FCC Test Report

Product Name	:	Mobility Scooter
Model No.	:	BBR-Q40-01/ BBR-Q40-02/ BBR-Q40-05/ BBR-Q40-06
FCC ID		2BPS2BBR-Q40
Applicant	:	Jiangsu Bangbang Intelligent Technology Co., Ltd.
Address	:	Building 1,No.2 Hongren Road,Tianning District, Changzhou, Jiangsu Province, China

Applicable Standards	:	FCC CFR Title 47 Part 15 Subpart C Section 15.225
Test Result Verdict	:	Complied
Date of Receipt	:	Jan 17, 2025
Test Date	:	Mar. 21, 2025 to Mar. 26, 2025
Issued Date	:	Jun 09, 2025
Report No.	:	SZE25021865C-630E-E2
Report Version	:	V2.0

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Reviewed by : Bennett Yu

(EMC Lab Manager: Bennett Yu)

Approved by : Harry Zhao

(Technical Manager: Harry Zhao)

Performed Location : EPINTEK Suzhou Ltd., Suzhou Industrial Park Branch
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The test results relate only to the samples tested.
The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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COMPETENCES AND GUARANTEES

EINPTEK is a testing laboratory competent to carry out the tests described in this report.
In order to assure the traceability to other national and international laboratories, EINPTEK has a calibration and maintenance program for its measurement equipment. FCC CFR Title 47 Part 15 Subpart C Section 15.225

EINPTEK guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at EINPTEK at the time of performance of the test.

EINPTEK is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

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GENERAL CONDITIONS

Test Location	EPINTEK Suzhou Ltd., Suzhou Industrial Park Branch Building B, No.5 Minsheng Road, Suzhou Industrial Park, Suzhou, China
Date(receive sample)	Jan. 17, 2025
Date (start test)	Mar. 21, 2025
Date (finish test)	Mar. 26, 2025

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of EINPTEK.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of EINPTEK.

ENVIRONMENTAL CONDITIONS

The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. The climatic conditions during the tests were within the following limits:

Ambient temperature	15 °C – 35 °C
Relative Humidity air	30% - 60%

If explicitly required in the basic standard or applied product / product family standard the climatic values are recorded and documented separately in this test report.

POSSIBLE TEST CASE VERDICTS

Test case does not apply to test object	N/A
Test object does meet requirement	P (Pass) / PASS
Test object does not meet requirement	F (Fail) / FAIL
Not measured	N/M

ABBREVIATIONS

For the purposes of the present document, the following abbreviations apply:

EUT : Equipment Under Test
QP : Quasi-Peak
CAV : CISPR Average
AV : Average
CDN : Coupling Decoupling Network
SAC : Semi-Anechoic Chamber
OATS : Open Area Test Site
BW : Bandwidth
AM : Amplitude Modulation
PM : Pulse Modulation
HCP : Horizontal Coupling Plane
VCP : Vertical Coupling Plane
U_N : Nominal voltage
*T*x : Transmitter
*R*x : Receiver
N/A : Not Applicable
N/M : Not Measured

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
SZE25021865C-630E-E1	V1.0	Initial issue of report.	Jun 06, 2025
SZE25021865C-630E-E2	V2.0	1. This test report replaces the previous report (Report Version V1.0) completely. 2. Page 6, DOCUMENT HISTORY: Change the Issued Date of Report No. SZE25021865C-630E-E1" May 30, 2025" to "Jun 06, 2025". 3. Page 9 to 10, 1.1.1 Remark: Deleted description about models (BBR-Q40-03, BBR-Q40-04) ; change the description "BBR-Q40-03/ BBR-Q40-04: Gas spring" to "BBR-Q40-05/ BBR-Q40-06: Gas spring " 4. Page 51 to 53, 11APPENDIX F-TEST DATA:TEST SETUP AND EUT PHOTO: EUT PHOTO: Deleted the photos of Models (BBR-Q40-03, BBR-Q40-04)	Jun 09, 2025

REMARKS AND COMMENTS

1. The equipment under test (EUT) does meet the essential requirements of the stated standard(s)/test(s).
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart C Paragraph 15.225.
3. The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to account the uncertainty associated with the measurement result.
4. The test results presented in this report relate only to the object tested.
5. The test report shall not be reproduced without the written approval of EINPTEK Testing and Certification (Suzhou) Co., Ltd.
6. This report will not be used for social proof function in China market.
7. EINPTEK declines any responsibility with the following test data provided by customer that may affect the validity of result:
   - Chapter 1.1 General Description of the Item(s);
   - Chapter 1.2 Antenna Informaion;
   - Chapter 1.3 Channel List.

USED EQUIPMENT

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
EMI Receiver	R&S	ESR3	102971	2025.07.02
Artificial Mains Network	R&S	ENV216	102386	2025.11.13
RF Cable	SKET	CE-3	EPINE-CABLE01	2025.10.13
Pulse Limiter	R&S	ESH3-Z2	100285	2025.07.02
Loop Antenna	Schwarzbeck	FMZB 1519B	00107	2025.12.06
EMI Receiver	R&S	ESR7	101945	2025.10.13
TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	00837	2025.12.02
Attenuator	SHX-SH	TS-2-6dB-1G-A	18072706	2025.12.02
RF Cable	SKET	RE-3-30-1000	EPINE-CABLE03	2025.10.13
RF Cable	SKET	E203950	EPINE-CABLE06	2025.11.13
Radio frequency control box	MWRF test	MW100-PSB	/	2026.03.31
Power detection box	MWRF test	MW100-RFCB	/	2026.03.31
USB Modular Simultaneous Sampling Multifunction DAQ Devices	Keysight	U2351A	TW59323513	2026.03.31
USB Wideband power sensor	Keysight	U2021XA	MY54320002	2026.03.31

UNCERTAINTY

Uncertainties have been calculated according to the EINPTEK internal document. The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%, The Uncertainties is complice with standard required as below.

Radiated emissions
The maximum measurement uncertainty is evaluated as: Horizontal: 9kHz-30MHz:2.30 dB 30MHz~300MHz: 3.39 dB 300MHz~1GHz: 3.17 dB 1GHz~18GHz: 4.17 dB Vertical: 9kHz-30MHz:2.30 dB 30MHz~300MHz: 3.89 dB 300MHz~1GHz: 3.19 dB 1GHz~18GHz: 4.75 dB
AC Power Line Conducted Emission
The maximum measurement uncertainty is evaluated as: Mains: 9kHz~150kHz: 1.73dB 150kHz~30MHz: 2.53dB
Radio Frequency
The maximum measurement uncertainty is evaluated as: $\pm 1 \times 10^{-7}$Hz

1 GENERAL INFORMATION

1.1.1 General Description of the Item(s)

Product Name ..... :	Mobility Scooter
Model No. ..... :	BBR-Q40-01/ BBR-Q40-02/ BBR-Q40-05/ BBR-Q40-06
Trademark ..... :	ROBOOTER
FCC ID ..... :	2BPS2BBR-Q40

Wireless specification ..... :	NFC
Operating frequency range(s) ..... :	13.56 MHz
Type of modulation ..... :	ASK
Number of channel ..... :	1
Mode/ ..... :	Reader

Rated power supply .....:	Voltage and Frequency	
	☐	AC: 220 – 240 V, 50/60 Hz
	☒	AC: 100 – 240 V, 50/60 Hz
	☐	DC: 5 V
	☒	Battery: 24V DC
Mounting position .....:	☐	Table top equipment
	☐	Wall/Ceiling mounted equipment
	☒	Floor standing equipment
	☐	Hand-held equipment
	☐	Other: Vehicle-mounted equipment

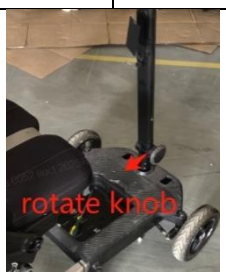
Remark:

Description of model differences: All tests use BBR-Q40-01 test results to cover series models.

All models are identical in major electrical aspects including the same software parameter and hardware design (i.e., circuit design, PCB Layout, RF module/circuit, antenna type(s) and antenna location, components on PCB, etc,), the only difference is the battery capacity difference (BBR-Q40-01, BBR-Q40-05:10AH, BBR-Q40-02, BBR-Q40-06:20AH);

All models are identical in major mechanical structure and design (including product enclosure, materials, etc.), the only difference is the tiller folding method (BBR-Q40-01, BBR-Q40-02: rotate knob. BBR-Q40-05, BBR-Q40-06: Gas spring).

The detailed differences are as shown in the following table.

Model	BBR-Q40-01	BBR-Q40-02	BBR-Q40-05	BBR-Q40-06
Battery capacity	10AH	20AH	10AH	20AH
Tiller folding method	rotate knob	rotate knob	Gas spring	Gas spring
NFC	Yes	Yes	Yes	Yes
Picture				

1.2. Antenna information

Antenna Delivery	☒	1*TX+1*RX	☐	2*TX+2*RX	☐	3*TX+3*RX
Antenna technology	☒	SISO				
	☐	MIMO	☐	Basic		
			☐	CDD		
			☐	Sectorized		
			☐	Beam-forming		
Antenna Type	☐	External	☐	Dipole		
			☐	Sectorized		
	☒	Internal	☐	PIFA		
			☒	PCB		
			☐	Ceramic Chip Antenna		
			☐	Coil antenna		
			☐	Type F antenna		
Antenna Gain	3.1dBi					

2 DESCRIPTION OF TEST SETUP

2.1 Operating mode(s) used for tests

During the tests the following operating mode(s) has(have) been used.

