

# KYLOS Family

> Portable Tracking Solution  
for Locating Merchandise,  
Assets, People and Pets



## Kylos

In Greek mythology, the first ruler of the universe.



## The tracking device is available in four different models to perfectly meet different usage requirements:

### 1. Kylos

With a longer battery life, this device is suitable for longer periods of time, making it ideal for monitoring your commercial goods traveling long routes. an ideal solution for tracking and monitoring your commercial goods whether they are being stored in a warehouse or traveling long routes.

#### Application examples:

**Merchandise:** Built-in light sensor will raise an alert if your carton carrying high-end merchandise is being broken into, reducing the risk of your business falling victim to a security breach. Built-in temperature sensor will proactively identify and react to a deviation from a preset temperature range, lessening the risk of delivering spoiled goods or medical supplies.

**Assets:** Built-in accelerometer will raise an alert if your parked bicycle is being moved, thus enabling you to always know if and when your personal valuables are being tampered with.

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### 2. Kylos Compact

An ideal solution for tracking and tracing your priceless assets and for keeping you informed about the whereabouts of your family members and pets. With an integration of cellular communication abilities, GPS technology and innovative built-in sensors, Kylos Compact will display real time location and status information, delivering the utmost reliable and accurate data for your business and personal tracking needs.

The device itself, which can fit in the palm of your hand, can be attached to assets and worn by people or pets. It can be hidden in almost any item you have chosen to protect, making it totally adaptable to an extensive range of applications and applied to a diverse range of situations.





### Application examples:

**Merchandise:** Built-in light sensor will raise an alert if your carton carrying high-end merchandise is being broken into, reducing the risk of your business falling victim to a security breach. Built-in temperature sensor will proactively identify and react to a deviation from a preset temperature range, lessening the risk of delivering spoiled goods or medical supplies.

**Assets:** Built-in accelerometer will raise an alert if your parked bicycle is being moved, thus enabling you to always know if and when your personal valuables are being tampered with.

**People:** Built-in accelerometer will raise an alert if your elderly parent falls and injures themselves, making it possible and convenient for you to take care of your aging relative from a distance. Built-in Panic Button will raise an alert to a pre-set number. For instance in a situation where a child is in distress, pressing the panic button would summon an emergency response from a parent and display location.

**Pets:** Geo-fencing capability will raise an alert if your pet wanders into or leaves a specific zone area that has been pre-set as safe or unsafe.

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## 3. Kylos Forever

If you need a long lasting device to watch over your assets or equipment placed in remote areas for months at a time, if you need a "once-a-day" notification to ensure that your equipment is operating securely, we have the right asset tracking device for you. Kylos Forever will watch over your assets or equipment placed in remote areas for months at a time, with its battery that lasts up to 3 years. This way, you can keep up with what's going in your most isolated sites, and reduce the risk of having your equipment stolen, lost or possibly forgotten. Sure enough, while the device is in sleep mode, it will "wake up" and report in real time any situation which appears to be out of the ordinary or unexpected. Kylos Forever is a standalone unit, capable of operating without the need for any connection or external wiring- this makes it easily hidden if required, for example in a motorcycle.

### Application examples:

**Merchandise:** With "once-a-day" notification you ensure that your equipment is operating securely- Monitor larger items such as dumpsters; Remotely monitor your beehive's condition. Protect your mobile generators and construction equipment left on site. Monitor your vehicle without the need for installation (an alternative to regular AVL systems).

**Assets:** Built-in accelerometer will raise an alert if your parked bicycle is being moved, thus enabling you to always know if and when your personal valuables are being tampered with.

\*Available on units with rechargeable battery only.



## 4. Kylos Air

The Monitoring Solution for ensuring Safe Delivery of cargo from Origin to Destination

The Kylos Air provides overall solution for ULD Palettes (standard aerial Unit Load Device) and ULD Containers. The solution offers easy installation and removal, high accuracy sensors and reliable performance. The product is based on Starcom System's Kylos Forever - a trusted and tested system which provides real time alerts and tracking through Starcom system's mobile & web applications.

In a world of international commerce and growing volumes of valuable Cargo being shipped by air daily, knowing your cargo's exact location is a major advantage. Kylos Air is a sophisticated tracking system, designed for the purpose of monitoring and tracking air cargo.

The system triggers an alert with any irregular event. This includes any change of location, temperature, impacts, or light exposure. You'll receive a real time alert at each point in the shipping process, and know whether the product has left your facility, arrived at the airport or already delivered at its final destination.

The alerts allow you to solve problems in real time and address any issues that could affect the supply chain process. Records of historical sensor conditions and alerts can help investigate any incidents experienced during the cargo's shipping process.

The solution complies with the FAA Regulations: cellular modem is deactivated during take-off, and reactivated automatically upon landing using its internal Barometer and Accelerometer sensors.





## Application examples:

### Merchandise

- Built-in light sensor will raise an alert if your carton carrying high-end merchandise is being broken into, reducing the risk of your business falling victim to a security breach.
- Built-in temperature sensor will proactively identify and react to a deviation from a preset temperature range, lessening the risk of delivering spoiled goods or medical supplies.

