

Vehicle Event Logger and Tracking Units

Cellocator™ CelloTrack with enhanced functionality and capabilities for advanced asset tracking and management services and solutions.

The Cellocator™ CelloTrack is a small, standalone, tracking device for mobile assets and assets without a power supply.

Cellocator™ CelloTrack capabilities can contribute to the reduction of financial losses caused by the inability to track equipment such as: trailers, containers, trains and so on. To improve competitiveness and profitability, enterprises should manage mobile assets with the same care and innovation they have employed to drive excess inventory and costs out of their operations.

Continuous comprehensive tracking and information about mobile assets are essential for the successful increase of productivity, for achieving agreed-upon service levels and for quick adaptation to changing business trends.

Cellocator™ CelloTrack offers advanced asset tracking management capabilities with the following features:

- Communication channel redundancy: GPRS+SMS



- 3D accelerometer for motion/accident sensing and advanced communication cost and power management capabilities
- Forbidden and preferred GSM operators
- Integrated SIRFIII GPS technology
- Built in Geo-fence support
- Online event reporting
- Full event data logging
- OTA configurable
- OTA upgradeable
- Push button programmable to be On/Off/Test/Panic
- Tamper switch
- Two monitoring LED's
- Long-life lithium polymer battery
- IP67 Standards

Features

The features of the Cellocator™ CelloTrack are as follows:

- Communication cost management, enabling lower communication costs in normal and roaming operating environments.
- Advanced power management for extended battery life
- Durability and long-life, making it ideal for tracking trailers, trains, containers, high-value assets, and more.
- IP67 weatherproof casing houses all the components, battery, quad band GSM/GPRS module and a SiRF III GPS for reliable and accurate tracking capabilities.
- A 3D accelerometer to detect movement of the asset enables different transmission rates for a moving asset and for a standing asset.
- A programmable (ON/OFF/Test/Panic) push button, a charging and communication connector, a tamper switch to detect tampering and two monitoring LEDs.
- Cost Savings: The compact size Cellocator™ CelloTrack reduces communication costs, theft, and loss of valuable assets.
- An internal long-life 13.6 AHr rechargeable Li-Polymer battery providing over three years of autonomous operation (subject to the rate of transmissions).

*The following is a table of a 13.6 AHr battery lifetime as a function of the number of transmission per day.

Transmissions per 24Hrs	Duty Cycle	Average Consumption (mA)	Life time	
			Months	Years
96	13.3%	13.38	1	0.1
48	6.7%	6.72	2	0.2
24	3.3%	3.39	4	0.3
12	1.7%	1.72	8	0.7
8	1.1%	1.17	10	0.8
6	0.8%	0.89	12	1.0
4	0.6%	0.61	16	1.3
2	0.3%	0.33	24	2.0
1	0.1%	0.19	32	2.7

Table is based on the following assumptions and setup:

- Battery self discharge rate: 3% of available capacity per month @ 25°C
- Battery is fully charged optimally before first use
- Operation mode: periodic peeking. Number of messages per day as specified in the table.
- Up to 2 minutes for network registration, GPS FIX acquisition and status update.
- Numbers may vary according to operational conditions.

Benefits

Cellocator™ CelloTrack tracks your asset movements automatically, providing data in real time, providing up-to-date and accurate reporting that enables an organization to manage its assets with information instead of with physical inventory. The result is cost-effective asset management, improved asset utilization, increased productivity and more efficient purchasing and maintenance, all of which contribute to bottom line improvement. These outcomes provide a sustainable improvement in profitability without burdening employees with excessive controls or reporting responsibilities.

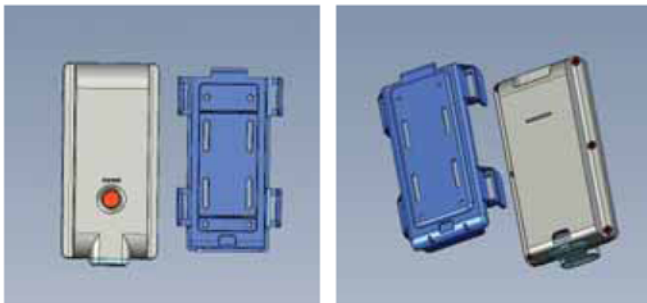
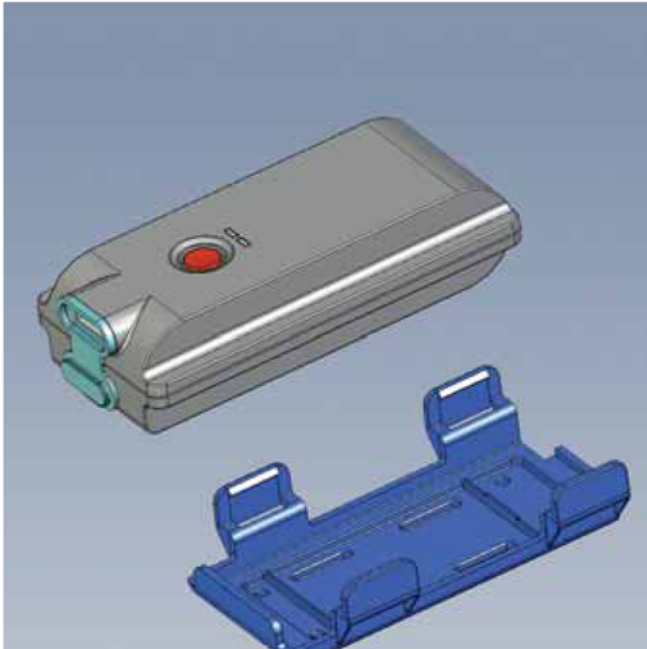
Cellocator™ CelloTrack offers complete fixed and mobile asset tracking solutions that help prevent loss, wasted time spent looking for displaced assets and conducting asset inventories, and provides the following benefits:

