



Shenzhen Yusheng Communication Equipment Co., LTD

Guangming Avenue, Guangming New District, Shenzhen
Building 2, 4A, Nantai Cloud Innovation Valley Park

antenna

Customer name: XieChuang

Customer product name: SED065

Product name: THOT-SED065(K220L)-WIFI-V0.1

Product specification: See the BOM table for more details

Product code: 400105190

Change Content CV:

order number	edition	state	Start and end date	person liable	page number	remarks
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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

Catalogue

1. OVERVIEW	3
1.1 SCOPE OF APPLICATION	3
1.2 PROJECT BASIC INFORMATION	3
2. TECHNICAL INDEX REQUIREMENTS	3
2.1 ACTIVE REPORTING	3
2.2 TEST INSTRUCTIONS	3
2.2.1 WIFI ANTENNA PASSIVE PARAMETERS	4
2.2.2 ACTIVE ANTENNA PARAMETER	5
2.2.3 ANTENNA ENVIRONMENT PROCESSING	5
3. ENGINEERING DRAWINGS	8
3.1 WIFI	8
4. BILL OF MATERIAL	9
5. PACKAGE SCHEMATIC DIAGRAM	10

1. Overview

1.1 Scope of application

This requirement specifies the antenna technical requirements and material requirements specifications for SED065 products.

This requirement is applicable to the antenna selection, testing and acceptance of SED065 products.

1.2 Project basic information

Antenna name:	SED065
Antenna band:	WIFI : 2400MHz-2500MHz
Antenna material:	FPC antenna + coaxial

2. Technical index requirements

2.1 Active Reporting

2.2 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

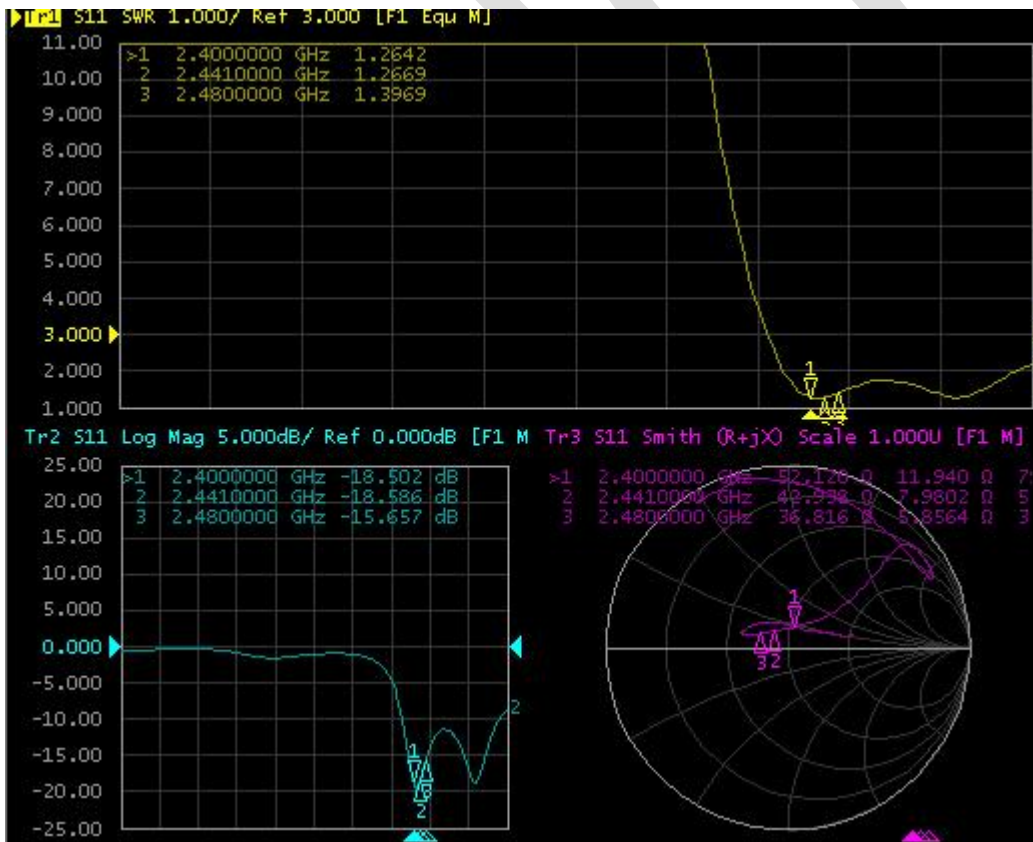
Test environment: temperature $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity $50\% \pm 15\%$

