

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

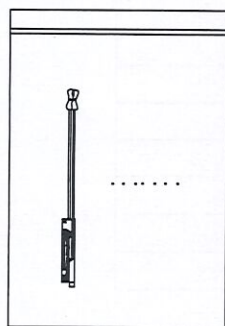
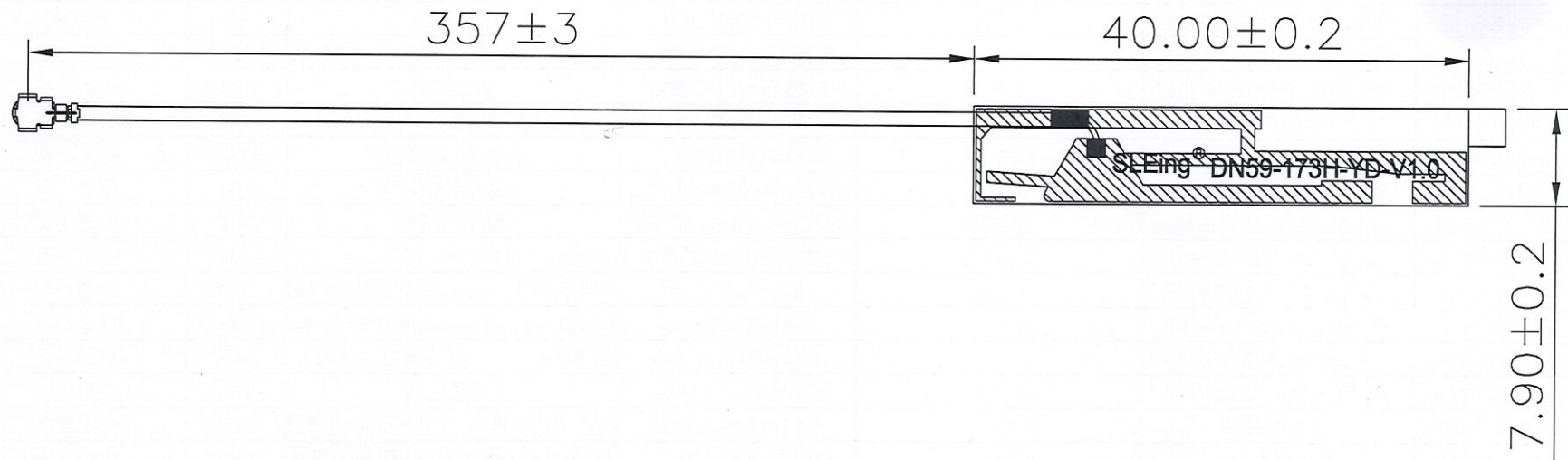
Spec Item

NO.	Project	Remark	Page
1	Spec Cover		1
2	MODIFICATION RECORD SHEET		2
3	Spec Item		3
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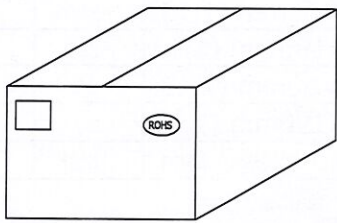
Give clear indication of:

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	
	TOLERANCE UNLESS OTHERWISE SPECIFIED		TITLE	
			WIFI MAIN ANTENNA	
	UNIT:mm		S.L P/NO	
			SLEingB241520370	
	SHEET: 1/1		SIZE	DRAWED
			A4	Jerry
	SCALE: 1/1		CHECKED	APPROVED
			2024.10.09	2024.10.09