- Provides accurate, updated information about past, current and future asset locations, and ensures that the asset is always in the right place at the right time.
- Scheduling of maintenance or services for equipment.

The Cellocator™ CelloTrack is suitable for a variety of tracking applications such as:

- Security: Tracking assets in reference to pre-defined GeoFences.
- Logistics, Transportation, Distribution Solutions: Tracking vehicles, trailers, trains, individual high value boxes, and delivery scheduling.
- Police and Special Forces: Tracking and tagging investigations.
- Mining Industry: Tracking equipment loads.
- Supply Chain: Tracking high value assets from packaging and manufacturing to distribution and point-of-sale.

Mechanical Specifications



Cellocator™ CelloTrack Specifications

Outputs	2 Optional General Purpose Open Collectors
Inputs	2 Optional Digital/Analog Inputs Push Button and Tamper Switch
Accelerometer	3D, movement detection
Interface	2 Monitoring LEDs
Communication Methods	TCP/IP or UDP/IP over GPRS Class B, Multislot 10 with PDU SMS as a Backup
Frequency Bands	GSM 850 and 900MHz, DCS 1800 and PCS 1900MHZ
GPS Technology	SiRF III, 20 Receiving Channels
Serial Communication	RS232 (9600bps, no parity 1 stop bit)
Battery	Internal Rechargeable 3.7V, 13.6 AHr, Li-Polymer Battery
Dimensions	154.5mm x 81.2mm x 44.80mm
Temperature Range	-20°C to +45°C

* The CelloTrack unit provides 2 I/O lines. The wires can be used either as analog/digital inputs or as an open collector output.

IP 67 Standards

First Digit	Digit Protective Degree for persons	Test Parameter or Provisions	Protective Degree for equipment	Test Parameter Provisions
6	Protection from wire and similarly sized objects	Wires 1.0mm diameter or greater cannot penetrate the connection	Dust Proof	No dust entry into the device
7	Protection of Equipment		Test Parameter or Provisions (test samples are all configured in a normal manner)	
	No Water penetration into the device when immersed under the following conditions		Submerge the sample for 30 minutes at a depth of 1 meter the water's surface	

About Pointer Telocation Ltd.

Pointer Telocation Ltd.: **A Leading Security & Fleet Management Solution Provider in the following areas:**

- Fleet Management
- Vehicle Security
- Asset Tracking
- Roadside Assistance
- Stolen Vehicle Recovery
- Location-Based Services
- Telematics Automatic Vehicle Location (AVL)

Pointer has developed a variety of Cellocator™ device product lines for in-vehicle OEM integration. These devices can be used by service providers and integrators to provide sophisticated, cost-effective and reliable solutions for fleet management, vehicle security, asset tracking and the service industry. Pointer's experts specialize in developing and manufacturing the hardware and software for on-line wireless vehicle security, communication and control systems, as well as Machine to Machine (M2M) wireless data communications systems.

To address the current and future requirements of the automotive industry, Pointer is continually upgrading and expanding its OEM product lines, in consultation and collaboration with our customers.

Our growing customer base includes vehicle security companies and fleet management service providers, operating in Eastern and Western Europe, Asia and North and South America. Over 250,000 vehicles worldwide are outfitted with Cellocator™ products.

Pointer's products and production processes adhere to the strictest quality standards. Pointer is ISO 9002 certified and has received the British Vehicle Certification Authority (VCA) 95/54/EC approval according to European Commission EMC directives for automotive equipment.

Pointer is proud to have provided their Cellocator™ products, as the official supplier of vehicle security and location equipment, to the security and emergency forces at the Athens 2004 Olympic games.