HK30-A71-1 Project antenna specification

Customer name: 360

Customer name: HK30-A71-1

Product name: Steel sheet

Product specification: See the BOM table for more details

Material code:

Change Content CV:

order number	edition	state	Start and end date	person liable	page number	remarks
1	editio princeps	editio princeps	2024-01-25	Li Jieyi	7	

The Supplier acknowledges the signature:

Responsible person / date		IQC/ date	Review / Date	Approval / Date
MD	Close industry wisdom	Su Guanfeng	Chen Kehong	
RF	Zhou Junyu			

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

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THOT

1. Overview

1.1 Scope of application

This requirement specifies the antenna technical requirements and material requirements specifications for HK30-A71-1 products.

This requirement applies to HK30-A71-1 antenna selection, testing and acceptance.

1.2 Project basic information

Antenna name:	**HK30-A71-1**
Antenna frequency:	WIFI:2.4G
Antenna material:	steel disc

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

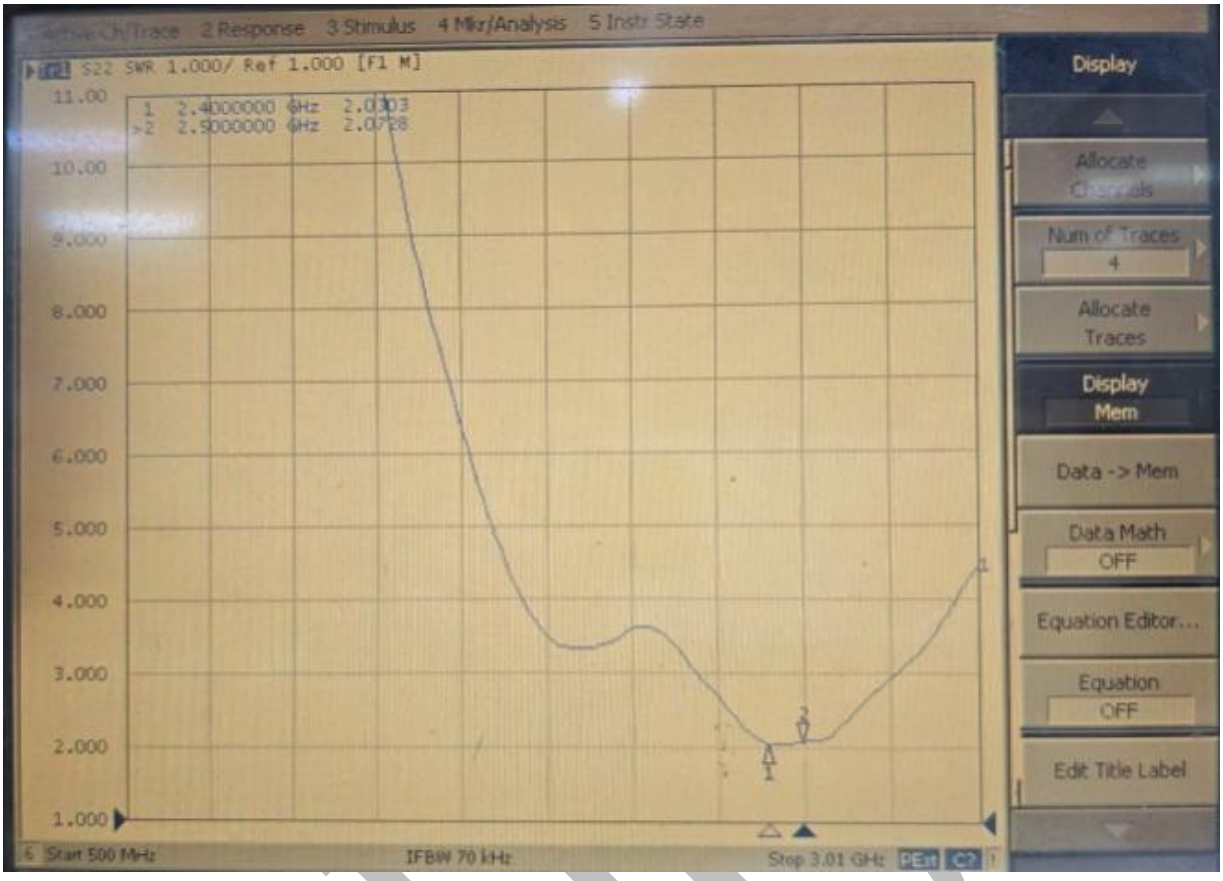
Test tools: Agilent8960 instrument, R & SCMW500, full wave far field ETS dark room, high precision positioning system and its controller and computer with automatic test program