Test Mode	Mode 1: Transmit by NFC Mode 2: Whole machine charging

The test set-up was made in accordance to the general provisions of ANSI C63.10 in a typical installation configuration.EUT was investigated under two configurations:EUT with NFC Card for working,EUT with power supply for charging.

For below 30MHz testing, investigation was done on three antenna orientations: RX antenna Face-on(Hor), Face-off(Ver) and parallel to ground. The worst-case configurations were determined on RX antenna Face-on(Hor) since it has the highest power, therefore, all final tests were performed using this orientations.

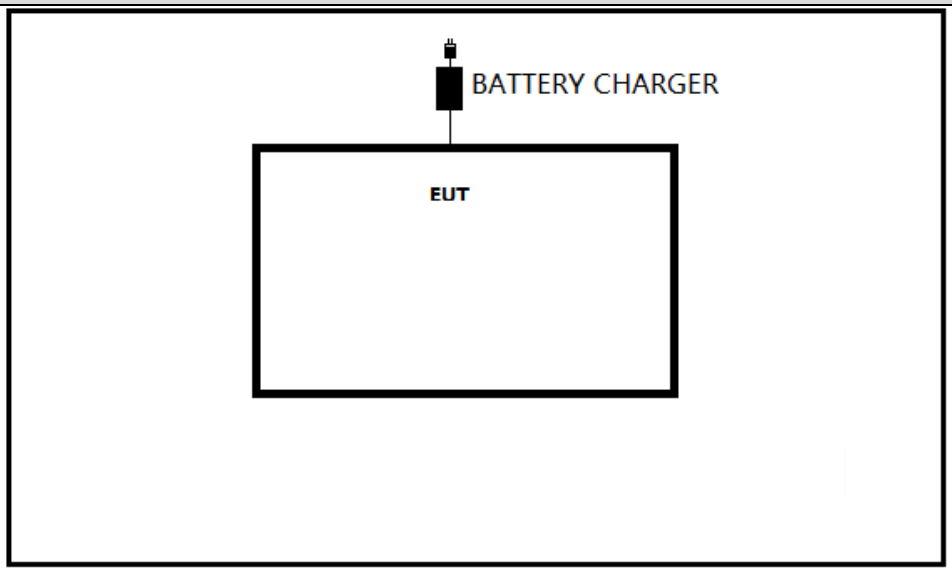
2.2 Support / Auxiliary equipment / unit / Test software for the EUT

Equipment	Type / Version	Manufacturer	Supplied by
NFC card	N/A	N/A	N/A
BATTERY CHARGER	FY-2942800	Zhejiang Fudian Intelligent Technology Co.,Ltd.	N/A
software	Type / Version	Manufacturer	Supplied by
/	/	/	/

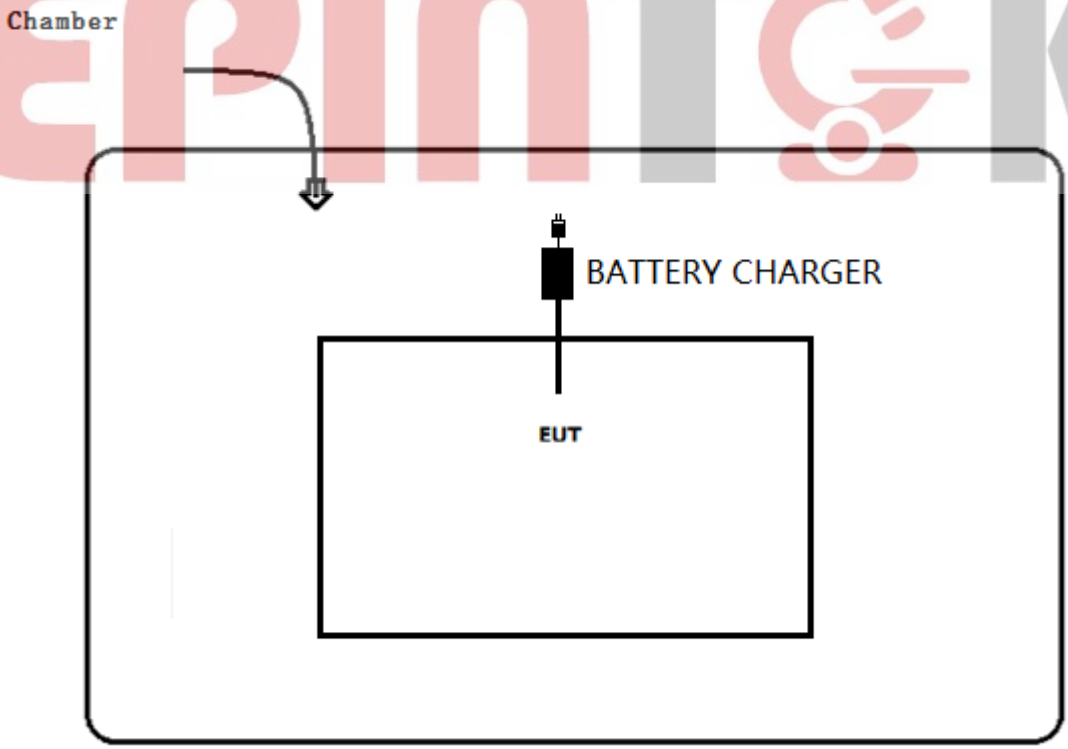
The ancillary equipment, NFC card, is used to make the EUT (NFC) continuously transmitting signal (Power Level: Default) at 13.56MHz.

2.3 Test Configuration / Block diagram used for tests

Test setup Diagram- AC Line Conducted Emission Test



Test setup Diagram- Radiated Emission



2.4 Testing process

1	Setup the EUT as shown in Section 2.3.
2	Execute the power on the EUT.
3	Verify that the EUT works properly.
4	Use the NFC card make the EUT (NFC) continuously transmitting signal.

3 VERDICT SUMMARY SECTION

This chapter presents an overview of standards and results. Refer to the next chapters for details of measured test results and applied test levels.

3.1 Standards

Standard	Year	Description
FCC CFR Title 47 Part 15 Subpart C Section 15.225	2024	Operation within the band 13.110-14.010 MHz
ANSI C63.10 Section 6	2020	Standard test methods

3.2 Overview of results

For FCC

Requirement – Test case	Basic standard(s)	Verdict	Remark
Conducted Emission	FCC CFR Title 47 Part 15 Subpart C Section 15.207	PASS	Test data please refer to **Appendix A**
Field Strength of Fundamental	FCC CFR Title 47 Part 15 Subpart C Section 15.225(a)(b)(c)	PASS	Test data please refer to **Appendix B**
Field Strength of Spurious	FCC CFR Title 47 Part 15 Subpart C Section 15.209 & 15.225(d)	PASS	Test data please refer to **Appendix C**
Frequency Stability	FCC CFR Title 47 Part 15 Subpart C Section 15.225(e)	PASS	Test data please refer to **Appendix D**
Emission Bandwidth	FCC CFR Title 47 Part 15 Subpart C Section 15.215(c)	PASS	Test data please refer to **Appendix E**
Antenna Requirement	FCC CFR Title 47 Part 15 Subpart C Section 15.203	PASS	/
Supplementary information:			

3.3 Test Facility

USA	**:**	**FCC Designation Number: CN1404**
	:	**Test Firm Registration Number: 546410**

4 TEST RESULTS

4.1 AC Power Line Conducted Emission	VERDICT: PASS

4.1.1 Limit		
Standard	FCC Part 15 Subpart E Paragraph 15.207	
Frequency range [MHz]	Limit: QP [dB(μV)[1)]]	Limit: AV [dB(μV) [1)]]
0,15 - 0,50	66 – 56 [2)]	56 - 46 [2)]
0,50 - 5,0	56	46
5,0 - 30	60	50

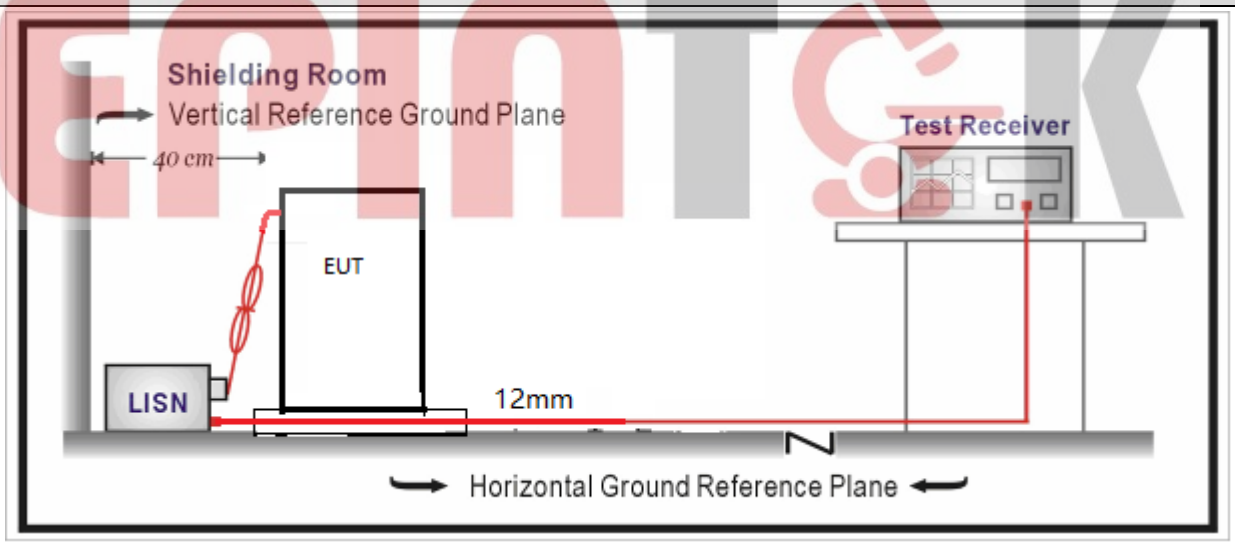
[1)] At the transition frequency, the lower limit applies.

