

Anytime, anywhere sense your vehicle.

# InVehicle T200 Series Vehicle Telematics



Vehicle Telematics 200 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 VT200 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 supported, the VT200 tracks vehicle operation starts and delivers preventive maintenance. Major fleet managers can rely on the VT200 to track and manage fleet vehicles and drivers with accuracy and efficiency.

## Market Applications

Light Vehicles

Fleet Management

Trailer Tracking

Car Sharing

International Logistics

Refrigerated Transport

Heavy Duty Transport



**InHand Networks**

[www.inhandnetworks.com](http://www.inhandnetworks.com)

## Features and Advantages

### + High Performance Asset Tracking Gateway

Available with LTE CAT M1, CAT 1, the VT200 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 VT200 enables continuous driving behavior monitoring and keeps you safe on the road.

### + Extensive Interfaces, Better Integration with Vehicles

Built with CAN bus, the VT200 is perfect for vehicles like heavy equipment. It supports common vehicle diagnostic protocols such as OBD-II, J1939.

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

### + Multiple IoT Cloud Services Supported

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

### + Continuous and Reliable Operation

Cache which over 3K location records, freeing you from concerns about data loss when Internet connection is unavailable.

### + Purpose Designed for Vehicles

Wide voltage range of 9 ~ 36VDC covers all types of vehicle power supplies. Powered by 1000mAh battery, the VT200 is able to continue working when the machine is turned off. Operating temperature range is -20 ~ 60 °C.

### + Easy for Installation

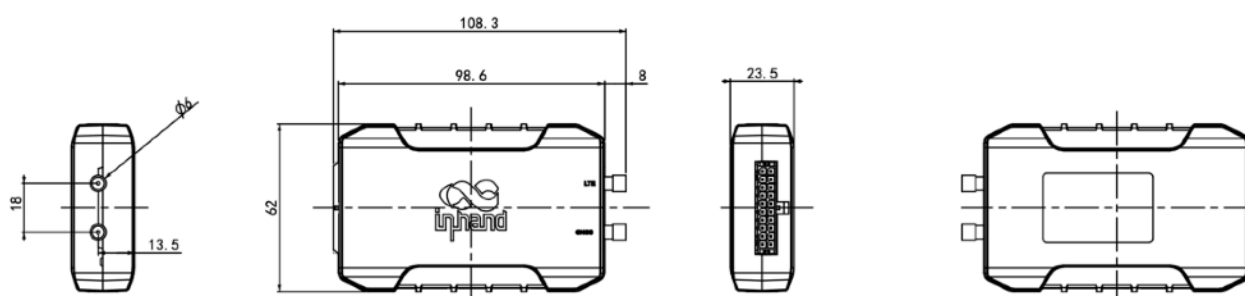
With built-in cellular and GPS antennas, the VT200 is easy for installation and deployment on the road.

## Connector Pin Assignment

IO 20PIN Definition

PIN	1	2	3	4	5	6	7	8	9	10
Def.	CAN0_H	RS485_A	GND	RS232_TX	DO1	GND	AI1/DI1	AI3/DI3	IGT	VIN-
PIN	11	12	13	14	15	16	17	18	19	20
Def.	CAN0_L	RS485_B	1Wire	RS232_RX	DO2	GND	AI2/DI2	AI4/DI4	GND	VIN+

