

SPECIFICATION APPROVAL SHEET

CUSTOMER \_\_\_\_\_

CUS PART NO \_\_\_\_\_ 版次: REV \_\_\_\_\_ X1

SPECIFICATION 2.4-2.5/5.15-5.85/7.15 GHz 单重: \_\_\_\_\_  
WIFI MAIN Antenna L=357mm (Φ0.81+MHF) weight \_\_\_\_\_

SUP PART NO SLEingB241520370 \_\_\_\_\_

DATE 2024.10.09 \_\_\_\_\_

SUP APPROVED

APPROVED	CHECKED	QA CHECKED	DESIGNED
<i>JongRei</i>	<i>Tone</i>	<i>2024.10.09</i> <i>工程部</i>	<i>Jerry</i>

CUS APPROVED

APPROVED	CHECKED	QA CHECKED	DESIGNED

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变更记录  
MODIFICATION RECORD SHEET

(REV.)	(Modification date)	Summary of modification content	Signature	Approval
X1	2024.10.09	First Issue	Jerry	Jongrei

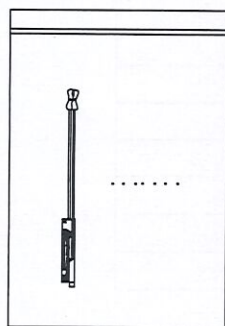
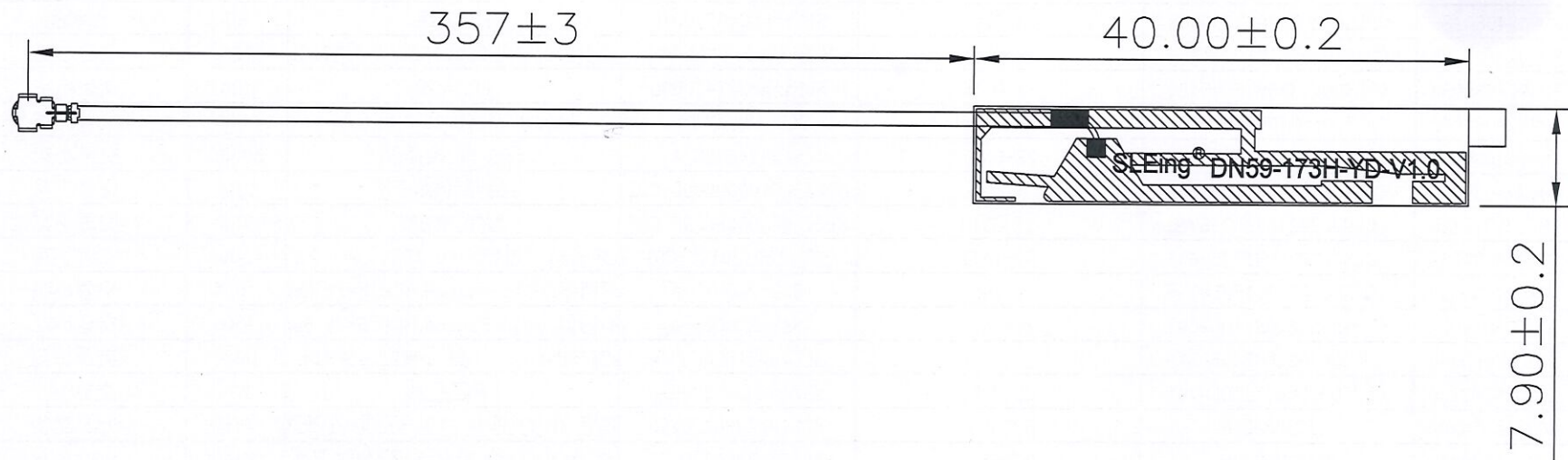
## Spec Item

NO.	Project	Remark	Page
1	Spec Cover		1
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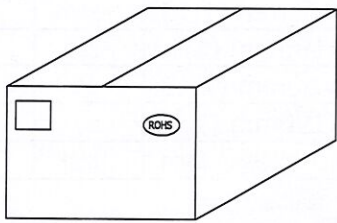
Give clear indication of:

1. The contents of the acknowledgement shall be arranged in order according to the items in the check sheet.
2. The number of copies of the acceptance letter shall be printed according to the customer's requirements, and the SGS report shall be stamped with the engineering seal.
3. All materials shall be confirmed by the customer. Any material/process/changes that may affect product quality and environmental quality must be re-sent to the customer for confirmation before import.
4. SGS report is valid for one year.
5. According to the contents attached to the actual acknowledgement, check the check form: "Yes" is provided, "no" is provided according to customer requirements.

