

Declaration

APPROVAL SHEET

CUSTOMER NAME: Anker

PRODUCT NAME: On-board antenna

CUSTOMER P/N:

Youbi P/N: REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	 Lina	
APPROVED BY :	Zhi jun. ZHU	
DATE:	2025/10/16	



Modification History

Version	Content Revision	Issued by	Date
A	Original version	lina	2025-10-16

Content

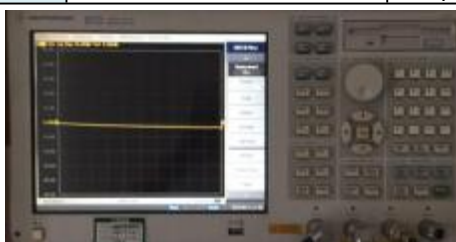
<i>Item</i>	<i>Description</i>
1.-----	Electrical Specification
2.-----	Test Items and Equipment
3.-----	S Parameter
4.-----	Efficiency and Gain
5. -----	Radiation Pattern
6. -----	Antenna installation diagram
7.-----	Mechanical Specification

1. Electrical Specification

Characteristics	Specifications	Unit
Outline Dimensions	18.95*8.58	mm
Frequency	2400-2500	MHz
Impedance	50	Ω
VSWR	< 2	
Polarization	Linear Polarization	
Max Gain	1	dBi
Efficiency	>44	%
Connector Type	/	
Operating temperature	-20℃~+85℃	
Storage Temp	-20℃~+50℃	

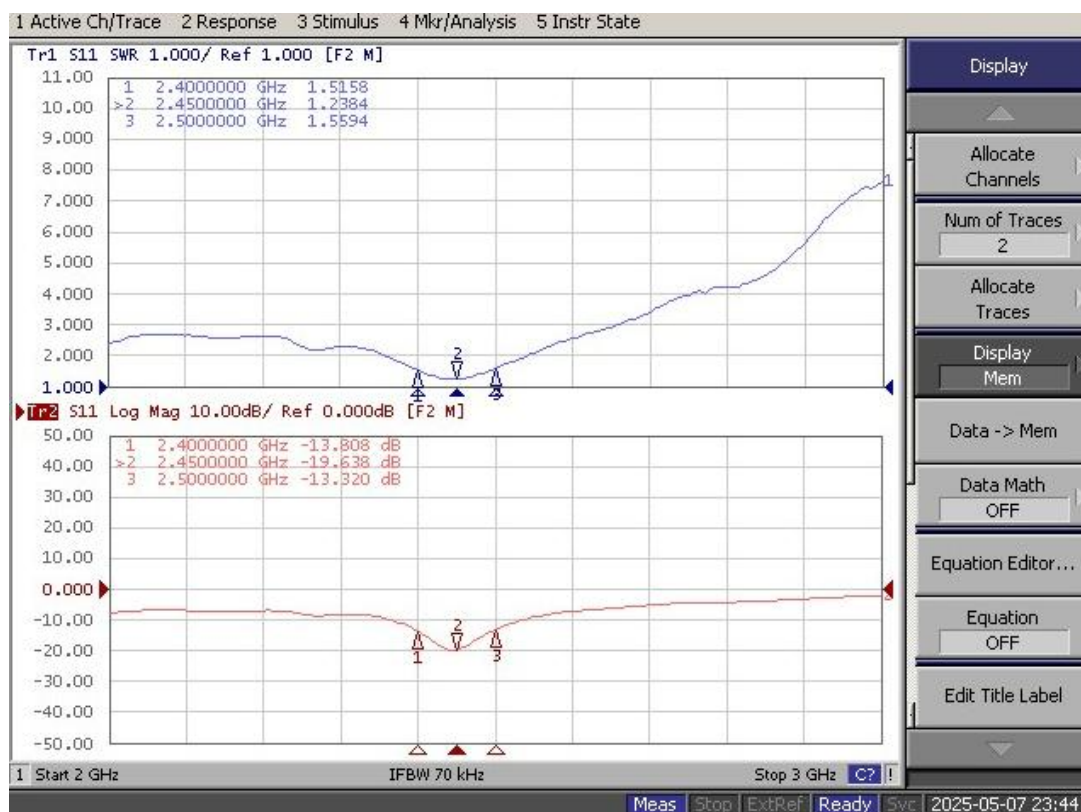
2.Test Items and Equipment

	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)	Return Loss (dB)	VSWR
2400	-13.8	1.51
2450	-19.6	1.23
2500	-13.3	1.55

