

MRT Technology (Suzhou) Co., Ltd Phone: +86-512-66308358

Web: www.mrt-cert.com

Report No.: 1804RSU009-U1 Report Version: V01 Issue Date: 12-06-2018

MEASUREMENT REPORT

FCC PART 15C & RSS-247 Issue 2

FCC ID: 2AF2B-NB

IC: 20915-NB01

APPLICANT: Ninebot (Tianjin) Tech Co., Ltd.

Application Type: Certification

Product: Ninebot S-PRO

Model No.: N3M320, N3M260

Brand Name: Ninebot

FCC Classification: Digital Transmission System (DTS)

FCC Rule Part(s): Part 15.247

IC Rule(s): RSS-247 Issue 2

Test Procedure(s): ANSI C63.10-2013, KDB 558074 D01v04

Test Date: May 11 ~ June 03, 2018

Reviewed By : Sur

(Sunny Sun)

Approved By : Robin Wu

(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 KDB 558074 D01v04. 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.

FCC ID: 2AF2B-NB Page Number: 1 of 31



Report No.: 1804RSU009-U1



Revision History

Report No.	Version	Description	Issue Date	Note
1804RSU009-U1	Rev. 01	Initial Report	12-06-2018	Valid

Note: This report is prepared for FCC & IC Class II permissive change and supplement to MRT Original "1512RSU00101" Report updating the product name & capacitor of RF circuit and adding related data

FCC ID: 2AF2B-NB Page Number: 2 of 31



CONTENTS

De	scriptic	on	Page
1.	INTR	ODUCTION	5
	1.1.	Scope	5
	1.2.	MRT Test Location	5
2.	PROI	DUCT INFORMATION	6
	2.1.	Feature of Equipment under Test	6
	2.2.	Product Specification Subjective to this Report	6
	2.3.	Working Frequencies	6
	2.4.	Device Capabilities	7
	2.5.	Test Configuration	7
	2.6.	EMI Suppression Device(s)/Modifications	7
	2.7.	Labeling Requirements	7
	2.8.	Test Software	7
3.	DESC	CRIPTION OF TEST	8
	3.1.	Evaluation Procedure	8
	3.2.	Radiated Emissions	8
4.	ANTE	ENNA REQUIREMENTS	10
5.	TEST	FEQUIPMENT CALIBRATION DATE	11
6.	MEAS	SUREMENT UNCERTAINTY	12
7.	TEST	TRESULT	13
	7.1.	Summary	13
	7.2.	Radiated Spurious Emission Measurement	14
	7.2.1.	Test Limit	14
	7.2.2.	Test Procedure Used	14
	7.2.3.	Test Setting	14
	7.2.4.	Test Setup	16
	7.2.5.	Test Result	18
	7.3.	Radiated Restricted Band Edge Measurement	23
	7.3.1.	Test Result	23
0	CON	CLUSION	24





§2.1033 General Information

Applicant:	Ninebot (Tianjin) Tech Co., Ltd.			
Applicant Address:	11 Tianrui Rd., Auto Industrial Park, Wuqing Dist., Tianjin, China.			
Manufacturer:	Ninebot (Tianjin) Tech Co., Ltd.			
Manufacturer Address:	11 Tianrui Rd., Auto Industrial Park, Wuqing Dist., Tianjin, China.			
Test Site:	MRT Technology (Suzhou) Co., Ltd			
Test Site Address:	D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong			
	Economic Development Zone, Suzhou, China			
MRT Registration No.:	893164			
MRT IC Registration No.:	11384A			
Test Device Serial No.:	N/A Production Pre-Production Engineering			

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is a FCC registered (MRT Reg. No. 893164) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules.
- MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.
- MRT facility is a VCCI registered (R-4179, G-814, C-4664, T-2206) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications and Radio testing for FCC, Industry Canada, EU and TELEC Rules.



FCC ID: 2AF2B-NB Page Number: 4 of 31



1. INTRODUCTION

1.1. Scope

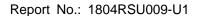
Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2009 on September 30, 2013.



