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# ANTENNA PASSIVE TEST REPORT

Application No. SUOA2503000044AT

**Applicant** ZheJiang E-cozy Electronic Technology Co.,Ltd Manufacturer ZheJiang E-cozy Electronic Technology Co.,Ltd

**Type Name** Contol board

Model No. N080-A

**Standards** ANSI/IEEE Std 149-2021

Date Initial Sample(s) Received 2025-04-01 2025-04-03 **Testing Start Date Testing Finish Date** 2025-04-03 **Report Issue Date** 2025-04-15

\*In the configuration tested, the EUT complied with the standards specified above.

Leno shi

Prepared by: Leno Shi/ Project

Manager

Caleb. Gas

Approved by: Caleb Gao/ **Technical Manager (Title)** 

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#### **Revision History**

Revision	Issue Date	Description
01	2025-04-15	The Final Version of Report

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Wireless Laboratory

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#### 1 General Information

#### 1.1 Testing Laboratory

Identification of the Responsible Test Laboratory

Test Lab	SGS-CSTC Standards Technical Service (Suzhou) Co., Ltd.		
Address	South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone		
Contact	Caleb Gao		
Tel.	+86 13621559335		
Fax	N/A		
E-mail	Caleb.Gao@sgs.com		

#### 1.2 Details of Applicant

Applicant's Name	ZheJiang E-cozy Electronic Technology Co.,Ltd			
Applicant's Address	Building 12, 355 Binhai 12 Branch Road Wenzhouwan Wenzhou city Zhejiang Province, China			
Contact	Kevin Lou			
Tel. +86 18857728388				
Fax	0577-88675669			
E-mail	kevin@cnecozy.com			

#### 1.3 Details of Manufacturer

Manufacturer's Name	ZheJiang E-cozy Electronic Technology Co.,Ltd				
Manufacturer's Address	Building 12, 355 Binhai 12 Branch Road Wenzhouwan Wenzhou city Zhejiang Province, China				
Contact	Kevin Lou				
Tel.	+86 18857728388				
Fax	0577-88675669				
E-mail	kevin@cnecozy.com				

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#### 1.4 Description of EUT(s)

Device Description:	Contol board		
Device type:	Contol board		
Device Manufacturer:	ZheJiang E-cozy Electronic Technology Co.,Ltd		
Device Model:	N080-A		
Hardware Version:	V1.0		
Software Version:	V1.0.24		
IMEI:	N/A		
Air Interface Supported	N/A		
Air Interface Tested Device Power Class:	N/A		
Dimension:	24.3mm*91mm*2.0mm		
Antenna type:	Onboard Antenna		
Configuration of Primary Mechanical Mode:	N/A		

#### 1.5 Test Procedure

Testing is performed according to ANSI/IEEE Std 149-2021.

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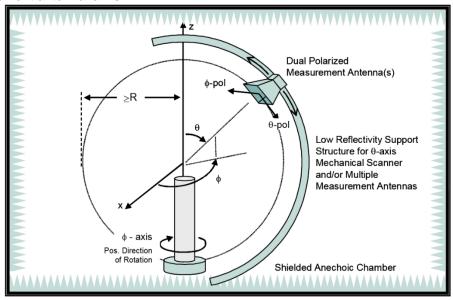
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#### **Measurement System Information**

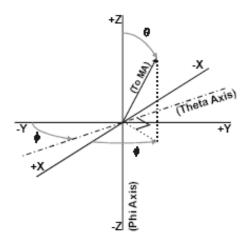
#### 2.1 **Test Configuration**

Conical-Cut method is used to measure the antenna 3D GAIN of EUT in OTA qualified anechoic chamber. Equipment Under Test (EUT) geometry centre vertical projection at the centre of platform, the distance from EUT to measurement antenna is 1.5m



#### 2.2 Test Measurement

Spherical coordinate system



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### 3 Equipment List

Inventory No.	Inventory No. Equipment		Model No.	Calibration Date	Calibration
				2000	Due Date
0.11411.04.00.04		500	ZNB8		
SUWI-01-06-01	Network Analyzer	R&S	S/N 103535	2025-01-16	2026-01-15
	Switch Control		OSP 130		
SUWI-02-06-01	System	R&S	S/N 100358	N/A	N/A
SUWI-02-07-01	Test Software	ETS-Lindgren L.P	EMQuest™ REV 1.14 Build 31654	N/A	N/A
SUWI-04-04-01	Full Anechoic Wireless Test chamber	ETS-Lindgren L.P	ETS-Lindgren AMS- 8923 CT000596-1149	2024-05-08	2027-05-07

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## **Measurement Uncertainty**

Item	617- 698MHz (dB)	699- 798MHz (dB)	814- 894MHz (dB)	1695- 1780MHz (dB)	1850- 2020MHz (dB)	2300- 2800MHz (dB)	3300- 3800MHz (dB)	5150- 5925MHz (dB)
Gain	0.75	0.9	0.74	0.84	0.83	0.9	0.84	0.86
Efficiency	0.75	0.9	0.74	0.84	0.83	0.9	0.84	0.86

Measurement Uncertainty (95% CONFIDENCE INTERVAL) K=2

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## 5 Test Result(s)

Frequency(MHz)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
2400	-4.87	32.57	3.27
2405	-5.20	30.22	2.90
2410	-5.20	30.20	2.90
2415	-5.10	30.90	2.94
2420	-5.15	30.52	2.79
2425	-5.14	30.61	2.78
2430	-4.98	31.76	2.90
2435	-4.99	31.70	2.89
2440	-5.40	28.86	2.53
2445	-5.19	30.29	2.73
2450	-4.99	31.69	2.97
2455	-5.32	29.39	2.71
2460	-5.32	29.41	2.83
2465	-5.42	28.72	2.68
2470	-5.31	29.45	2.74
2475	-5.03	31.42	3.03
2480	-5.25	29.85	2.70
2485	-5.82	26.16	2.11
2490	-5.70	26.90	1.98
2495	-5.92	25.60	1.70
2500	-6.16	24.19	1.48

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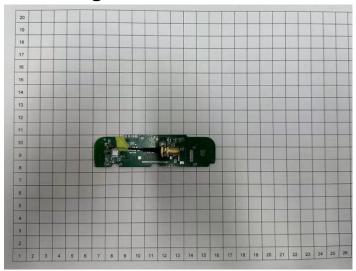


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## **EUT and Test Configuration**



**EUT** 



View of Free Space Configuration

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

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