

Antenna Test Report

Report No.: AGC07811240701PA01

PRODUCT DESIGNATION: Square Mini Wireless Speaker

BRAND NAME : N/A

MODEL NAME : SA210-1, 25722

APPLICANT: NINGBO GECEN PROMOTION & GIFT CO., LTD.

DATE OF ISSUE : Jul. 05, 2024

REPORT VERSION: V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd



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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jul. 05, 2024	Valid	Initial release



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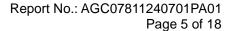


1. PRODUCT INFORMATON

General information			
Applicant	NINGBO GECEN PROMOTION & GIFT CO., LTD.		
Address B106-109, NO.535, QINGSHUIQIAO ROAD, HI-TECH ZONE CHINA			
Manufacturer	Ningbo Zhenhai Aisen Plastic Manufacturing Co., Ltd.		
Address	3/F of building 4#, No. 168 Qingqing Road, Jiaochuan Street, Zhenhai District, Ningbo City, Zhejiang		
Factory	Ningbo Zhenhai Aisen Plastic Manufacturing Co., Ltd.		
Address 3/F of building 4#, No. 168 Qingqing Road, Jiaochuan Street, Zhe District, Ningbo City, Zhejiang			
Product Designation	Square Mini Wireless Speaker		
Brand Name	N/A		
Test Model	SA210-1		
Series Model(s)	25722		
Difference Description	All the same except for the model name.		
Date of receipt of test item	Jul. 02, 2024		
Jul. 02, 2024 to Jul. 05, 2024			
Report Template	AGCRT-ER-PA/V1.0		
	Technical information		
Frequency Range	2400MHz-2500MHz		
Test Frequencies 2400MHz, 2410MHz, 2420MHz, 2430MHz, 2440MHz, 2450MHz 2470MHz, 2480MHz, 2490MHz, 2500MHz			
Antenna Type	PCB Antenna		
Dimensions	5mm*15mm		
Impedance	50 Ω		
Maximum test values	Gain: -0.854dBi; Efficiency: 13.384%; VSWR: 1.087:1		

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

Prepared By	Thea Huang	
	Thea Huang (Project Engineer)	Jul. 05, 2024
Reviewed By	Calin Lin	
	Calvin Liu (Reviewer)	Jul. 05, 2024
Approved By	Max Zhang	
	Max Zhang (Authorized Officer)	Jul. 05, 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	Sep. 21, 2023	Sep. 20, 2024
Test Software	ETS-Lindgren	EMQuest	Ver V1.12	N/A

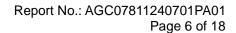
4. MEASUREMENT UNCERTAINTY

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 = ±1.5dB
- Uncertainty of Gain, Uc = ±0.8dB

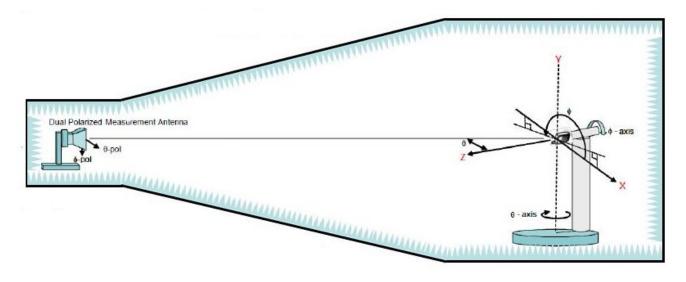
5. TEST SUMMARY LIST

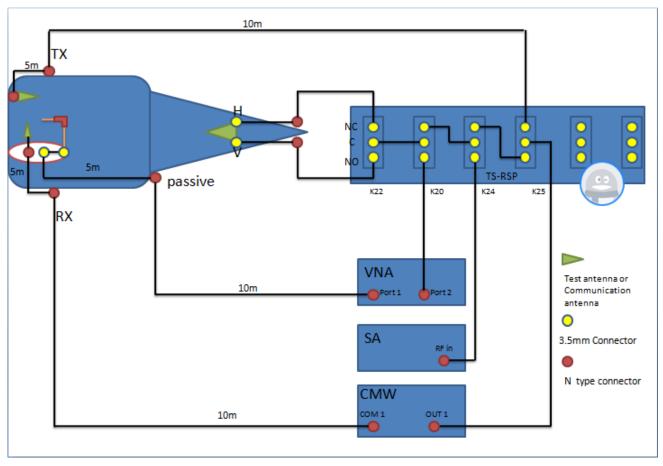
NO.	Test item	Remark
1	VSWR	
2	Gain and efficiency	
3	Radiation pattern	





