TEST REPORT

Product Name : RC CINN ON ROLLERSKATE
Model Number : ET-0879
FCC ID : 2ADM5-ET-0879

Prepared for	:	Zeeva Int Ltd
Address	:	1007B-8, 1012 & 15, 10th Fl, Exchange Tower, 33 Wang Chiu Road, Kowloon Bay, Hong Kong
Prepared by	:	EMTEK (SHENZHEN) CO., LTD.
Address	:	Building 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China TEL:(0755) 26954280 FAX:(0755) 26954282

Report Number	:	ENS2505160048W00601R
Date of sample receipt	:	Apr 25, 2025
Date(s) of Tests	:	Apr 25, 2025 to May 14, 2025
Date of issue	:	May 15, 2025

TEST REPORT DESCRIPTION

Applicant	:	Zeeva Int Ltd
Address	:	1007B-8, 1012 & 15, 10th Fl, Exchange Tower, 33 Wang Chiu Road, Kowloon Bay, Hong Kong
EUT	:	RC CINN ON ROLLERSKATE
Model Name	:	ET-0879
Trademark	:	N/A

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
FCC 47 CFR Part 2, Subpart J FCC 47 CFR Part 15, Subpart C	**PASS**

The above equipment was tested by EMTEK (SHENZHEN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10-2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15.227.

Date of Test : Apr 25, 2025 to May 14, 2025

Prepared by : Una Yu /Editor

Reviewer : Joe Xia/Supervisor

Approve & Authorized Signer : Lisa Wang/Manager

Modified History

Version	Report No.	Revision Date	Summary
	ENS2505160048W00601R	/	Original Report

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1. GENERAL INFORMATION

1.1 Product Description

Characteristics	Description
Product Name	RC CINN ON ROLLERSKATE
Model number	ET-0879
SKU#	9203940
UPC#	1922344885831
Color	WHITE MULTI
Power Supply	DC 3V from Battery
Operating Frequency Range	49.86MHz
Modulation	ASK
Number of Channels	1 channel
Max Field Strength	56.59 dBuV@3m
Antenna Gain:	3 dBi
Antenna Type	Hose antenna
Temperature Range:	-10°C ~ +60°C
Remark: The EUT continues to transmit while button is being pressed. Modulation by IC, and type is pulse modulation.	

Note: *for more details, please refer to the User's manual of the EUT.*

2. System Test Configuration

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The Transmitter was operated in the normal operating mode. the Tx frequency was fixed which was for the purpose of the measurements.

2.3 Test Procedure

2.3.1 Conducted Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the **frequency range between 0.15 MHz and 30MHz** using **CISPR Quasi-Peak and average detector mode**.

2.3.2 Radiated Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter(EUT) was rotated through three orthogonal axes according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013

2.4 Limitation

(1) Conducted Emission

According to section 15.207(a) Conducted Emission Limits is as following.

Frequency range MHz	Limits dB(uV)	
	Quasi-peak	**Average**
0.15 to 0.50	**66 to 56**	**56 to 46**
0.50 to 5	**56**	**46**
5 to 30	**60**	**50**
Note 1.The lower limit shall apply at the transition frequencies 2.The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.		

(2) Radiated Emission

a. The field strength of any emission within this band (section 15.235 frequency between 49.82MHz -49.90MHz) shall not exceed 10000 micro volts/meter at 3 meters. (80dBμV at 3m) The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in section 15.35 for limiting peak emissions apply.

b. b. The field strength of any emissions which appear outside of this band shall not exceed the general radiated emission limits in section 15.209(Intentional Radiators general limit).as below.

Frequency (MHz)	Field strength μV/m	Distance(m)	Field strength at 3m dBμV/m
1.705-30	30	30	69.54
30-88	100	3	40
88-216	150	3	43.5
216-960	200	3	46
Above 960	500	3	54

Remark: 1. Emission level in dBuV/m=20 log (uV/m)
2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of ξ 15.205
4. Emission spurious frequency which appearing within the Restricted Bands specified in provision of ξ15.205, then the general radiated emission limits in ξ 15.209 apply.