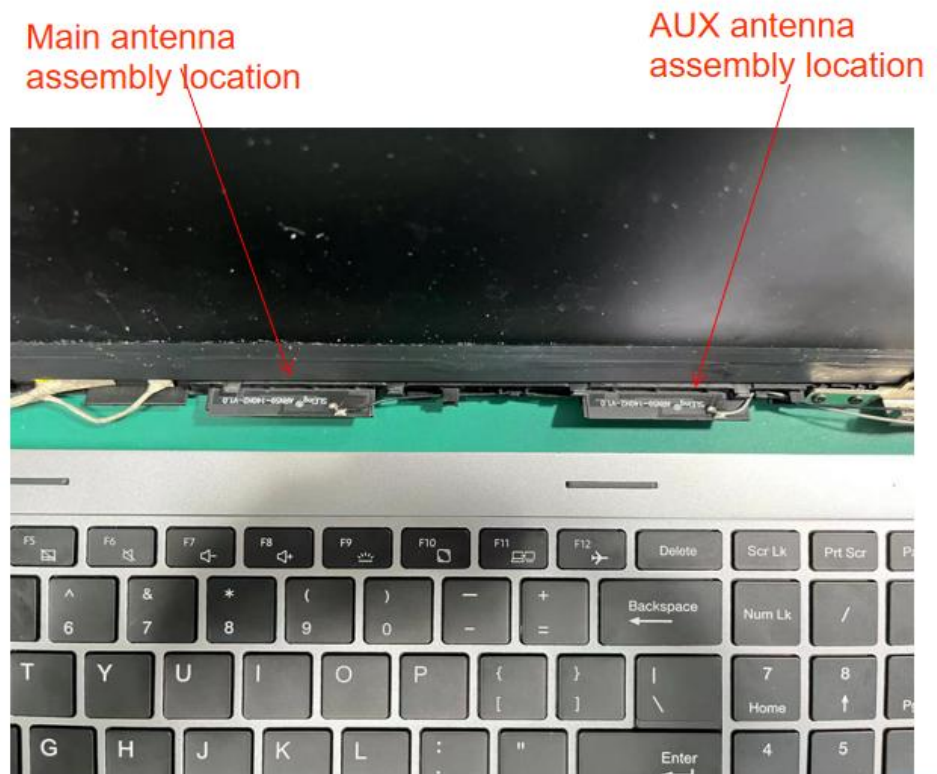
NO	PART NAME	DESCRIPTION	REMARK	Q'TY
3	Connector	MHF Plug for Φ0.81 Cable		1
2	Cable	Φ0.81mm Coaxial Cable Black,50Ω		1
1	FPCB	FPC,40*W7.9*T0.4mm,Color:Black	300LSE Adhesive	1

Test Reports

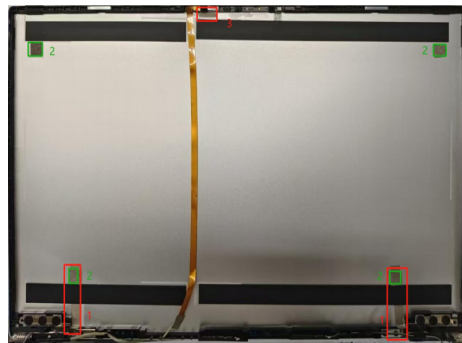
Electrical Properties	
Frequency	2.4-2.5/5.15-5.85/7.15GHz
Impedance	50 Ohm Nominal
V.S.W.R	2.5Max
Return Loss	-7.0dB Max
Radiation	Omni-directional
Gain(Peak)	2.4G:2.04dBi/5.8G:3.90dBi/7.15G:2.83dBi
Polarization	Linear, Vertical
Admitted Power	2 W
Connector	MHF
Physical Properties	
Antenna Material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

