



GUANGDONG SLEING COMM-TECH CO., LTD

SPECIFICATION APPROVAL SHEET

客 户 :

CUSTOMER

CUS PART NO

REV

X1

SPECIFICATION

2.4~2.5/5.15~7.15GHz

WIFI MAIN Antenna L=225mm(Ø0.81+MHF)

weight

SUP PART NO

SLEingB250210225

DATE

2024.11.26

SUP APPROVED

APPROVED	CHECKED	QA CHECKED	DESIGNED
JONGREI	HZH	LSY	XIANG

CUS APPROVED

APPROVED	CHECKED	QA CHECKED	DESIGNED

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GUANGDONG SLEING COMM-TECH CO., LTD

MODIFICATION

RECORD SHEET

[illegible]



GUANGDONG SLEING COMM-TECH CO., LTD

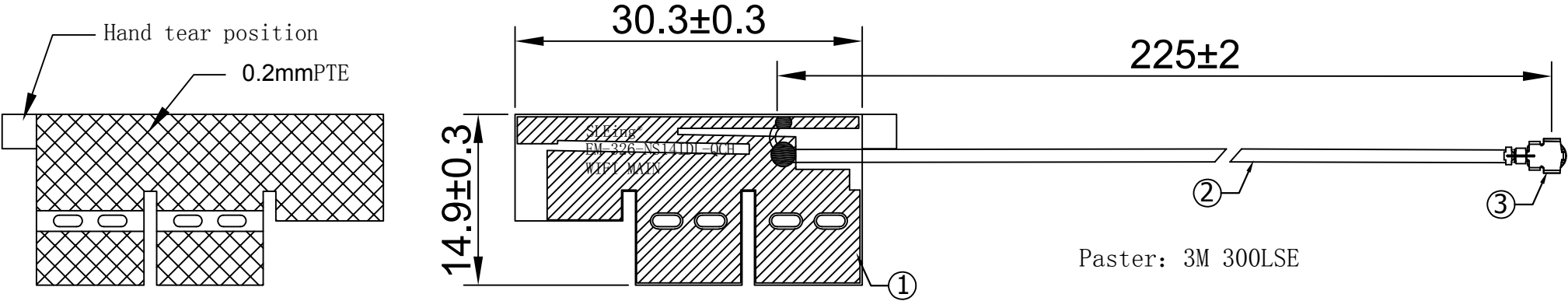
承认书项目表 (Spec Item)

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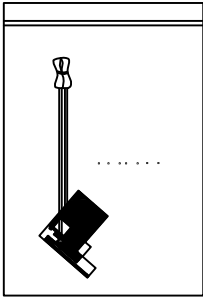
Give clear indication of:

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.

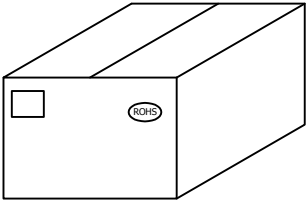
REV.	CONTENT	DATE
X1	First Sample	2024.11.26



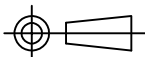
Specification:
Frequency Rang:2.4~2.5/5.15~7.15GHz
Return Loss:-10dB or less
VSWR:1.92 Max



50pcs/Bundle
Packing:100pcs/bag



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

SLEing® GUANGDONG SLEING COMM-TECH CO.,LTD			CUSTOMER			
			PART NO			
			TITLE		WIFI MAIN ANTENNA	
			S.L P/NO		SLEingB250210225	
	TOLERANCE UNLESS OTHERWISE SPECIFIED		SIZE	DRAWED	CHECKED	APPROVED
UNIT:mm	ANGLES ±0.5°	X. ±0.3	A4			
SHEET: 1/1	0.XX ±0.05	XX. ±0.5				
SCALE: 1/1		XXX. ±2.0				

3	Connector	MHF Plug for Φ0.81 Cable		1
2	Cable	Φ0.81mm Coaxial Cable Black,50Ω		1
1	FPCB	FPCB,L30.3*W14.9*T0.4mm,Color:Black	300LSE Adhesive	1
NO	PART NAME	DESCRIPTION	REMARK	Q'TY

