

SUOA2504000058AT01 Report No.:

Rev.: 1 of 18 Page:

ANTENNA PASSIVE TEST REPORT

Application No. SUOA2504000058AT **Applicant** HCS (Suzhou) Limited Manufacturer HCS (Suzhou) Limited

Type Name Remote Control Model No. RC4782206/01RP

Standards ANSI/IEEE Std 149-2021

Date Initial Sample(s) Received 2025-04-11 **Testing Start Date** 2025-04-15 **Testing Finish Date** 2025-04-11 **Report Issue Date** 2025-05-23

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

Leno shi

Prepared by: Leno Shi/ Project

Manager

Caleb. Gao

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

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SGS-CSTC Standards Technical Services (Suzhou) Co. Ltd. Wireless Laborator



Report No.: SUOA2504000058AT01

Rev.: 01 Page: 2 of 18

Revision History

Revision Issue Date		Description
01	2025-05-23	The Final Version of Report

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Report No.: SUOA2504000058AT01

Rev.: 3 of 18 Page:

Table of Contents

R	evis	sion History	2
1	(General Information	4
	1.1	Testing Laboratory	4
	1.2	2 Details of Applicant	4
	1.3	B Details of Manufacturer	4
	1.4	Description of EUT(s)	5
	1.5		5
2		Measurement System Information	
	2.1	Test Configuration	6
	2.2	2 Test Measurement	6
3		Equipment List	
4	ı	Measurement Uncertainty	8
5		Test Result(s)	
6		Return Loss	.10
7		VSWR	
8		Stimulus	
9	;	3-D Antenna Pattern	.13
1()	EUT and Test Configuration	.16

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Report No.: SUOA2504000058AT01

Rev.: 01 Page: 4 of 18

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	HCS (Suzhou) Limited
Applicant's Address	19F-20F, Building B-3rd, No.209 Zhuyuan Road, New District, Suzhou, P.R. China
Contact	Viky
Tel.	0512-68786049
Fax	N/A
E-mail	viky.zhuo@omnidevices.com

1.3 Details of Manufacturer

Manufacturer's Name	HCS (Suzhou) Limited
Manufacturer's Address	19F-20F, Building B-3rd, No.209 Zhuyuan Road, New District, Suzhou, P.R. China
Contact	Viky
Tel.	0512-68786049
Fax	N/A
E-mail	viky.zhuo@omnidevices.com

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Wireless Laboratory

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Report No.: SUOA2504000058AT01

Rev.: 01 Page: **5 of 18**

1.4 Description of EUT(s)

Device Description:	Remote Control
Device type:	Remote Control
Device Manufacturer:	HCS (Suzhou) Limited
Device Model:	RC4782206/01RP
Derived Model	RC4782207/01RP,RC478XXXX/XXRP,RC478XXXX/XXBRP ('X'=0-9.'B' means packed with battery)
Hardware Version:	V2.0
Software Version:	N/A
IMEI:	N/A
Air Interface Supported	N/A
Air Interface Tested Device Power Class:	N/A
Antenna Dimension:	25.86mm*1mm
Antenna type:	PCB 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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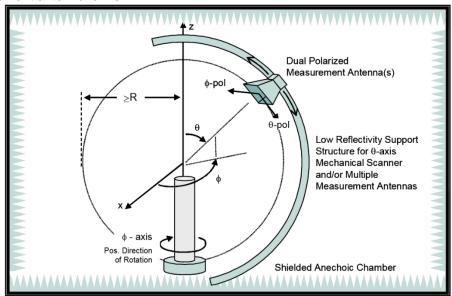
Report No.: SUOA2504000058AT01

Rev.: 01 Page: **6 of 18**

2 Measurement System Information

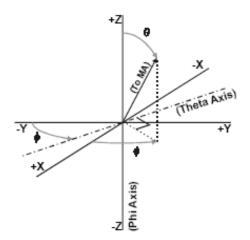
2.1 Test Configuration

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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Report No.: SUOA2504000058AT01

Rev.: 7 of 18 Page:

Equipment List

Inventory No.	Equipment	Manufacturer	Model No.	Calibration	Calibration
	_qp		1100011101	Date	Due Date
			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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Report No.: SUOA2504000058AT01

