



Cellocator Division
Pointer Telocation Ltd.

CELLOTRACK FAMILY PRODUCT LINE



Construction
Equipment



Container Tracking



Trailer Tracking



Stolen Vehicle Recovery



ADVANCED TRACKING AND LOCATION BASED APPLICATIONS

Select applications

- Cargo, Logistics & Asset Tracking
- Stolen Vehicle Recovery
- Trailers and Containers Tracking
- Train cars Tracking
- Plant & Construction Equipment
- Covert Surveillance
- Security & Special Forces

Features

- Standalone, self-powered tracking device
- Rechargeable battery available
- Advanced Power management
- Up to 3 years without charging
- Entry level product line available -
CelloTrack 6M Family
- CelloTrack XT units for durability in extreme
weather conditions
- Cellocator+ maintenance server compliant
- Easy installation/No installation



POINTER

CelloTrack product lines, designed for advanced asset tracking and location based applications, provide enhanced functionality very easy installation and a wide range of applications catered.

Enterprises utilizing CelloTrack family products can greatly reduce the financial losses incurred due to the difficulty in tracking valuable equipment such as trailers, containers and trains. CelloTrack products support tracking, communication, GPS location- based features and maintenance capabilities. The CelloTrack Family units utilize advanced power management algorithms preserving battery power and extending battery life period, as well as support periodical and by command connection to a separate server for maintenance purposes, configuration and firmware update. Maintenance is enabled by the Cellocator+ software package.

CelloTrack products are offered in three product families, CelloTrack IP67, CelloTrack XT and CelloTrack 6M. Additional standalone CelloTrack products include the CelloTrack Container and CelloTrack Container Lock.



CELLOTRACK IP67 FAMILY

Includes the following products: CelloTrack IP67, CelloTrack Power IP67, CelloTrack Lighter IP67

CelloTrack IP67 is an innovative and adaptable tracking device, used for both mobile and fixed asset management. This small device allows for continual tracking and monitoring of the precise location of valuable assets for a company, increasing its overall operational productivity. Fitted with a durable and long-life battery (lasts approximately 3 years), as well as a highly durable IP67 weatherproof casing, CelloTrack functions optimally without direct access to a power supply and is resilient to severe conditions.

CelloTrack Power has an internal charger, which enables it to be used in situations where an intermittent power supply exists. The CelloTrack Power can be used when permanent installation is required, such as those in trailers where power availability is accessible only when connected to the truck. The unit charges its battery when the power is connected and uses its battery and the advance power management algorithm to maintain tracking when power is disconnected.

The CelloTrack Lighter IP67 is useful in situations where an intermittent power supply is accessible. The harness is equipped with a plug, allowing for an easy connection to the cigarette lighter outlet in the vehicle. The CelloTrack Lighter is for applications which require easy deployment, such as Car Rental.

CELLOTRACK 6M FAMILY

Includes the following products: CelloTrack 6M, CelloTrack Power 6M, CelloTrack Lighter 6M

The CelloTrack 6M family is the entry level product line, which offers cost effective solutions that support up to six months of single GPS reading and GPRS transmission per day, or two months of four readings and transmissions per day, utilizing 2AH rechargeable battery. CelloTrack 6M family supports tracking, communication, GPS location-based features and maintenance capabilities similar to that of the regular CelloTrack. The main differences from the standard CelloTrack IP67 family are that the 6M family units utilize an IP65 dust and weatherproof enclosure and are equipped with different battery connector. In addition, the CelloTrack 6M family is visually different from the standard CelloTrack IP67 family with the use of a white label.

CELLOTRACK XT FAMILY

Includes the following products: CelloTrack XT, CelloTrack Power XT

The CelloTrack XT family is designed for asset tracking in extreme weather environments, fit for applications in arctic or desert conditions. The CelloTrack XT and CelloTrack Power XT units provide an asset tracking solution for environments that require a wide operational temperature range (-30°C to +70°C) and a wide charging temperature range (-10°C to +60°C). The units support up to thirteen months of single GPS reading and GPRS transmissions per day, utilizing a 4.25AH rechargeable Li-Poly battery. The CelloTrack XT family supports the same set of capabilities - including the same Firmware and almost same PL - as the standard CelloTrack IP67 family. It is visually different from the standard CelloTrack IP67 family with the use of a yellow label.

CELLOTRACK CONTAINER LOCK

Designed to offer an agile tracking and cargo monitoring for containers, CelloTrack Container Lock is attached to the container's door, allowing the customer to know exactly where the goods are at any given point, find out if there are any bottlenecks along the way, or if anyone tries to open or tamper with the container's doors..

