

Antenna Report

PRODUCT NAME: 2.4GHz thumb black antenna 0.81 black
cable=70mm+III-terminal

UB P/N: UB02C100W2Da3a6A REV: A

Revision	Revisor	Date	Revision Record
V-A	Kangjun.Xu	2023/04/27	First release

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:		
APPROVED BY:		
DATE:		
	2023/04/27	

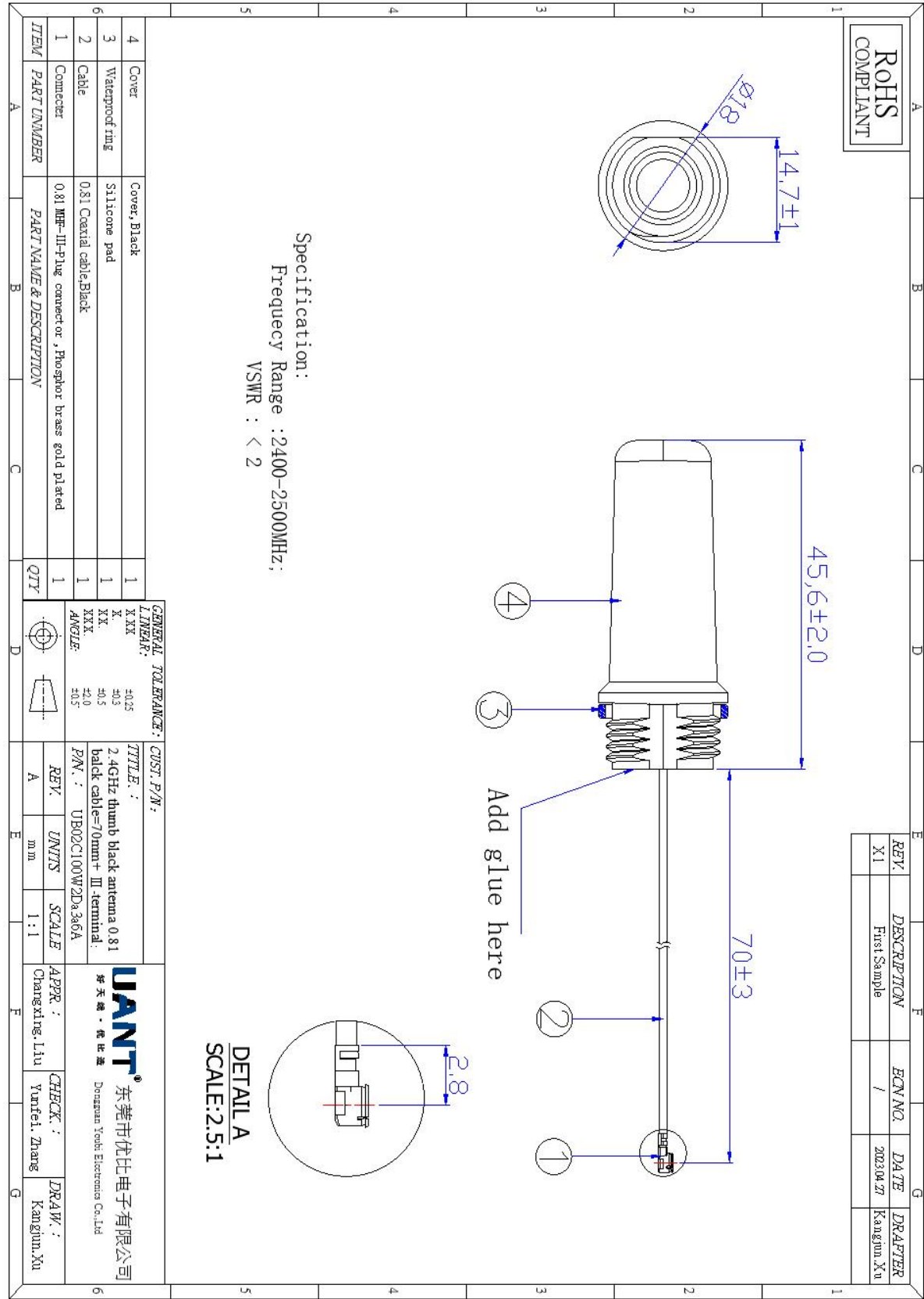
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1 Specification