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

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

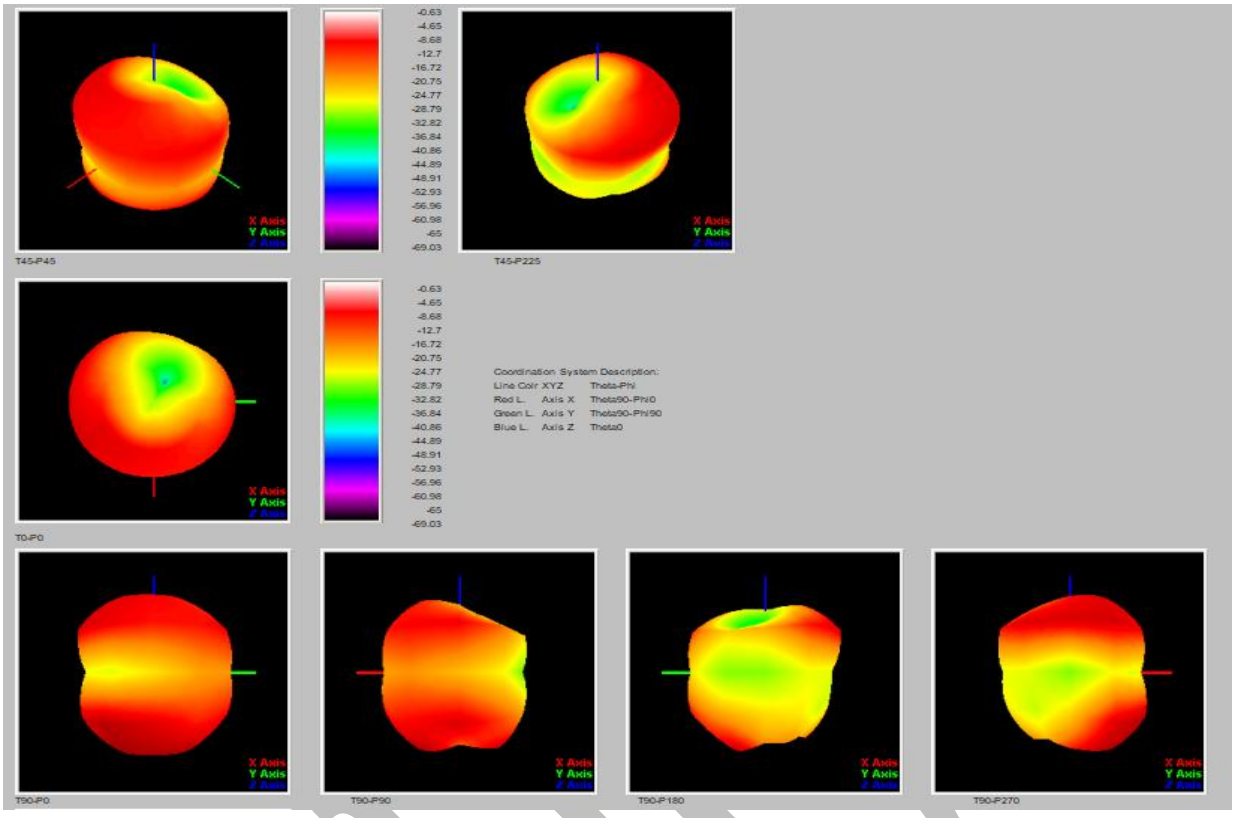
2.2.2 Antenna Parameters-S11



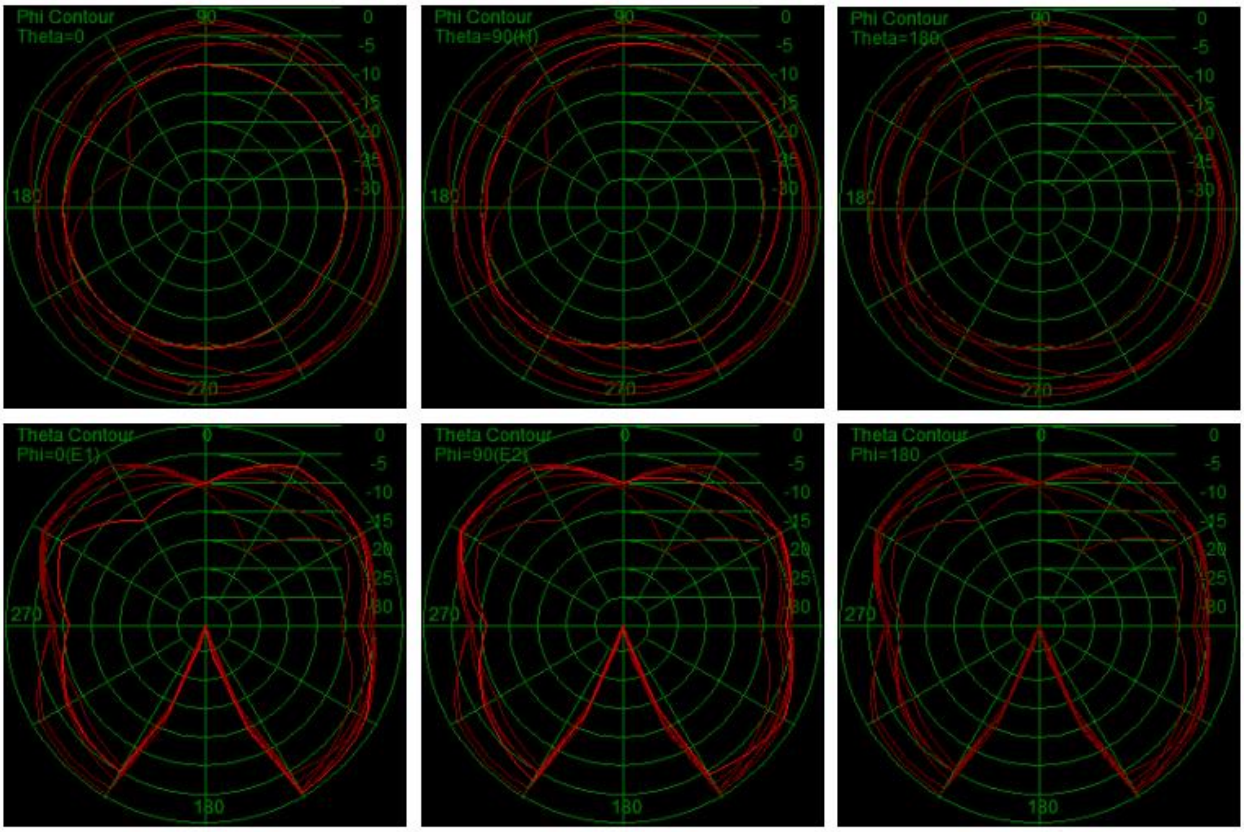
2.2.3 Antenna passive parameters

Freq (main antenna efficiency)	Effi(%)	Gain(dBi)
2400.0	35.1%	-0.77
2410.0	36.3%	-0.53
2420.0	36.9%	-0.43
2430.0	37.4%	-0.38
2440.0	38.6%	-0.36
2450.0	37.2%	-0.65
2460.0	36.8%	-0.63
2470.0	35.2%	-0.66
2480.0	33.1%	-0.66
2490.0	32.1%	-0.65
2500.0	30.1%	-0.53

