

# Antenna Test Report

Report No.: AGC11775240905PA01

PRODUCT DESIGNATION	:	Manta Sleep White Noise Machine
BRAND NAME	:	Manta Sleep
MODEL NAME	:	MSWHITENOISE02-MSPKR
APPLICANT	:	Manta Sleep LLC
DATE OF ISSUE	:	Oct. 30, 2024
REPORT VERSION	:	V1.0









#### **Report Revise Record**

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Oct. 30, 2024	Valid	Initial release



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# **1. PRODUCT INFORMATON**

General information				
Applicant	Manta Sleep LLC			
Address	680 S Cache Street Suite 100 Box 7403 Jackson, WY 83001 USA			
Manufacturer	Manta Sleep LLC			
Address	680 S Cache Street Suite 100 Box 7403 Jackson, WY 83001 USA			
Factory	Mission Electronic Limited			
Address	3F Building C, YUSHENG Industrial Area, LiaoKeng, ShiYan, Baoan, Shenzhen, China			
Product Designation	Manta Sleep White Noise Machine			
Brand Name	Manta Sleep			
Test Model	MSWHITENOISE02-MSPKR			
Series Model(s)	N/A			
Difference Description	N/A			
Date of receipt of test item	Sep. 27, 2024			
Date of test	Sep. 27, 2024 to Oct. 30, 2024			
Report Template	AGCRT-ER-PA/V1.0			
	Technical information			
Frequency Range	2400MHz-2500MHz			
Test Frequencies	2400MHz, 2410MHz, 2420MHz, 2430MHz, 2440MHz, 2450MHz, 2460MHz, 2470MHz, 2480MHz, 2490MHz, 2500MHz			
Antenna Type	PCB Antenna			
Dimensions	15mm*5mm			
Impedance	<b>50</b> Ω			
Maximum test values	Gain: 0.143dBi; Efficiency: 32.398%; VSWR: 1.076:1			

Note: The test results of this report relate only to the tested sample identified in this report.

Prepared By

xCI-Li

Cici Li (Project Engineer)

Oct. 30, 2024

**Reviewed By** 

alvin Lin

Calvin Liu (Reviewer)

Oct. 30, 2024

Approved By

Max Zhang

Max Zhang (Authorized Officer)

Oct. 30, 2024



# 2. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

# **3. TEST EQUIPMENT LIST**

Equipment	Manufacturer	Model	Cal. Date	Cal. Due
Antenna Measurement System	ETS-Lindgren	AMS-8600	Nov. 28, 2023	Nov. 27, 2024
Network Analyzer	R&S	101443	Jul. 24, 2024	Jul. 23, 2025
Test Software	ETS-Lindgren	EMQuest	Ver V1.12	N/A

# 4. MEASUREMENT UNCERTAINTY

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in measurement" (GUM) published by CISPR and ANSI.

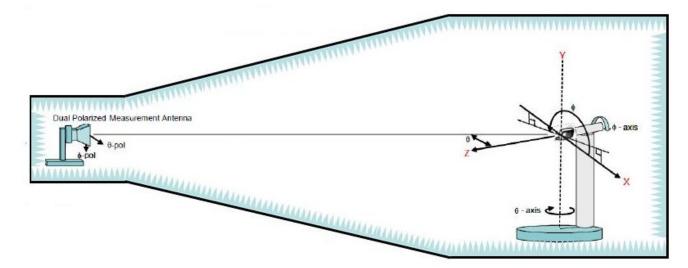
- Uncertainty of VSWR,  $Uc = \pm 1.5 dB$ 

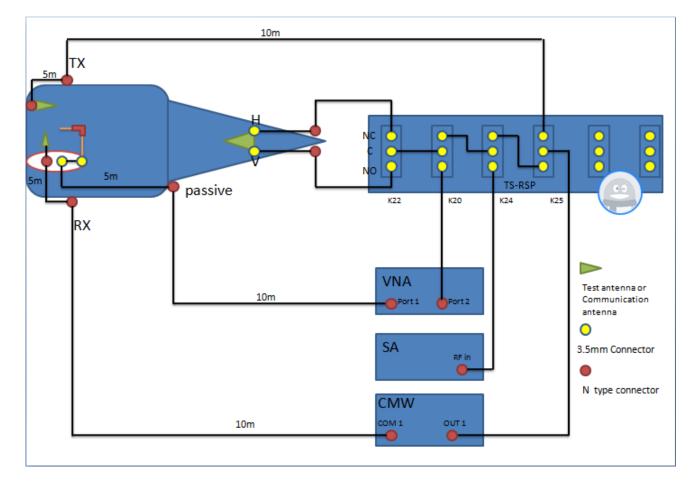
- Uncertainty of Gain,  $Uc = \pm 0.8 dB$ 

