

TEST REPORT

Application No.: KSCR2401000198AT
FCC ID: 2AGOFRC487A
Applicant: HCS (Suzhou) Limited
Address of Applicant: 19F-20F, Building B-3rd, No.209 Zhuyuan Road, New District, Suzhou, P.R.China
Manufacturer: HCS (Suzhou) Limited
Address of Manufacturer: 19F-20F, Building B-3rd, No.209 Zhuyuan Road, New District, Suzhou, P.R.China

Equipment Under Test (EUT):

EUT Name: Remote control
Model No.: RC4873401/01RP,RC4873402/01RP,RC4873403/01RP, RC4873404/01RP,RC4873405/01RP,RC4873406/01RP, RC4873407/01RP,RC4873408/01RP,RC4873409/01RP, RC4873201/01RP,RC4873202/01RP,RC4873203/01RP, RC4873204/01RP,RC4873205/01RP,RC487XXX/XXRP, RC487XXX/XXBRP ("X"=0-9,"B" means packed with battery) ♣

♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.

Standard(s) : 47 CFR Part 15, Subpart B
Date of Receipt: 2024-01-31
Date of Test: 2024-04-20 to 2024-04-22
Date of Issue: 2024-04-24

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



Compliance Certification Services (Kunshan) Inc.

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<i>Revision Record</i>			
<i>Version</i>	<i>Description</i>	<i>Date</i>	<i>Remark</i>
00	Original	2024-04-24	/

Authorized for issue by:			
Tested By		<i>Damon Zhou</i>	
		<u>Damon_Zhou/Project Engineer</u>	
Approved By		<i>Terry Hou</i>	
		<u>Terry Hou /Reviewer</u>	

2 Test Summary

Emission Part				
Item	Standard	Method	Requirement	Result
Radiated Emissions (30MHz-1GHz)	47 CFR Part 15, Subpart B	ANSI C63.4:2014	15.109(b);Class B	Pass
Radiated Emissions (Above 1GHz)		ANSI C63.4:2014	15.109(g);Class B	Pass

Declaration of EUT Family Grouping:

Note: There are series models mentioned in this report and they are the identical in electrical and electronic characters. Only the model RC4873401/01RP, RC4873201/01RP were tested since their differences were the model number, color and appearance.

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 3V
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4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
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The EUT has been tested as an independent unit.

4.3 Measurement Uncertainty & Decision Rule

Measurement Uncertainty:

No.	Item	Measurement Uncertainty (U_{LAB}) *	U_{CISPR}
1	Conducted Emission at mains port using AMN	2.4dB (9kHz to 150kHz)	3.8dB (9kHz to 150kHz)
		2.2dB (150kHz to 30MHz)	3.4dB (150kHz to 30MHz)
2	Conducted Emission at telecommunication port using AAN	4.0 dB (150kHz to 30MHz)	5.0dB (150kHz to 30MHz)
3	Radiated Power	3.2dB	4.5dB (30MHz to 300MHz)
4	Radiated Emission (10m)	4.1 dB	6.3dB (30MHz-1GHz)
5	Radiated Emission (3m)	4.6 dB (30MHz-1GHz)	6.3dB (30MHz-1GHz)
		5.0dB (1GHz-6GHz)	5.2dB (1GHz-6GHz)
		5.2dB (6GHz-18GHz)	5.5dB (6GHz-18GHz)
		5.3dB (18GHz-40GHz)	N/A

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Decision Rule:

- CISPR 16-4-2 for emission measurements is as below described.
Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

U_{LAB} less than U_{CISPR} , therefore:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit.
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.
- For immunity testing no decision rule is applicable.

4.4 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

- 1.SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
- 2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).
3. Sample source: sent by customer.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• **A2LA**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

• **FCC**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

• **ISED**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

• **VCCI**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Radiated Emissions (30MHz-1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
EMI Test Receiver	R&S	ESCI	KS301196	08/24/2023	08/23/2024
Antenna	TESEQ	CBL 6112D	KUS1806E006	03/23/2024	03/22/2025
Spectrum Analyzer	R&S	FSU26	KS301206	03/19/2024	03/18/2025
Signal Analyzer	R&S	FSV40	KUS1806E003	08/24/2023	08/23/2024
Software	Faratronic	EZ_EMV v 3A1	N/A	N/A	N/A

Radiated Emissions (Above 1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Spectrum Analyzer	R&S	FSU26	KS301206	03/19/2024	03/18/2025
Preamplifier	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-2	01/15/2024	01/14/2025
Horn-antenna	SCHWARZBECK	BBHA9120D	KS301079	03/19/2024	03/18/2025
Antenna	SCHAFFNER	CBL6143	CZ301091	10/25/2022	10/24/2024
Software	Faratronic	EZ_EMV-v 3A1	N/A	N/A	N/A

General used equipment					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Digital Pressure Meter	Mengde	DYM3	CZ750023	01/15/2024	01/14/2025
Temperature & Humidity Recorder	JDRK	RS-WS-N01-6J	KSEM024-1 KSEM024-2 KSEM024-3 KSEM024-6 KSEM024-7 KSEM024--8 KSEM024--9	03/19/2024	03/18/2025

