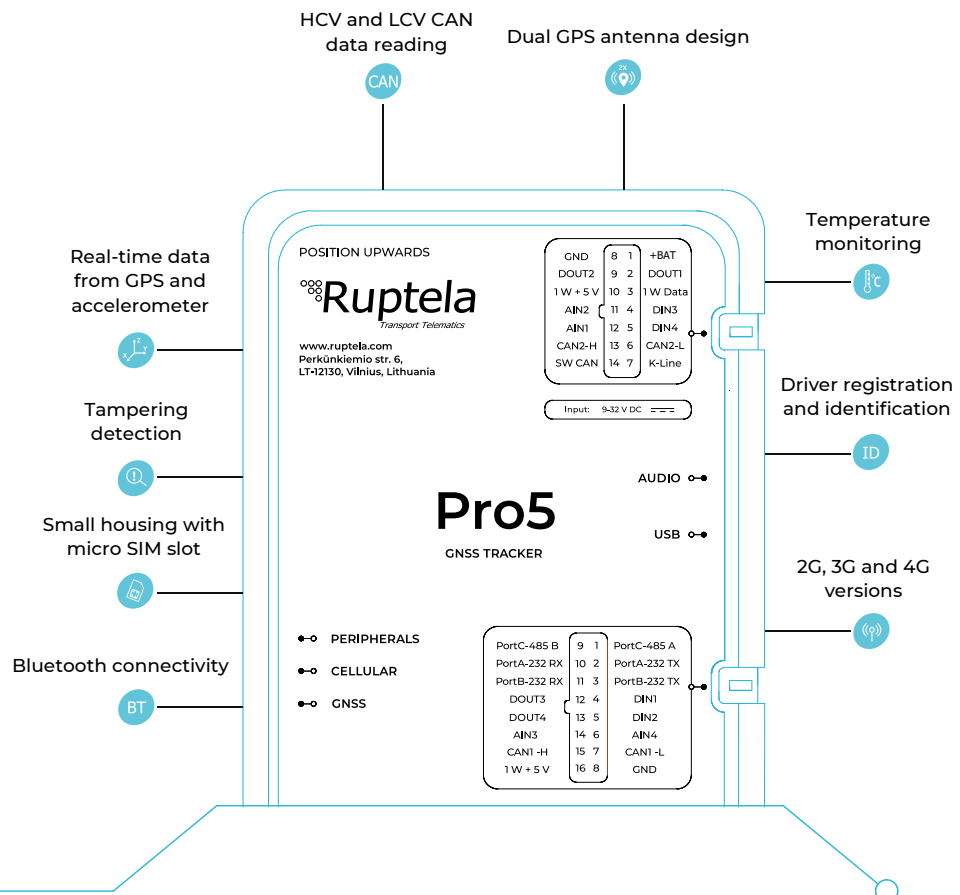# Ruptela
Transport Telematics

Pro5

Pro5 is an advanced GPS tracker for all types of vehicles – trucks, busses, agriculture, vans, cars, and other specialized machinery. It is designed for vehicle tracking and can perform advanced tasks – read on-board computer data (CAN), monitor driver behavior, manage fuel, etc.

The device is available in variations that use 2G (GSM), 3G (UMTS) and 4G (LTE Cat M1) networks and Bluetooth for communication.

Applications

- **Basic HCV CAN reading**

- **HCV fuel monitoring**

- **Driver behavior monitoring**

- **Safety and security**

- **Customizable with accessories**

HCV and LCV CAN data reading

Dual GPS antenna design

Temperature monitoring

Real-time data from GPS and accelerometer

Driver registration and identification

Tampering detection

Small housing with micro SIM slot

2G, 3G and 4G versions

Bluetooth connectivity

Detailed specifications

Environmental specifications

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

Electrical specifications

Power supply range	9 – 32 V DC
Internal battery	LiPo 3.7 V 1050 mAh
Protections	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 inputs
	Charging protection

Power consumption @ 12 V DC

Operating	Idle mode:	~80 mA
(battery fully charged)	Active mode (peak):	~130 mA
	Sleep mode:	~6 mA

Connectivity

2G option	Modem: Quectel M95
	Antenna: Internal
	Frequency bands @ 2G (GSM): 850/900/1800/1900 MHz
3G option	Modem: Quectel UG96
	Antenna: Internal
	Frequency bands @ 2G (GSM): 850/900/1800/1900 MHz
	Frequency band @ 3G (UMTS): 800/850/900/1900/2100 MHz
LTE Cat M1 option	Modem: Quectel BG96
	Antenna: Internal
	Frequency bands @ 2G (GSM): 850/900/1800/1900 MHz
	Bands @ 4G (LTE Cat M1): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B28/B39
	Bands @ NB-IoT (in development): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B28
GNSS module	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
Bluetooth module	Module: NRF52832
	Bluetooth version: 5.1 Low energy

Detailed specifications

Interfaces

4 x Digital inputs	Voltage range: Voltage threshold: Voltage threshold when inverted:	0 - 30 V DC 4 V DC 250 mV DC
4 x Analog inputs	Voltage range: Resolution:	0 - 30 V DC 12 bit
4 x Digital outputs	Maximum voltage: 32 V DC Maximum current: 1 A @ 25 °C	
3 x CAN interfaces	High speed CAN interfaces: 2 Single-Wire CAN interfaces: 1 FMS, J1939, HCV CAN data reading	
3 x Serial ports	RS232 ports: 2 (DFS, transparent channel, RFID) RS485 ports: 1 (DFS, transparent channel, J1708 data reading)	
1-Wire interface	Power output: 100 mA @ 4.7 V DC iButton DS1990A, DS1971, up to 4 DS18B20 temperature sensors	
User interfaces	Micro USB interface 3 x Indication LEDs 3.5 mm audio interface (not available for the LTE Cat M1 option)	

Features

Internal storage	8 MB
External storage	Up to 32 GB
Accelerometer	Built-in 3-axis (auto-calibrating, impact detection, motion sensing, tilt detection, g-force up to 4 g)

Certifications and ratings

Certifications	E-mark (in progress), CE, FCC, IC, RoHS, WEEE, EAC (in progress)

Physical properties

Dimensions	102 x 74 x 23 mm
Weight	128 ± 1 g
Housing	Plastic

Ordering information

Pro5-2G-GL	Pro5 with global 2G
Pro5-2G-GL-BT	Pro5 with global 2G and Bluetooth
Pro5-3G-GL-BT	Pro5 with global 3G and Bluetooth
Pro5-LTM-GL-BT	Pro5 with global LTE Cat M1 and Bluetooth