SHARETRONIC

WY acknowledgement

SPECIFICATION FOR APPROVAL

Document Number: Version: A00

Applicable type: L-CW6513B 12 pages

Material number: 400104280

The Part Description:

Distribution department	appraisal report	Parts drawings	sample plate
purchase	☑	☐	☐
quality department	☑	☑	☑
product engineering	☑	☑	☐
Cultural management center	☑	☐	☐
research and development	☐	☐	☐
supplier	☑	☐	☐
else_____	☐	☐	☐

Supplier: Shenzhen Yusheng Communication Equipment Co., LTD

Manufacturer: Shenzhen Yusheng Communication Equipment Co., LTD

Manufacturer model: 661010-IA

Sample admission date: August 28,2024

part drawing number:

F☐ recognized and unqualified

C☐ tional approval, ☐ purchase limit and quantity:

cause:

Part quali☐ s not determined

Insufficie☐umber of samples

Incomplete☐cription document

else: ☐ _____

— Note: This quantity limit indicates that the applicant is only responsible for the samples within this quantity

handle	countersign			approval
	engineering /R&D	Business / Procurement	character	

Material Requirements Specification for the L-CW6513B project antenna

Customer name: Xiechuang

Customer product name: L-CW6513B

Product name: WIFI antenna

Product specification: See the BOM table for more details

Product code: 400104280

Change Content CV:

order number	edition	state	Start and end date	person liable	page number	remarks
1	V0.6	editio princeps	2024-8-28	Li Jieyi	12	

The Supplier acknowledges the signature:

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 ANTENNA S11 PASSIVE PARAMETERS 4
2.2.2 RECTIFICATION OF THE ANTENNA ENVIRONMENT 4
2.2.3 ANTENNA EFFICIENCY PARAMETERS TEST SITUATION 5
2.2.4, PASSIVE ORIENTATION DIAGRAM 6
2.2.5 CONDUCTION TEST 6
2.2.6 ACTIVE OTA TEST 7
3. ENGINEERING DRAWINGS **8**
4. BILL OF MATERIALS **9**
5. RELIABILITY REPORT **10**
6. PACKAGE SCHEMATIC DIAGRAM **12**

1. Overview

1.1 Scope of application

This requirement is applicable to the antenna selection, testing and acceptance of L-CW6513B products.

1.2 Project basic information

Antenna name:	**L-CW6513B**
Antenna band:	WIFI:2.45GHz/5.8GHz
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 precision positioning system and its controller and computer with automatic test program