REV.	CONTENT	DATE
X1	First Sample	2024.10.09




50pcs/Bundle  
Packing:100pcs/bag



The outer box must be attached with 1  
ROHS label and 1 material label

Specification:  
Frequency Rang:2400~2500/5150~5850/7150MHz(带机测试)  
Return Loss:-7.0dB or less  
VSWR:2.5 Max

SLEing®  DONGGUAN SLEing INTEL-TECH CO.,LTD			CUSTOMER				
			PART NO				
			TITLE		WIFI MAIN ANTENNA		
			S.L P/NO		SLEingB241520370		
		TOLERANCE UNLESS OTHERWISE SPECIFIED		SIZE	DRAWED	CHECKED	APPROVED
				A4	Jerry	2024.10.09	工程部
UNIT:mm		ANGLES ±0.5°	X. ±0.3				
SHEET: 1/1		0.XX ±0.05	XX. ±0.5				
SCALE: 1/1			XXX. ±2.0				
4		3		2		1	

NO	PART NAME	DESCRIPTION	REMARK	Q'TY
3	Connector	MHF Plug for Φ0.81 Cable		1
2	Cable	Φ0.81mm Coaxial Cable Black,50Ω		1
1	FPCB	FPC,40*W7.9*T0.4mm,Color:Black	300LSE Adhesive	1

## Test Reports

Electrical Properties	
Frequency	2.4-2.5/5.15-5.85/7.15GHz
Impedance	50 Ohm Nominal
V.S.W.R	2.5Max
Return Loss	-7.0dB Max
Radiation	Omni-directional
Gain(Peak)	2.4G:2.04dBi/5.8G:3.90dBi/7.15G:2.83dBi
Polarization	Linear, Vertical
Admitted Power	2 W
Connector	MHF
Physical Properties	
Antenna Material	FPC
Antenna Color	Φ0.81 Black
Operating Temp	-40℃-+85℃
Storage Temp.	-5℃-+30℃