6 Emission Test Results

6.1 Radiated Emissions (30MHz-1GHz)

Test Requirement: 47 CFR Part 15, Subpart B
 Test Method: ANSI C63.4:2014

Limit:

Class B

Test Distance: 3m

30MHz -88MHz 40.0(dBμV/m) quasi-peak
 88MHz-216MHz 43.5(dBμV/m) quasi-peak
 216MHz-960MHz 46.0(dBμV/m) quasi-peak
 960MHz-1000MHz 54.0(dBμV/m) quasi-peak

Detector: Peak for pre-scan (120kHz resolution bandwidth) 30MHz to1000MHz

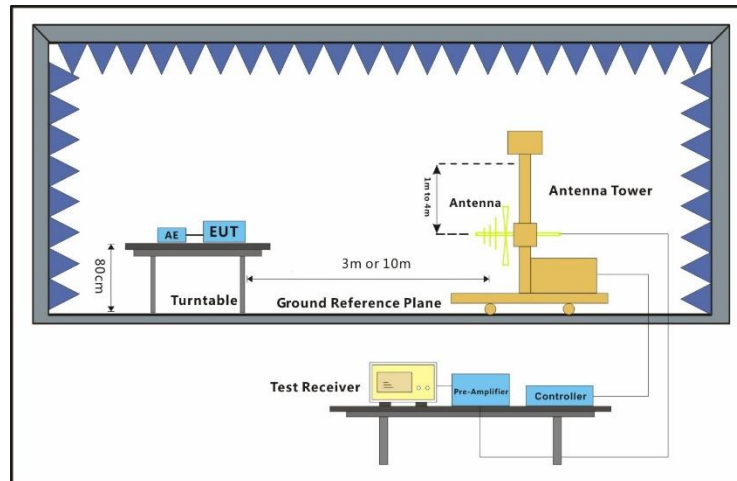
6.1.1 E.U.T. Operation

Operating Environment:
 Temperature: 22.7 °C Humidity: 56.1 % RH Atmospheric Pressure: 1010 mbar

6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Working mode_Keep EUT (RC4873201/01RP) working normally.
Final test	01	Working mode_Keep EUT (RC4873401/01RP) working normally.

6.1.3 Test Setup Diagram

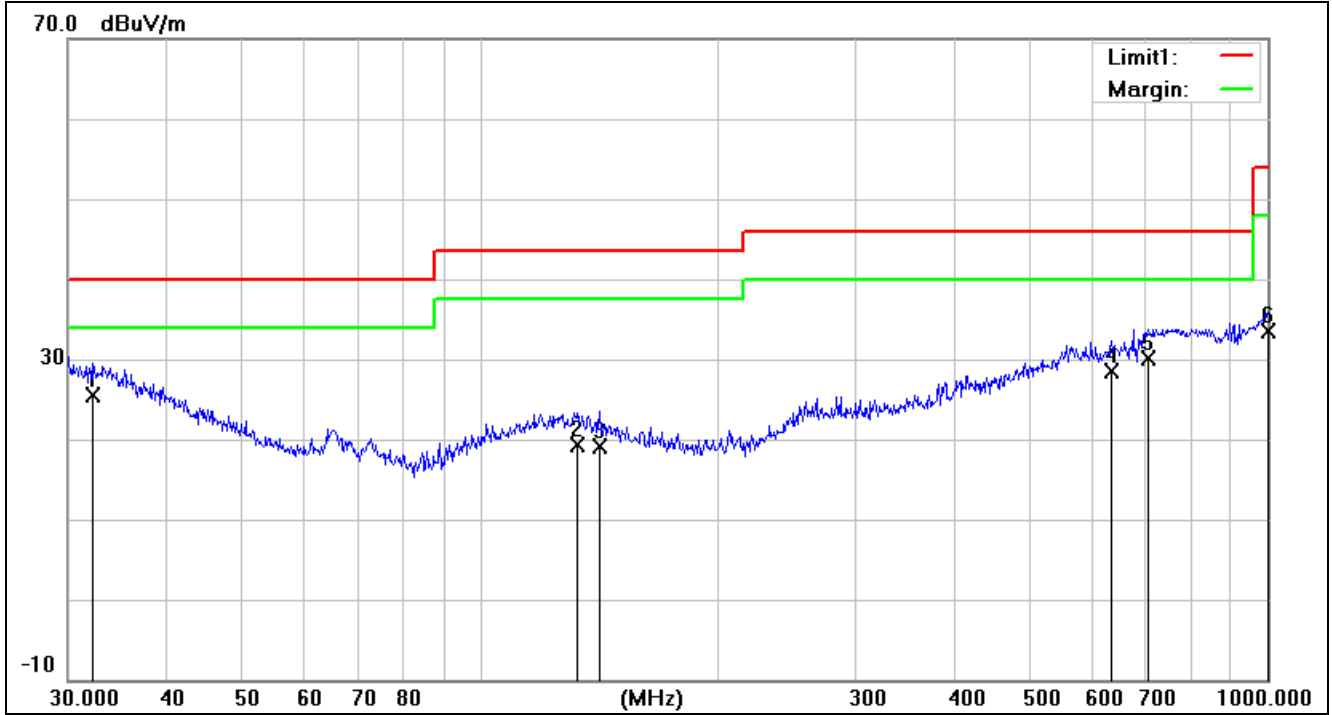


6.1.4 Measurement Procedure and Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Test Mode: 00; Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	32.2925	0.30	25.18	25.48	40.00	-14.52	200	270	QP
2	133.1511	0.10	19.27	19.37	43.50	-24.13	100	359	QP
3	141.8262	0.74	18.40	19.14	43.50	-24.36	100	355	QP
4	633.9073	0.72	27.74	28.46	46.00	-17.54	200	359	QP
5	706.6999	2.13	27.91	30.04	46.00	-15.96	100	157	QP
6	1000.0000	3.43	30.09	33.52	54.00	-20.48	100	314	QP