[2)] The limit decreases linearly with the logarithm of the frequency.

NOTE 1: The exclusion band for transmitters shall be considered for transmitters operating at frequencies below 30 MHz.

NOTE 2: Where the AC output port is directly connected (or via a circuit breaker) to the AC power input port of the EUT the AC power output port need not to be tested.

4.1.2 **Test Setup**



4.1.3 **Test Procedure**

	References Rule	Chapter	Item
☒	ANSI C63.10	6.2	Standard test method for ac power-line conducted emissions from unlicensed wireless devices

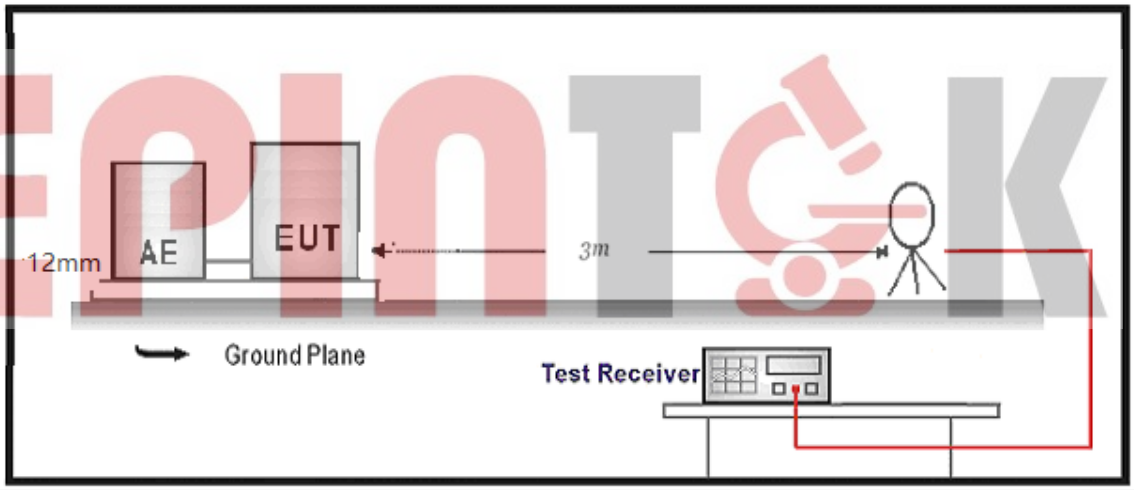
4.2 Field Strength of Fundamental	VERDICT: PASS

4.2.1 Limit	
Standard	FCC Part 15 Subpart C Paragraph 15.225

(a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15.848 microvolts/meter at 30 meters.
(b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
(c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
(d) The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

4.2.2 Test Setup

Below 30MHz Test Setup:



4.2.3 Test Procedure

	References Rule		Chapter	Description
	☒	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
	☐	ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
	☐	ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz

4.3 Field Strength of Spurious	VERDICT: PASS

4.3.1 **Limit**	
Standard	FCC Part 15 Subpart C Paragraph 15. 209

Restricted Band Emissions Limit

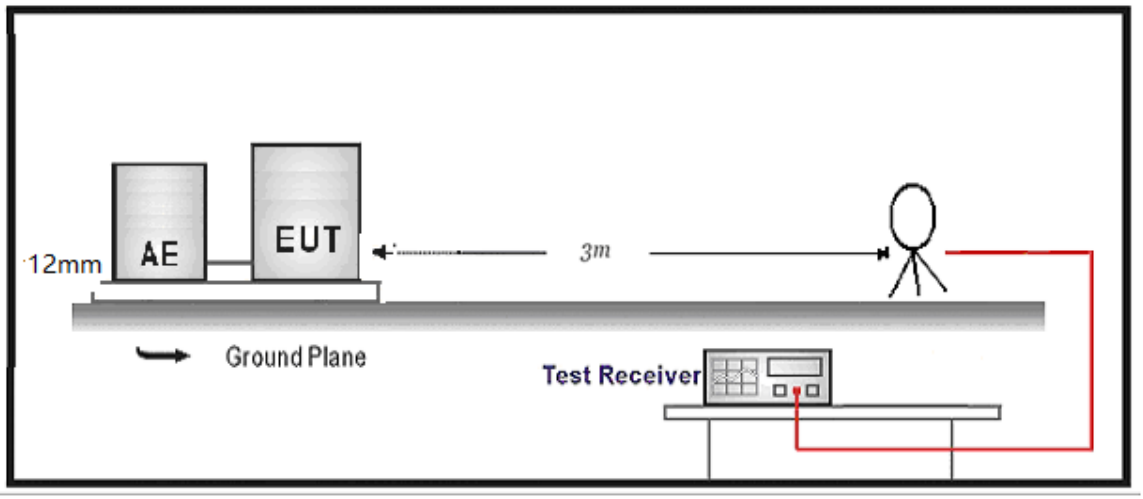
Frequency (MHz)	Field strength (μ V/m)	Field strength (dB μ V/m)	Measurement distance (m)
0.009 - 0.49	2400/F(kHz)	48.5 – 13.8	300(Note 1)
0.49 - 1.705	24000/F(kHz)	33.8 - 23	30(Note 1)
1.705 - 30	30	29.5	30(Note 1)
30 - 88	100	40	3(Note 2)
88 - 216	150	43.5	3(Note 2)
216 - 960	200	46	3(Note 2)
Above 960	500	54	3(Note 2)

Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).

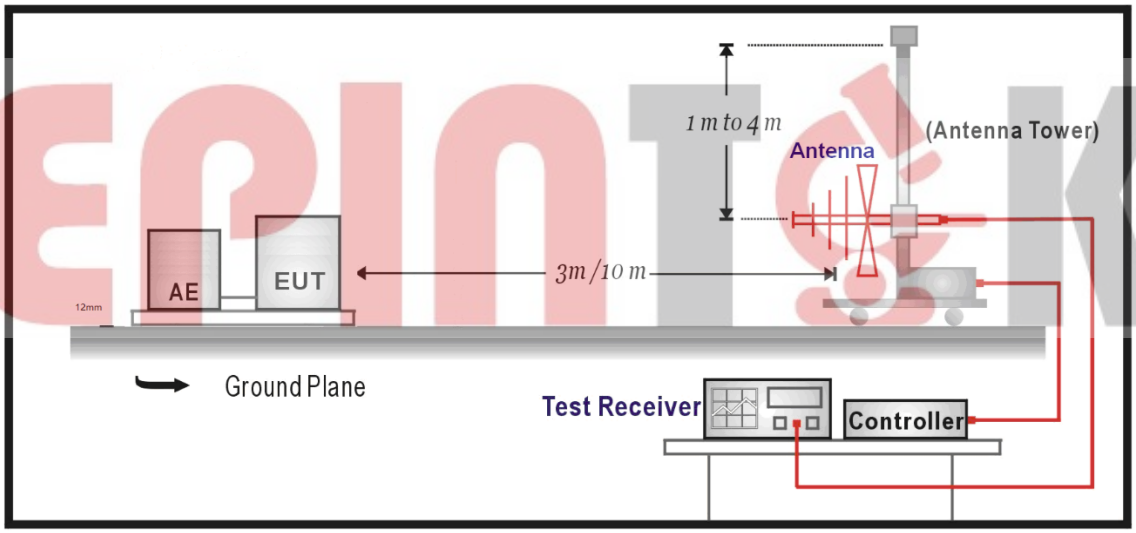
Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

4.3.2 Test Setup

Below 30MHz Test Setup:



30MHz-1GHz Test Setup:

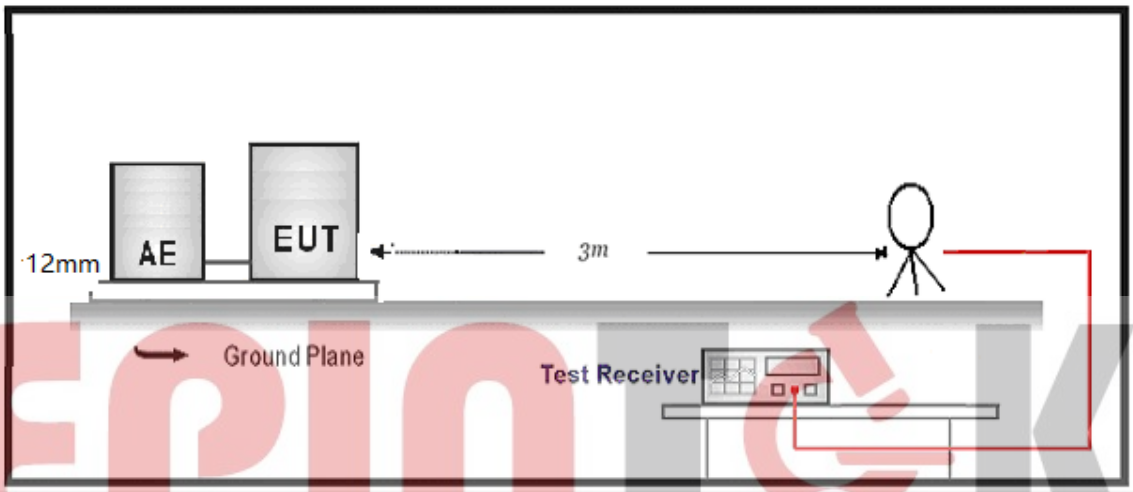


4.3.3 **Test Procedure**				
	References Rule		Chapter	Description
	☒	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
	☒	ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
	☐	ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz

4.4 Emission bandwidth	VERDICT: PASS

4.4.1 Limit	
Standard	FCC Part 15 Subpart C Paragraph 15.215
Intentional radiators must be designed to ensure that the 20 dB and 99% emission bandwidth in the specific band 13.553~13.567 MHz.	