2.2.4 Antenna passive parameters-orientation diagram-2450 MHZ



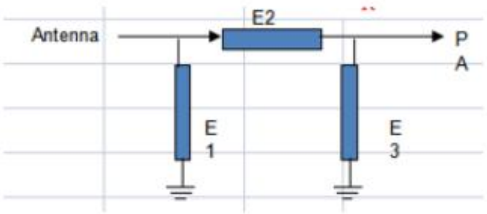
2.2.5 Antenna passive parameters-plane plan-2450 MHZ



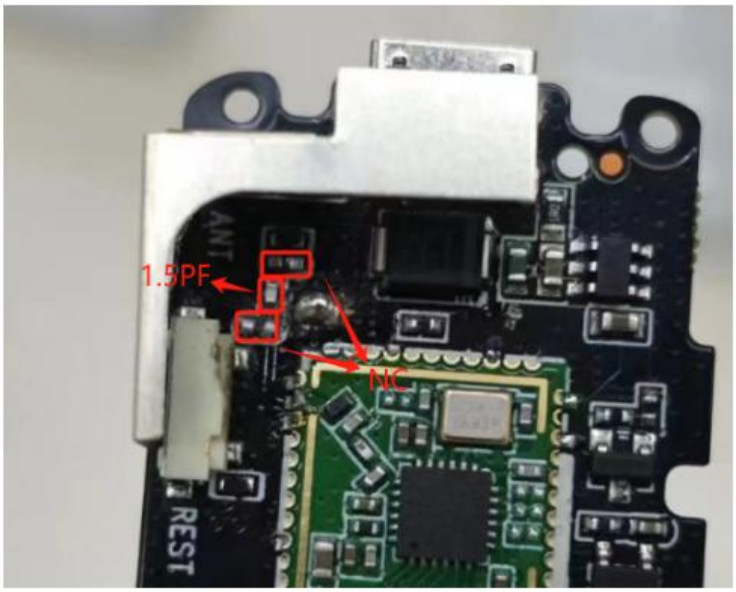
2.2.6 Antenna parameters-WIFI

		1 # (ZhongLong)		2 # (Ou Zhi)	
	CH	TRP	TIS	TRP	TIS
11B	1	13.03	-83.03	13.28	-82.16
	6	12.48	-84.52	12.46	-84.1
	11	11.42	-83.59	11.32	-83.12