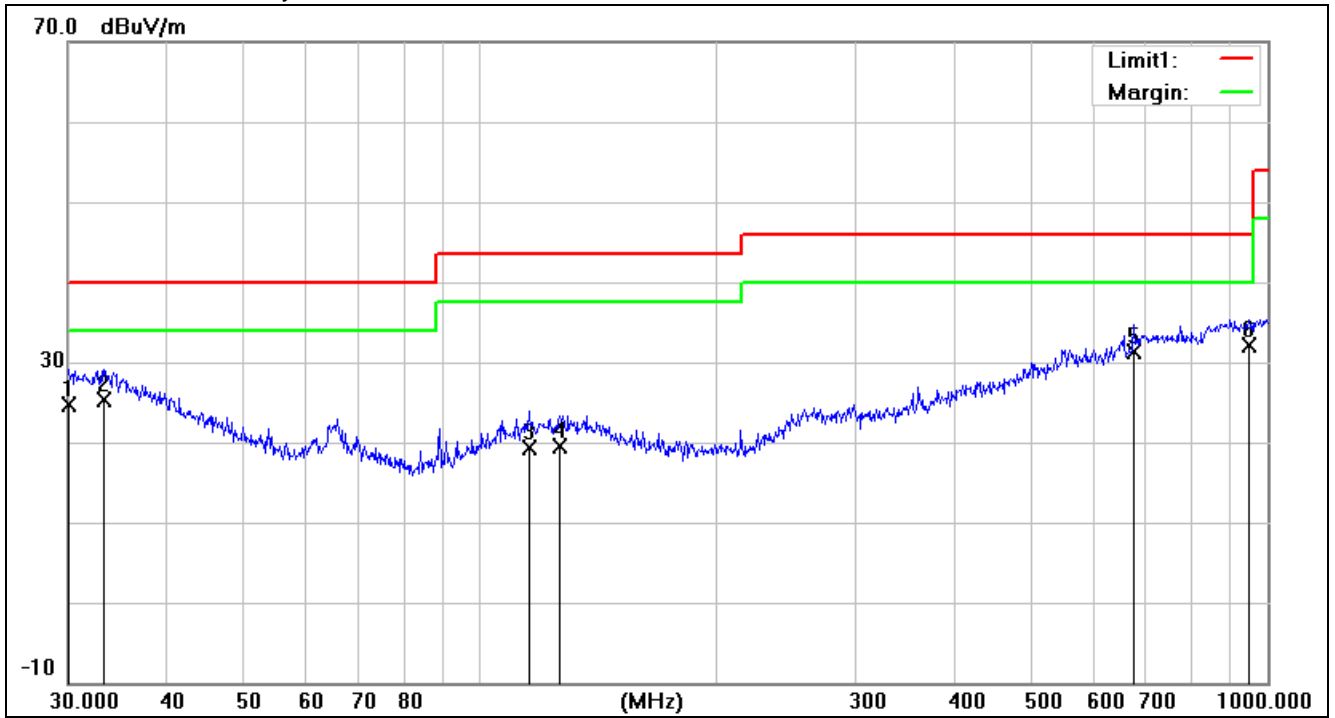
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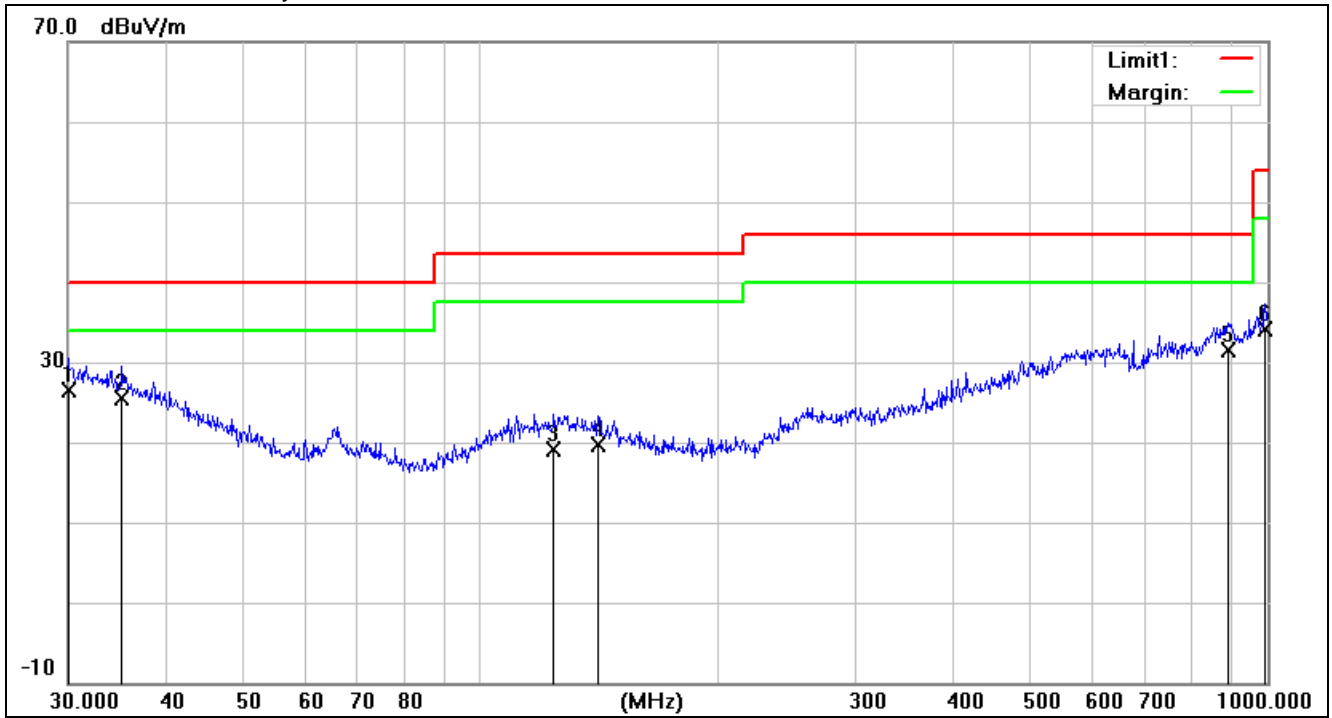
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Test Mode: 00; Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	30.1054	-0.61	25.31	24.70	40.00	-15.30	100	177	QP
2	33.3280	0.18	25.03	25.21	40.00	-14.79	100	46	QP
3	115.3205	0.28	19.10	19.38	43.50	-24.12	100	107	QP
4	126.3286	0.06	19.49	19.55	43.50	-23.95	200	76	QP
5	675.2080	28.97	2.43	31.40	46.00	-14.60	100	154	QP
6	948.7610	29.50	2.56	32.06	46.00	-13.94	100	326	QP

