

V9H-N529-1 Project antenna specification

Customer name: 360

Customer name: V9H-N529-1

Product name: Steel sheet

Product specification: WIFI antenna: Yangbai copper 21.66*8.07*0.3mm

Material code: 186000000012082

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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 INTRODUCTION OF TEST ITEMS AND EQUIPMENT	3
2.2 ACTIVE REPORTING	3
2.2.1 TEST INSTRUCTIONS	3
2.2.2 ANTENNA S11 PASSIVE PARAMETERS	4
2.2.3 ANTENNA ENVIRONMENT RECTIFICATION	4
2.2.4 TESTING SITUATION OF ANTENNA EFFICIENCY PARAMETERS	5
2.2.5 PASSIVE ORIENTATION DIAGRAM	6
2.2.6 CONDUCTION TEST	6
2.2.7 ACTIVE OTA TESTING	7
3. STRUCTURAL DRAWINGS	8
3.1 STEEL SHEET ANTENNA	8
4. LIST OF MATERIALS	9
5. PACKAGING DIAGRAM	10
(THIS FIGURE IS ONLY A PACKAGING DIAGRAM, SUBJECT TO THE ACTUAL MASS PRODUCTION)	10

1. Overview

1.1 Scope of application

This requirement specifies the antenna technical requirements and material requirements specifications for V9H-N529-1 products.

This requirement applies to the V9H-N529-1 Antenna type selection, test, and acceptance.

1.2 Project basic information

Antenna name:	<u>V9H-N529-1</u>
Antenna frequency:	IEEE802.11b/g/n/ax/BLE
Antenna material:	shrapnel

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

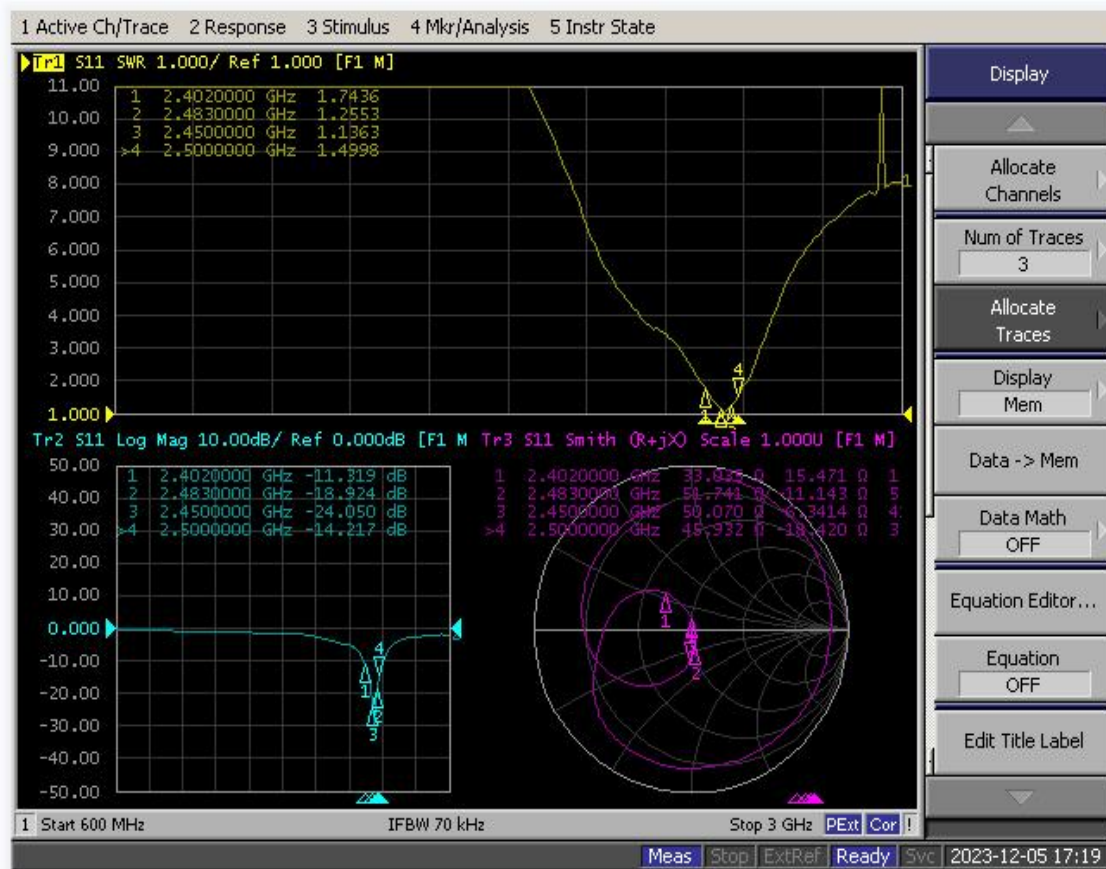
Test tools: Agilent8960 instrument, R & SCMW500, full wave far field ETS dark room, high precision positioning system and its controller and computer with automatic test program

