



# VL106

## INS-aided LTE Vehicle Tracker

Built with an inertial navigation system, the VL106 is an advanced vehicle tracker capable of providing strong signal acquisition and accurate positioning capability even when the vehicle is in a tunnel, underground parking lot, or other locations without satellite signals. With ACC detection, remote fuel/power cut-off and an SOS button, this powerful device can be customized to streamline your operations and boost efficiency. And the VL106 is equipped with a 3-axis accelerometer and a 3-axis gyroscope, allowing it to detect 8 types of dangerous driving behavior.



### GPS/BDS/GLONASS/Galileo Positioning

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



### INS-aided GPS Tracking

Ensure constant tracking in the area with poor GPS signal or even without it.



### Driving Behavior Analysis (Advanced)

Receive alerts when any of 8 kinds of dangerous driving behavior is detected.



### Collision Detection

Automatically upload 20Hz IMU data for 10 seconds before and after the collision, as well as the event alarm.



### Multiple Alerts

Instant alerts for atypical events such as collision, speeding, power supply disconnection, geo-fence entry/exit, etc.



### Remote Cut-Off (Fuel/Power)

Immobilize a vehicle by cutting off its power source/fuel supply via an installed relay.



### Panic Button

Contact dispatch or emergency support with a discreet, in-cabin SOS button.



### Ignition Detection

Constantly detect the ACC/ignition status of the vehicle.

#### Usage-based Insurance



#### Auto Finance



#### Fleet management



## GNSS

Positioning system	GPS/BDS/GLONASS/Galileo + INS (inertial navigation system)
Positioning accuracy	<2.0m CEP
INS accuracy	<2%
Tracking sensitivity	-165dBm
Acquisition sensitivity	-148dBm
TTF (open sky)	Avg. hot start ≤1sec Avg. cold start ≤24sec

## Cellular

Communication network	GSM / LTE
Frequency	GSM 900 : Tx.880-915 Mhz. Rx.925-960 Mhz. 1800 : Tx.1710-1785 Mhz. Rx.1805-1880 Mhz.  LTE FDD B1: Tx.1920-1980 Mhz. Rx.2110-2170 Mhz. B3: Tx.1710-1785 Mhz. Rx.1805-1880 Mhz. B7: Tx.2500-2570 Mhz. Rx.2620-2690 Mhz. B8: Tx.880-915 Mhz. Rx.925-960 Mhz. B20: Tx.832-862 Mhz. Rx.791-821 Mhz. B28: Tx703-748 Mhz. Rx.758-803 Mhz. LTE TDD B34: Tx.2010-2025 Mhz. Rx.2010-2025 Mhz. B34: Tx.2570-2620 Mhz. Rx.2570-2620 Mhz. B40: Tx.2300-2400 Mhz. Rx.2300-2400 Mhz. B41: Tx.2496-2690 Mhz. Rx.2496-2690 Mhz.

## Power

Battery	100mAh/3.7V industrial-grade Li-Polymer battery
Input voltage	9-36VDC

## Interface

LED indication	GNSS (Blue), Cellular (Green), Power (Red)
SIM	Micro-SIM
Data storage	128+128Mb
Digital inputs	ACC
Digital outputs	Relay

## Physical specification

Dimensions	94.3 x 50.4 x 15.0mm
Weight	69.0g

## Operating environment

Operating temperature	-20°C to +70°C
IP rating	IP65

## Feature

Sensors	Accelerometer and gyroscope
Scenarios	Vehicle movement alert, Speeding alert, Geo-fence entry/exit, SOS call, Power supply disconnection, Vehicle battery detection
Driving behavior analysis	Harsh acceleration, Harsh braking, Harsh cornering, Sudden lane change, Collision, Skidding, Rollover, Roll & pitch