2.5 Configuration of Tested System

Fig. 2-1 Configuration of Tested System

Table 2-1 Equipment Used in Tested System

Item	Equipment	Trademark	Model No.	FCC ID	Series No.	Note
1	RC CINN ON ROLLERSKATE	N/A	ET-0879	2ADM5-ET-0879	N/A	***EUT***

Note:

(1) Unless otherwise denoted as EUT in 『Remark』 column , device(s) used in tested system is a support equipment.

3. Summary of Test Results

FCC Rules	Description Of Test	Result
§15.207	Conducted Emission	N/A
§15.235	Radiated Emission	Compliant
§15.235	Bandwidth Test	Compliant
§15.203	Antenna Requirement	Compliant

4. Description of test modes

The EUT (RC CINN ON ROLLERSKATE) has been tested under normal operating condition. The EUT stay in continuous transmitting mode. The Frequency 49.860MHz is chosen for testing.

For Radiated: The EUT's antenna was pre-tested under the following modes:

Test Mode	Description
Mode A	**X-Y axis**
Mode B	Y-Z axis
Mode C	X-Z axis

From the above modes, the worst case was found in Mode A. Therefore only the test data of the mode was recorded in this report.

5. Test Facility

Site Description		
EMC Lab.	:	**Accredited by CNAS** The Certificate Registration Number is L2291. The Laboratory has been assessed and proved to be in compliance with CNAS-CL01 (identical to ISO/IEC 17025:2017) **Accredited by FCC** Designation Number: CN1204 Test Firm Registration Number: 882943 **Accredited by A2LA** The Certificate Number is 4321.01. Accredited by Industry Canada The Conformity Assessment Body Identifier is CN0008
Name of Firm	:	EMTEK (SHENZHEN) CO., LTD.
Site Location	:	Building 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China

6. TEST SYSTEM UNCERTAINTY

The following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Parameter	Measurement Uncertainty
Frequency error	±20Hz
Occupied Bandwidth	±0.5KHz
Transmitter output power	±0.6dB
Conducted spurious emissions	±3.2dB
Radiated spurious emissions	±4.5dB
Temperature	±1.2℃
Humidity	±3%
DC voltages	±0.25V
Time	±1%

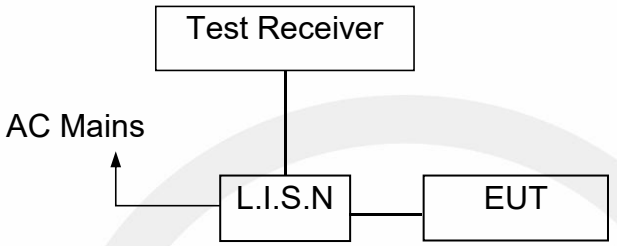
Measurement Uncertainty for a level of Confidence of 95%

7. Conducted Emissions Test

7.1 Measurement Procedure:

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

7.2 Test SET-UP (Block Diagram of Configuration)



7.3 Measurement Equipment Used:

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
EMI Test Receiver	Rohde & Schwarz	ESCI	101384	2024/05/11 2025/5/9	1 Year
AMN	Rohde & Schwarz	ENV216	101161	2024/05/10 2025/5/9	1 Year

7.4 Measurement Result:

N/A.

