

SPECIFICATION FOR APPROVAL

CUSTOMER NAME:

PRODUCT NAME: 2.4G W95 white external antenna 1.3 black
wire L=245mm +terminal

CUSTOMER P/N:

UB P/N: UB02C245W3D5245A REV: C

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	 Lina. xiong	
APPROVED BY:	Wenqiang. xiong	
DATE:	2025/06/18	

Revision History

Version	Content Revision	Issued by	Date
A	Original version	Wan.bin	2024-03-08
B	Change the wire	Wan.bin	2024-08-08
C	Change the checkpoint position	Kangjun.xu	2024-12-30

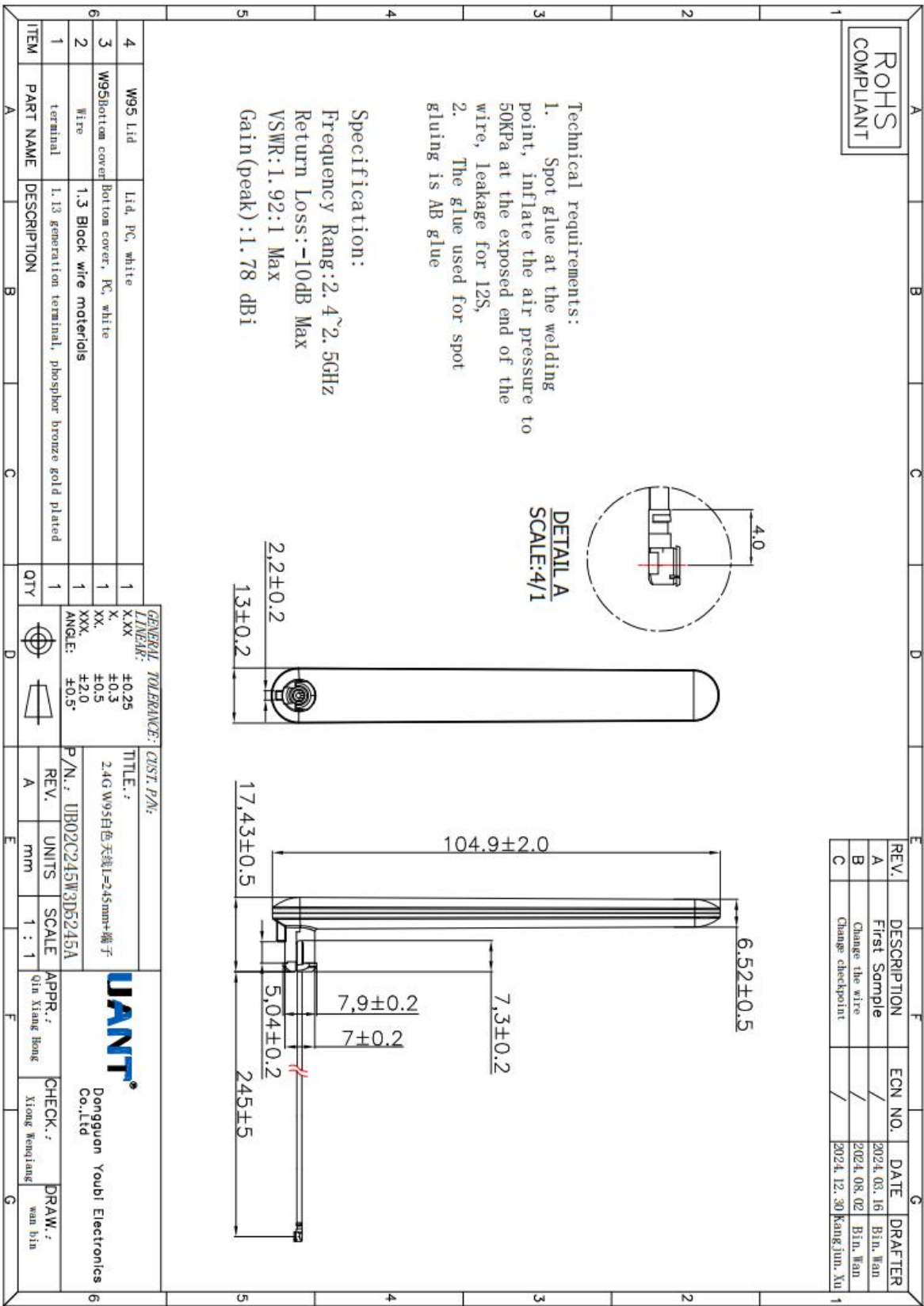
Content

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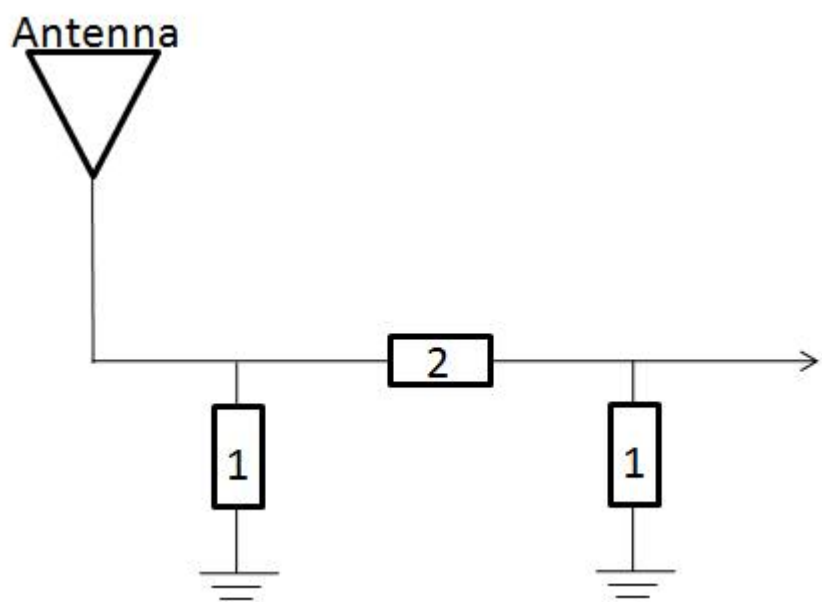
1. Specifications table:

Main technical parameters of the product	
frequency band	2400-2500MHz
Type	dipole
Size	104.9*13*17.43mm
appearance	Unbendable white Antenna
characteristic impedance	50Ω
Polarization	Linear polarization
Voltage standing wave ratio	<3
Efficiency	64~66%
Gain	1.78dbi
direction map	Omni-directional antenna
Source input	/
Case material	PC
Connection method	IPEX 1
Feeder specification	1.3 Wire
Feeder loss	0.5dB·m ⁻¹ @1GHz, 1dB·m ⁻¹ @3GHz, 3dB·m ⁻¹ @6GHz
Power capacity	1W
working temperature	-20~70℃
Storage temperature	-20~70℃

2. Finished product image



3.Matching circuit



System matching circuit components		
Location	description	Tolerance
1	—	—
2	0 Ω	—
3	—	—

