

# RF MEASUREMENT REPORT

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**FCC ID:** 2ALS8-KS0013  
**Applicant:** Ninebot (Changzhou) Tech Co., Ltd.  
**Product:** Ninebot KickScooter Max G2  
**Model No.:** 051501U  
**FCC Classification:** Digital Transmission System (DTS)  
**FCC Rule Part(s):** Part 15 Subpart C (Section 15.247)  
**Result:** Complies  
**Received Date:** 2022-11-28  
**Test Date:** 2022-11-30 ~ 2022-12-13

**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.

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### Revision History

Report No.	Version	Description	Issue Date	Note
2211RSU078-U1	Rev. 01	Initial Report	2022-12-20	Valid

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## 1. General Information

### 1.1. Applicant

Ninebot (Changzhou) Tech Co., Ltd.

16F-17F, Block A, Building 3, No.18, Changwu Mid Rd, Wujin Dist., Changzhou, Jiangsu, China.

### 1.2. Manufacturer

Ninebot (Changzhou) Tech Co., Ltd.

16F-17F, Block A, Building 3, No.18, Changwu Mid Rd, Wujin Dist., Changzhou, Jiangsu, China.

### 1.3. Testing Facility

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

#### 1.4. Product Information

Product Name	Ninebot KickScooter Max G2
Model No.	051501U
EUT Identification No.	20221206Sample#05, 20221206Sample#02
Bluetooth Specification	V5.1 (BLE-1M only)
Operating Temperature	-10°C ~ 40°C
Antenna Information	Refer to section 1.5
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 under Test

Bluetooth Frequency	2402 ~ 2480MHz
Channel Number	40
Type of modulation	GFSK
Data Rate	1Mbps
Antenna Type	PCB Antenna
Antenna Gain	-1.26dBi

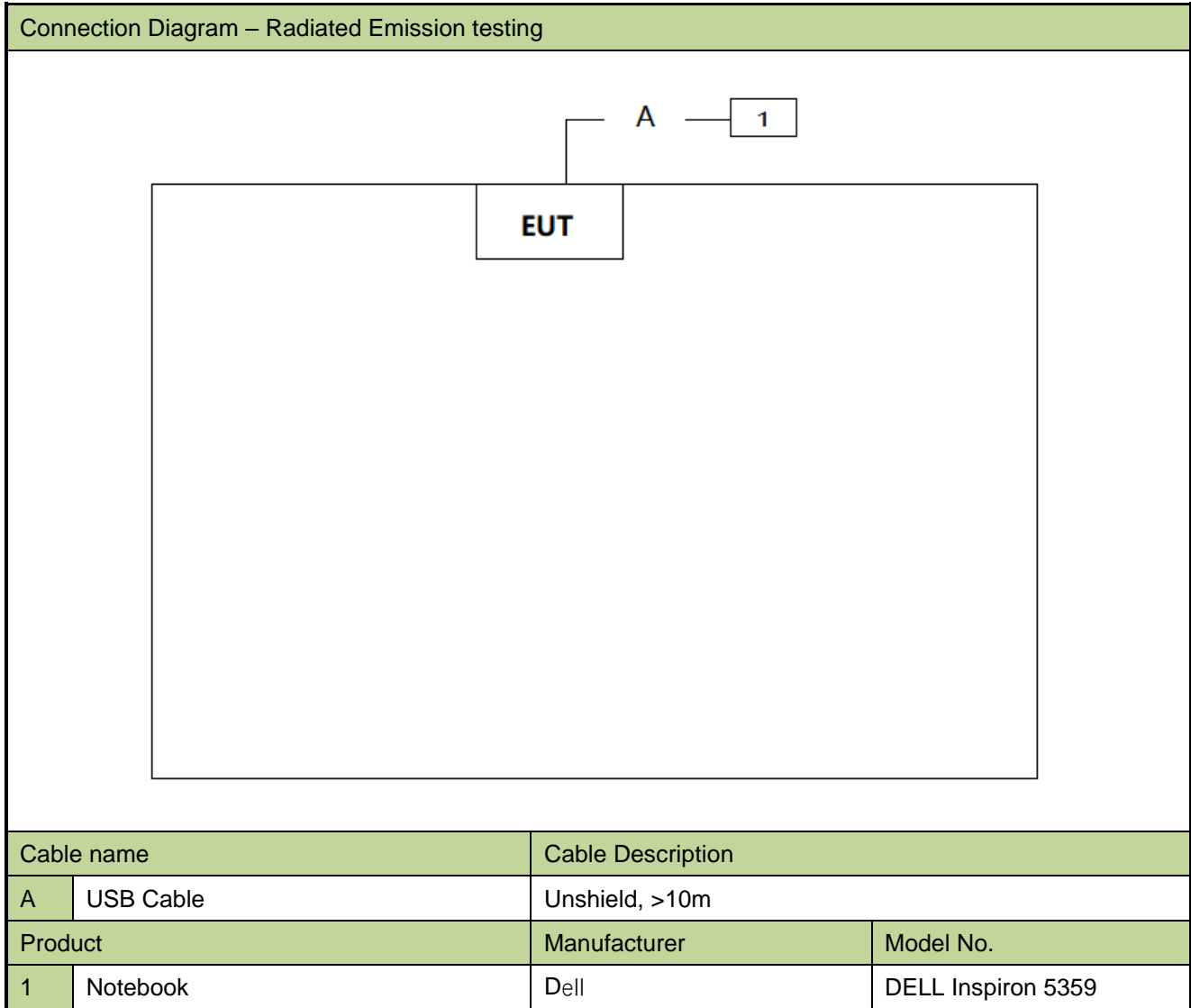
#### 1.6. Working Frequencies

Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz
03	2408 MHz	04	2410 MHz	05	2412 MHz
06	2414 MHz	07	2416 MHz	08	2418 MHz
09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz
15	2432 MHz	16	2434 MHz	17	2436 MHz
18	2438 MHz	19	2440 MHz	20	2442 MHz
21	2444 MHz	22	2446 MHz	23	2448 MHz
24	2450 MHz	25	2452 MHz	26	2454 MHz
27	2456 MHz	28	2458 MHz	29	2460 MHz
30	2462 MHz	31	2464 MHz	32	2466 MHz
33	2468 MHz	34	2470 MHz	35	2472 MHz
36	2474 MHz	37	2476 MHz	38	2478 MHz
39	2480 MHz	--	--	--	--

## 2. Test Configuration

### 2.1. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10: 2013 was used to reference the appropriate EUT setup for radiated emissions testing.



### 2.2. Test Software

The test utility software used during testing was “DTM.exe”, and the version was 1.2.31.

### 2.3. Applied Standards

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

- FCC Part 15.247
- KDB 558074 D01v05r02
- 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 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	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2022-12-29	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2023-08-22	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2023-05-08	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2023-06-21	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	608-H1	MRTSUE11039	1 year	2023-11-01	WZ-AC1
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2023-09-29	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2023-05-20	WZ-AC2
EMI Test Receiver	Agilent	N9038A	MRTSUE06125	1 year	2023-06-04	WZ-AC2
Thermohygrometer	Mingle	ETH529	MRTSUE06170	1 year	2023-11-27	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2023-10-13	WZ-AC2
Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2023-05-08	WZ-AC2
Anechoic Chamber	RIKEN	WZ-AC2	MRTSUE06213	1 year	2023-04-21	WZ-AC2
Thermohygrometer	testo	608-H1	MRTSUE11038	1 year	2023-11-01	WZ-AC2
USB Power Sensor	Keysight	U2021XA	MRTSUE06446	1 year	2023-06-04	WZ-SR5
Signal Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2023-04-06	WZ-SR5
Thermohygrometer	testo	608-H1	MRTSUE06402	1 year	2023-06-06	WZ-SR5
Shielding Room	HUAMING	WZ-SR5	MRTSUE06442	N/A	N/A	WZ-SR5
Signal Analyzer	Keysight	N9020B	MRTSUE07037	1 year	2023-03-29	WZ-SR5

Software	Version	Function
EMI Software	V3.0.0	EMI Test Software
Controller_MF 7802	2.03C	RE Antenna & Turntable
Controller_MF 7802	1.02	RE Antenna & Turntable
Agilent Power Analyzer/Agilent Power Panel	V R03.09.00	Power

## 5. Decision Rules and Measurement Uncertainty

### 5.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

### 5.2. 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  $k = 2$ .

<b>Radiated Disturbance</b>	
Measurement Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):	
Coaxial:	9kHz~30MHz: 2.59dB
Coplanar:	9kHz~30MHz: 2.60dB
Horizontal:	30MHz~200MHz: 3.85dB
	200MHz~1GHz: 4.36dB
	1GHz~40GHz: 4.98dB
Vertical:	30MHz~200MHz: 4.06dB
	200MHz~1GHz: 5.28dB
	1GHz~40GHz: 4.91dB
<b>Spurious Emissions, Conducted</b>	
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):	
2.3dB	
<b>Output Power</b>	
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):	
1.5dB	
<b>Power Spectrum Density</b>	
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):	
2.3dB	
<b>Occupied Bandwidth</b>	
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ):	
3.2%	

## 6. Test Result

### 6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.247(a)(2)	6dB Bandwidth	Conducted	Pass
15.247(b)(3)	Output Power		Pass
15.247(e)	Power Spectral Density		Pass
15.247(d)	Band Edge / Out-of-Band Emissions		Pass
15.205 15.209	General Field Strength (Restricted Bands and Radiated Emission)	Radiated	Pass
15.207	AC Conducted Emissions 150kHz - 30MHz	Line Conducted	Pass

#### Notes:

- The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- "N/A" means that this item is not applicable, and the detail information refer to relevant section.

## 6.2. 6dB Bandwidth Measurement

### 6.2.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

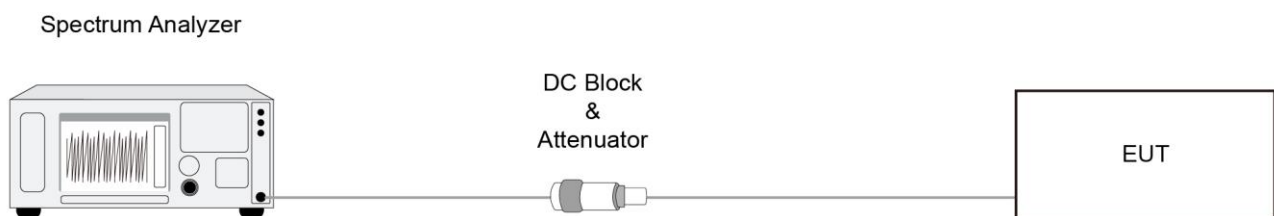
### 6.2.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.8

### 6.2.3. Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to  $X = 6$ . The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. Set RBW = 100 kHz
3.  $VBW \geq 3 \times RBW$
4. Detector = Peak
5. Trace mode = Max hold
6. Sweep = Auto couple
7. Allow the trace to stabilize

### 6.2.4. Test Setup



### 6.2.5. Test Result

Refer to Appendix A.2.

### 6.3. Output Power Measurement

#### 6.3.1. Test Limit

The maximum output power shall be less 1 Watt (30dBm).

