

DashDAQ

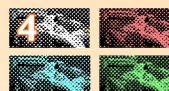
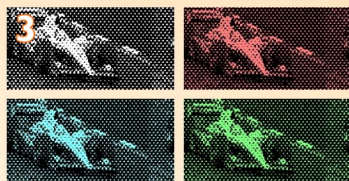
The DashDAQ is in a class by itself. It is a cross between a data acquisition system, diagnostic tool, automotive gauge display, and a handheld computer. DashDAQ uses a high performance processor to run Linux and drive a high resolution color display. Cutting edge design and high volume manufacturing allows Drew Tech to offer the DashDAQ technology in a compact and affordable package.

HIGHEST RESOLUTION SCREEN

DashDAQ features a high-quality TFT LCD that displays full color (16.77 million colors) on a 480x272 pixel high-resolution screen. The screen has an impressive 4" viewing area, 320 nits brightness, and a contrast ratio of 350:1. This is the first automotive cabin mounted display to utilize a color screen at this resolution. Many companies advertise large color displays, but just deliver bigger pixels and multi-color backlights on old fashioned, low tech monochrome screens.

SCREEN RESOLUTION COMPARISON

1. DashDAQ's 480x272 resolution full color screen
2. 320x240 resolution full color screen (*the best resolution offered by the competition*)
3. 256x128 resolution (*offered on high end competitive devices, usually black and white or color backlight only*)
4. 128x64 resolution (*standard competitive devices, usually black and white or color backlight only*)



THE FIRST AUTOMOTIVE PLATFORM WITH LIMITLESS CAPABILITIES

DashDAQ has all of the capabilities listed below built-in, along with the expansion capabilities from its external ports and open platform for developers. It can also host GPS software, multimedia software, videos, and much more.

Performance Measurement

DashDAQ can use automotive signals, externally connected accelerometers, or an upgraded GPS module to calculate horsepower, torque, acceleration, track times, reaction time, braking times, and much more. It can be displayed on-screen data and record critical vehicle data to onboard storage for playback.

Diagnostics

DashDAQ is capable of performing OBD2 diagnostics on vehicles listed on the back page. It has built-in support for:

- Reading and clearing diagnostic codes
- Displaying OBD2 PIDS
- Performing self-tests

DashDAQ also has expansion capabilities for enhanced, manufacturer-

Monitoring

DashDAQ has a wide array of configurable and skinnable monitor displays to view signals from the automobile's in-vehicle network, analog inputs, or connected network devices. Its built-in displays include:

- Analog gauges
- Digital gauges
- Mixed analog/digital dash
- Graph display

Data Logging

With SD/MMC expansion, DashDAQ is capable of recording up to 8GB of driving and sensor data. That is enough memory to drive for months or even years between data downloads. The DashDAQ is also capable of playing back data on-screen.



TECHNICAL FEATURES

Display

- 4" full color QWVGA display (480x272 TFT)
- Touch screen user interface
- Adjustable backlight

System

- 200MHz ARM processor
- 64MB RAM

Operating System

- Linux
- X Windows

Automotive OBD2 Support

- ISO9141 / KWP2000
- CAN / ISO15765

SD/MMC Card Expansion Slot

- Up to 8GB expansion storage

Connectivity

- USB 2.0
- Optional wireless Bluetooth
- Optional wireless 802.11 b/g
- Optional cellular modem

OBD2 Protocols

- Capture, view, and record live data
- CAN (ISO15765)
- ISO9141 (KWP2000)

Two Analog Inputs

- (0-5V) with 97% accuracy
- Support for up to two Wideband O₂ sensors
- Support EGT and other vehicle sensors

Serial Bus Expansion

- Serial architecture for changing devices

Mechanical Features

- Cabin mounted or handheld versatility
- Small, low profile enclosure

DashDAQ Supported Applications



OBD2 Functions	Audi	Bentley	BMW	Chrysler (all brands)	Daewoo	Ford (all brands)	GM (all brands)	Honda / Acura	Hyundai	Kia	Mazda	Mercedes	Mini	Porsche	Scion	Subaru	Toyota / Lexus	Volvo
Read DTCs	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Clear DTCs	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Read PIDs	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Record PIDs	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Playback PIDs	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Performance Tests																		
0-60 mph Performance Test	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1/8 mile Performance Test	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1/4 mile Performance Test	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Dynamometer Test	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Expansion Options																		
Wideband Air/Fuel	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Exhaust Gas Temp (EGT)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GPS Expansion	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

• Supported on all vehicles

• Supported on models that utilize ISO9141 or CAN

OTHER CAPABILITIES AND UPGRADES

DashDAQ has a developer's kit so 3rd parties can create their own applications and run them directly on the DashDAQ.

The Built-in features that come standard on DashDAQ resemble only a small fraction of it's true potential.

Fleet and Vehicle Monitoring

The external Compact Flash expansion slot allows DashDAQ to store up to 8GB of memory that can be used for months of data recording. DashDAQ can also accommodate external wireless, cellular, and GPS modules. These upgrades combined with custom software will enable the DashDAQ to act as a complete monitoring and tracking tool for fleets, commercial vehicles, rental vehicles, development vehicles, and even teenage drivers. A manager could potentially track a vehicle's location, view the routes taken, monitor driving habits such as acceleration and speed, and monitor diagnostics data directly from the vehicle's OBD2 port. Data can be collected and viewed directly in the DashDAQ or transferred to a PC thru USB, MMC/SD memory cards, or optional remote communications.

GPS Navigation

Although GPS is not a standard feature, an optional inexpensive GPS receiver and antenna can be purchased to add GPS data. There are many commercially available Linux based GPS applications available that can run on DashDAQ's open platform. These GPS programs display maps, vector data, turn by turn directions, route planning, points of interest, and much more. These upgrades make DashDAQ the only GPS guidance system on the market to include automotive diagnostics and communications.

CarPC

DashDAQ is the first purpose-built CarPC capable platform to combine vehicle communications, analog inputs, and a PC operating system into a cabin mounted automotive package. The DashDAQ was designed to operate from the cabin of a motor vehicle, and can survive in conditions where a conventional home PC will not operate reliably. DashDAQ's Linux platform can run many different available desktop managers, internet browsers, and PC Applications. DashDAQ's high performance processor and system architecture enables it to play high resolution videos in MPEG and many different formats.

Enhanced Diagnostics

DashDAQ has built-in diagnostics that enable the operator to check the service engine light and read critical parameters. With custom software, DashDAQ can also perform enhanced diagnostics similar to tools found at automotive repair facilities. Drew Tech has a licensable API that developers can use to get high speed enhanced service parameters from many newer vehicles.