Antenna assembly diagram

Device

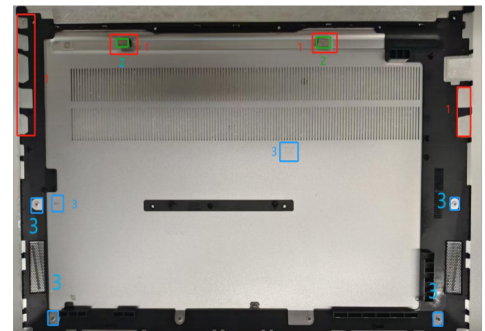


Environmental treatment

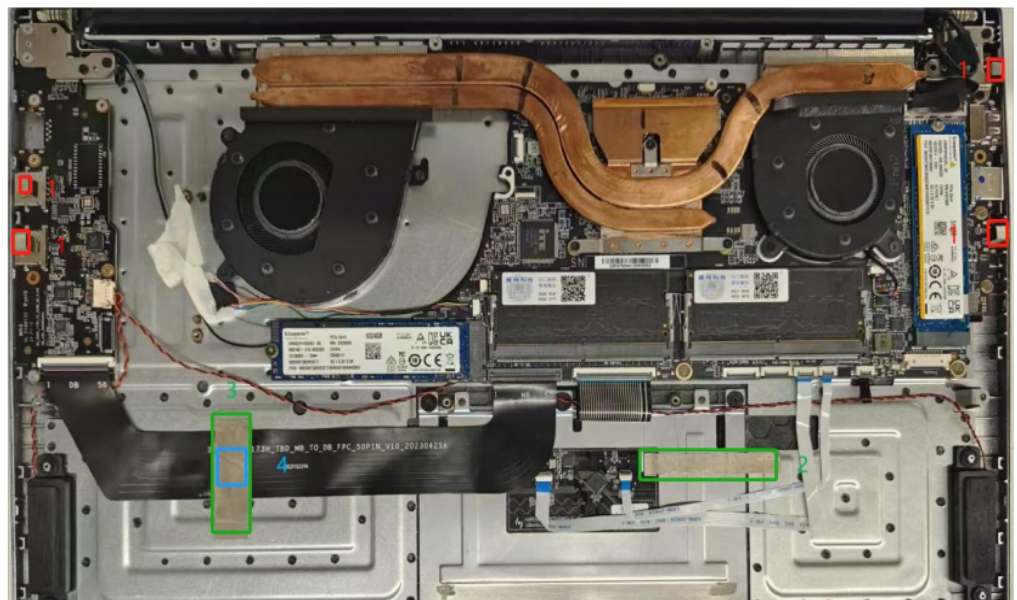


A conductive cloth should be used