The conducted output power limit specified in paragraph FCC Part 15.247(b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs FCC Part 15.247(b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### 6.3.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.9.1.3

ANSI C63.10 - 2013 - Section 11.9.2.3.2

#### 6.3.3. Test Setting

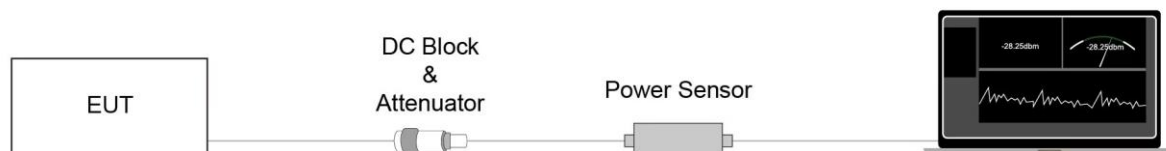
##### **Method PKPM1 (Peak Power Measurement of Signals with DTS BW ≤ 50MHz)**

Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The pulse sensor employs a VBW = 50MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50MHz.

##### **Average Power Measurement**

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

#### 6.3.4. Test Setup



#### 6.3.5. Test Result

Refer to Appendix A.3.

## 6.4. Power Spectral Density Measurement

### 6.4.1. Test Limit

The maximum permissible power spectral density is 8dBm in any 3 kHz band.

The same method of determining the conducted output power shall be used to determine the power spectral density.

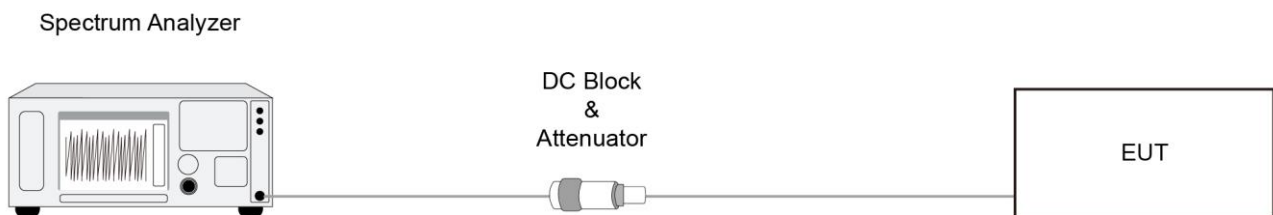
### 6.4.2. Test Procedure

ANSI C63.10-2013 Section 11.10.2

### 6.4.3. Test Setting

1. Analyzer was set to the center frequency of the DTS channel under investigation
2. Span = 1.5 times the DTS channel bandwidth
3. RBW = 3kHz
4. VBW = 10kHz
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Trace was allowed to stabilize

### 6.4.4. Test Setup



### 6.4.5. Test Result

Refer to Appendix A.4.

## 6.5. Conducted Band Edge and Out-of-Band Emissions Measurement

### 6.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100 kHz bandwidth per the PSD procedure.

### 6.5.2. Test Procedure

ANSI C63.10-2013 - Section 11.11

### 6.5.3. Test Setting

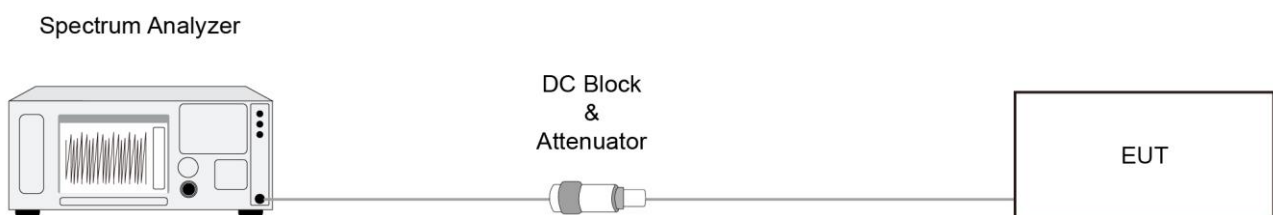
#### Reference level measurement

1. Set instrument center frequency to DTS channel center frequency
2. Set the span to  $\geq 1.5$  times the DTS bandwidth
3. Set the RBW = 100 kHz
4. Set the VBW  $\geq 3 \times$  RBW
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Allow trace to fully stabilize

#### Emission level measurement

1. Set the center frequency and span to encompass frequency range to be measured
2. RBW = 100kHz
3. VBW = 300kHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

### 6.5.4. Test Setup





### **6.5.5. Test Result**

Refer to Appendix A.5.

## 6.6. Radiated Spurious Emission Measurement

### 6.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

### 6.6.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.11 & 11.12

ANSI C63.10 - 2013 - Section 6.3 (General Requirements)

ANSI C63.10 - 2013 - Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 - 2013 - Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 - 2013 - Section 6.6 (Standard test method above 1GHz)

### 6.6.3. Test Setting

**Table 1 - RBW as a function of frequency**

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000MHz	1MHz

**Quasi-Peak Measurements below 1GHz**

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

**Peak Measurements above 1GHz**

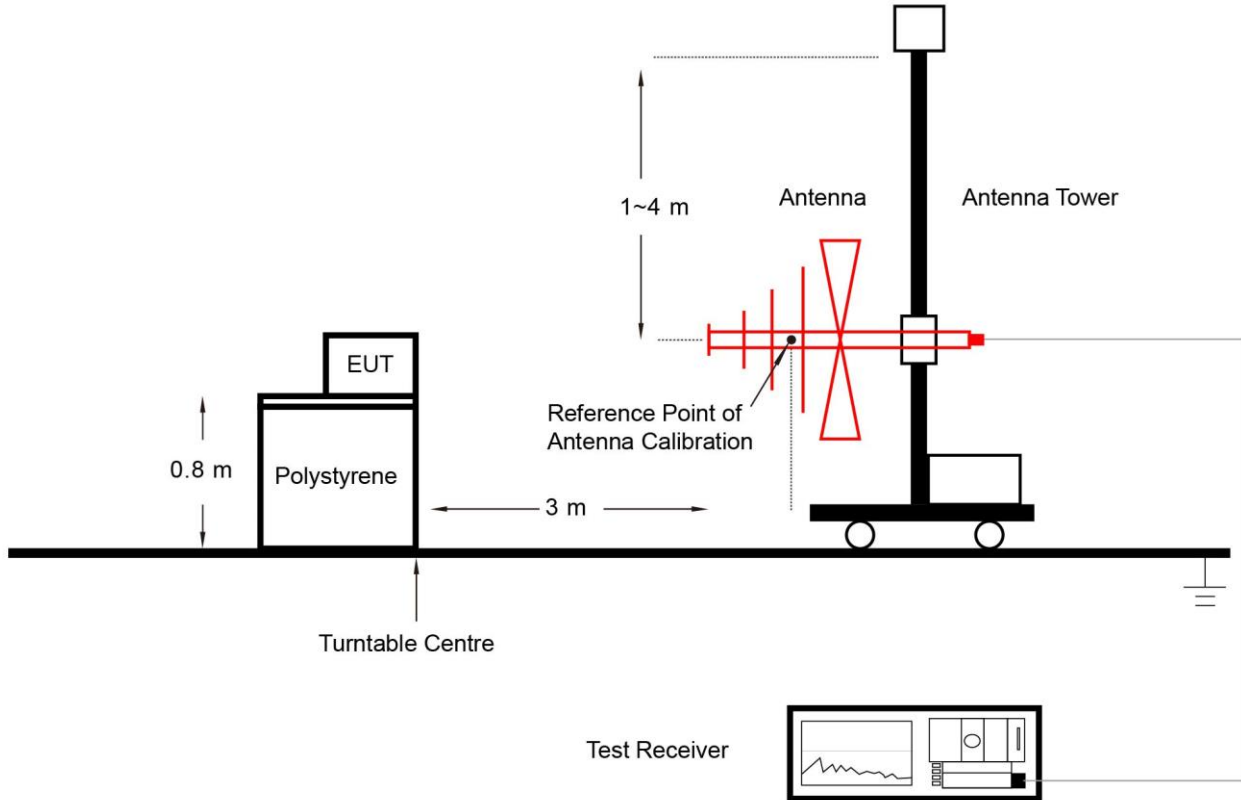
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

**Average Measurements above 1GHz (Method VB)**

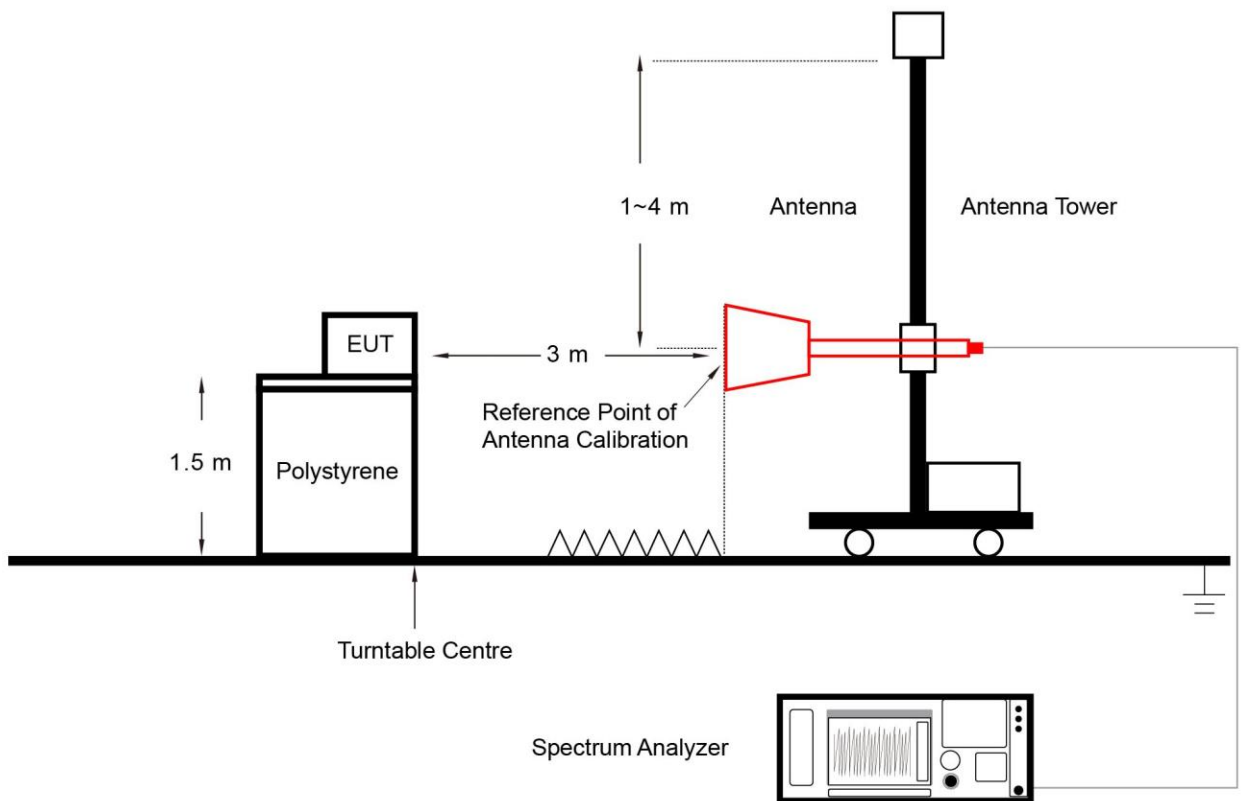
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle  $\geq 98\%$ , set VBW = 10 Hz.  
If the EUT duty cycle is  $< 98\%$ , set VBW  $\geq 1/T$ . T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

### 6.6.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



#### **6.6.5. Test Result**

Refer to Appendix A.6.