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

2.2.1 WIFI antenna passive parameters

Passive Test		
Freq	Effi	Gain
(MHz)	(%)	(dBi)
2400.0	20.2%	-1.27
2410.0	21.5%	-1.18
2420.0	21.7%	-1.04
2430.0	22.8%	-0.95
2440.0	22.2%	-1.09
2450.0	21.8%	-1.22
2460.0	20.6%	-1.63
2470.0	20.4%	-1.86
2480.0	20.1%	-2.16



2.2.2 Active antenna parameter

	802. 11	信道号	TRP (db)	TIS (dbm)
WIFI	11B	CH1	12. 27	
		CH6	12. 13	
		CH11	10. 6	-83. 7
	11G	CH1	12. 28	
		CH6	11. 56	
		CH11	10. 64	-67. 97
	11N	CH1	11. 18	
		CH6	11. 19	
		CH11	10. 8	-66. 92

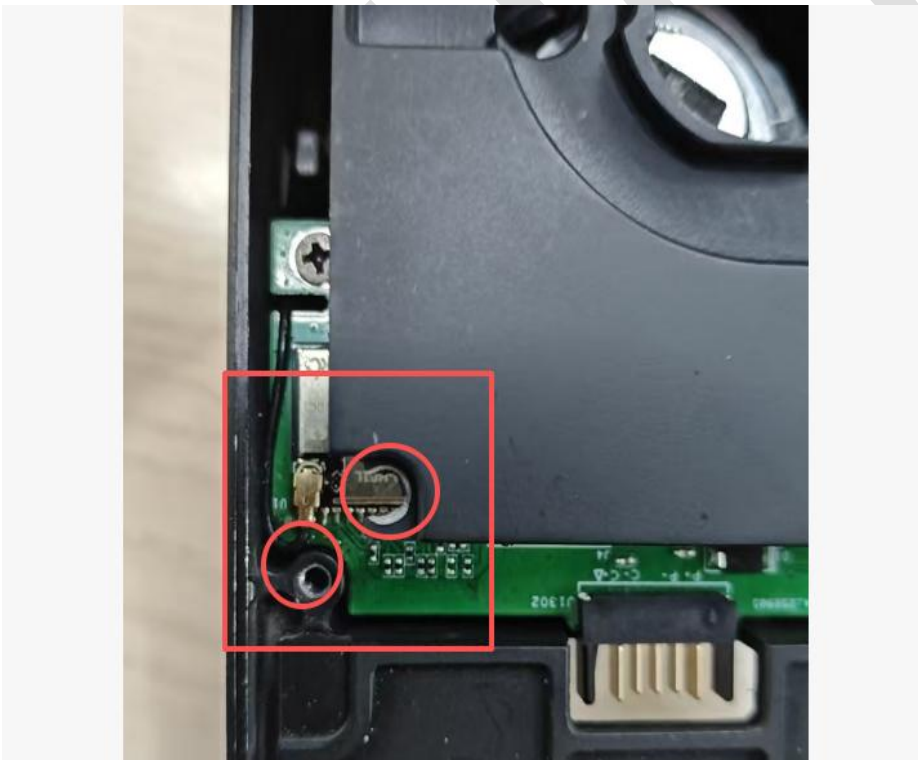
2.2.3 Antenna environment processing



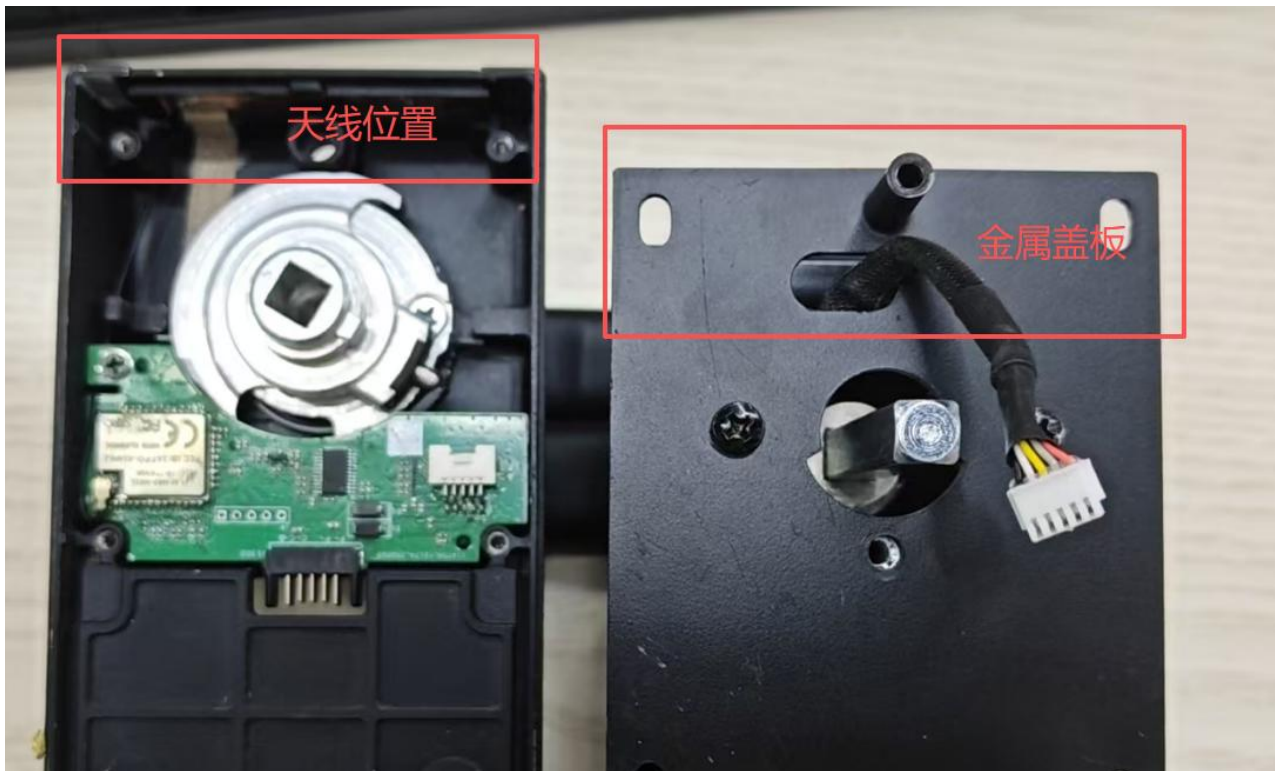
The exposed copper area of the antenna must be conductively grounded to the metal casing.



