



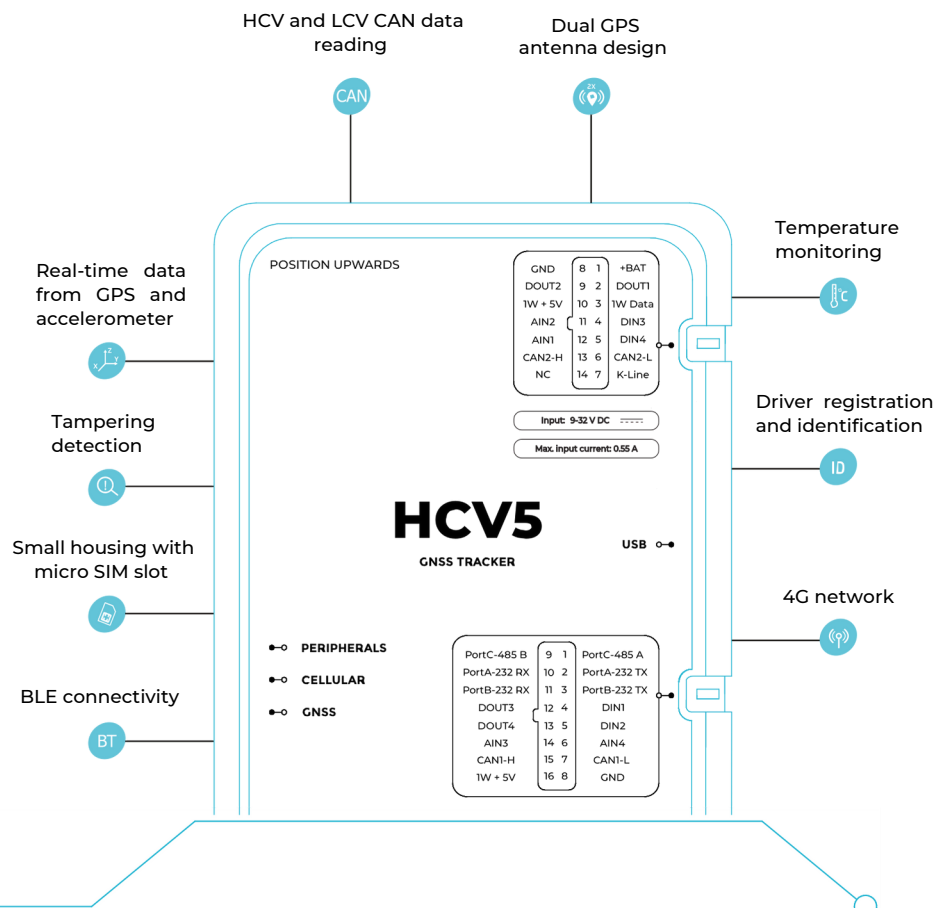
# HCV5

**HCV5** is an advanced GPS tracker for trucks, busses, agriculture, and other specialized machinery. It is designed for vehicle tracking and can perform advanced tasks – read on-board computer data (CAN), monitor driver behavior, remotely download tachograph data, manage fuel, etc.

The device is available with the LTE Cat M1/NB-IoT (4G) network and BLE for communication. The NB-IoT network is included in the LTE Cat M1 variation.

## Applications

- Real-time monitoring of fleets and cargo
- Remote tachograph solution
- Fleet efficiency optimization
- Driver behavior monitoring
- Driver, vehicle and cargo safety and security
- Fuel monitoring
- Cargo conditions monitoring
- Trailer tracking
- Customizable with accessories
- Accident reconstruction data recording



# De tailed specifications

## Environmental specifications

<b>Temperature</b>	Operating: -20 to +60 °C Storage: -20 to +45 °C Battery charging: 0 to +45 °C Battery discharging: -20 to +60 °C
<b>Relative humidity</b>	5% to 95% Non-condensing

## Electrical specifications

<b>Power supply range</b>	9 – 32 V DC
<b>Internal battery</b>	LiPo 3.7 V 1050 mAh
<b>Protections</b>	Battery and a 1-Wire power line short circuit protection Reverse polarity protection Electrostatic discharge protection on USB, SIM card slot and 1-Wire data line Overcurrent protection on a 1-Wire power line and digital outputs Overvoltage protection on analog inputs Charging protection 2 amp fuse on the power line