Test Mode: 01; Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	30.0000	1.22	25.33	26.55	40.00	-13.45	100	0	QP
2	35.1278	0.94	24.60	25.54	40.00	-14.46	100	223	QP
3	124.1330	-0.45	19.48	19.03	43.50	-24.47	200	40	QP
4	141.3298	1.33	18.44	19.77	43.50	-23.73	100	35	QP
5	890.7278	1.90	29.57	31.47	46.00	-14.53	100	147	QP
6	993.0114	3.81	30.25	34.06	54.00	-19.94	100	63	QP

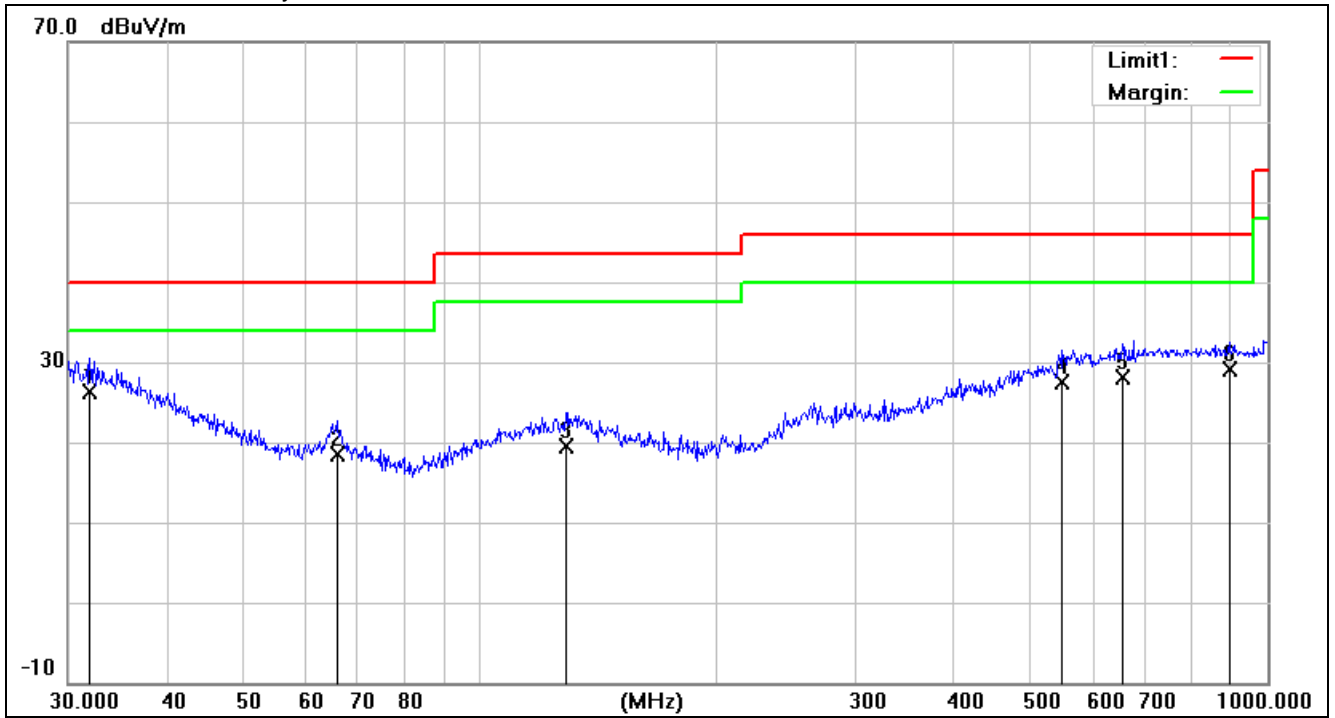
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Test Mode: 01; Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	31.9546	1.16	25.22	26.38	40.00	-13.62	100	84	QP
2	65.8031	3.27	15.15	18.42	40.00	-21.58	200	24	QP
3	128.5630	0.13	19.46	19.59	43.50	-23.91	100	305	QP
4	549.0195	0.20	27.26	27.46	46.00	-18.54	100	336	QP
5	654.2318	0.58	27.53	28.11	46.00	-17.89	100	191	QP
6	893.8567	-0.54	29.58	29.04	46.00	-16.96	100	41	QP