8 7 6 5 4 3 2 1



Test Reports

Electrical Properties	
Frequency	2.4~2.5 5.15~7.15GHz
Impedance	50 Ohm Nominal
V.S.W.R	≤ 1.92
Return Loss	-10 dB Max
Radiation	Omni-directional
Gain (Peak)	2 $\pm$ 0.5 dBi
Polarization	Linear, Vertical
Admitted Power	2 W
Connector	MHF
Physical Properties	
Antenna Material	FPCB
Cable Type	Φ 0.81mm Black
Operating Temp	-40°C -+85°C
Storage Temp.	-5-+30°C

S Parameter Test

Agilent E5071C Network Analyzer



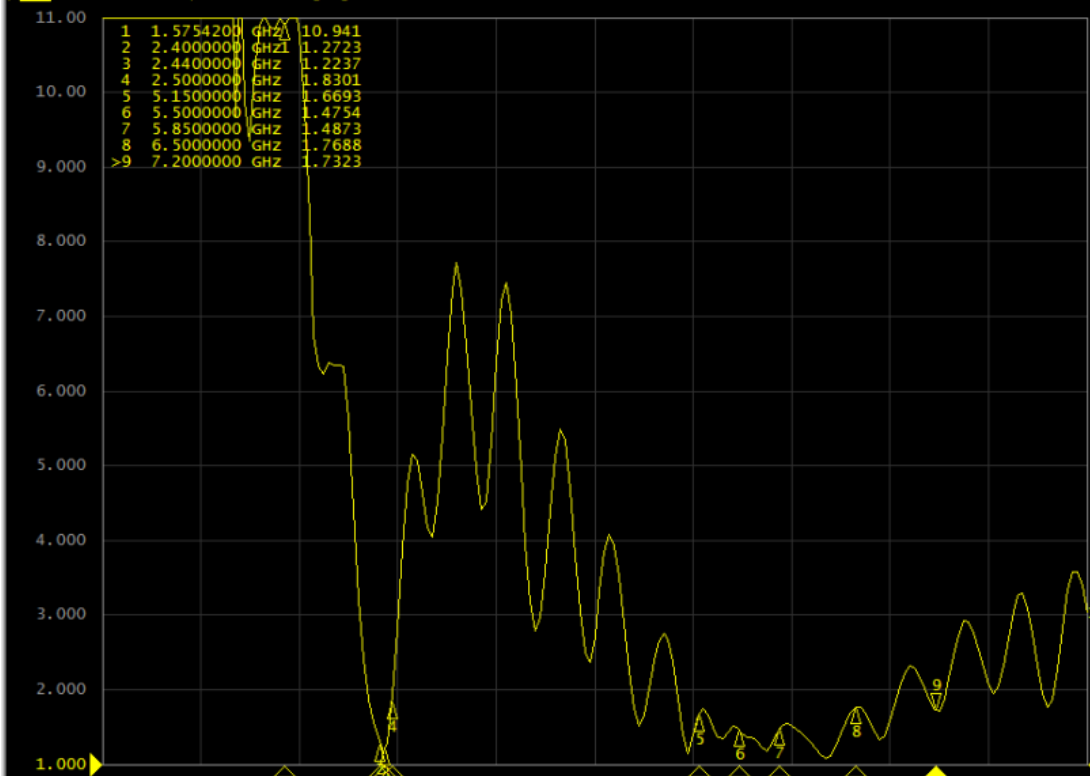
WIFI Antenna

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Resize

► Tr1 S11 SWR 1.000/ Ref 1.000 [F2]