here to connect with the shaft metal

The rear shell and back cover of the screen should also be grounded accordingly



Ground the rear shell with conductive sponges in the red box

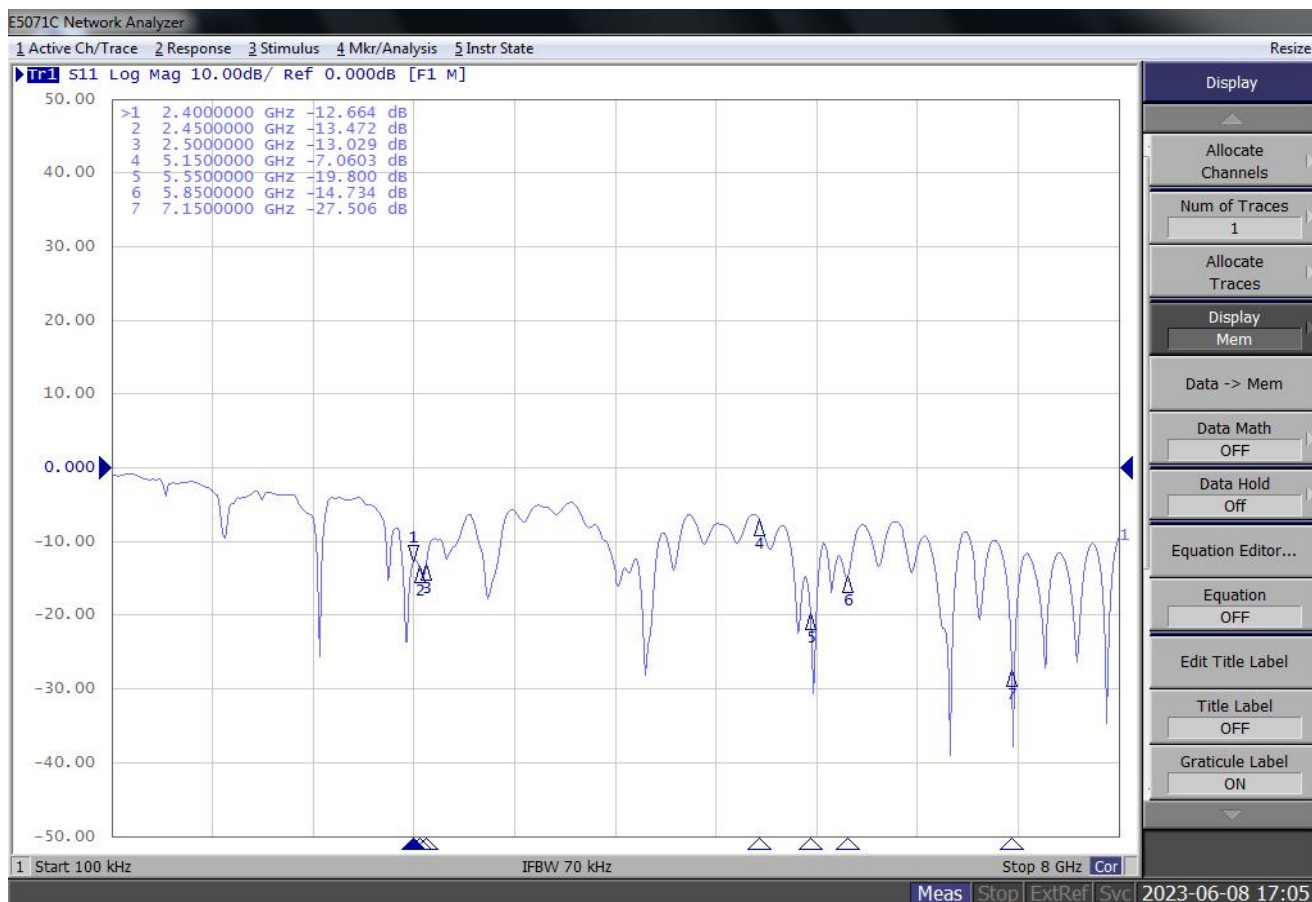


S Parameter Test

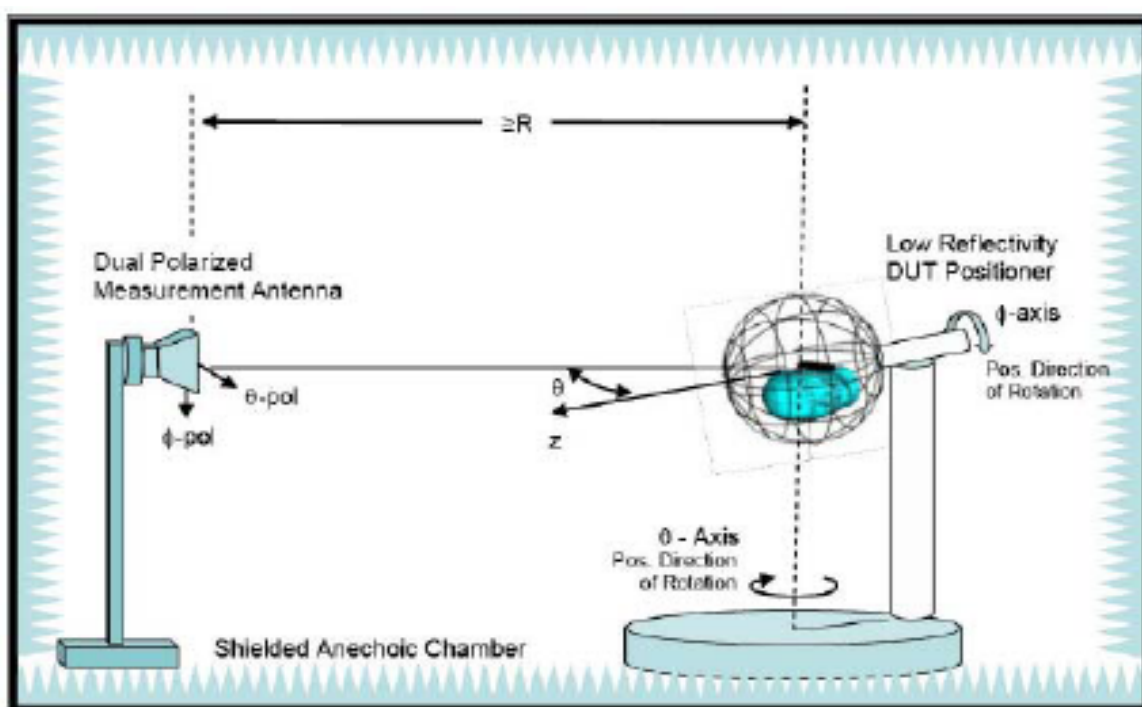
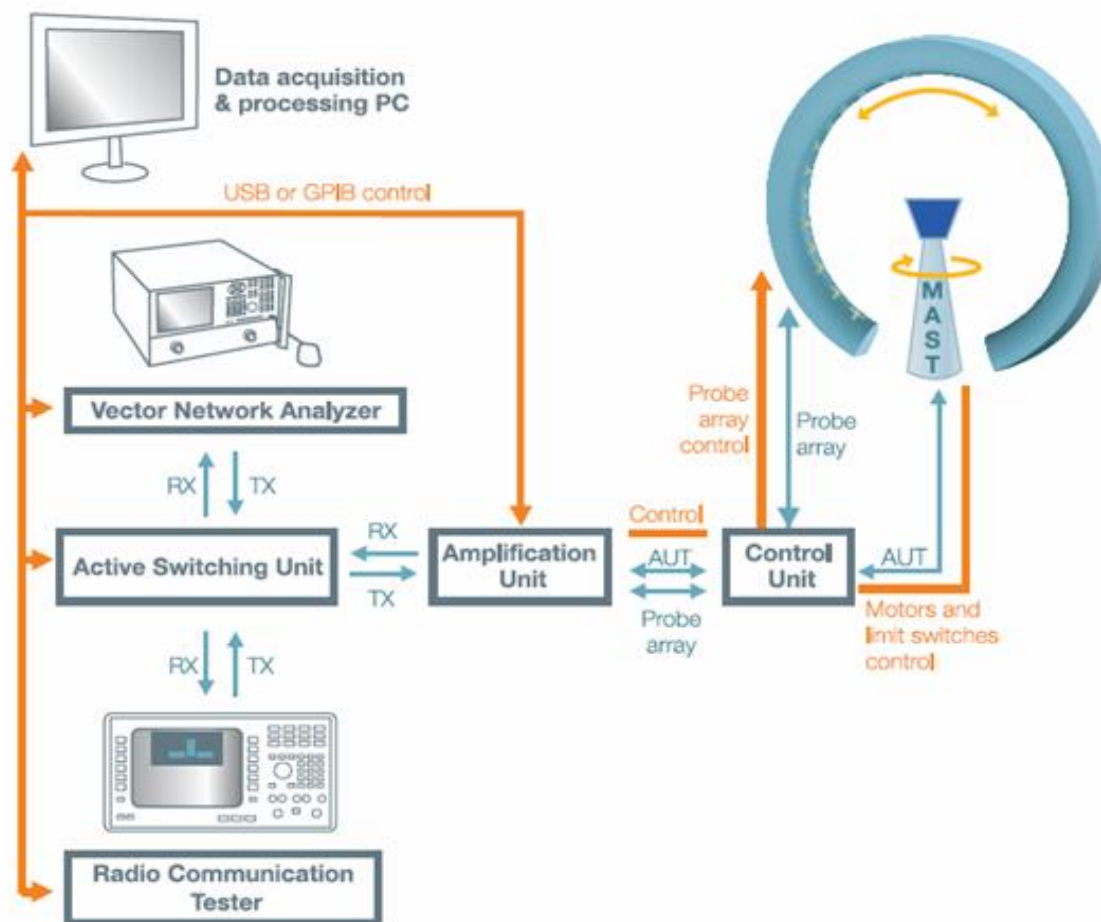
Agilent E5071C Network Analyzer



