GPS-210 Assett Tracking Device

FEATURES

- Integrated gps receiver
- Supports GPRS, CDMA or CDPD Cellular*
- Compact turnkey system solution
- Quadtec™ digital signaling
- Proprietary transmission algorithms
- Track on poll, timed or exception
- Vehicle alarm and sensor reporting
- Emergency tracking
- Automatic status registration
- Data recording for later retrieval
- Intelligent rs-232 ports
- Three auxiliary inputs and outputs
- Vehicle monitoring

BENEFITS

- Dispatch vehicles to precise location
- Cut costs and time dramatically
- Reduce driver abuse
- Increase response times
- Reduce overtime
- Protect personnel
- Improve driver responsibility
- Reduce back-tracking across routes
- Improve customer service
- Reduce fleet costs
- Reduce radio traffic congestion
- Increase productivity and fleet use
- Improve management analysis

The GPS-210 is but one of a family of intelligent mobile wireless data products from CES Wireless. It is a complete Automatic Vehicle Location (AVL) unit that operates over a cellular data network, providing reliable and precise location information to a dispatch or control station.

The product is easily installed in any moving object that requires accurate and reliable tracking information. The device is durable and splash-proof; engineered for demanding mobile environments where performance and reliability are essential.

The GPS-210 utilizes the most sophisticated form of Automatic Vehicle Location: the Global Positioning System. This system, a constellation of 24 satellites developed by the U.S. Department of Defense, is available for use without charge to commercial and civilian users. Navigational data is sent from the satellites and collected by the vehicle mounted GPS-210. This is then transmitted to the base to provide real time vehicle tracking.

The GPS-210 has a host of features, including multiple input and output ports, making it a highly flexible and configurable system component. These features can be used for data collection, command and control purposes.

Interfaced to the CES Wireless POWER-trak™ Graphical Mapping system, our solution provides a dispatcher with a high resolution, multiple screen mapping system, with a set of easy to use tools, to provide location information on the vehicle fleet.

** US - CDMA ~ Verzion; GPRS ~ T-Mobile, AT&T*

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SYSTEM DESCRIPTION

The GPS-210 is a feature rich Automatic Vehicle Location (AVL) unit that operates using the very popular GPS system, and contains a cellular data modem to transmit the position data to a control or dispatch location. The unit provides a compact turnkey solution for your vehicle tracking needs.

Housed in a rugged aluminum extrusion, protected from harsh environmental conditions, the unit comes complete with an internal GPS receiver, cellular modem and the necessary power cable. Due to the many application dependant variables, the GPS and cellular antenna is a separate item.

