



# LL303

## LTE Solar Powered GNSS Tracker

The LL303 is a 4G solar-powered tracker designed for the management of construction vehicles and vessels. Featuring the solar panel, magnetic charger, and IP67 waterproof rating, this device is ideal for a variety of deployments that require long standby time and continued optimal performance. LTE communication with GSM (2G) fallback ensures a solid connection in almost all cases. In addition to these features, multiple working modes, various peripheral accessories and the suite of event-triggered alerts will make the LL303 a valuable part of your fleet management strategy.



### LTE & GSM Network

Communication via 4G LTE networks with 2G GSM fallback.



### GPS & BDS & LBS & Wi-Fi Positioning

A synergy of multiple positioning systems ensures that locations are accurately displayed on the cloud platform.



### Solar & Magnetic Charging

Easy charging via the solar panel and magnetic charger.



### IP67 Dust & Water Resistance

Rugged design ensures continued optimal performance, even in the toughest conditions.



### Multiple Alerts

Instant alerts for atypical events such as device removal, abnormal vibration, abnormal temperature&humidity etc.



### Vehicle Status Detection (Optional)

Useful insight into the status of a fleet vehicle; get alerted when it is resting, working or idling.



### Bluetooth Accessory Compatibility (Optional)

Various bluetooth peripheral accessories allow for monitoring of fuel consumption, door status, etc.



### RFID Reader (Optional)

Access the information of devices via the active RFID.

#### Construction Machinery



#### Asset & Logistics



#### Vessel Tracking



## GNSS

Positioning system	GPS+BDS+LBS+WIFI+AGPS
Positioning accuracy	<2.5m CEP
Track sensitivity	-165dBm
Acquisition sensitivity	-148dBm
TIFF (open sky)	Avg. hot start ≤ 1sec Avg. cold start ≤ 32sec

## Cellular

Communication network	LTE Cat 1/Cat M1/Cat NB2/GSM
Frequency	<b>LL303-C:</b> LTE-FDD: B1/B3/B5/B8 LTE-TDD: B34/B38/B39/B40/B41 <b>LL303-E:</b> LTE-FDD: B1/B3/B5/B7/B8/B20/B28 LTE-TDD: B38/B40/B41 GSM: B2/B3/B5/B8 <b>LL303-L:</b> LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B20/B28 LTE-TDD: B40 GSM: B2/B3/B5/B8 <b>LL303-A:</b> LTE-FDD: B2/B4/B5/B12/B13/B25/B26/B66 GSM: B2/B3/B5/B8

## Power

Battery	10,000mAh/3.7V industrial-grade Li-Polymer battery
Solar power	5V/390mA (Standard Operating Voltage/Current @STC) STC: Direct illumination with 38,000lux halogen lamp on the test bench.
Magnetic charger	5V/2A
Working modes	Mode 1: Regular GPS mode Mode 2: Tracking mode Mode 3: Powersaving mode
Standby time	Up to 2 years in powersaving mode

## Interface

LED indication	Cellular (Green), Power (Red)
SIM	Nano-SIM
Tamper proof	Hall effect sensor

## Physical specification

Dimensions	200.0 x 90.0 x 25mm (without base)
Weight	480g (without base)

## Operating environment

Operating temperature	-20 C to +70 C
Operating humidity	5% ~ 95%, non-condensing
IP rating	IP67

## Feature

Sensors	Accelerometer, Temperature&humidity sensor, Hall effect sensor
Bluetooth	Support BLE 5.0 protocol
Scenarios	Low battery alert, Tamper alert, Vibrating Alert