RF Antenna (Return Loss)



Test Setup

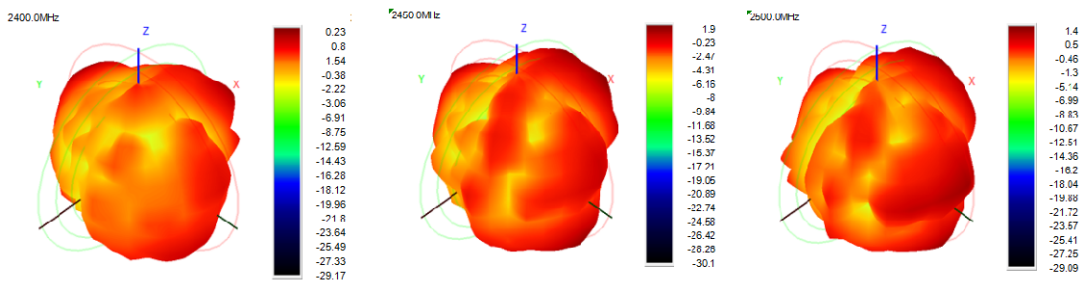


Test Efficiency

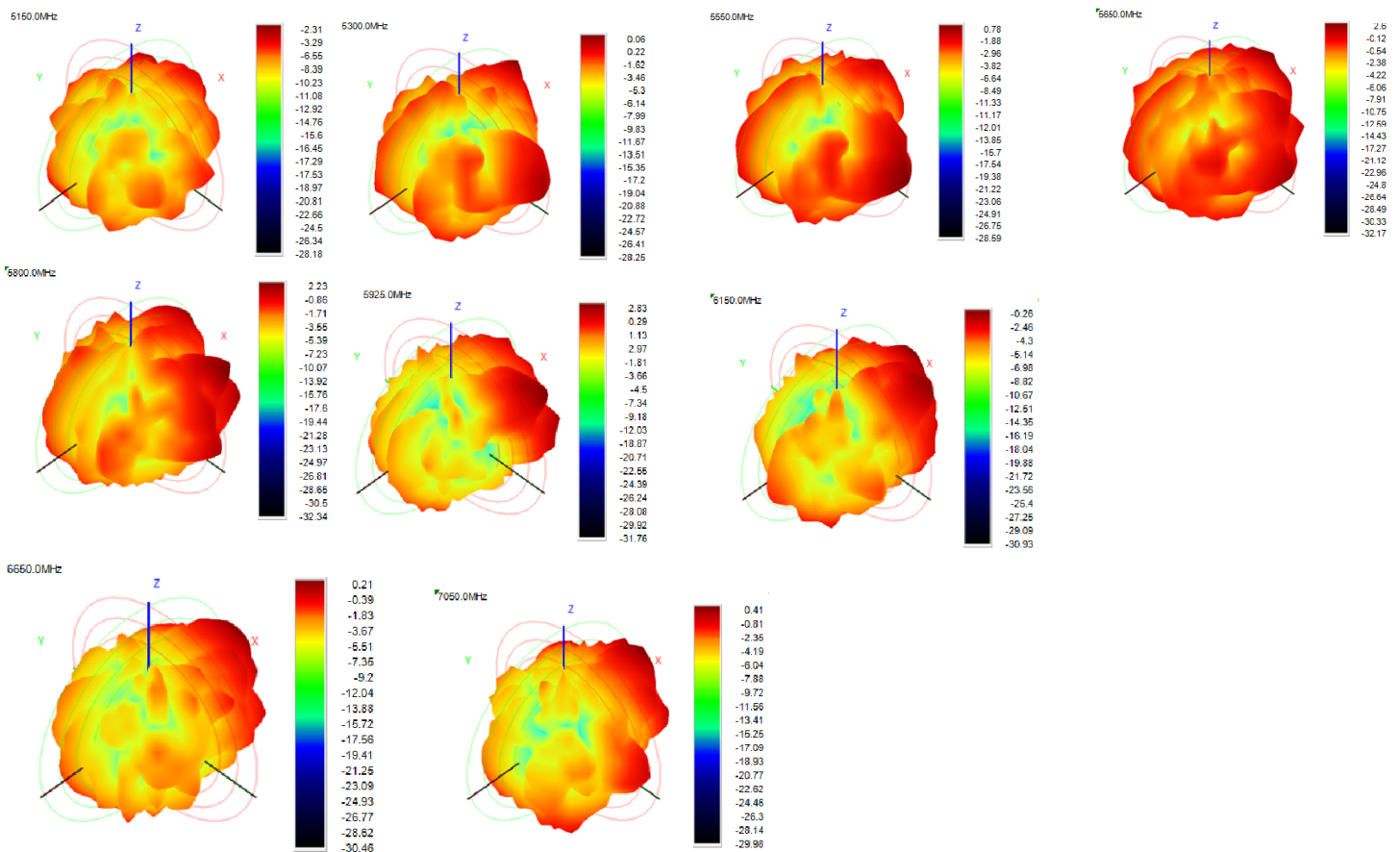
Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0	5150.0	5250.0	5350.0	5450.0	5550.0
Gain (dBi)	0.23	0.61	0.99	1.31	1.62	1.90	2.04	1.86	1.64	1.33	1.40	-2.31	-0.59	0.06	0.38	0.78
Efficiency (%)	24.89	26.07	27.79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