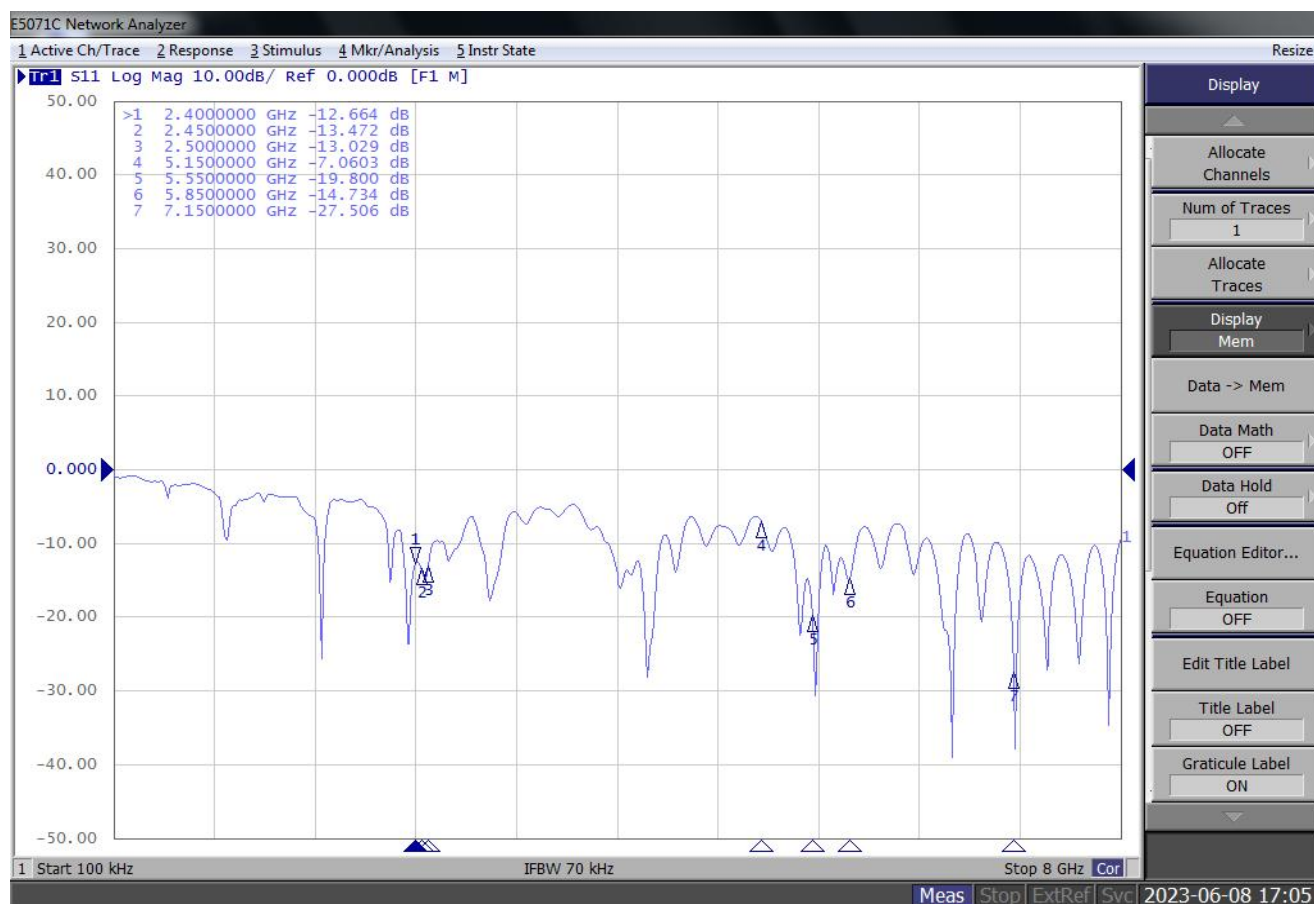


## S Parameter Test

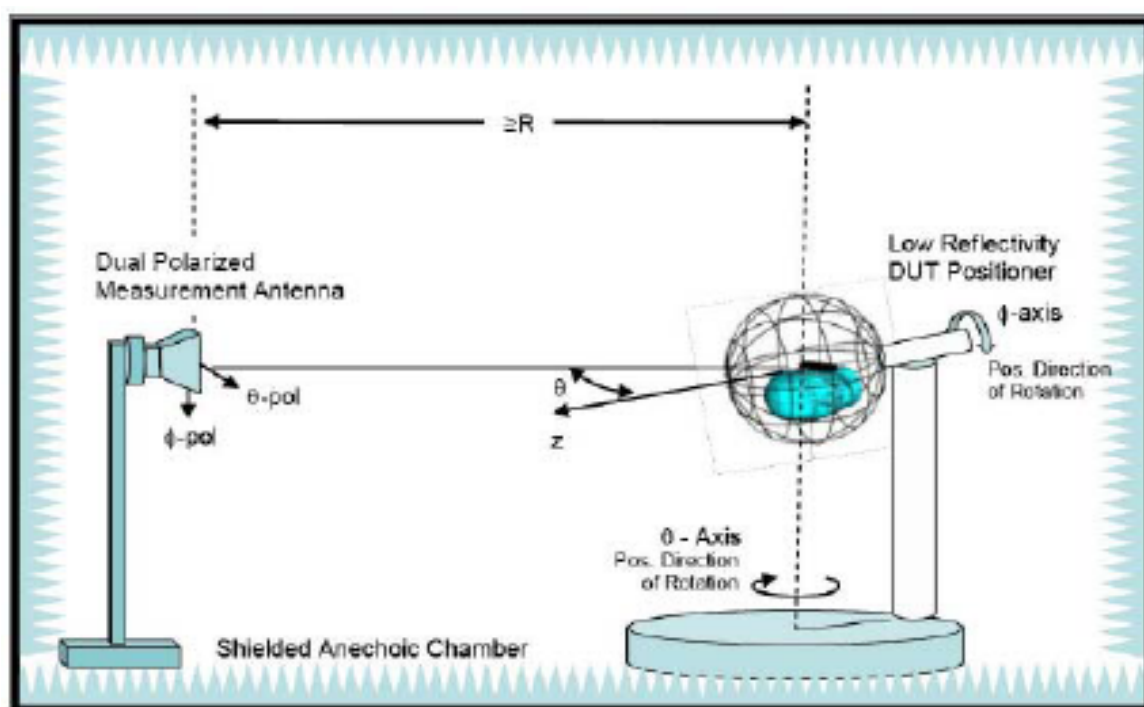