FCC ID: 2AF2B-NB Page Number: 5 of 31





2. PRODUCT INFORMATION

2.1. Feature of Equipment under Test

Product Name:	Ninebot S-PRO
Model No.:	N3M320, N3M260
Brand Name:	Ninebot
RF Function:	Bluetooth v4.0 (BLE Only)

Note: There is different battery capacity between each model.

2.2. Product Specification Subjective to this Report

Bluetooth Frequency	2402~2480MHz
Bluetooth Version	v4.0 (BLE Only)
Data Rate	1Mbps(GFSK)
Antenna Gain	5.0dBi

2.3. Working Frequencies

Channel List for BLE

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				

FCC ID: 2AF2B-NB Page Number: 6 of 31





2.4. Device Capabilities

This device contains the following capabilities:

Bluetooth Device.

2.5. Test Configuration

The **Ninebot S-PRO** was tested per the guidance of KDB 558074 D01v04. ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

2.6. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.7. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

2.8. Test Software

The test utility software used during testing was "nRFgo Studio".

FCC ID: 2AF2B-NB Page Number: 7 of 31



Report No.: 1804RSU009-U1

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Testing Unlicensed Wireless Devices (ANSI C63.10-2013), and the guidance provided in KDB 558074 D01v04 were used in the measurement.

Deviation from measurement procedure......None

3.2. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the Antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable. For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive Antenna height using a broadband Antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn Antennas were used. For frequencies below 30MHz, a calibrated loop Antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband Antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-40GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive Antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn Antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable

FCC ID: 2AF2B-NB Page Number: 8 of 31



Report No.: 1804RSU009-U1

containing the EUT was rotated through 360 degrees and the height of the receive Antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive Antenna, whichever produced the worst-case emissions. According to 3dB Beam-Width of horn Antenna, the horn Antenna should be always directed to the EUT when rising height.

FCC ID: 2AF2B-NB Page Number: 9 of 31 IC: 20915-NB01





4. 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 Ninebot S-PRO is permanently attached.
- There are no provisions for connection to an external antenna.

Conclusion:

The Ninebot S-PRO unit complies with the requirement of §15.203.

FCC ID: 2AF2B-NB Page Number: 10 of 31





5. TEST EQUIPMENT CALIBRATION DATE

Radiated Disturbance - AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
PXA Signal Analyzer	Keysight	9030B	MRTSUE06395	1 year	2018/09/13
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2018/11/17
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2018/11/18
Broad Band Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06023	1 year	2018/10/21
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2018/11/20
RF Cable	HUBER+SUH NER	Cable 01	N/A	1 year	2018/12/09
Thermohygrometer	Testo	608-H1	MRTSUE06403	1 year	2018/08/14
Anechoic Chamber	TDK	Chamber-AC1	MRTSUE06212	1 year	2019/05/02

Software	Version	Function
e3	V8.3.5	EMI Test Software

FCC ID: 2AF2B-NB Page Number: 11 of 31





6. 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.

Radiated Emission Measurement - AC2

Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):

9kHz ~ 1GHz: ± 4.18dB 1GHz ~ 25GHz: ± 4.76dB

FCC ID: 2AF2B-NB Page Number: 12 of 31



Report No.: 1804RSU009-U1

7. TEST RESULT

7.1. Summary

Company Name: <u>Ninebot (Beijing) Tech Co., Ltd.</u>

FCC ID: <u>2AF2B-NB</u>
IC: <u>20915-NB01</u>

FCC Section(s)	IC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.205 15.209	RSS-247 [5.5]	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209	Radiated	Pass	Section 7.2 & 7.3

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.

