Material requirement specification for the SED054 project antenna

Customer name: XieChuang

Customer product name: SED054

Product name: WIFI antenna

Product specification: See the BOM table for more details

Product code:400104830

Change Content CV:

order number	edition	state	Start and end date	person liable	page number	remarks
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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 SED054 products.

This requirement is applicable to the antenna selection, testing and acceptance of SED054 products.

1.2 Project basic information

Antenna name:	**SED054**
Antenna band:	WIFI:2.4G
Antenna material:	FPC antenna + coaxis

2. Technical index requirements

2.1 Active Reporting

2.2 Test instructions

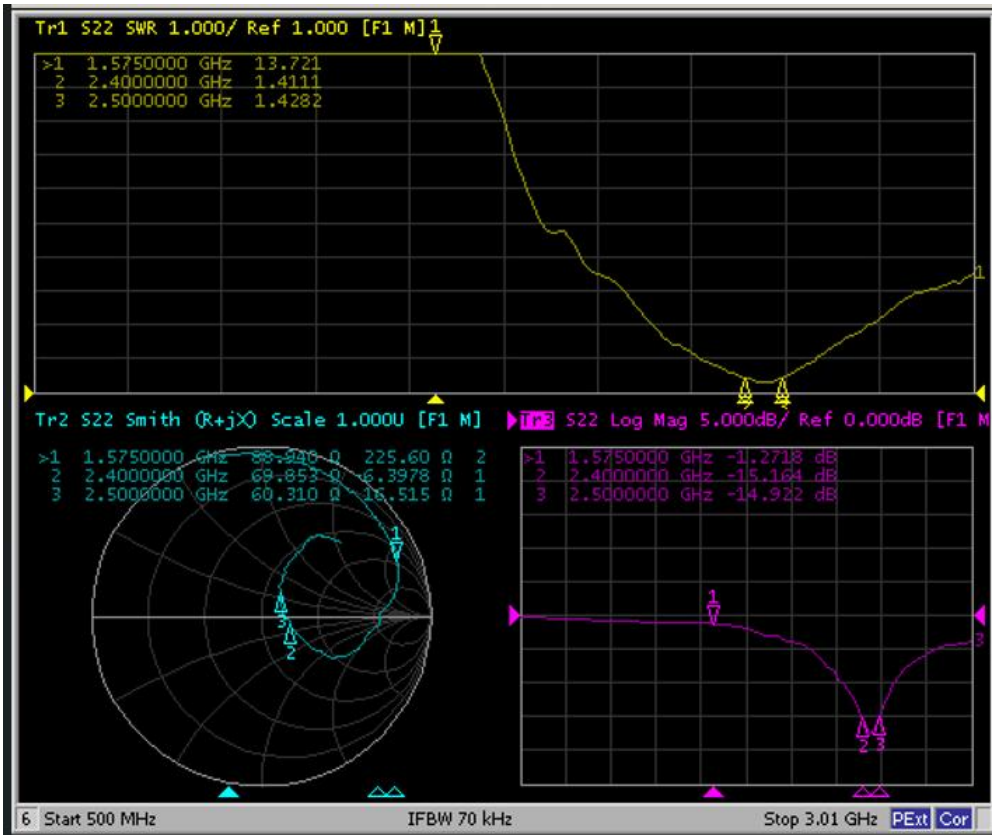
Test tools: Agilent8960 instrument, R & S CMW500, full wave far field ETS dark room, high precisio n positioning system and its controller and computer with automatic test program

