Ninebot Telematics Box specification

1. Product overview

Ninebot Telematics Box includes the functions of 4G networking, Bluetooth, mass storage and encryption.As the data transmission terminal of the electric motorcycle, Ninebot Telematics Box can Can control vehicle switch on / off through Bluetooth or remote network unlocking, and can realize the fast access unlocking function.It can also obtain the vehicle information through the serial port, and then report the vehicle status and position information to cloud server to realize the real-time monitoring of the whole vehicle.

2. Basic parameters

Item	parameters
Dimensions	50mm*40mm*200mm
Rated voltage	DC:25-110V
Rated current	working condition：36V@35mA Low power state：4V@5mA
working temperature	-20℃~+85℃
Charging temperature	<42℃

4. RF parameters

Item	parameters
Hardware version	**EC25-AFX:** (North America） LTE FDD: B2/B4/B5/B12/B13/B14/B66/B71 WCDMA: B2/B4/B5
technical characteristics	LTE CAT4/UMTS/EGPRS
Working frequency band	**EC25-AFX:** LTE FDD: B2/B4/B5/B12/B13/B14/B66/B71 WCDMA: B2/B4/B5
GSM features	EDGE: 296Kbps (DL)/ 236.8Kbps (UL) GPRS: 107Kbps (DL)/ 85.6Kbps (UL)
UMTS features	DC-HSDPA: 42Mbps (DL) HSUPA: 5.76Mbps (UL) WCDMA: 384Kbps (DL)/ 384Kbps (UL)
LTE features	LTE FDD: 150Mbps (DL)/ 50Mbps (UL) LTE TDD: 130Mbps (DL)/ 30Mbps (UL)

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CAT M1 features	588Kbps (DL)/ 1119Kbps (UL)
CAT NB2 features	127Kbps (DL)/ 158.5Kbps (UL)
Network protocol	**EC25-AFX:** TCP/UDP/PPP/FTP/FTPS/HTTP/HTTPS/NTP/PING/QMI/NITZ/ MMS/SMTP/SSL/MQTT/FILE/CMUX/SMTPS

5. GPS parameters

Item	parameters
Model	LC29DC
Frequency	GPS/QZSS L1 C/A 和 L5 Galileo E1 和 E5a BeiDou B1I GLONASS L1 IRNSS L5 SBAS L1
HDOP	<1.2m CEP

6. BT/WIFI parameters

Item	parameters
BLE Chip	GR5513
Frequency	2402~2480MHz
Max Peak Gain	-1.26 dBi

WIFI Chip	ESP-01F
Frequency	2412~2462MHz (802.11b/g/n)
Max Peak Gain	2.23 dBi

7. Other technical parameters

Item	parameters
Main processor	N32G452REL7 Core: Cortex-M4 Flash memory: 512K bytes

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	Ram: 144k bytes
Serial port	115200bps

Federal Communications Commission (FCC) Compliance Statement for USA

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada (IC) Compliance Statement for Canada

This device contains licence-exempt transmitter(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).
Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.
Cet équipement est conforme aux limites d'exposition aux radiations IC CNR-102 établies pour un environnement non contrôlé. Cet émetteur ne doit pas être situé ou fonctionner conjointement avec une autre antenne ou un autre émetteur. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et

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votre corps.

Neither Segway Inc. nor Ninebot is responsible for any changes or modifications not expressly approved by Segway Inc. or Ninebot. Such modifications could void the user's authority to operate the equipment.

Ninebot Telematics Box (model N-D-W75NL-U)
FCC ID: 2ALS8-SS0001
IC: 22636-SS0001
Contains FCC ID: XMR201909EC25AFX
2AHMR-ESP01F
Contains IC: 10224A-2019EC25AFX

Important WEEE information

WEEE Disposal and Recycling Information Correct Disposal of this product. This marking indicates that this product should not be disposal with other household wastes through out the EU.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsible to promote the sustainable reuse of materials resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

Battery recycling information for the European Union

Batteries or packaging for batteries are labeled in accordance with European Directive 2006/66/EC and amendment 2013/56/EU concerning batteries and accumulators and waste batteries and accumulators. The Directive determines the framework for the return and recycling of used batteries and accumulators as applicable throughout the European Union. This label is applied to various batteries to indicate that the battery is not to be thrown away, but rather reclaimed upon end of life per this Directive.

In accordance with the European Directive 2006/66/EC and amendment 2013/56/EU, batteries and accumulators are labeled to indicate that they are to be collected separately and recycled at end of life. The label on the battery may also include a chemical symbol for the metal concerned in the battery (Pb for lead, Hg for mercury, and Cd for cadmium). Users of batteries and accumulators must not dispose of batteries and accumulators as unsorted municipal waste, but use the collection framework available to customers for the return, recycling, and treatment of batteries and accumulators. Customer participation is important to minimize any potential effects of batteries and accumulators on the environment and human health due to the potential presence of hazardous substances.

Before placing electrical and electronic equipment (EEE) in the waste collection stream or in waste collection facilities, the end user of equipment containing batteries and/or accumulators must remove those batteries and accumulators for separate collection.

Restriction of Hazardous Substances (RoHS) Directive

This Ninebot (Changzhou) Tech Co., Ltd. product, with included parts (cables, cords, and so on) meets the requirements of Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment “(RoHS recast” or“ RoHS 2”).

Radio Equipment Directive

CE

Segway Europe BV, Hogehilweg 8, 1101 CC Amsterdam, The Netherlands.

Hereby, Ninebot (Changzhou) Tech Co., Ltd, declares that the wireless equipment listed in this section are in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Bluetooth	Frequency Band(s)	2.4000-2.4835GHz
	Max. RF Power	20mW

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installation instructions

1.Connect the scooter’s cable with IoTbox’s communication cable.

2.Install the cable of IoTbox into the groove of scooter’s upright tube, beware to put the bottom part first, then comes the upper part.

3.Install and fasten the screw.

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