CELLOTRACK CONTAINER

CelloTrack Container is a special version of the CelloTrack, which can be installed inside containers in an absolutely covert way. Nothing is visible from the outside; yet containers equipped with the device can be easily tracked, utilizing hidden GPS and GSM antennas.

FEATURES

CelloTrack products offer advanced asset tracking including the following features:

- Durability and long life (please refer to battery life tables below), making it ideal for tracking trailers, trains, containers, high-value assets, and more.
- Stand-alone self-powered tracking device.
- Advanced power management algorithms preserving battery power and extending battery life period.
- Highly durable IP67 and IP65 weatherproof casing that houses all components - battery, GSM module and GPS module.
- A 3D accelerometer that detects movement of assets and enables different transmission rates for a moving asset and a standing asset.
- A programmable (ON/OFF/Test/Panic) push button, charging and communication capabilities, a tamper switch to detect tampering and two monitoring LEDs.
- Minimal maintenance.
- Easy installation, including built in zip tie holes and optional magnetic cradle.

BENEFITS

The CelloTrack family product line offers businesses many benefits in various settings:

- Providing data in real time with up-to-date and exact reports about past and current asset locations that facilitate smoother management of assets with accurate information as a substitute for physical inventory.
- Offering both fixed and mobile asset tracking, CelloTrack products help prevent loss and unnecessary time wasted used to track displaced assets and conducting asset inventories.
- Allowing for the scheduling of maintenance or services for equipment.
- Lessening the burden on employees with redundant controls and reporting responsibilities.



APPLICATIONS

CelloTrack products have many tracking applications for security, logistics, transportation and distribution, police and special forces investigations, supply chain and more. Some of the top asset tracking applications include:

Containers: CelloTrack products stand out as a container tracking solution with the rechargeable long life battery and remote activation and administration potential. CelloTrack units can be easily attached to any type of container, such as containers for shipping or cargo.

Heavy Equipment: Despite not being readily movable, heavy equipment and machinery are still susceptible to theft. Examples of heavy equipment that can be tracked by CelloTrack products include construction equipment, demolition machinery and large generators.

Truck Trailers: CelloTrack products protect against theft of assets and improve logistical management by tracking the location of truck trailers. Using the CelloTrack Power unit, CelloTrack is automatically recharged when a trailer is connected to the tractor.

Inventory: The tracking capabilities of CelloTrack products can be readily used to identify the location of inventory. CelloTrack units are used by major airlines in Central Europe to locate spare parts and other special assets stored in its warehouse at major international airports.



Train cars: For both security and logistic purposes, following the location of individual carriage cars whether in transit on the rail tracks.

Cash and Vending Machines: CelloTrack units can be discretely attached to cash and vending machines to track to their location in the case of theft. In addition, CelloTrack can even transmit data regarding inventory levels of such machines.

Boats: The position of a sailboat can be transmitted by CelloTrack, enabling authorities to monitor and follow the trail of competing sailboats on the Internet.



Stolen Vehicle Recovery Backup: Given that CelloTrack products do not require a power source to provide tracking information, they can be installed anywhere on a vehicle and can serve as backup or even as an alternative to traditional stolen vehicle recovery units.

Rental and Leased Vehicles: CelloTrack can easily be deployed on all vehicles because of its compact size, and can be easily concealed, almost anywhere in the vehicle. The precise location of a vehicle can be tracked on the system's Web-based application, saving time when locating vehicles for pickup and return, ensuring lower

fleet insurance premiums and reducing loss of revenue.

Airplanes: The tracking features of CelloTrack family can be applied to record the flight path of small airplanes, helicopters and similar low altitude aircrafts without a direct connection to an engine, complying with a range of aviation regulations.

Others/General: The flexibility and durability of CelloTrack family enable the tracking of any fixed or mobile asset. CelloTrack products can be used to track any vehicle type or used to avoid tampering of cargo containers coming through custom checkpoints.