FCC ID: 2AF2B-NB Page Number: 13 of 31



7.2. Radiated Spurious Emission Measurement

7.2.1.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			

7.2.2.Test Procedure Used

KDB 558074 D01v04 - Section 12.2.3 (quasi-peak measurements)

KDB 558074 D01v04 - Section 12.2.4 (peak power measurements)

KDB 558074 D01v04 - Section 12.2.5 (average power measurements)

7.2.3.Test Setting

Peak Field Strength Measurements per Section 12.2.4 of KDB 558074 D01v04

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = as specified in Table 1
- 3. VBW = 3MHz
- 4. Detector = peak

5. Sweep time = auto couple

FCC ID: 2AF2B-NB Page Number: 14 of 31



- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

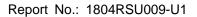
Table 1 - RBW as a function of frequency

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

Average Field Strength Measurements per Section 12.2.4 of KDB 558074 D01v04

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW ≥ 1/T
- 4. De 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

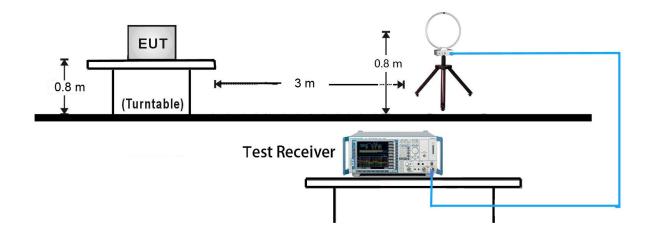
FCC ID: 2AF2B-NB Page Number: 15 of 31



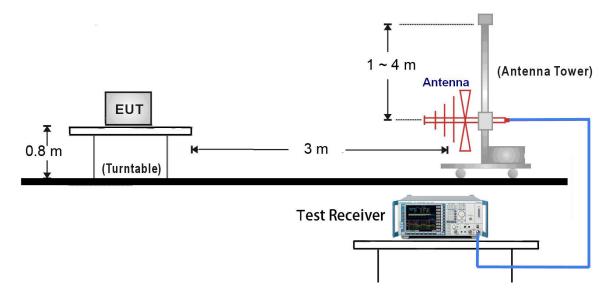


7.2.4.Test Setup

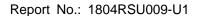
9kHz ~ 30MHz Test Setup:



30MHz ~ 1GHz Test Setup:

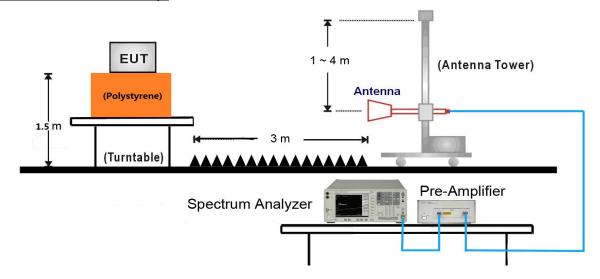


FCC ID: 2AF2B-NB Page Number: 16 of 31

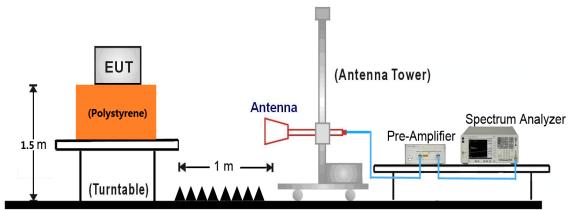




1GHz ~ 18GHz Test Setup:



18GHz ~25GHz Test Setup:







7.2.5.Test Result

Test Mode:	BLE	Test Site:	AC1	
Test Channel:	00	Test Engineer:	Bruce Wang	
Remark:	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.			

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4060.0	39.3	3.5	42.8	74.0	-31.2	Peak	Horizontal
	4799.5	39.6	5.8	45.4	74.0	-28.6	Peak	Horizontal
*	6015.0	37.3	7.9	45.2	74.0	-28.8	Peak	Horizontal
*	7205.0	40.5	12.6	53.1	74.0	-20.9	Peak	Horizontal
	3856.0	40.6	2.8	43.4	74.0	-30.6	Peak	Vertical
	4808.0	41.1	5.9	47.0	74.0	-27.0	Peak	Vertical
*	6006.5	37.2	7.9	45.1	74.0	-28.9	Peak	Vertical
*	7205.0	39.6	12.6	52.2	74.0	-21.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (84.4dBµV/m) or 15.209 which is higher.

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AF2B-NB Page Number: 18 of 31





Test Mode:	BLE	Test Site:	AC1			
Test Channel:	19	Test Engineer:	Bruce Wang			
Remark:	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.					

