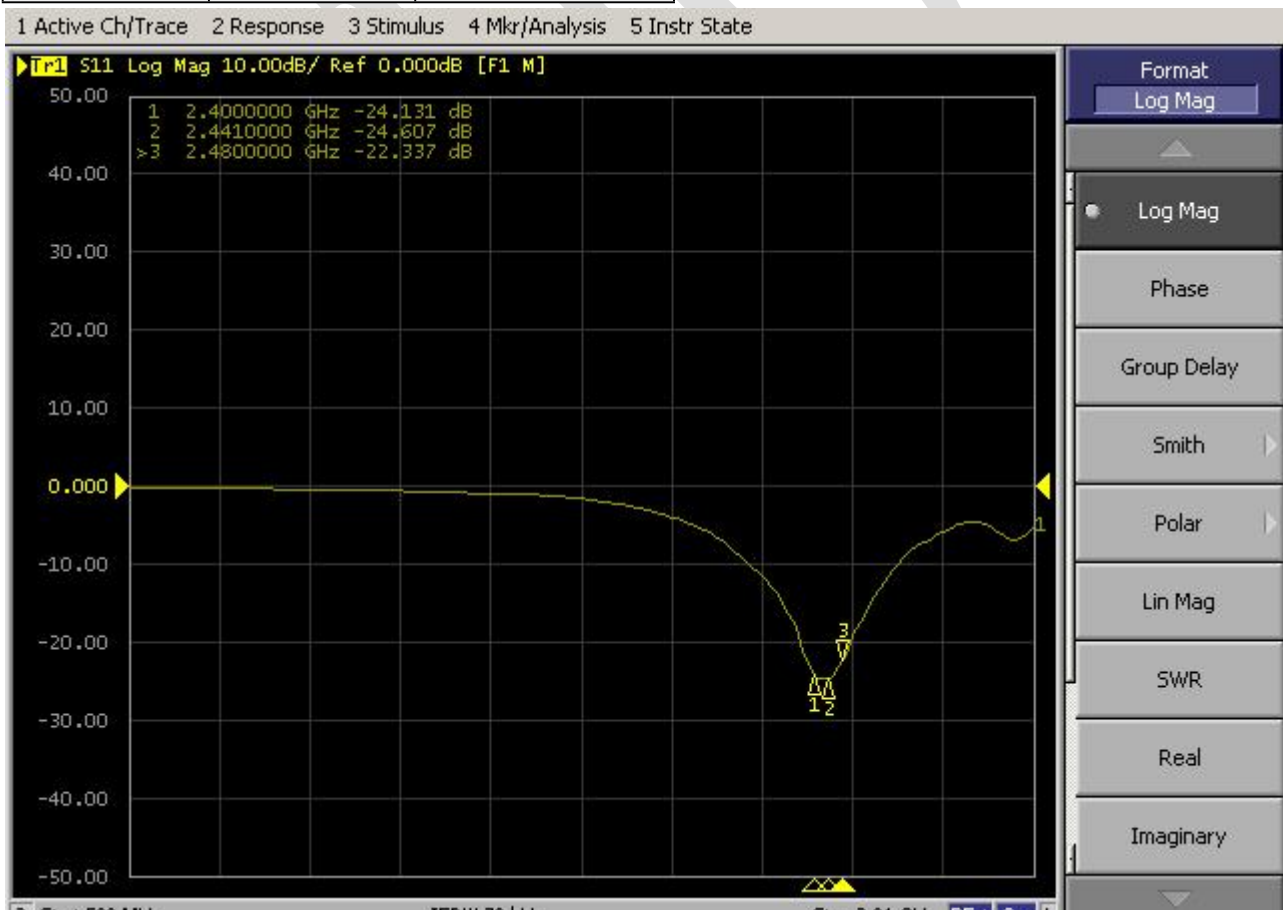
Test tools: Agilent8960 comprehensive tester, R&SCMW500, full wave far field ETS anechoic chamber, high precision positioning system and its controller, and computer with automatic test program