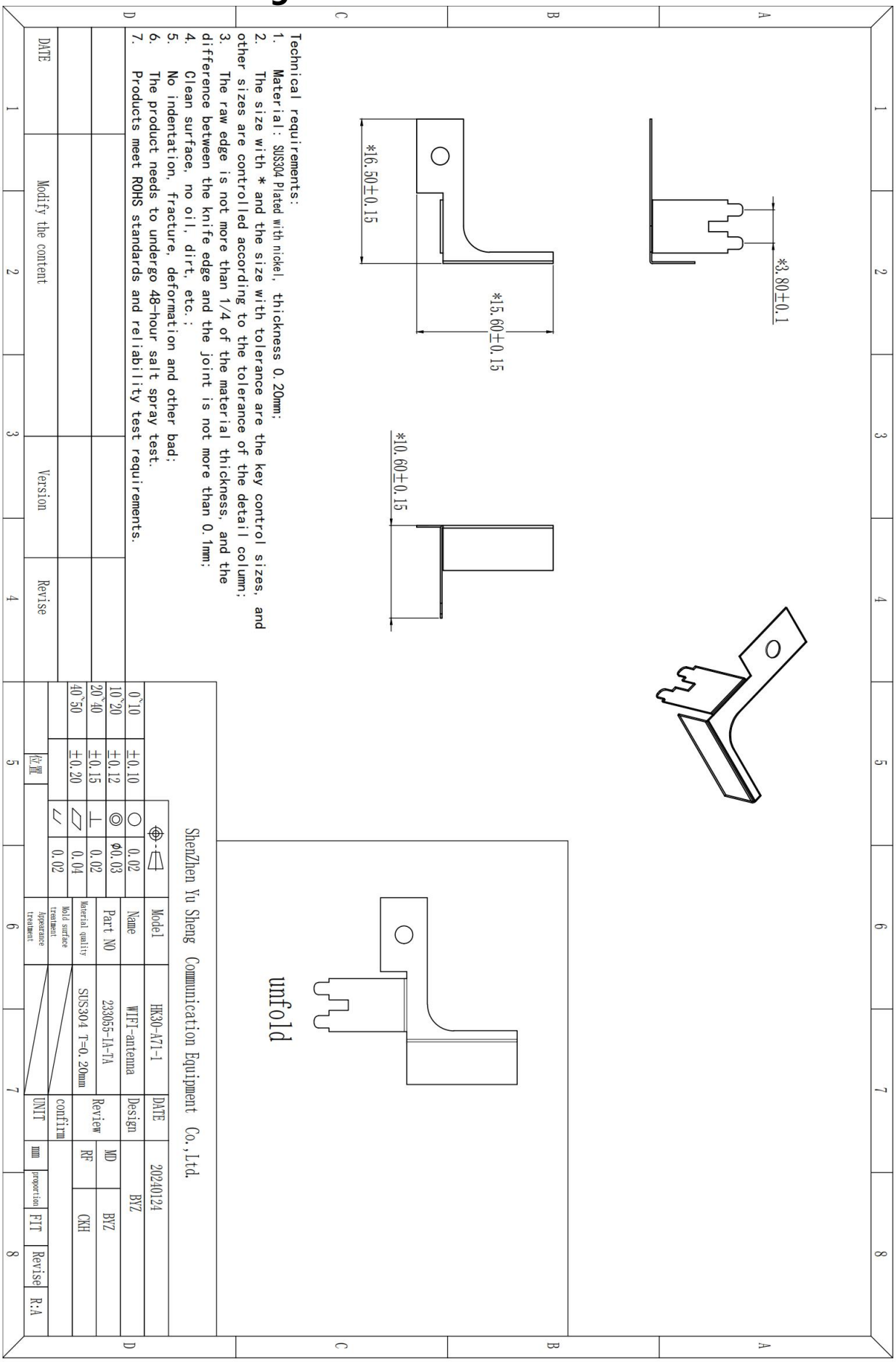
2.2.7 Antenna matching



Element	Value
E1 (0201)	NC
E2 (0201)	1.5PF
E3 (0201)	NC



3.structural drawings



4. Bill Of Material

深圳市昱晟通讯备有限公司

Shenzhen Yusheng Communication Equipment Co.,LTD

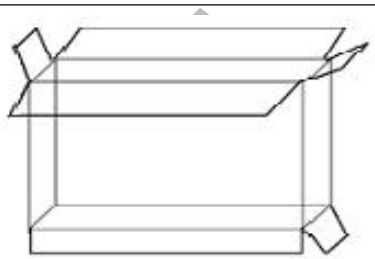
233055 (HK30-A71-1) -BOM

edition: T:A client: 233 Type of aircraft: 233055 date: 2024/2/26

Item	*Material code	*Material name	name	*Machine type	Specification and model	colour	*UNIT.	dosage	remark
1	233055-IA-TA	WIFI Antenna		HK30-A71-1	SUS304 Plated with nickel, T=0.20mm 16.5*15.6*10.6mm	Argent	PCS	1	
1	233028-IA-01-TA	WIFI Antenna		HK30-A71-1	SUS304 Plated with nickel, T=0.20mm 16.5*15.6*10.6mm	Argent	PCS	1	

verify: examine: manufacture: BYZ

5. Packaging diagram

Packaging method diagram		
product name	Metal antenna	
P / N	233055	
Project model	HK30-A71-1	
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		

(This figure is only a packaging diagram, subject to the actual mass production)