



# KYLOS



# Merchandise Tracking



## The most sophisticated unit for tracking merchandise in real time for protection and management

Woody Allen the movie director once said: "According to modern astronomers, space is finite. This is a very comforting thought - particularly for people who can never remember where they have left things".

When it comes down to your merchandise travelling all around the world you also need to remember where you've lost it.



That's why we at M-track developed **KYLOS** the most sophisticated unit for real-time tracking of any merchandise you need to protect and manage; through the control of all possible events and situations, its automatic remote operation, system stability, and continuity.

\* **KYLOS** - In Roman mythology, the first ruler of the universe.



## By using **KYLOS** products

### 🕒 You gain flexibility and mobility

Kylos is an autonomic portable system with built-in battery without the need for external power supply.

### 🕒 You're in control

of a broad range of situations. The system contains a wide range of built-in sensors, giving you the ability to protect your merchandise.

**KYLOS** unique alerts:

- The ability to pinpoint the exact position of the merchandise at any moment.
- You can receive an alert if it enters or leaves a predefined area or if it falls, damaged, or moves in any way.
- Light sensor alerts when the warehouse is being breached even before the intruder reaches the merchandise.
- Light sensor alerts when the goods are left the container or the truck.
- Temperature sensor alerts on fire before it reaches the goods.
- A built-in accelerometer alerts when the goods were moved during unauthorized hours or damaged due to an incorrect handling.

### 🕒 You can keep track confidentially

since the unit is small and concealable. You can confidentially keep track of it while remaining unnoticed. In this way, you can follow the merchandise's path if it is stolen.

## ⦿ You enjoy the convenience of the system

due to base facilities located in over 50 countries around the world, and can operate in over 30 languages, enabling both you and your customers to pinpoint your merchandise precisely on its way to delivery.

## ⦿ You are confident

that in any unexpected situation, the system will function automatically. For example, if the merchandise case is opened in an authorized/unauthorized predefined area, you are automatically alerted on your mobile phone.

## ⦿ You receive continuous performance

with less need for maintenance, thanks to the ability to monitor the content of the container for a lengthy period without a battery recharge.

## ⦿ You enjoy the user-friendliness of the system

with only a few simple operations you can define the reports, alerts and their destinations.

## ⦿ You save time and money

because a single **KYLOS** unit can monitor a number of products simultaneously.

# General Specification

<b>Battery</b>	Type Power	Lithium-ion 3.7V 1,1800mAh
<b>Temperature</b>	Operational Storage	-20°C to 60°C -40°C to 85°C
<b>Operating Humidity</b>		50%-80%
<b>Measurement</b>		75 x 62 x 31, 75 grams
<b>Cellular Modem</b>	GSM	Quad Band (850, 900, 1800, 1900). Built in antenna
<b>Network</b>	Data	GSM, GPRS and SMS
<b>Messages</b>	SMS GPRS	Encrypted Protocol TCP/IP over PPP
<b>GPS</b>	Receiver and Antenna Protocol Positioning accuracy  Navigation Update Rate Navigation method  Time to First Fix (TTFF)	Internal, NMEA (Binary format) Position: 10m CEP(50%) Velocity: 0.2m/s (50%)  1 second (Default) All-In-View solution 2-Satellite solution, A-GPS Hot Start: 2 sec' Warm Start: 35 sec' Cold Start: 50 sec'
	Antenna	Built in
<b>CPU Capacity</b>	Static RAM Nonvolatile memory Flash Memory	128 Kb 34 Kb 2048 Kb
<b>Sensors</b> Light  Temperature Accelerometer	Sensitivity Range Accuracy Range Type	0.025 LUX 0 - 104,448 LUX (Sunlight) ±2.0°C (max) from -25°C to +85°C ±3.0°C (max) from -40°C to +125°C -40°C to +125°C. 3 Axis, 0.1g resolution identify and report events of impact
<b>Access Port</b>	Type	TTL (USB converter included)
<b>Power Consumption</b>	Sleep/Idle GPS only GPRS only GPS and GPRS	0.05mAh 105 mAh 80 mAh 165 mAh
<b>Battery Life</b>	Transmissions rate Every 10 minutes Every 6 hours Every 24 hours	Work time 2.6 Days 90 Days 300 days

Industry Approvals



**KYLOS**

**M-Track**

Vehicle total Control & Management Service Provider

## Key Features

### Management

**Programmable Events:** Events can be defined to transmit on complex events. For example, you can receive an alert if the merchandise falls, damaged, or moves in any way.

**Speed restrictions:** Programmable alerts whenever the goods go above/below a pre-defined speed, to detect over hastiness, and unauthorized stops.

**Perimeter based alerts:** Geo-fencing alerts when the goods are entering/leaving/not entering/not leaving a specified a designated area at a specified time.

**Values Monitoring:** Monitoring of temperature and light conditions.

**Automated Tracking:** Automatic support for goods tracking at specified interval, without sending additional commands to the device.

### Goods Protection

**Accident and falling:** Built-in accelerometer serves as both accident and falling detector.

**Moving Detection:** Accelerometer-based detection of movement while the systems is armed produces a movement alert to the center.

### Communication

**GSM Quarter Band:** Support for GSM networks, while using both the SMS channel and the GPRS channels. Supported bands are 850/900/1800/1900.

**TCP Connectivity:** Support for the GPRS/1x TCP/IP networks by either staying online at all times, or coming online when a transmission is initiated.

**DNS Support:** Connection to a server by its host name.

**Backup Server:** Backup host name support in case of main server has gone offline.

**Encryption:** Protocol encryption to provide maximum security between the vehicle and the center.

**External Protocol Support:** Support for external devices for 3rd party protocols, such as text terminal or RFID readers

**Compact Protocol:** Less than 70 bytes per message enabled very small bandwidth usage and saved communication costs.

### Over-The-Air commands

**Firmware Upgrade:** Over the air firmware upgrade to apply new features to already-installed units.

**Tracking:** Option to remotely engage periodic transmissions from the unit in the intervals of 10 seconds up to 5 days.

### Miscellaneous

**Internal Logging:** Whenever a transmission was failed to be sent, the entire message is saved to the memory for later transmission. 25 thousands complete messages including statuses can be recorded this way.

### Location

**GPS Receiver:** Built-in GPS receiver connected to the unit, allowing real-time tracking and on-board location-based analysis.

**Last Location Saving:** Saving of the vehicle's last position, in case of going out of GPS coverage.