

RF MEASUREMENT REPORT

FCC ID: 2ALS8-KS0011

Applicant: Ninebot (Changzhou) Tech Co., Ltd.

Product: Segway KickScooter

Model No.: P100SU

Brand Name: Segway

FCC Classification: Part 15 Low Power Communication Device Transmitter (DXX)

FCC Rule Part(s): Part 15 Subpart C (Section 15.225)

Result: Complies

Test Date: 2022-06-09 ~ 2022-06-20

Reviewed By:

Vincent Yu

Approved By:

Robin Wu



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2013. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2205RSU039-U2	Rev. 01	Initial Report	2022-06-23	Valid

CONTENTS

Description	Page
1. General Information	5
1.1. Applicant.....	5
1.2. Manufacturer	5
1.3. Testing Facility	5
1.4. Product Information	6
1.5. Radio Specification.....	6
2. Test Configuration.....	7
2.1. Test Mode	7
2.2. Test System Connection Diagram	7
2.3. Applied Standards	8
2.4. Test Environment Condition	8
3. Antenna Requirements	9
4. Measuring Instrument.....	10
5. Measurement Uncertainty	11
6. Test Result	12
6.1. Summary	12
6.2. In-band Emission.....	13
6.2.1. Test Limit	13
6.2.2. Test Procedure	13
6.2.3. Test Setting.....	13
6.2.4. Test Setup	14
6.2.5. Test Result.....	14
6.3. Out-band Emission.....	15
6.3.1. Test Limit	15
6.3.2. Test Procedure	15
6.3.3. Test Setting.....	15
6.3.4. Test Setup	16
6.3.5. Test Result.....	17
6.4. Occupied Bandwidth	18
6.4.1. Test Limit	18
6.4.2. Test Procedure	18
6.4.3. Test Setting.....	18
6.4.4. Test Setup	19
6.4.5. Test Result.....	19

6.5.	Frequency Tolerance	20
6.5.1.	Test Limit	20
6.5.2.	Test Procedure	20
6.5.3.	Test Setting	20
6.5.4.	Test Setup	21
6.5.5.	Test Result.....	21
6.6.	AC Conducted Emissions	22
6.6.1.	Test Limit	22
6.6.2.	Test Setup	22
6.6.3.	Test Result.....	22
Appendix A - Test Result		23
A.1	In-band Emission Test Result	23
A.2	Out-Band Emission Test Result.....	25
A.3	Occupied Bandwidth Test Result	29
A.4	Frequency Tolerance Test Result	31
A.5	AC Conducted Emissions Test Result.....	32
Appendix B - Test Setup Photograph.....		38
Appendix C - EUT Photograph.....		39

1. General Information

1.1. Applicant

Ninebot (Changzhou) Tech Co., Ltd.

16F-17F, Block A, Building 3, Changwu Mid Road 18#, Wujin Dist., Changzhou, Jiangsu, China

1.2. Manufacturer

Ninebot (Changzhou) Tech Co., Ltd.

16F-17F, Block A, Building 3, Changwu Mid Road 18#, Wujin Dist., Changzhou, Jiangsu, China

1.3. Testing Facility

☒	Test Site – MRT Suzhou Laboratory Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China Laboratory Location (Suzhou - SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China Laboratory Accreditations A2LA: 3628.01 CNAS: L10551 FCC: CN1166 ISED: CN0001 VCCI: ☐ R-20025 ☐ G-20034 ☐ C-20020 ☐ T-20020 ☐ R-20141 ☐ G-20134 ☐ C-20103 ☐ T-20104
☐	Test Site – MRT Shenzhen Laboratory Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China Laboratory Accreditations A2LA: 3628.02 CNAS: L10551 FCC: CN1284 ISED: CN0105
☐	Test Site – MRT Taiwan Laboratory Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) Laboratory Accreditations TAF: L3261-190725 FCC: 291082, TW3261 ISED: TW3261

1.4. Product Information

Product Name	Segway KickScooter
Model No.	P100SU
EUT Identification No.	20220526Sample#09 (For Radiated Test)
Bluetooth Specification	V4.1 single mode for BLE
NFC Specification	13.56MHz
Antenna Information	Refer to Section 1.5
Accessories	
Li-ion Battery Pack	Model No.: NCDF4825B Charging Voltage: 54.6VDC Capacity: 47.2VDC, 23Ah, 1086Wh
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification

Frequency Range	13.56MHz
Type of modulation	ASK
Antenna Type	Loop Antenna

Note: For other features of this EUT, test report will be issued separately.

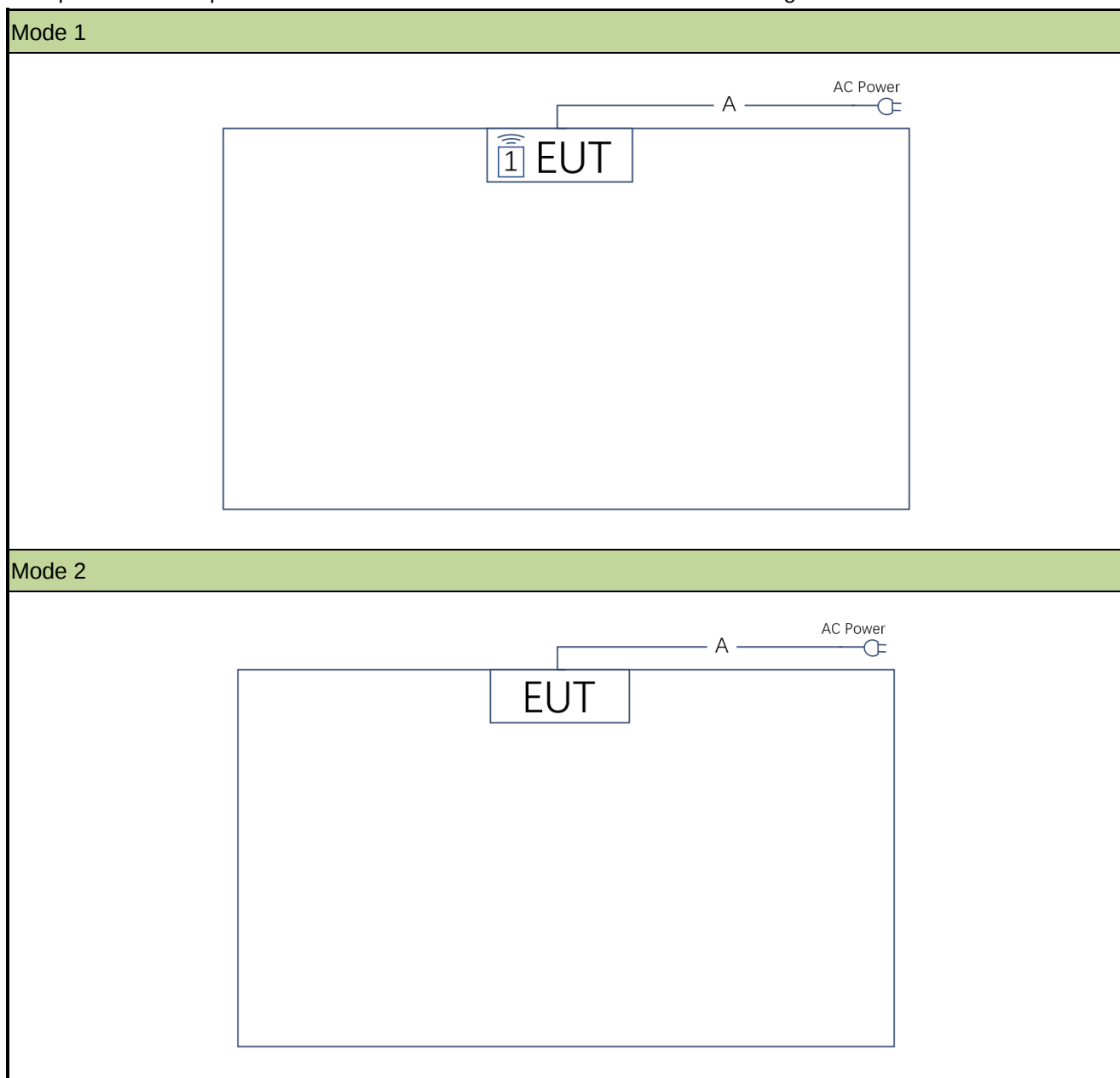
2. Test Configuration

2.1. Test Mode

Test Mode
Mode 1: Transmit by NFC (NFC function on and Swiping NFC Card)
Mode 2: Transmit by NFC (NFC function on and Standby Mode)

2.2. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10-2013 that was used to reference the appropriate EUT setup for radiated spurious emissions and AC line conducted emission testing.