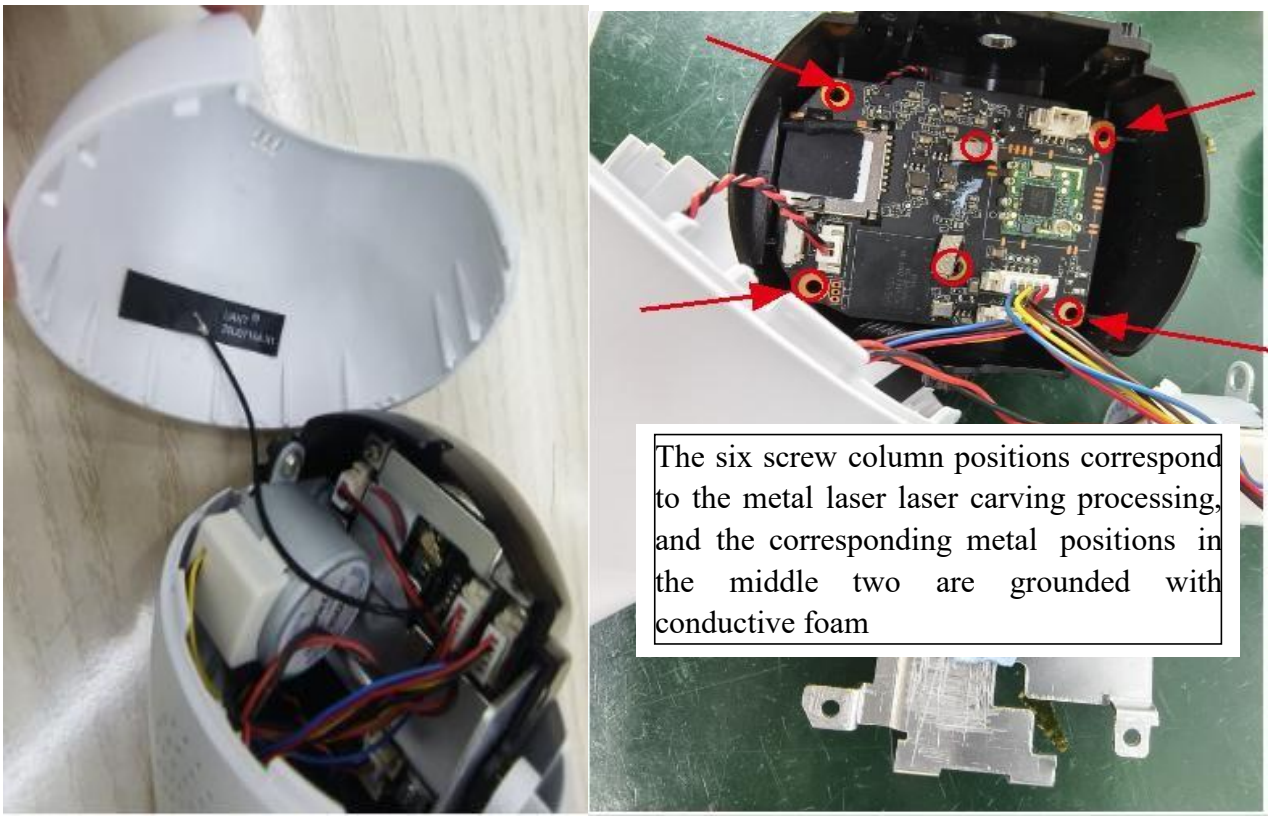
Test environment: temperature 22℃± 3℃, humidity 50% ± 15%

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.

2.2.1 Antenna S11 passive parameters

2.2.2 Rectification of the antenna environment

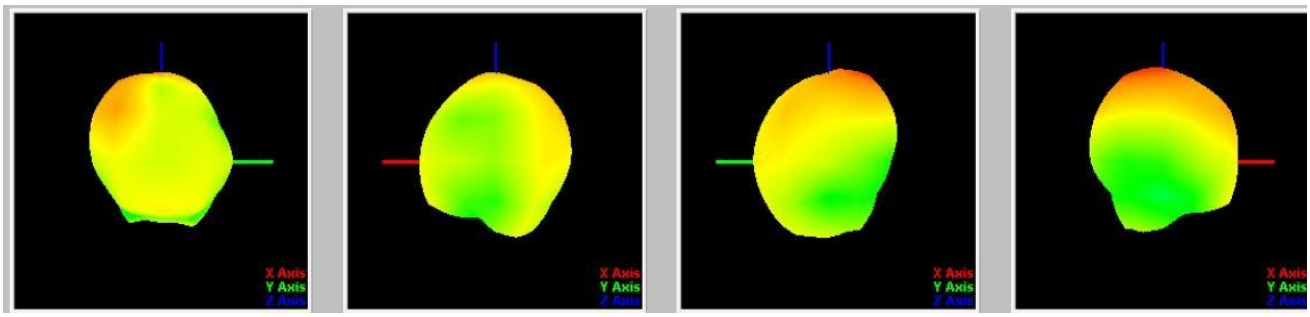


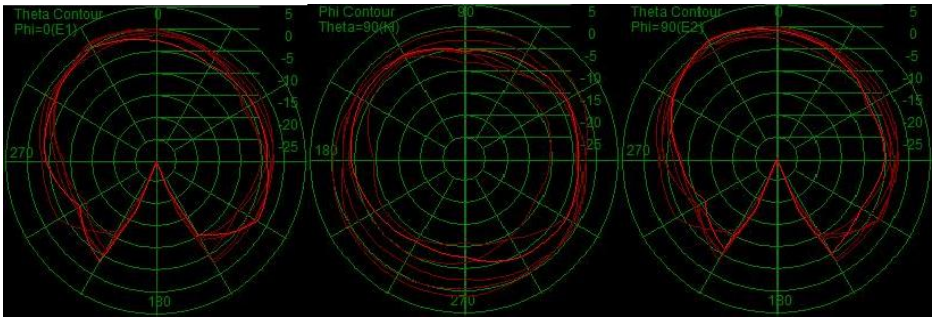
2.2.3 Antenna efficiency parameters test situation

