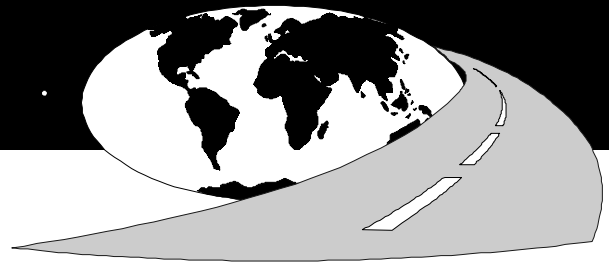


DC Datumtech



Intelligent Data Interface (IDI²) The Datumtech IDI² Advantage

Datumtech manufactures a low cost "smart unit" or Intelligent Data Interface (IDI²) to add intelligence to AVL wireless networks that do not use standard cellular communications. The IDI² is compatible with any data certified radio, Cellular Digital Packet Data (CDPD), satellite transceiver, and BellSouth Wireless Data (RAM mobile data).

The IDI² is configurable. For example, if you are using a radio with an integrated modem, the IDI² can be purchased without a modem and interfaced to the existing radio/modem hardware.

The key to any fast AVL data-reporting scheme is the in-vehicle intelligence. Both event-driven and slotted polling systems need on-board intelligence. The IDI² is a very sophisticated unit with a high degree of user configuration and functionality. All Datumtech "smart units" include a broad range of configurable reporting and logging features to improve operations efficiency and security of drivers, vehicles, and cargo. The IDI² is an important element in Advanced Slotting Accordant Polling (ASAP) allowing efficient high speed polling rates and multiplexing of AVL/MDT information using RF.

The IDI² monitors activity and automatically alerts the operations center when

configured parameters are met, for example, when a vehicle moves out of an authorized area, exceeds a set speed, turns on special equipment, opens a monitored door or is used during off-hours. The alert report includes the vehicle's location and status, providing information for the operations center to respond by remotely activating the vehicle's security system (such as door locks, ignition lockout, sirens, or lights). Our system also logs position, event, and vehicle information to an archive that can be analyzed for efficient route management, driver productivity, and vehicle usage.

The IDI features:

- microprocessor intelligence (Motorola 68HC12)
- 2 MB of flash RAM, configurable
- 256 K of dynamic RAM
- GPS receiver with memory backup
- 1200 or 9600 baud modem
- 25 pin I/O port (DB25M)
 - 5 analog to digital inputs (amplified)
 - 3 digital pulse inputs (amplified)
 - 5 state monitor (on/off) inputs
 - 4 400mA low side outputs
- two external standard DCE RS232 serial ports (DB9F)
- four 500mA low side transistor outputs



- four tri-color external LED indicators for operation and diagnosis
- 12 VDC operation with external fuse
- high/low voltage and reverse polarity protection
- on board power supply/converter (12VDC to 5VDC at 3 amps)
- independent time out/power down of radio, GPS and modem (conserve battery)
- temperature range -10° C to + 60° C

The IDI² Advantage makes Datumtech's AVL the most cost-effective method of tracking law enforcement, emergency response, and commercial vehicle fleets.



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