No.	Cable Type	Cable Spec.	Length
A	Power Cable	Non-Shielding	1.8m
No.	Product	Manufacturer	Model No.
1	NFC Card	Ninebot (Changzhou) Tech Co., Ltd.	N/A

2.3. Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15.225
- ANSI C63.10-2013

2.4. Test Environment Condition

Ambient Temperature	15 ~ 35 °C
Relative Humidity	20 ~75 %RH

3. Antenna Requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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 antenna of the this device is **permanently attached**.
- There are no provisions for connection to an external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

4. Measuring Instrument

Instrument Name	Manufacturer	Model No.	Asset No.	Cali. Interval	Cal. Due Date	Test Site
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2022-12-29	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2022-11-12	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2022-08-05	WZ-AC1
Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2023-04-21	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE06403	1 year	2023-06-06	WZ-AC1
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2022-12-29	WZ-AC1
Thermohygrometer	testo	Testo 608-H1	MRTSUE11039	1 year	2022-11-11	WZ-AC1
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2022-10-28	WZ-AC1/WZ-TR3
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2023-06-04	WZ-SR2
Shielding Room	MIX-BEP	WZ-SR2	MRTSUE06215	5 years	2026-12-20	WZ-SR2
Thermohygrometer	testo	608-H1	MRTSUE06404	1 year	2023-06-06	WZ-SR2
EMI Test Receiver	R&S	ESR3	MRTSUE06909	1 year	2022-11-01	WZ-SR2/WZ-TR3
Temperature Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2022-10-10	WZ-TR3
Thermohygrometer	testo	608-H1	MRTSUE06401	1 year	2022-06-28	WZ-TR3

Software	Version	Function
EMI V3	V 3.0.0	EMI Test Software
Controller_MF 7802	2.03C	RE Antenna&turntable

5. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement
Measurement Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 9kHz~150kHz: 3.74dB 150kHz~30MHz: 3.44dB
Radiated Disturbance
Measurement Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): Horizontal: 9kHz~300MHz: 5.04dB 300MHz~1GHz: 4.95dB 1GHz~40GHz: 6.40dB Vertical: 9kHz~300MHz: 5.24dB 300MHz~1GHz: 6.03dB 1GHz~40GHz: 6.40dB

6. Test Result

6.1. Summary

FCC Part Section(s)	Test Description	Test Condition	Test Result
15.225 (a), (b), (c)	In-Band Emission	Radiated	Pass
15.225(d)	Out-Band Emission		Pass
15.215(c)	20dB Bandwidth		Pass
15.225(e)	Frequency Tolerance		Pass
15.207	AC Conducted Emissions 150kHz - 30MHz	Line Conducted	Pass

6.2. In-band Emission

6.2.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.225		
Frequency (MHz)	Distance (m)	Level (μV/m)
13.553 ~13.567	30	15848
13.410 ~13.553, 13.567 ~13.710	30	334
13.110 ~13.410, 13.710 ~14.010	30	106
Note 1: The lower limit shall apply at the transition frequency.		
Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.		
Note 3: E field strength (dBμV/m) = 20 log E field strength (μV/m)		

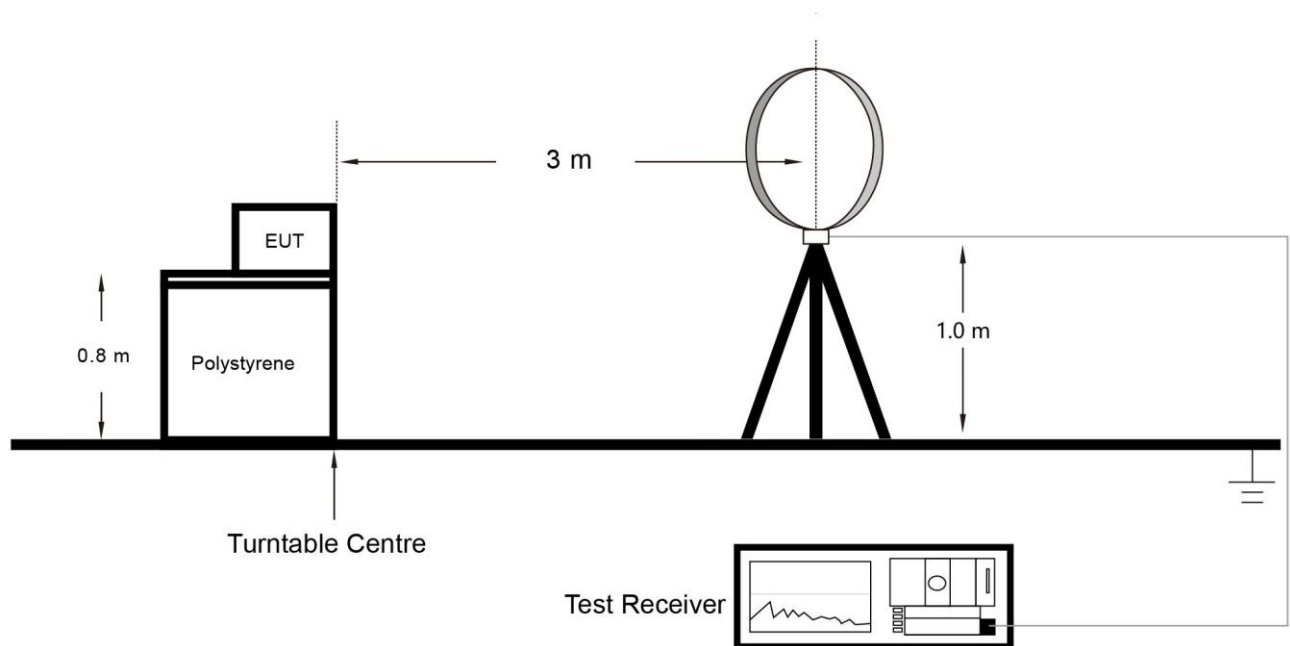
6.2.2. Test Procedure

ANSI C63.10-2013 - Section 6.4.7

6.2.3. Test Setting

1. RBW = 9kHz
2. VBW = 3 * RBW
3. Detector = Peak
4. Trace mode = Max hold
5. Sweep = Auto couple
6. Allow the trace to stabilize

6.2.4. Test Setup



6.2.5. Test Result

Refer to Appendix A.1.

6.3. Out-band Emission

6.3.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Distance (m)	Level ($\mu\text{V/m}$)
0.009 - 0.490	300	2400/F (kHz)
0.490 - 1.705	30	24000/F (kHz)
1.705 - 30	30	30
30 - 88	3	100
88 - 216	3	150
216 - 960	3	200
Above 960	3	500

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength (dB $\mu\text{V/m}$) = 20 log E field strength ($\mu\text{V/m}$)