7.5 Conducted Measurement Photos:

N/A

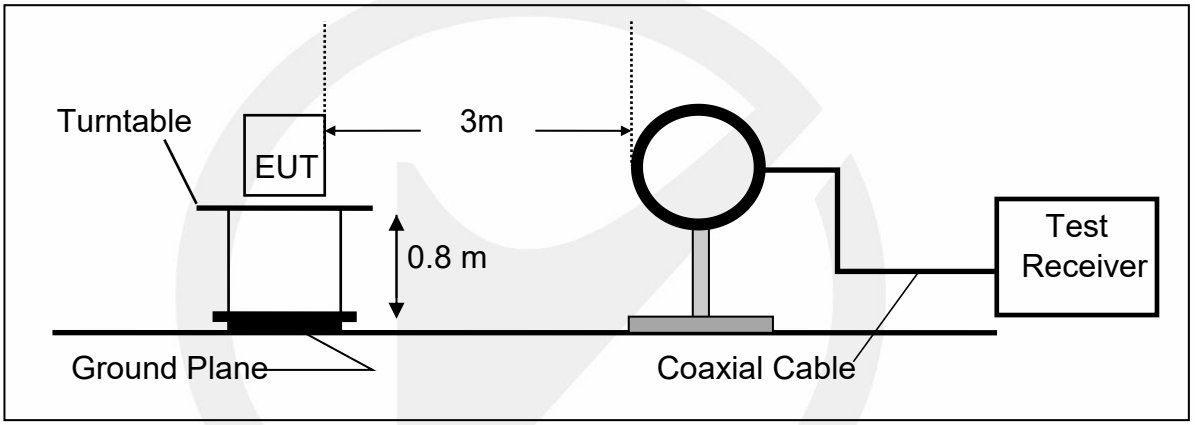
8. Radiated Emission Test

8.1 Measurement Procedure

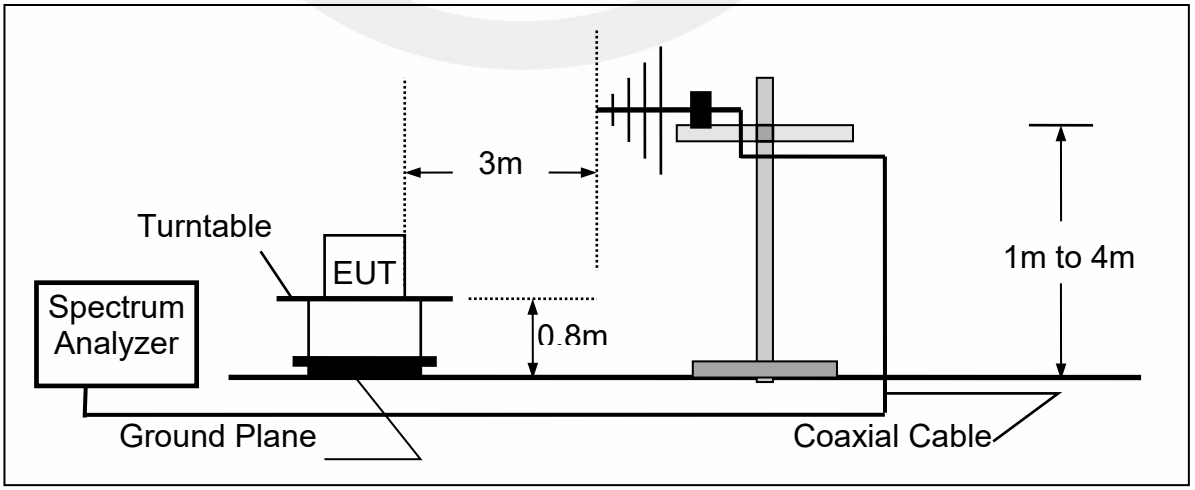
1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measured were complete.

8.2 Test SET-UP (Block Diagram of Configuration)

(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency Above 30MHz



8.3 Measurement Equipment Used:

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
EMI Test Receiver	Rohde & Schwarz	ESU 26	100154	2024/5/10 2025/5/9	1Year
Pre-Amplifie	Lunar EM	LNA30M3G-25	J10100000070	2024/5/10 2025/5/9	1Year
Bilog Antenna	Schwarzbeck	VULB9163	661	2023/6/2	2 Year
Horn antenna	Schwarzbeck	BBHA9120D	9120D-1177	2023/5/12	2 Year
Pre-Amplifie	SKET	LNPA_0118G-45	SK2019051801	2024/5/10 2025/5/9	1Year
Loop Antenna	Schwarzbeck	FMZB1519	1519-012	2023/5/12	2Year
Spectrum Analyzer	Rohde & Schwarz	FSV40	100967	2024/5/10 2025/5/9	1Year
Horn antenna	Schwarzbeck	BBHA9170	9170-399	2023/5/12	2Year
Coaxial Cable	TIMES	NmNm-7-C15702	N/A	2024/5/23 2025/5/22	1Year
Coaxial Cable	TIMES	HF290-NMSM-6.5M	N/A	2024/5/23 2025/5/22	1Year
Coaxial Cable	TIMES	LMR-240 N-N	N/A	2024/5/23 2025/5/22	1Year