## 6.7. Radiated Restricted Band Edge Measurement

### 6.7.1. Test Limit

#### For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 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	( <sup>2</sup> )
13.36 - 13.41	--	--	--

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

### 6.7.2. Test Procedure

ANSI C63.10-2013 Section 6.3 & 6.6 & 11.13

### 6.7.3. Test Setting

#### Peak Field Strength Measurements

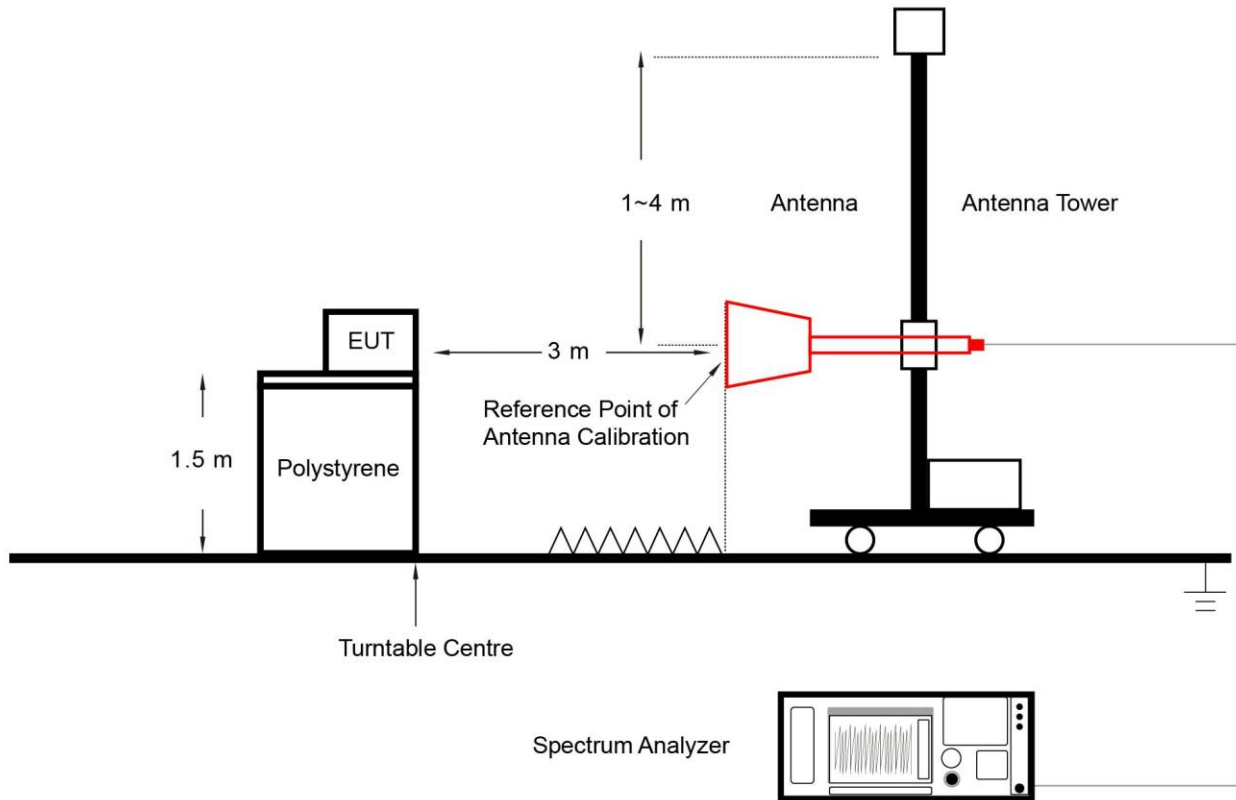
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

#### Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW  $\geq 1/T$
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak

6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

#### 6.7.4. Test Setup



#### 6.7.5. Test Result

Refer to Appendix A.7.



## 6.8. AC Conducted Emissions Measurement

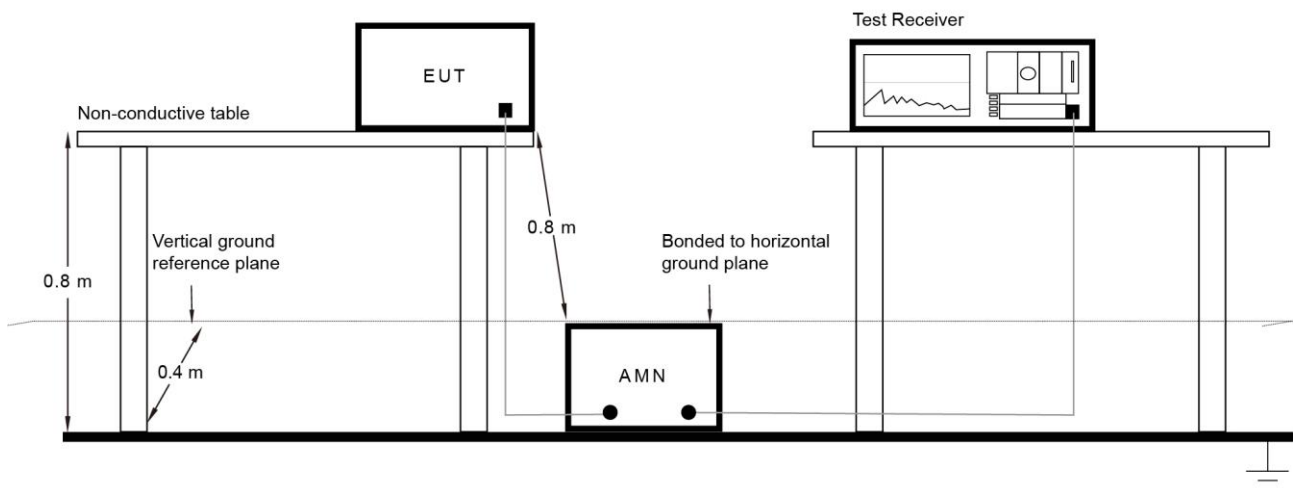
### 6.8.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
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.

### 6.8.2. Test Setup



### 6.8.3. Test Result

Refer to Appendix A.8.

## Appendix A - Test Result

### A.1 Duty Cycle Test Result

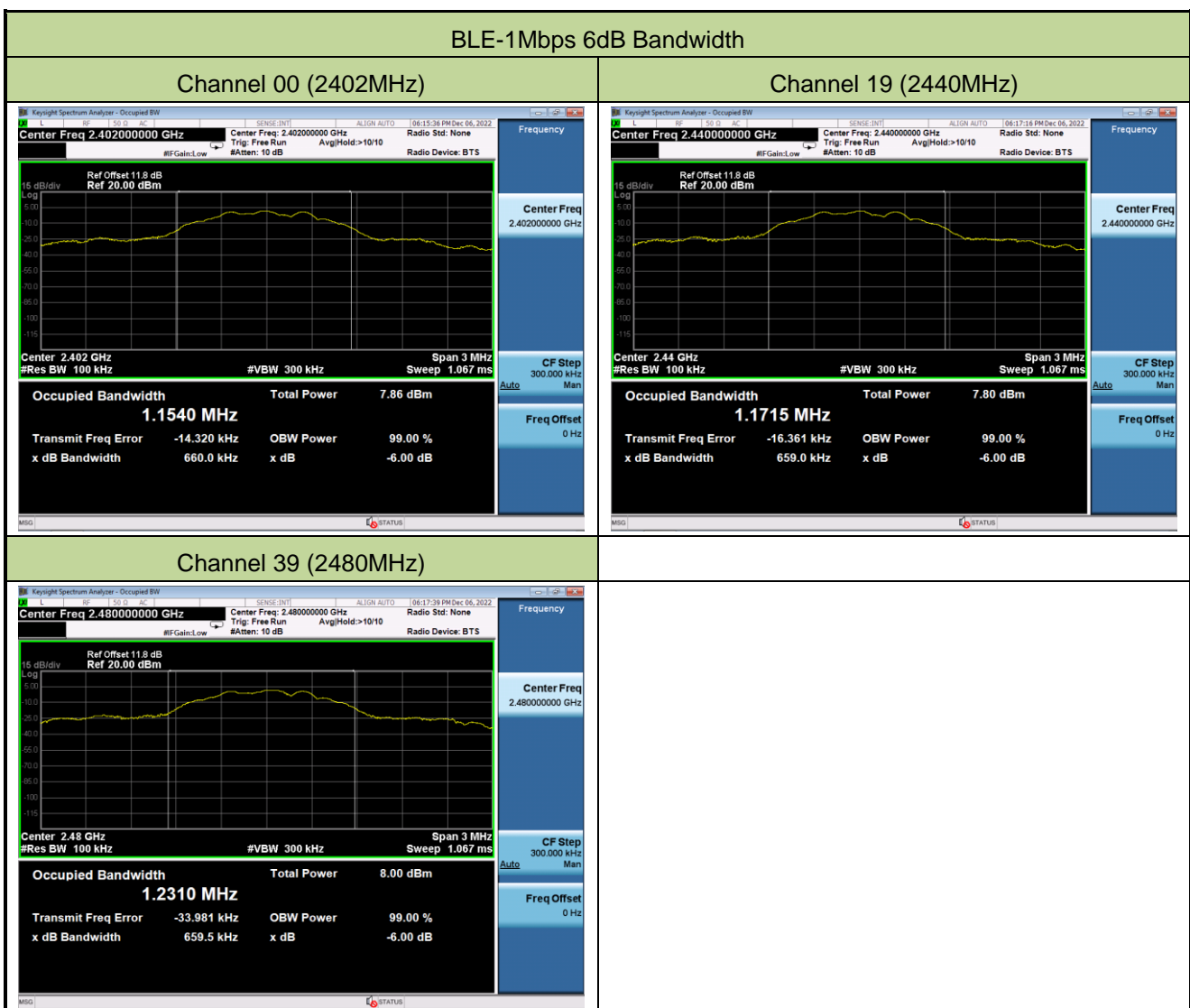
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2022-12-06		

Test Mode	Duty Cycle
BLE-1Mbps	22.26%
Duty Cycle (T = Transmission Duration)	
BLE-1Mbps (T = 139.2 $\mu$ s)	

**A.2 6dB Bandwidth Test Result**

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2022-12-06		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
BLE	1Mbps	00	2402	0.6600	≥ 0.5
BLE	1Mbps	19	2440	0.6590	≥ 0.5
BLE	1Mbps	39	2480	0.6595	≥ 0.5



**A.3 Output Power Test Result**

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2022-12-06		

**Test Result of Peak Output Power**

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Result
BLE	1Mbps	00	2402	1.59	≤ 30.00	Pass
BLE	1Mbps	19	2440	1.55	≤ 30.00	Pass
BLE	1Mbps	39	2480	1.48	≤ 30.00	Pass