4.4.2 Test Setup



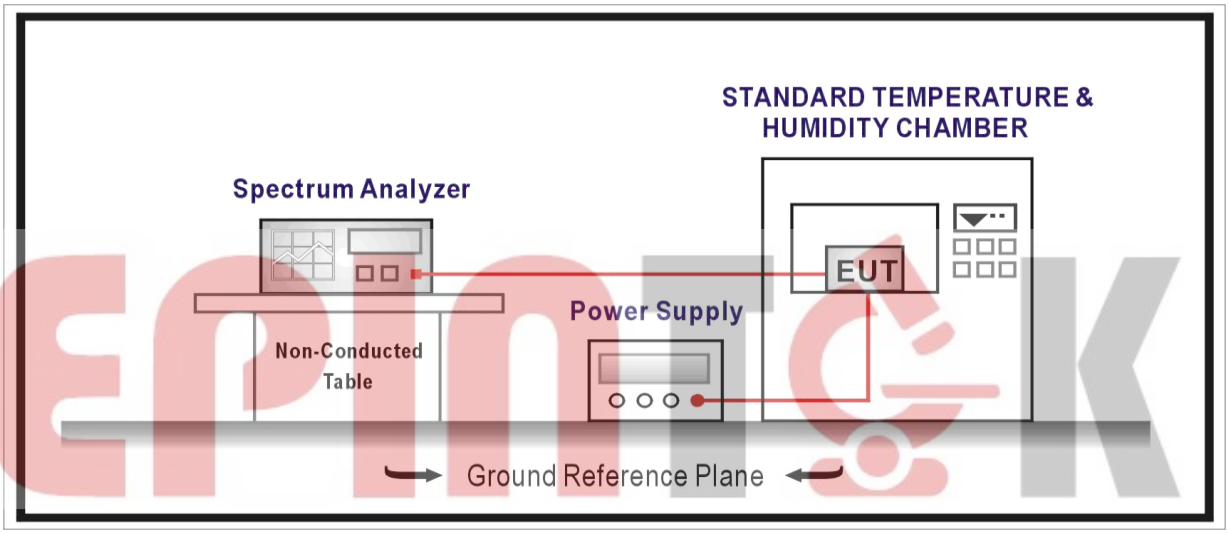
4.4.3 Test Procedure

	Reference Rule	Chapter	Description
☒	ANSI C63.10	6.9.2	Occupied bandwidth—relative measurement procedure

4.5 Frequency Stability	VERDICT: PASS

4.5.1 Limit:	
Standard	FCC Part 15 Subpart C Paragraph 15.225(e)
☒	The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of −20 degrees to + 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

4.5.2 **Test Setup**



4.5.3 **Test Procedure**

	References Rule		Chapter	Description
☒	ANSI C63.10		6.8	Frequency stability tests
	☒	ANSI C63.10	6.8.1	Frequency stability with respect to ambient temperature
	☒	ANSI C63.10	6.8.2	Frequency stability when varying supply voltage

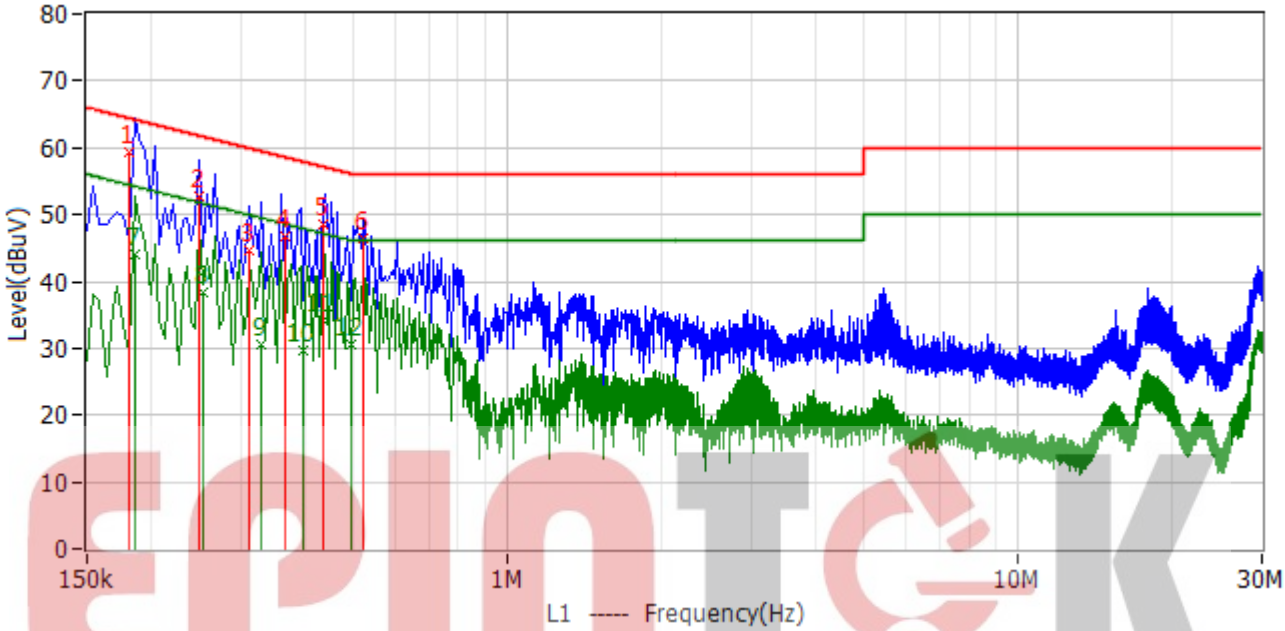
4.6 Antenna Requirement	VERDICT: PASS

4.6.1 **Limit:**	
Standard	FCC Part 15 Subpart E Paragraph 15.203
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.	

4.6.2 **Antenna Connector Construction:**	
☒	The use of a permanently attached antenna
☐	The antenna use of a unique coupling to the intentional radiator
☐	The use of a nonstandard antenna jack or electrical connector
Please refer to the attached document “Internal Photograph” to show the antenna connector.	

5 APPENDIX A-TEST DATA: AC POWER LINE CONDUCTED EMISSION

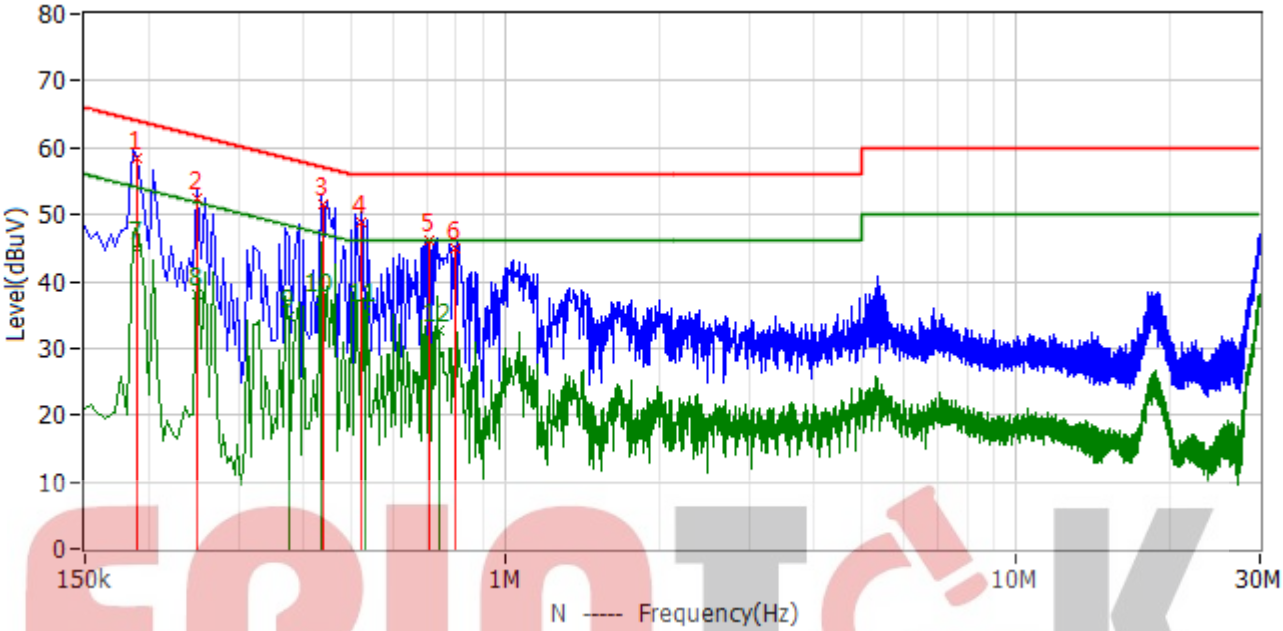
Product Name	:	Mobility Scoot (BBR-Q40-01)	Power	:	AC 120V/60Hz
Test Mode	:	Mode 2	Test Site	:	Shielding Room 1
Test Date	:	Mar. 23, 2025	Test Engineer	:	Dream Li