6.3.2. Test Procedure

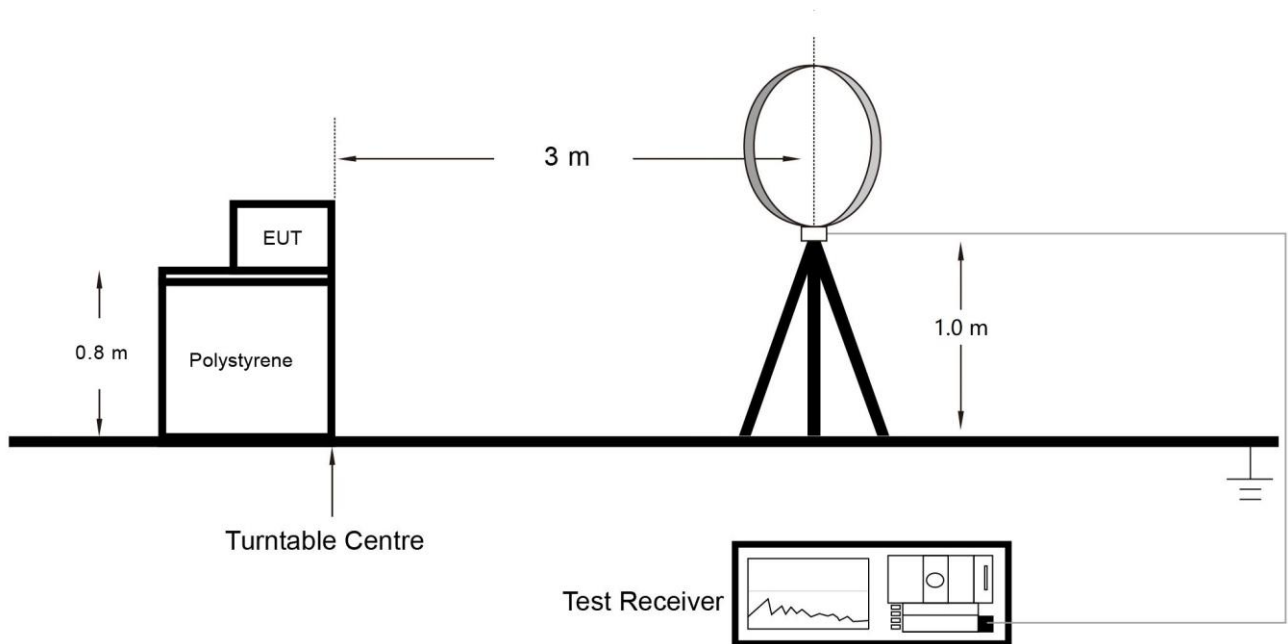
ANSI C63.10-2013 - Section 6.5.4

6.3.3. Test Setting

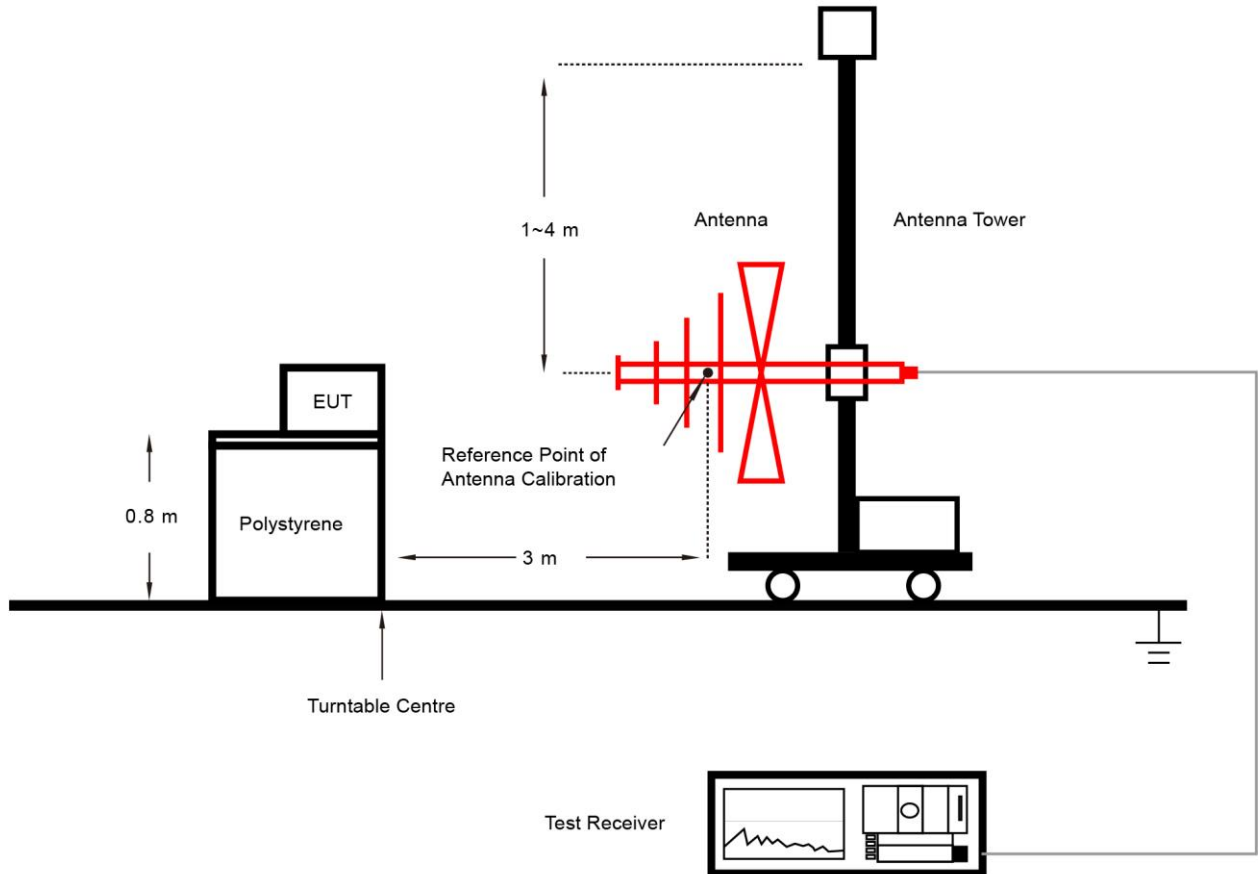
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 9kHz for emission below 30MHz and 100kHz for emission between 30MHz and 1GHz
3. VBW = 3 * RBW
4. Detector = Peak
5. Trace mode = Max hold
6. Sweep = Auto couple
7. Allow the trace to stabilize

6.3.4. Test Setup

9kHz ~ 30MHz Test Setup:



30MHz ~ 1GHz Test Setup:



6.3.5. Test Result

Refer to Appendix A.2.

6.4. Occupied Bandwidth

6.4.1. Test Limit

Within the operating frequency band (13.110 ~ 14.010 MHz).

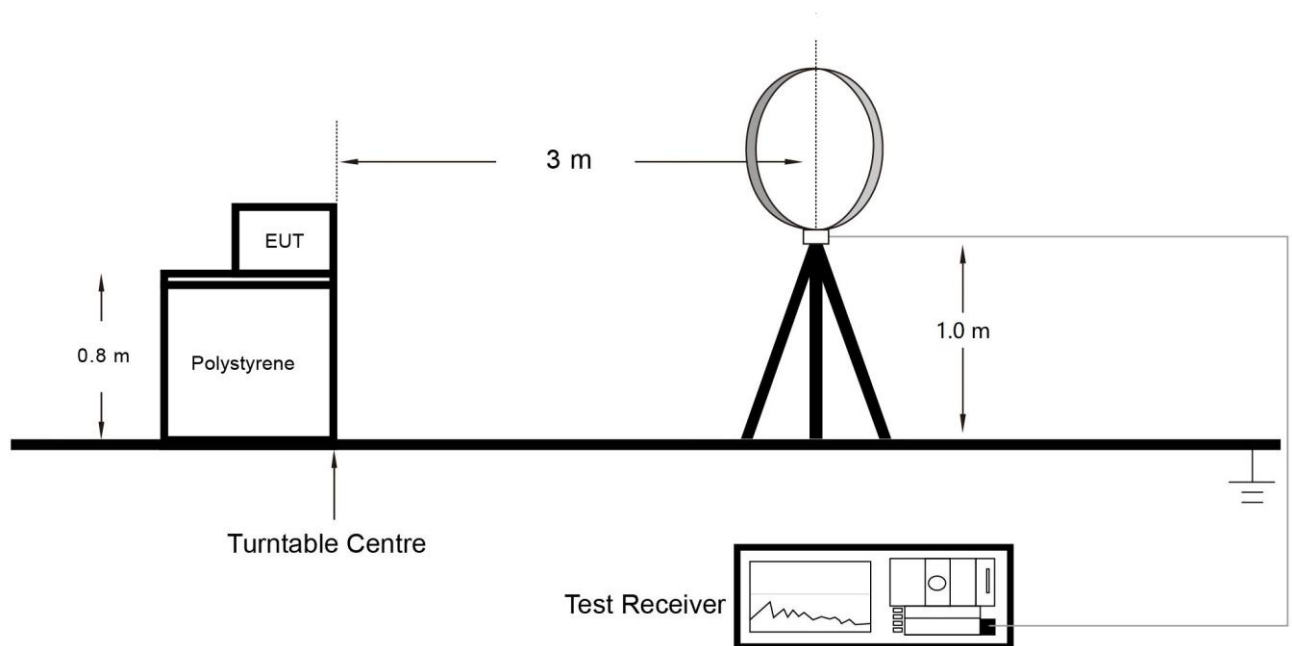
6.4.2. Test Procedure

ANSI C63.10-2013 - Section 6.9.2

6.4.3. Test Setting

1. Set RBW $\geq$ 1% to 5% of the 20dB bandwidth
2. VBW = approximately three times RBW
3. Span = approximately 2 to 5 times the 20dB bandwidth
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace to stabilize
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 20 dB relative to the maximum level measured in the fundamental emission.

