

# User Manual

Infinitracker NCT-8101

(LTE Bluetooth gateway, GPS, sensors)

[www.infinitracker.com](http://www.infinitracker.com)

# Features

LTE network	LTE-M1 & NB-IoT
LTE bands	700 ~ 2200 MHz B1,B2,B3,B4,B5,B8,B12,B13,B17,B20,B25,B26,B28,B66
LTE Countries	Global, 110+ countries
LTE sensitivity	-108dBm
LTE output power	23dBm
LTE certifications	PTCRB
LTE SIM/eSIM	4FF nano
GPS sensitivity	-151dBm
GPS accuracy	5m
GPS time to first fix	Typical cold start 36s, hot start 1.3s
GPS location tracking	Changeable tracking frequency, tracking history, viewed on Google map
Bluetooth	Bluetooth 5.0
Sensors	Temperature, compass & accelerometer
Battery	Li/SOCI2 Non-chargeable 3.6V 12000mAh
Battery - standby	5~15 years based on configuration
Battery - usage	Monitored from cloud
Buzzer	
LED	3-color
Power button	Can be enabled/disabled by cloud

Waterproof	IP67
Color	White & Black
Certifications	PTCRB, Bluetooth, UL, EMC/FC/IC/CE
Storage temperature	-30 °C to +80 °C
Operating temperature	-20 °C to +70 °C
Humidity	5% to 95%
Mechanical	Ruggedized
Cloud	Configuration, management: <a href="http://www.infinitracker.com">www.infinitracker.com</a>
Dimensions	105mm x 85mm x 38mm
Weight	250g

Infinitracker is installed in a place of transportation and non-resident environment for logistics tracking and data collection (ex: location, temperature) and uploads the data to cloud server via LTE network.

Infinitracker can work as a gateway which collects data from another Bluetooth device and forwards the data to cloud server via LTE network.

# Installation



For longer battery life, make sure this side up when being installed.

Wrong installation direction could shorten battery life by 10~30%. The worst case is up-side-down.



The side with LED on the device must not face ground when being installed.

Infinitracker is not a portable device for end user. It is required to be installed and fixed with screws by professional.

# Power on/off device

## Power on:

Long button press (> 3 seconds) followed by short button press (< 1 seconds).

In a few seconds, you will see Green LED blinks.

## Power off:

Long button press (> 3 seconds) followed by short button press (< 1 seconds).

In a few seconds, you will see Red LED blinks.

## Power status check:

Short button press (< 1 seconds).

In a few seconds, you will see either Red or Green LED blinks.

Red LED means the device is powered off.

Green LED:

- blinks one time – power on

- blinks two times – connected to LTE network

- blinks three times – connected to LTE network , and GPS signal acquired

# Manage device

Register an account in [www.infinitracker.com](http://www.infinitracker.com)

Submit request to [info@infinitracker.com](mailto:info@infinitracker.com) :

- 1) Your account name
- 2) Your devices' IMEI numbers

After Infinitracker supporters assign the devices to your account, you can manage your devices online.

## Warning of battery

1. CAUTION : Risk of explosion if the battery is replaced by an incorrect type.
2. Replacement of a battery with an incorrect type that can defeat a safeguard (for example, in the case of some lithium battery types).
3. Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion.
4. Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas.
5. A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

The battery is a non-rechargeable battery, and the battery will be discarded once it runs out.



# Federal Communication Commission Compliance Statement

NCT-8101

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 A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

## **Radiation Exposure Statement:**

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 & your body.

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## **ISED Compliance statement:**

This device complies with ISED's license-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

### **Radiation Exposure Statement:**

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

### **Déclaration d'exposition aux radiations:**

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

This Class (A) digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe (A) est conforme à la norme NMB-003 du Canada.

# EU DECLARATION OF CONFORMITY

We, Infinitracker Inc., located at 1292 Kifer road, suite 808, Sunnyvale, California, USA, declare under our sole responsibility the Products described in the tables are in conformity with the essential requirements and other relevant requirements of the following Directives:

2014/53/EU	Radio Equipment Directive
2014/30/EU	Electromagnetic Compatibility Directive
2014/35/EU	Low Voltage Directive
2009/125/EC(ErP)	Ecodesign Directive
2011/65/EU & 2015/863 (RoHS)	RoHS Directive

## Product /Device Information:

Product Name:	Infinitracker
Model Number:	NCT-8101
Accessories:	No
Software:	1.1.0

## EMC Harmonized standards applied:

EN 300 328 V2.2.2  
Draft EN 301 489-1 V2.2.0  
Draft EN 301 489-17 V3.2.0  
EN 301 489-19 V2.1.1 (2019-04)  
EN 301 489-52 V1.1.0 (2016-11)  
EN 301 908-1 V13.1.1  
EN 301 908-13 V13.1.1 (2019-11)  
EN 303 413 V1.1.1 (2017-06)  
3GPP TS36.521-1  
EN 55032:2015 / AC: 2016 Class A  
EN 55035:2017  
EN 61000-3-2:2014 Class D  
EN 61000-3-3:2013  
EN 50385  
EN 62479

## Safety standards applied:

IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013  
EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013  
IEC 62368-1:2014 (Second Edition)  
EN 62368-1:2014+A11:2017

**Green standards applied:**

EN 50581

The Notified Body (Name: **CTC advanced**, ID: **0682**) performed the conformity assessment according to Annex III, Module B of the Radio Equipment Directive 2014/53/EU and issued the EU-type examination certificate (Ref. No.: xxxxxxx) covering the essential requirements of article(s) 3.1a, 3.1b, 3.2.

Place and date of issue:

Sunnyvale CA USA  
Aug 04, 2020

Name and Signature:

Signature



Kai Liao, Sr. project manager




**RF Exposure Information (MPE)**

This device meets the EU requirements and the International Commission on Non-Ionizing Radiation Protection (ICNIRP) on the limitation of exposure of the general public to electromagnetic fields by way of health protection. This equipment should be installed and operated to ensure a minimum of 20 cm spacing to any person at all times.

Spectrum and maximum power:

- BT 6.5dBm
- LTE CAT-M1: Band 1, 22dBm; Band 3, 22.5dBm; Band 8, 23dBm; Band 20, 23dBm; Band 28, 23dBm;
- LTE CAT-NB1: Band 1, 23dBm; Band 3, 23dBm; Band 8, 23dBm; Band 20, 23dBm; Band 28, 23dBm;

	<p><b>Waste Electrical and Electronic Equipment (WEEE)</b></p> <p>This symbol means that according to local laws and regulations your product and/or its battery shall be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Proper recycling of your product will protect human health and the environment.</p>
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