

## DataLogger 86x Series – GEN 2.5 Vehicle Telematics (DL 862/DL 864)

Danlaw's DataLogger 86x Series vehicle telematics solution is a hybrid wireless communication device that enables data communication and connectivity via 3G UMTS/HSPA/2G GSM/GPRS or BLE wireless connections. Danlaw's hybrid communication approach provides wireless data transmission by using the driver's smartphone or the DataLogger's dedicated 3G UMTS with 2GSM/GPRS fallback.

### Benefits

Same small size as 7 Series

3G UMTS/HSPA for AT&T and T-Mobile

Integrated Dual Mode Bluetooth

Bluetooth Low Energy (BLE) Support

GPS/GLONASS for position accuracy

Cost Effective

### Markets

Insurance (UBI, PAYD, PHYD)

Teen Tracking

Loyalty Programs

Fleet Tracking

Mobile Resource Management (MRM)

Roadside Assistance

Remote Vehicle Diagnostics

Government and Military

Connected Vehicle Research

Custom Applications



### Features

OBD-II data collection

Industry leading vehicle compatibility

Self-Installed – plug-n-go via OBD-II port

Self-Contained – no external antennas

Ignition ON/OFF detection

Cost effective data transmission

3-Axis Accelerometer - 13-bit sampling

Self-Normalizing Accelerometer

56 Channel GPS/GLONASS

Over-the-air re-flash (FOTA)

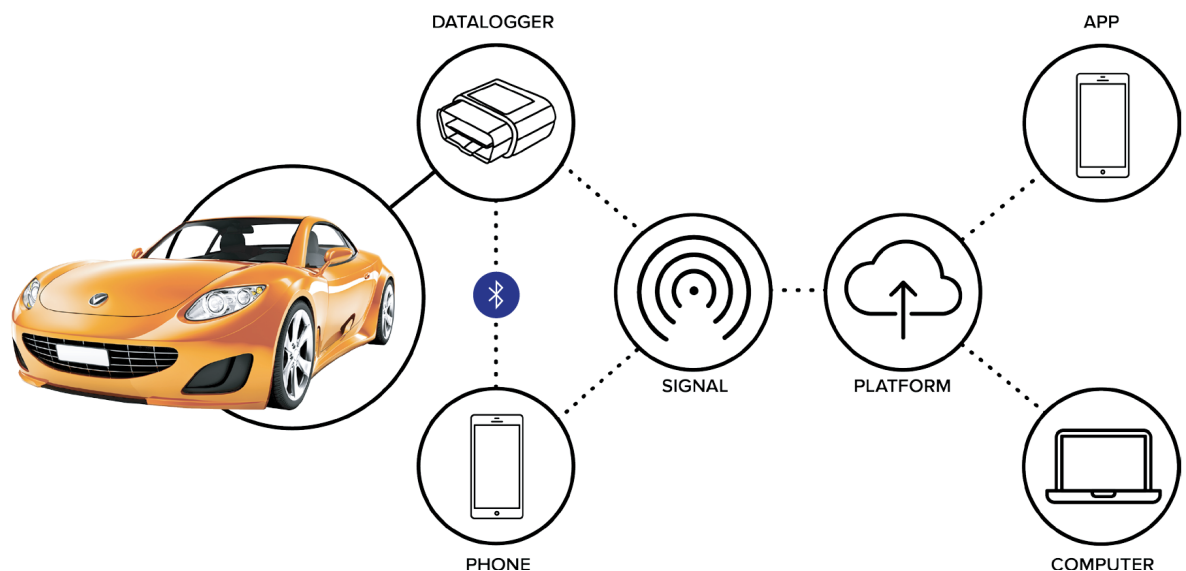
Enhanced Anti-Tampering

Real-time Event Capture and Transmission

Certifications – FCC, PTCRB, AT&T, RoHS

### Hybrid Bluetooth - Cellular Communication Model

The DataLogger 86x devices enable direct connectivity between vehicles, Bluetooth enabled phones and cloud-based and backend servers.





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## 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	<6 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)

## 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.)

## Wireless

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

## Wireless Support

	DL862	DL864
Cellular	2G Dual-band 850, 1900 3G Dual-band 850, 1900	2G Quad-band 850, 900,1800, 1900 3G Penta-band 800, 850, 900,1900, 2100
Wireless Carrier Support	North America	Worldwide

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