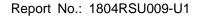
Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	3941.0	39.3	3.2	42.5	74.0	-31.5	Peak	Horizontal
	4748.5	35.6	5.7	41.3	74.0	-32.7	Peak	Horizontal
*	6210.5	36.4	8.5	44.9	74.0	-29.1	Peak	Horizontal
*	6839.5	35.9	10.5	46.4	74.0	-27.6	Peak	Horizontal
	4221.5	36.9	4.1	41.0	74.0	-33.0	Peak	Vertical
	5054.5	36.5	6.5	43.0	74.0	-31.0	Peak	Vertical
*	6244.5	35.6	8.6	44.2	74.0	-29.8	Peak	Vertical
*	6584.5	34.6	10.2	44.8	74.0	-29.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (82.9dBµV/m) or 15.209 which is higher.

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AF2B-NB Page Number: 19 of 31





Test Mode:	BLE	Test Site:	AC1			
Test Channel:	39	Test Engineer:	Bruce Wang			
Remark:	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.					

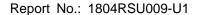
Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4298.0	37.2	4.4	41.6	74.0	-32.4	Peak	Horizontal
	5003.5	37.0	6.3	43.3	74.0	-30.7	Peak	Horizontal
*	6023.5	36.0	7.9	43.9	74.0	-30.1	Peak	Horizontal
*	7077.5	34.8	11.9	46.7	74.0	-27.3	Peak	Horizontal
	4017.5	38.0	3.4	41.4	74.0	-32.6	Peak	Vertical
	4748.5	36.1	5.7	41.8	74.0	-32.2	Peak	Vertical
*	6610.0	35.9	10.2	46.1	74.0	-27.9	Peak	Vertical
*	6882.0	35.5	10.6	46.1	74.0	-27.9	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (81.1dBµV/m) or 15.209 which is higher.

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

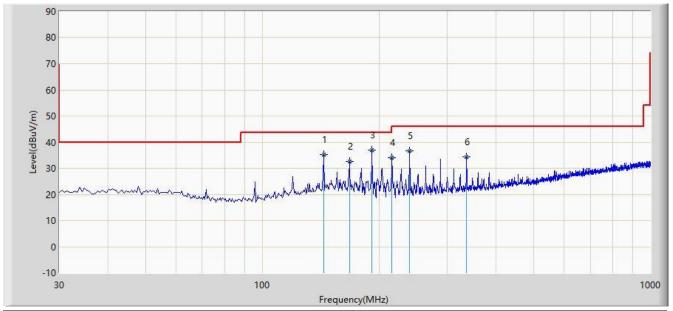
FCC ID: 2AF2B-NB Page Number: 20 of 31





The worst case of Radiated Emission below 1GHz:

Site: AC1	Time: 2018/05/24 - 23:24			
Limit: FCC_Part15.209_RE(3m)	Engineer: Alex Ma			
Probe: VULB9168_20-2000MHz	Polarity: Horizontal			
EUT: Ninebot S-PRO	Power: By Battery			
Worse Case Mode: Transmit by BLE at channel 2402MHz				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			143.975	35.131	20.265	-8.369	43.500	14.866	QP
2			167.740	32.506	17.914	-10.994	43.500	14.592	QP
3		*	191.990	37.064	25.440	-6.436	43.500	11.624	QP
4			215.755	34.041	22.292	-9.459	43.500	11.749	QP
5			240.005	36.648	23.780	-9.352	46.000	12.868	QP
6			336.035	34.266	18.973	-11.734	46.000	15.293	QP

Note 1: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)

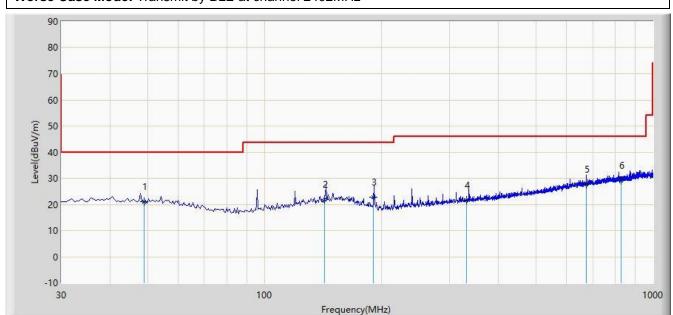
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