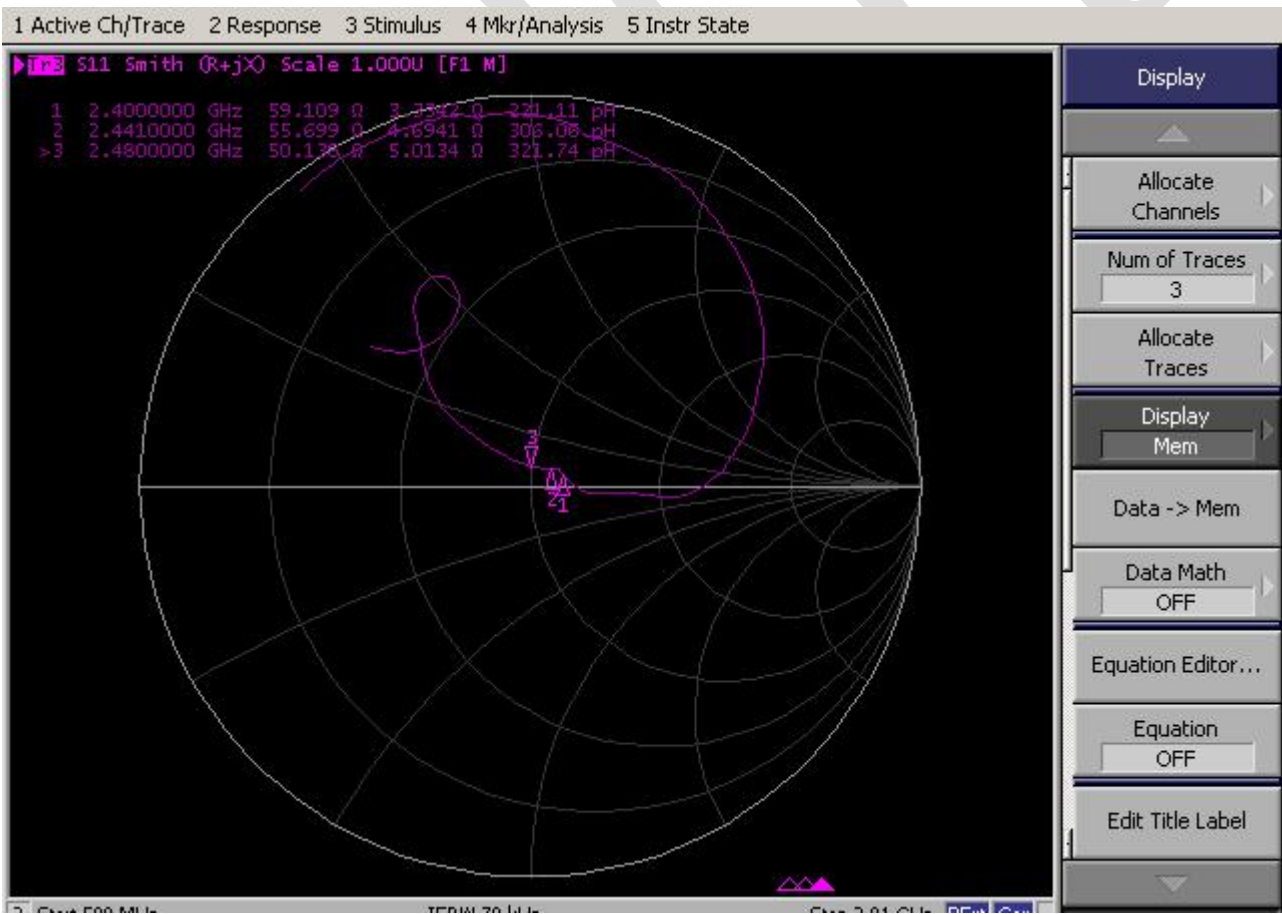
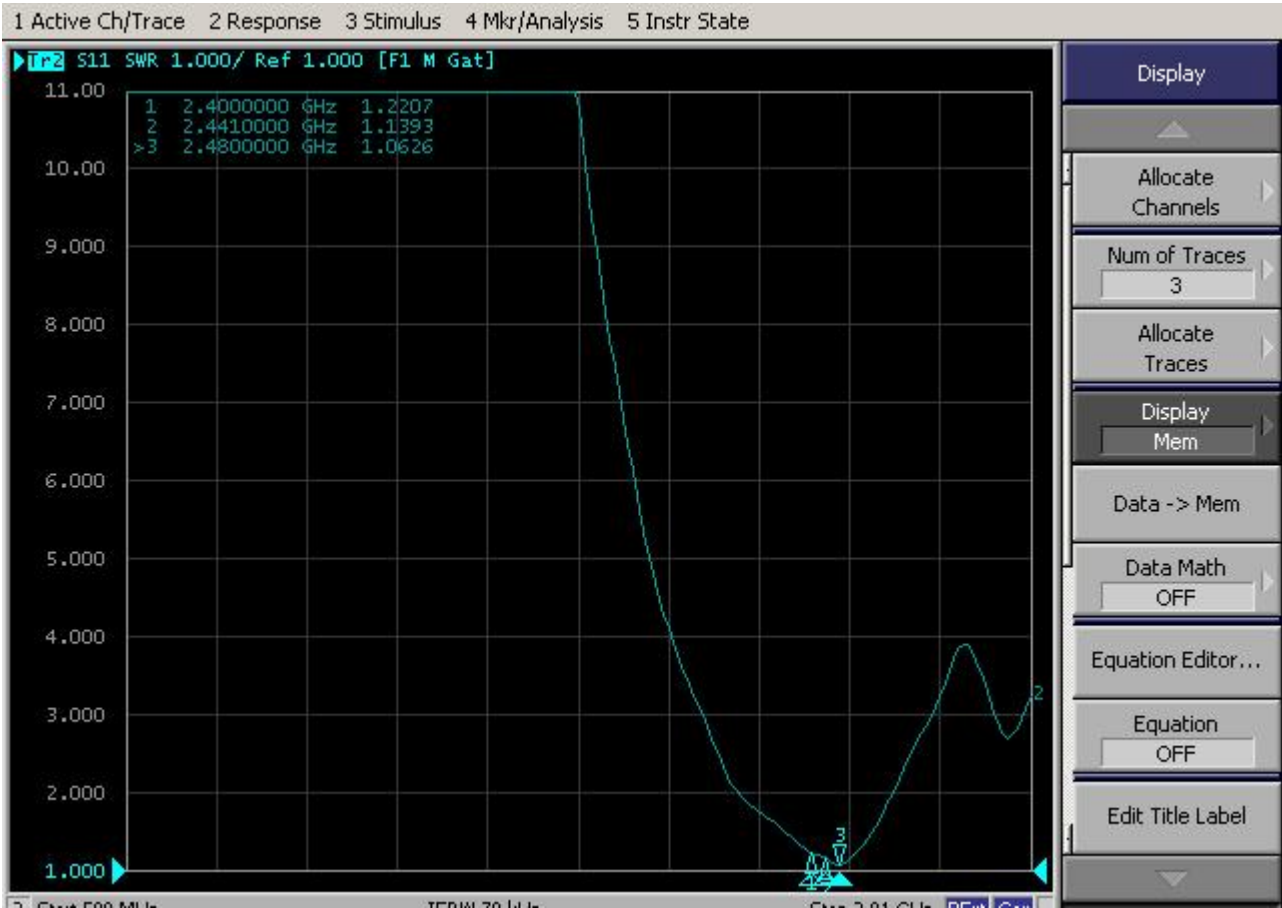
Test environment: temperature $22^{\circ}\text{C}\pm 3^{\circ}\text{C}$, humidity $50\%\pm 15\%$