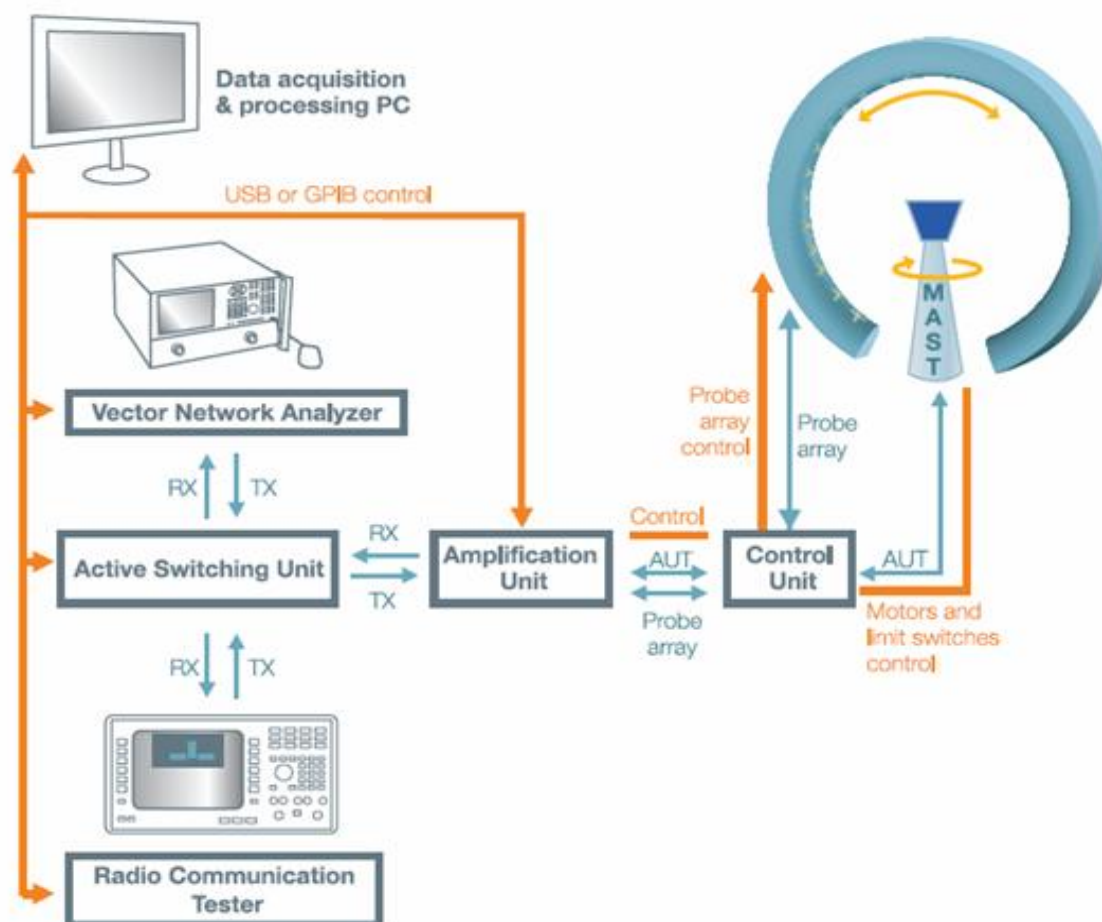
Agilent E5071C Network Analyzer



RF Antenna (Return Loss)