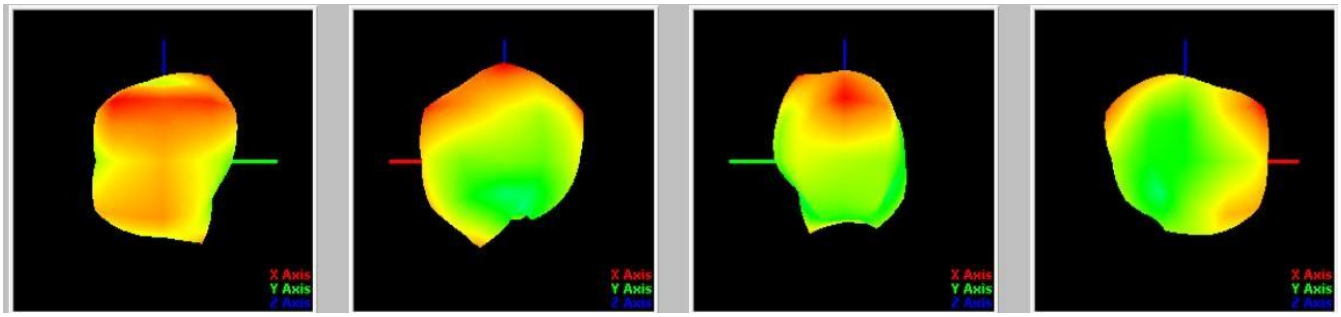
frequency point	productiveness%	productiveness db	gain
2400	57.3%	-2.42	0.69
2410	58.8%	-2.31	0.03
2420	60.2%	-2.20	0.41
2430	61.3%	-2.13	0.80
2440	62.5%	-2.04	1.15
2450	60.5%	-2.18	1.29
2460	60.1%	-2.21	1.26
2470	58.6%	-2.32	1.13
2480	58.2%	-2.35	1.54
2490	57.9%	-2.37	1.69
2500	57.5%	-2.25	1.65

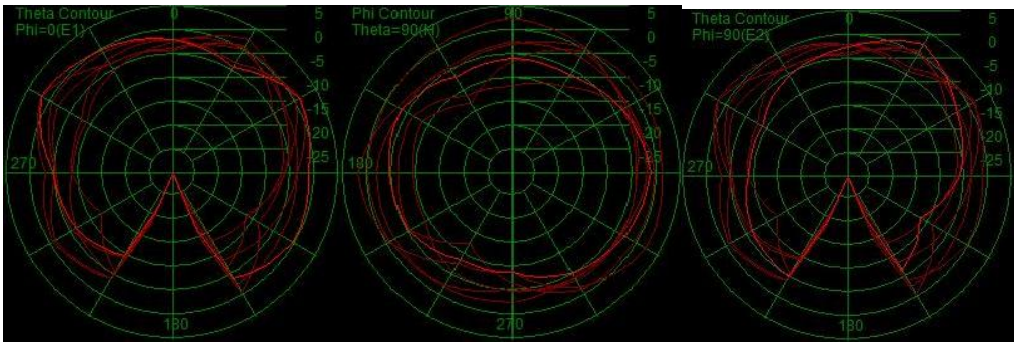
frequency point	productiveness%	productiveness db	gain
5100	61.2%	-2.13	0.69
5200	60.5%	-2.18	0.89
5300	62.2%	-2.06	1.44
5400	70.3%	-1.53	1.87
5500	70.9%	-1.57	1.26
5600	67.1%	-1.73	0.83
5700	58.5%	-2.33	0.87
5800	60.5%	-2.19	1.15
5900	57.5%	-2.41	0.66
6000	57.1%	-2.44	0.81

2.2.4, passive orientation diagram









2.2.5 Conduction test

	Transmission test	TX（dBm)	RXdBm)
2.4-B mode 11Mbs	CH1	18.2	-93
	CH7	18.6	-93
	CH13	18.9	-93