#### 5. TEST SUMMARY LIST

NO.	Test item	Remark
1	VSWR	
2	Gain and efficiency	
3	Radiation pattern	





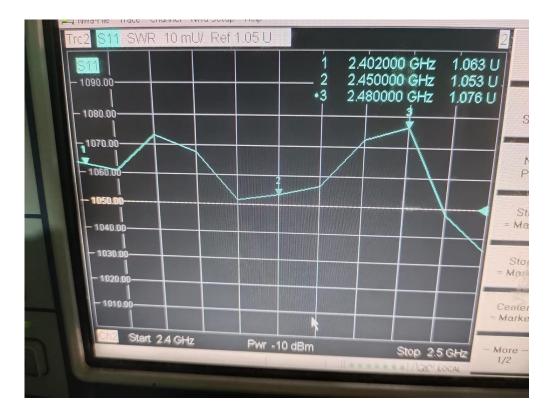




# 7. TEST RESULTS

## 7.1. VSWR

Frequency(MHz)	VSWR
2402	1.063:1
2450	1.053:1
2480	1.076:1





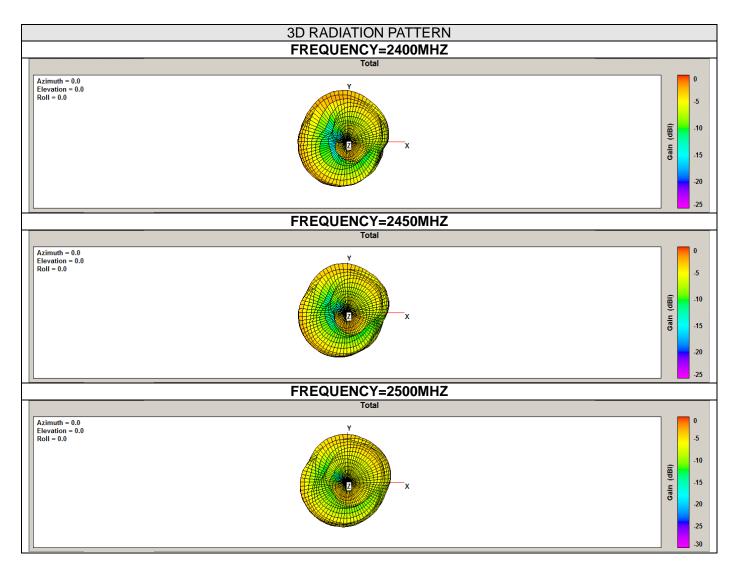
#### 7.2. GAIN AND EFFICIENCY

Frequency(MHz)	Efficiency(dB)	Efficiency(%)	Gain(dBi)
2400	-4.895	32.398	-0.255
2410	-5.052	31.244	-0.188
2420	-5.267	29.740	-0.123
2430	-5.105	30.865	0.064
2440	-4.908	32.303	0.143
2450	-5.031	31.400	-0.118
2460	-5.250	29.857	-0.494
2470	-5.461	28.435	-0.829
2480	-5.494	28.222	-0.802
2490	-5.622	27.405	-1.085
2500	-5.728	26.739	-1.270

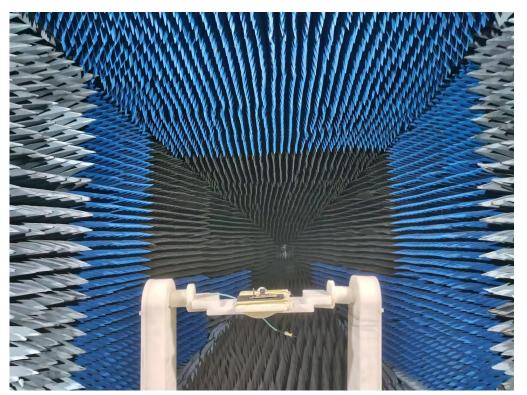


#### 2D POLAR RADIATION PATTERN FREQUENCY=2400MHZ Total 330 07 <u>15?</u> 30? 60 (IBD) 90 Gain 50 65 80 240 12 Max: 0 Min: -25 Scale: 5/div 150 210 Phi Angle (? FREQUENCY=2450MHZ Total 330 0? 15? 30? 60 (IBI) 90 270 Gain 50 65 80 240 Max: 0 Min: -25 Scale: 5/div 150 210 180 Phi Angle (? FREQUENCY=2500MHZ Tota 30 330 15? 30? Gain (dBl) 90 270 240 Max: 0 Min: -30 Scale: 5/div 210 150 180 Phi Angle (?







