



TVG 675

Next generation telematics gateway with heavy and light duty vehicle interface



Competitive Technology, Competitive Edge

The TVG 675 is designed to support enterprise customers requiring a full set of fleet features with cellular, WiFi, Bluetooth, and satellite connectivity options, plus a triple-axis accelerometer that detects and acts on hard braking, aggressive acceleration, or vehicle impacts. The built-in ECU (Engine Control Unit) interface reads and transmits engine condition and performance data such as engine temperature and fault codes from both heavy duty and light duty vehicles to provide the best possible real-time picture of vehicle health. In addition, it supports separate ARM cortex micro-controller to support hosted application features.

Smart Vehicle Technology

The TVG 675 is enabled with a programmable event generator to continuously monitor the vehicle operating environment and respond instantly to pre-defined and configurable threshold conditions such as motion, location, geo-zone crossings and custom parameters.

Over-The-Air Serviceability

The TVG 675 also leverages industry leading over-the-air device management and maintenance software. Configuration parameters, rules, and firmware can all be updated over-the-air. It offers out-of-the-box hands free configuration and automatic post-installation upgrades. You can also monitor unit health status across your customers' fleets to quickly identify issues before they become expensive problems.

Solutions That Use This Hardware:

- ▶ Trimble GeoManager®

KEY FEATURES

- LTE, HSPA or GSM/GPRS configurations
- Optional Bluetooth or WiFi and Bluetooth connectivity
- Includes both heavy duty or light duty vehicle ECU interfaces
- Serial ports with switched power
- Comprehensive I/O system with 8 inputs, 7 outputs, 4 A/D inputs, and 21-Wire™ interfaces
- High performance internal antennas
- Built-in triple-axis accelerometer for driver behavior, motion sensing, hard braking, impact detection
- Dual reporting 20,000 buffered message log
- 32 built-in geo-fences, plus any combination of circle or polygon zones, up to 5290 points
- 1000mAh backup battery
- Automatic, over-the-air configuration and firmware download
- MDT-7P Tablet, Magellan®, Garmin®, TomTom®, and other advanced peripherals support
- Low power sleep modes

General

Communication Modes LTE/UMTS/HSPA/GSM/GPRS/EDGE Messages 20,000 buffered messages Location Technology 50+ channel GPS (with SBAS) Geo-Fence 32 radial and 32 polygonal geo-fences on-board device, user definable Configuration Automatic over-the-air firmware and configuration updates

GPS

Location Technology GPS, GLONASS, Galileo Enhancement Technology SBAS: WAAS, EGNOS, MSAS, GAGAN Tracking Sensitivity -162 dBm Acquisition Sensitivity -148 dBm Location Accuracy 2.0m CEP AGPS capable

Cellular

Data Support LTE/UMTS/HSPA/GSM/GPRS
North America AT&T Variant:
4G LTE Bands 2, 4, 5 and 17
3G UMTS/HSPA 850, 1900 MHz
North America Verizon Variant:
4G LTE Bands 2, 4, and 13
European/Africa/Asia Variant:
4G LTE Cat-M1 Bands 1, 2, 3, 4, 5, 8, 12, 13, 18, 19, 20, 25, 26, 28, 39
3GUMTS/HSPA 800, 850, 900, 1800, 1900, 2100MHz
2G GSM/GPRS 850, 900, 1800, 1900 MHz

Comprehensive I/O

Ignition Input 1 fixed bias
Digital Inputs 4 (high/low selectable 0-30 VDC)
Digital Outputs 3 (open collector relay 150mA)
A/D Inputs 2 (0-30VDC, +/-0.1V accuracy)
1-Wire® Interface 1 (driver ID, temperature sense)
Power Output 1 switched V_IN
Status LEDs GPS, cellular, VBUS, LAN

Electrical

Operating Voltage 9-30 VDC (Start-up, Operating) 7-32 VDC (Momentary)
Power Consumption 7 mA @ 12V (deep sleep) 20mA @ 12V (idle on network) 150mA @ 12V (active tracking with VBUS active)
Back Up Battery (Optional) Lithium-Ion 1000mAh

Environmental

Temperature* -30° to +75° C (connected to primary power) -40° to +85° C (storage) Except Battery*
Humidity 95% R.H. @ 50° C non-condensing
Shock and Vibration U.S. Military Standards 202G and 810F, SAE J1455
EMC/EMI SAE J1113

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Physical

Dimensions 5.7 x 2.1 x 1.3" (145 x 55 x 32mm)
Weight 5 oz, (140 g)

Connectors, Sim Access

Vehicle BUS I/F 16-Pin Molex
Power, I/O 24-Pin Molex
Internal SIM Access

Interface Standards

Bluetooth 4.0 Dual-Mode Classic, BLE
WiFi a/g/b client mode
Heavy Duty Truck Data J1708, J1939
Light Duty Vehicle Data J1850 PWM, J1850 VPW, ISO 9141-2, KWP 2000, ISO-15765, CA

Certifications

Fully certified FCC, CE, IC, PTCRB, Applicable Carriers

Mounting

- Screw mounting bracket
- Tie-wrap, adhesive, or velcro

Optional Features/Functions

- RS-232 serial adapter cable
- jPOD dongle for truck ECU interface
- Connectorized I/O wiring harness
- Built-in or external backup batteries

About Us

Trimble Utilities Field Service provides visibility into field and fleet operations so businesses can streamline efficiency and increase productivity. The Utilities Field Service suite includes fleet management, work management and scheduling, worker safety and mobility solutions that transform the effectiveness of work, workers and assets in the field. The cloud-based portfolio allows Trimble to offer customers industry-specific, enterprise-level solutions for exceptional performance and ease of use.

Learn More

For more information on improving field and fleet productivity, visit: www.trimble.com/fsm or contact us at fsm_info@trimble.com

Specifications subject to change without notice.