No.	Frequency	Limit dBuV	Level dBuV	Delta dB	Reading dBuV	Factor dB	Detector	Phase
1	181.500kHz	64.4	59.3	-5.1	39.4	19.9	QP	L1
2	249.000kHz	61.8	52.8	-9.0	32.9	19.9	QP	L1
3	312.000kHz	59.9	44.6	-15.3	24.8	19.8	QP	L1
4	366.000kHz	58.6	46.8	-11.8	27.0	19.8	QP	L1
5	433.500kHz	57.2	48.5	-8.7	28.7	19.8	QP	L1
6	523.500kHz	56.0	46.4	-9.6	26.6	19.8	QP	L1
7	186.000kHz	54.2	43.9	-10.3	24.0	19.9	CAV	L1
8	253.500kHz	51.6	38.4	-13.2	18.5	19.9	CAV	L1
9	330.000kHz	49.5	30.6	-18.9	10.8	19.8	CAV	L1
10	397.500kHz	47.9	29.7	-18.2	9.9	19.8	CAV	L1
11	433.500kHz	47.2	34.3	-12.9	14.5	19.8	CAV	L1
12	492.000kHz	46.1	30.6	-15.5	10.8	19.8	CAV	L1

CAV - CISPR average detection

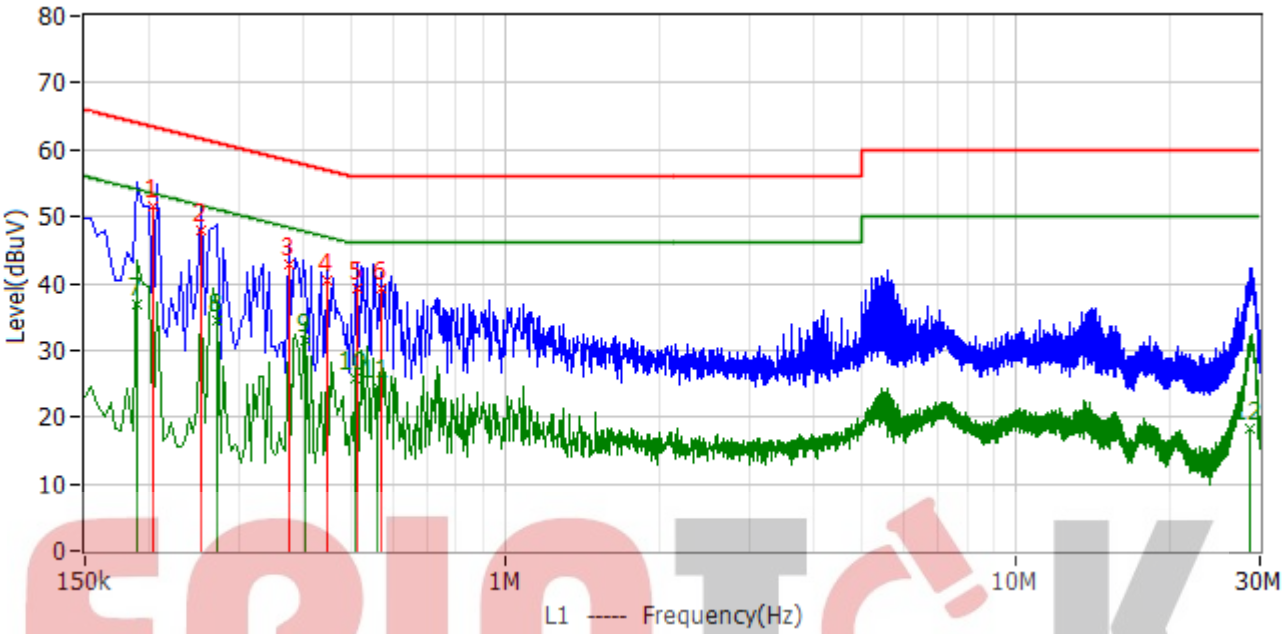
Product Name	:	Mobility Scoot (BBR-Q40-01)	Power	:	AC 120V/60Hz
Test Mode	:	Mode 2	Test Site	:	Shielding Room 1
Test Date	:	Mar. 23, 2025	Test Engineer	:	Dream Li



No.	Frequency	Limit dBuV	Level dBuV	Delta dB	Reading dBuV	Factor dB	Detector	Phase
1	190.500kHz	64.0	58.5	-5.5	38.6	19.9	QP	N
2	249.000kHz	61.8	52.3	-9.5	32.4	19.9	QP	N
3	438.000kHz	57.1	51.4	-5.7	31.5	19.9	QP	N
4	519.000kHz	56.0	48.9	-7.1	29.0	19.9	QP	N
5	708.000kHz	56.0	46.2	-9.8	26.3	19.9	QP	N
6	798.000kHz	56.0	44.9	-11.1	25.1	19.8	QP	N
7	190.500kHz	54.0	44.8	-9.2	24.9	19.9	CAV	N
8	249.000kHz	51.8	38.1	-13.7	18.2	19.9	CAV	N
9	375.000kHz	48.4	34.8	-13.6	14.9	19.9	CAV	N
10	433.500kHz	47.2	37.2	-10.0	17.3	19.9	CAV	N
11	532.500kHz	46.0	35.7	-10.3	15.8	19.9	CAV	N
12	739.500kHz	46.0	32.8	-13.2	12.9	19.9	CAV	N

CAV - CISPR average detection

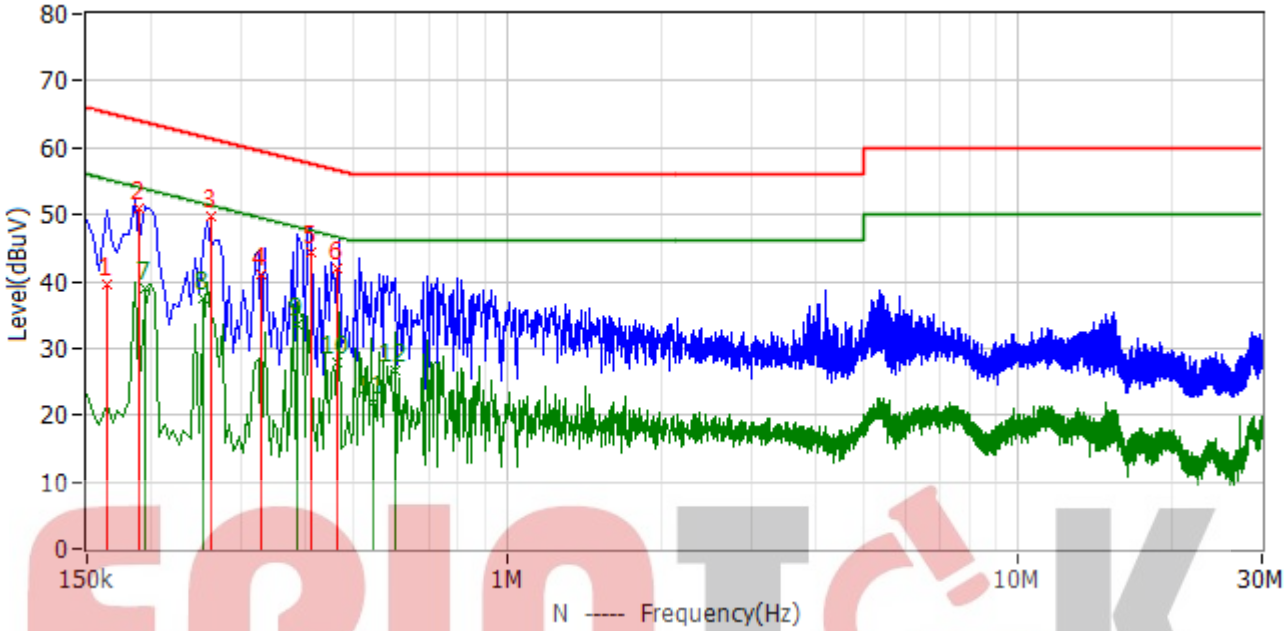
Product Name	:	Mobility Scoot (BBR-Q40-06)	Power	:	AC 120V/60Hz
Test Mode	:	Mode 2	Test Site	:	Shielding Room 1
Test Date	:	Mar. 23, 2025	Test Engineer	:	Dream Li



No.	Frequency	Limit dBuV	Level dBuV	Delta dB	Reading dBuV	Factor dB	Detector	Phase
1	204.000kHz	63.4	51.6	-11.8	31.7	19.9	QP	L1
2	253.500kHz	61.6	47.8	-13.8	27.9	19.9	QP	L1
3	375.000kHz	58.4	42.9	-15.5	23.1	19.8	QP	L1
4	447.000kHz	56.9	40.5	-16.4	20.7	19.8	QP	L1
5	510.000kHz	56.0	39.2	-16.8	19.4	19.8	QP	L1
6	573.000kHz	56.0	39.3	-16.7	19.5	19.8	QP	L1
7	190.500kHz	54.0	36.9	-17.1	17.0	19.9	CAV	L1
8	271.500kHz	51.1	34.5	-16.6	14.7	19.8	CAV	L1
9	406.500kHz	47.7	31.6	-16.1	11.8	19.8	CAV	L1
10	505.500kHz	46.0	25.8	-20.2	6.0	19.8	CAV	L1
11	559.500kHz	46.0	24.6	-21.4	4.8	19.8	CAV	L1
12	28.770MHz	50.0	18.2	-31.8	-1.7	19.9	CAV	L1