4.Performance test report

4.1 Test steps

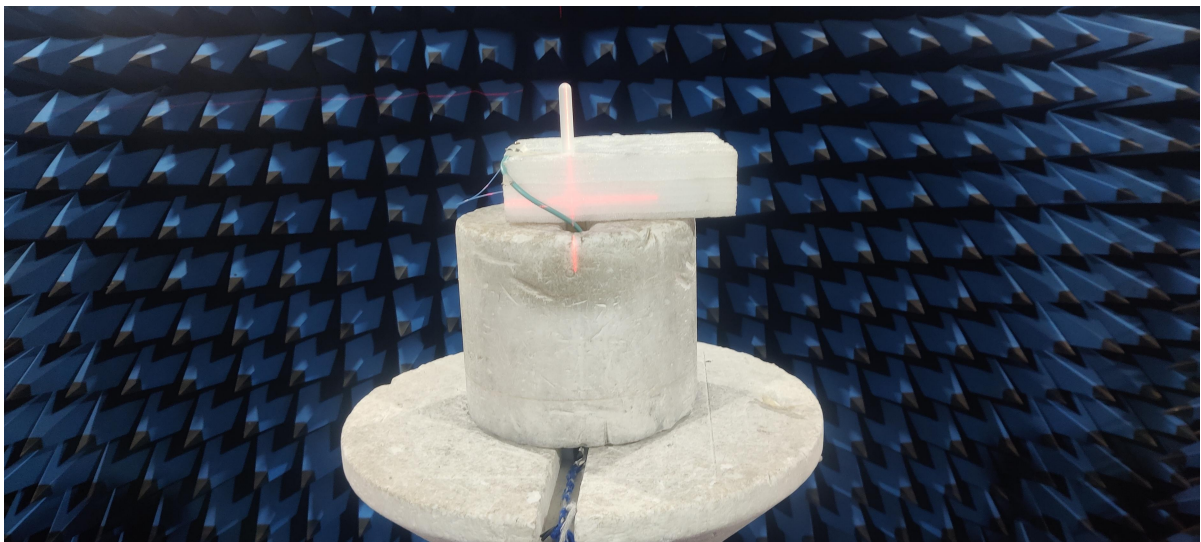
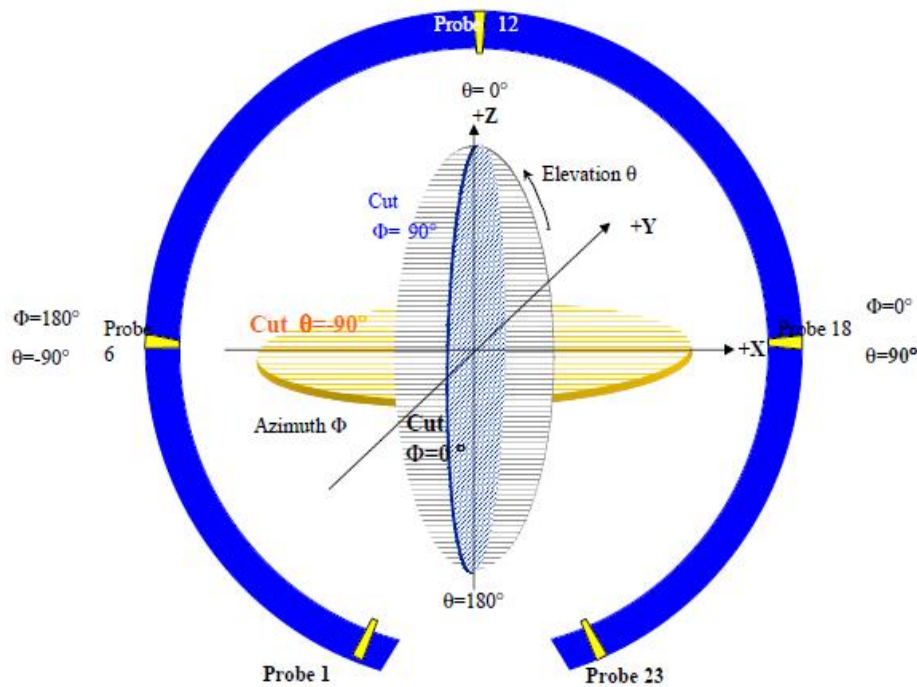
Name	parameter	Method	Standard number
Mobile communication antenna	Voltage standing wave ratio	General technical specification for mobile communication antenna	GB/T 9410-2008
	Antenna gain		
	direction map		
Antenna performance	Radiation gain	IEEE antenna standard test procedure	ANSI/IEEE Std 149-1979

