



RF MEASUREMENT REPORT

FCC ID: 2ALS8-SS0004
Applicant: Ninebot (Changzhou) Tech Co., Ltd.
Product: ninebot smart dashboard
Model No.: WF-100
FCC Classification: Part 15 Low Power Transmitter Below 1705 kHz (DCD)
FCC Rule Part(s): FCC Part 2.1091
Test Date: 2022-11-22

Reviewed By:

Vincent Yu

Approved By:

Robin Wu



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

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Revision History

Report No.	Version	Description	Issue Date	Note
2210RSU031-U3	Rev. 01	Initial Report	2022-12-08	Valid

CONTENTS

Description	Page
1. General Information	4
1.1. Applicant	4
1.2. Manufacturer	4
1.3. Testing Facility	4
1.4. Product Information.....	5
1.5. Radio Specification under Test	5
2. Measuring Instrument	6
3. Measurement Uncertainty.....	7
4. Test Result.....	8
4.1. Summary	8
4.2. Test Limits	9
4.3. Test Mode.....	10
4.4. Test Setup	10
4.5. Auxiliary Equipment	10
4.6. Test Environment Condition	10
4.7. Test Result	11
Appendix A - Test Setup Photograph	13
Appendix B - EUT Photograph	14

1. General Information

1.1. Applicant

Ninebot (Changzhou) Tech Co., Ltd.
139 Huaye Road, Jintan District, Changzhou City, Jiangsu, China

1.2. Manufacturer

Ninebot (Changzhou) Tech Co., Ltd.
139 Huaye Road, Jintan District, Changzhou City, 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	ninebot smart dashboard
Model No.	WF-100
EUT Identification No.	20221021Sample#05
NFC Specification	13.56MHz
WPT Specification	115 ~ 135kHz
Power Supply	18VDC / 1.5A
Output	15W(Max)
Operating Temp.	0 ~ 40°C
Note: 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

Frequency Range	115 ~ 135kHz
Modulation	ASK
Antenna Type	Coil Antenna

2. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
Exposure Level Tester	narda	ELT-400	MRTSUE06920	3 year	2023/11/29	SIP-AC3
Broadband EM Field Meter	ar	SM40G	MRTSUE06358	3 year	2024/05/05	SIP-AC3
E-field sensor head	ar	SHE100K6z5G	MRTSUE06444	3 year	2024/05/05	SIP-AC3
Probe	narda	B-Field	MRTSUE06919	3 year	2024/02/14	SIP-AC3
Thermal Hygrometer	testo	608-H1	MRTSUE06622	1 year	2022/11/28	SIP-AC3

3. Measurement Uncertainty

Magnetic Field Emissions (A/m)
1Hz-10Hz: 12.74%
10Hz-120kHz: 2.91%
120kHz-400kHz: 3.98%
Electric Field Emissions (V/m)
100kHz-6.5GHz: 39.42%

4. Test Result

4.1. Summary

Equipment Approval Consideration	Product Technical Specification	Result
(1) Wireless power transfer frequency is below 1 MHz	115kHz ~ 135kHz	Complied
(2) The output power from each primary coil is less than or equal to 15 watts.	Max 15W	Complied
(3) The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.	This device has only one primary coil, and is only capable of wireless power transfer for one client at a time.	Complied
(4) Client device is placed directly in contact with the transmitter.	Placed directly	Complied
(5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).	Mobile exposure conditions only	Complied
(6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.	The test result (Refer to clause 4.7) can meet the requirements.	Complied

4.2. Test Limits

§1.1310 Radiofrequency radiation exposure limits.

Below sets forth limits for Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1500	30
1,500-100,000	--	--	1.0	30