CAV - CISPR average detection

Product Name	:	Mobility Scoot (BBR-Q40-06)	Power	:	AC 120V/60Hz
Test Mode	:	Mode 2	Test Site	:	Shielding Room 1
Test Date	:	Mar. 23, 2025	Test Engineer	:	Dream Li

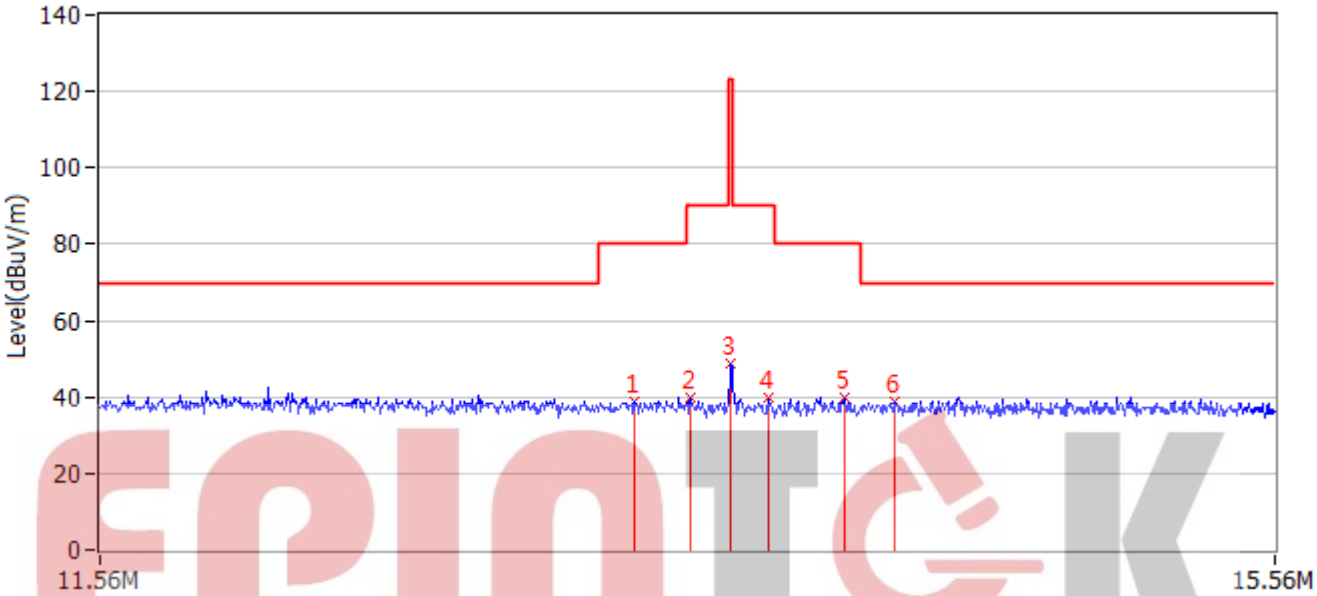


No.	Frequency	Limit dBuV	Level dBuV	Delta dB	Reading dBuV	Factor dB	Detector	Phase
1	163.500kHz	65.3	39.7	-25.6	19.8	19.9	QP	N
2	190.500kHz	64.0	50.9	-13.1	31.0	19.9	QP	N
3	262.500kHz	61.4	49.6	-11.8	29.6	20.0	QP	N
4	330.000kHz	59.5	40.9	-18.6	20.9	20.0	QP	N
5	411.000kHz	57.6	44.2	-13.4	24.4	19.8	QP	N
6	465.000kHz	56.6	41.8	-14.8	21.9	19.9	QP	N
7	195.000kHz	53.8	39.0	-14.8	19.1	19.9	CAV	N
8	253.500kHz	51.6	37.5	-14.1	17.5	20.0	CAV	N
9	388.500kHz	48.1	33.6	-14.5	13.8	19.8	CAV	N
10	465.000kHz	46.6	27.8	-18.8	7.9	19.9	CAV	N
11	546.000kHz	46.0	21.9	-24.1	2.0	19.9	CAV	N
12	604.500kHz	46.0	26.7	-19.3	6.8	19.9	CAV	N

CAV - CISPR average detection

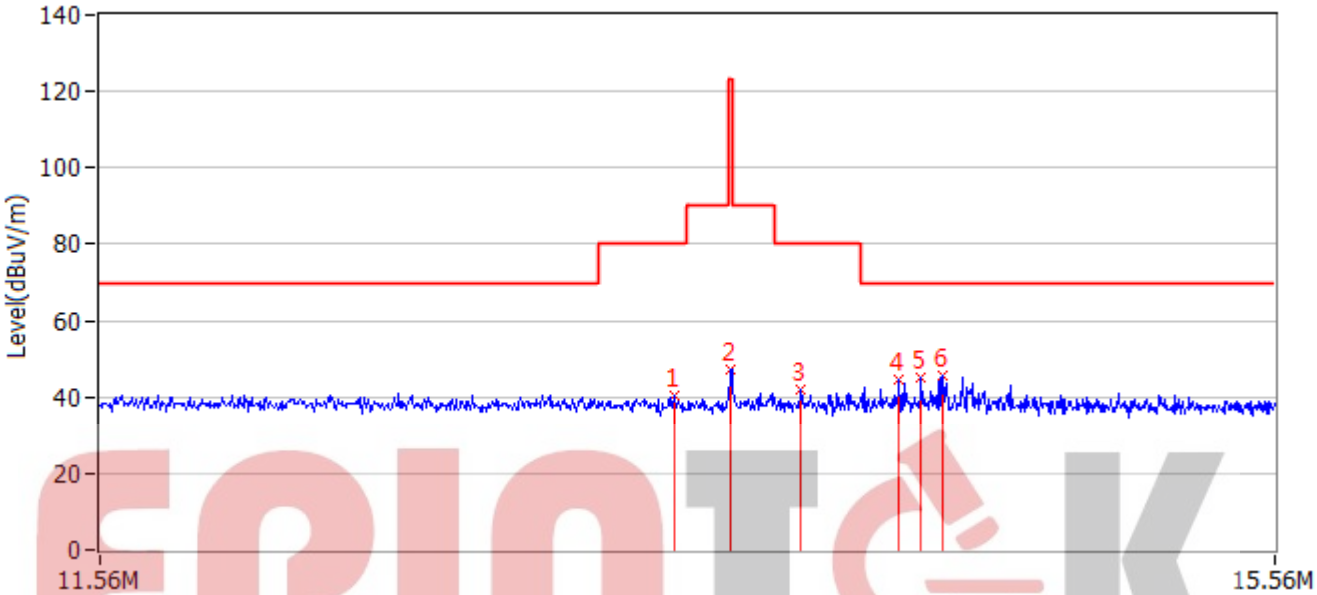
6 APPENDIX B-TEST DATA: FIELD STRENGTH OF FUNDAMENTAL

Product Name	:	Mobility Scooter	Power	:	DC 24V
Test Mode	:	Mode 1	Test Site	:	3m Anechoic Chamber 1
Test Date	:	Mar. 24, 2025	Test Engineer	:	Dream Li



No.	Frequency	Limit dBuV/m	Level dBuV/m	Delta dB	Reading dBuV	Factor dB/m	Detector	Polar	Height cm	Angle deg
1	13.236MHz	80.0	39.0	-41.0	19.7	19.3	PK	Hor	100.0	216.0
2	13.420MHz	90.0	39.6	-50.4	20.3	19.3	PK	Hor	100.0	216.0
3	13.560MHz	123.0	48.6	-74.4	29.3	19.3	PK	Hor	100.0	216.0
4	13.688MHz	90.0	39.6	-50.4	20.3	19.3	PK	Hor	100.0	216.0
5	13.956MHz	80.0	39.7	-40.3	20.5	19.2	PK	Hor	100.0	216.0
6	14.136MHz	69.5	38.6	-30.9	19.4	19.2	PK	Hor	100.0	216.0

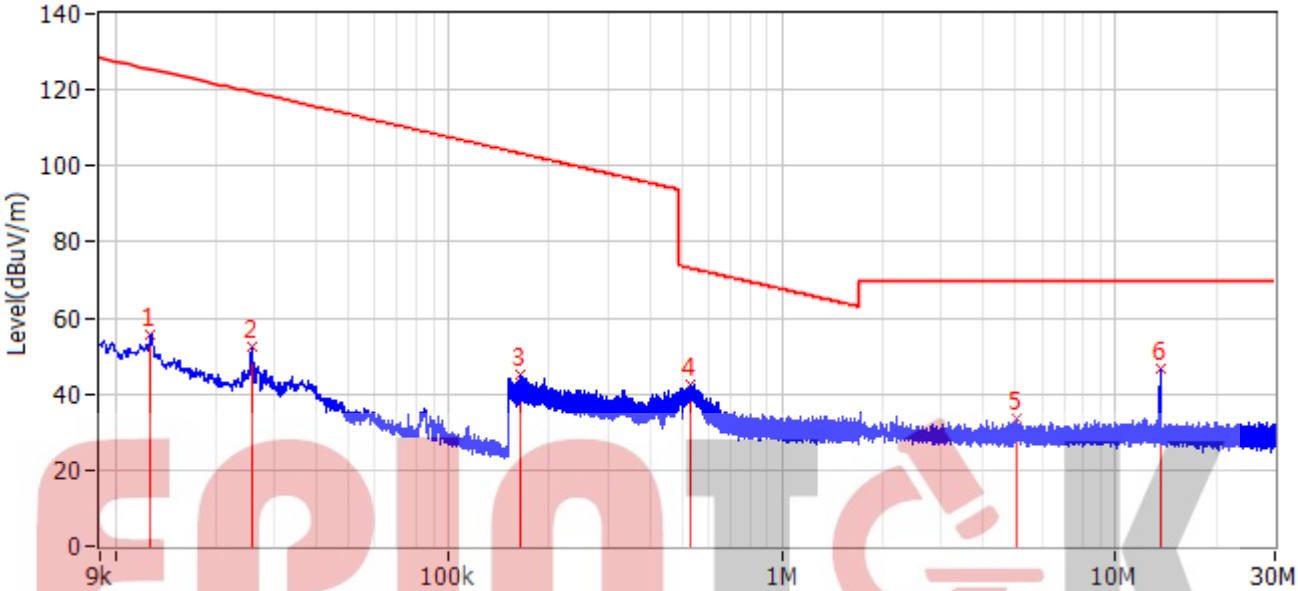
Product Name	:	Mobility Scooter	Power	:	DC 24V
Test Mode	:	Mode 1	Test Site	:	3m Anechoic Chamber 1
Test Date	:	Mar. 24, 2025	Test Engineer	:	Dream Li