Specification	
P/N	
Frequency	2400MHz-2500MHz
Antenna Type	Feed coupling
Dimension	Φ18*45.6mm
Impedance	50Ω
Polarization	Linear
VSWR	<2
Axial Ratio	not involved
Efficiency	63~67%
Gain	3.38dbi
Radiation Pattern	Omni-directional
Connection	IPEX III
Line Type	RF0.81 , 70mm , Black
Line Loss	3.6dB·m ⁻¹ @1GHz , 6.2dB·m ⁻¹ @3GHz , 9.4dB·m ⁻¹ @6GHz
Power Handling	1W
Operating Temperature	-20~70°C

2 Antenna Dimension

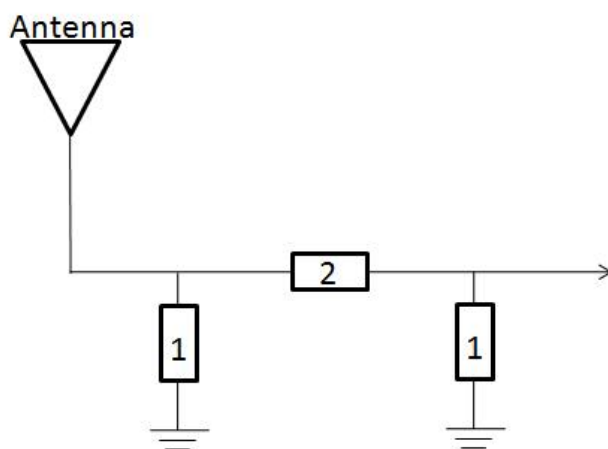


3 Picture

3.1 Picture



3.2 Matching Circuit