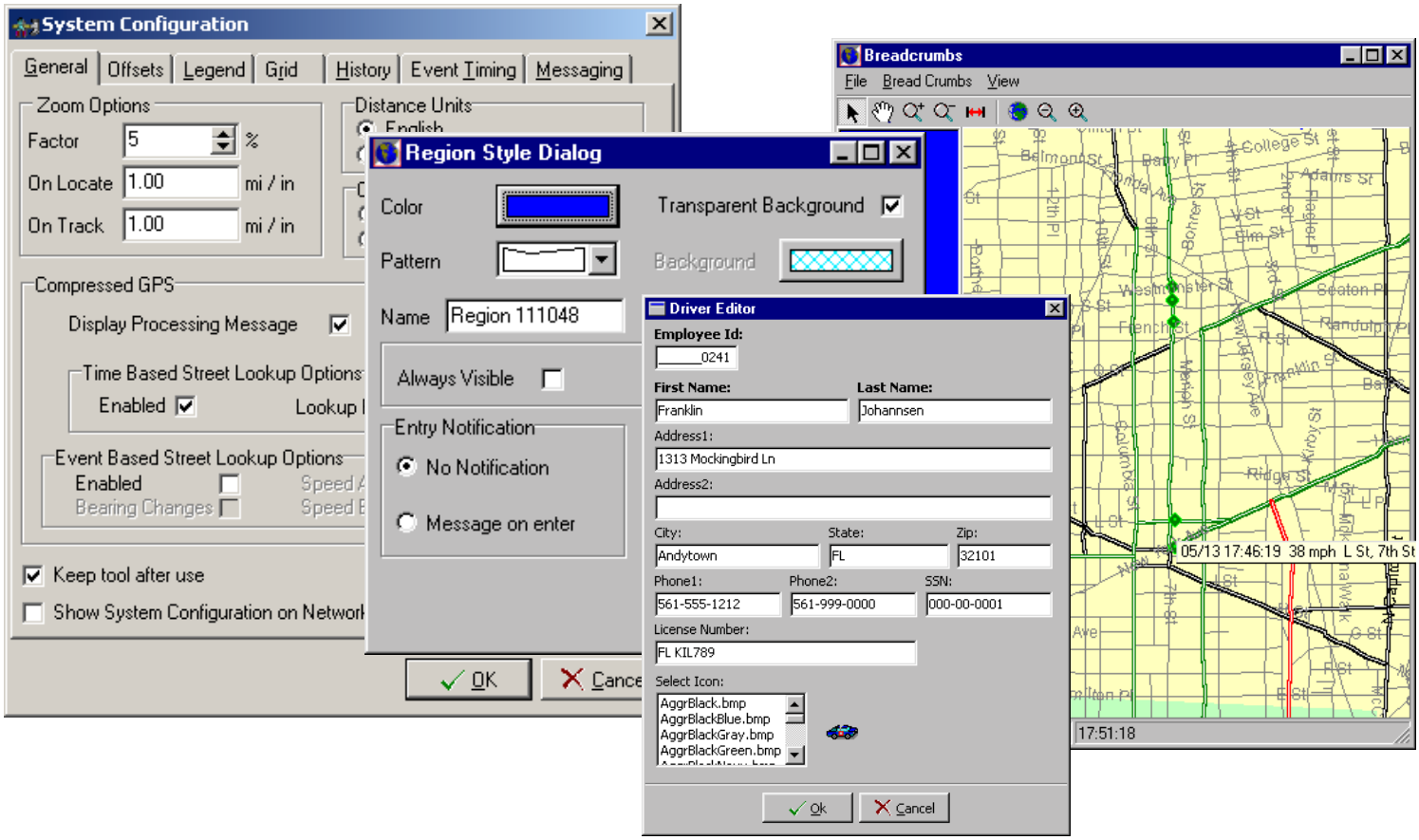
The GPS-210 is designed to provide advanced features with an intelligent interface, multiple serial ports and digital Inputs/Outputs. GPS position, speed, bearing and time are all reported in the location information.

In addition to its GPS reporting capability, the GPS-210 can be interfaced to numerous other peripheral devices in order to provide advanced fleet management features. For example, it can be interfaced to engine management systems, sensors or controls to provide real time status conditions or supported forms of analog information. The unit will operate over any cellular network with GPRS, CDMA, and CDPD capability, providing for a large coverage area, low service pricing and fast transaction execution.

For applications that require in vehicle text messaging together with GPS, the CES Wireless TRK-240 mobile display terminal has an optional GPS board. Please refer to a separate brochure regarding this product.

The CES Wireless base system platform provides a range of products to suit nearly any application. trak-CONTROL™ software provides an intelligent utility to integrate host software to CES Wireless systems. POWER-trak™ is a graphical mapping, status monitoring and dispatch software package. Many different map formats can be used, or CES Wireless can digitize paper maps. Please contact CES Wireless for further details.

CES Wireless base systems come complete with data controller, keyboard, mouse and online support, accessible from any CES Wireless Software Support Center.



FEATURES

General . . .

- Aluminum extrusion for rugged reliability
- “QUADTEC” digital signaling
- GPS receiver with internal GPRS modem
- Solid, proven “over the air” protocols
- Compact size: 10 x 5.5 x 2 inches
- Power cable with sealed connectors
- Optional industrial GPS antenna
- Optional: cellular antenna
- Optional: dual antenna (GPS/cellular)

Features . . .

