

Declaration

APPROVALSHEET

CUSTOMERNAME: Anker

PRODUCT NAME 2.4/5.8G external antenna with exit line L=44mm
first generation terminal

STOMER P/N:

Youbi P/N:

UB02C47W2D5650A

REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	Lina	
APPROVED BY :	 Zhi jun. zhu	
DATE:	2025/08/07	

Modification History

Version	Content Revision	Issued by	Date
A	Original version	lina	2025-08-07

Content

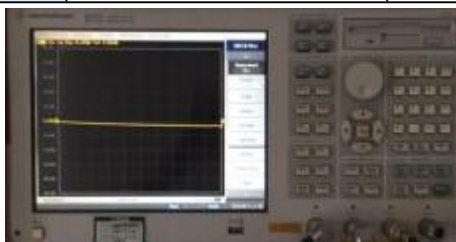
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5. -----	Radiation Pattern
6.-----	Antenna installation diagram
7.-----	Mechanical Specification

1. Electrical Specification

Characteristics	Specifications	Unit
Outline Dimensions	7.64*69.6 L44	mm
Frequency	2400-2500/5150-5850	MHz
Impedance	50	Ω
VSWR	< 2	
Polarization	Linear Polarization	
AVG Gain	3.24	dBi
Efficiency	>60	%
Connector Type	1.13 RF 1	
Operating temperature	-40℃~+85℃	
Storage Temp	-40℃~+85℃	