Rev.: 8 of 18 Page:

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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Report No.: SUOA2504000058AT01

Rev.: 01
Page: 9 of 18

5 Test Result(s)

Frequency(MHz)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
2400	-3.86	41.13	3.41
2405	-4.10	38.94	3.27
2410	-3.89	40.80	3.45
2415	-4.00	39.83	3.41
2420	-4.00	39.84	3.37
2425	-3.86	41.16	3.53
2430	-3.96	40.14	3.57
2435	-3.91	40.65	3.60
2440	-3.87	41.02	3.83
2445	-4.04	39.41	3.60
2450	-4.25	37.55	3.37
2455	-4.27	37.41	3.37
2460	-4.15	38.43	3.46
2465	-4.22	37.86	3.35
2470	-4.30	37.16	3.17
2475	-4.63	34.46	2.71
2480	-4.55	35.06	2.85
2485	-4.64	34.35	2.68
2490	-4.45	35.89	2.96
2495	-4.32	36.98	3.07
2500	-4.48	35.65	2.83

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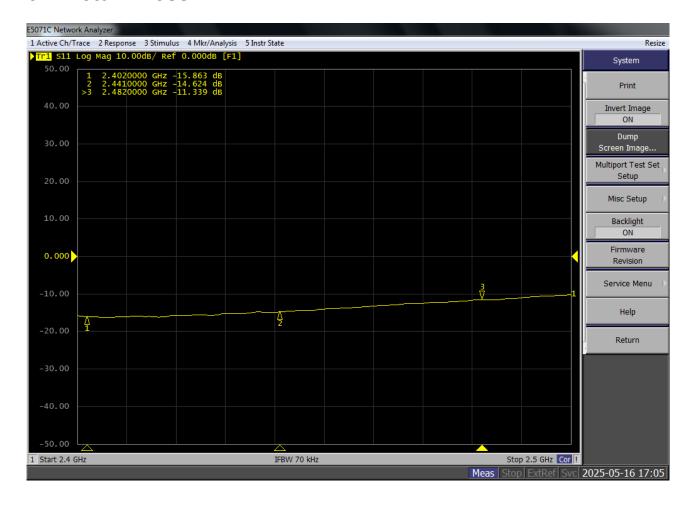


Report No.: SUOA2504000058AT01

Rev.:

10 of 18 Page:

Return Loss



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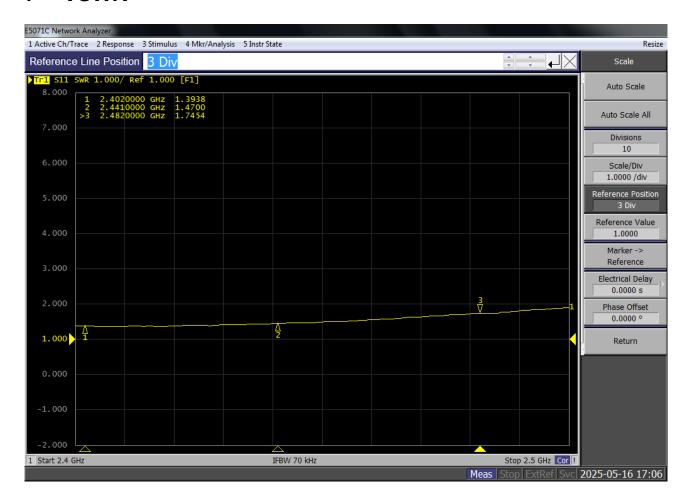


Report No.: SUOA2504000058AT01

Rev.:

Page: 11 of 18

VSWR



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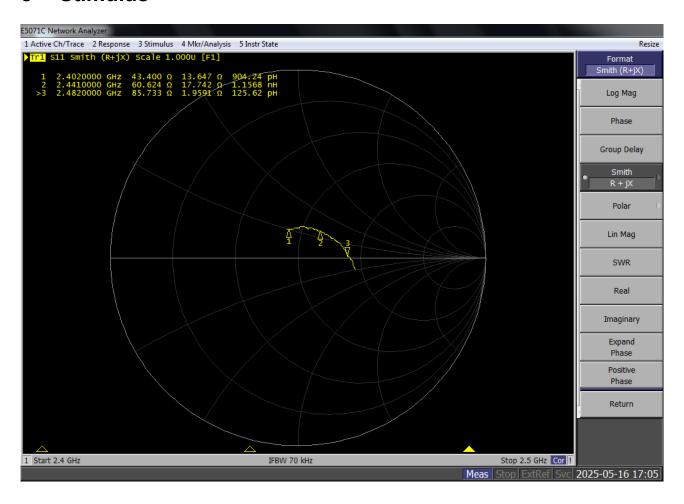