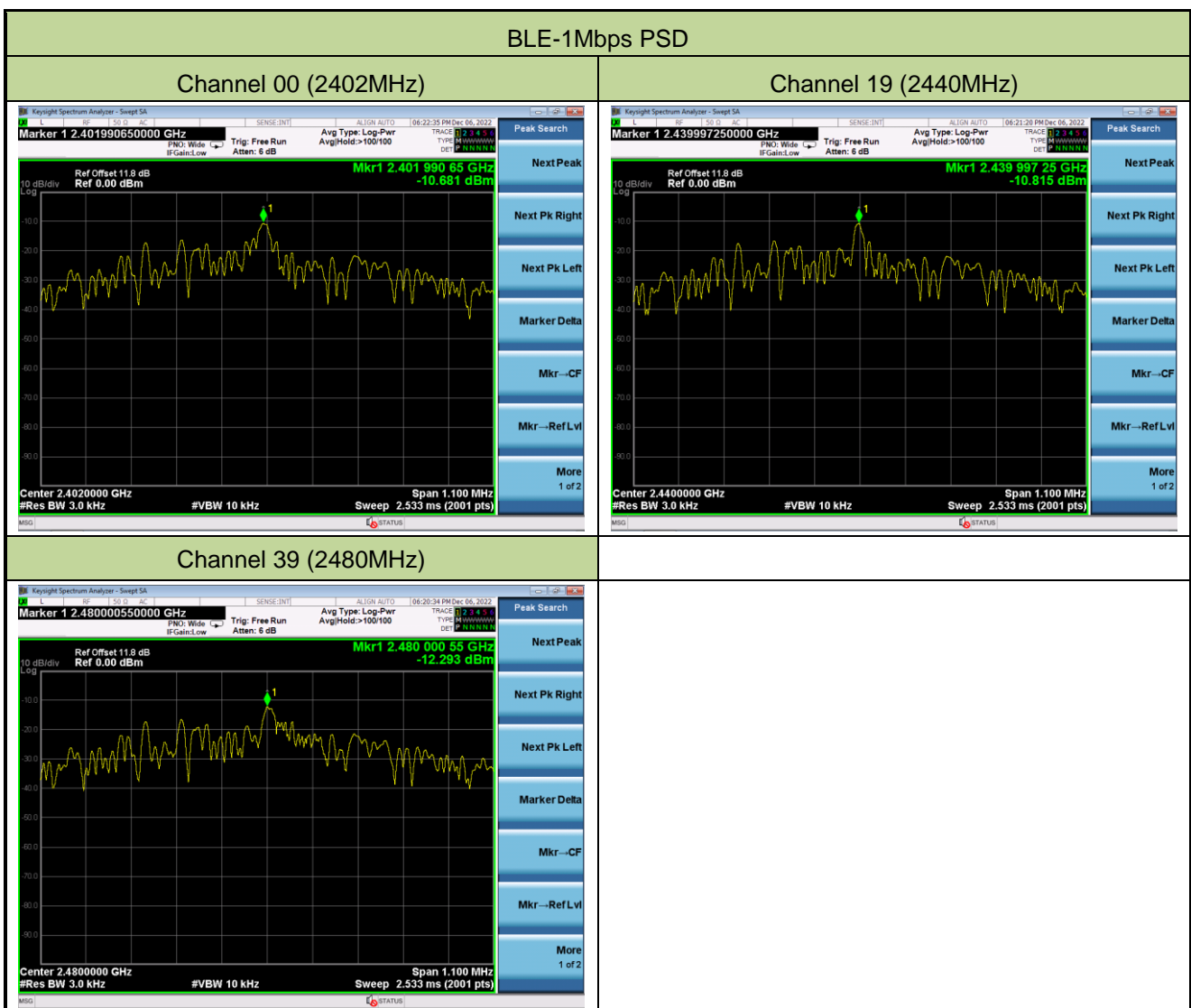
**Test Result of Average Output Power (Reporting Only)**

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Average Power (dBm)	Limit (dBm)	Result
BLE	1Mbps	00	2402	1.21	≤ 30.00	Pass
BLE	1Mbps	19	2440	1.15	≤ 30.00	Pass
BLE	1Mbps	39	2480	1.08	≤ 30.00	Pass

### A.4 Power Spectral Density Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2022-12-06		

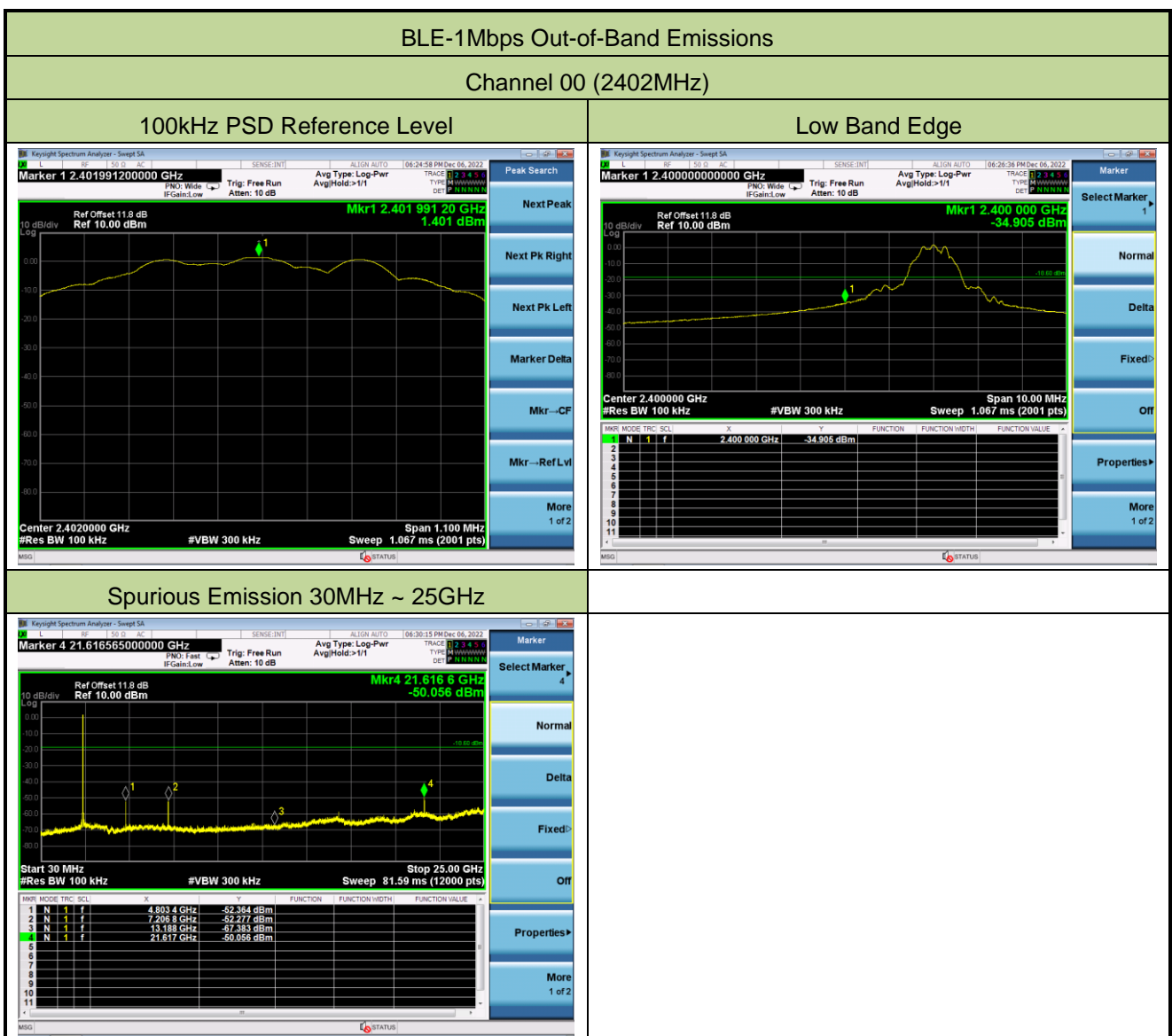
Test Mode	Data Rate	Channel No.	Frequency (MHz)	PSD Result (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
BLE	1Mbps	00	2402	-10.681	≤ 8.00	Pass
BLE	1Mbps	19	2440	-10.815	≤ 8.00	Pass
BLE	1Mbps	39	2480	-12.293	≤ 8.00	Pass



**A.5 Conducted Band Edge and Out-of-Band Emissions Test Result**

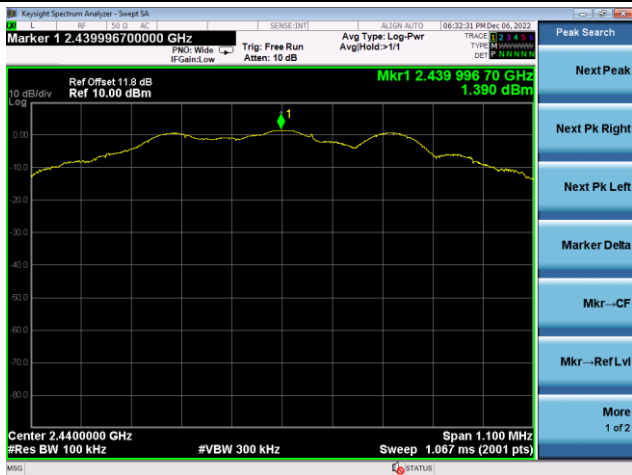
Test Site	WZ-SR5	Test Engineer	Liz Yuan
Test Date	2022-12-06		

Test Mode	Data Rate / Mbps	Channel No.	Frequency (MHz)	Limit (dBc)	Result
BLE	1	00	2402	20	Pass
BLE	1	19	2440	20	Pass
BLE	1	39	2480	20	Pass