6. TEST SETUP



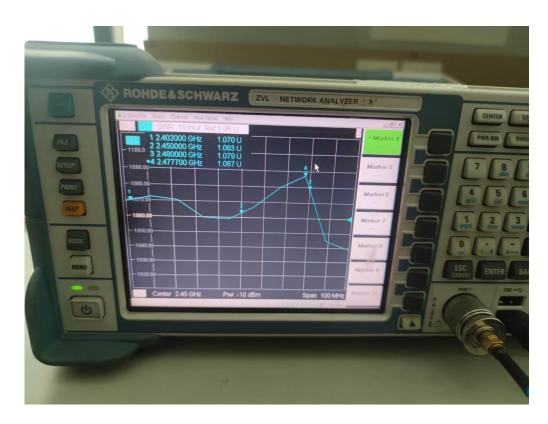


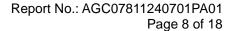


7. TEST RESULTS

7.1. **VSWR**

Frequency(MHz)	VSWR
2402	1.070:1
2450	1.063:1
2478	1.087:1
2480	1.079:1

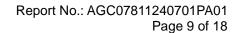






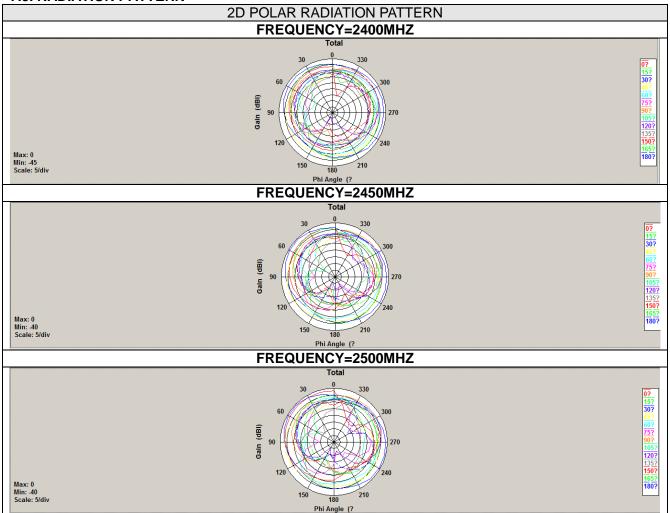
7.2. GAIN AND EFFICIENCY

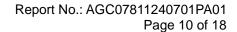
Frequency(MHz)	Efficiency(dB)	Efficiency(%)	Gain(dBi)
2400	-9.961	10.089	-1.851
2410	-9.829	10.402	-1.885
2420	-9.781	10.517	-1.980
2430	-9.533	11.136	-1.742
2440	-9.265	11.845	-1.413
2450	-9.030	12.504	-1.103
2460	-8.936	12.776	-0.954
2470	-8.978	12.652	-1.000
2480	-8.734	13.384	-0.854
2490	-8.782	13.238	-0.993
2500	-8.915	12.838.	-1.022