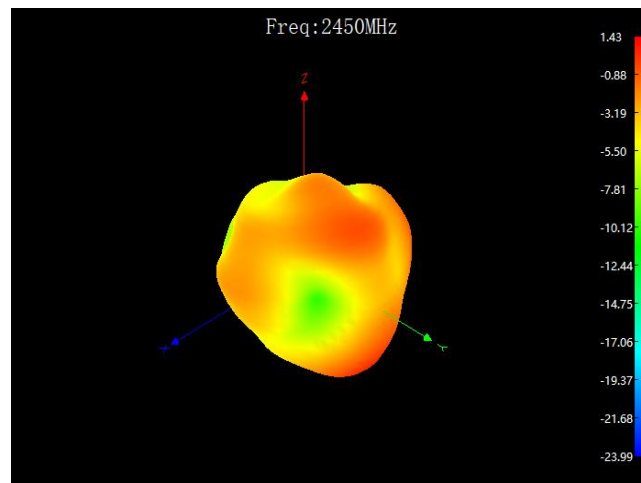


* Voltage Standing Wave Ratio(VSWR)
Return Loss(RL)
 $RL=20*\log_{10}[(VSWR+1)/(VSWR-1)]$

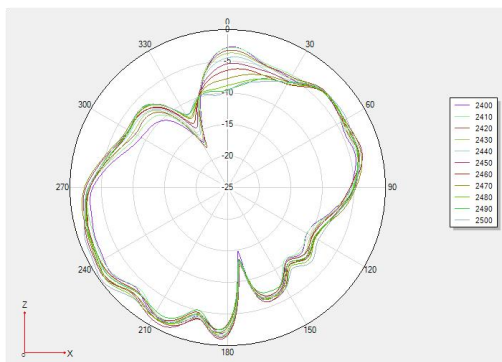
4. Efficiency and Gain

Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi
2400	-4.04	39.45	0.25
2410	-3.96	40.18	0.45
2420	-3.73	42.37	1.02
2430	-3.65	43.15	0.99
2440	-3.56	44.05	0.91
2450	-3.54	44.26	1.03
2460	-3.66	43.05	0.62
2470	-3.47	44.98	0.98
2480	-3.51	44.57	0.85
2490	-3.66	43.05	0.85
2500	-3.55	44.16	1.05

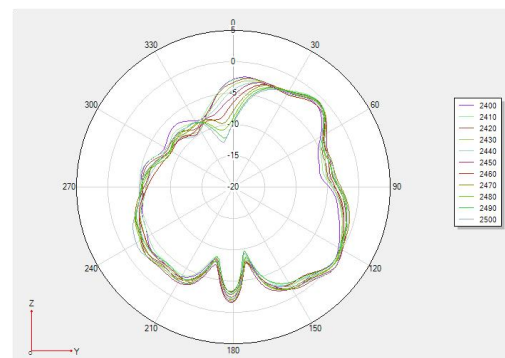
5. Radiation Pattern 2D&3D



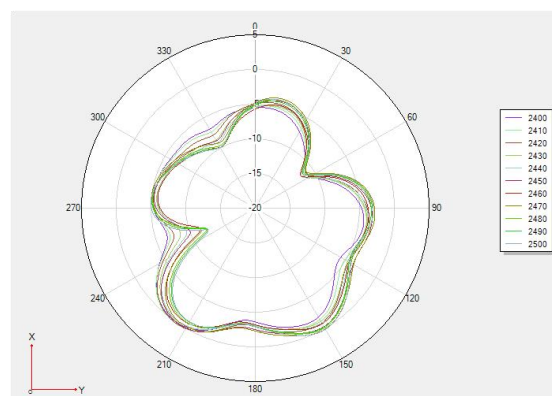
2450MHz



Phi 0 2D

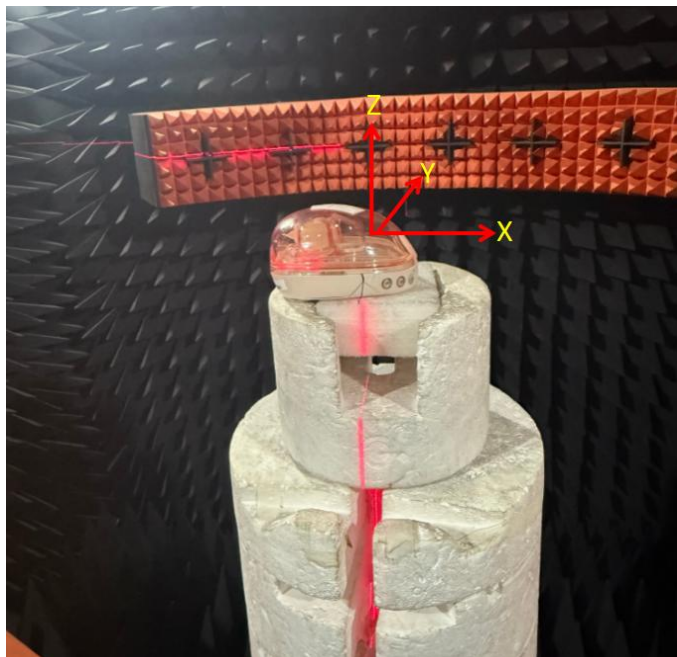


Phi 90 2D



Theta 90

6. Coordinate System



7.Mechanical Specification