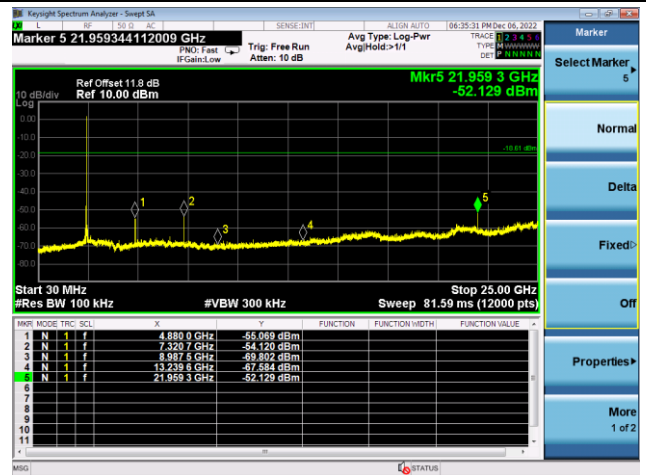


### Channel 19 (2440MHz)

#### 100kHz PSD Reference Level

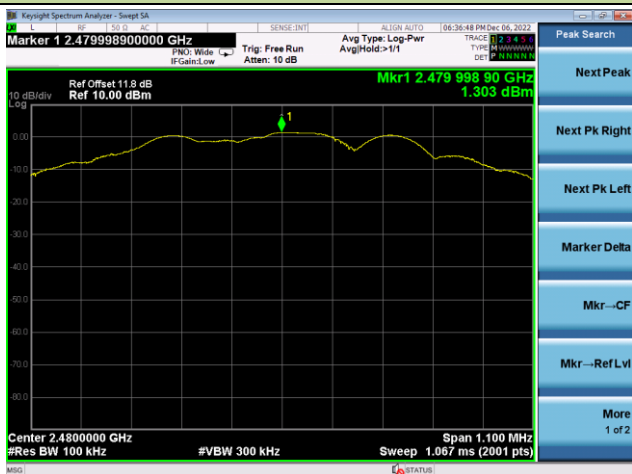


#### Spurious Emission 30MHz ~ 25GHz

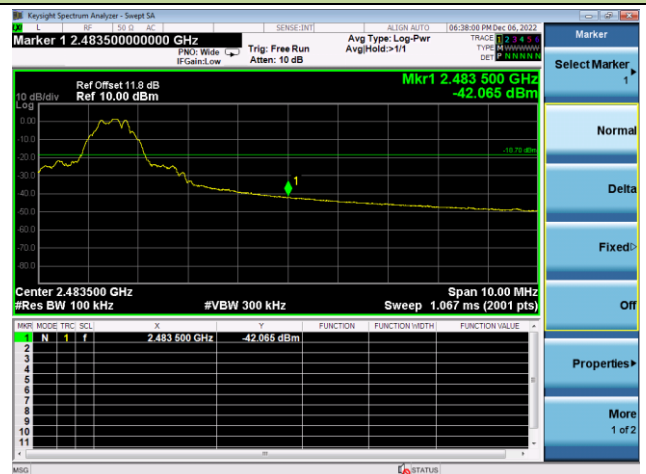


### Channel 39 (2480MHz)

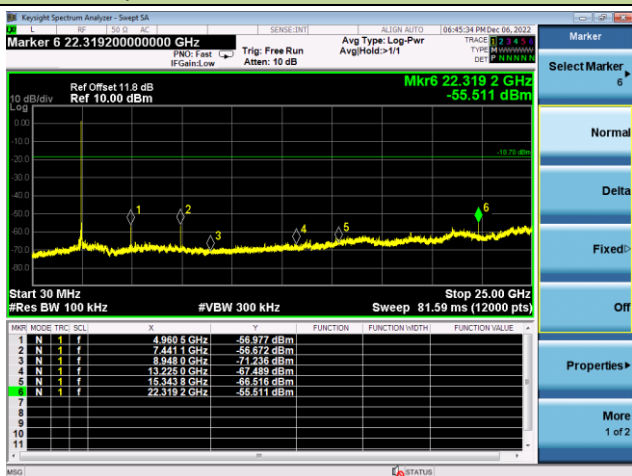
#### 100kHz PSD Reference Level



#### High Band Edge



#### Spurious Emission 30MHz ~ 25GHz



**A.6 Radiated Spurious Emission Test Result**

Test Site	WZ-AC2	Test Engineer	Lucas Wang
Test Date	2022-12-13	Test Mode:	BLE-1Mbps
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
00	7579.0	31.7	11.6	43.3	74.0	-30.7	Peak	Horizontal
	8284.5	32.8	11.2	44.0	74.0	-30.0	Peak	Horizontal
	12033.0	30.3	17.3	47.6	74.0	-26.4	Peak	Horizontal
	7613.0	32.3	11.3	43.6	74.0	-30.4	Peak	Vertical
	8225.0	32.2	11.6	43.8	74.0	-30.2	Peak	Vertical
	11659.0	30.9	17.8	48.7	74.0	-25.3	Peak	Vertical
19	4876.0	35.6	3.7	39.3	74.0	-34.7	Peak	Horizontal
	7315.5	35.0	11.2	46.2	74.0	-27.8	Peak	Horizontal
	11795.0	30.9	17.5	48.4	74.0	-25.6	Peak	Horizontal
	4876.0	37.1	3.7	40.8	74.0	-33.2	Peak	Vertical
	7315.5	39.8	11.2	51.0	74.0	-23.0	Peak	Vertical
	7320.0	38.2	11.2	49.4	54.0	-4.6	Average	Vertical
	12203.0	30.7	17.6	48.3	74.0	-25.7	Peak	Vertical
39	7443.0	35.7	11.6	47.3	74.0	-26.7	Peak	Horizontal
	9194.0	31.3	14.3	45.6	74.0	-28.4	Peak	Horizontal
	11489.0	30.9	17.5	48.4	74.0	-25.6	Peak	Horizontal
	4961.0	37.6	3.5	41.1	74.0	-32.9	Peak	Vertical
	7443.0	35.6	11.6	47.2	74.0	-26.8	Peak	Vertical
	10996.0	31.3	17.3	48.6	74.0	-25.4	Peak	Vertical

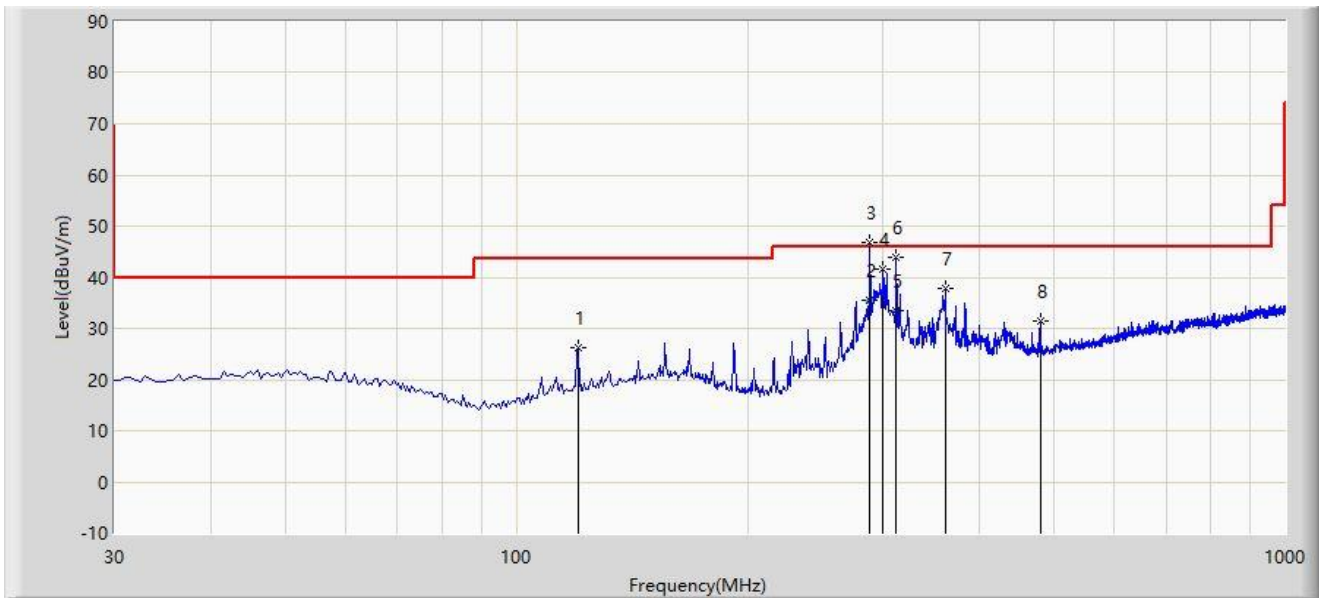
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



**The Result of Radiated Emission below 1GHz (Worst Case):**

Site: WZ-AC1	Test Date: 2022-12-13
Limit: FCC_Part15.209_RSE(3m)	Engineer: Carl Jiang
Probe: VULB 9168_25-2000MHz	Polarity: Horizontal
EUT: Ninebot KickScooter Max G2	Power: By Battery
<b>Test Mode:</b> Transmit by BLE-1M at channel 2440MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		120.210	26.089	10.288	-17.411	43.500	15.801	PK
2		287.900	35.374	17.200	-10.626	46.000	18.174	QP
3	*	288.505	46.700	28.524	0.700	46.000	18.176	PK
4		300.145	41.588	23.175	-4.412	46.000	18.413	PK
5		311.900	33.373	14.570	-12.627	46.000	18.803	QP
6		312.270	43.868	25.051	-2.132	46.000	18.817	PK
7		361.255	37.942	18.180	-8.058	46.000	19.761	PK
8		480.080	31.534	8.767	-14.466	46.000	22.767	PK

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

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

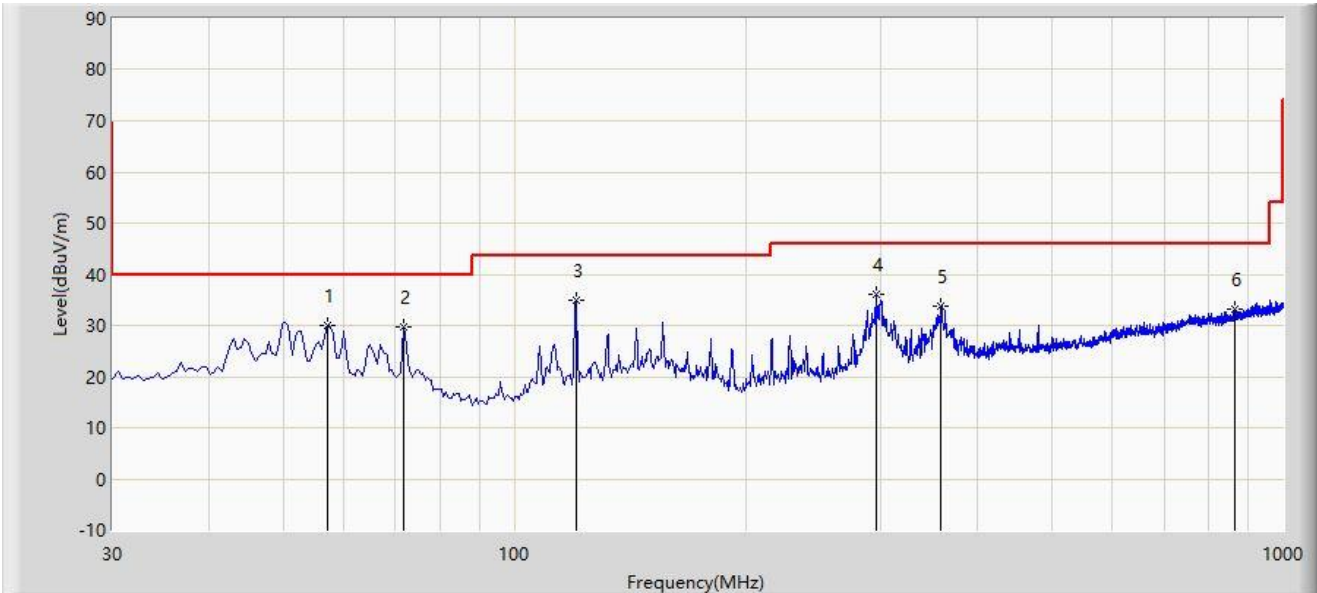
Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Note 5: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Site: WZ-AC1	Test Date: 2022-12-13
Limit: FCC_Part15.209_RSE(3m)	Engineer: Carl Jiang
Probe: VULB 9168_25-2000MHz	Polarity: Vertical
EUT: Ninebot KickScooter Max G2	Power: By Battery
<b>Test Mode:</b> Transmit by BLE-1M at channel 2440MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		57.160	30.031	12.316	-9.969	40.000	17.715	PK
2		71.710	29.817	13.915	-10.183	40.000	15.902	PK
3	*	120.210	34.948	19.147	-8.552	43.500	15.801	PK
4		295.295	36.019	17.701	-9.981	46.000	18.318	PK
5		359.315	33.654	13.967	-12.346	46.000	19.687	PK
6		865.170	33.056	3.943	-12.944	46.000	29.113	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

