

Antenna Specification

PRODUCT NAME: 2.4/5.8G W58 White Antenna L=32mm+terminal

UB P/N: UB02C40W2D5184A REV: D

Revision	Revisor	Date	Revision Record
V-A	Wan.Bin	2024 年 03 月 12 日	New issue
V-B	Wan.Bin	2024 年 09 月 12 日	Change packaging
V-C	Kangjun.Xu	2024 年 12 月 06 日	Change Plastic card point
V-D	Kangjun.Xu	2024 年 12 月 23 日	Change Pack type

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Kangjun. Xu	
APPROVED BY:	 Wenqiang. Xiong	
DATE:	2026/03/06	

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1 Specification

Specification	
P/N	
Frequency	Dual band Wi-Fi antenna 2400~2500&5150~5850MHz
Antenna Type	Dipole
Dimension	12.0*82.23*17.26mm
Impedance	50Ω
Polarization	Linear
VSWR	<1.92
Axial Ratio	not involved
Efficiency	55~65%
Gain	5.02dbi
Radiation Pattern	Omni-directional
Connection	IPEX 1
Line Type	RF1.13
Line Loss	0.5dB·m ⁻¹ @1GHz, 1dB·m ⁻¹ @3GHz, 3dB·m ⁻¹ @6GHz
Power Handling	1W
Operating Temperature	-20~70℃
Storage temperature	-20~50℃

ROHS

1

Client: U255
Material Number: 1.2.20101.10268-009

Specification:
Frequency Range : 2400~2500/5150~5850MHz

1. The outer box must be labeled with 1 post/0016 accordingly.
2. The outer box must be labeled with 1 piece of outer box label.
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1. Packaging quantity: 10 pieces per bag, 50 pieces per PE bag.
2. Attach 1 pcs label to the middle of the PE bag.
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DETAIL A
SCALE: 2.5/1

Item	Date	Change content
A	2024-03-02	New issue
B	2024-03-18	Change line length
C	2024-12-08	Change plastic card points
D	2024-12-23	Change packaging method

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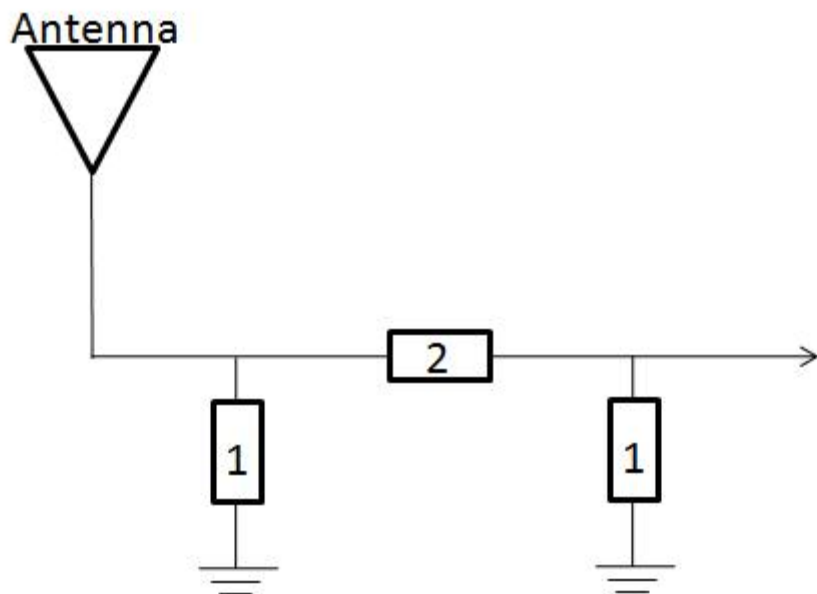
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D	2	