Test Method: The DUT is mounted on the center of the turntable with its H-side aligned horizontally with the speaker antenna's center. The positioning system enables full spherical rotation of the DUT, ensuring high-precision three-dimensional positioning. All RF instruments, turntable controller, and a PC equipped with automated testing software communicate via GPIB interfaces

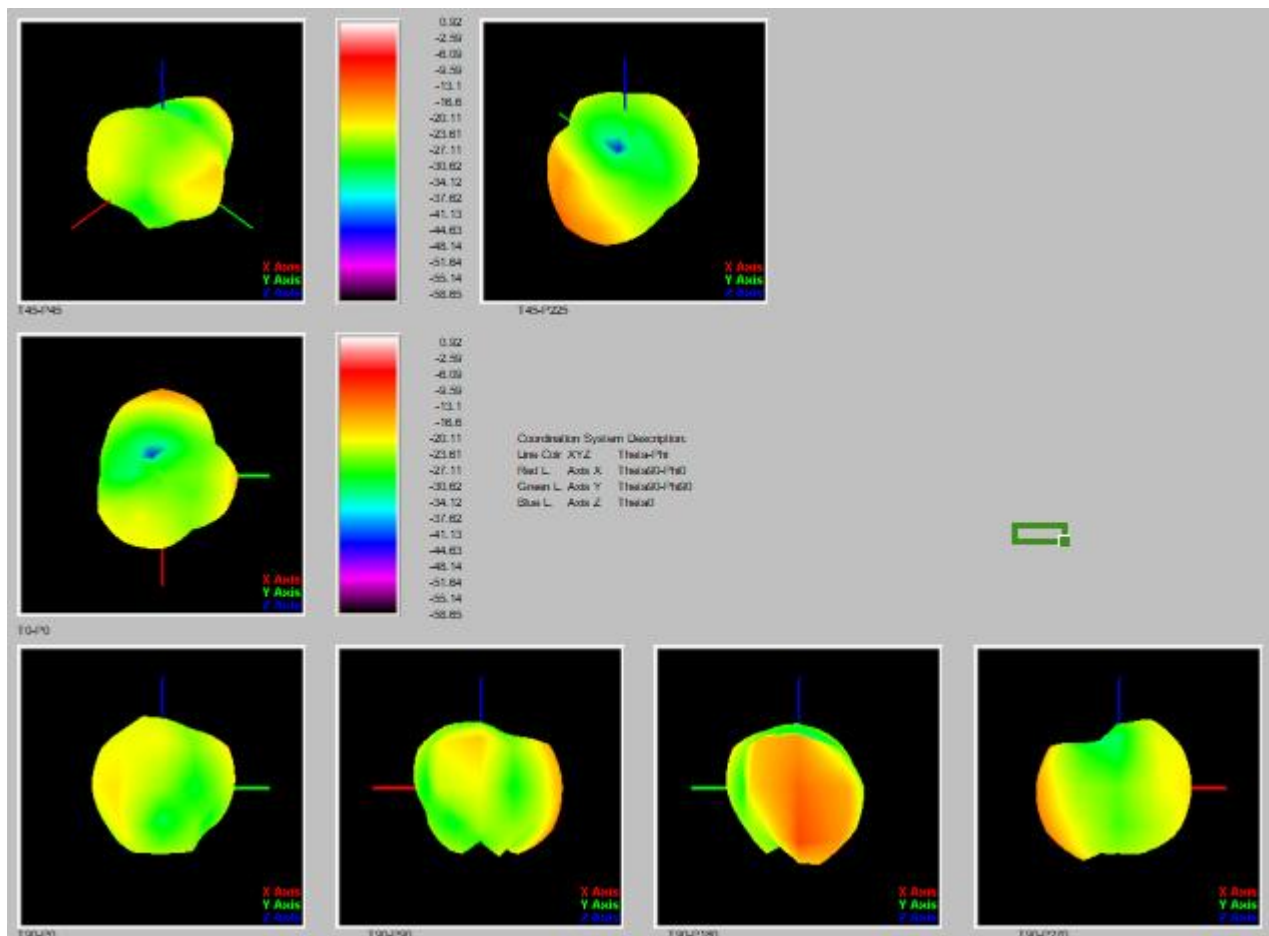
2.2.2 Antenna passive data

Freq	Effi(%)	Gain (dBi)
2400.0	46.5%	1.44
2410.0	48.6%	1.49
2420.0	48.1%	1.45
2430.0	46.8%	1.61
2440.0	44.2%	1.27
2450.0	43.3%	1.16
2460.0	42.0%	1.05
2470.0	39.3%	0.94
2480.0	42.6%	1.11
2490.0	44.9%	1.35
2500.0	40.8%	1.01