4.2 Equipment list

Equipment name	Manufacturer	Model	Serial number	calibration date	Validity date
Network Analyzer	Agilent	E5071C	MY46315996	2024.08.20	2025.08.19
Radio Communication Tester	ROHDE&SCHWARZ	CMW500	0002K50-100844	2024.08.20	2025.08.19

4.3 Passive testing

4.3.1 Equipment layout diagram



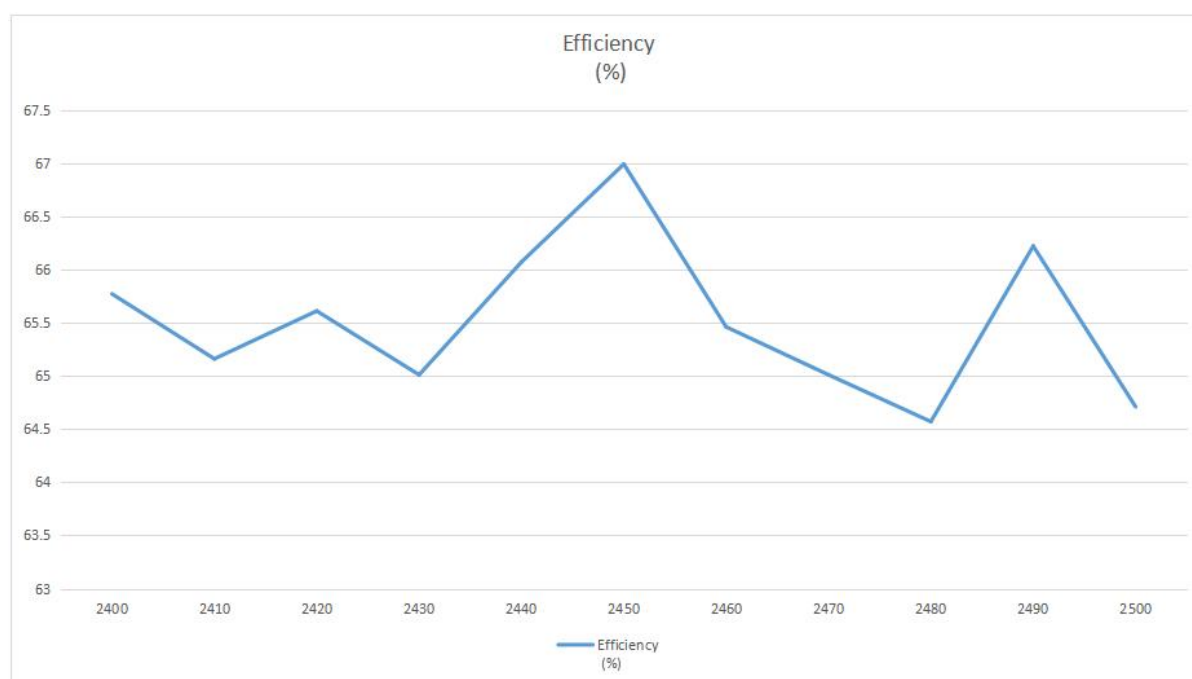
4.4.1 Return loss&VSWR

Frequency (MHz)	2400	2450	2500
Reflection loss (dB)	-24.30	-27.34	-21.14
VSWR	1.12	1.08	1.19