6.4.4. Test Setup



6.4.5. Test Result

Refer to Appendix A.3.

6.5. Frequency Tolerance

6.5.1. Test Limit

The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency.

6.5.2. Test Procedure

ANSI C63.10-2013 - Section 6.8

6.5.3. Test Setting

Frequency Stability Under Temperature Variations:

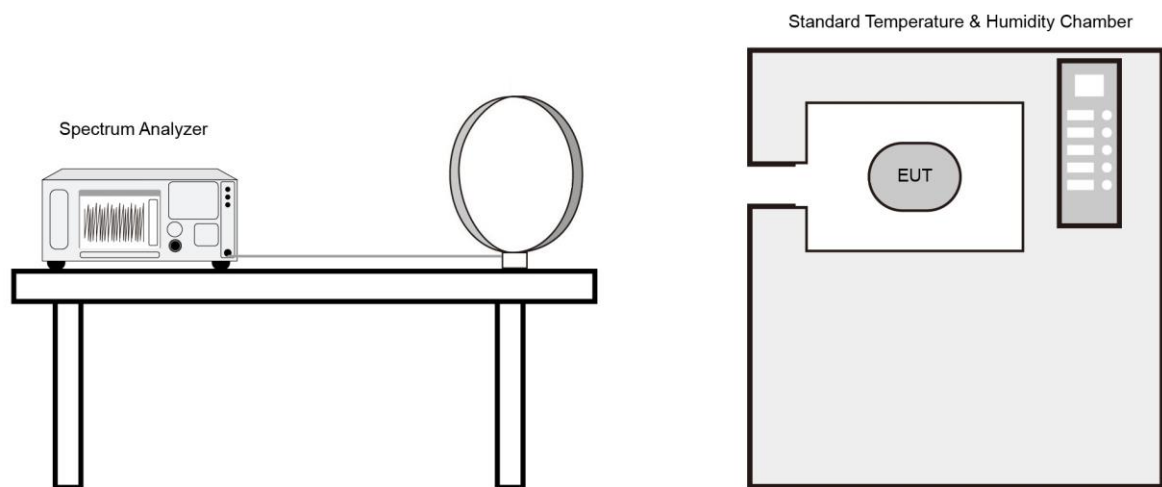
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change. For hand-carried battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

6.5.4. Test Setup



6.5.5. Test Result

Refer to Appendix A.4.

6.6. AC Conducted Emissions

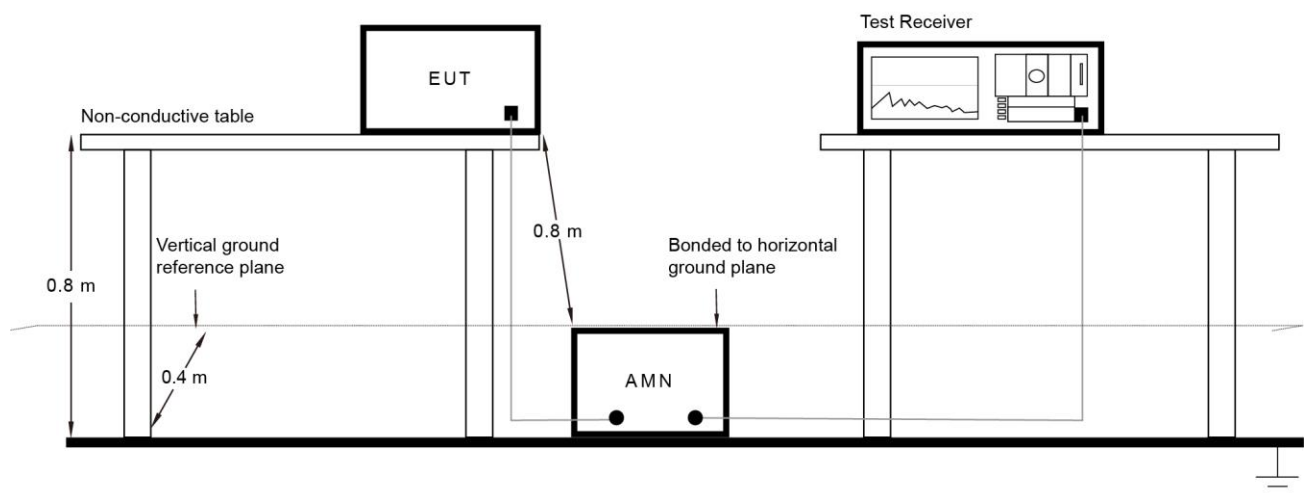
6.6.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207		
Frequency (MHz)	QP (dB μ V)	AV (dB μ V)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

6.6.2. Test Setup



6.6.3. Test Result

Refer to Appendix A.5.

Appendix A - Test Result

A.1 In-band Emission Test Result

Test Site	WZ-AC1	Test Date	2022/06/11
Test Engineer	Charles Zhang	Test Mode	Mode 1

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit @3m (dBμV/m)	Margin [dB]	Detector	Polarization
13.110	8.438	17.043	25.481	80.506	-55.025	Peak	Coaxial
13.410	8.586	17.037	25.623	80.506	-54.883	Peak	Coaxial
13.553	29.425	17.034	46.459	90.488	-44.029	Peak	Coaxial
13.560	35.581	17.034	52.615	123.999	-71.384	Peak	Coaxial
13.567	28.304	17.034	45.338	90.488	-45.150	Peak	Coaxial
13.710	8.155	17.031	25.186	80.506	-55.320	Peak	Coaxial
14.010	8.239	17.026	25.265	80.506	-55.241	Peak	Coaxial
13.110	7.846	17.043	24.889	80.506	-55.617	Peak	Coplanar
13.410	7.524	17.037	24.561	80.506	-55.945	Peak	Coplanar
13.553	25.031	17.034	42.065	90.488	-48.423	Peak	Coplanar
13.560	31.040	17.034	48.074	123.999	-75.925	Peak	Coplanar
13.567	24.011	17.034	41.045	90.488	-49.443	Peak	Coplanar
13.710	7.230	17.031	24.261	80.506	-56.245	Peak	Coplanar
14.010	7.404	17.026	24.430	80.506	-56.076	Peak	Coplanar

Note:

- Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)
- Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)
- Measurements were tested at 3m and the data was extrapolated to the specified measurement distance of 30m using the square of an inverse linear extrapolation factor (40 dB/decade) as specified in &15.31(f)(2).
Extrapolation Factor = $40 \times \log(30/3) = 40$ dB
For example, Limit @3m = $20 \times \log(106) + 40 = 80.506$ dBμV/m
- All measurements were recorded using an EMI test receiver employing a peak detector.

Test Site	WZ-AC1	Test Date	2022/06/11
Test Engineer	Charles Zhang	Test Mode	Mode 2

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit @3m (dBμV/m)	Margin [dB]	Detector	Polarization
13.110	7.786	17.043	24.829	80.506	-55.677	Peak	Coaxial
13.410	7.745	17.037	24.782	80.506	-55.724	Peak	Coaxial
13.553	29.119	17.034	46.153	90.488	-44.335	Peak	Coaxial
13.560	35.257	17.034	52.291	123.999	-71.708	Peak	Coaxial
13.567	27.798	17.034	44.832	90.488	-45.656	Peak	Coaxial
13.710	7.605	17.031	24.636	80.506	-55.870	Peak	Coaxial
14.010	8.207	17.026	25.233	80.506	-55.273	Peak	Coaxial
13.110	6.474	17.043	23.517	80.506	-56.989	Peak	Coplanar
13.410	7.024	17.037	24.061	80.506	-56.445	Peak	Coplanar
13.553	25.153	17.034	42.187	90.488	-48.301	Peak	Coplanar
13.560	31.073	17.034	48.107	123.999	-75.892	Peak	Coplanar
13.567	24.123	17.034	41.157	90.488	-49.331	Peak	Coplanar
13.710	8.254	17.031	25.285	80.506	-55.221	Peak	Coplanar
14.010	7.883	17.026	24.909	80.506	-55.597	Peak	Coplanar

Note:

1. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)
2. Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)
3. Measurements were tested at 3m and the data was extrapolated to the specified measurement distance of 30m using the square of an inverse linear extrapolation factor (40 dB/decade) as specified in &15.31(f)(2).
Extrapolation Factor = $40 \times \log(30/3) = 40$ dB
For example, Limit @3m = $20 \times \log(106) + 40 = 80.506$ dBμV/m
4. All measurements were recorded using an EMI test receiver employing a peak detector.

