

Antenna Report

PRODUCT NAME: 2.4G/5.8G W95 White External antenna
1.13 Black Cable L=245mm+ terminal

UB P/N: UB02C245W3D5232A REV: A

Revision	Revisor	Date	Revision Record
V-A	Kangjun.Xu	2024/11/20	First Draft

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:		
APPROVED BY:		
DATE:	2024/11/20	

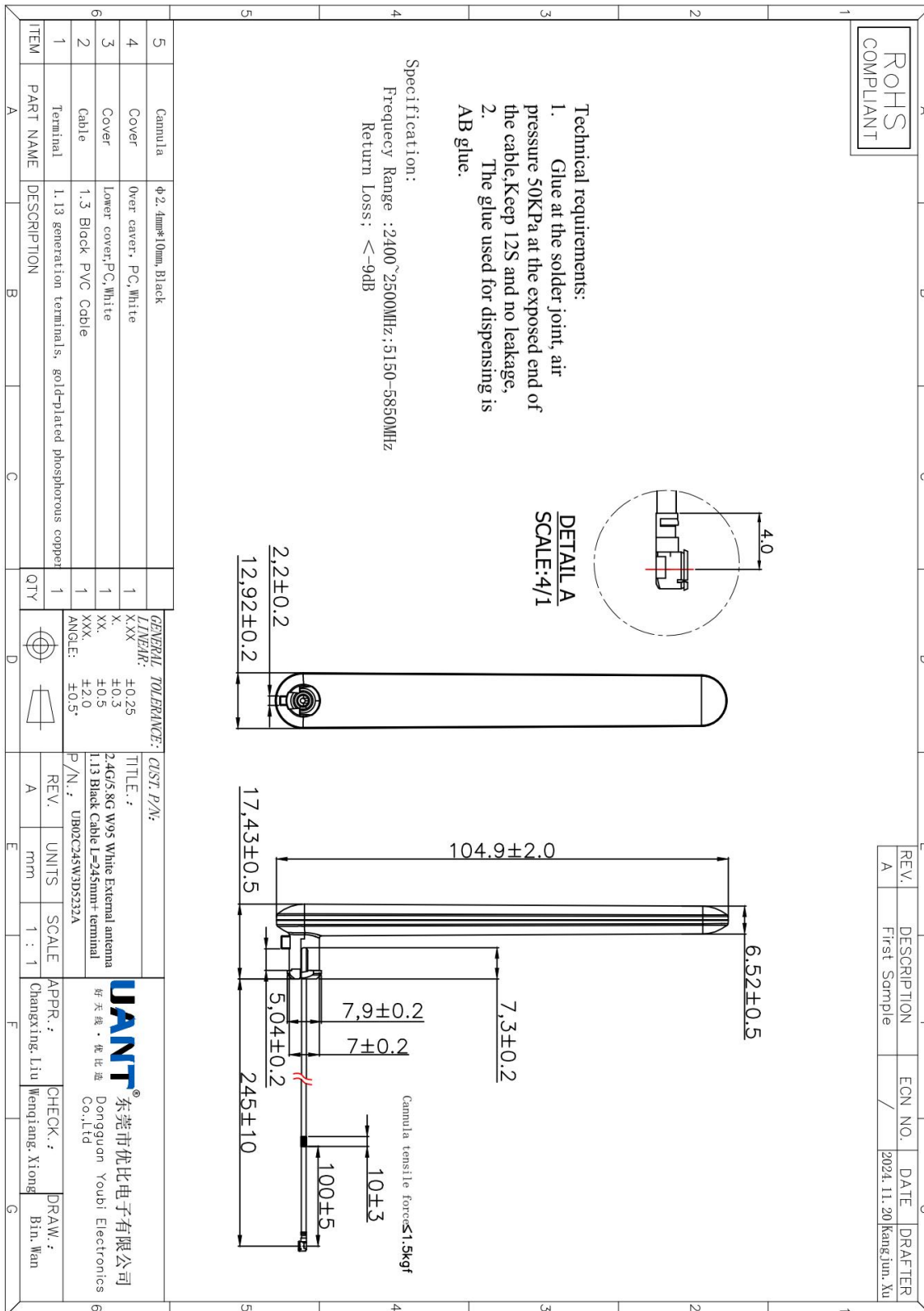
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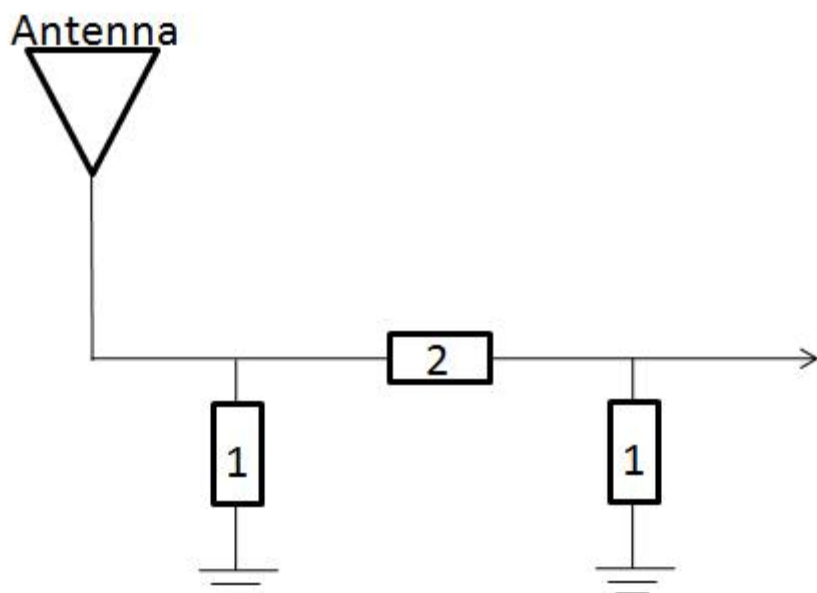
1 Specification