### Assets

- Built-in accelerometer will raise an alert if your parked bicycle is being moved, thus enabling you to always know if and when your personal valuables are being tampered with.

## By using Kylos Products

### You are in control

of almost all possible events and situations with its built-in sensors, automatic, remote operation, system stability and continuity.

### You can save

by quickly locating and recovering your lost or stolen item. Since the unit is small and easily concealed from view, you can keep track confidentially while it remains unnoticed. With its embedded GPS system, you can follow the path of your stolen bicycle or merchandise and easily recover your items.

### You can rely

on the system to provide essential information in real time so that you can make and execute effective decisions about your business and personal matters instantaneously. You can also be sure that you will be alerted to any irregularities

### People

- Built-in accelerometer will raise an alert if your elderly parent falls and injures themselves, making it possible and convenient for you to take care of your aging relative from a distance.
- Built-in Panic Button will raise an alert to a preset number. For instance in a situation where a child is in distress, pressing the panic button would summon an emergency response from a parent and display location.

### Pets

- Geo-fencing capability will raise an alert if your pet wanders into or leaves a specific zone area that has been pre-set as safe or unsafe.

or breaches, so that you can decide when your immediate attention is necessary.

### You enjoy the convenience

of a mobile and web based application that operates in 32 languages and includes detailed maps. As the application is mobile and web based, it can easily be accessed from anywhere, and at any time.

### You gain flexibility and mobility

due to its autonomic portable system and built-in battery that does not require an external power supply.

### You enjoy a user friendly

application that enables defining customized alerts and reports, their destinations and frequencies, in only a few simple steps.



## General Specification

		Kylos	Kylos Compact	Kylos Forever/Air
Temperature	Operational Storage		-20°C to +60°C -40°C to +85°C	
Operating Humidity		Up to 90%	Up to 100%	
Measurement		75 x 62 x 31 mm, 75 grams	45 x 33 x 17 mm, 60 grams	165 x 35 x 40 mm, 200 grams
Cellular Communication	GSM/GPRS-default Optional Modems Antenna type Data channels Protocol		Quad Band (850, 900, 1800, 1900) UMTS/HSPA+, CDMA/1xRTT/EV-DO Built-in (concealed) SMS & TCP/IP Propriety – encrypted	
Network	Data		GSM, GPRS and SMS	
Messages	SMS GPRS		Encrypted Protocol TCP/IP over PPP	
GPS	Systems Receiver and Antenna Protocol Positioning accuracy  Navigation Update Rate  Navigation method  Time to First Fix (TTFF)		GPS, GLONASS Internal NMEA (Binary format): 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: 10 sec Cold Start: 50 sec	
CPU Capacity	Antenna Static RAM Nonvolatile Memory Flash Memory		Built in 128 Kb 34 Kb 2048 Kb	
Sensors				
Light	Accuracy / Sensitivity		0.025 LUX / 0 - 104,448 LUX (Sunlight)	
Temperature	Accuracy / Range		±1.0°C / -20°C to +60°C	
Accelerometer	Type / Accuracy		3 Axis, 0.1g resolution	
Barometer	Resolution / Range		±1 hPa / 300 – 1100 hPa	
Access Port	Type		TTL (USB cable is available)	







## Power Specification

		Kylos	Kylos Compact	Kylos Forever/Air Rechargeable	Kylos Forever Non Rechargeable
<b>Battery</b>	Type Power	Lithium-ion 3.7V, 1800 mAh	Lithium-ion 3.7V, 400 mAh	Lithium-ion 3.7V, 4500 mAh	Lithium Chloride 7.2V, 5000 mAh
<b>Access Port</b>	Type	TTL (USB cable is available)			
<b>Power Consumption</b>	Sleep/Idle GPS only GPRS only GPS and GPRS			0.05 mAh 75 mAh 100 mAh 165 mAh	
<b>Battery Life</b>	Transmissions	Every 10 minutes Every 6 hours Every 24 hours	Every 10 minutes Every 6 hours Every 24 hours	Every 10 minutes Every 6 hours Every 24 hours	Every 24 hours
	Work time	30 hours 45 days 150 days	10 hours 13 days 45 days	60 hours 90 days 300 days	3 years





## Key Features

### Management

- **Programmable Events:** According to the user's needs and preferences. Fully customizable, the system can trigger email or text message alerts either by a single event (for example: if the merchandise falls, is damaged, or moves in any way), or a combination of events (such as a combination of light and area alert. For example: if the money bags were opened outside the bank's perimeter), without the limitation of choosing from a pre-set list of events.
- **Perimeter based alerts:** Geo-fencing alerts, in case the goods are entering/leaving a specified area at a specified time.
- **Automated Tracking:** Based on predefined and configurable intervals or parameters, without the need for the user to actively send an additional command.

### Goods Protection

- **Accident and Movement:** Built-in accelerometer triggers a wide range of automated notifications for when the goods are moved or damaged in any way.

