



Trimble iLM 4570 Series Onboard Computer System for Heavy Duty Trucks

The Trimble iLM® 4570 Series is an onboard computer system for heavy duty trucks that combines state-of-the-art computing with high-speed wireless technology, GPS location and sensor data, and support for mobile display terminals.

Advanced Diagnostics and Fuel Reporting

The iLM 4570 Series is specifically designed for class 6-8 heavy duty trucks with fully integrated J1587/J1708 and J1939 bus interface capability to monitor engine fault codes and perform remote engine diagnostics. This capability provides managers with notification of vehicle problems and out-of-norm conditions as soon as they occur, which helps them take steps to minimize vehicle breakdowns, reduce fuel and repair costs, and improve vehicle management. When a vehicle breakdown occurs, maintenance technicians can immediately review engine data to decide whether to send a tow

Trimble iLM 4570 Series

- Vehicle-installed hardware captures and sends GPS location and driver status information from remote vehicles to managers and dispatchers in the office
- Includes integrated J1587/J1708 and J1939 vehicle bus interface capability for remote engine diagnostics
- Enables faster upload and download with high-speed UMTS/HSDPA (GSM) modem
- Works in concert with optional in-vehicle display terminal for driver-dispatcher communications
- Improves monitoring of driver safety by remotely gathering data from the optional VORAD collision warning system
- Offers multiple interfaces for flexibility and scalability

truck or service technician. This can reduce downtime and the cost of getting the vehicle back in operation. Since the bus interface is SAE J-1455 compliant, it is built to the same high OEM standards as the other vehicle components, protecting the vehicle from voltage or temperature spikes.

Advanced Safety Management Capability

The iLM 4570 Series records unsafe driving behaviors like hard braking or sudden acceleration and delivers this information to Advanced Safety reports that help you rank and manage driver performance. Also included in the iLM 4570 Series is built-in connectivity for Bendix® VORAD (Vehicle On-board RADar) collision warning system (sold by Eaton). The iLM 4570 Series automatically records and wirelessly uploads the safety data from VORAD, eliminating the need to manually collect and upload the data when the vehicle returns to the terminal. This remote connection to VORAD improves the timeliness and effectiveness of the driver feedback process.

Messaging and Communications

Driver messaging and communications are enabled when the iLM is combined with a Trimble in-vehicle display terminal. The Trimble mDT 4000 is a 7-inch color touchscreen display that drivers can use for messaging and other mobile applications. The iDT 3000 is a low-cost 4-line text messaging terminal. Both are purchased separately.

Additional Features and Options

Other I/O ports enable use of Trimble fleet management options like Sensor Services and GPS Data Feed. Various interfaces are built into the product for future use to ensure long-term flexibility and scalability as additional options become available.

TRIMBLE iLM 4570 Series UMTS/HSDPA (GSM)

Specifications

Dimensions:

- 4.9" x 7.5" x 1.5" (178mm x 191mm x 38mm)

Weight:

- 1 lb. 6 oz. (822 gm)

Electrical Specifications:

- Operating Voltage: 6 to 32V DC
- Voltage Spikes: up to 175V DC

Power Consumption:

- Standby: <1mA at 12V DC
- Operating (modem idle): 240mA at 12V DC
- Operating peak on transmit: 900mA at 12V DC

Environmental Specifications:

- Operating Temperature: -4° to 158° F (-20° to 60° C)
- Storage Temperature: -40° to 185° F (-40° to 85° C)
- Humidity: 0 to 95% RH, non-condensing
- Shock/Vibration/Mech.: SAE J1455, MIL-STD-810E
- ESD: SAE J1113/13 (4KV in contact, 8KV in air)
- CISPR-25

Platform:

- CPU: Freescale MPC 5200 at 266 MHz
- Operating System: Linux
- RTC with backup battery
- Integrated tri-band UMTS/HSDPA GSM modem

Networks:

- 850/1900/2100MHz WCDMA
- 850/900MHz GSM/GPRS/EDGE
- 1800/1900 MHz GSM/GPRS/EDGE

GPS Specification:

- Receiver: L1 frequency, C/A code (SPS), 16-channel continuous tracking
- Update rate: 4 Hz maximum

- Accuracy, no S/A: Position 2.5 meters (50% CEP), position 5.0 meters (50% SEP)
- First acquisition: <3.5 seconds for hot start, 33 seconds for warm start, 34 seconds for cold start
- Reacquisition after signal loss: < 1 second
- Datum: WGS-84

External I/O Integrated into Housing:

- Standard polarity SMA female connector (GPS), 5V DC active antenna supply, current limited and supervised
- Standard TNC male connector (wireless cellular)

External Interfaces:

- Power interface with software power on/off control
- RJ-45 10 Base-T Ethernet connector for PC client direct connect
- 2 RS-232 DB-9 serial port connectors with switchable 12V DC power source
- 1 USB host
- 4 digital sensor inputs (2 +12V DC and 2 ground)
- 2 output relay drivers
- 1 ignition sensor input
- 1 RS-485 (SAE J1587/J1708)
- 2 CAN (SAE J1939)

Certifications & Standards:

- AT&T - Americas
- Telstra - Australia (pending)
- Vodafone - United Kingdom (pending)
- CE, RoHS

Compatible Trimble Products:

- Trimble GeoManager_{SM} Fleet Management & Productivity Software Solution
- mDT 4000 color touchscreen display unit
- iDT 3000 text messaging unit
- Trimble Sensor Services: StatSensor or TempSensor
- GPS Data Feed

© 2009, Trimble Navigation Limited. All rights reserved. Trimble and the Globe & Triangle logo are trademarks of Trimble Navigation Limited registered in the United States Patent and Trademark Office and other countries. TrimWeb and TrimView are trademarks of Trimble Navigation Limited. GeoManager is a service mark of Trimble Navigation Limited. All other trademarks are the property of their respective owners.

SS-iLM4570-6Feb09US