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

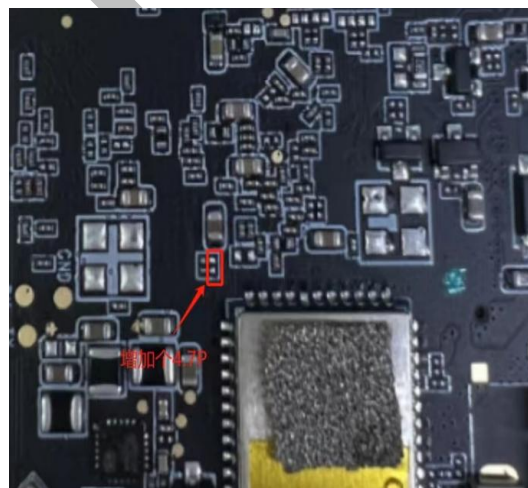
Test method: DUT is fixed in the center of the turntable with H plane, on the same horizontal line as the center of the horn antenna.

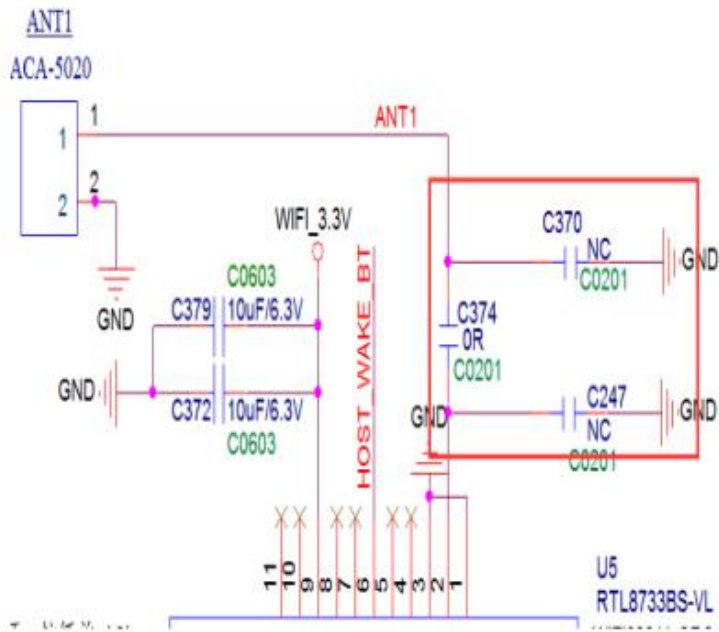
The positioning system enables the DUT to rotate in the whole sphere to satisfy the high-precision 3 D positioning. Each RF instrument and turntable controller communicate with the PC with automatic test software through the GPIB interface.

