FMS 1000

Main Features

- 1 x 10/100 Mbps Ethernet
- 3G WWAN and WLAN support
- Rugged IP67 protection
- Back up rechargeable battery

- Voice & SMS communication
- 2 x CAN Bus 2.0B
- Driver identification support (iButton & RFID)
- Support optional USB storage as data logger

Product Overview

FMS 1000 is a well-integrated telematics IoT gateway to provide all crucial "Big Data" for more efficient fleet operation and management. The data provided by FMS 1000 give users the capability of real-time remote diagnostics, vehicle tracking/mapping (asset management), trend analysis, driver performance analysis and operational record-keeping. Rugged FMS 1000 with IP-67 protection and back-up battery especially is designed for heavy equipment industries such as off-highway vehicles where 24/7 non-stop, real-time overview of their fleet is highly evaluated.

Integrated WWAN and WLAN functions enable wireless connectivity to send data directly to operators. A large capacity of internal USB Flash storage can be used as standalone data logger. Dual CAN Bus 2.0B and other I/O functions are supported through user-friendly configuration screen via Ethernet. If any shock impacts are detected by accelerometer, FMS 1000 can automatically send SMS message and inform operators as alarm.

With the addition of sensor connectivity such as tire sensor, fleet operators can gain a full range of tire-performance data, including real-time tire pressure and temperature readings, allowing operators to further increase safety, efficiency and productivity.

Specifications

WWAN Connection
- UMTS/HSPA: 800, 850, 900, 1700, 1900, 2100MHz
- GSM/GPRS/EDGE: Quad band 850, 900, 1800, 1900

WLAN Connection (Option)
- 802.11 b/g/n, 2.4GHz

Ethernet
- 1 x 10/100 Mbps Ethernet

On Board Sensors
- 1 x G-sensor

Serial Port
- 1 x RS232 for optional RFID reader (w/12VDC output)

Voice & SMS Communication
- 1 x MIC-in
- 1 x Line-out

GPS
- On board u-blox, NEO-M8N GPS module
- Support GPS/Gloness/QZSS/Galileo/Beidou

- Support optional precision GPS module
- Support optional GPS Dead Reckoning

Battery
- Li Polymer rechargeable back up battery, 1200mAh

Digital Input/Output
- 3 x DI
- 3 x DO

Analog Input
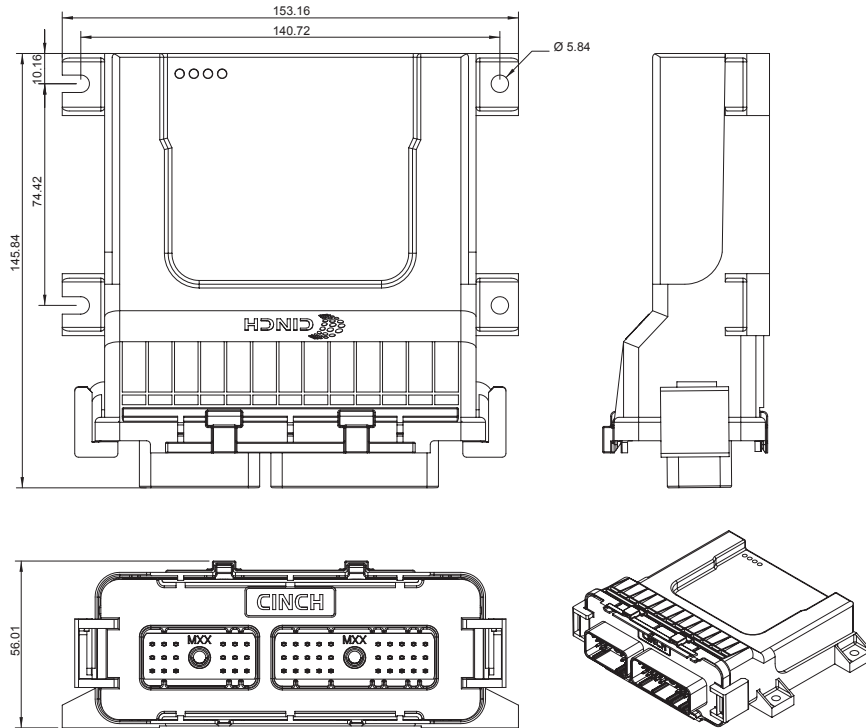- 3 x Analog-In
  - Input: 0~38V
  - Resolution: 12 bit

CAN Bus 2.0B
- 2 x CAN Bus 2.0B

Storage
- 1MB on board memory
- Optional USB-Disk Module (up to 64GB)

Dimension Drawing

Other Interfaces

- iButton for driver identification
- Frequency input for vehicle speed detection
- 1 x direction signal for optional GPS DR module

Configuration Setting

- Via Ethernet

I/O Interface - Front

- Power/ignition/GND input
- 2 x CAN Bus 2.0B
- 3 x DI and 3 x DO
- 3 x Analog-In
- 1 x Speed frequency-Input
- 1 x Direction signal
- 1 x 1Wire iButton
- 1 x Mic-In
- 1 x Line-Out
- 1 x Ethernet
- 1 x 12VDC output
- 1 x RS 232
- 3 x antenna for GPS/WWAN/Wi-Fi

LED Indicators - Top Cover

- 1 x Power LED
- 1 x GPS LED
- 1 x Wi-Fi LED
- 1 x WWAN LED

Power Management

- 9 ~ 36VDC input
- 8-level power off delay time

Dimensions

- 153 mm (W) x 146 mm (D) x 56 mm (H) (6" x 5.75" x 2.2")

Environment

- Operating temperatures:
  -40°C~70°C (w/o battery)
  -20°C~60°C (w/ battery, discharging)
- Storage temperatures:
  -40°C ~ 80°C
- Relative humidity:
  10% to 90% (non-condensing)
- Vibration:
  2g@5 ~ 500Hz
  Operating: MIL-STD-810G, Method 514.6, Category 4, common carrier US highway truck vibration exposure
  Storage: MIL-STD-810G, Method 514.6, Category 24, minimum integrity test
- Shock:
  Operating: MIL-STD-810G, Method 516.6, Procedure I, functional shock=20g
- Non-operating: MIL-STD-810G, Method 516.6, Procedure V, crash hazard shock test=75g

Certifications

- CE approval
- FCC Class B
- E13 Mark

Ordering Information

- **FMS 1000 (P/N: TBD)**
  10/100 Mbps Ethernet port, 2 x CAN Bus 2.0B, back-up battery, G-sensor, 1 x RS232, 3 x DI, 3 x DO, 3 x Analog-In