3. Matching Circuit



The Components of Matching Circuit

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

4 Electrical Test

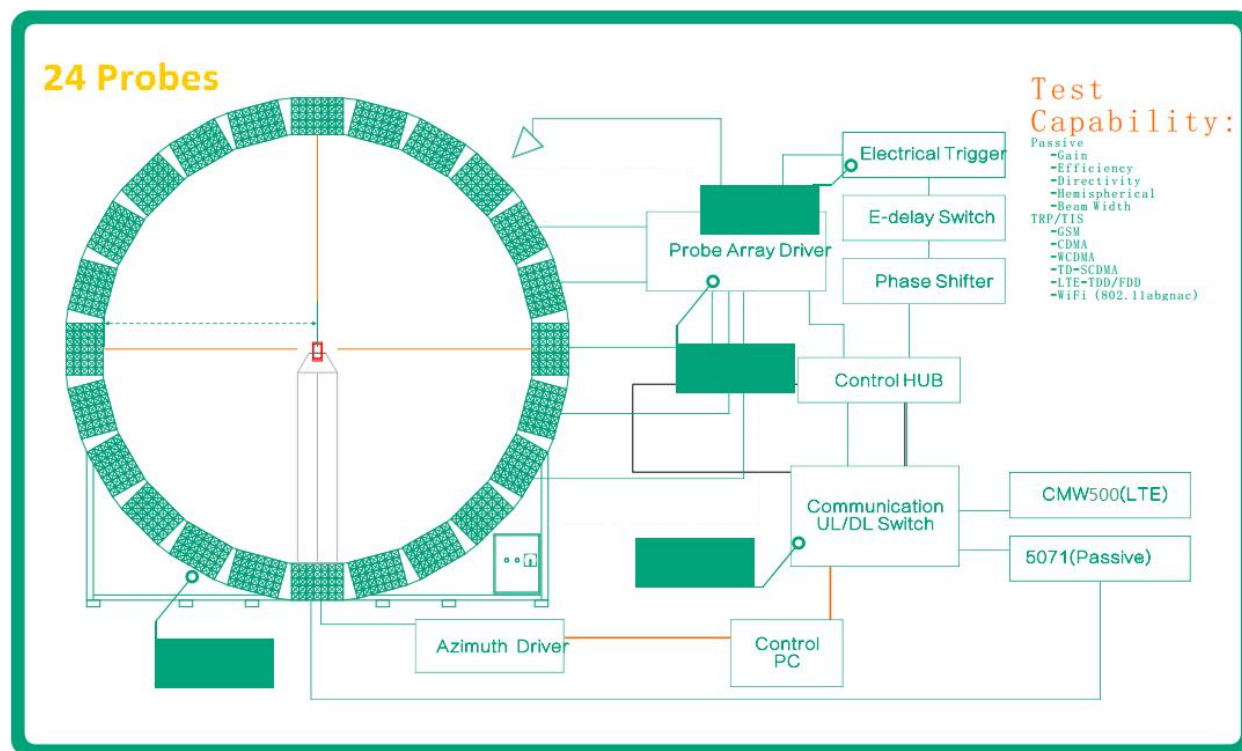
4.1 Method

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

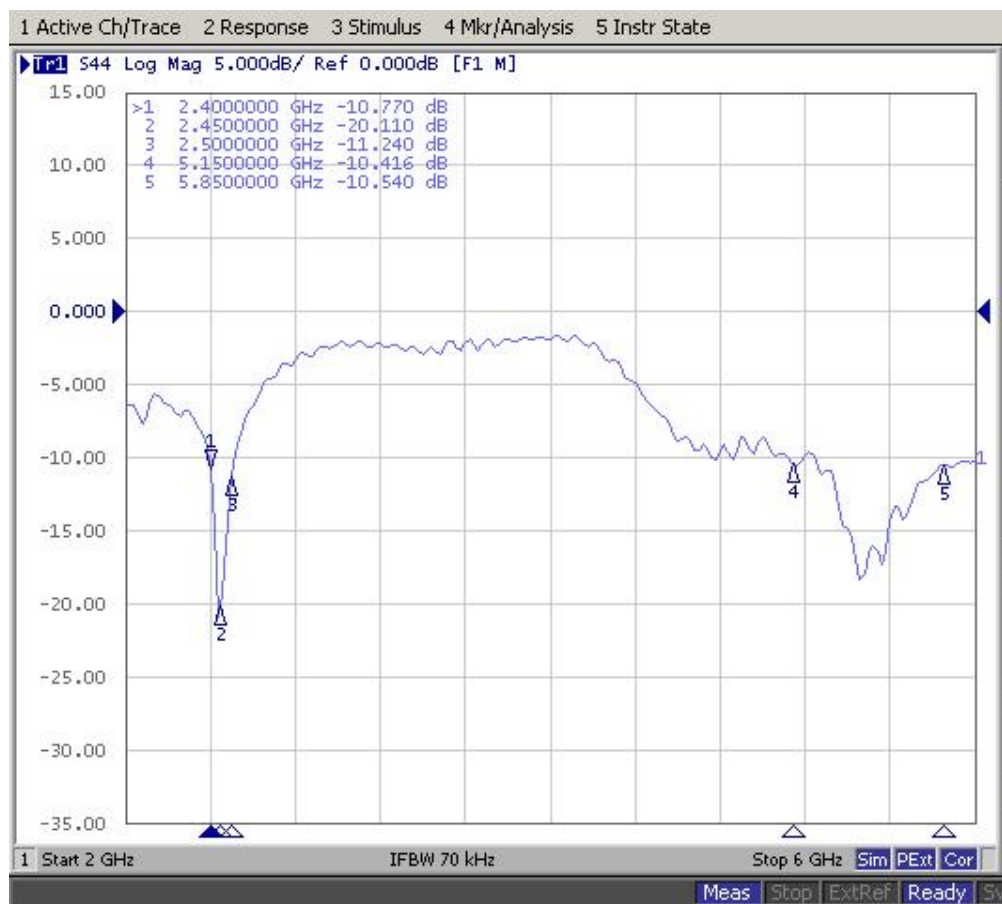
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Network Analyzer	Agilent	E5071C	MY46315996	2025.08.25	2026.08.24
Radio Communication Tester	ROHDE&SCHWARZ	CMW500	0002K50-100 844	2025.08.25	2026.08.24