PRODUCT MATRIX

Product/Feature	Charging Power Source	Ingress Protection	Installation Free	GPS/GSM Antenna
CelloTrack IP67/ XT	External	IP67	✓	Internal
CelloTrack 6M	External	IP65	✓	Internal
CelloTrack Container	External	N/A	✗	External
CelloTrack Container Lock	External	IP67	✓	Internal
CelloTrack Power/XT	Trailer/Vehicle	IP67	✗	Internal
CelloTrack Power 6M	Trailer/Vehicle	IP65	✗	Internal
CelloTrack Lighter	Cigarette Lighter	IP67	✓	Internal
CelloTrack Lighter 6M	Cigarette Lighter	IP65	✓	Internal

BATTERY LIFE TIME (LI-POLY)

CelloTrack IP67 battery Life time

Transmissions per 24Hrs	Life time	
	Months	Years
96	1	0.1
48	2	0.2
24	4	0.3
12	8	0.7
8	10	0.8
6	12	1.0
4	16	1.3
2	24	2.0
1	32	2.7

CelloTrack 6M battery life time

Life Time
5 Days
10 Days
20 Days
40 Days
50 Days
2 Months
3 Months
5 Months
6 Months

CelloTrack XT

Life Time
10 Days
20 Days
1 Month
2 Months
3 Months
4 Months
6 Months
9 Months
13 Months

The calculations are 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 2.5 minutes total on-time on peeking
- Up to 1.5 minutes GPS on-time on peeking
- Values may vary according to operational conditions

CELLOTRACK SPECIFICATIONS

Communication

GSM/GPRS Modes	Quad band (850/900/1800/1900) GSM/GPRS Class B, Multislot 10 TCP/UDP-IP, PDU SMS
SIM	Internal, replaceable, 1.8/3V Remote PIN code management
Antenna	Internal, quad band GSM antenna

GPS

Technology	Internal module, SiRFIII GSC3F/LP single chipset
Sensitivity (tracking)	-159dBm
Acquisition (normal)	Cold < 42Sec, Warm < 35Sec, Hot < 1Sec

Inputs & Outputs

Inputs	Two internally pulled up general purpose inputs
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Interfaces

COM (RS232) Port	<ul style="list-style-type: none"> • Cellocator Serial Protocol • Debug, Configuration, FW upgrade 				
3D Accelerometer	Movement detection				
MMI	<ul style="list-style-type: none"> • 2 LED status indication • Activation / Distress button • Tamper switch 				
Connectors	<table border="0"> <tr> <td>CelloTrack</td> <td>CelloTrack Power & Lighter</td> </tr> <tr> <td>6 pin Molex, Automotive</td> <td>Pigtail</td> </tr> </table>	CelloTrack	CelloTrack Power & Lighter	6 pin Molex, Automotive	Pigtail
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Power

Input voltage	<table border="0"> <tr> <td>CelloTrack</td> <td>CelloTrack Power & Lighter</td> </tr> <tr> <td>4.2V 1A CCCV</td> <td>9-32V DC</td> </tr> </table>	CelloTrack	CelloTrack Power & Lighter	4.2V 1A CCCV	9-32V DC
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Internal Battery	<p>For CelloTrack family: Li-Ion, 3.7V, 13.6Ah, rechargeable</p> <p>For CelloTrack 6M family: Li-Ion, 3.7V, 2Ah, rechargeable</p> <p>For CelloTrack XT family: Li-Ion, 3.7V, 4.25Ah, rechargeable</p>				

Environment

Temp, operating	<p>For CelloTrack and CelloTrack 6M: Discharging: -20°C – 60°C. Charging: 0-45°C.</p> <p>For CelloTrack XT: Discharging: -30°C – 70°C. Charging: -10°C – 60°C</p>
Temp, storage	<p>For CelloTrack and CelloTrack 6M: -20°C – 35°C</p> <p>For CelloTrack XT: -20°C – 60°C</p>
Ingress Protection	<p>For CelloTrack and CelloTrack XT: IP67</p> <p>For CelloTrack 6M: IP65</p>
Vibration, Impact	ISO 16750
Mounting	Magnetic or screw mounted cradle Tampering detection

Certifications

CE	<ul style="list-style-type: none"> • CE EMC & R&TTE according to 89/336/EEC or 1999/5/EC • CE Safety EN60950-1:2001+A11:2004
FCC	Part 15 Subpart B, part 22/24 compliant
IC	<ul style="list-style-type: none"> • ICES-003, Issue4:2004 Class B • CAN/CSA- CEI/IEC CISPR 22:02
PTCRB	TRP, TIS, Spurious and harmonics emission
AT&T	Yes

Dimensions & Weight

Dimensions	~155mm x 81mm x 45mm
Weight	<p>CelloTrack ~ 490gr</p> <p>CelloTrack Power ~ 530gr</p> <p>CelloTrack 6M ~ 280gr</p> <p>CelloTrack 6M Power ~ 320gr</p> <p>CelloTrack XT ~ 330gr</p> <p>CelloTrack Power XT ~ 370gr</p>



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POINTER

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