6.2 Radiated Emissions (Above 1GHz)

Test Requirement: 47 CFR Part 15, Subpart B

Test Method: ANSI C63.4:2014

Limit:

Class B

Above 1GHz 74(dBµV/m) peak, 54(dBµV/m) average

Detector: Peak for pre-scan (1000kHz resolution bandwidth) 1000M to18000MHz

6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24 °C

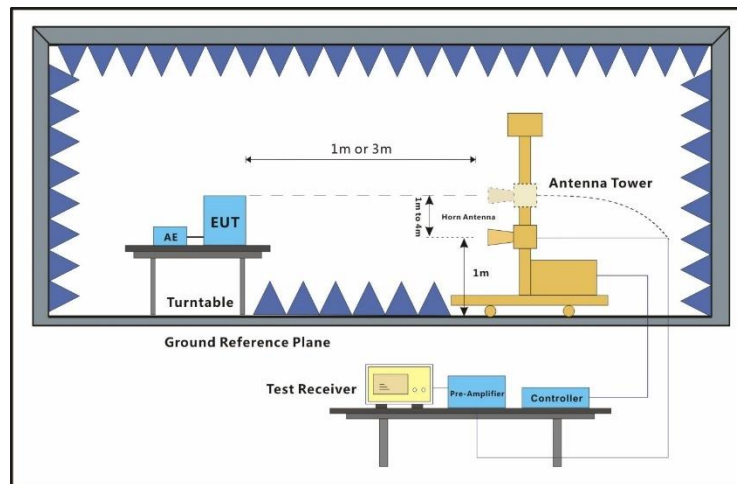
Humidity: 48 % RH

Atmospheric Pressure: 1010 mbar

6.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Working mode_Keep EUT (RC4873201/01RP) working normally.
Final test	01	Working mode_Keep EUT (RC4873401/01RP) working normally.

6.2.3 Test Setup Diagram



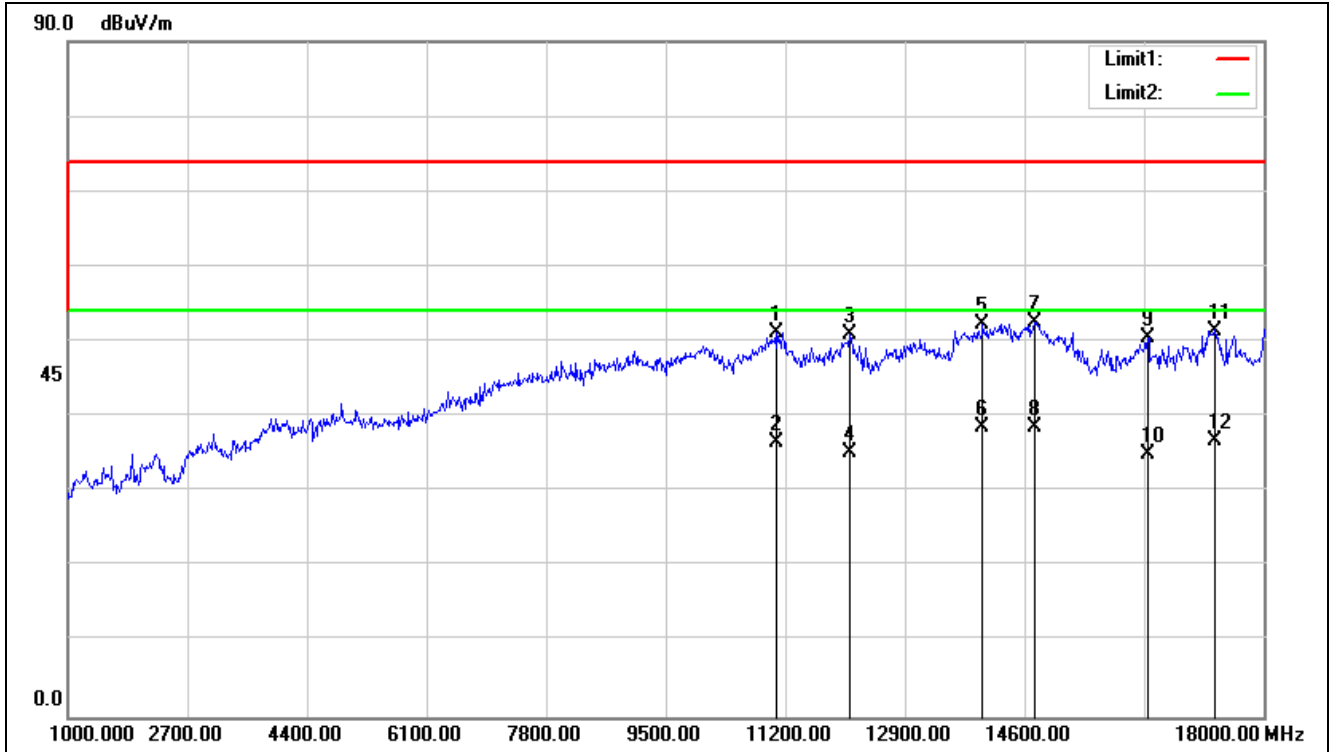
6.2.4 Measurement Procedure and Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities.

