

DataLogger 880 - Vehicle Telematics Device

Danlaw's DataLogger 880 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 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 880's dedicated 2G GSM/GPRS wireless data connections.

Benefits

- Integrated Dual Mode Bluetooth
- Bluetooth Low Energy (BLE)
- GPS Plus GLONASS For Accuracy
- Optimized For 2G 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
- Quad 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

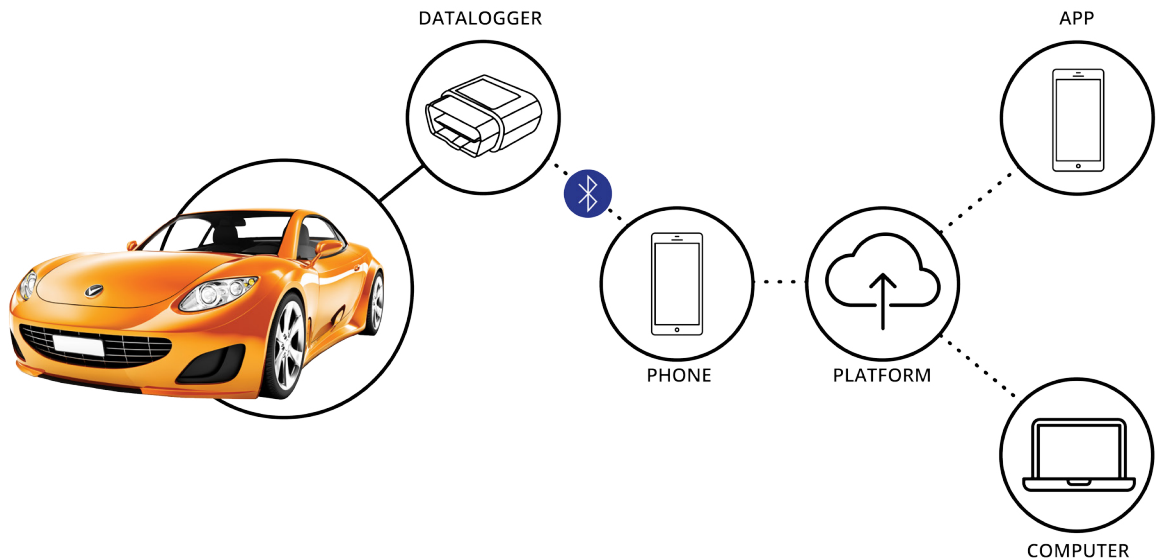
Markets

- 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 Wireless Communication Model

The DataLogger 880 device enables direct connectivity between vehicles, Bluetooth-enabled phones, cloud-based servers, and backend servers.



DataLogger 880

Physical Characteristics

Dimensions	Ultra Compact (L = 43 mm, W = 46 mm, H = 23 mm)
Weight	32.1 g (1.13 oz)
Environment	IP64
Temperature Range	-40°C to +85°C (operating) -40°C to +85°C (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	<4 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	Quad-Band: 850/900/1800/1900 MHz, GPRS class 10
Wireless Carrier Support	Worldwide
Output Power	Class 4 (32 dBm) @ 850/900 MHz Class 1 (29 dBm) @ 1800/1900 MHz
Module RF Sensitivity	109 dBm typical @ 850/900 MHz 109 dBm typical @ 1800/1900 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.)

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