Specification	
P/N	
Frequency	Dual band Wi-Fi antenna 2400~2500&5150~5850MHz
Antenna Type	Feed coupling
Dimension	104.9*12.92*17.43mmmm
Impedance	50Ω
Polarization	Linear
VSWR	<3
Axial Ratio	not involved
Efficiency	59.48%@2.4G; 44.20%@5.8G
Gain	1.03dBi@2.4G; 2.26dBi@5.8G;
Radiation Pattern	Omni-directional
Connection	IPEX 1
Line Type	RF1.13, 245mm, gray
Line Loss	0.5dB·m ⁻¹ @1GHz, 1dB·m ⁻¹ @3GHz, 3dB·m ⁻¹ @6GHz
Power Handling	1W
Operating Temperature	-20~70℃
Storage temperature	-20~70℃

2 Antenna Dimension



3 Matching Circuit



The Components of Matching Circuit

Position	Description	Tolerance
1	—	—
2	0 Ω	—
3	—	—

4 Electrical Test

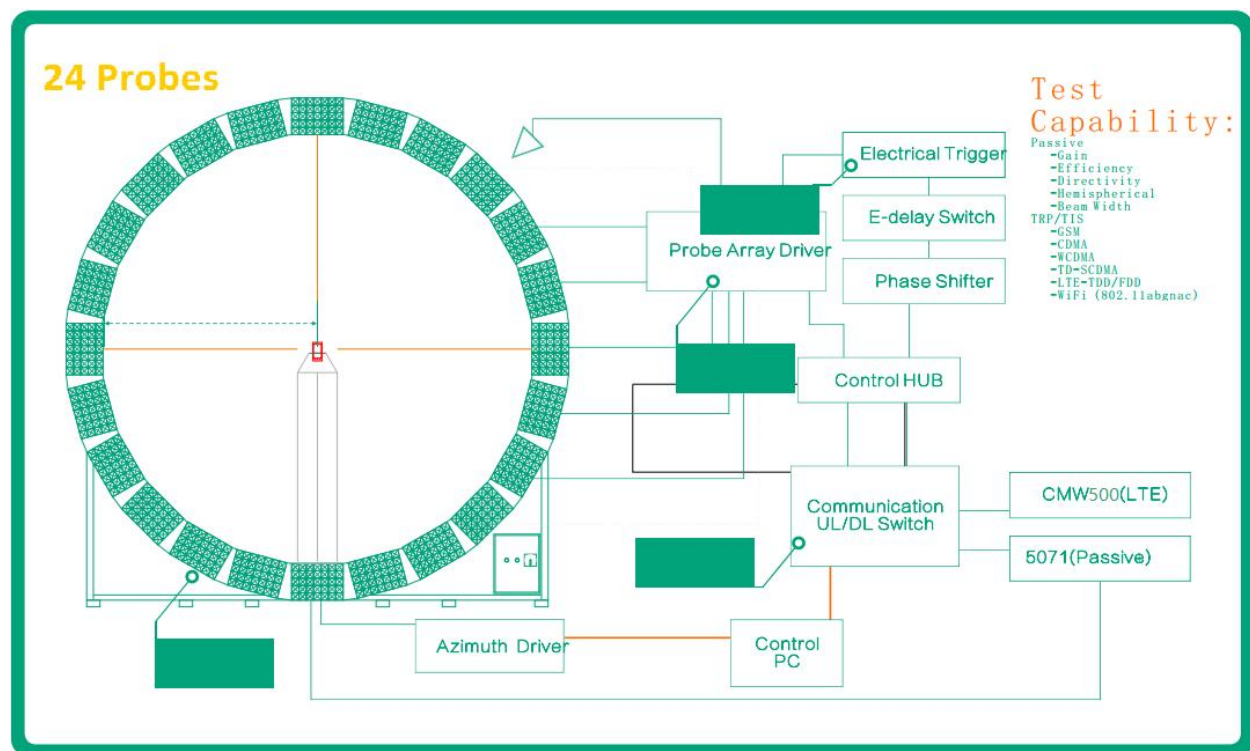
4.1 Method

Name	Parameter	Method	Standard no.
Mobile Communication antenna	VSWR	Generic specification for antennas used in the mobile communications	GB/T 9410-2008
	Antenna gain		
	Radiation pattern		
Antenna performance	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSI/IEEE Std 149-1979

4.2 Device

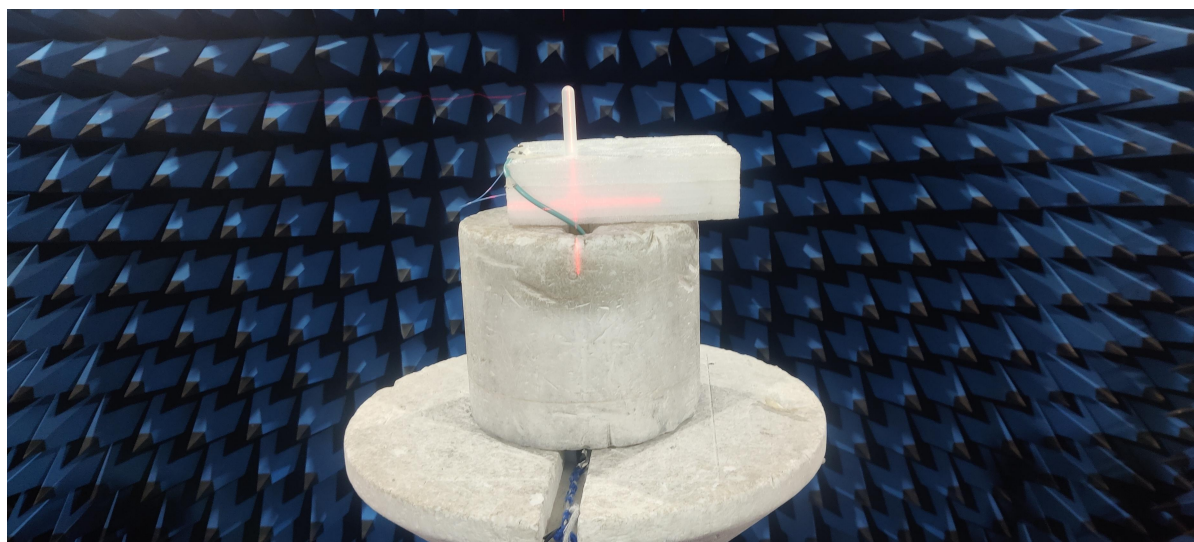
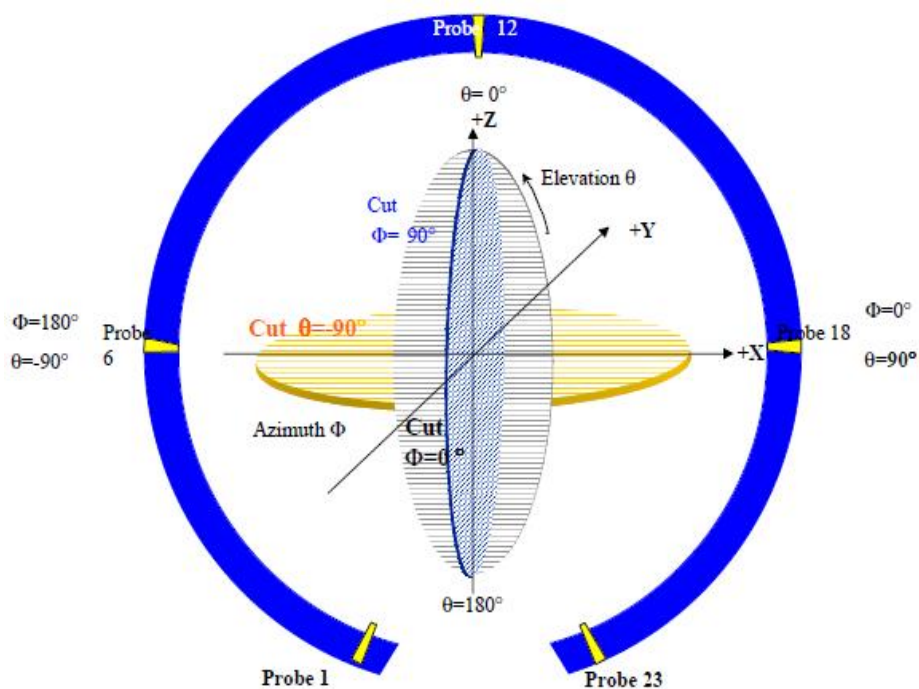
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Network Analyzer	Agilent	E5071C	MY46315996	2024.08.25	2025.08.24
Radio Communication Tester	ROHDE&SCHWARZ	CMW500	0002K50-100 844	2024.08.25	2025.08.24