A.2 Out-Band Emission Test Result

Test Site	WZ-AC1	Test Date	2022/06/11
Test Engineer	Charles Zhang	Test Mode	Mode 1
Remark	Out-Band Emission below 30MHz		

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)	Detector	Polarization
0.150	33.225	17.121	50.346	104.082	-53.736	Peak	Coaxial
0.299	27.171	17.131	44.302	98.091	-53.789	Peak	Coaxial
0.374	26.953	17.178	44.131	96.147	-52.016	Peak	Coaxial
0.523	22.309	17.316	39.625	73.234	-33.609	Peak	Coaxial
0.777	20.016	17.456	37.472	69.796	-32.324	Peak	Coaxial
27.120	8.088	17.130	25.218	69.542	-44.324	Peak	Coaxial
0.150	32.639	17.121	49.760	104.082	-54.322	Peak	Coplanar
0.329	24.081	17.147	41.228	97.260	-56.032	Peak	Coplanar
0.449	21.073	17.247	38.320	94.559	-56.239	Peak	Coplanar
1.613	16.712	17.491	34.203	63.452	-29.249	Peak	Coplanar
6.180	14.163	17.348	31.511	69.542	-38.031	Peak	Coplanar
27.120	8.975	17.130	26.105	69.542	-43.437	Peak	Coplanar

Note:

1. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)
2. Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)
3. Measurements were tested at 3m and the data was extrapolated to the specified measurement distance of 30m using the square of an inverse linear extrapolation factor (40 dB/decade) as specified in &15.31(f)(2).
Extrapolation Factor = $40 \cdot \log(300/3) = 40$ dB for range 0.009 ~ 0.490MHz,
Extrapolation Factor = $40 \cdot \log(30/3) = 40$ dB for range 0.490 ~ 30MHz,
For example, Limit @3m = $20 \cdot \log(30) + 40 = 69.542$ dBμV/m for 1.705 ~ 30MHz.

Test Site	WZ-AC1	Test Date	2022/06/11
Test Engineer	Charles Zhang	Test Mode	Mode 1
Remark	Out-Band Emission above 30MHz		

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)	Detector	Polarization
185.685	20.267	15.512	35.779	43.500	-7.721	Peak	Horizontal
243.885	18.157	16.159	34.316	46.000	-11.684	Peak	Horizontal
256.010	16.573	16.511	33.084	46.000	-12.916	Peak	Horizontal
511.605	7.161	23.382	30.543	46.000	-15.457	Peak	Horizontal
538.765	6.899	23.689	30.588	46.000	-15.412	Peak	Horizontal
793.390	4.545	28.369	32.914	46.000	-13.086	Peak	Horizontal
30.485	16.313	16.149	32.462	40.000	-7.538	Peak	Vertical
50.370	13.535	18.551	32.086	40.000	-7.914	Peak	Vertical
166.770	16.239	17.780	34.019	43.500	-9.481	Peak	Vertical
184.230	16.708	15.719	32.427	43.500	-11.073	Peak	Vertical
243.885	13.907	16.159	30.066	46.000	-15.934	Peak	Vertical
256.010	13.904	16.511	30.415	46.000	-15.585	Peak	Vertical

Note:

1. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)
2. Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

Test Site	WZ-AC1	Test Date	2022/06/11
Test Engineer	Charles Zhang	Test Mode	Mode 2
Remark	Out-Band Emission below 30MHz		

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)	Detector	Polarization
0.150	33.742	17.121	50.863	104.082	-53.219	Peak	Coaxial
0.254	27.452	17.122	44.574	99.508	-54.934	Peak	Coaxial
0.329	27.744	17.147	44.891	97.260	-52.369	Peak	Coaxial
0.837	19.183	17.471	36.654	69.150	-32.496	Peak	Coaxial
2.538	15.456	17.493	32.949	69.542	-36.593	Peak	Coaxial
27.120	8.636	17.130	25.766	69.542	-43.776	Peak	Coaxial
0.150	30.876	17.121	47.997	104.082	-56.085	Peak	Coplanar
0.254	25.526	17.122	42.648	99.508	-56.860	Peak	Coplanar
0.523	20.242	17.316	37.558	73.234	-35.676	Peak	Coplanar
1.210	18.105	17.500	35.605	65.949	-30.344	Peak	Coplanar
4.448	14.638	17.518	32.156	69.542	-37.386	Peak	Coplanar
27.120	9.070	17.130	26.200	69.542	-43.342	Peak	Coplanar

Note:

1. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)
2. Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)
3. Measurements were tested at 3m and the data was extrapolated to the specified measurement distance of 30m using the square of an inverse linear extrapolation factor (40 dB/decade) as specified in &15.31(f)(2).
Extrapolation Factor = $40 \cdot \log(300/3) = 40$ dB for range 0.009 ~ 0.490MHz,
Extrapolation Factor = $40 \cdot \log(30/3) = 40$ dB for range 0.490 ~ 30MHz,
For example, Limit @3m = $20 \cdot \log(30) + 40 = 69.542$ dBμV/m for 1.705 ~ 30MHz.

Test Site	WZ-AC1	Test Date	2022/06/11
Test Engineer	Charles Zhang	Test Mode	Mode 2
Remark	Out-Band Emission above 30MHz		

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit @3m (dBμV/m)	Margin (dB)	Detector	Polarization
185.685	19.810	15.512	35.322	43.500	-8.178	Peak	Horizontal
243.885	17.762	16.159	33.921	46.000	-12.079	Peak	Horizontal
256.010	17.706	16.511	34.217	46.000	-11.783	Peak	Horizontal
325.365	9.187	19.054	28.241	46.000	-17.759	Peak	Horizontal
532.945	7.499	23.641	31.140	46.000	-14.860	Peak	Horizontal
845.770	4.274	28.837	33.111	46.000	-12.889	Peak	Horizontal
30.970	16.162	16.258	32.420	40.000	-7.580	Peak	Vertical
32.425	15.465	16.565	32.030	40.000	-7.970	Peak	Vertical
48.915	12.948	18.725	31.673	40.000	-8.327	Peak	Vertical
166.285	13.976	17.817	31.793	43.500	-11.707	Peak	Vertical
191.990	16.207	14.773	30.980	43.500	-12.520	Peak	Vertical
256.010	13.083	16.511	29.594	46.000	-16.406	Peak	Vertical

