



RF Exposure Evaluation Declaration

FCC ID: 2ALS8-KS0009
Applicant: Ninebot (Changzhou) Tech Co., Ltd.
Product: Segway SuperScooter GT2
Brand Name: Segway
Model No.: GT2P
FCC Rule(s): FCC Part 2.1093
Test Procedure 447498 D04 Interim General RF Exposure Guidance v01

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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
2201RSU035-U2	Rev. 01	Initial Report	03-23-2022	Valid

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1.4. Product Information

Product Name	Segway SuperScooter GT2
Model No.	GT2P
S/N	S1GTB2146C0012
Bluetooth Specification	V4.1 (BLE Only)
Operating Temperature	-10 ~ 40°C
Accessories	
AC/DC Adapter	Model: NBW58D802D0D Input: 100-240V~50/60Hz Output: 57.8V, 2.0A, 115.6W
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	2402~2480MHz
Channel Number	40
Channel Spacing	2MHz
Modulation	GFSK
Data Rate	1Mbps
Antenna Type	PCB Antenna
Antenna Gain	-1.26dBi

2. RF Exposure Evaluation

2.1. Test Limits

SAR-based thresholds are derived based on frequency, power, and separation distance of the RF source. The formula defines the thresholds in general for either available maximum time-averaged power or maximum time-averaged ERP, whichever is greater.

If the ERP of a device is not easily determined, such as for a portable device with a small form factor, the applicant may use the available maximum time-averaged power exclusively if the device antenna or radiating structure does not exceed an electrical length of $\lambda/4$.

As for devices with antennas of length greater than $\lambda/4$ where the gain is not well defined, but always less than that of a half-wave dipole (length $\lambda/2$), the available maximum time-averaged power generated by the device may be used in place of the maximum time-averaged ERP, where that value is not known.

The separation distance is the smallest distance from any part of the antenna or radiating structure for all persons, during operation at the applicable ERP. In the case of mobile or portable devices, the separation distance is from the outer housing of the device where it is closest to the antenna.

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula (B.2).

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1). The example values shown in Table B.2 are for illustration only.

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

Table B.2 - Example Power Thresholds (mW)

MHz	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

2.2. Test Result

Product	Segway SuperScooter GT2
Test Item	RF Exposure Evaluation

Test Mode	Frequency Band (MHz)	Maximum Conducted Power (dBm)	Maximum Conducted Power (mW)	SAR Test Exclusion Threshold (mW)	Result
BLE	2402 ~ 2480	-1.82	0.66	3	Pass

Note: The minimum distance of antenna to user is 5mm.

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