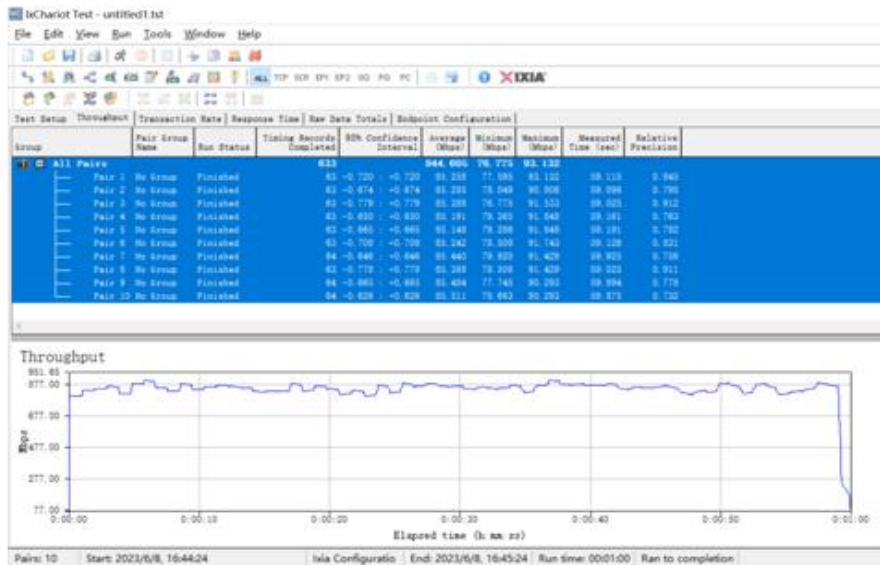
WLAN Whole Band TRP (dBm) **10.67**

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

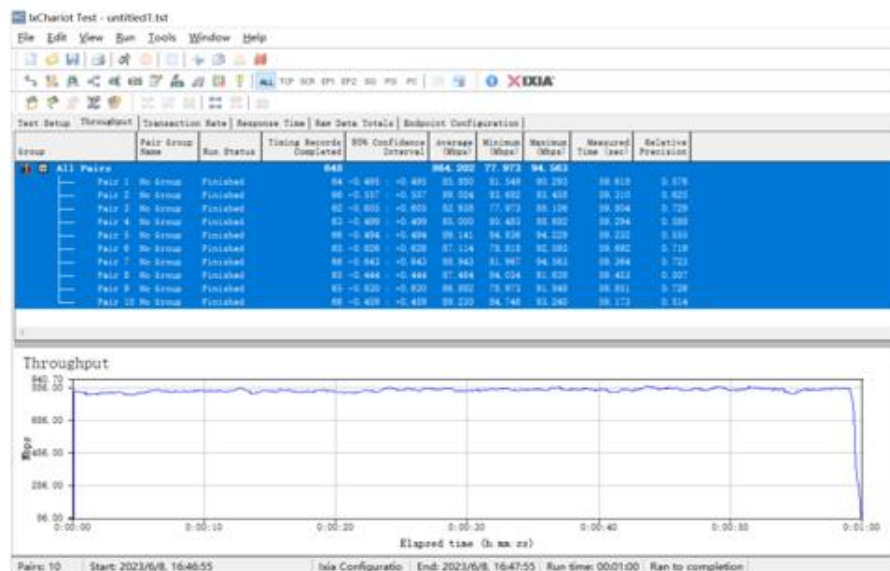
	Channel No.	Freq. (MHz)	TRP (dBm)	TIS (dBm)
Phone Tx (Uplink Path)	<u>1</u>	36	--	10.51
	<u>2</u>	149	--	11.19
	<u>3</u>	161	--	10.27
	<u>4</u>	--	--	--
	<u>5</u>	--	--	--
Phone Rx (Downlink Path)	<u>1</u>	36	--	-66.79
	<u>2</u>	149	--	-70.20
	<u>3</u>	161	--	-69.11
	<u>4</u>	--	--	--
	<u>5</u>	--	--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

802.11a-54M

Throughput test



5.8G TX:844.60



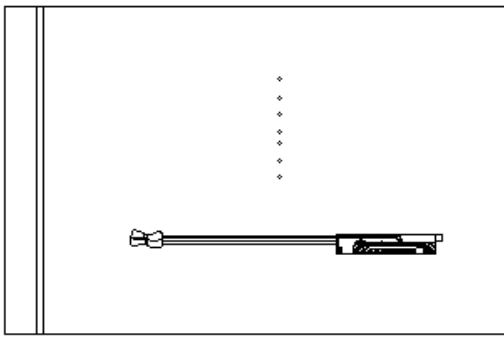
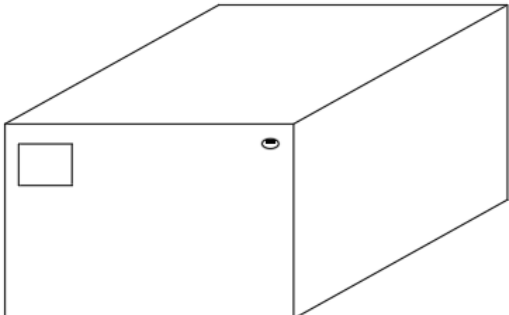
5.8G RX:864.20

Product packaging specification

Date: 2024.10.09

page:

1of1

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