FCC ID: 2AF2B-NB Page Number: 21 of 31



Site: AC1	Time: 2018/05/24 - 23:33			
Limit: FCC_Part15.209_RE(3m)	Engineer: Snake Ni			
Probe: VULB9168_20-2000MHz	Polarity: Vertical			
EUT: Ninebot S-PRO	Power: By Battery			
Worse Case Mode: Transmit by BLE at channel 2402MHz				



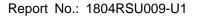
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			48.915	20.970	6.760	-19.030	40.000	14.210	QP
2			142.520	21.934	7.168	-21.566	43.500	14.766	QP
3			191.020	22.848	11.172	-20.652	43.500	11.676	QP
4			331.185	21.680	6.475	-24.320	46.000	15.205	QP
5			673.595	27.590	5.808	-18.410	46.000	21.782	QP
6		*	829.280	29.171	5.603	-16.829	46.000	23.568	QP

Note 1: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: $9kHz \sim 30MHz$, $18GHz \sim 25GHz$), therefore no data appear in the report.

FCC ID: 2AF2B-NB Page Number: 22 of 31





7.3. Radiated Restricted Band Edge Measurement

7.3.1.Test Result

Site: AC1	Time: 2018/05/11 - 02:30			
Limit: FCC_Part15.209_RE(3m)	Engineer: Dandy Li			
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal			
EUT: Ninebot S-PRO	Power: By Battery			
Test Mode: Transmit by BLE at channel 2402MHz				

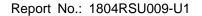
130 Level(dBuV/m) 80 40 30 2310 2315 2320 2325 2330 2335 2340 2345 2350 2355 2360 2365 2370 2375 2380 2385 2390 2395 2400 2405 Frequency(MHz)

No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2347.145	59.155	26.747	-14.845	74.000	32.408	PK
2			2390.000	56.195	23.868	-17.805	74.000	32.327	PK
3		*	2402.008	84.365	52.061	N/A	N/A	32.305	PK

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

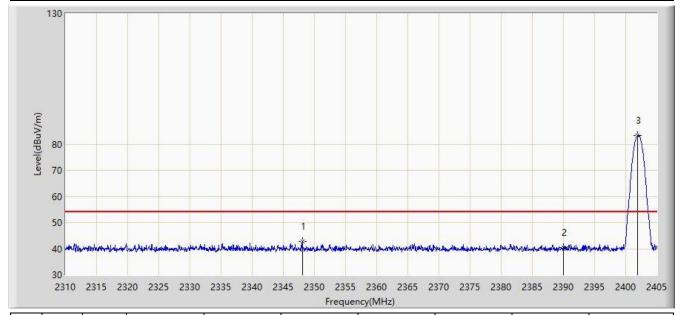
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

FCC ID: 2AF2B-NB Page Number: 23 of 31





Site: AC1	Time: 2018/05/11 - 02:31				
Limit: FCC_Part15.209_RE(3m)	Engineer: Dandy Li				
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal				
EUT: Ninebot S-PRO	Power: By Battery				
Test Mode: Transmit by BLE at channel 2402MHz					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2348.048	42.871	10.465	-11.129	54.000	32.405	AV
2			2390.000	40.506	8.179	-13.494	54.000	32.327	AV
3		*	2401.865	83.284	50.979	N/A	N/A	32.305	AV

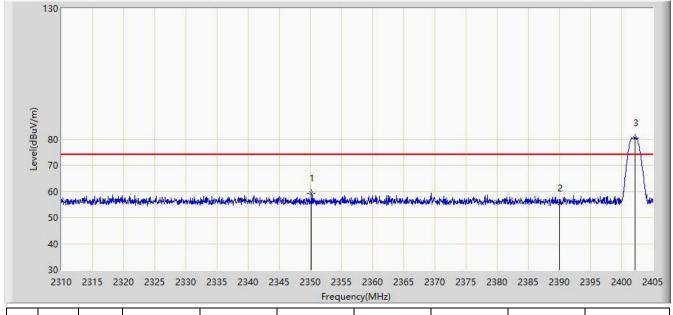
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