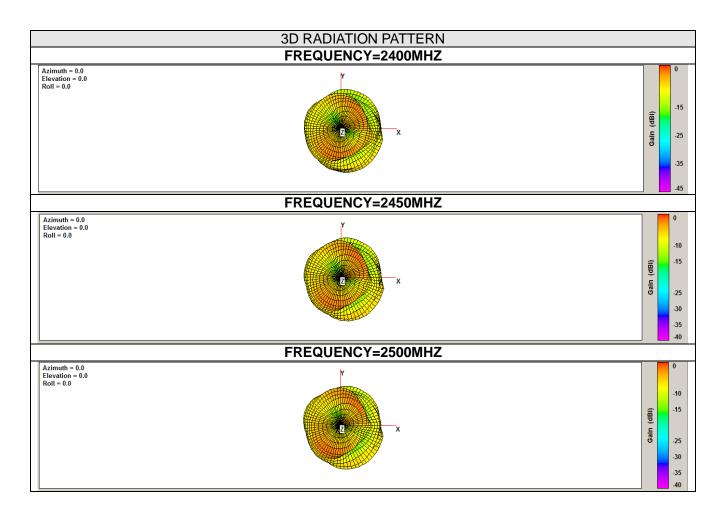


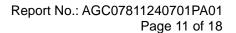
7.3. RADIATION PATTERN





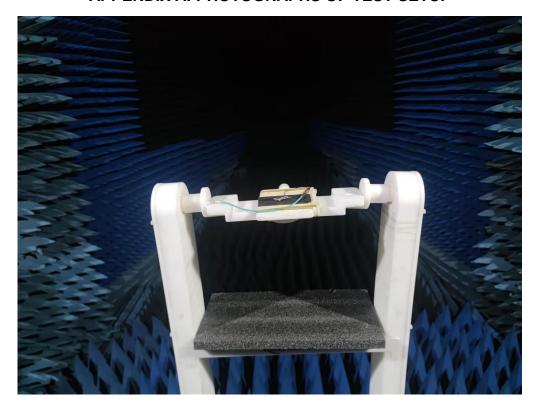


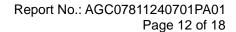






APPENDIX A: PHOTOGRAPHS OF TEST SETUP





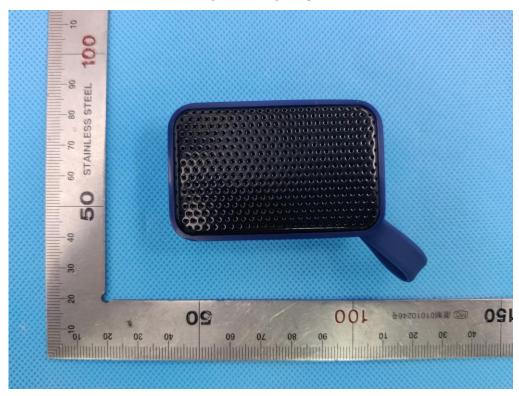


APPENDIX B: PHOTOGRAPHS OF EUT

WHOLE VIEW OF EUT



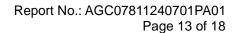
TOP VIEW OF EUT



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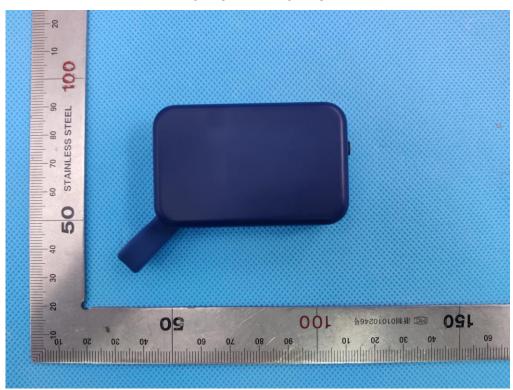
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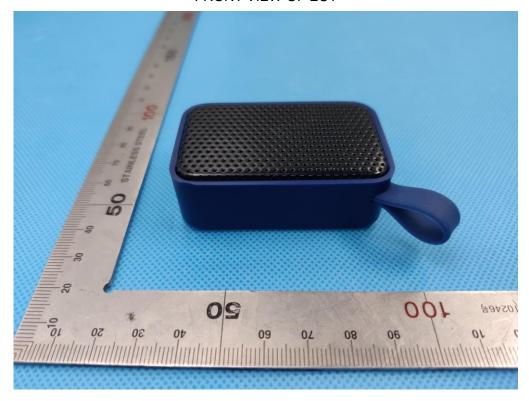