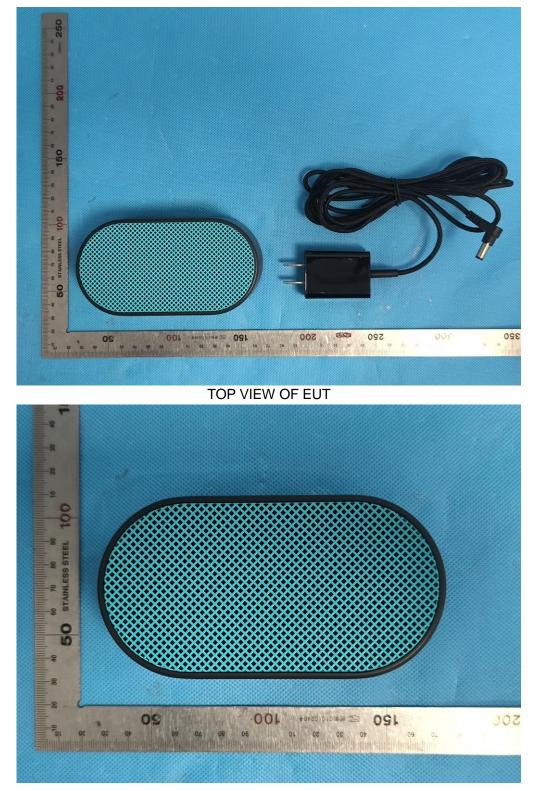


**APPENDIX A: PHOTOGRAPHS OF TEST SETUP** 



# APPENDIX B: PHOTOGRAPHS OF EUT

All VIEW OF EUT



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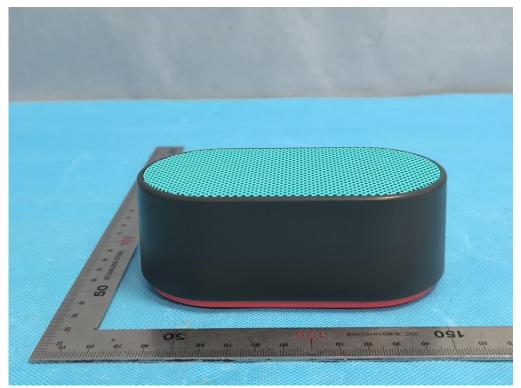
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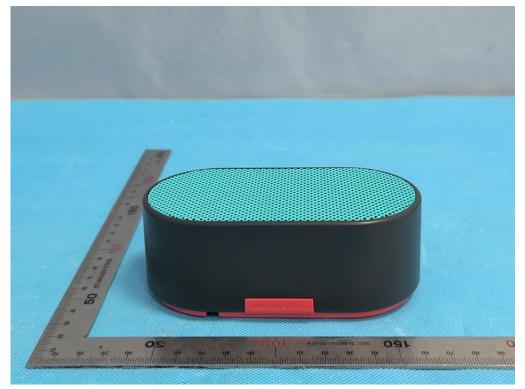


FRONT VIEW OF EUT





#### BACK VIEW OF EUT

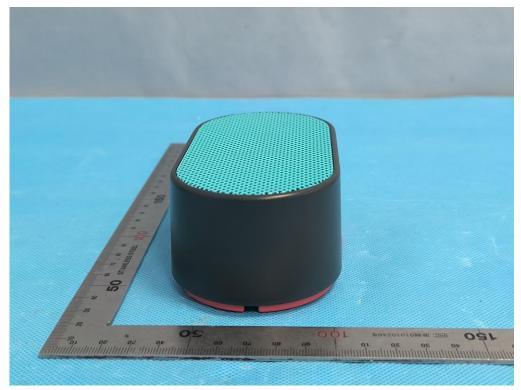


LEFT VIEW OF EUT





#### **RIGHT VIEW OF EUT**



PORT VIEW OF EUT

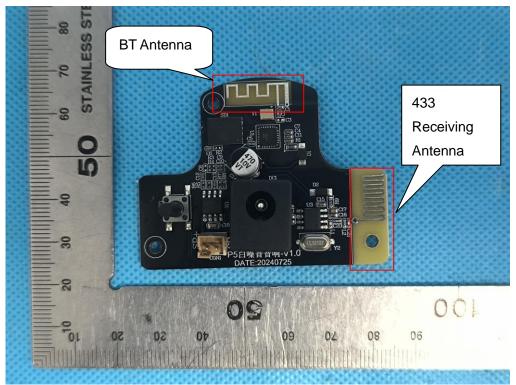




OPEN VIEW OF EUT

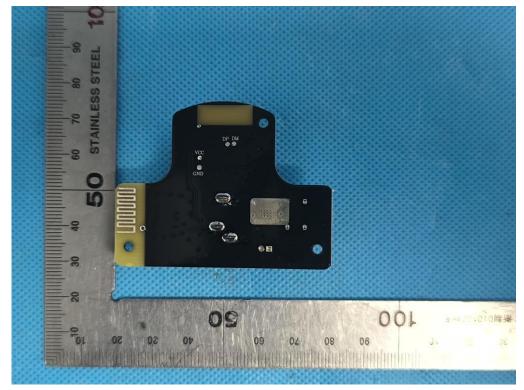


INTERNAL VIEW OF EUT (FIGURE 1)





#### **INTERNAL VIEW OF EUT (FIGURE 2)**



INTERNAL VIEW OF EUT (FIGURE 3)





#### ADAPTER VIEW OF EUT



#### -----End of Report-----



# Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

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3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

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8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.