No.	Frequency	Limit dBuV/m	Level dBuV/m	Delta dB	Reading dBuV	Factor dB/m	Detector	Polar	Height cm	Angle deg
1	13.368MHz	80.0	40.2	-39.8	20.9	19.3	PK	Ver	100.0	165.0
2	13.560MHz	123.0	47.4	-75.6	28.1	19.3	PK	Ver	100.0	165.0
3	13.804MHz	80.0	42.0	-38.0	22.8	19.2	PK	Ver	100.0	165.0
4	14.148MHz	69.5	44.7	-24.8	25.5	19.2	PK	Ver	100.0	165.0
5	14.228MHz	69.5	45.3	-24.2	26.1	19.2	PK	Ver	100.0	165.0
6	14.304MHz	69.5	45.8	-23.7	26.6	19.2	PK	Ver	100.0	165.0

7 APPENDIX C-TEST DATA:FIELD STRENGTH OF SPURIOUS

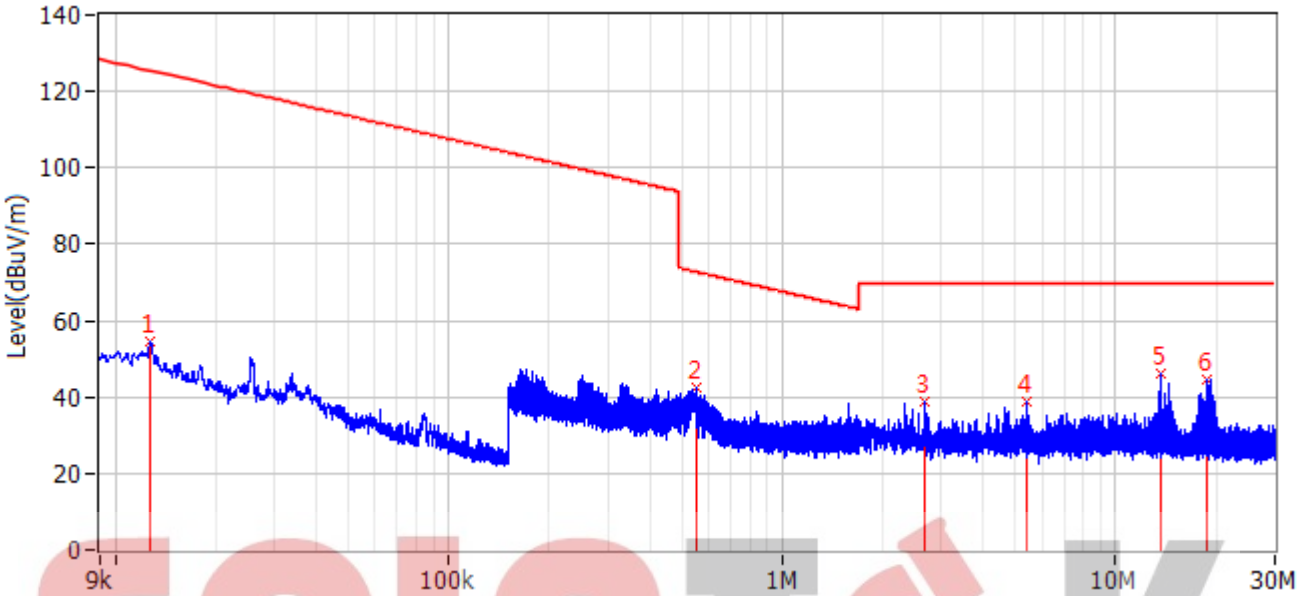
Product Name	:	Mobility Scooter	Power	:	DC 24V
Test Mode	:	Mode 1	Test Site	:	3m Anechoic Chamber 1
Test Date	:	Mar. 24, 2025	Test Engineer	:	Dream Li



No.	Frequency	Limit dBuV/m	Level dBuV/m	Delta dB	Reading dBuV	Factor dB/m	Detector	Polar	Height cm	Angle deg
1	12.789kHz	125.4	55.7	-69.7	34.9	20.8	AV	Hor	100.0	282.0
2	25.638kHz	119.4	52.6	-66.8	32.9	19.7	AV	Hor	100.0	282.0
3	164.152kHz	103.3	45.1	-58.2	26.0	19.1	AV	Hor	100.0	282.0
4	533.254kHz	73.1	42.7	-30.4	23.6	19.1	QP	Hor	100.0	282.0
5	5.069MHz	69.5	33.7	-35.8	14.4	19.3	QP	Hor	100.0	282.0
6	13.564MHz	69.5	46.6	-22.9	27.3	19.3	QP	Hor	100.0	282.0

Note1: Level= Reading+Factor
Note2: 13.56 MHz is fundamental signal which can be ignored.

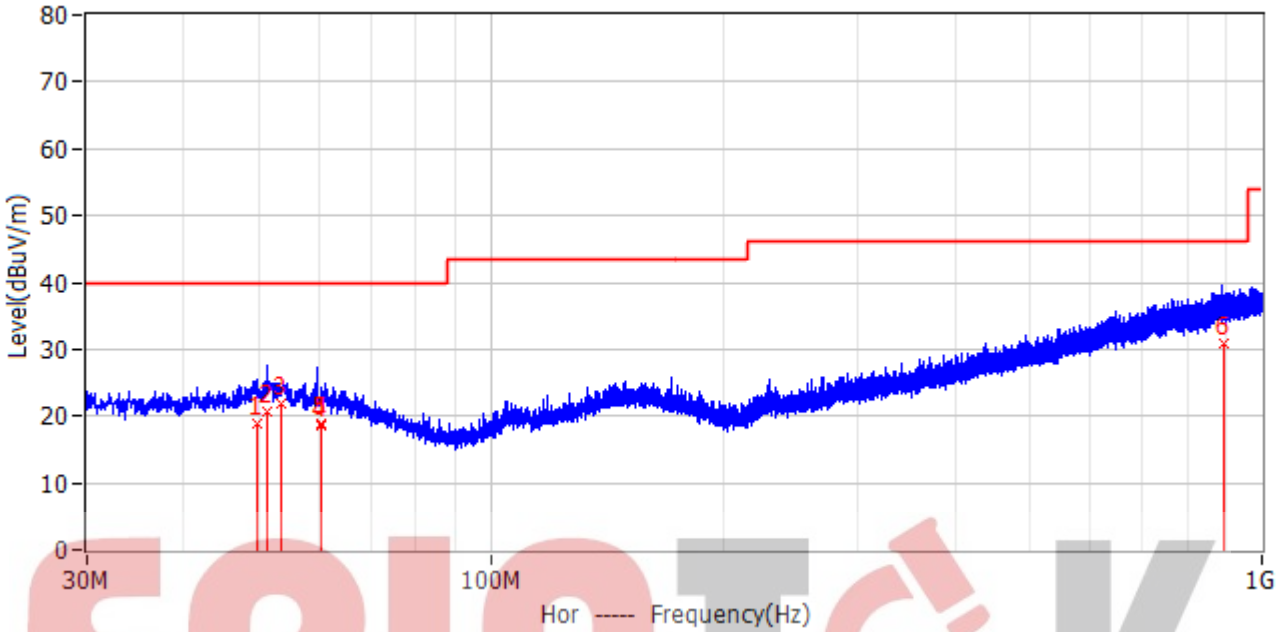
Product Name	:	Mobility Scooter	Power	:	DC 24V
Test Mode	:	Mode 1	Test Site	:	3m Anechoic Chamber 1
Test Date	:	Mar. 24, 2025	Test Engineer	:	Dream Li



No.	Frequency	Limit dBuV/m	Level dBuV/m	Delta dB	Reading dBuV	Factor dB/m	Detector	Polar	Height cm	Angle deg
1	12.719kHz	125.5	54.7	-70.8	33.9	20.8	AV	Ver	100.0	360.0
2	555.002kHz	72.7	42.6	-30.1	23.5	19.1	PK	Ver	100.0	360.0
3	2.661MHz	69.5	38.7	-30.8	19.3	19.4	PK	Ver	100.0	360.0
4	5.378MHz	69.5	38.6	-30.9	19.1	19.5	PK	Ver	100.0	360.0
5	13.561MHz	69.5	46.1	-23.4	26.8	19.3	PK	Ver	100.0	360.0
6	18.863MHz	69.5	44.5	-25.0	25.6	18.9	PK	Ver	100.0	360.0

Note1: Level= Reading+Factor
Note2: 13.56 MHz is fundamental signal which can be ignored.