1 Start 100 kHz

IFBW 70 kHz

Stop 8.5 GHz PExt Cor

Meas

Stop

ExtRef

Svc

2024-11-25 15:20

Format

SWR

Log Mag

Phase

Group Delay

Smith

Polar

Lin Mag

SWR

Real

Imaginary

Expand Phase

Positive Phase

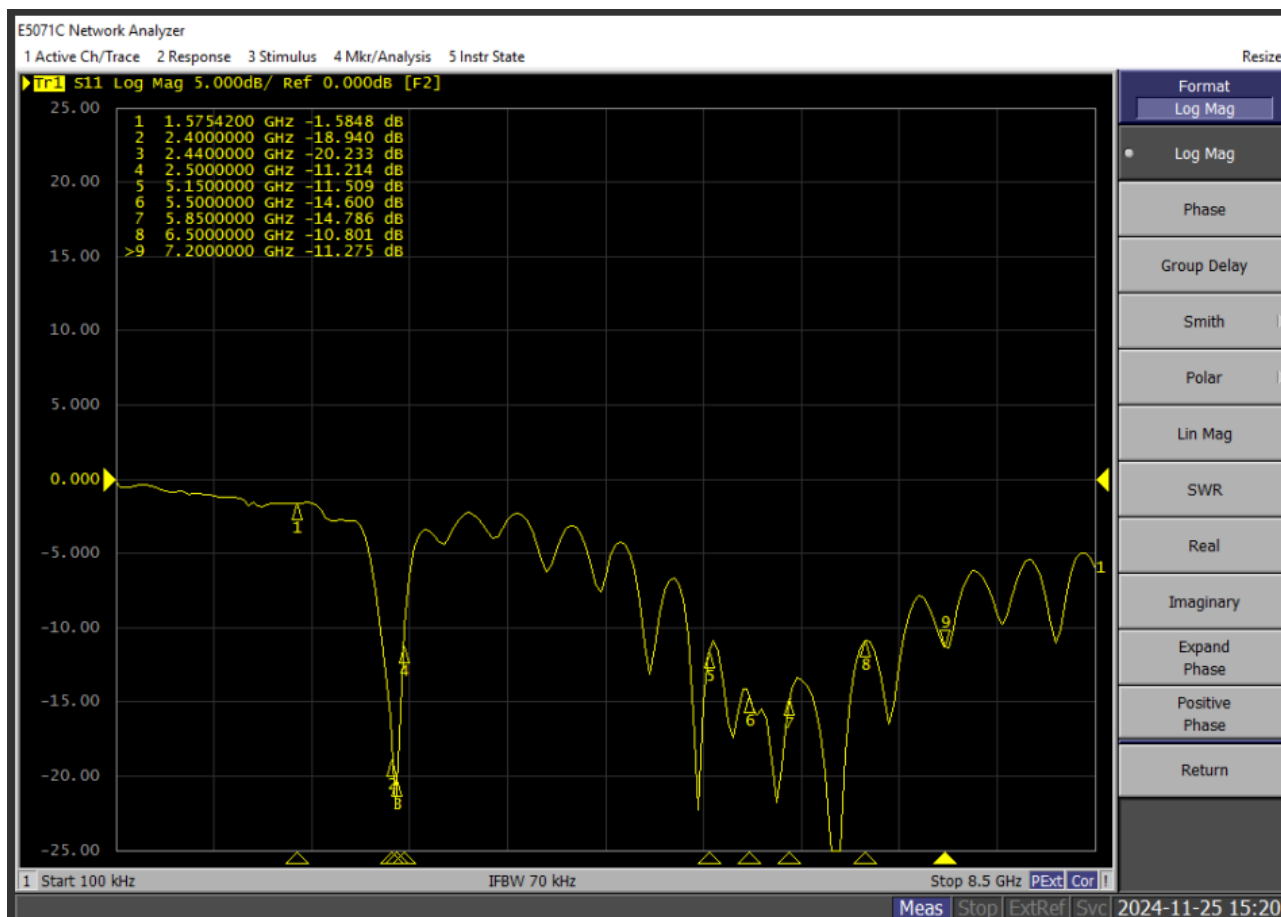
Return

S Parameter Test

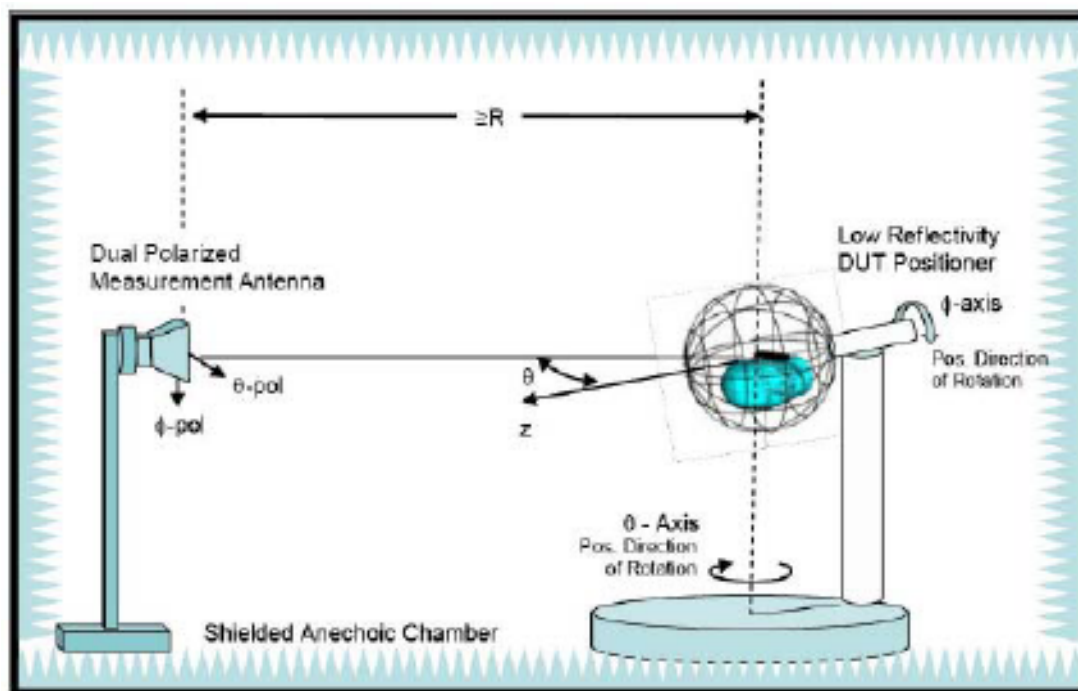
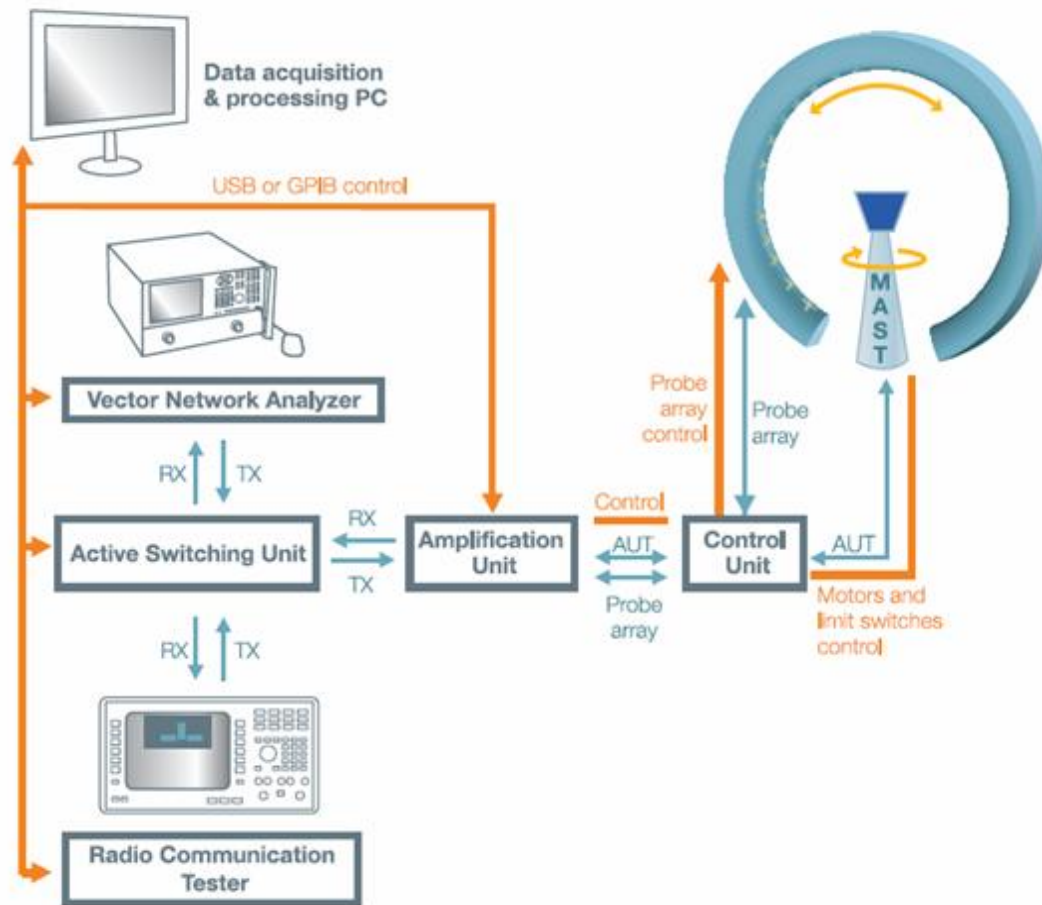
Agilent E5071C Network Analyzer