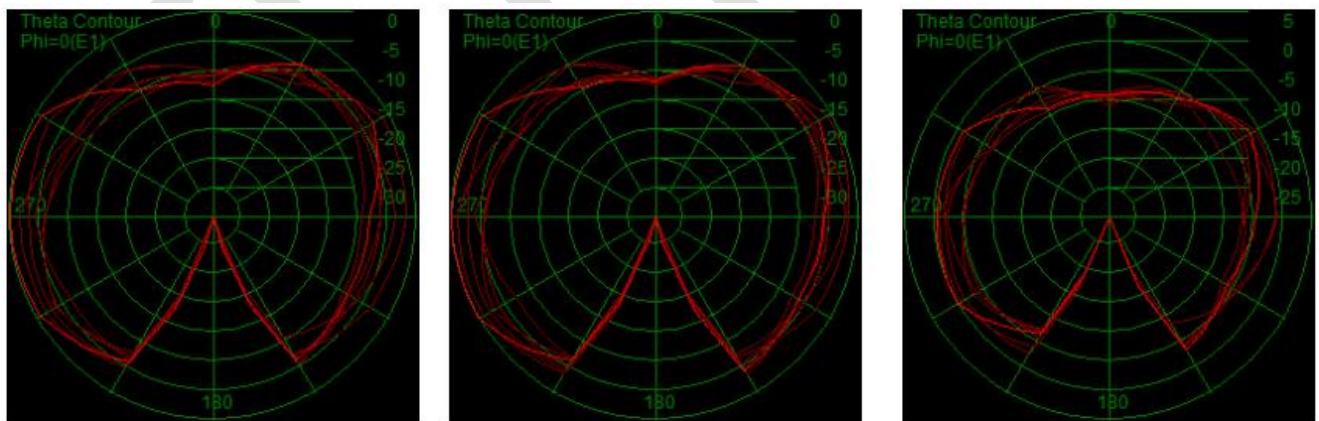




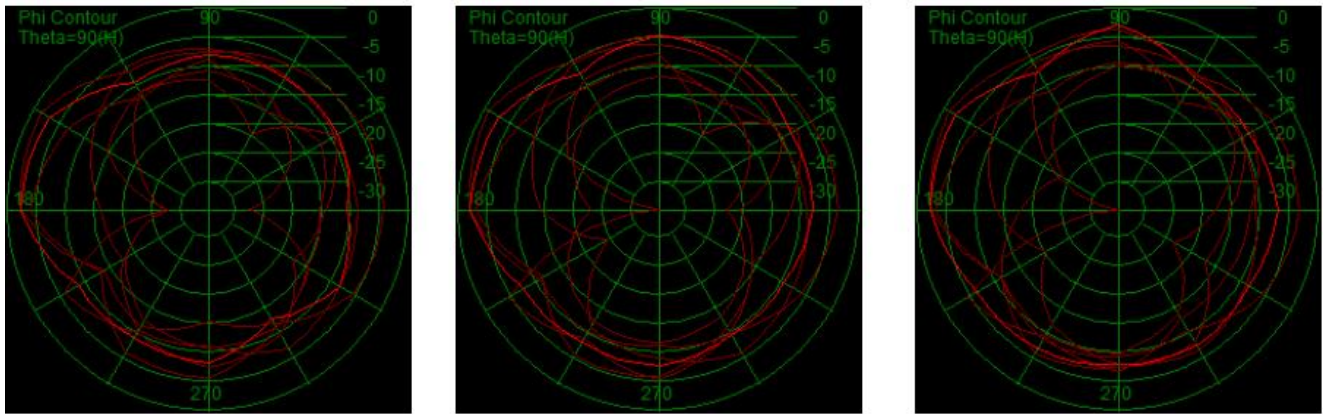
2.2.3, antenna apple diagram



2.2.4 Line direction diagram-horizontal