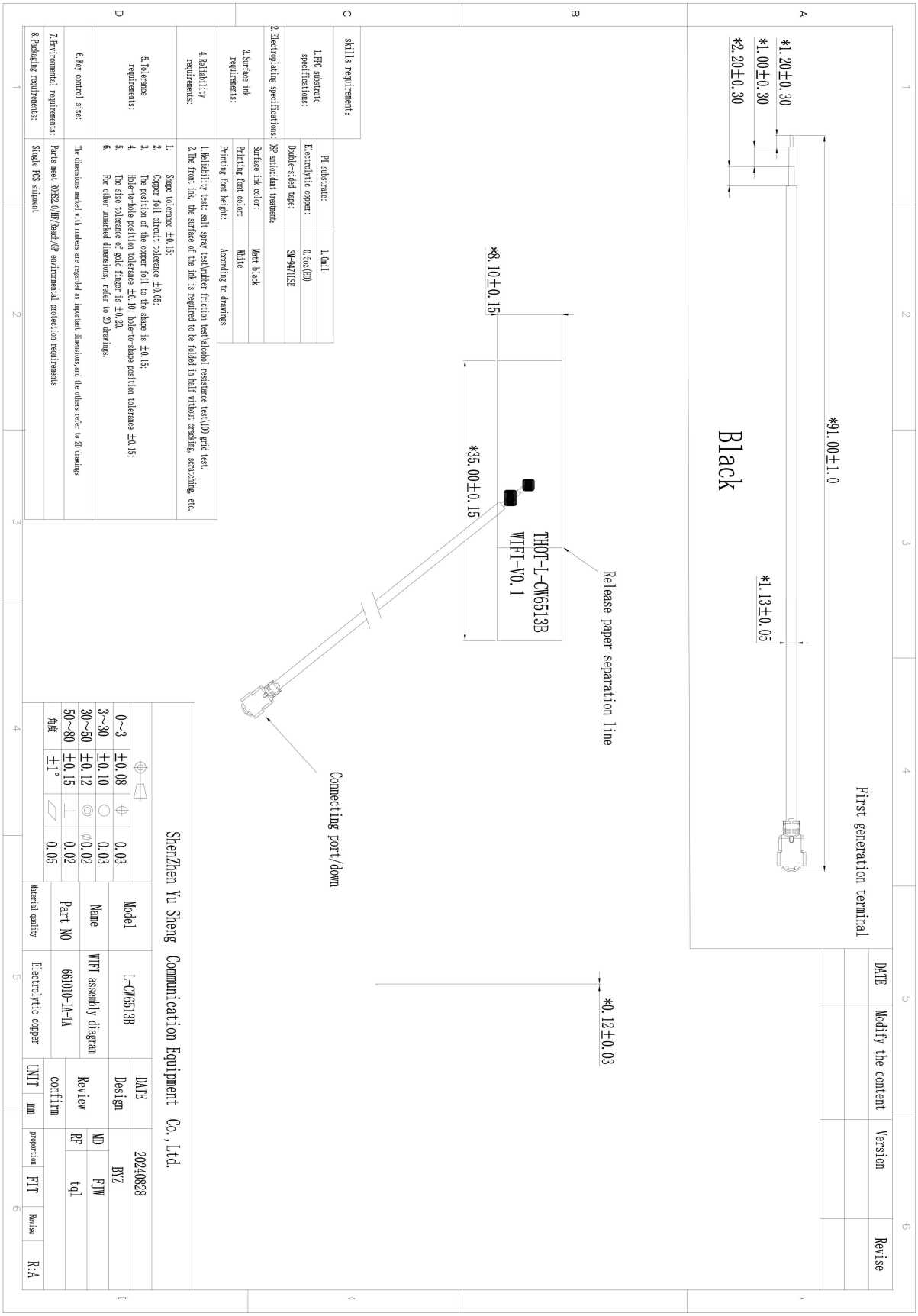
	Transmission test	TX（dBm)	RXdBm)
5G-A mode 54Mbs	CH1	18.5	-78
	CH7	18.6	-78
	CH13	18.7	-79

2.2.6 Active OTA test

	OTA test	TX（dBm)	RXdBm)
2.4-B mode	CH1	16.1	-80.1
	CH7	17.2	-81.1
	CH13	17.3	-80.2