4.3 Test Configuration

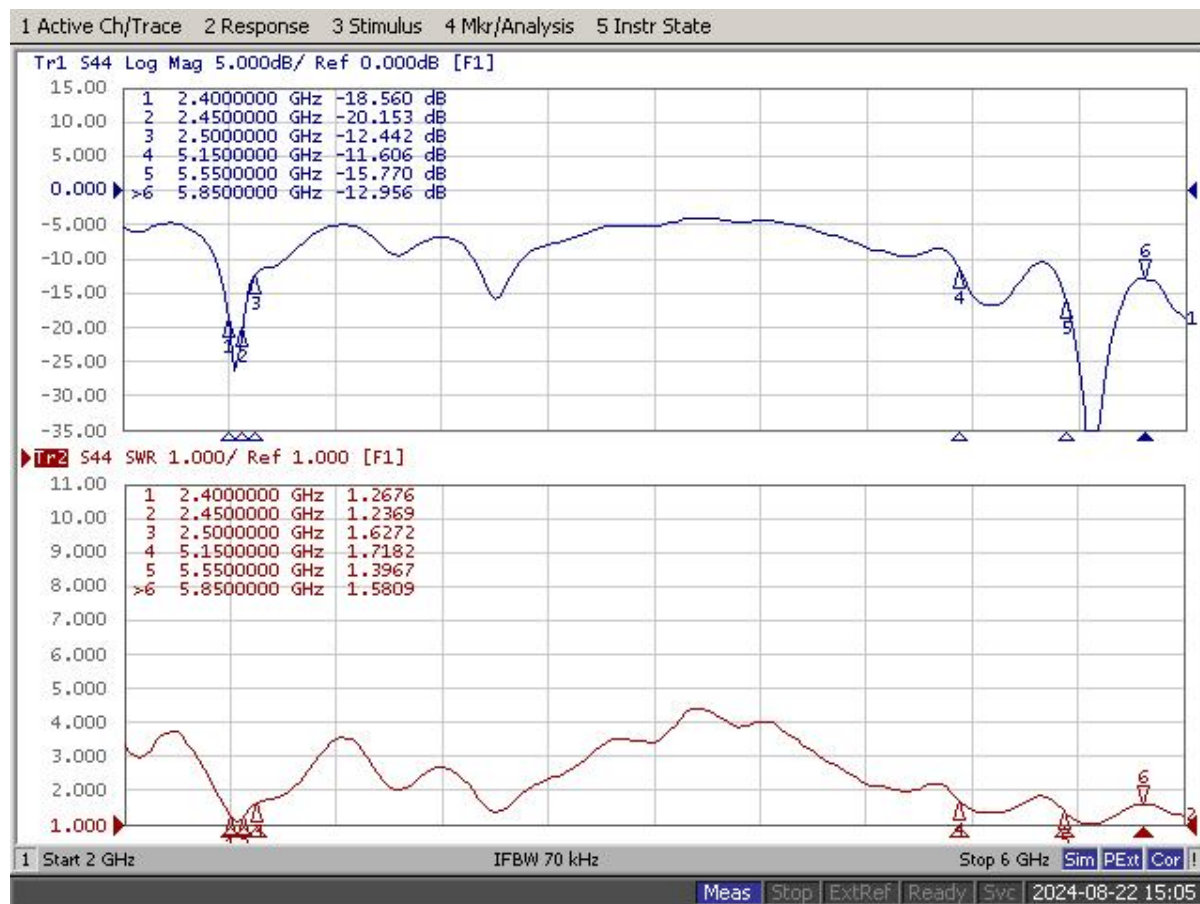


4.4 Passive Test

4.4.1 Position



4.4.2 Return Loss & VSWR

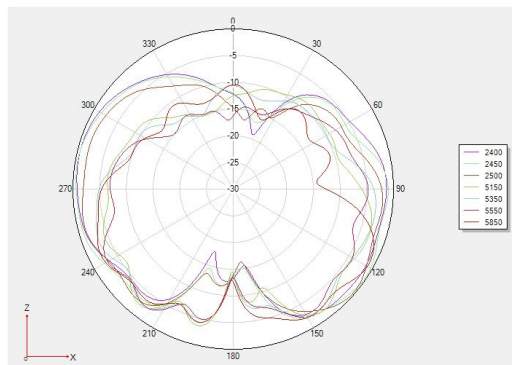


频率 (MHz)	2400	2450	2500	5150	5550	5850
回波损耗 (dB)	-18.56	-20.15	-12.442	-11.606	-15.77	-12.95
VSWR	1.26	1.23	1.62	1.71	1.39	1.58

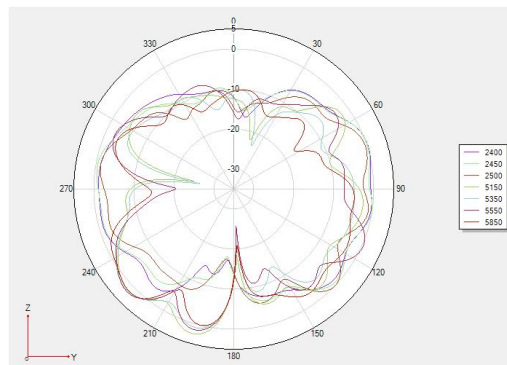
4.4.3 Efficiency & Gain

Frequency / MHz	Efficiency / dB	Efficiency / %	Gain/ dBi
2400	-1.95	63.83	0.68
2410	-1.98	63.39	0.89
2420	-1.97	63.53	1.14
2430	-2	63.1	1.16
2440	-2.03	62.66	1.25