FCC ID: 2AF2B-NB Page Number: 24 of 31





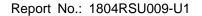
Site: AC1	Time: 2018/05/11 - 02:32			
Limit: FCC_Part15.209_RE(3m)	Engineer: Dandy Li			
Probe: BBHA9120D_1-18GHz	Polarity: Vertical			
EUT: Ninebot S-PRO	Power: By Battery			
Test Mode: Transmit by BLE at channel 2402MHz				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2350.137	59.161	26.761	-14.839	74.000	32.400	PK
2			2390.000	55.379	23.052	-18.621	74.000	32.327	PK
3		*	2402.103	80.507	48.203	N/A	N/A	32.304	PK

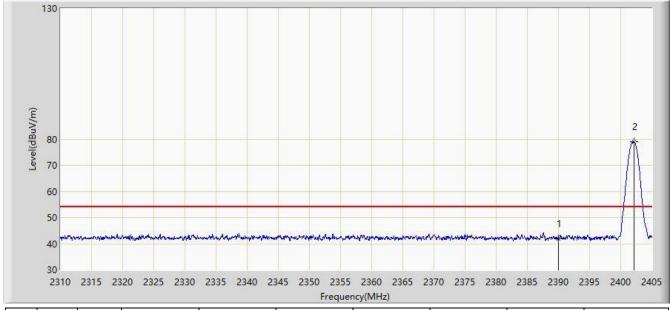
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

FCC ID: 2AF2B-NB Page Number: 25 of 31





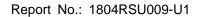
Site: AC1	Time: 2018/05/11 - 02:33			
Limit: FCC_Part15.209_RE(3m)	Engineer: Dandy Li			
Probe: BBHA9120D_1-18GHz	Polarity: Vertical			
EUT: Ninebot S-PRO	Power: By Battery			
Test Mode: Transmit by BLE at channel 2402MHz				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	42.012	9.685	-11.988	54.000	32.327	AV
2		*	2402.150	79.019	46.715	N/A	N/A	32.304	AV

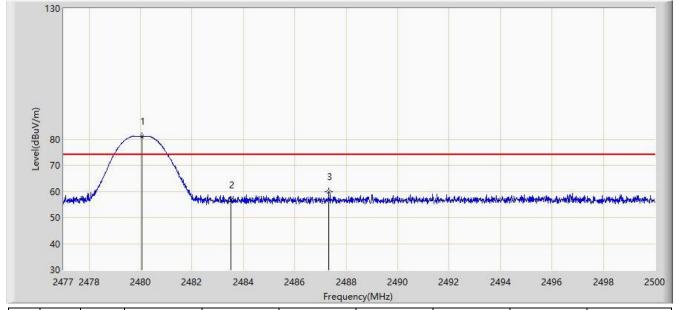
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

FCC ID: 2AF2B-NB Page Number: 26 of 31





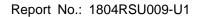
Site: AC1	Time: 2018/05/11 - 02:33			
Limit: FCC_Part15.209_RE(3m)	Engineer: Dandy Li			
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal			
EUT: Ninebot S-PRO	Power: By Battery			
Test Mode: Transmit by BLE at channel 2480MHz				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2480.048	81.136	48.810	N/A	N/A	32.325	PK
2			2483.500	56.708	24.369	-17.292	74.000	32.340	PK
3			2487.315	59.822	27.468	-14.178	74.000	32.355	PK

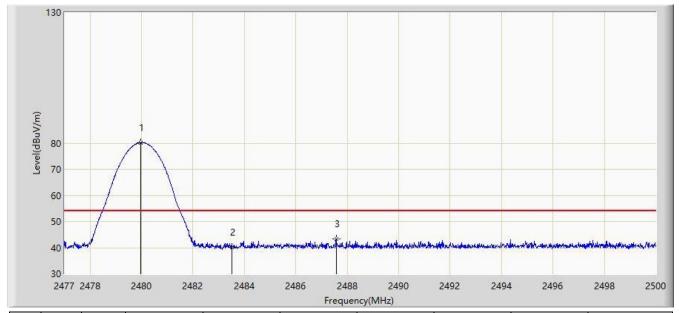
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