The Components of Matching Circuit

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

4 Electrical Test

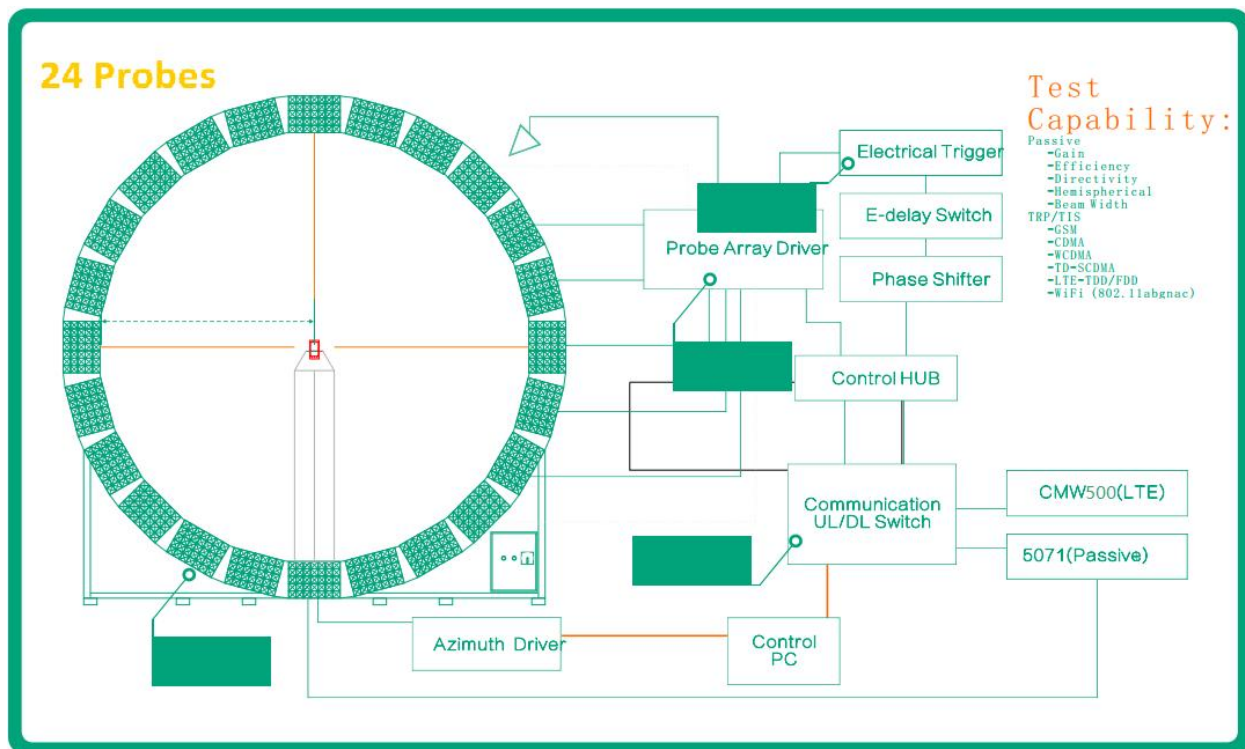
4.1 Method

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

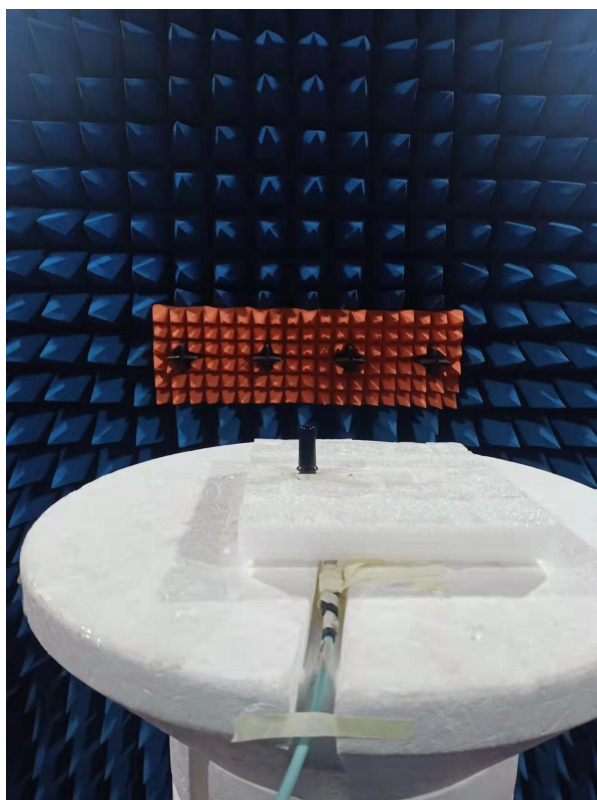
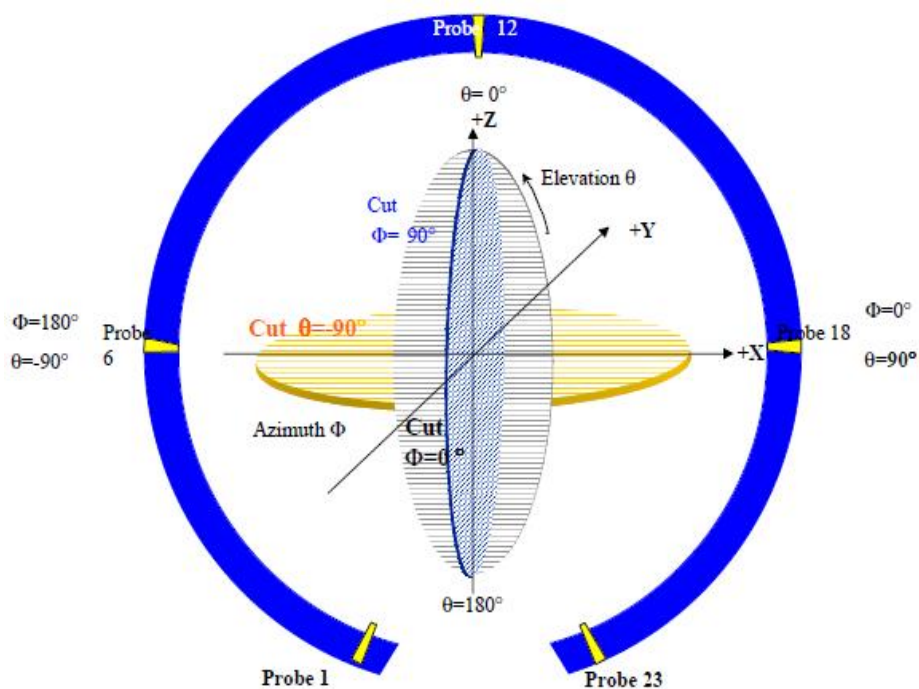
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Network Analyzer	Agilent	E5071C	MY46315996	2022.08.25	2023.08.24
Radio Communication Tester	ROHDE&SCHWARZ	CMW500	0002K50-100 844	2022.08.25	2023.08.24