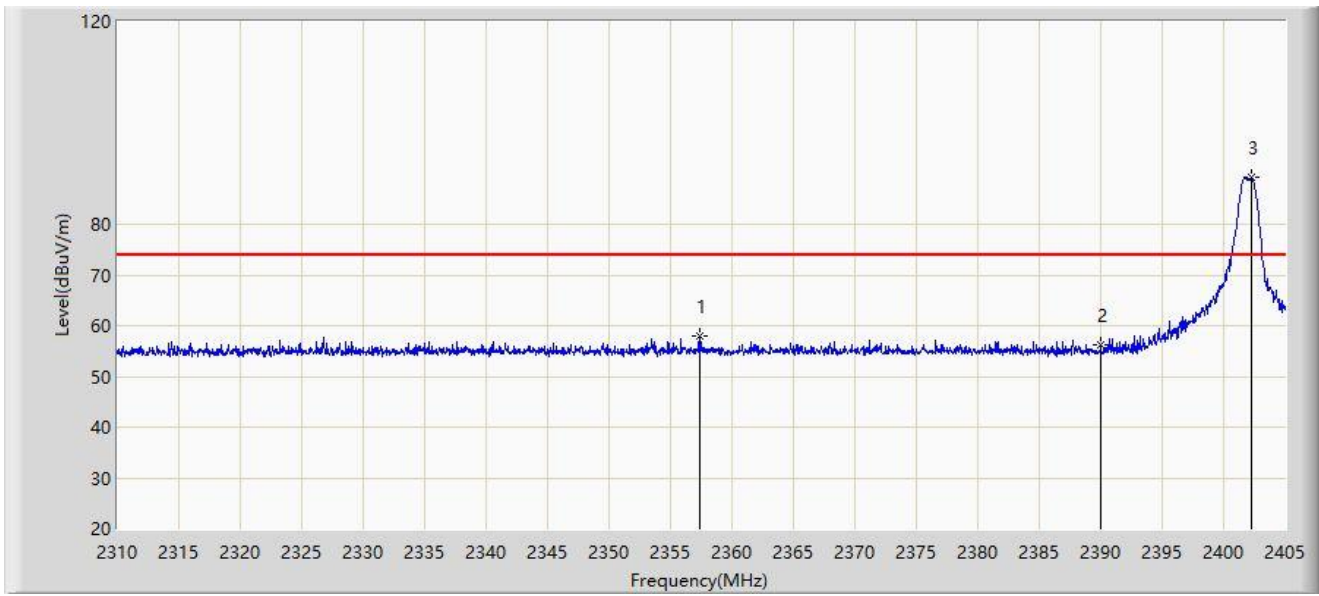
Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Note 5: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

**A.7 Radiated Restricted Band Edge Test Result**

Site: WZ-AC2	Test Date: 2022-12-13
Limit: FCC_Part15.209_RSE(3m)	Engineer: Lucas Wang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Horizontal
EUT: Ninebot KickScooter Max G2	Power: By Battery
Test Mode: Transmit by BLE-1M at 2402MHz	



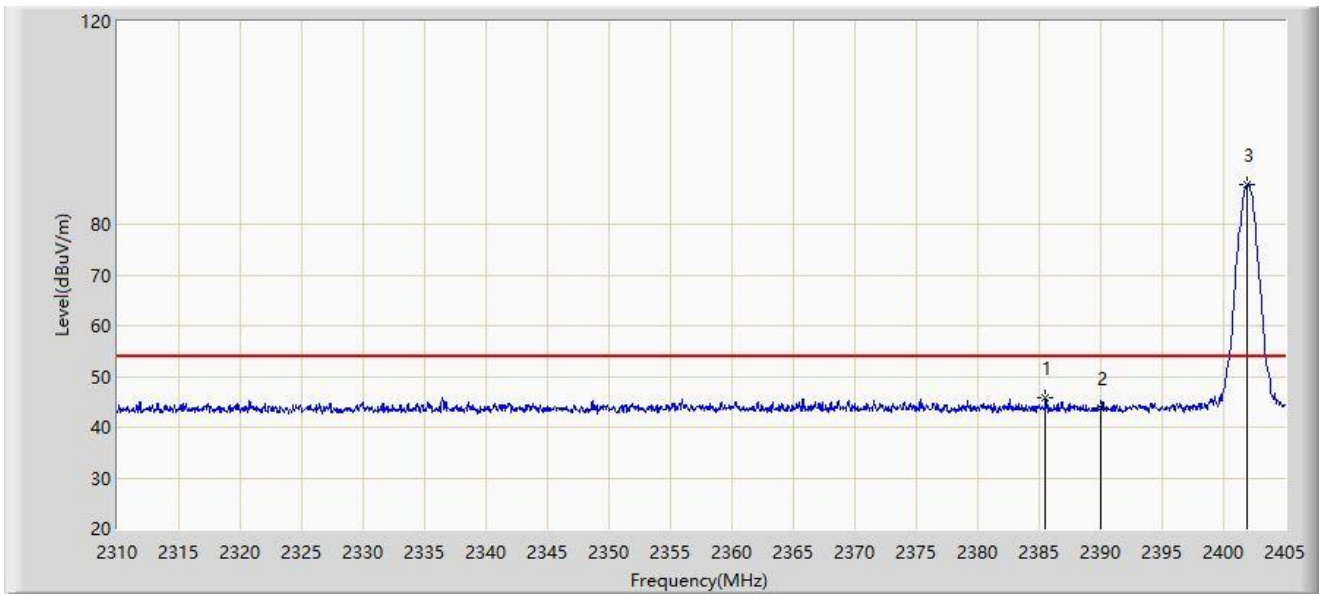
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2357.357	57.881	26.112	-16.119	74.000	31.768	PK
2		2390.000	56.129	24.441	-17.871	74.000	31.688	PK
3		2402.245	89.164	57.519	N/A	N/A	31.645	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC2	Test Date: 2022-12-13
Limit: FCC_Part15.209_RSE(3m)	Engineer: Lucas Wang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Horizontal
EUT: Ninebot KickScooter Max G2	Power: By Battery
Test Mode: Transmit by BLE-1M at 2402MHz	



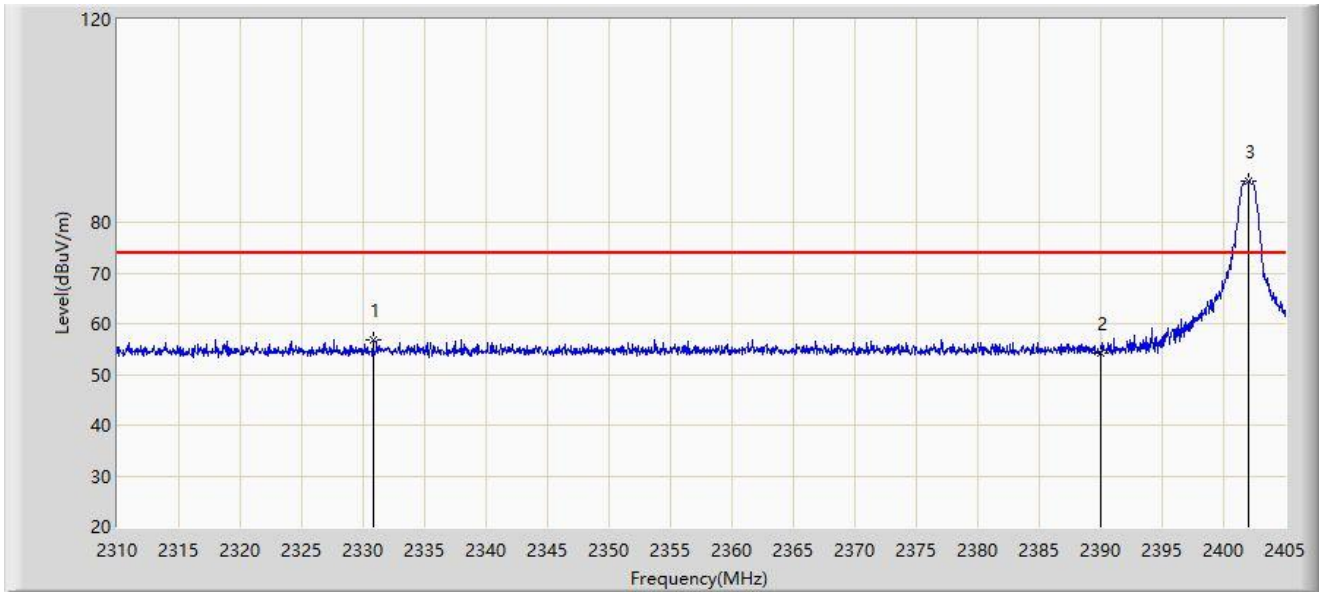
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2385.525	45.813	14.106	-8.187	54.000	31.707	AV
2		2390.000	43.866	12.178	-10.134	54.000	31.688	AV
3		2401.960	87.886	56.241	N/A	N/A	31.646	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC2	Test Date: 2022-12-13
Limit: FCC_Part15.209_RSE(3m)	Engineer: Lucas Wang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Vertical
EUT: Ninebot KickScooter Max G2	Power: By Battery
Test Mode: Transmit by BLE-1M at 2402MHz	