Report No.: SUOA2504000058AT01

Rev.:

Page: 12 of 18

8 **Stimulus**



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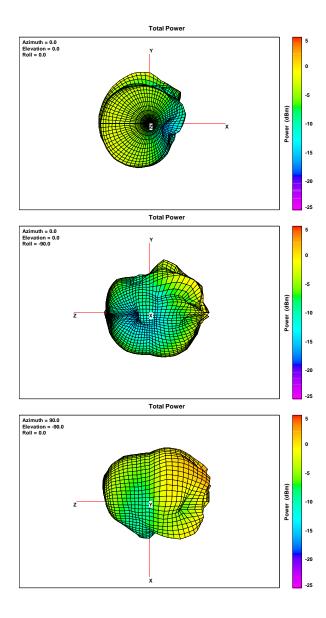
Report No.: SUOA2504000058AT01

Rev.: 01

Page: 13 of 18

9 3-D Antenna Pattern

2400MHz



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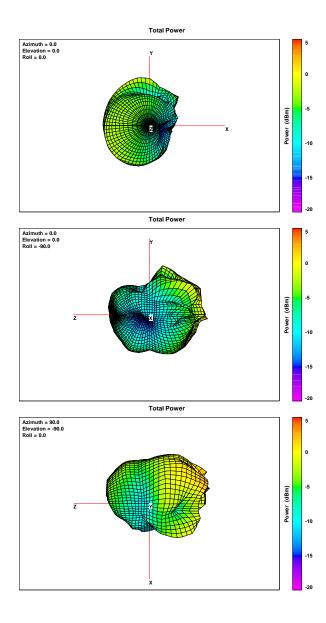


Report No.: SUOA2504000058AT01

Rev.:

Page: 14 of 18

2450MHz



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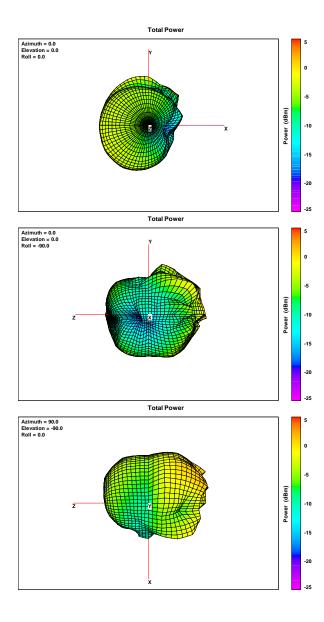


Report No.: SUOA2504000058AT01

Rev.:

Page: 15 of 18

2500MHz



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Rev.:

Page: 16 of 18

10 EUT and Test Configuration



EUT



Test Setup

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Rev.: Page: 17 of 18



View of Free Space Configuration

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SUOA2504000058AT01 Report No.:

Rev.:

Page: 18 of 18



HCS (Suzhou) Limited

25-DOI-RC478

(Report no.)

DECLARATION OF IDENTITY

We, HCS (Suzhou) Limited

19F-20F, Building B-3rd, No.209 Zhuyuan Road, New District, Suzhou, P.R.China

declare under our responsibility that the following Remote controls products are identical to electrical structure, mechanical structure. There are cosmetic differences (color /painting/printed). Basic software architecture remains unchanged.

If the base model passes all required test, it is deemed that the derived model declared below passes similar test.

Certifed Base Model : RC4782206/01RP

: RC4782207/01RP.RC478XXXX/XXRP. Derived Model

RC478XXXX/XXBRP

('X'=0-9.'B' means packed with battery)

Suzhou, 03-Apr 2025

(place, date)

Senior product compliance Engineer (signature, name and function)

Derivative model declaration

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