The red line show in graphic is the limit in standard used in this section.

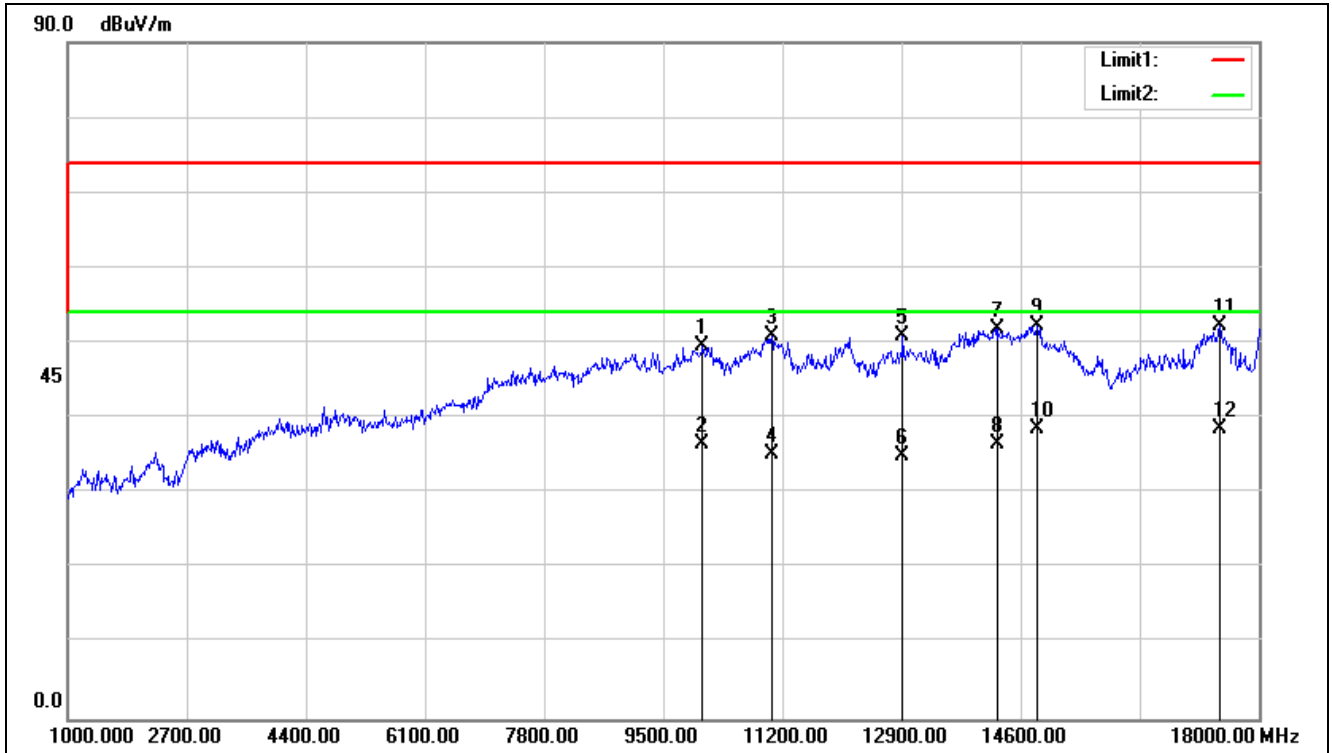
Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Test Mode: 00; Polarity: Horizontal