- Report on poll, timed or exception
- Returns position, velocity, health, event and time
- Data is available in selectable formats
- Advanced tracking algorithms
- Differential compatible
- Less than 2 seconds reacquisition
- Internal diagnostics capability
- Transmission *time out timer*
- Stun and revive; activated by dispatcher
- *Poll* for traffic discipline and unattended interrogation
- Full acknowledgments automatically processed
- Real time stamping of mobile transmission
- Flash memory, extensive on board RAM

Programming . . .

- Sequential programming of devices
- Windows programming software

In/Out Controls . . .

- 3 auxiliary inputs
- 3 auxiliary outputs
- 1 auxiliary serial port: - TTL/RS232

Peripheral Items Supported . . .

- Engine management interface
- Custom serial interface

Wireless Compatibility

- GPRS, CDMA, and CDPD

Applications, here are a few . . .

Ambulance, barges, buses, couriers, domestic repair services, fire, food delivery, limousines, mining, mobile service, parts delivery, police, readymix concrete, security, taxi, transportation, tugboats ...

Base Software . . .

Compatibility

Windows XP and 2000

POWER-trak™

Integrated mapping, dispatch and status monitoring

trak-CONTROL™

Gateway software for integration of non-CES Wireless host software systems

SPECIFICATIONS

Mechanical

- Dimensions: 10 x 5.5 x 2 inch (25.4 x 14.0 x 5.1cm)
- Weight: 17.4 oz (0.49kg)
- Cabinet: Aluminum extrusion
- Interface cable: 3 ft factory sealed connector

Electrical

- Voltage: 10-16 V DC
- Current: <320mA (idle) <710mA (transmit)
- Auxiliary inputs: Z=100K -35 to +35V
- Auxiliary outputs: Open collector

Radio Specifications

- Signaling format: 19.2 Kbps airlink (physical layer) as specified in the CDPD System specification (1.1)

Transmitter

- Output power: 6mW to 600mW in 4 dB steps
- Modulation: GMSK BT = 0.5

Receiver

- Sensitivity: -113dBm @ 5% block error rate
- RSSI: 60dB dynamic range
- Emissions limits: Per FCC CFR-47 part 2, part 15, and part 22
- Vibration: Sinusoidal 1.5 g, 5 Hz to 500 Hz
- Shock: 20 g shock
- Humidity: 5% - 95% relative humidity
- Electrostatic discharge: 15kV, with no electrical damage or impairment of function

Programming

- Software: GPS-230S Windows software

Environmental

- Operating temperature: 0 to + 50 deg. C
- Storage temperature: -30 to + 70 deg. C

GPS Receiver

See separate data sheet

Ordering

- GPS-210/GPRS GPRS Automatic Vehicle Location
- GPS-210/CDMA CDMA Automatic Vehicle Location
- GPS-210/CDPD CDPD Automatic Vehicle Location
- ANT-02 Fixed mount GPS antenna
- ANT-C1 Cellular antenna
- ANT-CG Dual GPS/cellular antenna
- PNT-97 Mobile Printer
- GPS-210S Programming software Windows (English)
- MANUAL112 Programming & installation manual
- CABLE26 DB-9 to DB-25 null modem cable

Auxiliary Connector (DB-25)

- Power 8-16v
- Ground
- Auxiliary in 1
- Auxiliary in 2
- Auxiliary in 3
- Auxiliary out 1
- Auxiliary out 2
- Auxiliary out 3
- Transmit data spare
- Receive data spare
- Ready to send spare (RTS)
- Clear to send spare (CTS)
- Transmit data (TX)
- Receive data (RX)
- Ready to send (RTS)
- Clear to send (CTS)
- Data terminal ready (DTR)
- Data set ready (DSR)
- Ground
- Power 8-16v

Interface Contacts

- Serial 1 RS232 ... Cellular modem (internal)
- Serial 2 RS232 ... Peripheral expansion
- Serial 3 RS232 ... GPS receiver (internal)
- Auxiliary out 1 .... Control
- Auxiliary out 2 .... Control
- Auxiliary out 3 .... Control
- Auxiliary in 1 ..... Sensor in
- Auxiliary in 2 ..... Sensor in
- Auxiliary in 3 ..... Sensor in