FCC ID: 2AF2B-NB Page Number: 27 of 31





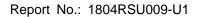
Site: AC1	Time: 2018/05/11 - 02:35			
Limit: FCC_Part15.209_RE(3m)	Engineer: Dandy Li			
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal			
EUT: Ninebot S-PRO	Power: By Battery			
Test Mode: Transmit by BLE at channel 2480MHz				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2479.979	80.161	47.836	N/A	N/A	32.325	AV
2			2483.500	40.242	7.903	-13.758	54.000	32.340	AV
3			2487.569	43.351	10.996	-10.649	54.000	32.355	AV

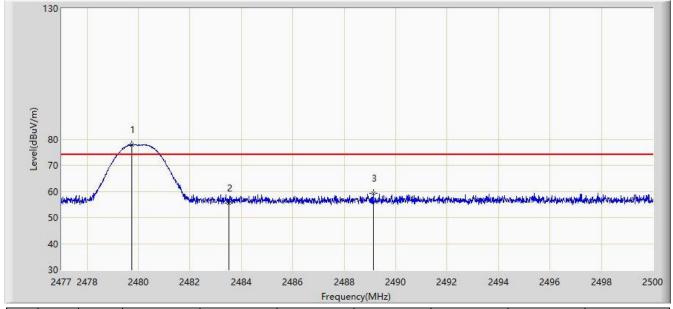
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

FCC ID: 2AF2B-NB Page Number: 28 of 31





Site: AC1	Time: 2018/05/11 - 02:36			
Limit: FCC_Part15.209_RE(3m)	Engineer: Dandy Li			
Probe: BBHA9120D_1-18GHz	Polarity: Vertical			
EUT: Ninebot S-PRO	Power: By Battery			
Test Mode: Transmit by BLE at channel 2480MHz				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2479.749	77.829	45.505	N/A	N/A	32.325	PK
2			2483.500	55.472	23.133	-18.528	74.000	32.340	PK
3			2489.121	59.156	26.795	-14.844	74.000	32.361	PK

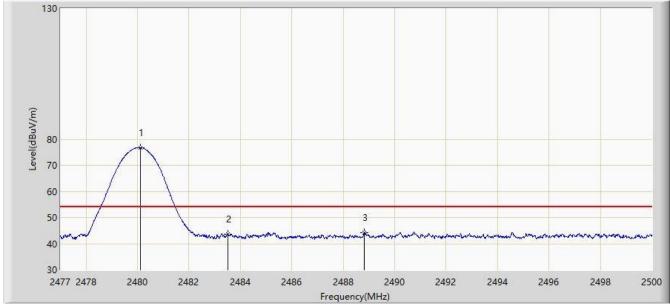
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

FCC ID: 2AF2B-NB Page Number: 29 of 31





Site: AC1	Time: 2018/05/11 - 02:36			
Limit: FCC_Part15.209_RE(3m)	Engineer: Dandy Li			
Probe: BBHA9120D_1-18GHz	Polarity: Vertical			
EUT: Ninebot S-PRO	Power: By Battery			
Test Mode: Transmit by BLE at channel 2480MHz				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2480.105	76.744	44.418	N/A	N/A	32.325	AV
2			2483.500	43.621	11.282	-10.379	54.000	32.340	AV
3			2488.822	44.299	11.939	-9.701	54.000	32.360	AV

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

FCC ID: 2AF2B-NB Page Number: 30 of 31



Report No.: 1804RSU009-U1

Page Number: 31 of 31

8. CONCLUSION

The data collected relate only the item(s) tested and show that the **Ninebot S-PRO** is in compliance with Part 15C of the FCC Rules & IC Rules.

———— The End

IC: 20915-NB01

FCC ID: 2AF2B-NB