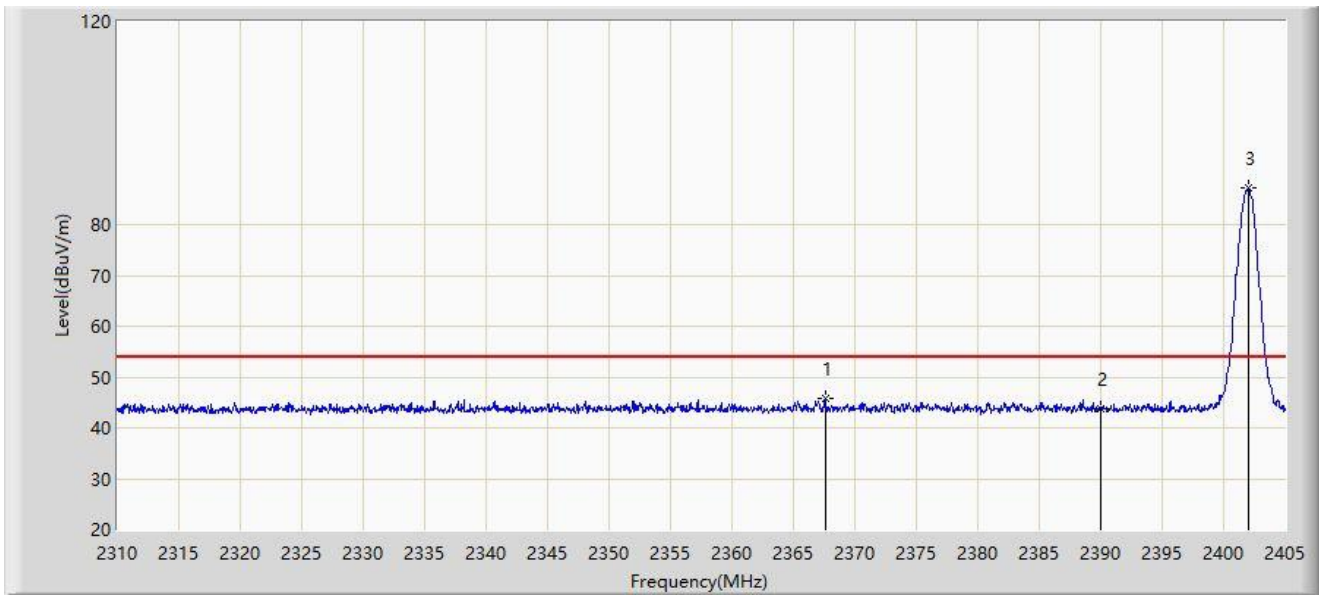
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2330.805	56.874	25.034	-17.126	74.000	31.841	PK
2		2390.000	54.130	22.442	-19.870	74.000	31.688	PK
3		2402.055	88.102	56.457	N/A	N/A	31.646	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC2	Test Date: 2022-12-13
Limit: FCC_Part15.209_RSE(3m)	Engineer: Lucas Wang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Vertical
EUT: Ninebot KickScooter Max G2	Power: By Battery
Test Mode: Transmit by BLE-1M at 2402MHz	



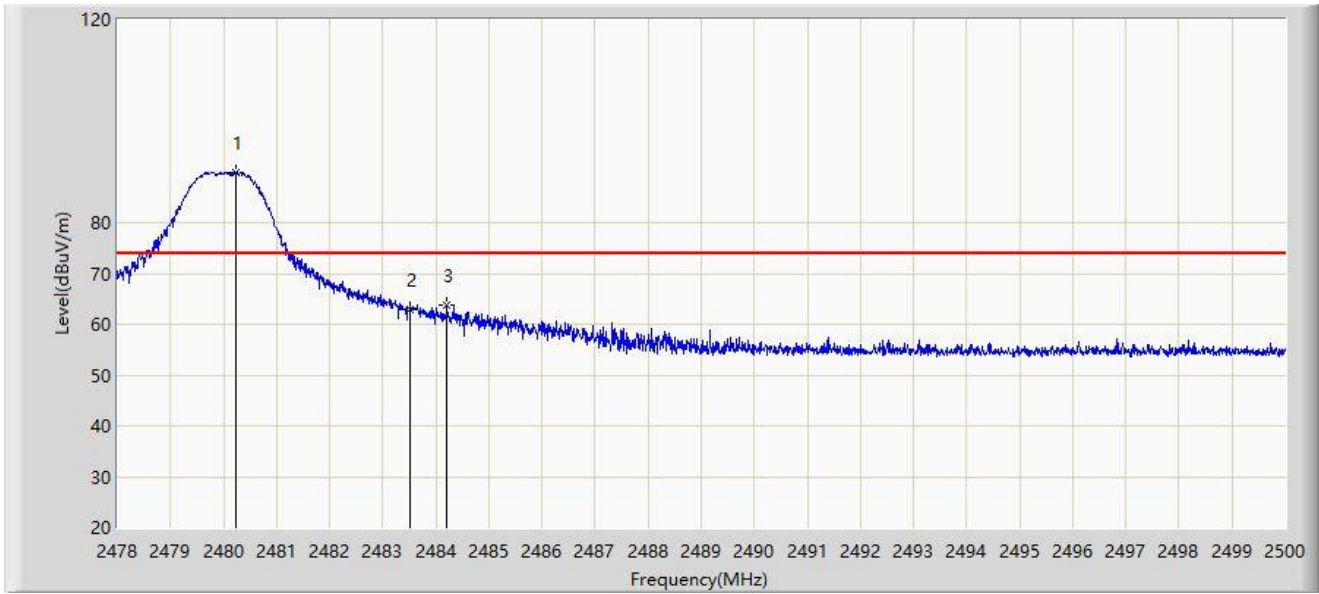
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2367.570	45.654	13.892	-8.346	54.000	31.762	AV
2		2390.000	43.861	12.173	-10.139	54.000	31.688	AV
3		2402.008	87.107	55.462	N/A	N/A	31.646	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC2	Test Date: 2022-12-13
Limit: FCC_Part15.209_RSE(3m)	Engineer: Lucas Wang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Horizontal
EUT: Ninebot KickScooter Max G2	Power: By Battery
Test Mode: Transmit by BLE-1M at 2480MHz	



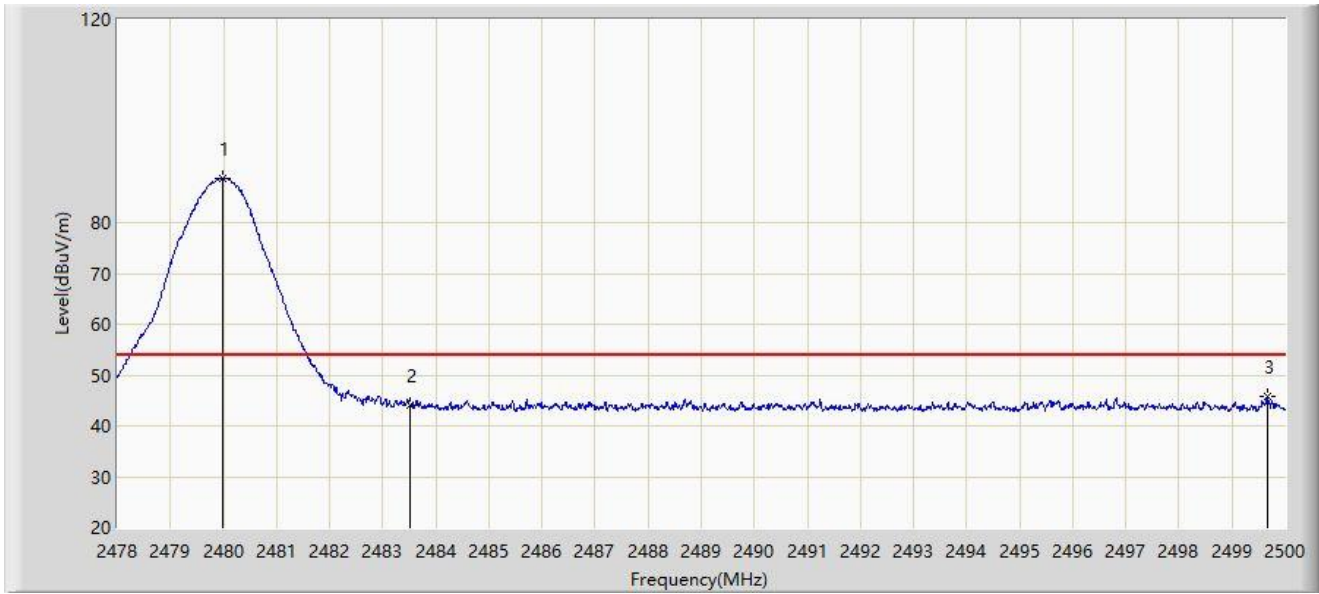
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2480.233	89.858	58.294	N/A	N/A	31.564	PK
2		2483.500	63.020	31.451	-10.980	74.000	31.569	PK
3	*	2484.215	63.767	32.197	-10.233	74.000	31.570	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC2	Test Date: 2022-12-13
Limit: FCC_Part15.209_RSE(3m)	Engineer: Lucas Wang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Horizontal
EUT: Ninebot KickScooter Max G2	Power: By Battery
Test Mode: Transmit by BLE-1M at 2480MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2479.991	88.733	57.170	N/A	N/A	31.563	AV
2		2483.500	44.100	12.531	-9.900	54.000	31.569	AV
3	*	2499.670	45.680	14.071	-8.320	54.000	31.610	AV

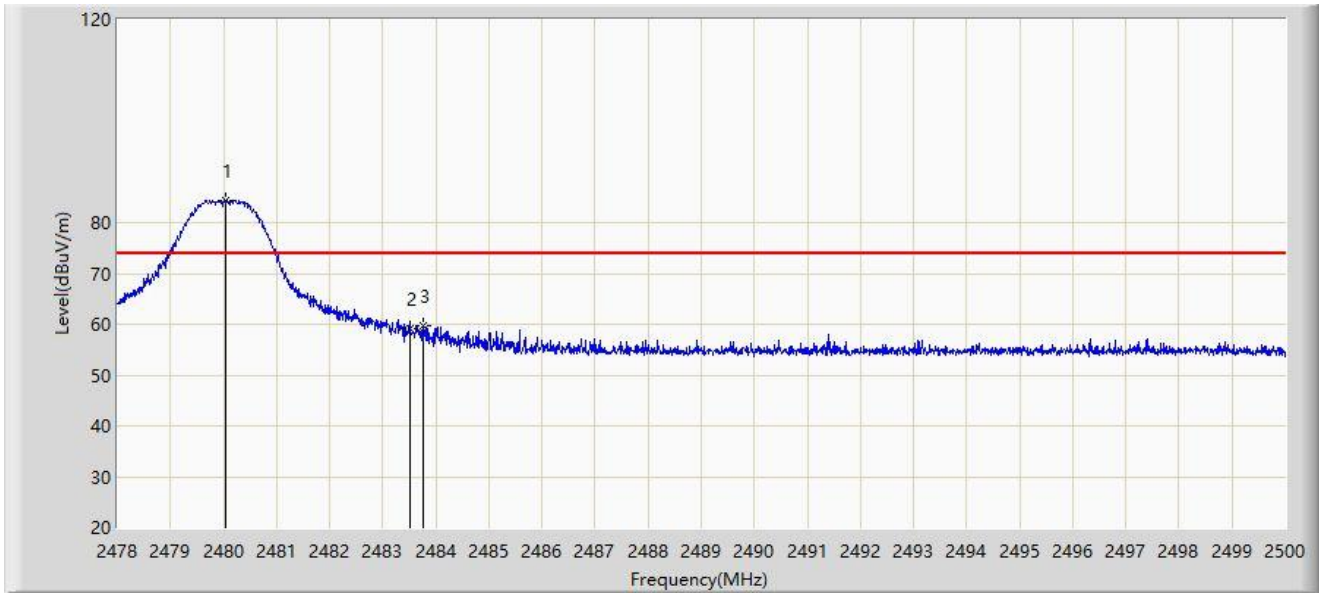
Note 1: " \* ", means this data is the worst emission level.

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

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).