## Average power consumption @ 12 V DC

<b>Operating (battery charging)</b>	Normal operation (data sending interval ~15 s): ~160 mA Normal operation (constant link enabled): ~155 mA Peak value: ~260 mA
<b>Sleep mode</b>	All modules disabled: ~6 mA Modem in sleep mode, other modules disabled: ~8 mA Modem enabled, other modules disabled: ~16 mA GNSS module enabled, other modules disabled: ~22mA

## Connectivity

<b>LTE Cat M1/NB-IoT option</b>	Modem 1*: Quectel BG95 Antenna: Internal Frequency bands @ 2G (GSM): 850/900/1800/1900 MHz (GPRS multi-slot class 33) Bands @ 4G (LTE Cat M1): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85 Bands @ 4G (NB-IoT): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B28/B66/B71/B85 Modem 2*: Quectel BG96 Antenna: Internal Frequency bands @ 2G (GSM): 850/900/1800/1900 MHz (GPRS multi-slot class 33) Bands @ 4G (LTE Cat M1/NB-IoT): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25**/B26/B28/B39** * - depends on component availability, contact your sales manager for more information ** – available upon request
<b>GNSS module</b>	Module: U-blox EVA-M8M Antenna: Internal and external (available as an additional accessory) Positioning systems: GPS, GLONASS, Galileo Augmentation systems: QZSS, SBAS (WAAS, GAGAN, EGNOS, MSAS) Aided start services: AssistNow Online (A-GPS) Tracking sensitivity: -154 to -164 dBm Reacquisition sensitivity: -152 to -160 dBm Cold start duration: < 30 s Aided start: As low as 3 s Navigation update rate: 10 Hz Horizontal position accuracy: 2.5 m (CEP, 50%, 24 hours static, -130 dBm, > 6 SVs)
<b>BLE module</b>	Module: NRF52832 BLE version: 5.1 Low energy

# Detailed specifications

## Interfaces

<b>4 x Digital inputs</b>	Voltage range: 0 - 30 V DC Voltage threshold: 4 V DC Voltage threshold when inverted: 250 mV DC
<b>4 x Analog inputs</b>	Voltage range: 0 - 30 V DC Resolution: 12 bit
<b>4 x Digital outputs</b>	Maximum voltage: 32 V DC Maximum current: 1 A @ 25 °C High-speed CAN interfaces: 2
<b>2 x CAN interfaces</b>	FMS, J1939, HCV CAN, LCV CAN, OBD (including proprietary manufacturer data) and tachograph data reading
<b>K-Line interface</b>	OBD parameter and DTC reading Tachograph data reading
<b>3 x Serial ports</b>	RS232 ports: 2 (DFS, refrigerators, transparent channel, RFID) RS485 ports: 1 (DFS, transparent channel, J1708 data reading) Power output: 300 mA @ 4.7 V DC
<b>1-Wire interface</b>	iButton DS1990A, DS1971, DS1982 up to 4 DS18B20 temperature sensors Micro USB interface
<b>User interfaces</b>	3 x Indication LEDs 3.5 mm audio interface (not available for the LTE Cat M1/NB-IoT option)

## Features

<b>Internal storage</b>	8 MB (max. 39000 records)
<b>External storage</b>	Up to 32 GB (max. 250M records)
<b>Accelerometer</b>	Built-in 3-axis (auto-calibrating, impact detection, motion sensing, tilt detection, g-force up to 4 g)

## Certifications and ratings

<b>Certifications</b>	E-mark, CE, FCC, IC, RoHS, WEEE, EAC, PTCRB
-----------------------	---

## Physical properties

<b>Dimensions</b>	101 x 74 x 23 mm
<b>Weight</b>	128 ± 1 g
<b>Housing</b>	Plastic

# Ordering information

<b>HCV5-LTM-GL-BT</b>	HCV5 with global LTE Cat M1 and BLE
-----------------------	-------------------------------------