2450	-2.08	61.94	1.17
2460	-2.260	59.43	1.23
2470	-2.305	58.81	1.33
2480	-2.473	56.58	1.02
2490	-2.493	56.33	0.99
2500	-2.541	55.7	0.55
5150	-3.84	41.3	2.66
5200	-3.53	44.36	2.56
5250	-3.63	43.35	2.46
5300	-3.61	43.55	2.37
5350	-3.67	42.95	2.37
5400	-3.81	41.59	2.14
5450	-3.73	42.36	2.27
5500	-3.69	42.76	2.39
5550	-3.48	44.87	2.17
5600	-3.47	44.98	2.36
5650	-3.22	47.64	2.54
5700	-3.36	46.13	1.95
5750	-3.37	46.03	1.96
5800	-3.45	45.19	1.91
5850	-3.37	46.03	1.79

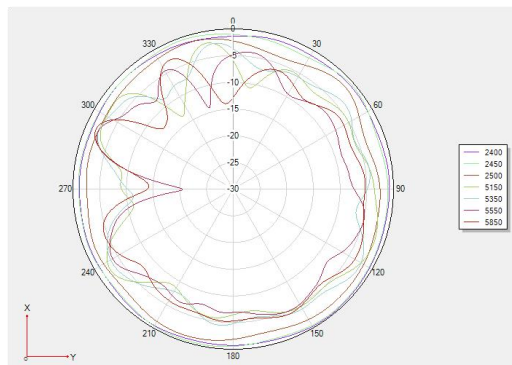
4.4.4 2D Report



E1



E2



H

3D Report