8.4 Radiated Emission Limit

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table15.209(a):

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Restricted bands of operation

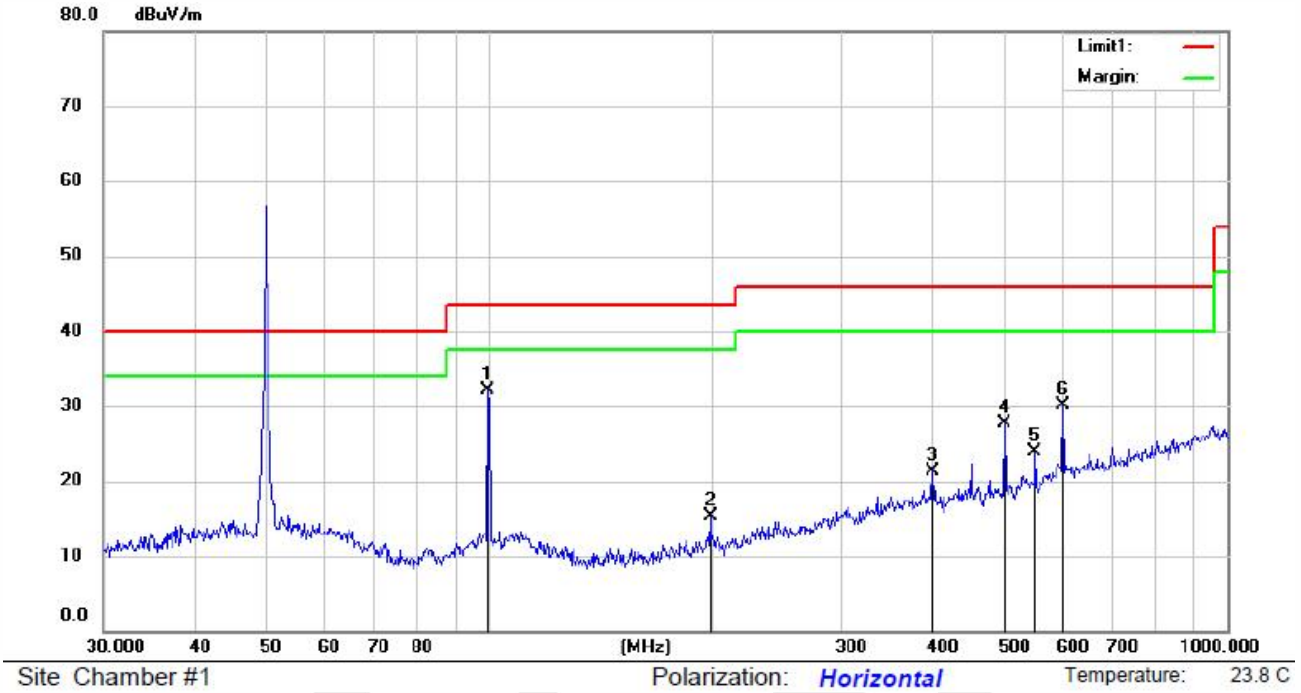
MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