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

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

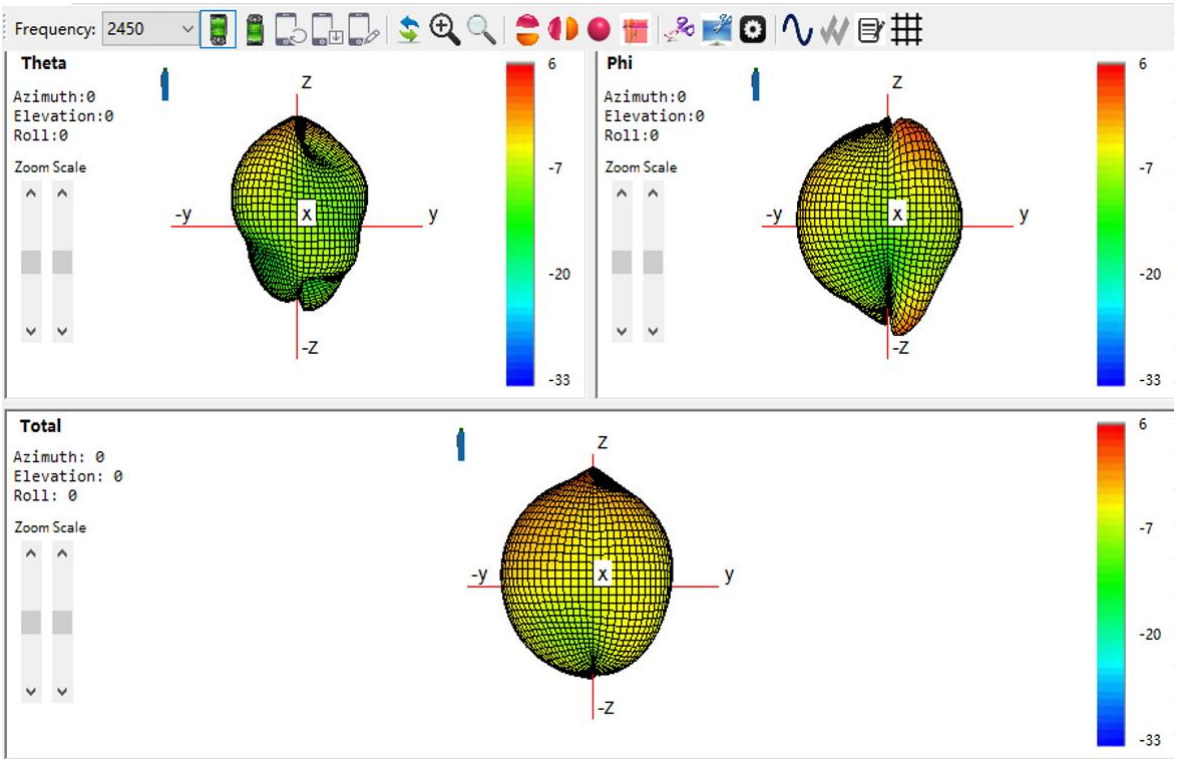
2.2.1 WIFI antenna passive parameters



2.2.2 WIFI antenna effeciency

Freq (MHz)	Effi(%)	Gain
2400	50.2	2.31
2410	50.7	2.35
2420	51.2	2.52
2430	51.5	2.48
2440	52.0	2.48
2450	52.6	2.53
2460	53.2	2.57
2470	53.5	2.61
2480	53.6	2.63
2490	52.8	2.55
2500	52.3	2.46