4.3 Test Configuration

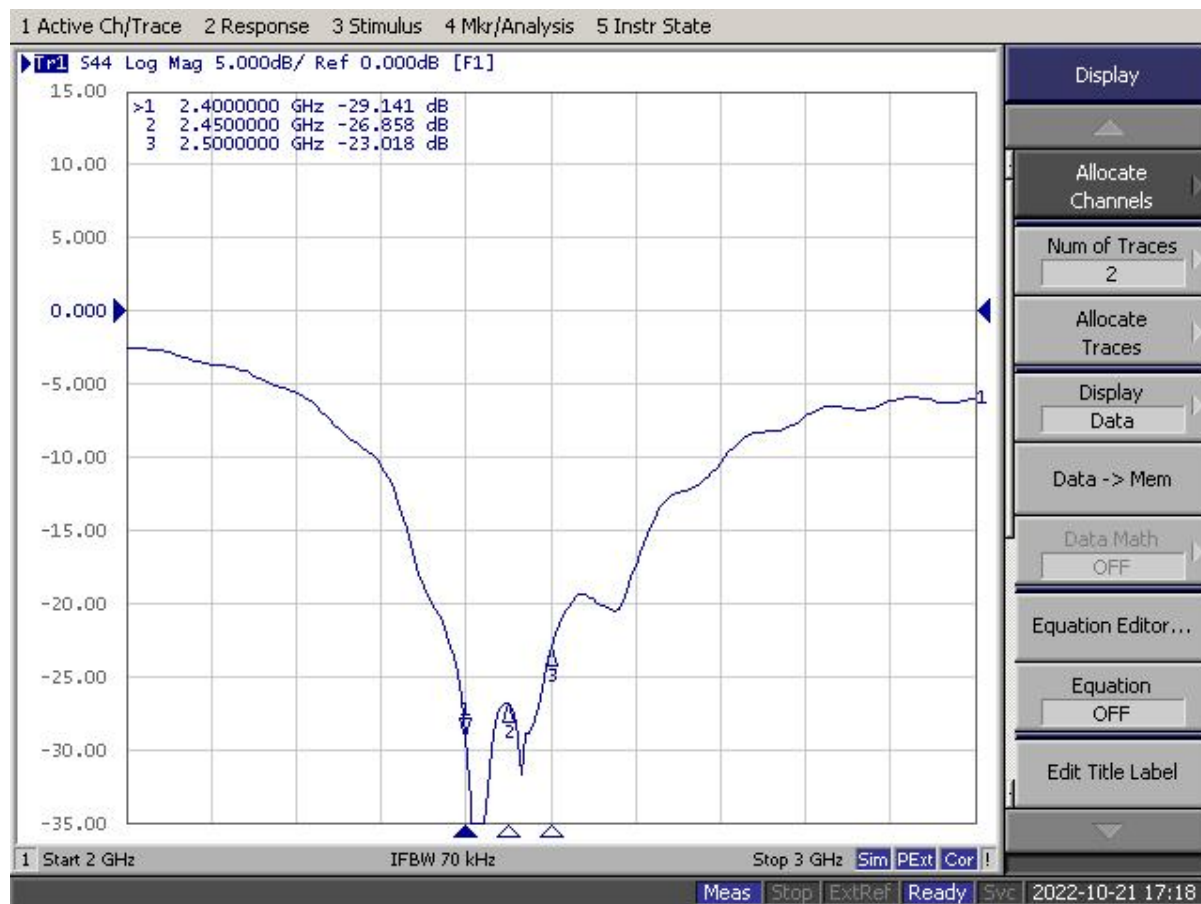


4.4 Passive Test

4.4.1 Position



4.4.2 Return Loss

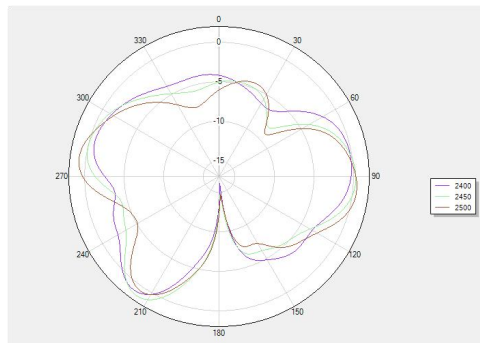


频率 (MHz)	2400	2450	2500
回波损耗 (dB)	-29.14	-26.85	-23.02

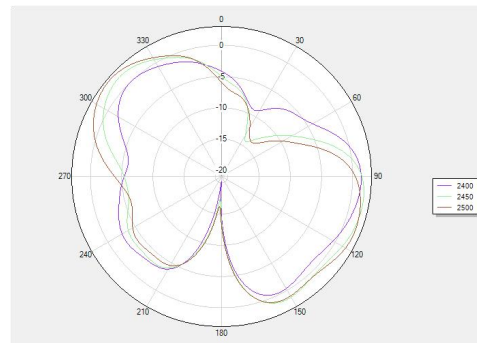
4.4.3 Efficiency & Gain

Frequency / MHz	Efficiency / dB	Efficiency / %	Gain/ dBi
2400	-1.7	67.61	1.7
2410	-1.81	65.92	1.9
2420	-1.86	65.16	2.12