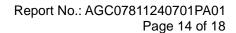


BOTTOM VIEW OF EUT



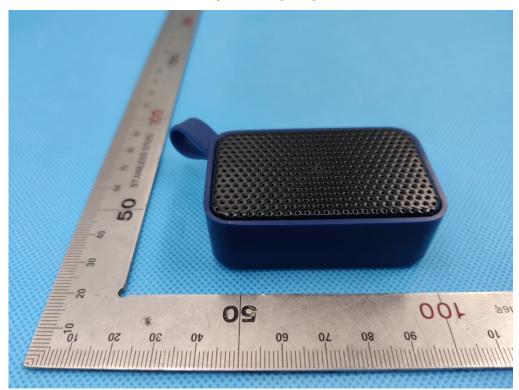
FRONT VIEW OF EUT





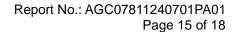


BACK VIEW OF EUT



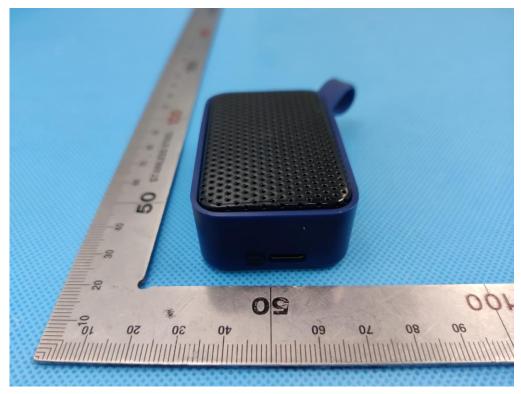
LEFT VIEW OF EUT





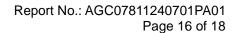


RIGHT VIEW OF EUT



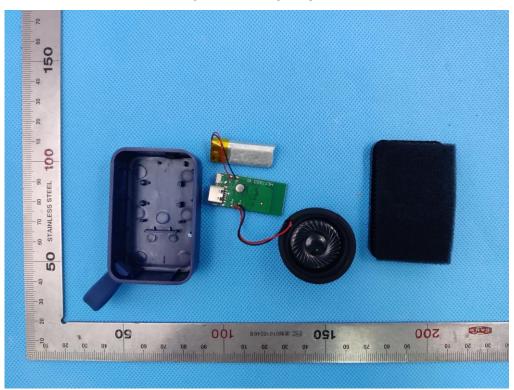
VIEW OF EUT(PORT)



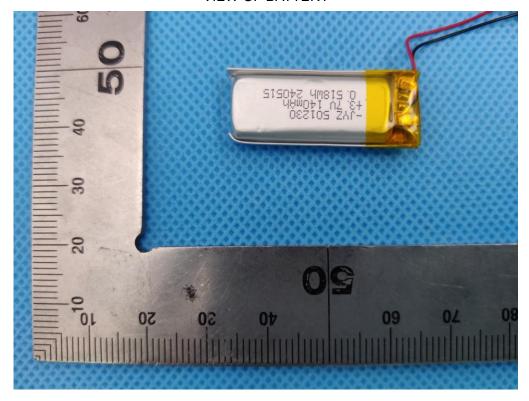


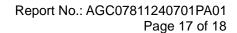


OPEN VIEW OF EUT



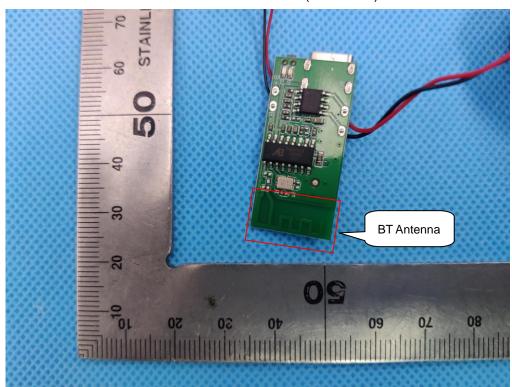
VIEW OF BATTERY



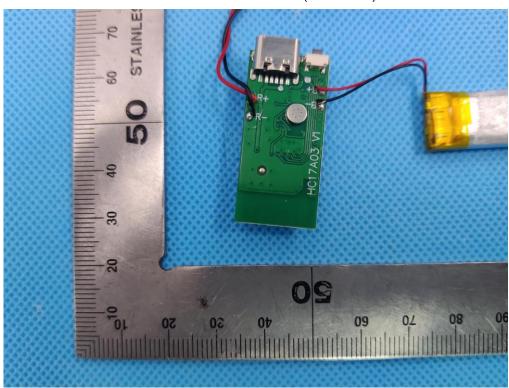


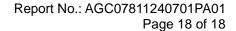


INTERNAL VIEW OF EUT (FIGURE 1)



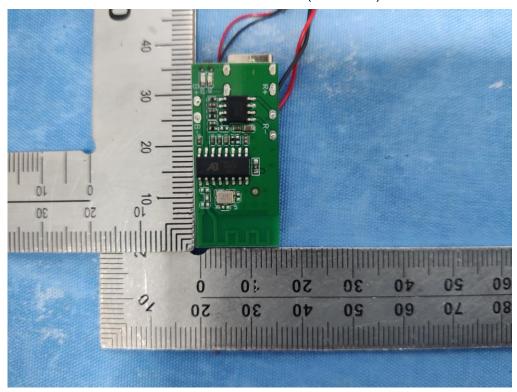
INTERNAL VIEW OF EUT (FIGURE 2)







INTERNAL VIEW OF EUT (FIGURE 3)



----END OF REPORT----



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