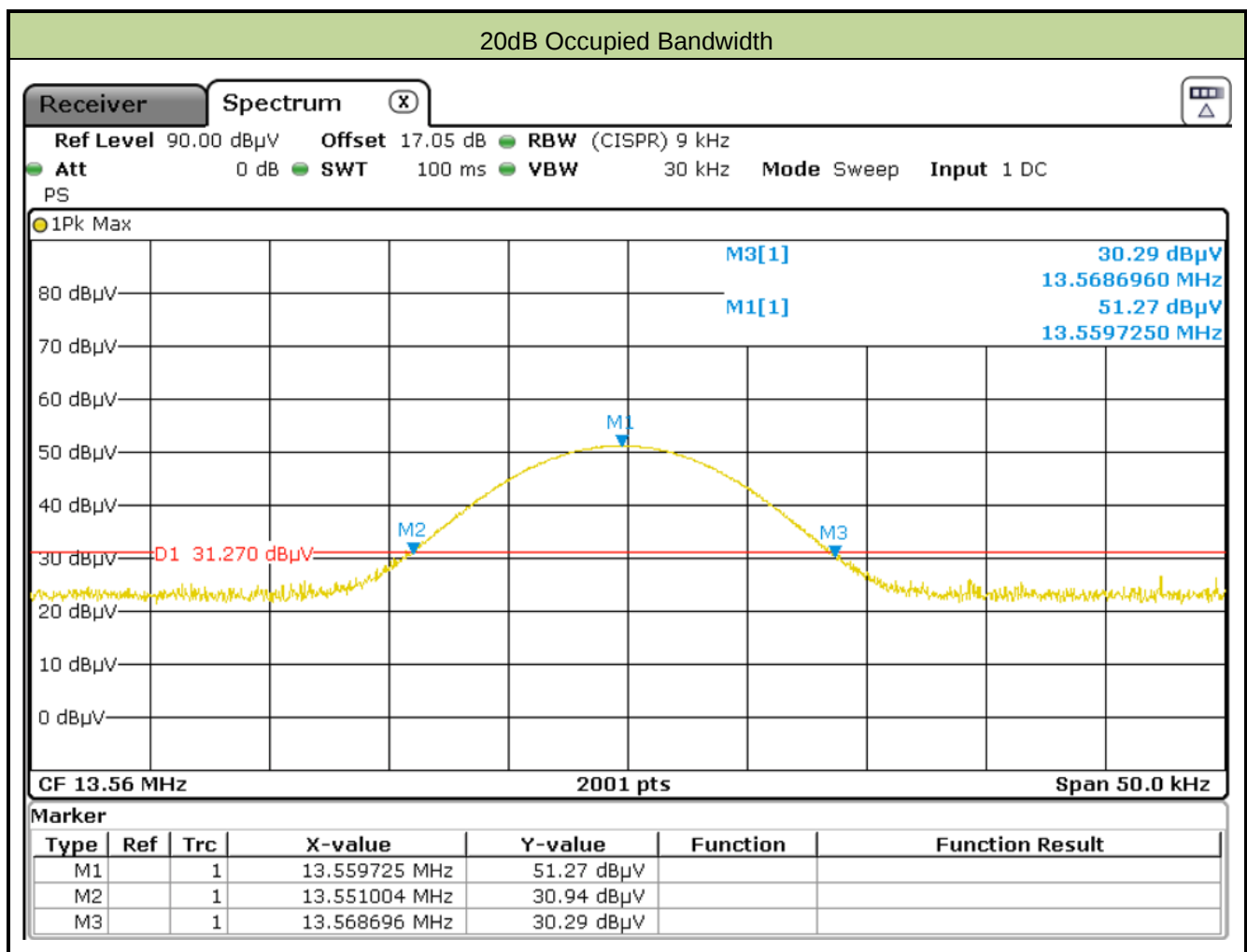
Note:

1. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)
2. Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m)

A.3 Occupied Bandwidth Test Result

Test Site	WZ-AC1	Test Date	2022/06/14
Test Engineer	Charles Zhang	Test Mode	Mode 1

Frequency (MHz)	20dB Occupied Bandwidth (kHz)
13.56	17.692

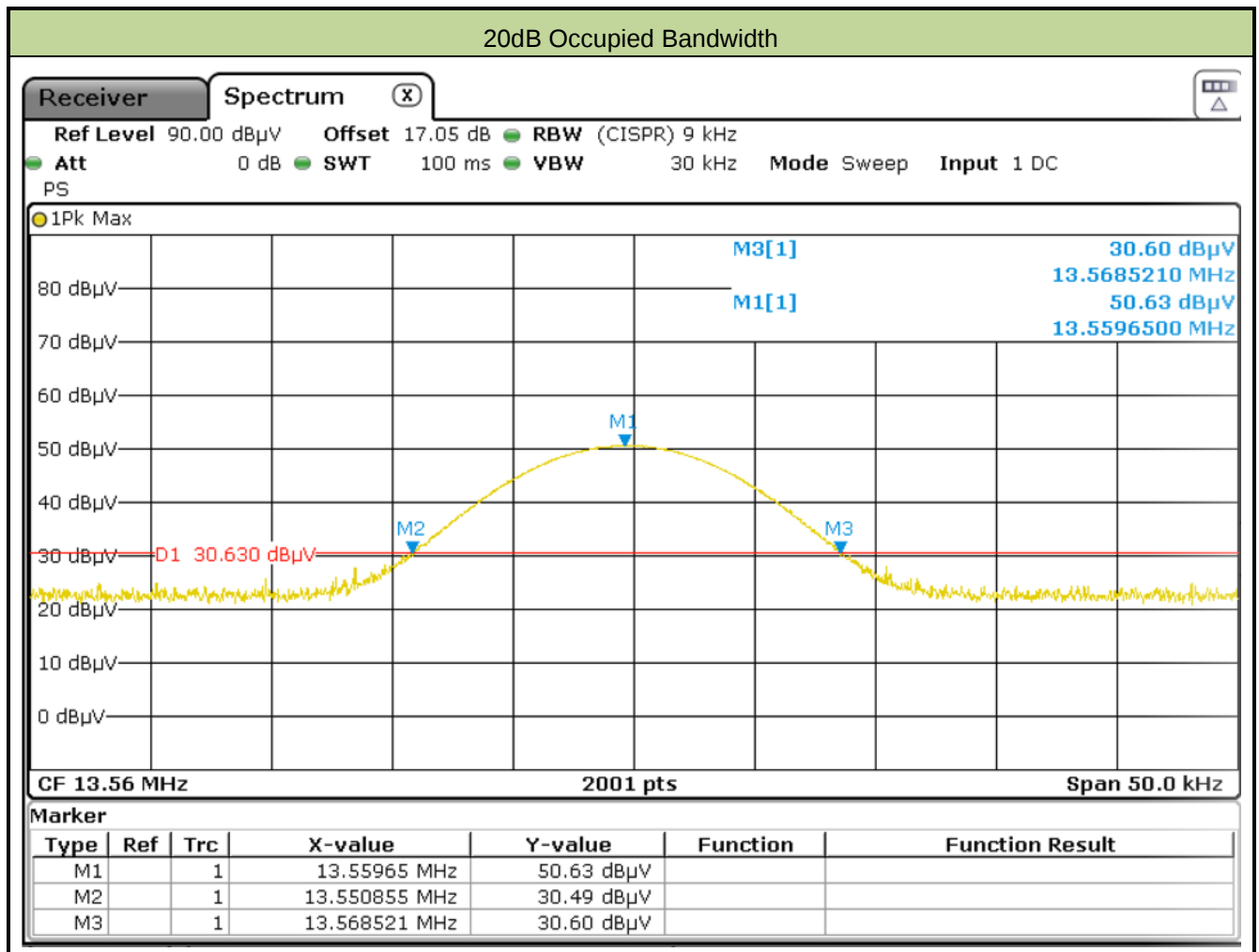


Note:

- Because the measured signal is CW or CW-like, adjusting the RBW per ANSI C63.10-2013 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW. RBW was set to 9kHz for final testing.
- $F_L = 13.551004\text{MHz} > 13.110\text{MHz}$
 $F_H = 13.568696\text{MHz} < 14.010\text{MHz}$

Test Site	WZ-AC1	Test Date	2022/06/14
Test Engineer	Charles Zhang	Test Mode	Mode 2

Frequency (MHz)	20dB Occupied Bandwidth (kHz)
13.56	17.666



Note:

- Because the measured signal is CW or CW-like, adjusting the RBW per ANSI C63.10-2013 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW. RBW was set to 9kHz for final testing.
- $F_L = 13.550855\text{MHz} > 13.110\text{MHz}$
 $F_H = 13.568521\text{MHz} < 14.010\text{MHz}$

