Reliable, Durable & Capable

InVehicle T310 Series
Vehicle Tracker

Featuring IP67 protection rating and low power consumption, the InVehicle T310 (also VT310) is capable of reliable operation in harsh environments even when the vehicle is powered off. Integrating LTE, GNSS, gyroscope and inertia sensor, equipped with powerful computing capabilities and a multitask system, the VT310 precisely locates vehicle positions in real time, records mileage, monitors hard braking, acceleration, collision and other accidents, maintains transport safety, records and analyzes driving behavior. Multiple I/O interfaces remotely monitor various vehicle peripherals such as alarms, sensors, switches, ignition status, controllers, etc. With standard vehicle protocols such as OBD-II, J1939 and J1708 supported, the VT310 tracks vehicle operation starts and delivers preventive maintenance.

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

LTE CAT‒M /1 /4
Low power, reliable communications

High Precision GNSS

Power Management
Sleep Mode;
1200mAh Battery

Accelerometer
Driving behaviors and collisions monitoring

IP67
Protection

9~48V
Adaptable to various vehicle power

Extensive I/O

Vehicle Diagnostics
OBD-II, J1939 and J1708

InHand Networks

www.inhandnetworks.com

Features and Advantages

+ Reliable Communications with Low Power Consumption

Available with LTE CAT M1, CAT 1 and CAT 4, the VT310 continuously delivers reliable connectivity while being power-saving.

+ High Precision Location

Embedded high-precision GNSS, the VT310 is able to locate your vehicles and track mileage with high accuracy.

+ Constant and Real-time Monitoring

With built-in inertial sensor, the VT310 constantly monitors driving behavior, detects hard braking, acceleration, collision, etc.; with geofencing supported, it restricts the travel scope, ensuring security of your vehicles.

+ Easy for Installation

With built-in cellular and GPS antennas, the VT310 is easy for installation and deployment on the road.
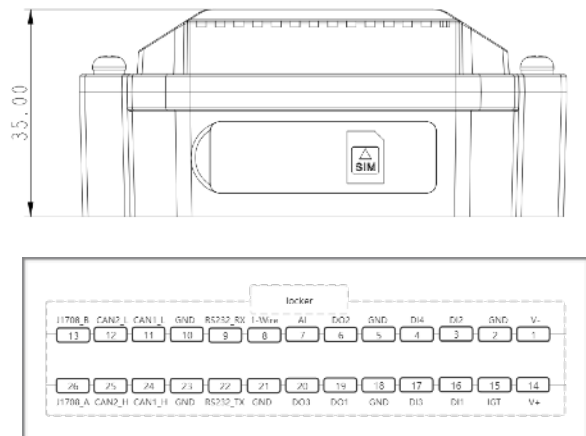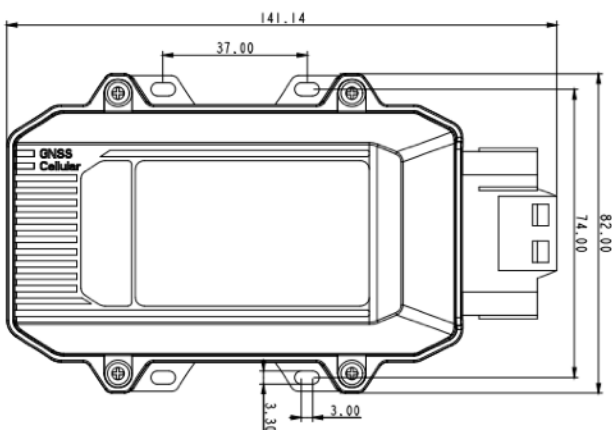
+ Purpose Designed for Vehicles

Wide voltage range of 9~48V covers all types of vehicle power supplies. Powered by 1200mAh battery, the VT310 is able to continue working when the machine is turned off.

Support for sleep mode helps you manage power supply with great ease.

+ Extensive Interfaces

Connects a rich variety of peripherals, including alarms, sensors, switches and controllers. Monitors the condition of your assets and plan maintenance through integration to the most common diagnostic protocols including OBD-II, J1939 and J1708.

Dimensions and Interfaces

Pin definition

InHand Networks

Product Specifications

InVehicle T310				
Model		VT310-FS31	VT310-FS52	VT310-FQ58
Network Type		LTE CAT-M	LTE CAT 1	LTE CAT 4
LTE Antenna		FPC built-in antenna		
GNSS Antenna		Ceramic built-in antenna		
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		Optional		
Electrical Features	Working Voltage	9-48V DC		
	Power Consumption	0.45W	0.55W	0.77W
Electrical Features	Capacity	1200mAh		
	Rated Voltage	3.7V		
	Cut-off Voltage	4.2V		
	Battery Material	Lithium-ion battery		
	Working Temperature	Charging: 0 ~ 45 °C; Discharging: -20 ~ 60 ° C		
	Storage Temperature	For 1 month: -20 ~ 45 °C; For 6 months: -10 ~ 35 °C		
Environment	Temperature	-20 ~ 60 °C (connected to main power) -20 ~ 60 °C (powered by internal battery) -10 ~ 35 °C (Long-term storage (≤ 6 months) with battery)		
	Humidity	95% RH @ 50 °C non-condensing		
	ESD	IEC 61000-4-2 (4KV test)		
Mechanical Features	Shell Material	Engineering plastic + engineering plastic alloy (PC + ABS)		
	Dimensions	Approximately 141 x 82 x 35 mm		
	Weight	152g		
	Protection Rating	IP67		
Vehicle Features	CANBus	2 channels		
	J1708	1 channel		
I/O	Ignition Signal	1 channel		
	Digital Input	4 channels		
	Digital Output	3-channels (max. 300 mA)		
	1-Wire	1 channel		
	Analog Input	1 channel		
	Serial Port	RS232		
External Interfaces	SIM Card Slot	2FF, push-in slot		
	I/O	26 PIN		
	LED Indicator	2 LED indicators: cellular status, GNSS status		
Certification		CE, FCC, IC, PTCRB, E-Mark		

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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 / B8I 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 Cable		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 devices or vehicle-mounted controllers.

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.

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3900 Jermantown Rd., Suite 150, Fairfax, VA 22030 USA
T: +1 (703) 348-2988
E: info@inhandnetworks.com
www.inhandnetworks.com