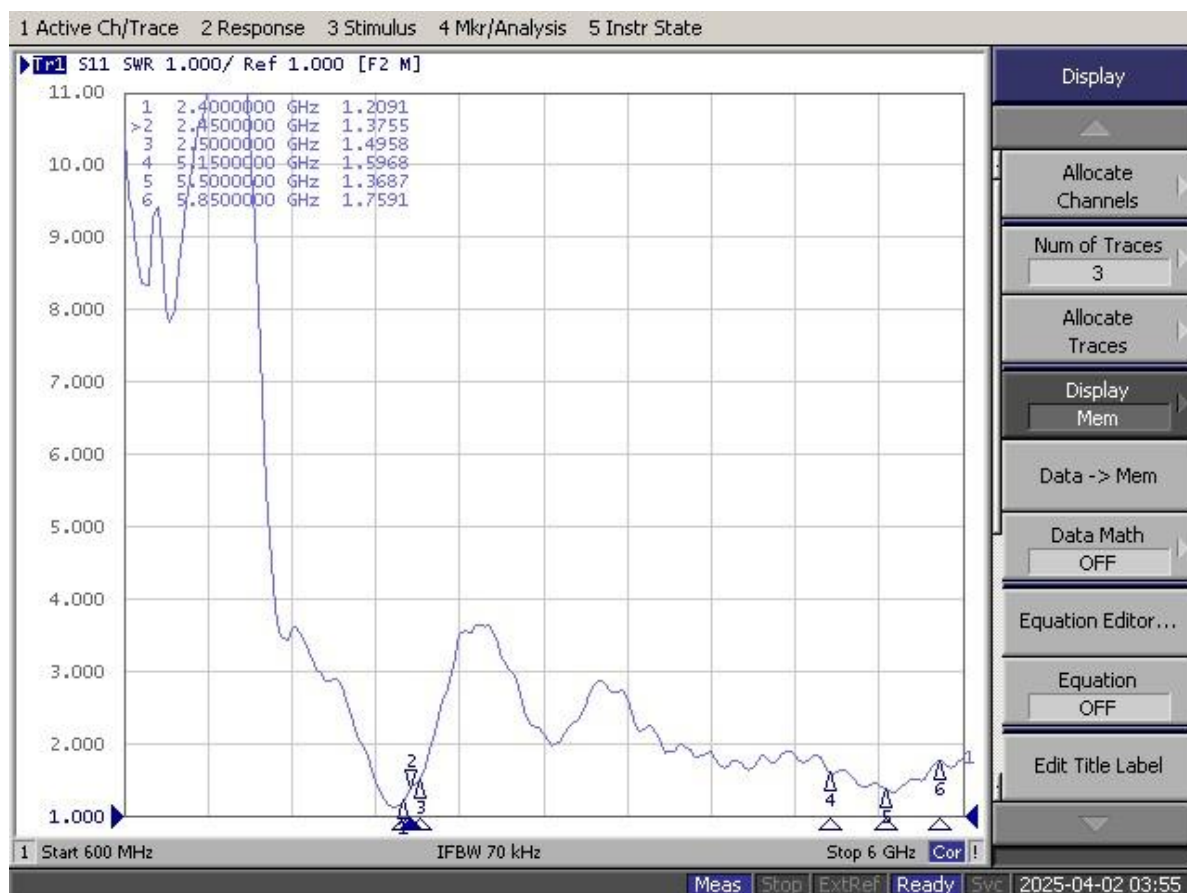
2.Test Items and Equipment

	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*5m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave darkroom (5m*5m*5m) 2.Comprehensive test instrument (CMW500)



3. S Parameter

Frequency(MHz)	VSWR
2400	1.20
2450	1.37
2500	1.49
5150	1.59
5500	1.36
5850	1.75



* Voltage Standing Wave Ratio(VSWR)

Return Loss(RL)

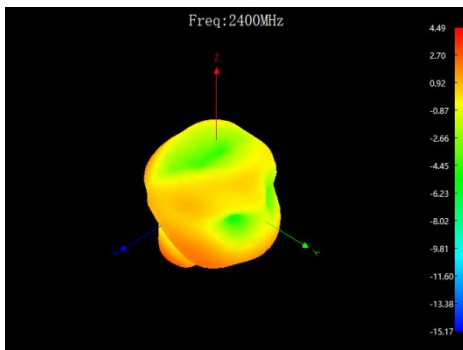
$$RL=20*\log_{10}[(VSWR+1)/(VSWR-1)]$$

4. Efficiency and Gain

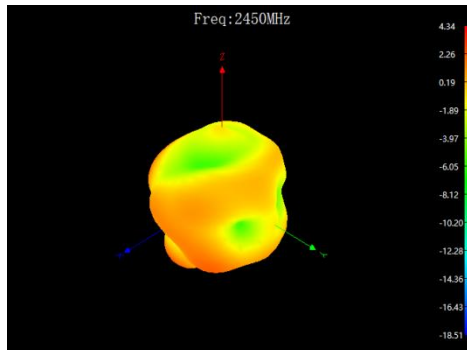
Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi
2400	-1.48	71.12	4.49
2410	-1.66	68.23	3.71
2420	-1.5	70.79	4.28
2430	-1.51	70.63	3.98
2440	-1.42	72.11	3.73
2450	-1.42	72.11	4.34
2460	-1.55	69.98	3.17
2470	-1.38	72.78	3.84
2480	-1.44	71.78	3.41
2490	-1.51	70.63	3.21
2500	-1.36	73.11	3.43
5150	-1.87	65.01	2.43
5200	-1.69	67.76	2.45
5250	-1.77	66.53	2.33
5300	-1.65	68.39	2.7
5350	-1.5	70.79	3.16
5400	-1.55	69.98	2.99
5450	-1.58	69.5	2.67
5500	-1.54	70.15	2.85
5550	-1.4	72.44	3.11
5600	-1.41	72.28	3.2
5650	-1.41	72.28	2.72
5700	-1.56	69.82	2.89
5750	-1.6	69.18	3.01
5800	-1.58	69.5	3.22
5850	-1.71	67.45	3.07