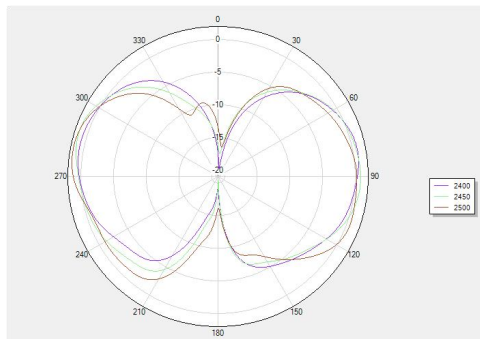


4.4.2 Data of the whole machine passive test

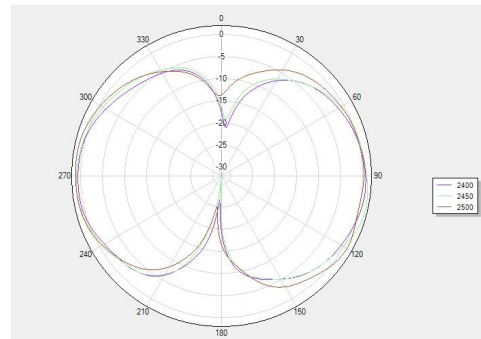
Frequency / MHz	Efficiency / dB	Efficiency / %	Gain/ dBi
2400	-1.82	65.77	1.1
2410	-1.86	65.16	0.98
2420	-1.83	65.61	1.39
2430	-1.87	65.01	1.39
2440	-1.8	66.07	1.69
2450	-1.74	66.99	1.78
2460	-1.84	65.46	1.8
2470	-1.87	65.01	1.68
2480	-1.9	64.57	1.46
2490	-1.79	66.22	1.76
2500	-1.89	64.71	1.63



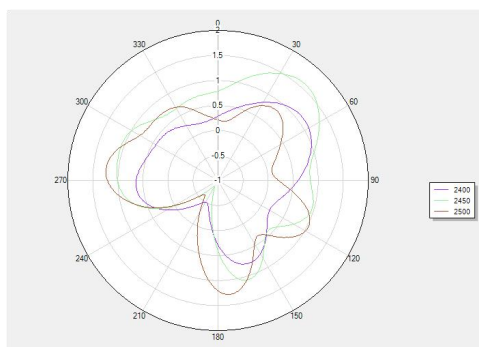
4.4.3 2D Direction Diagram



E1

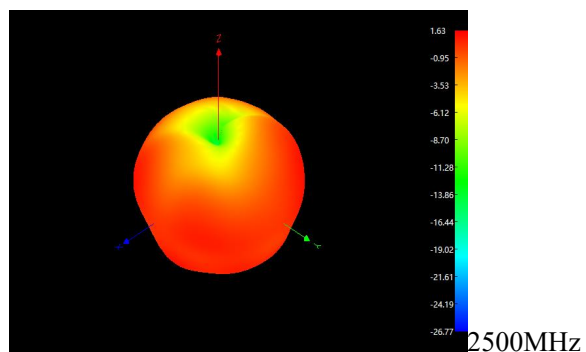
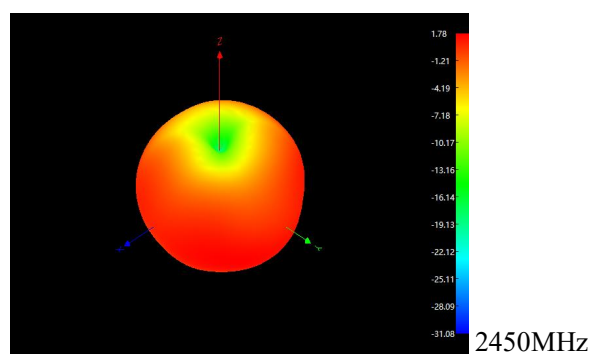
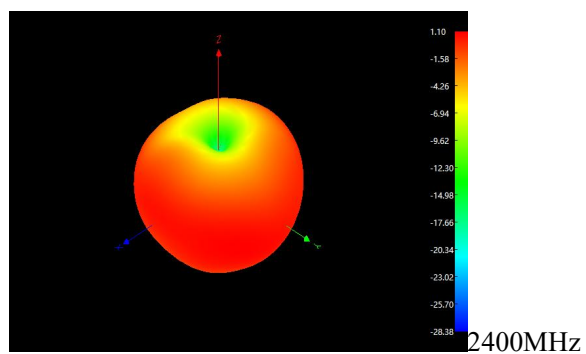


E2



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4.4.4 3D Direction Diagram



5 Packaging method