### Communication

- **Cellular Connectivity:** Support for GSM networks (GPRS or optional 3G), while using both the SMS channel and the data channel. Supported bands are 850/900/1800/1900 MHz. Optional support for CDMA and HSDPA networks.
- **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 unit and the center.
- **Compact Protocol:** Less than 70 bytes per message enables very small bandwidth usage and saves communication costs.

### Over-The-Air commands

- **Firmware Upgrade:** Over the air firmware upgrade to apply new features to units already in the field.
- **Tracking:** Option to remotely set periodic transmissions from the unit in intervals between 10 seconds to 5 days.





### Miscellaneous

- ◊ **Internal Logging:** Whenever a transmission has failed to be sent, the entire message is saved to the memory for later transmission. Up to 15 thousands complete messages, including statuses, can be recorded this way.

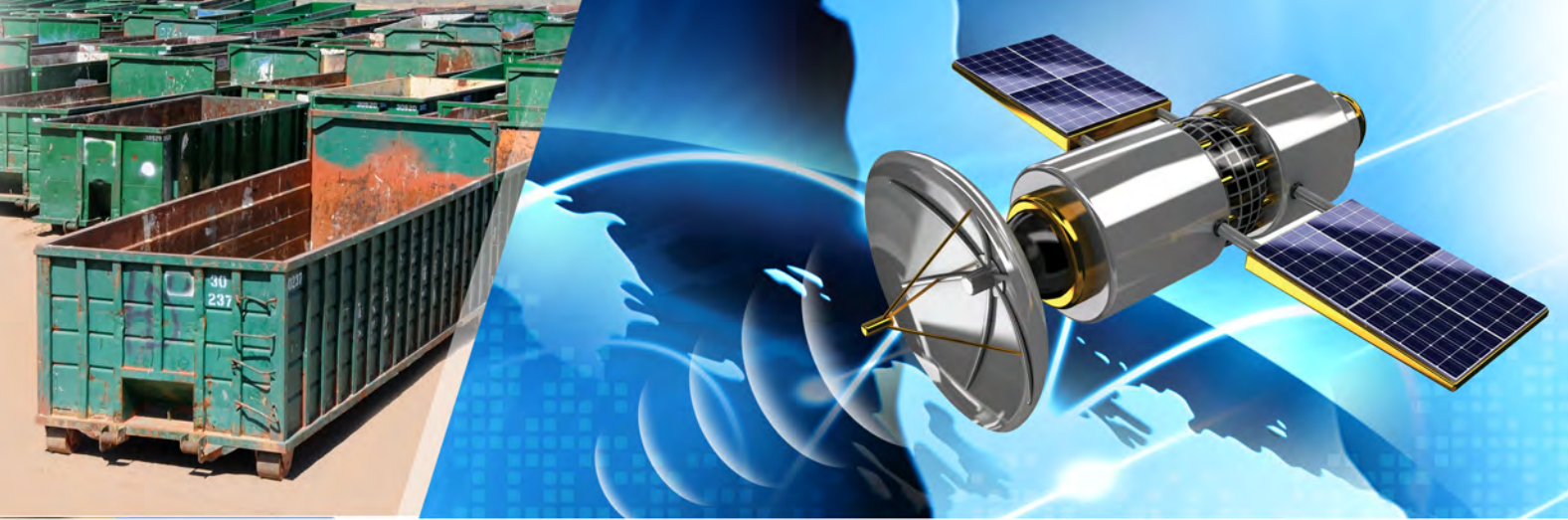
### Location

- ◊ **GPS Receiver:** Built-in GPS receiver, allows real-time tracking and on-board location-based analysis.
- ◊ **Last Location Saving:** Saving of the unit's last position, in case of lack of GPS coverage.

## Kylos Compact also comes with:

- ◊ **Values Monitoring:** Monitoring of temperature and light conditions.
- ◊ **Panic Button:** Can be activated by the wearer in any emergency situation and will send an alert by SMS/email to a list of pre-set emergency contacts, indicating that immediate attention is needed (Kylos Compact only).
- ◊ **Waterproof (IP65):** A silicon case that gives protection from water and dust contamination is available (Kylos Compact only).





## Starcom Systems

Starcom Systems is a leading global company, specializing in advanced automated real-time systems for remote tracking and management of vehicles, containers, assets and people. All systems are characterized in strength, stability and continuous performance.

Starcom Systems is publically traded on the AIM Market of the London Stock Exchange, conforming to the highest and most strict regulations in the market, proving its stability and reliability.

Starcom's systems provide a complete solution, consisting of innovative equipment and unique software. Thanks to the user-friendliness of the system, it provides useful and effective solutions, based on each user's settings and requirements.

With more than 15 years of experience and expertise, Starcom Systems distributes and sells its products through 110 technology partners and independent operators in more than 53 countries, and its application is localized for 32 languages.

As a global company, Starcom Systems' products include certifications from all the leading standards in the world, including E 24 certification, Safety certification, EMC test certification, Tuv-Rheinland certification and more.