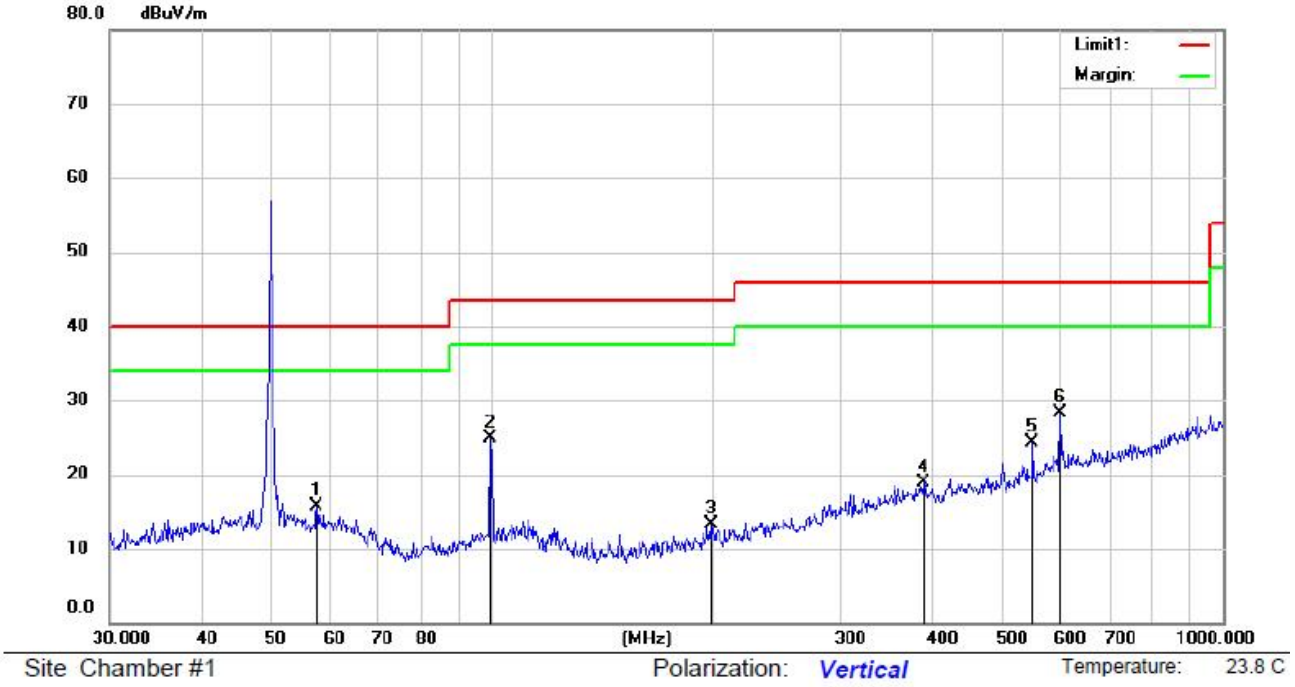
Remark : 1. Emission level in dBuV/m=20 log (uV/m)
2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of ξ 15.205, and the emissions located in restricted bands also comply with 15.209 limit.

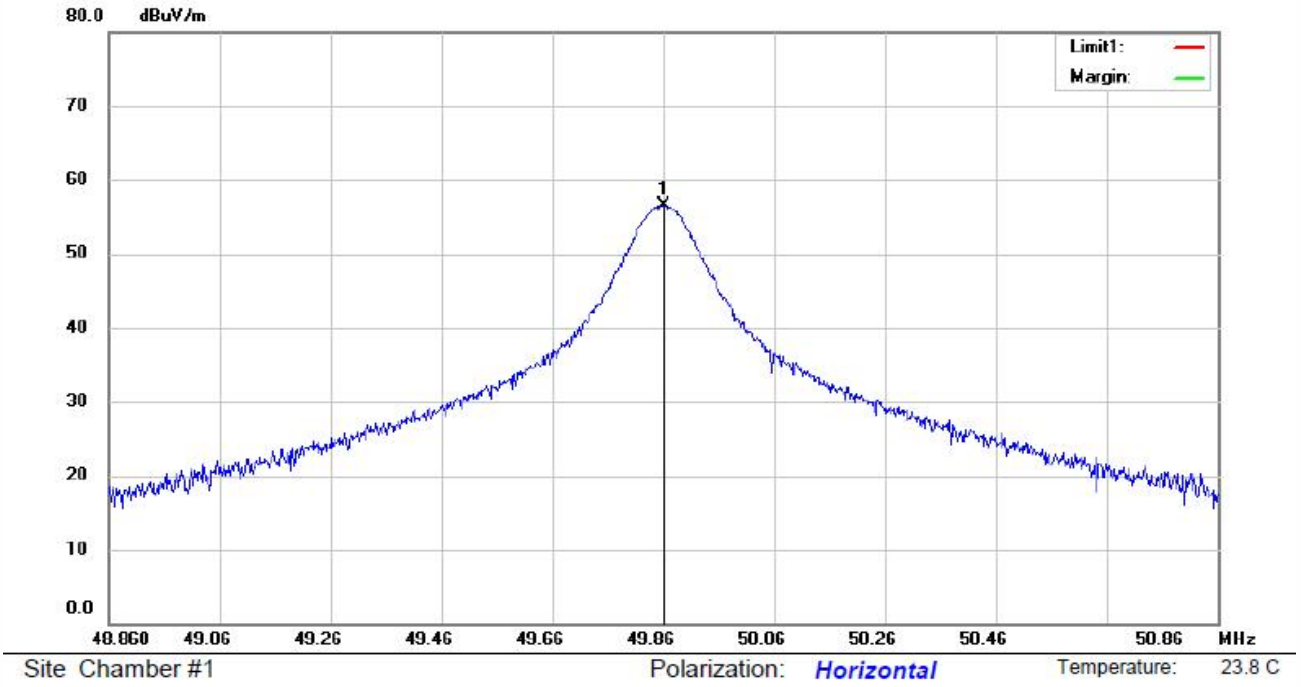
Field Strength of the fundamental signal