## Test Setup



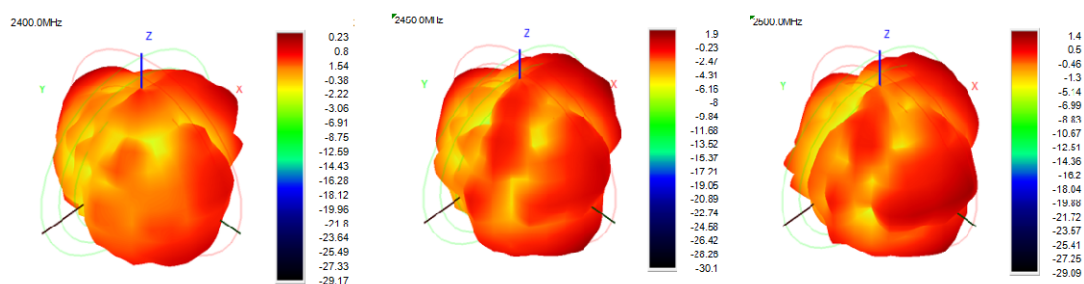
## Test Efficiency

Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0	5150.0	5250.0	5350.0	5450.0	5550.0
Gain (dBi)	0.23	0.61	0.99	1.31	1.62	1.90	2.04	1.86	1.64	1.33	1.40	-2.31	-0.59	0.06	0.38	0.78
Efficiency (%)	24.89	26.07	27.79	30.01	32.37	34.46	36.07	36.54	37.15	36.67	37.18	24.06	21.66	23.34	23.18	23.66