2.2.3 WIFI antenna pattern



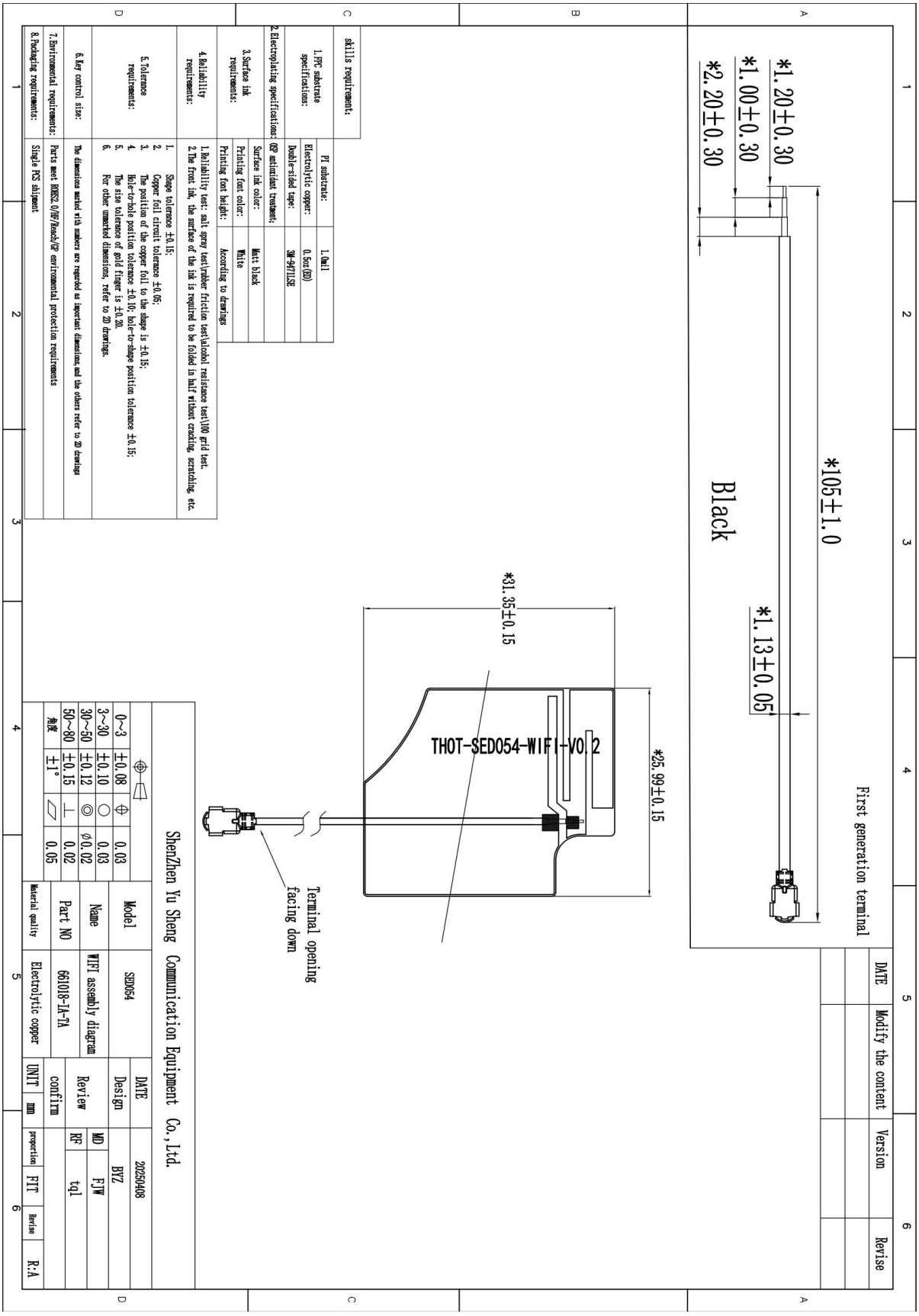
2.2.4Active antenna parameters

	frequency range	CH	TRP (db)	TIS (dbm)
WiFi	11b	1	16.45	
		6	16.59	
		11	16.12	-85.34
	11g	1	15.22	
		6	15.16	
		11	14.80	-73.21
	11n	1	15.18	
		7	15.04	
		13	14.76	-68.47

2.2.5Antenna environment treatment

3. Engineering drawings

3.1 WIFI



4. Bill Of Material

Shenzhen Yusheng Communication Equipment Co.,LTD

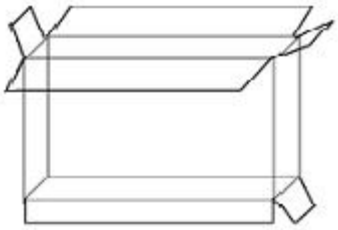
661018 (SED054)-BOM

Edition : T:A client : 661 Type of aircTCft : 661018 Set a date : 2025/4/30

Item numb	*Material code	*Material name	name	*Machine type	Specification and model	colour	*UNIT.	dosage	remark
1	661018-IA-TA	WIFI antenna		SED054	WIFI-FPC welding coaxial line	black	PCS	1	
1.1	661018-IA-01-TA	WIFI-FPC		SED054	WIFI-FPC electrolytic copper 1 half white character 25.99*31.35*0.12 mm	black	PCS	1	
1.2	661018-IA-03-TA	WIFI-cable		SED054	Single-head first-generation terminal φ1.13 *105MM	black	PCS	1	
1.3	661018-IA-04-TA	Assemble		SED054	weld	black	PCS	1	
1.4	TY-CSRF	network analyzer test		SED054	network analyzer test	/	PCS	1	

verify : examine : manufacture : BYZ

5. Package schematic diagram

Packaging method diagram		
product name	Antenna components	
P / N	661018	
Project model	SED054	
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		

6.Supplier information

Supplier name: Shenzhen Yusheng Communication Equipment Co., LTD

Supplier address: 407-411,4th Floor, Building 2, Nantai Yunchuang Valley Park, southeast of the intersection of Guangming Avenue and Dongchang Road, Guangming District, Shenzhen