2.2.5 Line direction diagram-vertical



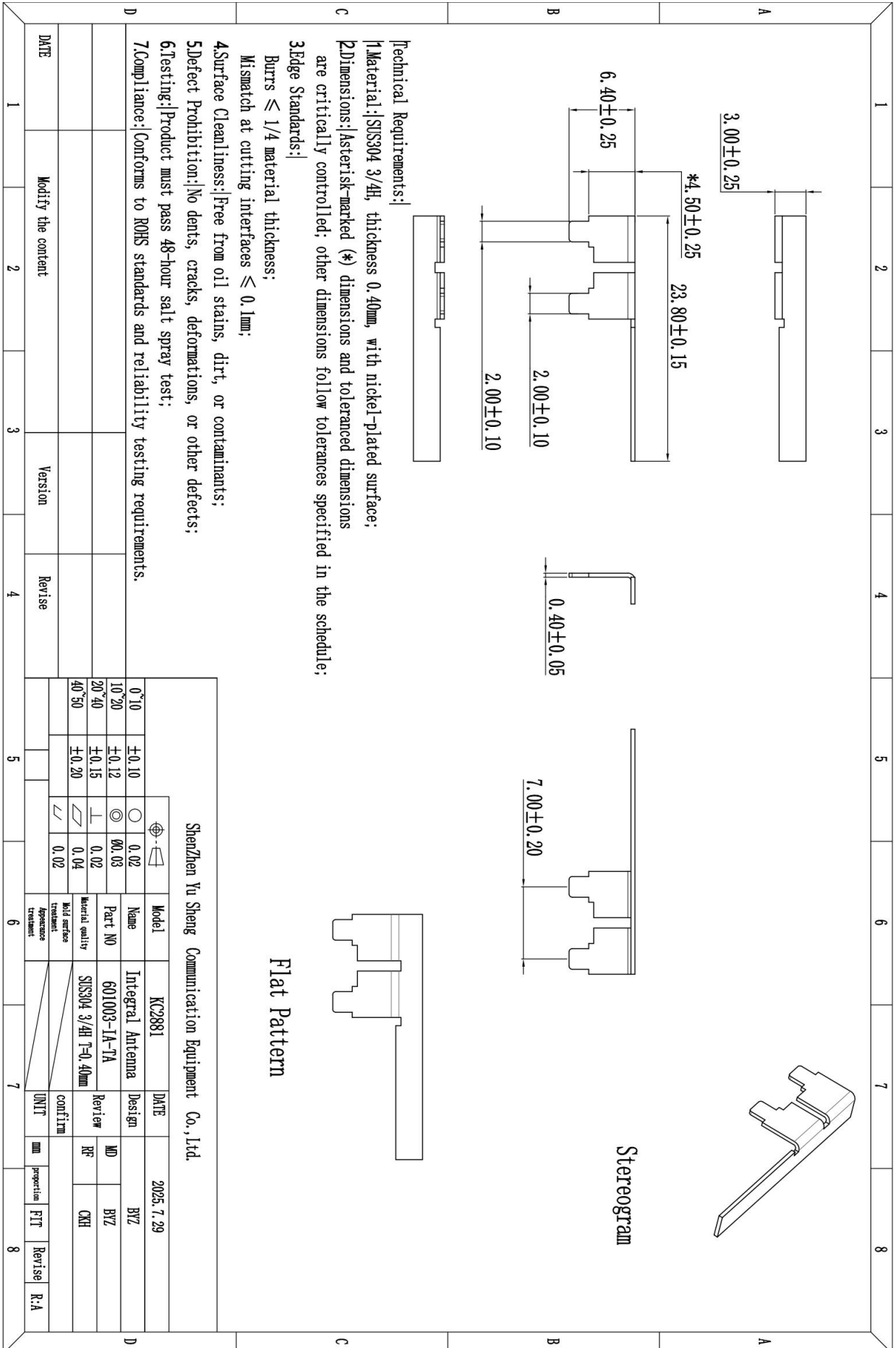
2.2.6 Active parameters of BT antenna (EVT1 machine)