A.4 Frequency Tolerance Test Result

Test Site	WZ-TR3	Test Date	2022/06/12
Test Engineer	Bruce Wang	Test Mode	Mode 2

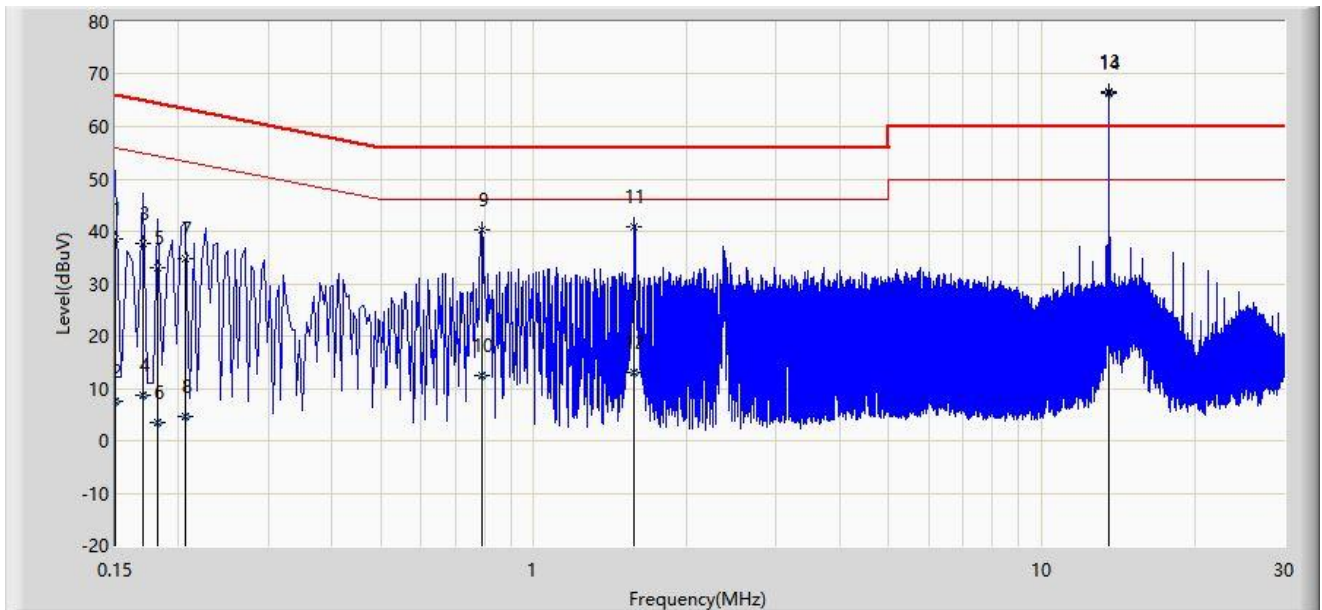
Frequency (MHz)	Voltage (%)	Voltage (V _{dc})	Temperature (°C)	Measure Frequency (MHz)	Tolerance (%)	Limit (%)
13.56	100%	47.20	-20	13.55977	-0.0017	-0.01 ~ +0.01
			-10	13.55977	-0.0017	-0.01 ~ +0.01
			0	13.55979	-0.0015	-0.01 ~ +0.01
			+10	13.55976	-0.0018	-0.01 ~ +0.01
			+20	13.55977	-0.0017	-0.01 ~ +0.01
			+30	13.55979	-0.0015	-0.01 ~ +0.01
			+40	13.55978	-0.0016	-0.01 ~ +0.01
			+50	13.55976	-0.0018	-0.01 ~ +0.01
	85%	40.12	+20	13.55976	-0.0018	-0.01 ~ +0.01
	115%	54.28	+20	13.55978	-0.0016	-0.01 ~ +0.01

Note:

1. Tolerance = (Measurement Frequency - Frequency) / Frequency * 100%
2. During the test, only the parts with NFC radio components were placed in the temperature chamber.
3. Because the measured signal is CW or CW-like, so only mode 2 was selected for frequency tolerance test.

A.5 AC Conducted Emissions Test Result

Site: WZ-SR2	Test Date: 2022/06/09
Limit: FCC_Part15.207_CE_AC Power	Engineer: Helen Han
Probe: ENV216_101683_Filter Off_C	Polarity: Line
EUT: Segway KickScooter	Power: AC 120V/60Hz
Test Mode: Transmit by NFC at 13.56MHz with Antenna	



No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		0.150	38.521	28.471	-27.479	66.000	10.050	QP
2		0.150	7.539	-2.511	-48.461	56.000	10.050	AV
3		0.170	37.806	27.760	-27.154	64.960	10.046	QP
4		0.170	8.564	-1.482	-46.396	54.960	10.046	AV
5		0.182	33.063	23.020	-31.331	64.394	10.043	QP
6		0.182	3.347	-6.697	-51.047	54.394	10.043	AV
7		0.206	34.806	24.762	-28.559	63.365	10.044	QP
8		0.206	4.641	-5.403	-48.724	53.365	10.044	AV
9		0.790	40.352	30.168	-15.648	56.000	10.184	QP
10		0.790	12.443	2.259	-33.557	46.000	10.184	AV
11	*	1.578	40.788	30.533	-15.212	56.000	10.255	QP
12		1.578	12.961	2.706	-33.039	46.000	10.255	AV
13		13.558	66.633	55.774	N/A	N/A	10.859	QP
14		13.558	66.344	55.485	N/A	N/A	10.859	AV

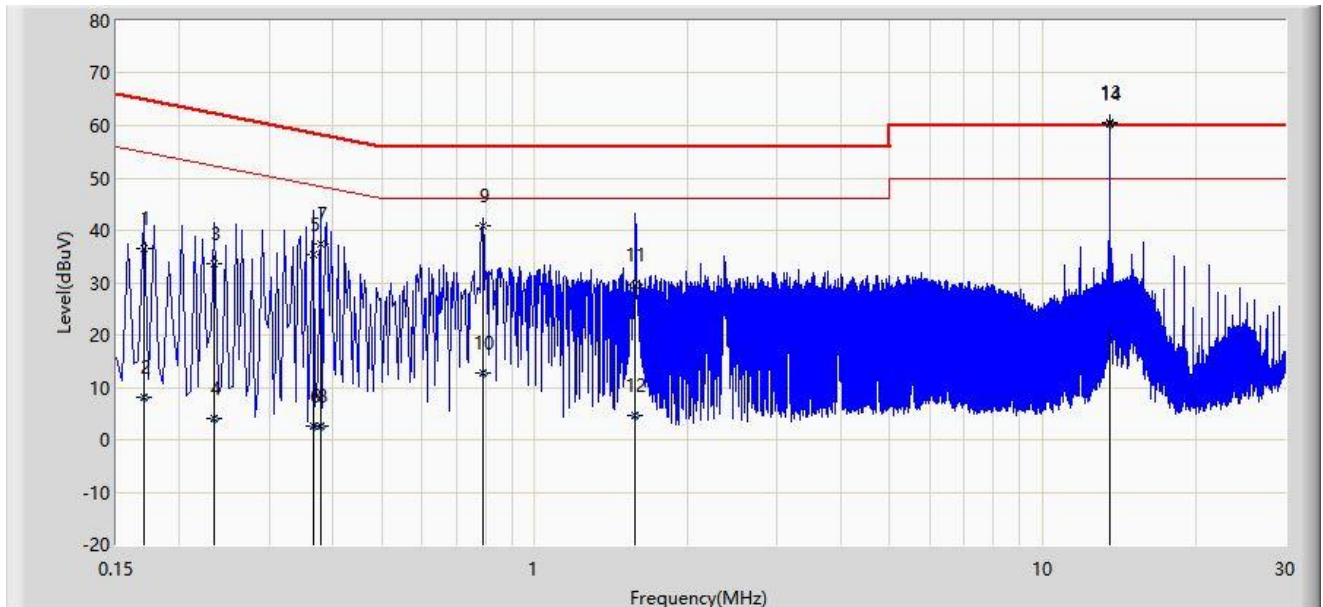
Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB).

Note 3: Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Note 4: It is authenticated that the points (13,14) are NFC signals, so we can't take them as a reference.

Site: WZ-SR2	Test Date: 2022/06/09
Limit: FCC_Part15.207_CE_AC Power	Engineer: Helen Han
Probe: ENV216_101683_Filter Off_C	Polarity: Neutral
EUT: Segway KickScooter	Power: AC 120V/60Hz
Test Mode: Transmit by NFC at 13.56MHz with Antenna	



No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		0.170	36.461	26.107	-28.499	64.960	10.354	QP
2		0.170	8.093	-2.261	-46.867	54.960	10.354	AV
3		0.234	33.745	23.410	-28.561	62.307	10.336	QP
4		0.234	3.948	-6.388	-48.359	52.307	10.336	AV
5		0.366	35.277	24.920	-23.314	58.591	10.358	QP
6		0.366	2.718	-7.639	-45.873	48.591	10.358	AV
7		0.378	37.425	27.065	-20.898	58.323	10.360	QP
8		0.378	2.704	-7.656	-45.620	48.323	10.360	AV
9	*	0.790	40.869	30.435	-15.131	56.000	10.434	QP
10		0.790	12.885	2.451	-33.115	46.000	10.434	AV
11		1.572	29.550	19.052	-26.450	56.000	10.498	QP
12		1.572	4.572	-5.926	-41.428	46.000	10.498	AV
13		13.558	60.589	49.459	N/A	N/A	11.130	QP
14		13.558	60.296	49.166	N/A	N/A	11.130	AV

