



RF Exposure Evaluation Declaration

FCC ID: 2ALS8-SS0005
Applicant: Ninebot (Changzhou) Tech Co., Ltd.
Product: ninebot smart dashboard
Model No.: WF-200
FCC Classification: Part 15 Low Power Communication Device Transmitter (DXX)
FCC Rule Part(s) FCC Part 2.1091
Test Procedure KDB 447498 D04 Interim General RF Exposure Guidance v01

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
2301RSU007-U5	V01	Initial Report	2023-02-01	Valid

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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.

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1.3. Testing Facility

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1.4. Product Information

Product Name	ninebot smart dashboard
Model No.	WF-200
NFC Specification	13.56MHz
WPT Specification	115 ~ 145kHz
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

NFC Specification	13.56MHz
Type of modulation	ASK
Antenna Type	Coil Antenna

1.6. Device Classification

According to the user manual, the antenna of this device is at least 20cm away from the body of the user, this device is classified as a **Mobile Device**. Therefore, the RF exposure evaluation requirements of FCC Part 2.1091 for mobile device exposure conditions subject to MPE limits.

2. RF Exposure Evaluation

2.1. Test Limits

According to FCC Part 2.1091, A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 cm is normally maintained between the RF source's radiating structure(s) and the body of the user or nearby persons.

According to FCC Part 1.1307(b)(3)(i)(C), for the exemption in Table 1 to apply, R must be at least $\lambda/2\pi$, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source Frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1.920 R ²
1.34-30	3.450 R ² /f ²
30-300	3.83 R ²
300-1500	0.0128 R ² f
1500-100,000	19.2 R ²

f = frequency in MHz, R = minimum separation distance in meters.

According to FCC Part 1.1307(b)(3)(ii)(B), in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation.

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

2.2. Test Result

Test Mode	Frequency Band (MHz)	Max. EIRP (dB μ V/m)@3m	Max. EIRP (dBm)	ERP (W)	Compliance Distance (R) (m)	Threshold ERP (W)	Result
NFC	13.56	56.822	-38.378	0.00000009	0.2	0.0008	Pass

Note:

1. Max. EIRP (dBm) = Max. EIRP (dB μ V/m)@3m - 95.2
2. ERP (W) = $10^{[ERP \text{ (dBm)} - 30]/10} = 10^{[EIRP \text{ (dBm)} - 2.15 \text{ (dB)} - 30]/10}$
3. Threshold ERP (W) = $3.45 * R^2 / f^2$ (W) = $3.45 * 0.2^2 / (13.56)^2$ (W) = 0.0008 (W)

Therefore, this device meets the RF Exposure requirements when it is installed and operated with a minimum distance of 20cm between the radiator and user.

_____ The End _____