## Dimensions




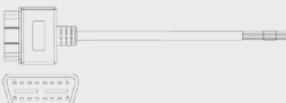

## Product Specifications

InVehicle T200		
Network Type		LTE CAT1 / CAT M1
LTE Antenna		Built-in ceramic antenna or External SMA
GNSS Antenna		Ceramic built-in antenna or External SMA
GNSS (Global Navigation Satellite System)	Satellite Support	GPS Galileo Beidou GLONASS
	Channel	72 channels
	Sensitivity	-164 dBm, initial positioning time 26s
	Tracking Sensitivity	-156 dBm (Hot start); -147 dBm (Cold start)
	Location Accuracy	2.5m (CEP50)
	Update Frequency	10 MHz
Inertial Sensor	Acceleration	Measurement range: $\pm 2 / \pm 4 / \pm 8 / \pm 16g$
	Angular Velocity	Measurement range: $\pm 125 / \pm 250 / \pm 500 / \pm 1000 / \pm 2000dps$
Electrical Features	Working Voltage	9 ~ 36VDC
Environment	Operating Temperature:	-20℃ ~ 60℃
	Storage Temperature	-40℃ ~ 85℃
	Humidity	95% RH @ 50 °C non-condensing
	ESD	IEC 61000-4-2 (4KV test)
	Protection Rating	IP40
Battery parameter	Capacity	1000mAh
	Battery Material	Lithium-Ion
	Working Temperature	Charging: 0 °C ~ 45 °C; Discharging: -20 °C ~ 60 °C
	Storage Temperature	-20℃ ~ 35℃
Mechanical Features	Shell Material	ABS+PC
	Dimensions (L x D x H)	98.6 x 62 x 23.5 mm Built-in antenna version 108.3 x 62 x 23.5 mm External Antenna Version
Vehicle Features	CAN bus	1 channels
I/O	Ignition Signal	1 channel
	Digital Input / Analog Input	4 DI/AI
	Digital Output	2-channels (Max. 300 mA)
	1-Wire	1 channel
	Serial Port	RS232 and RS485
Software Service	Cloud platform	AWS IoT、Azure IoT、Aliyun IoT and 、Wialon、Traccar、GPSWox、WhiteLable Tracking、Thingsboard、Customer platform
	Transport protocol	TCP, UDP, HTTP, MQTT, JT808
	Encrypts communications	SSL/TLS
	CAN bus	OBD-II、J1939、CAN bus and ELD data transparent transmission
	RS232/RS485	Transparent、Modbus RTU
	Event Alarm	Collision detection、Motion detection、Overspeed、IO change、ignition signal detection etc. Report support SMS or FlexAPI over TCP/UDP/MQTT
Configuration	USB 2.0	Type-C
External Interfaces	SIM Card Slot	Nono-SIM 4FF (Single SIM card)
	LED Indicator	2 LED cellular status, GNSS status
Certification*		CE、FCC、IC、PTCRB、E-Mark

## Ordering Guide

Model	Cellular Type	Antenna/Battery	Region
VT200-FQ33	LTE Cat1 LTE-FDD B2/B4/B5/B12/B13 WCDMA B2/B4/B5	Built-in / None	North America
VT200-FQ33-BAT	LTE Cat1 LTE-FDD B2/B4/B5/B12/B13 WCDMA B2/B4/B5	Built-in / 1000 mA	North America
VT200-FQ33-ANT	LTE Cat1 LTE-FDD B2/B4/B5/B12/B13 WCDMA B2/B4/B5	External / None	North America
VT200-FQ33-ANT-BAT	LTE Cat1 LTE-FDD B2/B4/B5/B12/B13 WCDMA B2/B4/B5	External / 1000 mA	North America
VT200-FQ02	LTE Cat M1 LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/ B25/B26/B27/ B28/B66/B85	Built-in / None	Global
VT200-FQ02-BAT	LTE Cat M1 LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/ B25/B26/B27/ B28/B66/B85	Built-in / 1000 mA	Global
VT200-FQ02-ANT	LTE Cat M1 LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/ B25/B26/B27/ B28/B66/B85	External / None	Global
VT200-FQ02-ANT-BAT	LTE Cat M1 LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/ B25/B26/B27/ B28/B66/B85	External / 1000 mA	Global

## Cable Accessories

Cable	Order Code	Diagram	Specifications
20 PIN Cable	SCAB000381		The cable has P1 and P2 ends: P1 is 20PIN female, connected to VT200; P2 is open end, AWG24 for other signals, and the connector HX30002-20.
OBD 16PIN Test Cable	SCAB000399		OBD 16PIN interface test line, Cable standard UL2464, wire length 1500mm
J1939 6PIN Test Cable	SCAB000409		J1939 6PIN interface test line, Cable standard UL2464, wire length 1500mm

## 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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