Anytime, anywhere sense your vehicle.

InVehicle T310 Series

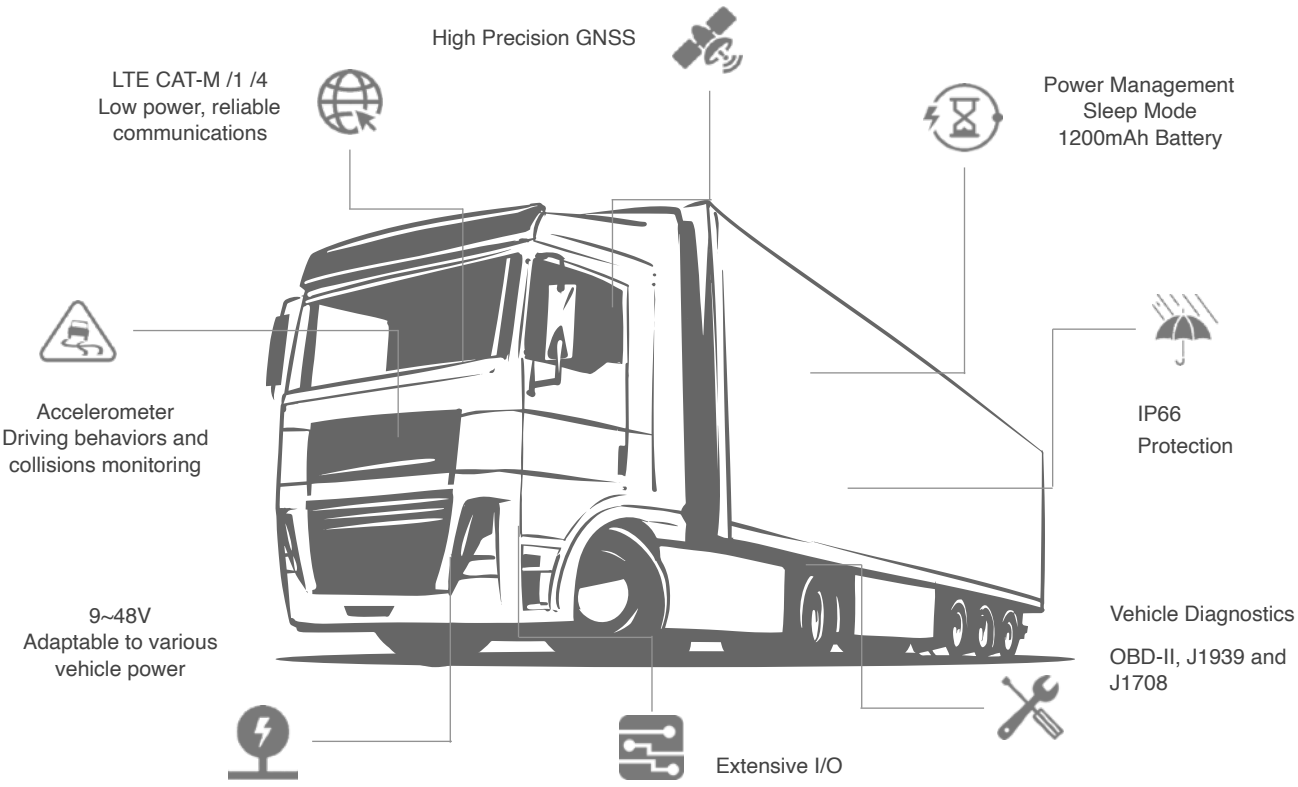
Vehicle Telematics

The VT310 is a series of rugged vehicle telematics gateway. Integrating extensive interfaces, multiple diagnostic protocols and major IoT clouds, it delivers reliable vehicle data in some of the most challenging environments that involve severe cold or scorching heat, and/or water immersion, while remaining budget friendly.

Major fleet managers can rely on the VT310 to track and manage fleet vehicles and drivers with accuracy and efficiency.

Market Applications

+ Freight and Logistics
+ Heavy Equipment
+ Public Transportation
+ Generator Monitoring



Features and Advantages

+ High Performance Asset Tracking Gateway

Available with LTE CAT M1, CAT 1 and CAT 4, the VT310 continuously delivers reliable connectivity while being power-saving.Built-in GNSS module and inertial navigation for high-precision real-time location tracking; with the gyroscope, the VT310 enables continuous driving behavior monitoring and keeps you safe on the road.