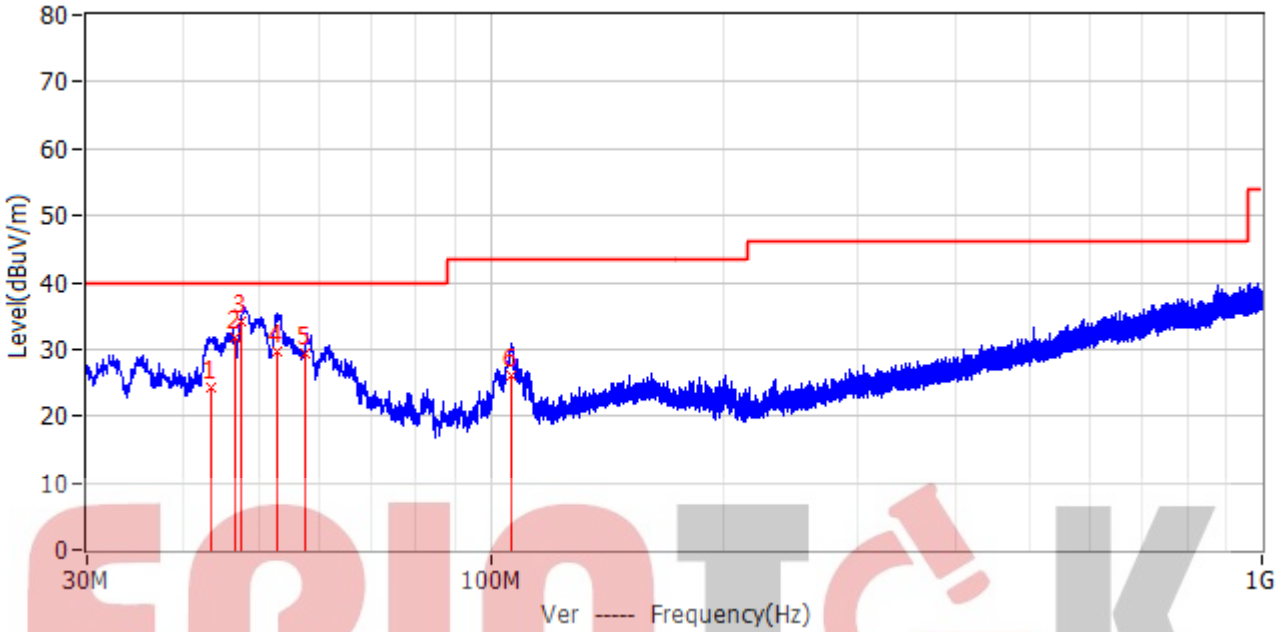
Product Name	:	Mobility Scooter	Power	:	DC 24V
Test Mode	:	Mode 1	Test Site	:	3m Anechoic Chamber 1
Test Date	:	Mar. 24, 2025	Test Engineer	:	Dream Li



No.	Frequency	Limit dBuV/m	Level dBuV/m	Delta dB	Reading dBuV	Factor dB/m	Detector	Polar	Height cm	Angle deg
1	49.786MHz	40.0	18.8	-21.2	-1.4	20.2	QP	Hor	100.0	63.1
2	51.496MHz	40.0	20.7	-19.3	0.5	20.2	QP	Hor	100.0	25.1
3	53.546MHz	40.0	21.8	-18.2	1.6	20.2	QP	Hor	100.0	5.9
4	60.292MHz	40.0	18.5	-21.5	-1.3	19.8	QP	Hor	100.0	198.0
5	60.508MHz	40.0	19.0	-21.0	-0.8	19.8	QP	Hor	100.0	199.0
6	892.520MHz	46.0	30.9	-15.1	-2.2	33.1	QP	Hor	100.0	4.1

Note1: Level= Reading+Factor

Product Name	:	Mobility Scooter	Power	:	DC 24V
Test Mode	:	Mode 1	Test Site	:	3m Anechoic Chamber 1
Test Date	:	Mar. 24, 2025	Test Engineer	:	Dream Li



No.	Frequency	Limit dBuV/m	Level dBuV/m	Delta dB	Reading dBuV	Factor dB/m	Detector	Polar	Height cm	Angle deg
1	43.323MHz	40.0	24.2	-15.8	4.3	19.9	QP	Ver	100.0	193.9
2	46.769MHz	40.0	31.7	-8.3	11.6	20.1	QP	Ver	100.0	108.0
3	47.627MHz	40.0	34.2	-5.8	14.0	20.2	QP	Ver	100.0	248.9
4	52.952MHz	40.0	29.8	-10.2	9.6	20.2	QP	Ver	100.0	248.9
5	57.415MHz	40.0	29.5	-10.5	9.4	20.1	QP	Ver	100.0	277.1
6	106.213MHz	43.5	26.1	-17.4	9.3	16.8	QP	Ver	100.0	294.6

Note1: Level= Reading+Factor

8 APPENDIX D-TEST DATA:FREQUENCY STABILITY

Power Supply (V DC)	Envir. Temp (°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
24	50	13.5608154	3.038	13.5608158	3.009	13.5608122	3.274	13.5608021	4.019	± 100
	40	13.5608264	2.227	13.5608275	2.146	13.5608245	2.367	13.5608175	2.883	± 100
	30	13.5608386	1.327	13.5608394	1.268	13.5608365	1.482	13.5608242	2.389	± 100
	20	**13.5608566**	**0.000**	**13.5608566**	**0.000**	**13.5608588**	**-0.162**	**13.5608426**	**1.032**	**± 100**
	10	13.5608586	-0.147	13.5608575	-0.066	13.5608586	-0.147	13.5608601	-0.258	± 100
	0	13.5608621	-0.406	13.5608615	-0.361	13.5608823	-1.895	13.5609022	-3.363	± 100
	-10	13.5608645	-0.583	13.5608855	-2.131	13.5608893	-2.411	13.5609124	-4.115	± 100
	-20	13.5608695	-0.951	13.5608975	-3.016	13.5609016	-3.318	13.5609183	-4.550	± 100
20.4	20	13.5608655	-0.656	13.5608676	-0.811	13.5608699	-0.981	13.5608665	-0.730	± 100
27.6	20	13.5608496	0.516	13.5608456	0.811	13.5608435	0.966	13.5608377	1.394	± 100

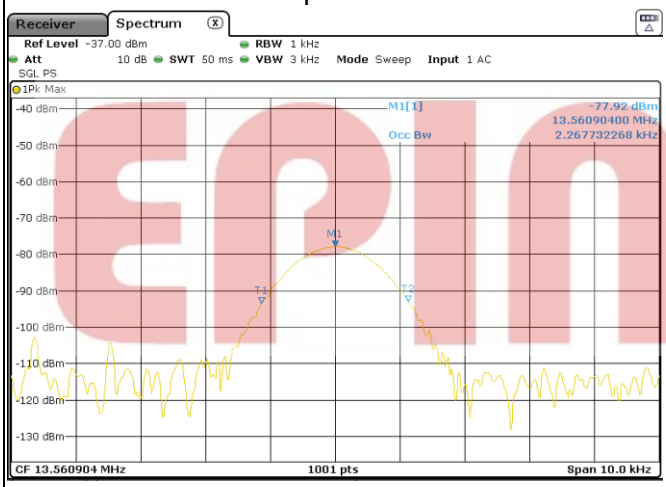
9 APPENDIX E-TEST DATA:EMISSION BANDWIDTH

Product Name	:	Mobility Scooter	Power	:	DC 24V
Test Mode	:	Mode 1	Test Site	:	3m Anechoic Chamber 1
Test Date	:	Mar. 25, 2025	Test Engineer	:	Dream Li

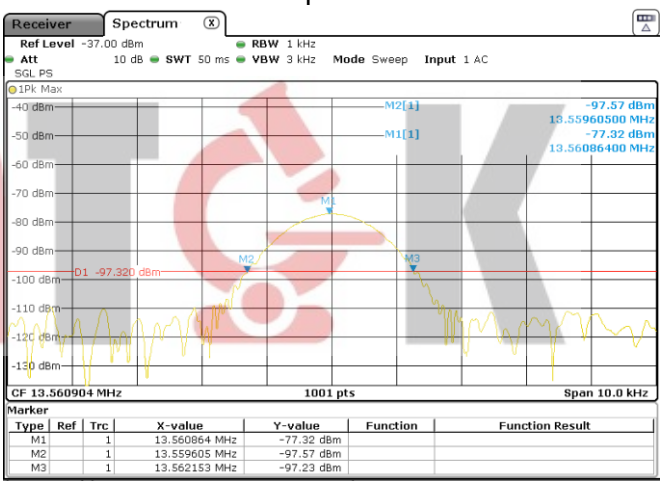
Mode	Test Freq. (MHz)	99% Occupied Bandwidth (kHz)	20dB Occupied Bandwidth (kHz)	Limit (kHz)	Result
1	13.56	2.267	2.548	/	/
/	/	/	F_L:13.559605 F_H:13.562153	F_L>13.533 F_H<13.567	PASS

Note : The test results as below:

99% Occupied Bandwidth



20dB Occupied Bandwidth



The measured signal is CW-like, adjusting the RBW per C63.10 would not be practical since measurement bandwidth will always follow the RBW. The RBW is set to 1KHz to perfomm the occupied bandwidth test.