



# VL502

## LTE OBDII GNSS Tracker

The VL502 is a new generation of 4G Cat 1 OBD II tracker for corporate cars, usage-based insurance, fleet management, and individual cars, which can obtain vehicle data such as VIN code, engine speed, water temperature, accumulated mileage, etc. With the UBI-based algorithm for driving behavior analysis, the VL502 can accurately analyze any of 4 kinds of dangerous driving behavior and support the all-round monitoring of vehicles' real-time status.



### LTE & GSM Network

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



### On Board Diagnostics

Obtains real data of vehicle (fault code, ACC status, fuel consumption statistics, battery voltage, engine speed, etc.)



### GPS & BDS Positioning

Two complementary positioning systems ensure the locations to be accurately displayed on cloud platform.



### Driving Behavior Analysis

Get instant alerts for 4 or 8 kinds of dangerous driving behavior, depending on your needs.



### Multiple Alerts

Instant alerts for atypical events such as car fault, overspeed, ignition detection, collision, geo-fence entry/exit, etc.



### Effortless Installation

Simply plug this device into OBD II socket, you don't have to turn to professionals.

#### Fleet Management



#### Usage-based Insurance



#### Auto Dealers



## GNSS

|                         |                                                  |
|-------------------------|--------------------------------------------------|
| Positioning system      | GPS/BDS                                          |
| Frequency               | L1                                               |
| Positioning accuracy    | <2.5m CEP                                        |
| Track sensitivity       | -162 dBm                                         |
| Acquisition sensitivity | -148 dBm (cold) /-156 dBm (hot)                  |
| TTFF (open sky)         | Avg. hot start ≤ 1sec<br>Avg. cold start ≤ 32sec |

## Cellular

|                       |                                                                                                                                                             |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Communication network | LTE + GSM                                                                                                                                                   |
| Frequency             | <b>VL502 (L):</b><br>LTE-FDD: B2/B3/B4/B5/B7/B8/B28/B66    GSM: B2/B3/B5/B8<br><br><b>VL502 (E):</b><br>LTE-FDD: B1/B3/B5/B7/B8/B20/B28    GSM: B2/B3/B5/B8 |

## Power

|               |            |
|---------------|------------|
| Battery       | 50mAh/3.7V |
| Input voltage | 9~36VDC    |

## Interface

|                |                           |
|----------------|---------------------------|
| LED indication | 1 status indicator (Blue) |
| SIM            | Nano-SIM                  |
| Data storage   | 8+16MB                    |

## OBD port

|               |                                                                                                                                                                     |                                                                                                                               |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Connection    | OBD II                                                                                                                                                              |                                                                                                                               |
| Data          | K-Line, CAN Bus                                                                                                                                                     |                                                                                                                               |
| OBD protocols | ISO 9141-2 (5 baud init, 10,4 kbaud)<br>ISO 14230-4 KWP (fast init, 10,4 kbaud)<br>ISO 15765-4 CAN (11 bit ID, 500 kbaud)<br>ISO 15765-4 CAN (29 bit ID, 500 kbaud) | ISO 14230-4 KWP (5 baud init, 10,4 kbaud)<br>ISO 15765-4 CAN (11 bit ID, 250 kbaud)<br>ISO 15765-4 CAN (29 bit ID, 250 kbaud) |

## Physical specification

|            |                |
|------------|----------------|
| Dimensions | 61 x 52 x 26mm |
| Weight     | 55g            |

## Operating environment

|                       |                        |
|-----------------------|------------------------|
| Operating temperature | -20°C to 70°C          |
| Operating humidity    | 5%~95%, non-condensing |

## Feature

|                           |                                                                                                                      |
|---------------------------|----------------------------------------------------------------------------------------------------------------------|
| Sensors                   | Accelerometer                                                                                                        |
| Ignition detection        | External Power Voltage                                                                                               |
| Scenarios                 | Car Fault, Over-Speed, Ignition detection, Collision, Geo-fence entry/exit, Power on, Device pull-out, Engine idling |
| Driving behavior analysis | Harsh acceleration, Harsh braking, Harsh cornering, Collision                                                        |