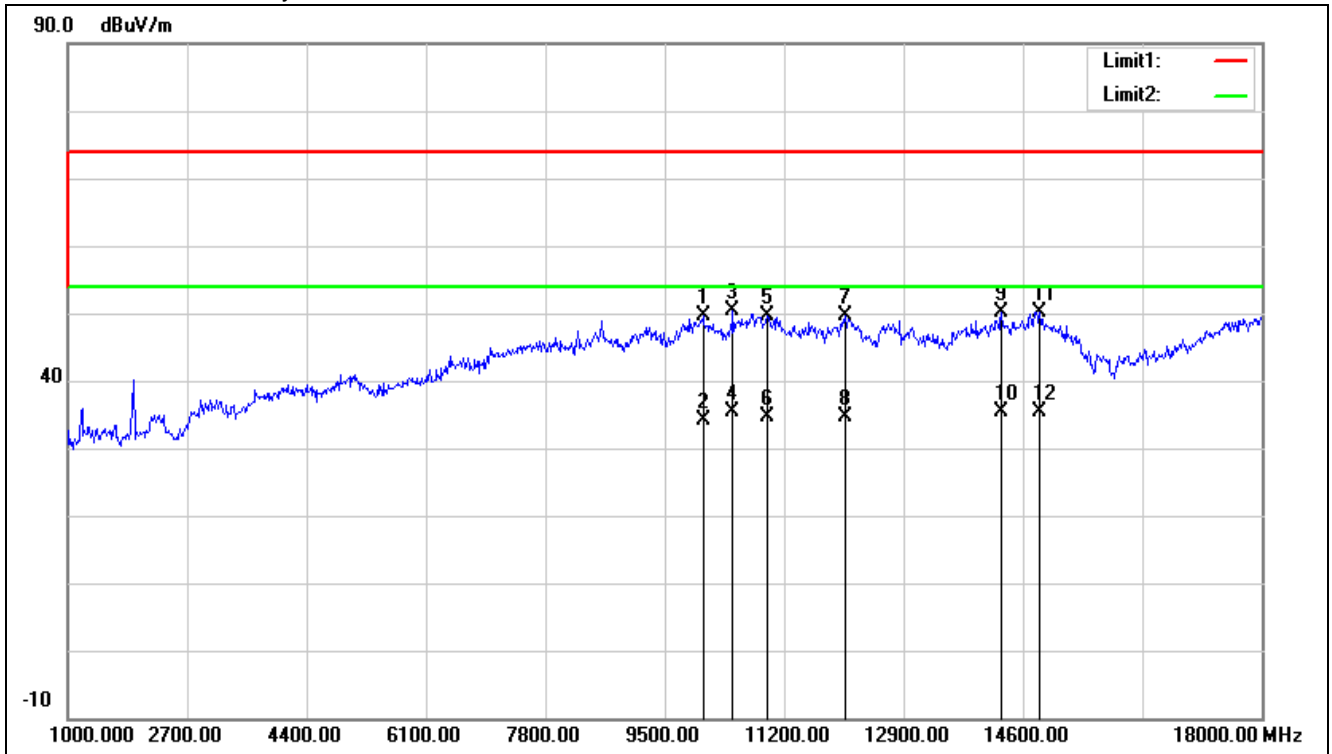
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	11064.000	52.81	-1.56	51.25	74.00	-22.75	100	0	peak
2	11064.000	38.01	-1.56	36.45	54.00	-17.55	100	0	AVG
3	12118.000	53.26	-2.40	50.86	74.00	-23.14	100	286	peak
4	12118.000	37.55	-2.40	35.15	54.00	-18.85	100	286	AVG
5	14005.000	51.51	0.91	52.42	74.00	-21.58	100	244	peak
6	14005.000	37.75	0.91	38.66	54.00	-15.34	100	244	AVG
7	14736.000	50.79	1.83	52.62	74.00	-21.38	100	148	peak
8	14736.000	36.77	1.83	38.60	54.00	-15.40	100	148	AVG
9	16351.000	50.54	0.02	50.56	74.00	-23.44	200	313	peak
10	16351.000	35.07	0.02	35.09	54.00	-18.91	200	313	AVG
11	17303.000	46.26	5.26	51.52	74.00	-22.48	100	77	peak
12	17303.000	31.56	5.26	36.82	54.00	-17.18	100	77	AVG

Test Mode: 00; Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	10061.000	52.89	-3.17	49.72	74.00	-24.28	100	360	peak
2	10061.000	39.71	-3.17	36.54	54.00	-17.46	100	360	AVG
3	11047.000	52.33	-1.44	50.89	74.00	-23.11	100	360	peak
4	11047.000	36.59	-1.44	35.15	54.00	-18.85	100	360	AVG
5	12917.000	52.58	-1.70	50.88	74.00	-23.12	200	274	peak
6	12917.000	36.76	-1.70	35.06	54.00	-18.94	200	274	AVG
7	14277.000	50.39	1.55	51.94	74.00	-22.06	100	137	peak
8	14277.000	34.90	1.55	36.45	54.00	-17.55	100	137	AVG
9	14838.000	50.57	1.73	52.30	74.00	-21.70	100	360	peak
10	14838.000	36.93	1.73	38.66	54.00	-15.34	100	360	AVG
11	17439.000	46.30	6.09	52.39	74.00	-21.61	100	248	peak
12	17439.000	32.43	6.09	38.52	54.00	-15.48	100	248	AVG