Site: WZ-AC2	Test Date: 2022-12-13
Limit: FCC_Part15.209_RSE(3m)	Engineer: Lucas Wang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Vertical
EUT: Ninebot KickScooter Max G2	Power: By Battery
Test Mode: Transmit by BLE-1M at 2480MHz	



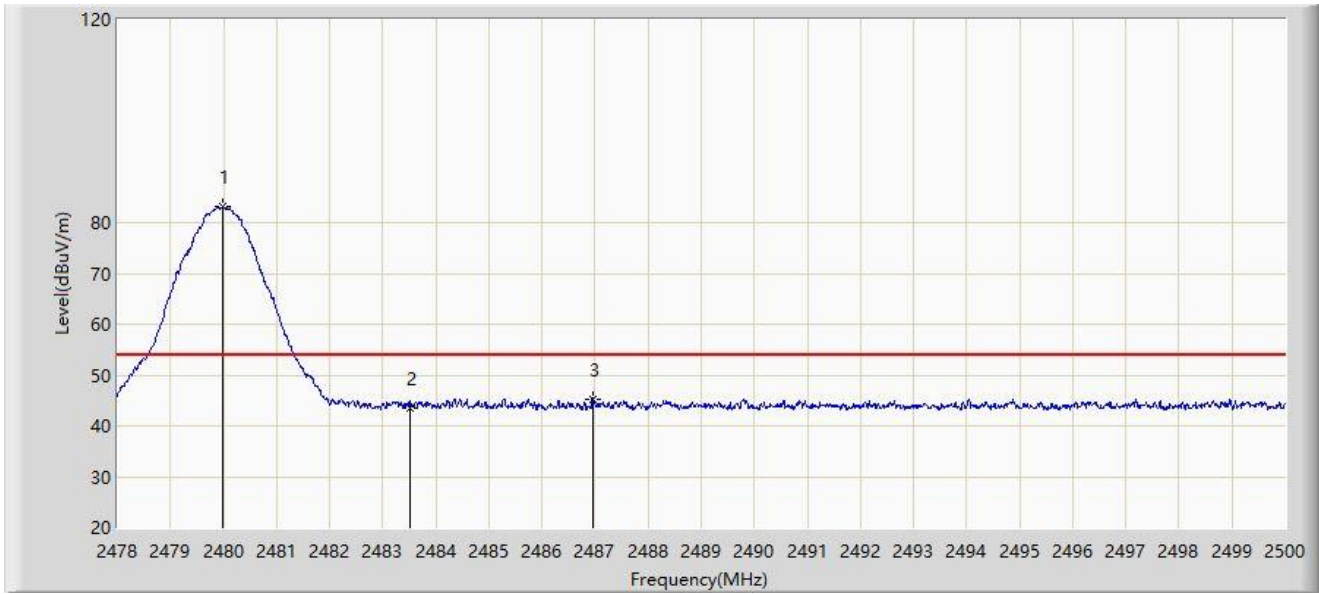
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2480.046	84.355	52.792	N/A	N/A	31.563	PK
2		2483.500	59.224	27.655	-14.776	74.000	31.569	PK
3	*	2483.775	59.615	28.045	-14.385	74.000	31.569	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC2	Test Date: 2022-12-13
Limit: FCC_Part15.209_RSE(3m)	Engineer: Lucas Wang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Vertical
EUT: Ninebot KickScooter Max G2	Power: By Battery
Test Mode: Transmit by BLE-1M at 2480MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2479.980	83.073	51.510	N/A	N/A	31.563	AV
2		2483.500	43.517	11.948	-10.483	54.000	31.569	AV
3	*	2486.954	45.311	13.736	-8.689	54.000	31.575	AV

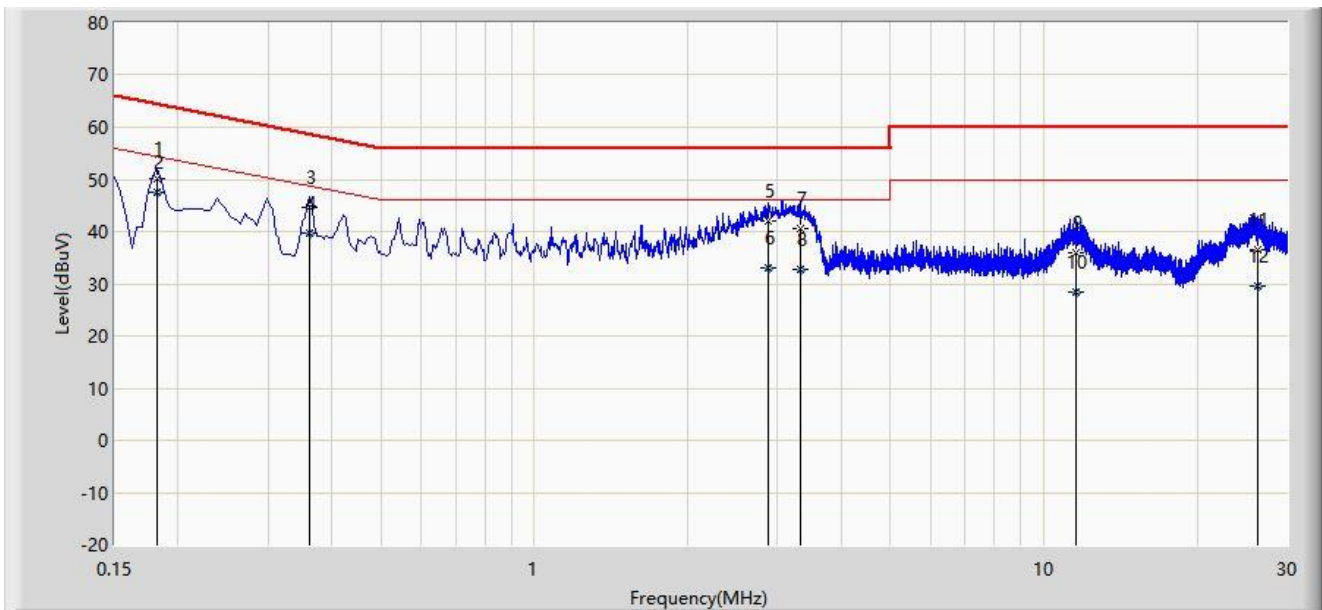
Note 1: " \* ", means this data is the worst emission level.

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

**A.8 AC Conducted Emissions Test Result**

Site: WZ-SR2	Test Date: 2022-11-30
Limit: FCC_Part15.207_CE_AC Power	Engineer: Helen Han
Probe: ENV216_101683_Filter Off_C	Polarity: Line
EUT: Ninebot KickScooter Max G2	Power: AC 120V/60Hz
Test Mode 1	



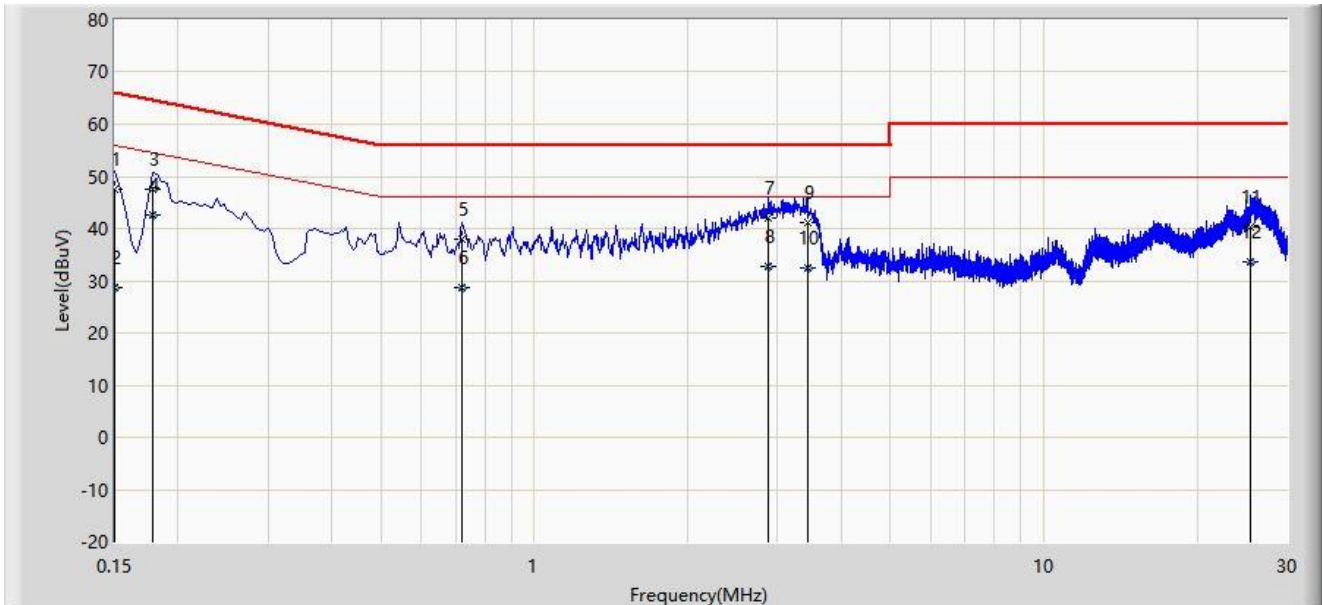
No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		0.182	50.112	40.382	-14.282	64.394	9.730	QP
2	*	0.182	47.450	37.720	-6.944	54.394	9.730	AV
3		0.362	44.651	34.888	-14.032	58.682	9.763	QP
4		0.362	39.747	29.984	-8.935	48.682	9.763	AV
5		2.886	41.990	31.999	-14.010	56.000	9.991	QP
6		2.886	33.165	23.174	-12.835	46.000	9.991	AV
7		3.322	40.501	30.436	-15.499	56.000	10.064	QP
8		3.322	32.790	22.725	-13.210	46.000	10.064	AV
9		11.582	36.056	25.453	-23.944	60.000	10.603	QP
10		11.582	28.290	17.687	-21.710	50.000	10.603	AV
11		26.362	36.398	25.402	-23.602	60.000	10.996	QP
12		26.362	29.677	18.681	-20.323	50.000	10.996	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: 2022-11-30
Limit: FCC_Part15.207_CE_AC Power	Engineer: Helen Han
Probe: ENV216_101683_Filter Off_C	Polarity: Neutral
EUT: Ninebot KickScooter Max G2	Power: AC 120V/60Hz
Test Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBµV)	Reading Level (dBµV)	Margin (dB)	Limit (dBµV)	Factor (dB)	Type
1		0.150	47.425	37.665	-18.575	66.000	9.760	QP
2		0.150	28.620	18.860	-27.380	56.000	9.760	AV
3		0.178	47.480	37.714	-17.098	64.578	9.766	QP
4	*	0.178	42.509	32.744	-12.069	54.578	9.766	AV
5		0.722	38.102	28.255	-17.898	56.000	9.847	QP
6		0.722	28.653	18.807	-17.347	46.000	9.847	AV
7		2.886	41.973	31.959	-14.027	56.000	10.014	QP
8		2.886	32.786	22.772	-13.214	46.000	10.014	AV
9		3.430	41.239	31.132	-14.761	56.000	10.107	QP
10		3.430	32.558	22.451	-13.442	46.000	10.107	AV
11		25.474	40.333	29.272	-19.667	60.000	11.061	QP
12		25.474	33.584	22.523	-16.416	50.000	11.061	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 "2211RSU078-UT" file.

## Appendix C - EUT Photograph

Refer to "2211RSU078-UE" file.

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