5. 2D/3D Radiation direction

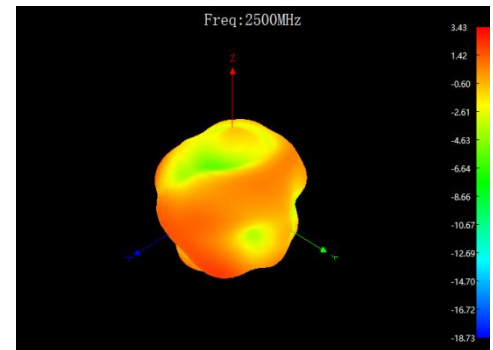
2. 4G



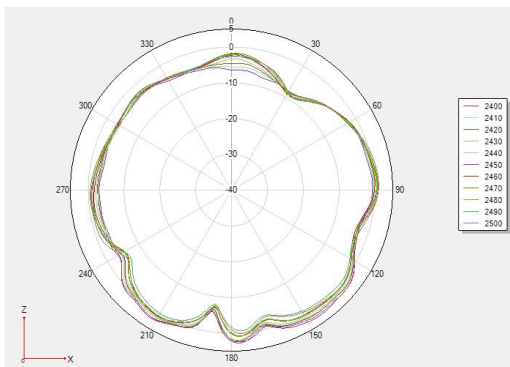
2400MHz



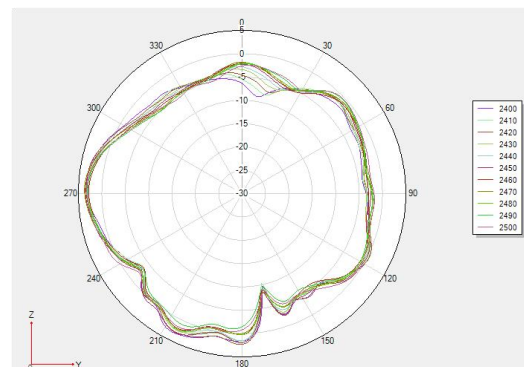
2450MHz



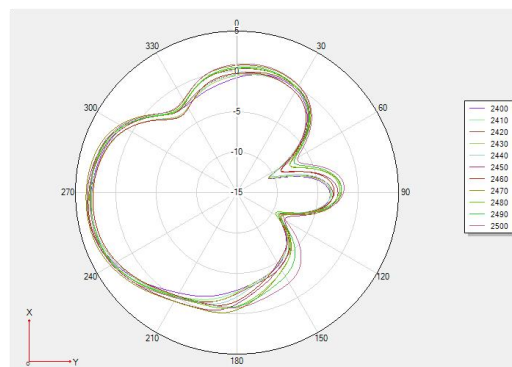
2500MHz



Phi 0 2D

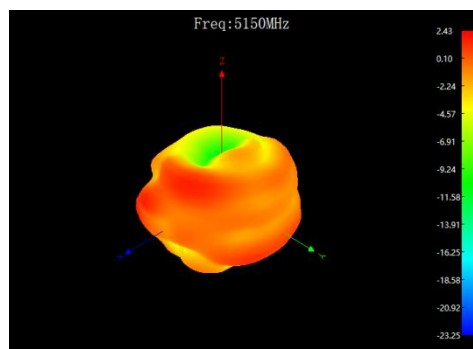


Phi 90 2D

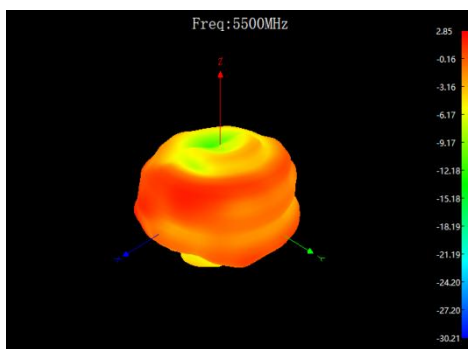


Theta 90 2D