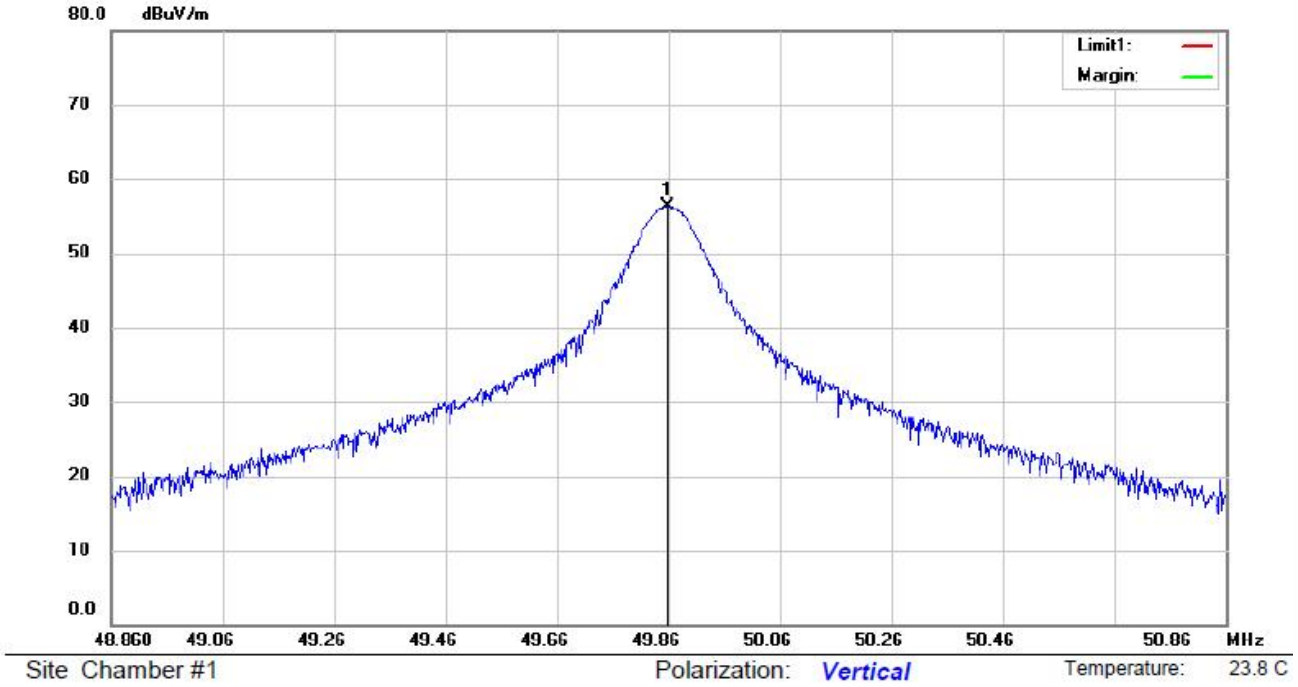
FCC Part15 (15.235) , Subpart C		
Fundamental Frequency	Field Strength Of Fundamental	
49.86MHz	PK:100 dBuV/m at 3m distance	AV:80 dBuV/m at 3m distance