2.2.2 Antenna S11 passive parameters



2.2.3 Antenna environment rectification





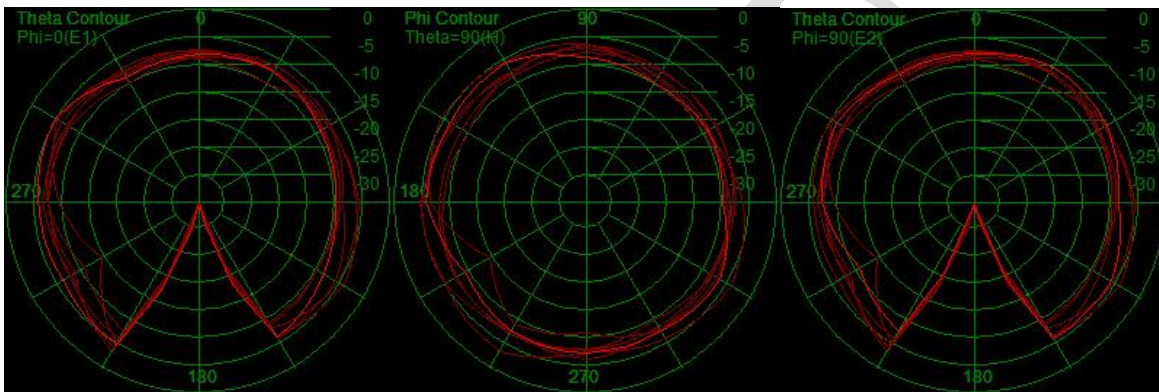
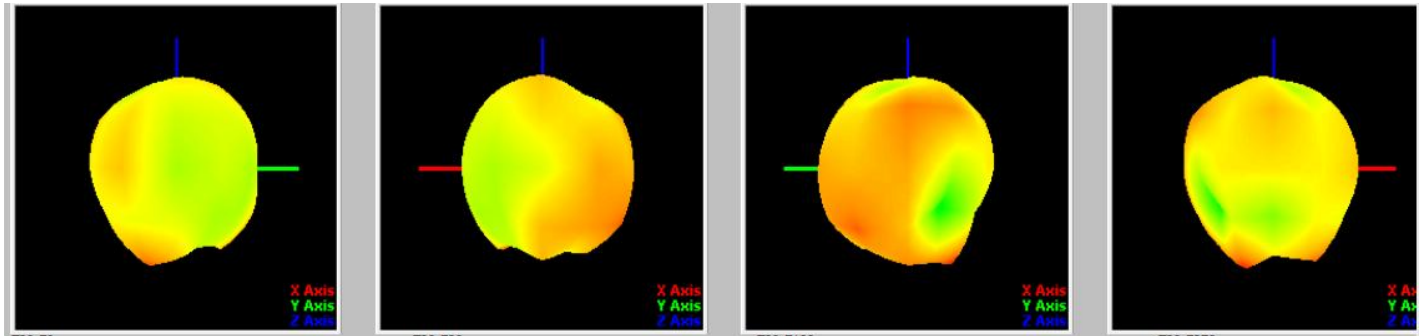
C370并联3.0nH电感



2.2.4 Testing situation of antenna efficiency parameters

frequency point	productiveness%	productiveness db	gain
2400	24.5	-6.1	-0.6
2410	25.8	-5.9	-0.8
2420	26.4	-5.8	-0.8
2430	26.8	-5.7	0
2440	27.5	-5.6	-0.6
2450	27.2	-5.6	-0.7
2460	26.7	-5.7	-0.6
2470	25.1	-5.8	-0.7
2480	25.6	-5.9	-0.8
2490	25.7	-5.9	-0.9
2500	25.1	-6.0	-0.5

2.2.5 passive orientation diagram



2.2.6 Conduction test

2.4-B mode 11Mbps	Transmission test	TX (dBm)	RXdBm)
	CH1	16.7	-87
	CH7	16.8	-88
	CH13	16.7	-88

2.4-N mode MCS7	Transmission test	TX (dBm)	RXdBm)
	CH1	16.2	-72
	CH7	16.3	-72
	CH13	16.4	-72

The 2.4G-G mode of 54 Mbs	Transmission test	TXdBm)	RXdBm)
	CH0	16.2	-75
	CH19	16.3	-75
	CH39	16.2	-75