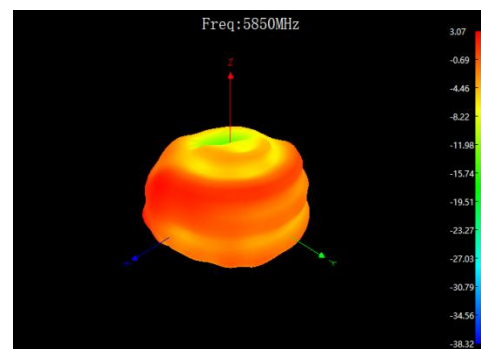
5.8G



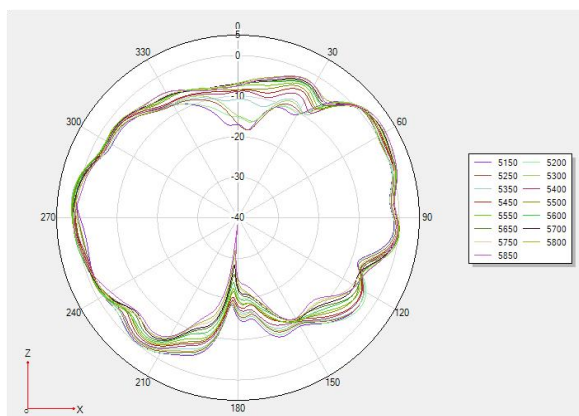
5150MHz



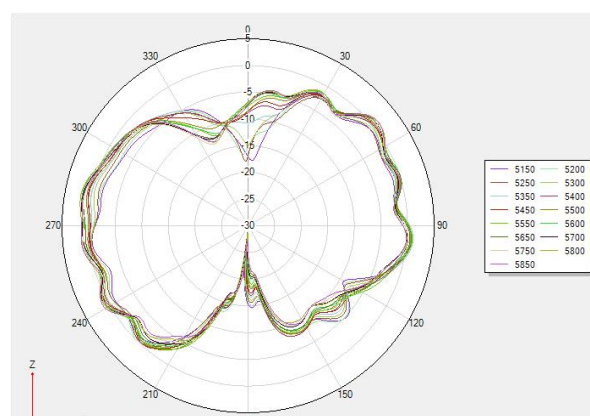
5500MHz



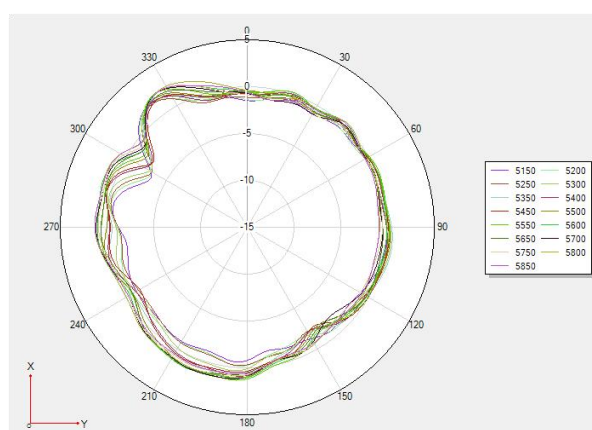
5850MHz



Phi 0 2D

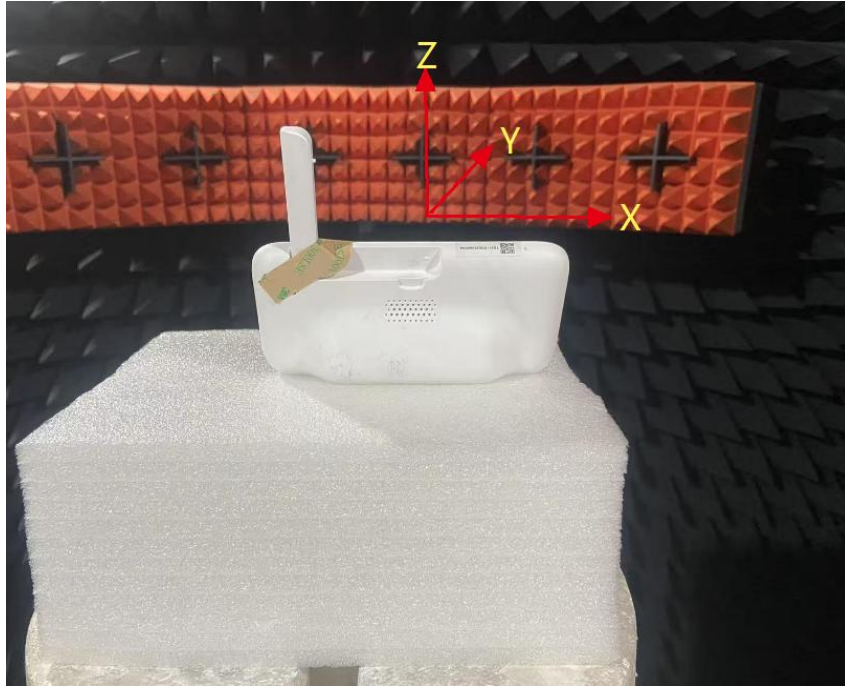


Phi 90 2D



Theta 90 2D

6. Antenna installation diagram



7. Mechanical Specificatio