Test	BT		
Result	0	19	39
TRP (dBm)	3.05	3.15	2.72
TIS (dBm)	-88.01	-89.73	-89.90

2.2.7 BT conduction test data (set 4dBm normal use conduction)

	channel number	transmitting power (dBm)	receiving sensitivity (dbm)
BT	CH0	4.61	-90
	CH19	4.63	-92
	CH39	4.61	-92

3. Engineering drawings



4. Bill of Materials

601003 (KC2881) –BOM

Edition : T:A

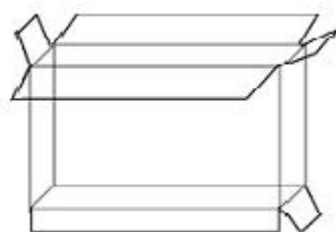
client : 601

Type of aircTCft : 601003

Set a date : 2025/7/29

Item number	*Material code	*Material name	name	*Machine type	Specification and model	colour	*UNIT.	dosage	remark
1	601003-IA-TA	Integral Antenna		KC2881	SUS304 nickelage 23.8*3*6.4*0.4mm	Silver Plated	PCS	1	
1.1	601003-IA-01-TA	Integral Antenna		KC2881	SUS304 nickelage 23.8*3*6.4*0.4mm	Silver Plated	PCS	1	
verify :			examine :			manufacture : BYZ			

5. Schematic diagram of packaging

Packaging diagram		
product name	<u>Integral Antenna</u>	
P / N	601003	
Project model	KC2881	
Packaging details	Carton size 1: 270*260*200MM Carton size 2: 260*200*200MM Carton size 3: Depending on the quantity/volume of orders	
	Packaging mode	Packaged by order quantity
	Number of boxes packed	Packaged by order quantity
labeling requirement	Label size 1: General 100*100mm Label size 2: According to customer requirements	
matters need attention		
1. Due to the order quantity limit, the packing size of each material is selected according to the total order quantity or the actual volume of the material		
2. Storage temperature: room temperature		
3. Storage conditions: Store in a cool and dry place		

6.Full-size report

supplier	THOT	name of a part	KC2881	P/N	601003					
Acupoints for mold making	5	First test	/	Date	2025/4/27					
Visual inspection/size										
P/N	Standard data		Standard data							remarks
			1	2	3	4	5	OK	NG	
1	23.85	±0.15	23.86	3.84	23.87	23.85	23.84	✓		
2	6.40	±0.25	6.39	6.42	6.40	6.38	6.37	✓		
3	2.00	±0.10	2.01	2.03	1.98	2.02	2.03	✓		
4	2.00	±0.10	2.02	2.00	1.99	2.01	2.02	✓		
5	0.40	±0.05	0.39	0.40	0.40	0.39	0.40	✓		
6	7.00	±0.20	7.03	7.05	7.01	7.02	7.04	✓		
7	3.00	±0.25	3.04	3.03	3.02	3.03	3.05	✓		
8										
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Conclusion :										

auditor: Suguangfeng