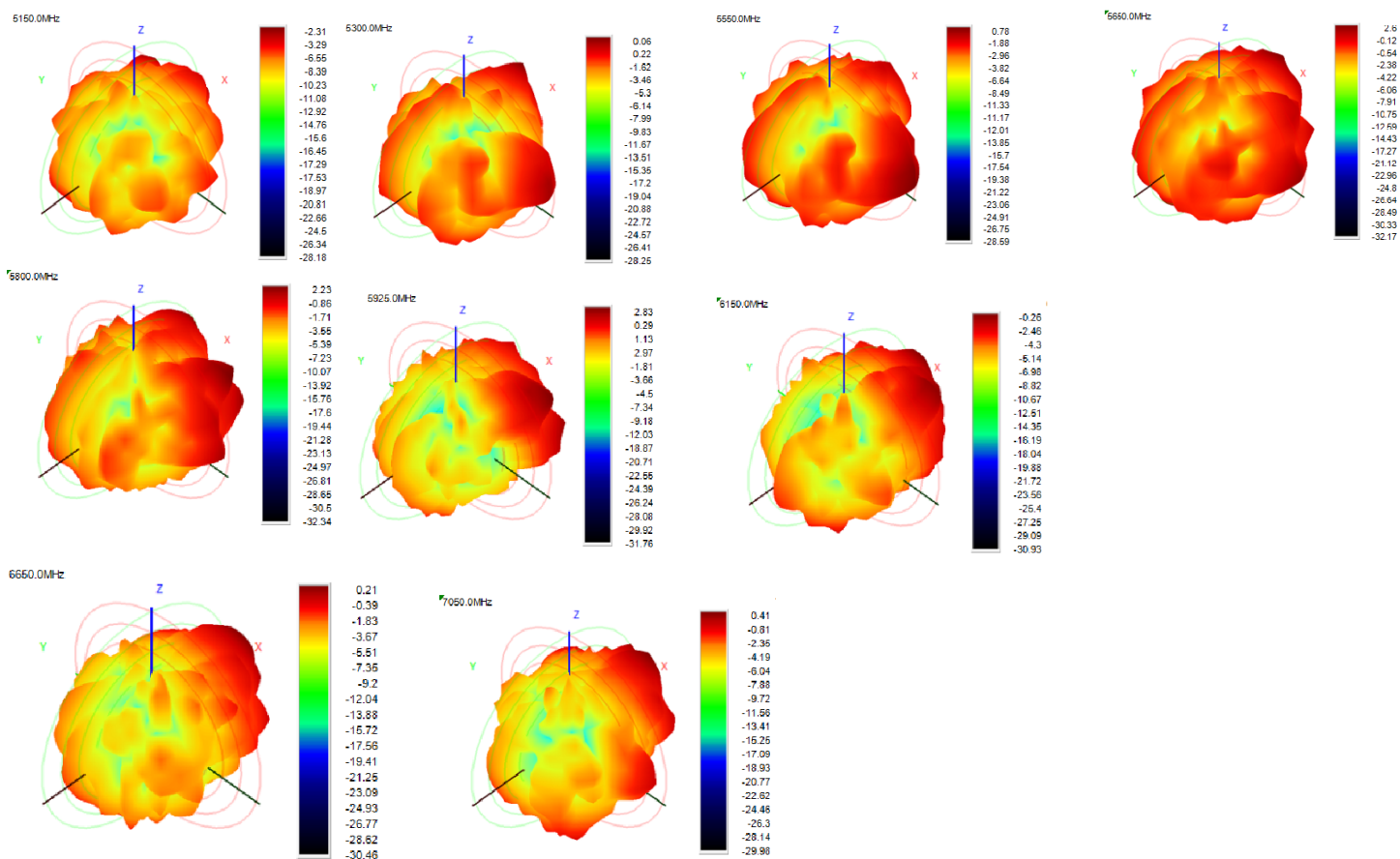
  

17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
5650.0	5750.0	5850.0	5950.0	6050.0	6150.0	6250.0	6350.0	6450.0	6550.0	6650.0	6750.0	6850.0	6950.0	7050.0	7150.0
2.60	3.90	2.23	2.83	1.46	-0.26	0.49	1.28	1.10	-0.12	0.21	0.32	0.52	0.36	0.41	0.56
27.90	24.76	26.21	24.29	25.08	21.54	25.15	26.94	24.00	25.68	23.56	22.31	24.25	26.23	24.12	26.15

### 2. 4GHz



### 5. 8GHz





## Test TRP/ TIS

WLAN Whole Band TRP (dBm) **11.64**

WLAN Whole Band TIS (dBm) **79.57**

		Channel No.	Freq. (MHz)	TRP (dBm)	TIS (dBm)
Phone Tx (Uplink Path)	<u>1</u>	1	--	11.13	--
	<u>2</u>	6	--	12.35	--
	<u>3</u>	11	--	11.43	--
	<u>4</u>	--	--	--	--
	<u>5</u>	--	--	--	--
Phone Rx (Downlink Path)	<u>1</u>	1	--	--	-78.56
	<u>2</u>	6	--	--	-80.36
	<u>3</u>	11	--	--	-79.78
	<u>4</u>	--	--	--	--
	<u>5</u>	--	--	--	--

