

HEM Data

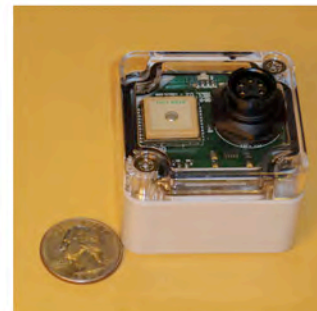
Data Acquisition & Analysis Solutions



Meet the DAWN™ Mini Logger Family

The DAWN Mini Logger family is a collection of compact data loggers to acquire OBD & CAN bus data from cars and trucks.



- Automotive, medium duty truck, CAN/OBD-II
- Heavy duty truck CAN/J1939
- 8 channel analog inputs plus signal conditioning
- GPS, Wi-Fi and cellular



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DAWN Hardware Specs for J1939 & OBD Mini Loggers

The DAWN Mini Logger family is a collection of compact, low-cost, data loggers to acquire OBD & CAN bus data from cars and trucks. Units work alone or together. Use Wi-Fi, USB, Bluetooth, or a cellular modem to interface to a PC. All of the loggers are durable and compact for use in any vehicle's environment. Older vehicle protocols are also supported. Store data on a 2 GB microSD card.


Model	J1939 Mini Logger	OBD Mini Loggers
		
Description	Logger for Heavy Duty vehicles	Logger for automotive vehicles
Protocols		
ISO 15765-4 (CAN, 11-/29-bit, 250/500 kbps)	No	Yes
SAE J1850 PWM & VPW	No	Yes
ISO 9141-2	No	Yes
ISO 14230-4 (KWP)	No	Yes
SAE J1939 CAN	Yes	No
SAE J1708/1587	Yes	No
Real-time PC data	Yes	Yes
Connections to PC	USB	USB
Stand-alone Logger	Yes	Yes
On-board Storage	Micro SD card 2GB	Micro SD card 2GB
Auto Start-up	Yes	Yes
LEDs for status	RGB	RGB
GPS (NMEA 0183)	Option	Option
Wake-up Input	Yes	Yes
Low Power Sleep Mode	Response < 1 sec	Response < 5 sec
Real-time clock	Yes	Yes
Wireless		
Wi-Fi, cellular, Bluetooth, proprietary radio options	Yes	Yes

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DAWN™ ADAQ Mini Logger

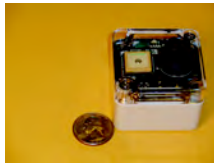
The DAWN ADAQ Mini Logger is ideal when you need to acquire data from sensors that are not on the in-vehicle network. The ADAQ Mini Logger has 8 analog inputs along with signal conditioning for a range of voltages, 4-20mA current inputs, thermocouples, and counter/timer signals. Each channel is independently software configured.

Model	ADAQ Mini Logger
	
Description	Logger for your own analog sensors
Analog Inputs	
Temperature Signal Conditioning	K Type Thermocouple 0-40mA 2 Counter/timers max.
Analog channels	8 Single-Ended
Resolution	16 bits 0 - 1000 Hz
Voltage Range	±8V, ±100, ±.125V
Cabin Temperature Sensor	Yes
3-axis MEMS Accelerometer	Yes
2.4 GHz Radio	Optional
Real-time clock	Yes
Environment	
Size (inches)	4.6L x 2.5Wx 1.6H
Supply Current:	34 mA in idle. Up to 200mA with WiFi
Operating Temperature C	-40 to +70
Operating voltage	6 to 40V
Power Draw while sleeping	5mA @ 12VDC
Warranty	1 Year



DAWN™ Mini-Logger-Family – GPS Logger

The GPS (Global Positioning System) unit is connected to the OBD or J1939 Mini Logger which provides power to the GPS unit. GPS data is stored on the OBD, J1939 or ADAQ Mini Logger MicroSD card.



The GPS unit will work by itself for those applications that do not require any additional data. All that is required is to power the unit and it will store GPS data on its own micro SD card. The GPS unit has one analog input to measure when equipment is on or off. It also has an internal temperature sensor. The unit can be located inside or outside of the vehicle since it is waterproof. If located outside, the temperature sensor approximates the ambient temperature. Real-time geofencing is an option.

Specifications		
Performance	Receiver Chip	SIRF Star III Architecture 12-Channel GPS Receiver
	Receiver Frequency	1575.42 MHZ
	Tracking	L1, C/A Code
	Acquisition Time	Cold Start: 42 Sec (Average); Warm Start: 38 sec (Average); Hot Start: 1 sec (Average); Reaction Time: 0.1 SEC (Average)
Dynamics	Altitude	18,000 M (60,000 FT) Max
	Velocity	515 M/Sec (1,000 KNOTS) Max
	Acceleration	4G Max
	Jerk	20 M/S ³
Interface	Input / Output	NMEA-0183, SIRF Binary Protocol
	Output Message	GGA, GSA, GSV, RMC, VTG, GLL
	Baud Rate	57,600 BPS
	Datum	WGS-84
Physical	Weight	2 Oz
	Operating Temperature	-40 - +125C
	Humidity	0-100%
	Size	2 in x 2 in x 1.5 in
1 analog input and temperature sensor. 3 axes accelerometer is an option.		