This area requires laser engraving rather than spraying to ensure proper alignment between the antenna and metal components.



Debugging reveals interference between the terminal wire connection position and the screw clearance on the cover plate



The Influence of Metal Cover Plate on the Performance Verification of Antenna

3. Engineering drawings

3.1 WIFI

由 Autodesk 教育版产品制作		skills requirements: <table border="1"> <tr> <td>PL substrate:</td> <td>Electrolytic copper (1 to half)</td> </tr> <tr> <td>1.PPC substrate specifications:</td> <td>Electrolytic copper: 0.5oz (ED) Double-sided tape: 3M-9471LSE</td> </tr> <tr> <td>2.Electroplating specifications:</td> <td>Nickel plated: 3-8um Gilded: 0.0125um</td> </tr> <tr> <td>3.Surface ink requirements:</td> <td>Surface ink color: Matt black Printing font color: WHITE</td> </tr> <tr> <td>Printing font height:</td> <td>According to drawings</td> </tr> </table>		PL substrate:	Electrolytic copper (1 to half)	1.PPC substrate specifications:	Electrolytic copper: 0.5oz (ED) Double-sided tape: 3M-9471LSE	2.Electroplating specifications:	Nickel plated: 3-8um Gilded: 0.0125um	3.Surface ink requirements:	Surface ink color: Matt black Printing font color: WHITE	Printing font height:	According to drawings	4. Reliability requirements: 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.		5. Tolerance requirements: 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.		6. Key control size: The dimensions marked with numbers are regarded as important dimensions, and the others refer to 2D drawings		7. Environmental requirements: Parts meet ROHS2.0/REACH/GP environmental protection requirements		8. Packaging requirements: Packed in PE bags, the quantity of each bag is 100PCS, there is a mark on the outside of the bag		DATE 1. Modify the content 2. Version 3. Revise		1 2 3 4 5 6 7 8									
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4.Bill Of Material

661026 (SED065) -BOM

edition: R:A

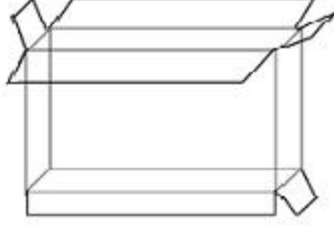
client: 661

Type of aircraft: 661026

Set a date: 20260127

Item	*Material code	*Material name	name	*Machine type	Specification and model	colour	*UNIT.	dosage	remark
2	661026-IA-RA	WIFI module		SED065 (K220L)	BLACK WIFI-FPC weldCoaxial line	black	PCS	1	
2.1	661026-IA-01-RA	WIFI-FPC		SED065 (K220L)	BLACK WIFI-FPC Electrolytic copper weld 55.98*12.13*0.12MM	black	PCS	1	
2.1	661026-IA-02-RA	WIFI-Coaxial line		SED065 (K220L)	BLACK weld 1.13*88.00MM	black	PCS	1	
2.2	661026-IA-03-RA	assemble		SED065 (K220L)	assemble	black	PCS	1	
verify:			examine:			manufacture: FJW			

5. Package schematic diagram

Packaging method diagram		
product name	Antenna components	
P / N	661026	
Project model	SED065	
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		