DATASHEET

DANLAW
AUTOMOTIVE MADE SMART

Benefits

- Integrated Dual Mode Bluetooth
- Bluetooth Low Energy (BLE)
- GPS Plus GLONASS For Accuracy
- Optimized For 2G/3G GSM/GPRS
- Cost Effective

Features

- OBD-II data collection
- Industry leading vehicle compatibility
- AES-128 Data Encryption
- Self-Installed – plug-n-go
- Self-Contained – all internal antennas
- Ignition ON/OFF detection
- 2G/3G Dual-band Wireless – GSM/GPRS and Bluetooth
- Free Data Transmission through BLE connected mobile phones
- Self-Normalizing 3-Axis Accelerometer
- 56 Channel GNSS
- Over-The-Air Re-Flash (FOTA)
- Enhanced Anti-Tampering
- Real-Time Event Capture and Transmission
- Certifications – CE, FCC, PTCRB, RoHS, E-mark
- SuperCap for real-time disconnect event

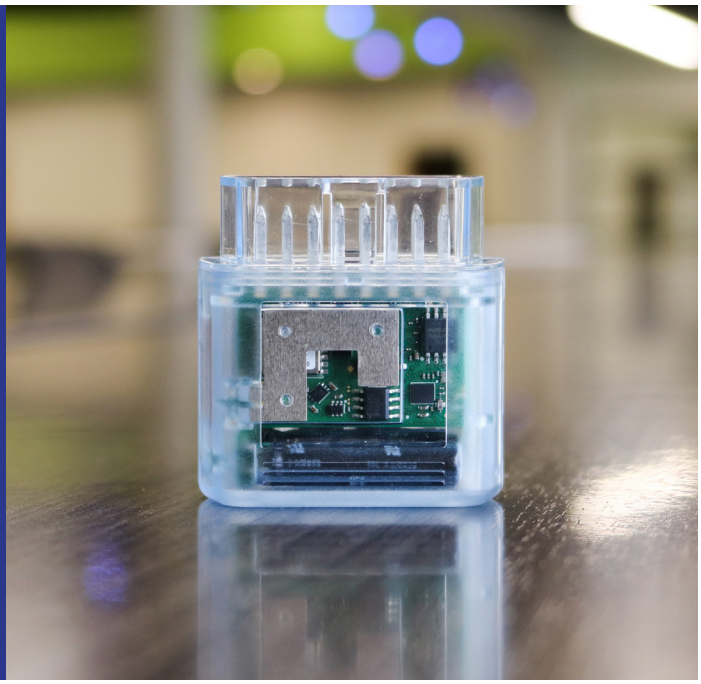
This document is provided for information purposes only and the contents hereof are subject to change without notice.

DataLogger 870 - Vehicle Telematics Device

Danlaw's DataLogger 870 vehicle telematics solution is a one-of-a-kind, hybrid wireless communication device. The DataLogger device is optimized for data communication and connectivity via 2G/3G GSM/GPRS and BLE wireless connections. Danlaw's hybrid communication approach provides wireless data transmission by using the driver's BLE-enabled smartphone and/or the DL 870's dedicated 2G/3G GSM/GPRS wireless data connections.

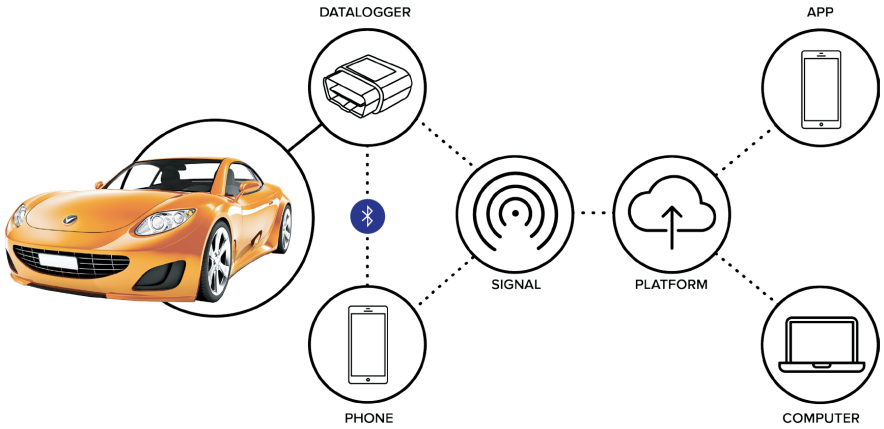
Markets

- Insurance (UBI, PAYD, PHYD)
- Teen Tracking
- Loyalty Programs
- Fleet Tracking
- Mobile Resource Management (MRM)
- Roadside Assistance
- Remote Vehicle Diagnostics
- Government and Military
- Road Tolling
- Connected Vehicle Research
- Custom Applications



Hybrid Bluetooth - 2G/3G Wireless Communication Model

The DataLogger 870 device enables direct connectivity between vehicles, Bluetooth-enabled phones, cloud-based servers, and backend servers.