2.2.7 Active OTA testing

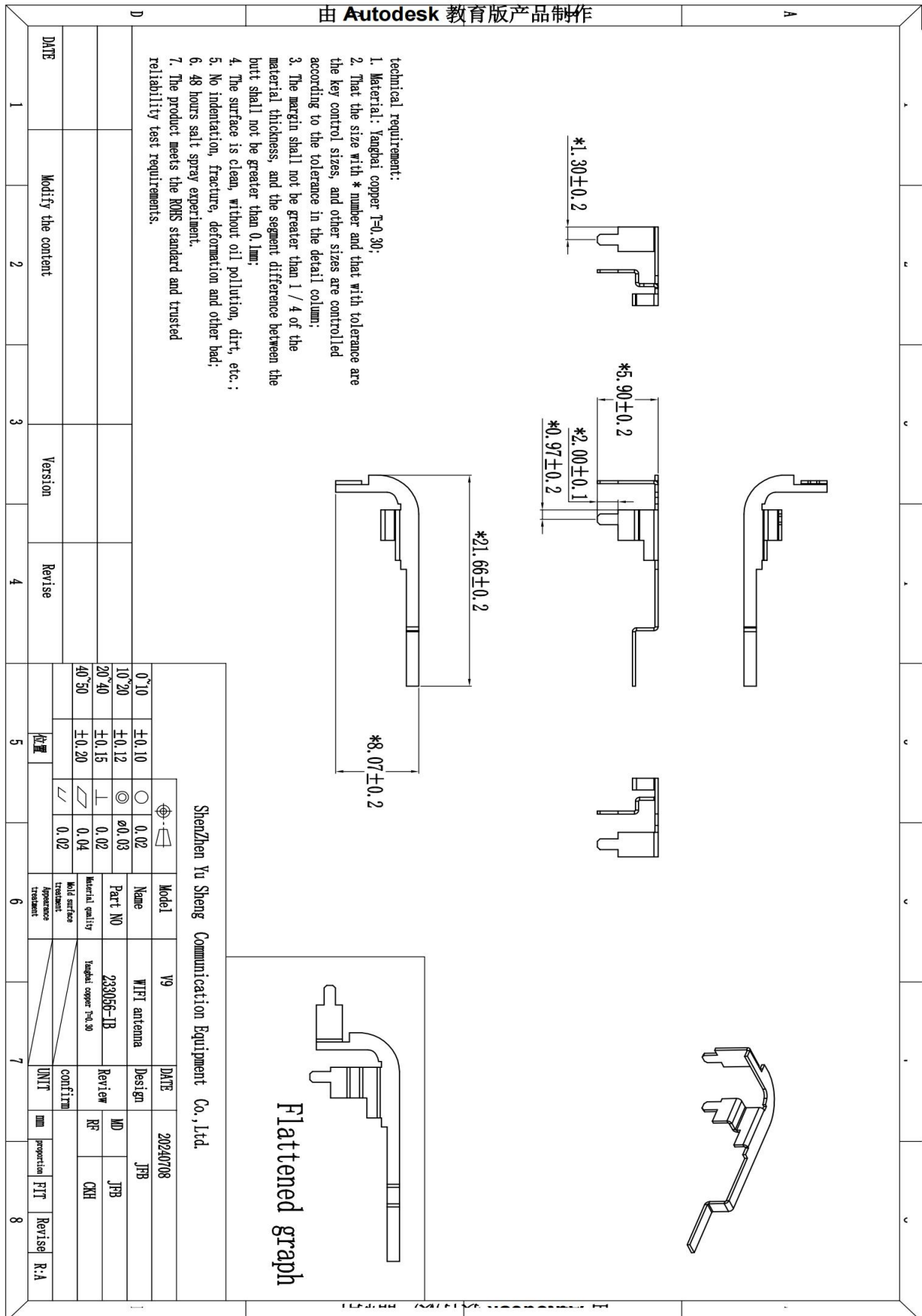
2.4-B mode	Transmission test	TX (dBm)	RXdBm)
	CH1	11.5	-81.25
	CH7	11.5	-81.26
	CH13	12.2	-82.11

2.4-N mode	Transmission test	TX (dBm)	RXdBm)
	CH1	10.9	-66.1
	CH7	11.2	-66.3
	CH13	11.2	-66.2

The 2.4G-G mode	Transmission test	TXdBm)	RXdBm)
	CH0	11.4	-64.1
	CH19	11.5	-65.2
	CH39	11.2	-64.3

3.structural drawings

3.1 Steel antenna



4.Bill Of Material

233056 (V9) BOM表

edition: R:A

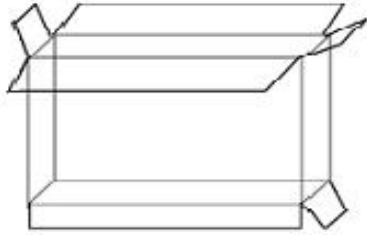
client: 233

Type of aircraft: 233056

Set a date: 2024/07/08

Item	*Material code	*Material name	name	*Machine type	Specification and model	colour	*UNIT.	dosage	remark
1	233056-IA-TA	WIFI antenna		V9H-N529-1	Yangbai copper T=0.30 21.66*8.07*0.3mm	primary colour	PCS	1	
1.1	233056-IA-01-TA	WIFI antenna		V9H-N529-1	Yangbai copper T=0.30 21.66*8.07*0.3mm	primary colour	PCS	1	
verify:			examine:			manufacture: FJW			

5. Packaging diagram

Packaging method diagram		
product name	Steel antenna	
P / N	233056	
Project model	<u>V9H-N529-1</u>	
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)