+ Extensive Interfaces, Better Integration with Vehicles

Built with dual CAN Bus, the VT310 is perfect for vehicles like heavy equipment. It supports common vehicle diagnostic protocols such as ODB-II J1939 and J1708.

Extensive interfaces, including serial ports, I/O, Bluetooth, 1-Wire.

+ Multiple IoT Cloud Services Supported

AWS 、Azure、Wialon 、ThingsBoard、MQTT Cloud、Customer Private Cloud、Other

+ Continuous and Reliable Operation

Cache which over 30K location records, freeing you from concerns about data loss when Internet connection is unavailable.

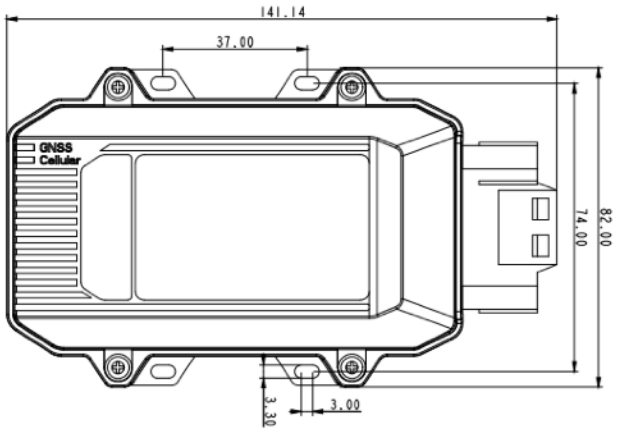
+ Purpose Designed for Vehicles

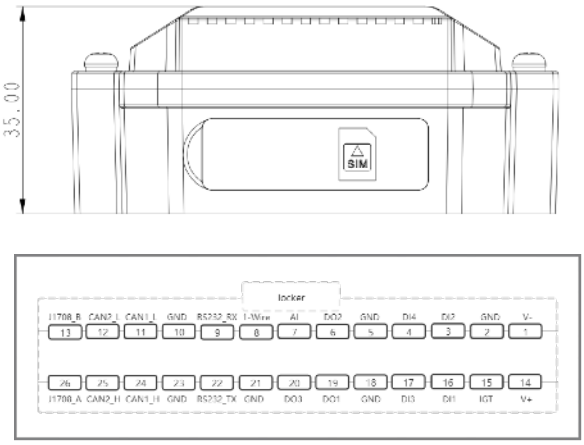
IP66 protection rating, which protects the product from water and dust. Wide voltage range of 9~48V covers all types of vehicle power supplies. Powered by Li 1200mAh battery, the VT310 is able to continue working when the machine is turned off.

+ Easy for Installation

With built-in cellular and GPS antennas, the VT320 is easy for installation and deployment on the road.

