



TVG950

IN-VEHICLE TELEMATICS DEVICE

The Trimble TVG950 is purpose-built to provide high performance, rugged durability, easy maintenance, and innovative expandability for heavy vehicle tracking and logistics within the construction materials industry. The TVG950 enables heavy vehicles within this market to communicate and share delivery information in real-time.

4G LTE and HSPA modem options facilitate reliable communications across the globe, while standard dual-band Wi-Fi (802.11 b/g/n) and Class 1.5 Bluetooth 4.0 wireless technology allow data transfer in and around the vehicle. Expanded digital input/output capability, including 10/100 Ethernet, Serial, USB, and many GPIO options, greatly expands the range of vehicle sensors that can now be connected, multiplying the possibilities for increased vehicle productivity and performance.

Leveraging an advanced GPS processor and new algorithms, the TVG950 provides fast startup times and accurate position data in almost any environment. TVG950's all-new antenna set offers the best possible wireless signal reception (WWAN, GPS, and Wi-Fi and Bluetooth wireless technologies) in an installer-friendly inside-the-vehicle configuration.

Key Features

- ▶ Multi-Processor architecture, including a dedicated processor for vehicle bus integration
- ▶ Integrated communications: 4G LTE (North America-only) and/or HSPA, Wi-Fi (802.11 b/g/n), Class 1.5 Bluetooth wireless technology (150+ foot range)
- ▶ 56 channel L1 C/A SBAS GPS receiver, including WAAS and EGNOS
- ▶ Extensible architecture



TVG950 In-Vehicle Telematics Device

Physical

SIZE	146 mm x 102 mm x 32 mm (5.75 in x 4.0 in x 1.25 in)
WEIGHT	227 g (0.5 lb)
PRIMARY PROCESSOR	800 MHz Cortex A9
SECONDARY PROCESSOR	STM8
MEMORY	512 MB NAND Flash and 256MB DDR3 SDRAM

Radios

WIRELESS WIDE AREA NETWORK	<p>AT&T LTE model:</p> <ul style="list-style-type: none"> LTE FDD-Bands 17, 5, 4, and 2 (700/850/AWS[1700/2100]/1900MHz) HSPA+ FDD-Bands 5, 4, and 2 (850/AWS[1700/2100]/1900MHz)
	<p>Global HSPA model:</p> <ul style="list-style-type: none"> HSPA FDD-Bands 6, 5, 8, 4, 2, and 1 (800/850/900/AWS[1700/2100]/1900/2100MHz) GSM/GPRS/EDGE 850/900/1800/1900MHz
BLUETOOTH	Class 1.5 4.0 Wireless Technology
WI-FI	Dual-band 802.11b/g/n

Regulatory Certifications

AT&T LTE model:
FCC Part 15c, Industry Canada (RSS-210 and ICES-003), RoHS2, WEEE2, PTCRB, AT&T Carrier Approval, Mexico NOM-208 / IFT-008

Global HSPA model:
FCC Part 15c, Industry Canada (RSS-210 and ICES-003), RoHS2, WEEE2, CE RED, CE Safety, ACMA RCM, PTCRB, AT&T Carrier Approval, Chile SUBTEL, Uruguay URSEC, Panama ASEP, Ecuador ARCOTEL, Peru MTC

Electrical

SUPPLY VOLTAGE	9 to 32 V DC
POWER CONSUMPTION	Typical 270 mA @ 12V DC
IGNITION SENSE INPUT	0 to 30V DC
BACK-UP BATTERY	Li-ion 3.7 V, 1000 mAh

Environmental

OPERATING TEMP.	-30° C to +70° C (-22° F to +158° F)
STORAGE TEMP.	-40° C to +85° C (-40° F to +185° F)
HUMIDITY	5-95% @ +50° C, non-condensing

GPS

CHANNELS	56 (L1 C/A code only)
INTEGRATED REAL-TIME	SBAS (WAAS and EGNOS support)
TIME TO FIRST FIX	30 seconds (cold start)
ACCURACY (SBAS)	2.0 m (2.19 yards) with SBAS, 2.5 m (2.73 yards) without

Peripheral and I/O

USB	One(1) USB2.0 OTG Mini; One(1) USB2.0 High Speed Host Type A
ETHERNET	Two(2) 10/100 Base-T RJ45
SERIAL INTERFACE	One(1) RS232 serial port at up to 115.2K Baud; One(1) TTL for external Diagnostics Interface
DIGITAL INPUTS	Six inputs including timestamp, counter, and configurable active high/low options, plus Ignition Detect
A/D INPUTS	5 general purpose 0-30V
DIGITAL OUTPUTS	Six outputs including high-bias, switchable 12V, and relay driver options

Vehicle Diagnostics (via optional adapter)

HARDWARE PROTOCOLS	CANbus, J1708
CANBUS PROTOCOLS	CAN v 2.0a, Can v 2.0b
CHANNELS	2
BAUD RATE	125/250/500 kbit/sec
COMMUNICATIONS PROTOCOLS	J1587, J1939

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