### 802.11b-11M

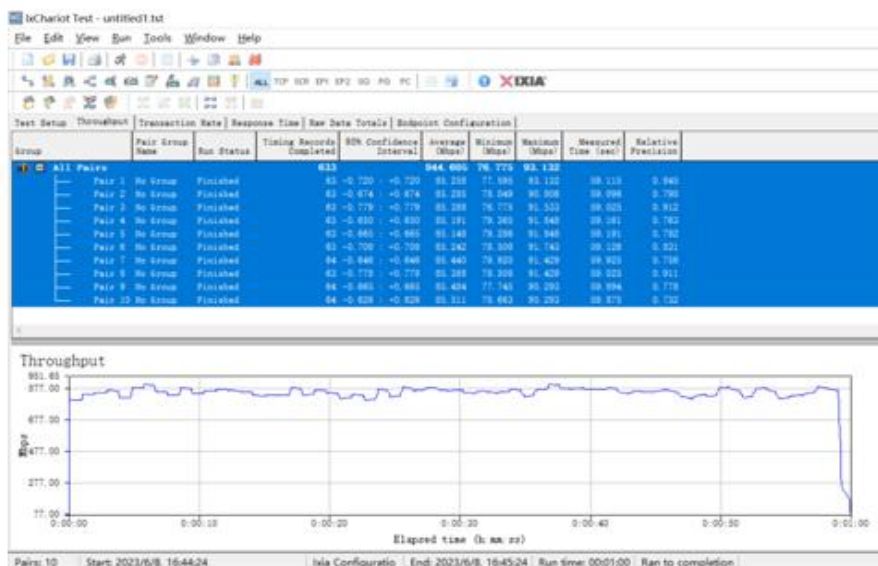
WLAN Whole Band TRP (dBm) **10.67**

WLAN Whole Band TIS (dBm) **-68.92**

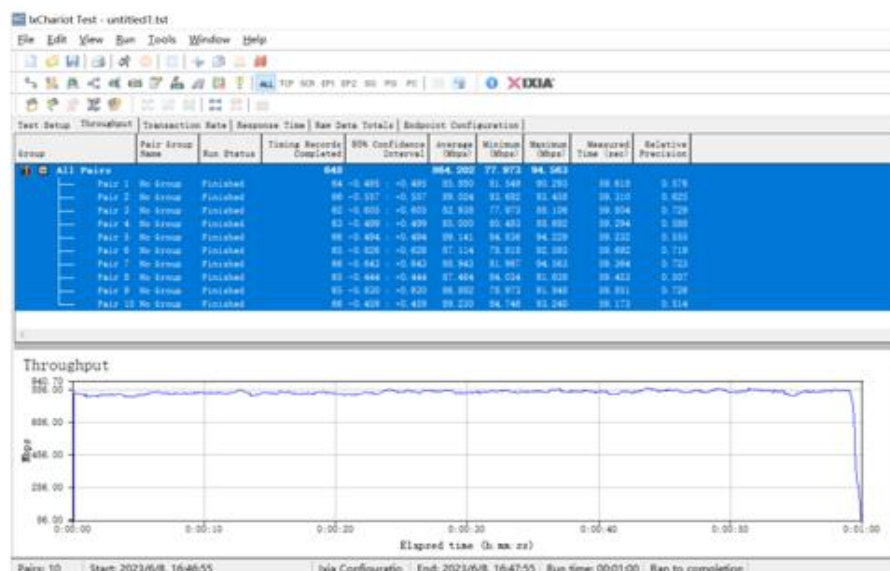
		Channel No.	Freq. (MHz)	TRP (dBm)	TIS (dBm)
Phone Tx (Uplink Path)	<u>1</u>	36	--	10.51	--
	<u>2</u>	149	--	11.19	--
	<u>3</u>	161	--	10.27	--
	<u>4</u>	--	--	--	--
	<u>5</u>	--	--	--	--
Phone Rx (Downlink Path)	<u>1</u>	36	--	--	-66.79
	<u>2</u>	149	--	--	-70.20
	<u>3</u>	161	--	--	-69.11
	<u>4</u>	--	--	--	--
	<u>5</u>	--	--	--	--

### 802.11a-54M

## Throughput test



5.8G TX:844.60



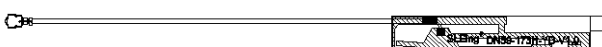
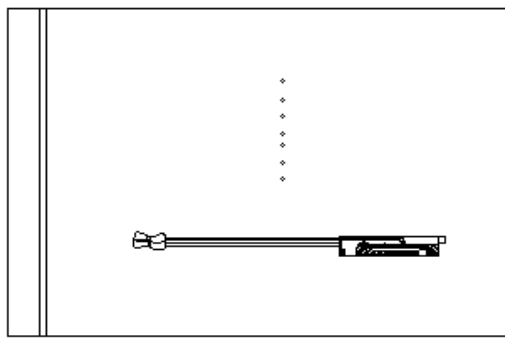
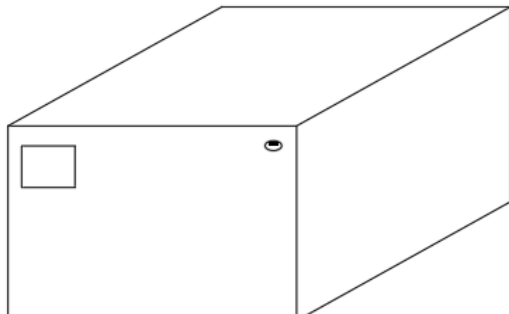
5.8G RX:864.20

## Product packaging specification

Date: 2024.10.09

page:

1of1

Name of finished product	WIFI MAIN Antenna	customer			
Finished product number	SLEingB241520370	REV.	X1		
<div></div> <div>单PCS天线(Single PCS antenna)</div>		<div>(2)50PCS in a PE bag, the PE bag should be labeled with product labels to mark the product name, specifications, quantity, date and heat seal processing.</div> <div></div> <div>(3)Packing: 20-60 bags per box (total 1000-3000PCS)</div> <div></div>			
<div>(4)Product labels should be affixed to the outer case to indicate the name, specification, quantity and date of the product.</div> <div>(5)Each batch of products should be attached with "factory inspection report".</div> <div>(6) Storage conditions: temperature: -5℃~+30℃, humidity: 20%-70%,The period is one year.</div>					
DESIGNED	Jreey	CHECKED	Jreey	APPROVED	Jongrei