Dimensions and Interfaces





Pin definition

Product Specifications

InVehicle T310				
Network Type		LTE CAT-M / CAT1 / CAT4		
Antenna		LTE FPC built-in antenna	GNSS Bluetooth Antenna	Ceramic built-in antenna
GNSS (Global Navigation Satellite System)	Satellite Support	GPS/GNSS/A-GNSS		
	Channel	31 channels		
	Sensitivity	-162 dBm, initial positioning time 32s	Collection Sensitivity	-156 dBm (hot start); -148 dBm (cold start)
	Location Accuracy	2.5m (CEP50)		
	Update Frequency	1Hz by default, max. 10Hz		
	Low Power Consumption	Continuous operation: <15mA (@ 3.3V single system positioning)		
Inertial Sensor	Acceleration	Measurement range: ±2 / ±4 / ±8 / ±16g		
	Angular Velocity	Measurement range: ±125 / ±250 / ±500 / ±1000 / ±2000dps		
Bluetooth		Bluetooth 4.1		
Electrical Features	Working Voltage	9-48V DC		
	Power Consumption	0.45W	0.55W	0.77W
Environment	Operating Temperature:	-40 ~ 85 ℃ (Connected to main power)		
		-20 ~ 60 ℃ (Powered by internal battery)		
	Humidity	95% RH @ 50 ℃ non-condensing		
	ESD	IEC 61000-4-2 (4KV test)		
Battery parameter	Capacity	1200mAh		
	Rated Voltage	3.7V		
	Cut-off Voltage	4.2V		
	Battery Material	Lithium-ion battery		
	Working Temperature	Charging: 0 ~ 45 ℃; Discharging: -20 ~ 60 ° C		
	Storage Temperature	For 1 month: -20 ~ 45 C; For 6 months: -10 ~ 35 ℃		
Mechanical Features	Shell Material	Engineering plastic + engineering plastic alloy (PC + ABS)		
	Dimensions	Approximately 141 x 82 x 35 mm		
	Weight	152g		
	Protection Rating	IP66		
Vehicle Features	CANBus	2 channels		
	J1708/RS485	1 channel	Serial Port	RS232
I/O	Ignition Signal	1 channel		
	Digital Input	4 channels	Digital Output	3-channels (max. 300 mA)
	1-Wire	1 channel, 4 sensor		
	Analog Input	1 channel	Analog Input	1 channel
External Interfaces	SIM Card Slot	2FF, push-in slot		
	I/O	26 PIN		
	LED Indicator	2 LED indicators: cellular status, GNSS status		
Software Serivice	Cloud platform	AWS IoT、 Azure IoT、Aliyun IoT、Wialon、Traccar、GPSWox、WhiteLable Tracking、Thingsboard、Customer patform		
	Transport protocol	TCP、UDP、HTTP、 MQTT		
	Vehicle Data	OBDII 、J1939、 J1708		
	RS232/RS485	Transparent、Modbus protocol data acquisition		
	Event Alarm	Collision detection、Motion detection、Overspeed、IO change、ignition signal detection etc.		
		Report support SMS or FlexAPI over TCP/UDP/MQTT		
	ELD	Forward vehicle data via BLE		
Config	Configuration Tool	RS232 or Bluetooth		
Certification		CE, FCC, IC, PTCRB, E-Mark		

Ordering Guide

Model	Cellular Type	Region
VT310-FS31	LTE CAT-M: B2 / B4 / B12 / B13	North America
VT310-FS52	GSM/GPRS/EDGE: 900 / 1800MHz UMTS/HSPA+: B8 / B1 LTE: B28 / B20 / B8 / B3 / B1	Europe, Middle East and Africa, Asia Pacific
VT310-FQ58	LTE FDD: B1 / B3 / B5 / B8 LTE TDD: B34 / B38 / B39 / B40 / B41 WCDMA: B1 / B8l GSM: 900 / 1800MHz	China, India
Example	V310-FS52: supports LTE CAT 1, can be used in Europe, Middle East, Africa and Asia Pacific.	

Accessories

Cable	Picture	Order Code	Specifications
26 PIN All-in-one Test Cable		SCAB000229	The cable has P1 and P2 ends: P1 is 26PIN female, connected to VT310; P2 is open end, which requires a 9-48V adaptor. Suitable for engineering environments and indoor tests.
OBD-II 7 PIN All-in-one Cable		SCAB000231	The cable has P1, P2 and P3 ends: P1 is 26PIN female connected to VT310; P2 is OBD-II male connected to the vehicle; P3 is ignition signal terminal connected to the ignition on/off. Suitable for heavy trucks with OBD-II vehicle diagnostic interfaces, and powers VT310 through interfaces.
OBD-II 26 PIN All-in-one Cabl		SCAB000232	This cable has P1, P2, P3 and P4 ends: P1 is 26PIN female connected to VT310; P2 is OBD-II male connected to the vehicle; P3 is open end that includes I/O, RS232-1 and 1-Wire; P4 is ignition signal terminal connected to the ignition on/off. Suitable for heavy trucks with OBD-II vehicle diagnostic interfaces, and powers VT310 through interfaces. Recommended for customers who need DI, DO, AI, 1-Wire

About Us

InHand Networks is a global leader of Industrial IoT, with a record of tremendous success following groundbreaking innovation since our inception in 2001.

InHand serves world-class partners and customers with industrial M2M routers, gateways, industrial Ethernet switches, rugged computers and IoT management platforms. We provide IoT solutions for various vertical markets including Smart Grid, Industrial Automation, Remote Machine Monitoring, Smart Vending, Smart City, Retail and more.

Proudly bearing the marks of both Rockwell Automation Encompass Product Partner in Asia-Pacific and Schneider Electric CAPP Technology Partner, InHand Networks defines industrial innovation and reliability.

InHand Networks

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