8.5 Measurement Results









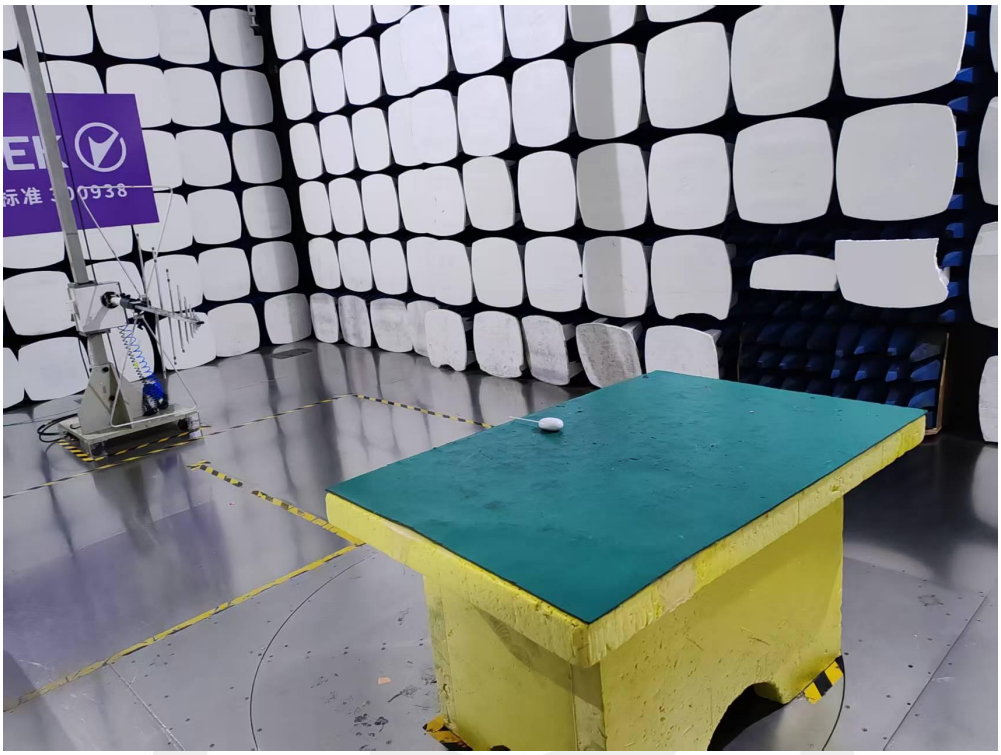
Remark:
1. Measurement (dBμV/m) = Antenna Factor(dB) -Amp Factor(dB) +Cable Loss(dB) + Reading(dBμV/m)
2. Over (dB) = Measurement (dBμV/m) - Limit (dBμV/m)

Test Result: PASS Test By: Ccyf
Frequency Range: 30M-1GHz Fundamental Frequency: 49.86 MHz

Frequency (MHz)	Ant.Pol. (V/H)	Emission Level (dBuV/m)	Limit 3m (dBuV/m)	Margin (dB)	Note
49.8620	H	56.59	100.00	-43.41	Peak
49.8620	H	42.34	80.00	-37.66	AVG
99.5281	H	32.19	43.50	-11.31	QP
199.2855	H	15.34	43.50	-28.16	QP
399.0302	H	21.37	46.00	-24.63	QP
499.4247	H	27.75	46.00	-18.25	QP
549.0195	H	23.86	46.00	-22.14	QP
599.3212	H	30.04	46.00	-15.96	QP
49.8580	V	56.36	100.00	-43.64	Peak
49.8580	V	40.28	80.00	-39.72	AVG
57.5940	V	15.62	40.00	-24.38	QP
99.5281	V	24.95	43.50	-18.55	QP
199.2855	V	13.29	43.50	-30.21	QP
389.3548	V	18.88	46.00	-27.12	QP
549.0193	V	24.21	46.00	-21.79	QP
599.3212	V	28.32	46.00	-17.68	QP

No others harmonics emissions are higher than 20dB below the limits of 47 CFR Part 15.209.