4.3 Test Configuration



4.4 Passive Test

4.4.1 Return Loss & VSWR

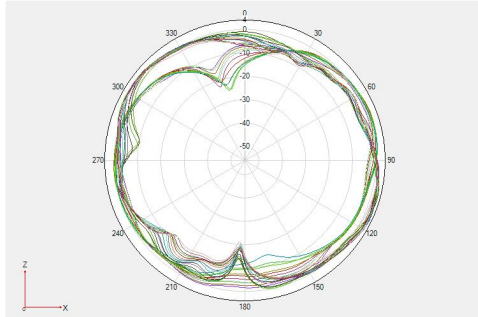


Frequency (MHz)	2400	2450	2500	5150	5850
Return Loss (dB)	-10.77	-20.11	-11.24	-10.41	-10.54

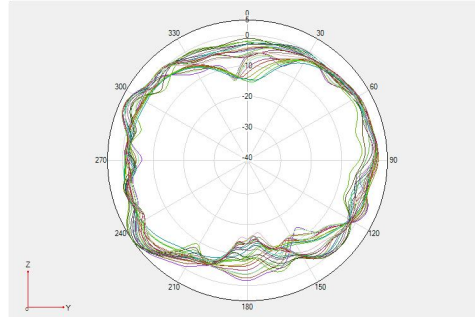
4.4.2 Efficiency & Gain

Frequency / MHz	Efficiency / dB	Efficiency / %	Gain/ dBi
2400	-1.44	71.78	4.59
2410	-1.56	69.82	3.84
2420	-1.32	73.79	3.93
2430	-1.42	72.11	2.98
2440	-1.23	75.34	2.7
2450	-1.11	77.45	2.11
2460	-1.25	74.99	1.72
2470	-0.96	80.17	2.06
2480	-1.18	76.21	1.51
2490	-1.02	79.07	1.44
2500	-1.35	73.28	1.26
5150	-1.58	69.5	4.96
5200	-1.44	71.78	5.02
5250	-1.37	72.95	4.95
5300	-1.16	76.56	4.71
5350	-1.16	76.56	3.94
5400	-0.94	80.54	4.16
5450	-0.83	82.6	3.52
5500	-0.84	82.41	3.31
5550	-0.76	83.95	3.58
5600	-0.71	84.92	3.76
5650	-0.78	83.56	3.25
5700	-0.82	82.79	3.28
5750	-0.81	82.99	3.34
5800	-0.92	80.91	3.24
5850	-1.33	73.62	2.67

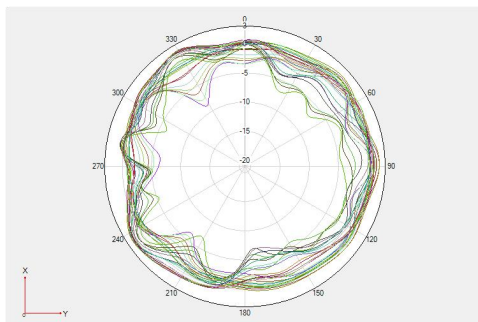
4.4.3 2D Report



E1



E2



H

4.4.4 3D Report