	OTA test	TX（dBm)	RXdBm)
5G-A mode	CH1	15.1	
	CH7	16.3	
	CH13	16.2	-70.2

3. engineering drawing



4. List of materials

Shenzhen Yusheng Communication Equipment Co.,LTD

661010 (L-CW6513B) -BOM

edition : T:A client : 661 Type of aircTCft : 661010 Set a date : 2024/8/28

Item number	*Material code	*Material name	name	*Machine type	Specification and model	colour	*UNIT.	dosage	remark
1	661010-IA-TA	WIFI antenna		L-CW6513B	WIFI-FPC welding coaxial line	black	PCS	1	
1.1	661010-IA-01-TA	WIFI-FPC		L-CW6513B	WIFI-FPC electrolytic copper 1 half white character 35*8.1* 0.12mm	black	PCS	1	
1.2	661010-IA-02-TA	WIFI-CABLE		L-CW6513B	Single-head first-generation terminal φ1.13*91.00 mm	black	PCS	1	
1.3	661010-IA-03-TA	assemble		L-CW6513B	weld	black	PCS	1	
verify :			examine :			manufacture : BYZ			

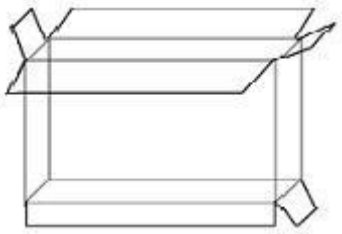
5. Reliability report

Hot and cold shock test report

client	Co-create		date	2024-8-24		Factory number	661010
P / N	L-CW6513B		quantity	Each 5PCS		testing time	48H
material specification	Single side half to half, electrolytic copper gold plating		supplier	Renesola		reference standard	MIL-SDT-202Method017IEC60749-25 JEDECJESD22-A104-B IEC68-2-1MIL-STD-2168-85
Test purpose: To test the reliability of products and coating binding force, coating and oxidation resistance and corrosion resistance.							
Equipment name: high and low temperature test box							
laboratory environment							
temperature	22-26℃		relative humidity	65-75%	atmos		1MPA
test parameter							
temperature	high temperature		80℃	low temperature	minus forty ℃	Temperature tolerance	2℃
time	constant temperature	high temperature	0.30H	High temperature heating	10min	remarks	1. High temperature heating temperature rises from room temperature to set high temperature 2, low temperature cooling refers to the drop from the set high temperature to the set low temperature
		low temperature	0.30H	Low temperature cooling	10min		
cycle index	32 Times		else	relative humidity	95%		
visual inspection	lamination	ACC	oxidize	ACC	blister	ACC	The ink fell off	ACC
test	antistripping	⩾ 0.8kgf/cm2	spot welding	ACC	Bige test	ACC	Wear-resistant experiment	ACC
test record:							
identification of product		Product test results				judge	
		After the experiment, the product has no warping and no glue overflow.				ACC	

Shenzhen Yusheng Communication Equipment Co., LTD		
Salt mist test report		
client:	Co-create	Model number: L-CW6513B
Sample condition	Number of samples: 5 PCS	
	Material: single-sided half-to-half electrolytic copper	Plating layer: gold-plated
Date of experimental site: 48 hours from June 26,09:25 to 09:25 on June 5,2024		
Type of experiment	■ NSS □ASS □CASS	
experiment condition	Salt solution: 5%	PH:7.0
	Box temperature: 35 · C	Relative humidity: 85% ℃
	Spray method: ■ Continuous □ interval	Compressed air pressure: 1kg / m 2
	precipitation rate of salt spray:	Fog liquid collection: PH7.0anc
	Experimental period: 1- -cycle	Spray time: 48H
		Hold time: 2H
The results were observed every 16 hours	The test temperature is: 36℃	Pressure barrel temperature: 47.5℃
experimental result	Appearance after the experiment: the appearance is intact and intact, no obvious change	
	Plating: no peeling, no corrosion	
	Surface spraying, screen printing: no falling off, no bubbles	

6. Package schematic diagram

Packaging method diagram		
product name	Antenna components	
P / N	661010	
Project model	L-CW6513B	
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		