8.6 Radiated Measurement Photos:

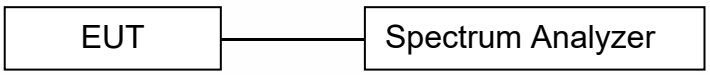


9. Occupied Bandwidth

9.1 Measurement Procedure

1. Set EUT as normal operation
2. Set SPA Center Frequency = fundamental frequency, RBW=300Hz,VBW= 1KHz
3. Set SPA Max hold. Mark peak.

9.2 Test SET-UP (Block Diagram of Configuration)



9.3 Measurement Equipment Used:

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Signal Analyzer	Agilent	N9010A	MY53470879	2024/5/10 2025/5/10	1Year
Vector Signal Generater	Agilent	N5182B	MY53050878	2024/5/10 2025/5/10	1Year
Analog Signal Generator	Agilent	N5171B	MY53050553	2024/5/10 2025/5/10	1Year
RF Control Unit(Power Meter)	Tonscend	JS0806-2	\	2024/5/10 2025/5/10	1Year
Temperature&Humidity Chamber	ESPEC	EL-02KA	12107166	2024/5/10 2025/5/10	1Year

9.4 Measurement Requirements:

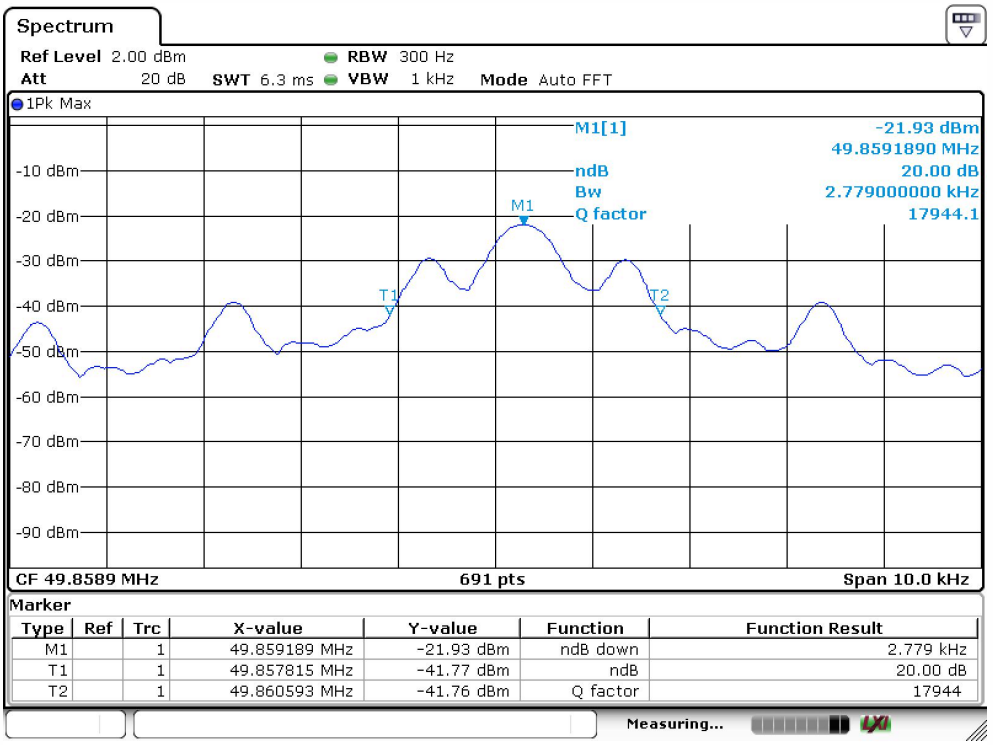
Pass.

Limits for 20 dB Bandwidth of Fundamental Emission:

Frequency(MHz)	20dB Bandwidth(KHz)	Limits (MHz)
49.86	2.779	Within 49.82-49.90 MHz.

Refer to attached data chart.

Band Width Test Data



10.Antenna Application

10.1 Antenna requirement

The EUT'S antenna is met the requirement of FCC part 15C section 15.203.

Systems operating in the 49.86MHz that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum peak output power of the intentional radiator is reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

10.2 Result

The EUT's antenna is permanent attached antenna, external antenna. The antenna is not replaceable or user serviceable. The requirement of FCC part 15C section 15.203 is met.

*** End of Report ***