2430	-1.88	64.86	2.23
2440	-1.86	65.16	2.52
2450	-1.84	65.46	2.62
2460	-1.91	64.42	2.81
2470	-1.89	64.71	3.18
2480	-1.96	63.68	3.17
2490	-1.88	64.86	3.38
2500	-1.94	63.97	3.28

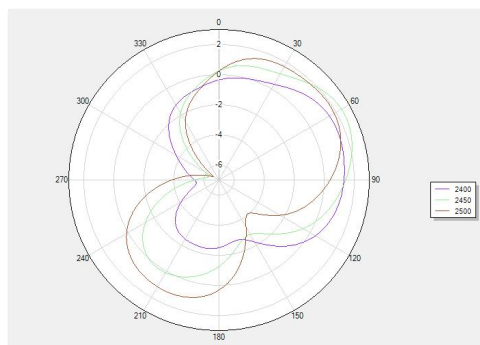
4.4.4 2D Report



E1

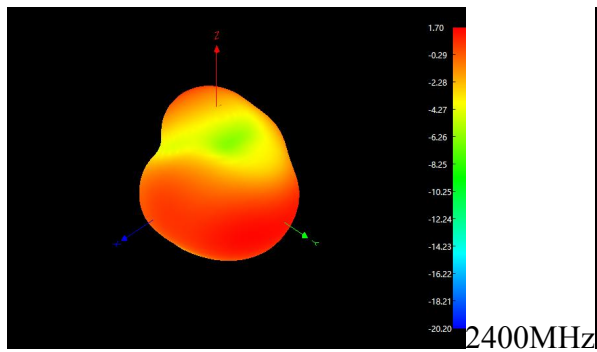


E2

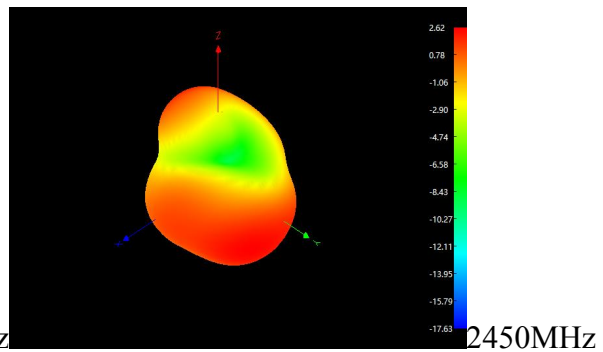


H

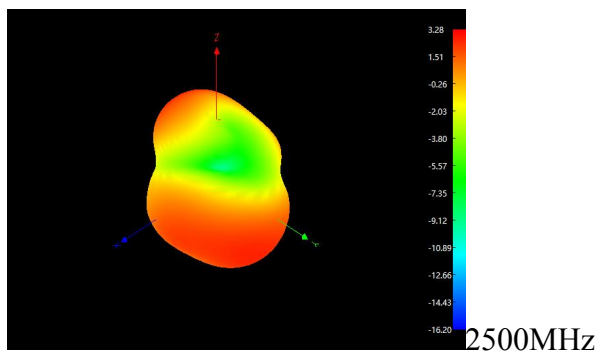
4.4.5 3D Report



2400MHz



2450MHz



2500MHz