Test Mode: 01; Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	10044.000	52.75	-3.13	49.62	74.00	-24.38	200	30	peak
2	10044.000	37.38	-3.13	34.25	54.00	-19.75	200	30	AVG
3	10469.000	53.45	-3.19	50.26	74.00	-23.74	100	359	peak
4	10469.000	38.65	-3.19	35.46	54.00	-18.54	100	359	AVG
5	10962.000	50.76	-1.23	49.53	74.00	-24.47	100	92	peak
6	10962.000	35.92	-1.23	34.69	54.00	-19.31	100	92	AVG
7	12067.000	51.87	-2.36	49.51	74.00	-24.49	200	258	peak
8	12067.000	37.06	-2.36	34.70	54.00	-19.30	200	258	AVG
9	14294.000	48.51	1.60	50.11	74.00	-23.89	200	264	peak
10	14294.000	33.89	1.60	35.49	54.00	-18.51	200	264	AVG
11	14838.000	48.51	1.73	50.24	74.00	-23.76	100	359	peak
12	14838.000	33.77	1.73	35.50	54.00	-18.50	100	359	AVG

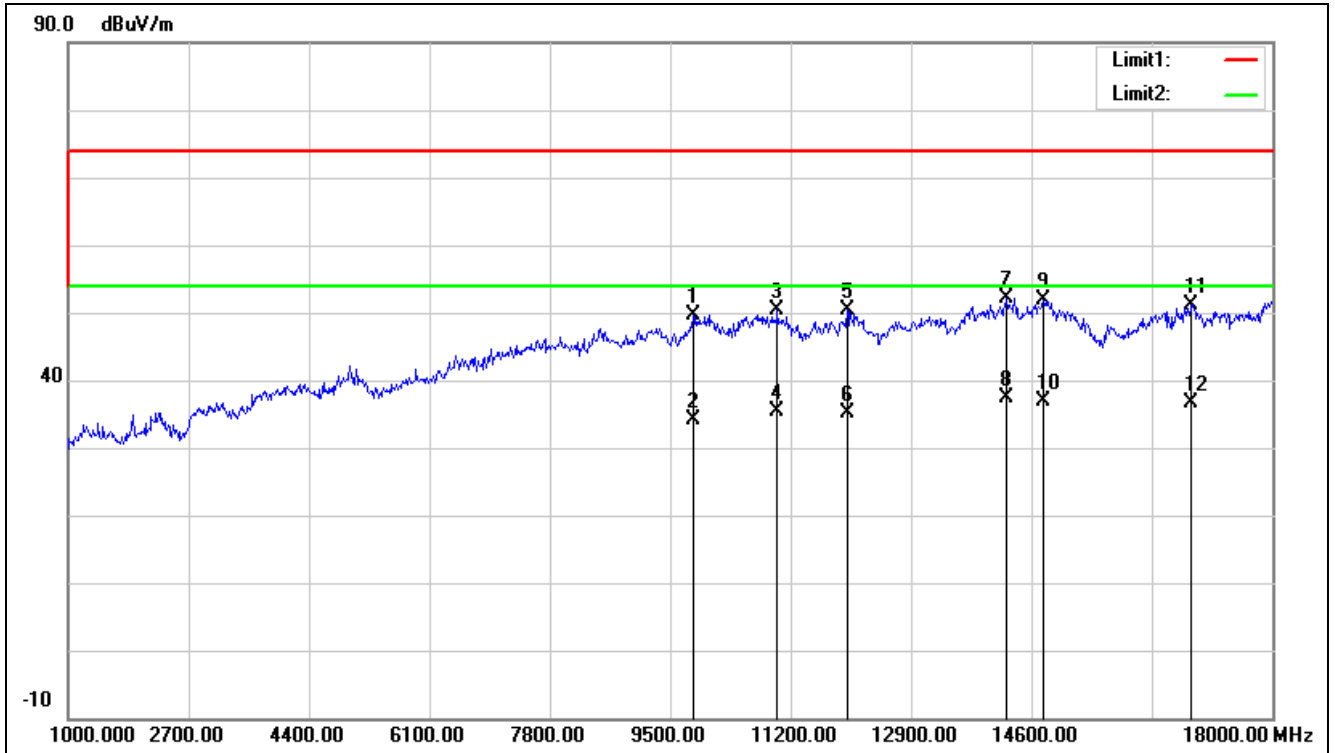
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Test Mode: 01; Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	9823.000	53.15	-3.40	49.75	74.00	-24.25	100	59	peak
2	9823.000	37.62	-3.40	34.22	54.00	-19.78	100	59	AVG
3	11013.000	51.63	-1.25	50.38	74.00	-23.62	200	100	peak
4	11013.000	36.74	-1.25	35.49	54.00	-18.51	200	100	AVG
5	11999.000	52.82	-2.34	50.48	74.00	-23.52	200	312	peak
6	11999.000	37.50	-2.34	35.16	54.00	-18.84	200	312	AVG
7	14243.000	50.67	1.47	52.14	74.00	-21.86	100	259	peak
8	14243.000	36.03	1.47	37.50	54.00	-16.50	100	259	AVG
9	14770.000	50.08	1.80	51.88	74.00	-22.12	100	13	peak
10	14770.000	35.00	1.80	36.80	54.00	-17.20	100	13	AVG
11	16861.000	48.12	3.05	51.17	74.00	-22.83	200	157	peak
12	16861.000	33.54	3.05	36.59	54.00	-17.41	200	157	AVG

7 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR240100019803

8 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for KSCR2401000198AT

- End of the Report -