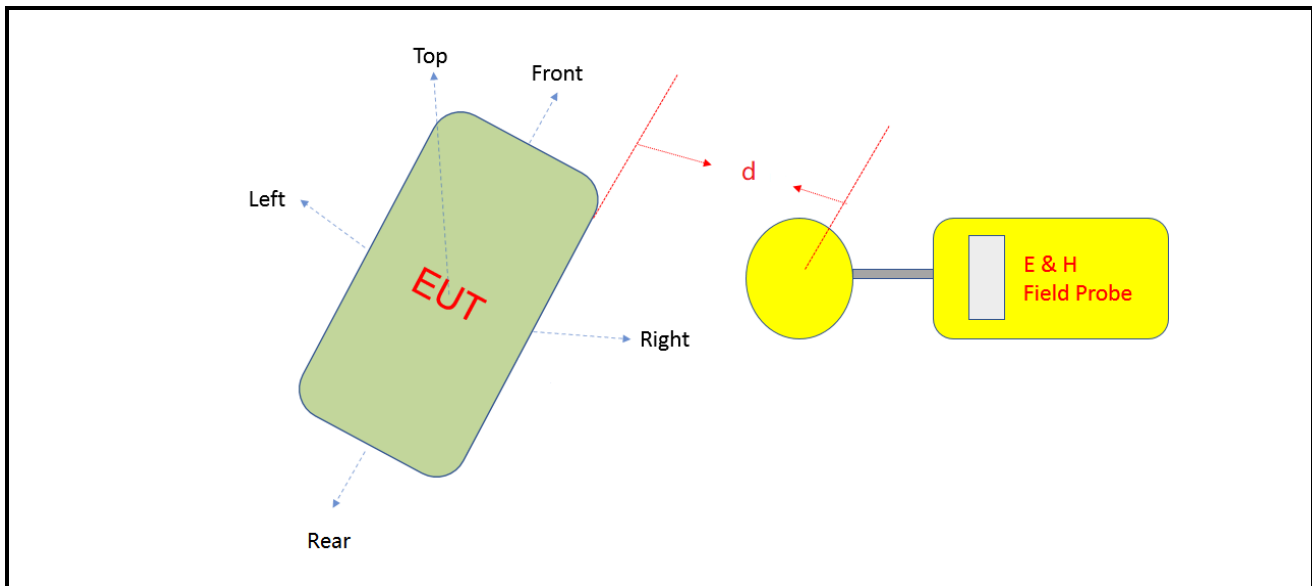
f= Frequency in MHz

* = Plane-wave equivalent power density

4.3. Test Mode

Test Mode
Mode 1: Standby, Idle mode
Mode 2: Charge the Load
Mode 3: Charge the iPhone

4.4. Test Setup



Note:

1. This shall be measured as the distance from the edge of the device to the center of the measurement probe.
2. d is the test distance at cm. Detailed information please refer to clause 4.7 of this report.

4.5. Auxiliary Equipment

Product	Manufacturer	Model No.
1 Charging Load	IGIFTFIRE	N/A
2 iPhone	Apple	iPhone 11

4.6. Test Environment Condition

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

4.7. Test Result

Test Site	SIP-AC3	Test Engineer	Simon Lu
Test Date	2022-11-22	Test Item	Electric Field Emissions

Test Mode	Test Position	Test Distance (cm)	Measure Value (V/m)	Limit (V/m)	50% Limit (V/m)	Result
Mode 1	Front	15	0.22	614	307	Pass
	Rear	15	0.33	614	307	Pass
	Right	15	0.27	614	307	Pass
	Left	15	0.26	614	307	Pass
	Top	20	0.32	614	307	Pass
Mode 2	Front	15	0.45	614	307	Pass
	Rear	15	0.56	614	307	Pass
	Right	15	0.98	614	307	Pass
	Left	15	0.84	614	307	Pass
	Top	20	1.04	614	307	Pass
Mode 3	Front	15	0.29	614	307	Pass
	Rear	15	0.69	614	307	Pass
	Right	15	0.61	614	307	Pass
	Left	15	0.59	614	307	Pass
	Top	20	1.29	614	307	Pass

Test Site	SIP-AC3	Test Engineer	Simon Lu
Test Date	2022-11-22	Test Item	Magnetic Field Emissions

Test Mode	Test Position	Test Distance (cm)	Measure Value (A/m)	Limit (A/m)	50% Limit (A/m)	Result
Mode 1	Front	15	0.283	1.63	0.815	Pass
	Rear	15	0.294	1.63	0.815	Pass
	Right	15	0.283	1.63	0.815	Pass
	Left	15	0.284	1.63	0.815	Pass
	Top	20	0.296	1.63	0.815	Pass
Mode 2	Front	15	0.285	1.63	0.815	Pass
	Rear	15	0.423	1.63	0.815	Pass
	Right	15	0.314	1.63	0.815	Pass
	Left	15	0.339	1.63	0.815	Pass
	Top	20	0.366	1.63	0.815	Pass
Mode 3	Front	15	0.276	1.63	0.815	Pass
	Rear	15	0.306	1.63	0.815	Pass
	Right	15	0.280	1.63	0.815	Pass
	Left	15	0.284	1.63	0.815	Pass
	Top	20	0.280	1.63	0.815	Pass

Appendix A - Test Setup Photograph

Refer to “2210RSU031-UT” file.

Appendix B - EUT Photograph

Refer to “2210RSU031-UE” file.

The End