Real-Time Disconnect

The DataLogger 870's built-in SuperCap extends device connectivity by providing highly reliable power to capture and transmit real-time disconnect event data. When vehicle connectivity is imperative to your business, the SuperCap will ensure that event data is not lost if the DataLogger is unexpectedly disconnected. The SuperCap provides better performance at extreme automotive temperatures and enhanced durability to support over 500k power cycles.

Copyright © 2020, Danlaw, Inc. and/or its affiliates. All rights reserved.

DATASHEET

DANLAW
AUTOMOTIVE MADE SMART

DataLogger 870

Physical Characteristics	
Dimensions	Ultra Compact (L = 50 mm, W = 46 mm, H = 24 mm)
Weight	32.1 g (1.13 oz)
Environment	IP64
Temperature Range	-40ºC to +85ºC (operating) -40ºC to +85ºC (storage)
Humidity	0% to 95% (non-condensing) (SAE J1455)
Shock, Vibration, and Heat	SAE J1455, SAE J1211
Certifications	
Carrier Certifications	FCC and PTCRB Certified
CE Certifications	CE Certified
e-Mark Certifications	e-Mark E-13
Environmental Certifications	RoHS Compliant
Electrical Characteristics	
Supply Voltage	12V (min. 9V to max. 18V)
Current Consumption	<8 mA Average (sleep mode) <100 mA @ 12VDC (data upload)
Voltage Protection	Over and Reverse Voltage, Load Dump (J1113/11), Short Circuit, Transients (ISO 167502), ESD (J1113/13)
Current Protection	Internal protection (2 amps)
Vehicle Communication	
Protocol Support	GMLAN, FNOS, ISO-15765, ISO-9141-2, J1850 PMW, J1850 VPW, KWP-2000, ISO-14230-4
Protocol Detection	Automatic vehicle protocol recognition
Ignition ON Detect	Automatic wake-up from sleep mode on IGN ON
Ignition OFF Detect	Automatic sleep mode on IGN OFF (saves power)
Wireless	
Cellular	2G Dual-band 850, 1900 3G Dual-band 850, 1900
Wireless Carrier Support	North America
Output Power	Class 4 (33 dBm) 2G bands Class 3 (24 dBm) 3G bands
Module RF Sensitivity	109 dBm typical @ 800/850/900 MHz 109 dBm typical @ 1800/1900/2100 MHz
COMM	TCP/IP, UDP, FTP, HTTP
SMS	Point-to-Point MO and MT SMS cell broadcast
Jamming Detection	Integrated cellular jamming detection
Bluetooth	Bluetooth 4.0, BLE, Dual-Mode support, multi-phone pairing, Secure Simple Pairing (SSP), Serial Port Profile (SPP)
Antenna	Internal built-in Bluetooth and Cellular
FOTA	Firmware-Over-The-Air update for configuration and device firmware
GPS	
Receiver	56-channel GPS receiver and GLONASS Tracking: -162 dBm
Antenna	Internal built-in
Cold Start	<29 seconds TTFF Sensitivity -148 dBm
Hot Start	<1 second Sensitivity -148 dBm
Data Acquisition Rate	Typical 1 Hz
Accuracy	Position 2.5 m CEP
A GPS	AssistNow™ Autonomous (no data usage cost)
Anti-Jamming	Integrated GPS anti-jamming
Accelerometer	
3-Axis	X, Y, Z output
Output Resolution	+/- 2, 4, 8, 16 g (200 Hz - 13 bit max sampling)
Auto-Normalization	Self-Calibrating, Auto-Normalization of the data to the vehicle's direction of motion
Miscellaneous	
Installation	Self-Installed (10 sec or less)
Data Collection Interval	Configurable (1 Hz max.)
Back-up Power	SuperCap (10 F) (supports real-time disconnect events at extreme automotive temperatures and 500K cycles)

Contact Us

Danlaw, Inc.
41131 Vincenti Court
Novi, Michigan 48375 USA
Tel: 1 (248) 476-5571
Fax: 1 (248) 471-4485
sales@danlawinc.com

This document is provided for information purposes only and the contents hereof are subject to change without notice.

Danlaw reserves all rights to this document and the information contained herein. No warranty or guarantee of any kind, either express or implied, is made in relation to the accuracy, reliability fitness for a particular purpose or content of this document.

Copyright © 2020, Danlaw, Inc. and/or its affiliates. All rights reserved.