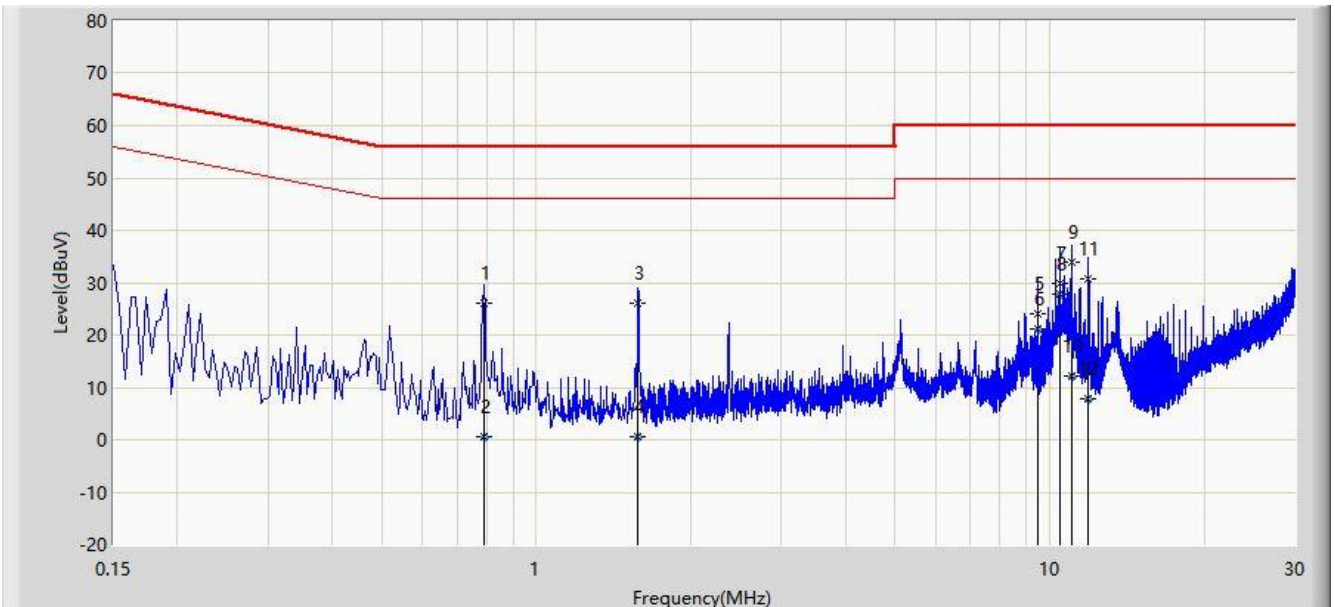
Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB).

Note 3: Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Note 4: It is authenticated that the points (13,14) are NFC signals, so we can't take them as a reference.

Site: WZ-SR2	Test Date: 2022/06/20
Limit: FCC_Part15.207_CE_AC Power	Engineer: Alin Zhou
Probe: ENV216_101683_Filter Off_C	Polarity: Line
EUT: Segway KickScooter	Power: AC 120V/60Hz
Test Mode: Transmit by NFC at 13.56MHz with Antenna, Antenna Port Terminated	



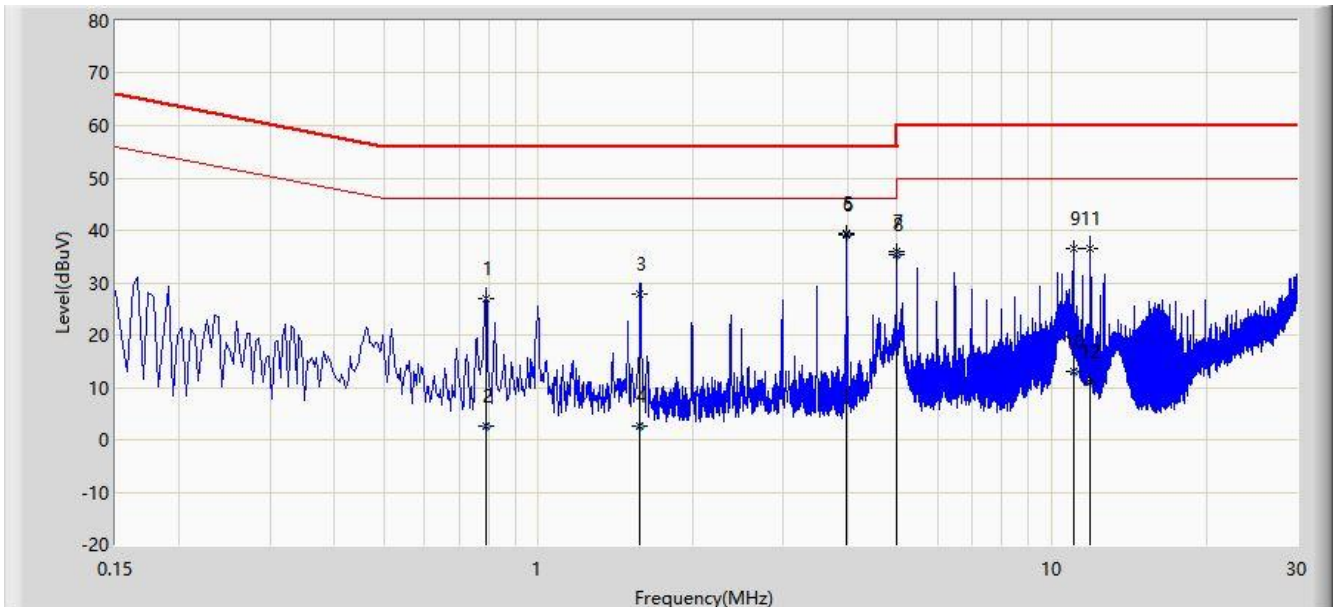
No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		0.790	26.069	15.635	-29.931	56.000	10.434	QP
2		0.790	0.695	-9.739	-45.305	46.000	10.434	AV
3		1.578	26.016	15.517	-29.984	56.000	10.499	QP
4		1.578	0.719	-9.780	-45.281	46.000	10.499	AV
5		9.454	24.000	12.888	-36.000	60.000	11.112	QP
6		9.454	21.138	10.026	-28.862	50.000	11.112	AV
7		10.450	29.925	18.795	-30.075	60.000	11.130	QP
8	*	10.450	27.690	16.560	-22.310	50.000	11.130	AV
9		11.058	33.790	22.660	-26.210	60.000	11.130	QP
10		11.058	12.181	1.051	-37.819	50.000	11.130	AV
11		11.854	30.750	19.620	-29.250	60.000	11.130	QP
12		11.854	7.935	-3.195	-42.065	50.000	11.130	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB).

Note 3: Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Site: WZ-SR2	Test Date: 2022/06/20
Limit: FCC_Part15.207_CE_AC Power	Engineer: Alin Zhou
Probe: ENV216_101683_Filter Off_C	Polarity: Neutral
EUT: Segway KickScooter	Power: AC 120V/60Hz
Test Mode: Transmit by NFC at 13.56MHz with Antenna, Antenna Port Terminated	



No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		0.790	26.934	16.500	-29.066	56.000	10.434	QP
2		0.790	2.467	-7.967	-43.533	46.000	10.434	AV
3		1.578	27.740	17.242	-28.260	56.000	10.499	QP
4		1.578	2.571	-7.928	-43.429	46.000	10.499	AV
5		3.982	39.551	28.741	-16.449	56.000	10.810	QP
6	*	3.982	39.267	28.456	-6.733	46.000	10.810	AV
7		4.978	35.891	24.935	-20.109	56.000	10.957	QP
8		4.978	35.443	24.486	-10.557	46.000	10.957	AV
9		11.058	36.528	25.398	-23.472	60.000	11.130	QP
10		11.058	13.062	1.932	-36.938	50.000	11.130	AV
11		11.850	36.404	25.274	-23.596	60.000	11.130	QP
12		11.850	10.894	-0.236	-39.106	50.000	11.130	AV

Note 1: " * ", means this data is the worst emission level.

Note 2: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB).

Note 3: Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Appendix B - Test Setup Photograph

Refer to “2205RSU039-UT” file.

Appendix C - EUT Photograph

Refer to “2205RSU039-UE” file.