

## General

- Wireless transmission over Sigfox and LoRaWAN networks.
- Rechargeable Li-Ion 1500 mAh battery.
- Built-in high efficiency solar panel with an energy harvesting system.
- Accelerometer to detect activity, device removal and movement statistics.
- Satellite location (Gps/Galileo/Glonass).
- Intelligent grip pattern for better adherence to the fur.
- A counterweight is incorporated for proper positioning.

## Visualization

Web application interface for the visualization of:

- Current measurements.
- Remote configuration of parameters.
- Graphical record of variables for up to 2 years.

## Alarms

- Geofencing and alerts for device inactivity or removal.
- Remote visualization of alarms in WEB or mobile applications.
- External alarms sent by SMS, email, voicemail, Telegram messaging service or via webhooks.



## AnimalTrack

### IOT DEVICE FOR ANIMALS TRACKING

### For LoRaWAN™ and Sigfox networks

#### Description

Device for real-time tracking of animals; it allows prolonged use thanks to its built-in solar panel. Includes accelerometer for device removal detection and steps counting.

## ORDERING INFORMATION

<b>P/N: GPST1 USA Sigfox/ LoRaWAN</b>	Device with GPS module and accelerometer. Dual Sigfox/LoRaWAN module for USA / LATAM / AU
<b>P/N: GPST1 EU Sigfox/ LoRaWAN</b>	Device with GPS module and accelerometer. Dual Sigfox/LoRaWAN module for EU

## POWER REQUIREMENTS

Parameter	Standard	Value	Unit
Maximum electric current	--	0.2	A
<b>Battery specifications</b>			
Type	Li-Ion		
Electric current	--	1500	mAh
Nominal voltage	--	3.7	VDC
<b>Built-in solar panel for battery recharging</b>			

## RECOMMENDED OPERATING CONDITIONS

Operating Conditions	Value	Unit
Storage temperature	10 (50) – 50 (122)	°C (°F)
Storage humidity	60±25	% R.H.
Ambient operating temperature	0 (32) – 45 (113)	°C (°F)
Ambient operating humidity	0 – 100	% R.H.
<b>Casing standard</b>		<b>Protection Type</b>
<b>IEC standard 60529/ EN 60529</b>	<p><b>IP67.</b></p> <p>No ingress of dust; complete protection against contact (dust tight). No water ingress when submerged up to a depth of 1 meter for 30 minutes.</p> <p><b>Suitable for indoor/outdoor use.</b></p>	

## TECHNICAL SPECIFICATIONS OF THE SENSORS

### GPS Tracker (Internal)

Parameter	Value / Type
<b>Bands</b>	GPS/Galileo L1 C/A: 1575.42MHz GLONASS L1 C/A: 1602.5625MHz BD2 B1 C/A: 1561.098MHz
<b>Horizontal position accuracy</b>	Autonomous: <2.5 m CEP
<b>Localization time</b>	≤ 10 ns
<b>Maximum altitude</b>	18000 m
<b>Maximum velocity</b>	515 m/s
<b>Maximum acceleration</b>	4G

### Accelerometer (Internal)

Parameter	Value / Type
<b>Axes</b>	3
<b>G Range</b>	2G, 4G, 8G
<b>Integrated pedometer (step counter)</b>	

## WIRELESS SPECIFICATIONS

Device type	Standard	Note
<b>GPST1 USA Sigfox/ LoRaWAN</b>	Sigfox, RC2 902 - 905Mhz / RC4 920 - 923Mhz, 22dBm ERP LoRaWAN, USA902-928, AU915-928	Zone 2 (USA, Mexico, Brazil) Zone 4 (Latin America and Australia).
<b>GPST1 EU Sigfox/ LoRaWAN</b>	Sigfox, RC1 868MHz LoRaWAN, EU863-870	Zone 1 (Europe).
<b>GPS</b>	GPS/Galileo L1 C/A: 1575.42 MHz, GLONASS L1 C/A: 1602.5625 MHz, BD2 B1 C/A: 1561.098 MHz. Autonomous precision: <2.5m CEP	

## DIMENSIONS AND WEIGHT

**Device**  
**AnimalTrack**



134 g

**Belt, Buckles and Loops**



110 g  
1 m length

**Counterweight**

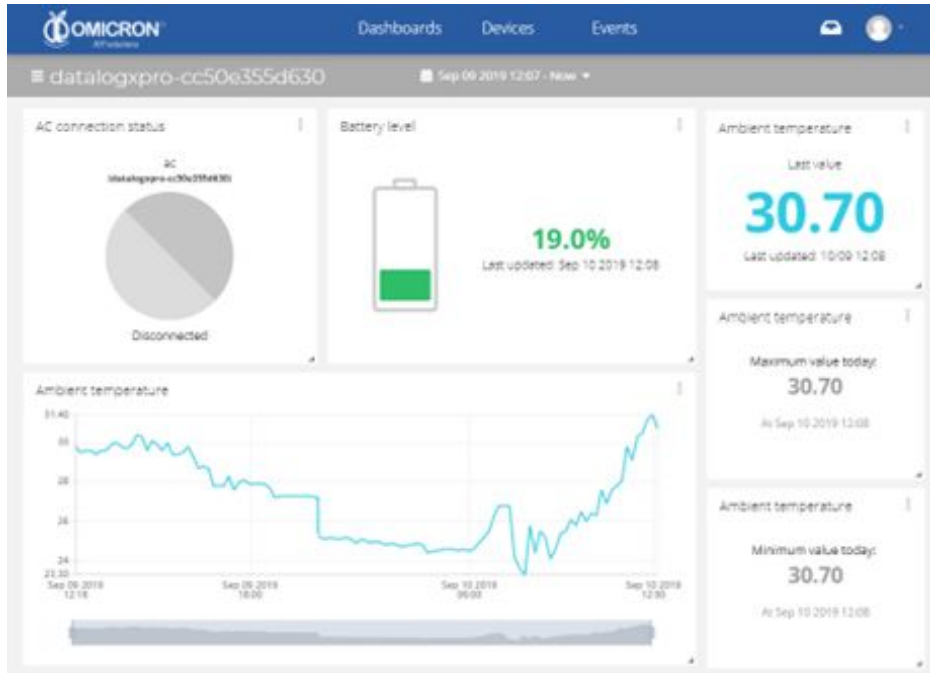


265 g  
60 x 58 x 12 mm

## POTENTIAL APPLICATIONS

Purpose	Common application fields
<p><b>Tracking of livestock or protection of high-value animals</b></p>	<ul style="list-style-type: none"> <li>✓ Cattle farms.</li> <li>✓ Horse tracking.</li> <li>✓ Tracking of goats and sheep.</li> <li>✓ Research and wildlife.</li> <li>✓ Animal activity monitoring.</li> </ul>

## WEB PLATFORM AND SERVICES



**AnimalTrack devices are offered with the IoT Centriomega® WEB monitoring platform.**

Users can access the Omicron platform via PC, Smartphone, or Tablet, to perform:

- ✓ Remote monitoring and visualization of sensor variables records, in graphs and data tables, for up to 2 years.
- ✓ Remote configuration of device parameters.
- ✓ Alarm management for out-of-range variables, battery levels or inactivity.
- ✓ Add comments to records.
- ✓ Set alarm limits, alarm events, and notifications via email, SMS, voicemail, Telegram messaging service, or webhooks.