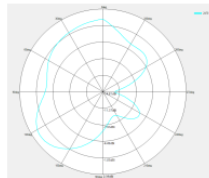
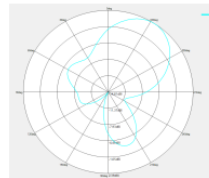
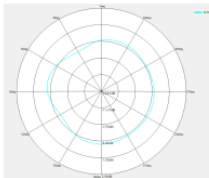
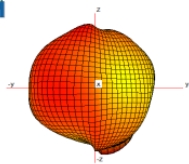
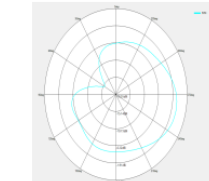
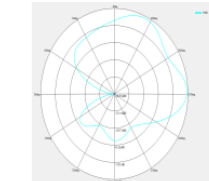
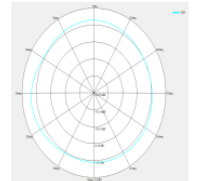
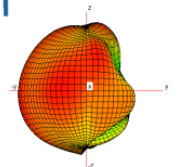
WIFI Antenna



Test Setup



Test Efficiency

EM-326-NS14IDL-QCH WIFI-MIAN 天线无源效率测试报告													
2.4G Wifi	Frequency ID	1	2	3	4	5	6	7	8	9	10	11	
	Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0	
	Gain (dBi)	1.9	1.81	1.77	1.6	1.45	1.98	2.13	2.24	2.23	2.17	2.03	
	Efficiency (%)	40.19	39.97	40.48	41.38	43.01	44.27	45.37	46.22	45.77	45.03	44.35	
													
5G Wifi	Frequency ID	1	2	3	4	5	6	7	8	9	10	11	
	Frequency (MHz)	5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	
	Gain (dBi)	0.36	0.37	0.55	1.62	2.2	2.07	1.92	1.38	2.09	1.77	1.89	
	Efficiency (%)	36.01	36.98	37.02	41.17	47.17	47.15	50.31	48.55	46.47	47.29	42.08	
	Frequency ID	12	13	14	15	16	17	18	19	20	21	22	
	Frequency (MHz)	5700.0	5750.0	5800.0	5850.0								
	Gain (dBi)	1.37	1.38	1.84	1.91								
	Efficiency (%)	44.55	45.2	49.48	51.73								
													



OTA

Bandwidth	Free Space Requirements		Channal	Testing Results		Gap	
	TRP	TIS		TRP	TIS (LCD ON)	TRP	TIS (LCD ON)
11b 11Mbps	10	-80	1	11.0	-81.6	1.0	1.6
	10	-80	7	11.2	-81.2	1.2	1.2
	10	-80	13	11.5	-81.3	1.5	1.3
	10.0	-80.0	Avg	11.2	-81.3	1.2	1.3
11a 6Mbps	9	-86	36	10.2	-87.0	1.2	1.0
	9	-86	100	12.6	-88.2	3.6	2.2
	9	-86	157	12.6	-88.0	3.6	2.0
	9.0	-86.0	Avg	11.8	-87.7	2.8	1.7