

# IOTRACKER 3

A multi-sensor tracker with an exceptional battery performance

## Key features

- › National and international connectivity coverage through LoRaWAN
- › Indoor and outdoor location tracking via GPS, Wi-Fi, Bluetooth LE and LoRaWAN
- › Safety alerting via button and sensors
- › Highly configurable over-the-air (LoRaWAN and Bluetooth 5.1<sup>4</sup>)
- › Exceptional battery life and sub-zero temperature performance
- › Firmware updates over-the-air (FOTA)<sup>1</sup>
- › Log synchronization over-the-air (LSOTA)<sup>1</sup>
- › Industrial, waterproof enclosure (IP68)
- › Easily mountable via included mount

## ioTracker 3

Looking for a multi-sensor IoT device which has already proven itself in the field? Great!

The ioTracker contains multiple pre-set configurations, which can cover many use cases. If needed, the individual parameters can be tuned to match your business needs. Almost every setting of the ioTracker can be changed – over-the-air (OTAA) – allowing you to reconfigure / repurpose your ioTrackers wherever they are.

The ioTracker features multiple localisation features: GPS, Wi-Fi, Bluetooth LE and LoRaWAN. This provides the best balance between high-accurate positioning and power efficiency in almost every in- and outdoor situation.

<sup>1</sup> Coming this year



The ioTracker can be delivered as a turn-key solution with our applications (dashboard, apps and API), as well as hardware-only where you make your own implementation via our sophisticated protocol specification.

## Integrations

- › Use the ioTracker applications and easily integrate your own software with our API.
- › Integrate the ioTracker directly in your own software (hardware-only).
- › Use the services of one of our trusted integrators.

## More information

Visit our website <https://iotracker.nl> for more details on how ioTracker can help you.



## Technical details

<b>Internal log storage</b>	2 MB	Approx. 65000 log entries on average <sup>1 above</sup>
<b>Sensors</b>	Push button	With tactile feedback
	3D accelerometer	Measurement range : $\pm 2 / 4 / 8 / 16$ g Sensitivity : 15.6 / 31.2 / 62.5 / 187.5 mg/digit
	Temperature sensor	Resolution : 0.01 °Celsius Accuracy : 0.2 °Celsius
	Light sensor	0.01 lux – 83000 lux
	Humidity (optional)	Accuracy tolerance : $\pm 3$ % relative humidity Hysteresis : $\leq 2$ % relative humidity
	Air pressure (optional)	RMS Noise : 0.2 Pa (equiv. to 1.7 cm) Sensitivity Error : $\pm 0.25$ % (equiv. to 1 m at 400 m height change)
	High g-shock (optional)	Measurement range : $\pm 100 / \pm 200$ g Sensitivity : 780 / 1560 mg/digit
	<b>Audio-visual</b>	LED
	Buzzer	Piezo
<b>Connectivity</b>	LoRaWAN	Version 1.0.3
	Bluetooth	Bluetooth 5.1
	Wi-Fi	802.11 B/G/N, 2.4 Ghz
<b>Antenna</b>	All integrated antenna design	-5.5 dB in all directions (verified in a certified test lab)
<b>Localisation</b>	Satellite	> GPS, Galileo and BeiDou > uBlox EVA-M8M GPS chip
	Wi-Fi	802.11 B/G/N, 2.4 Ghz
	Bluetooth LE <sup>1 above</sup>	> Scanning for beacons > Being a beacon
<b>Temperature range</b>	Operating temperature range	-20 °Celsius – +65 °Celsius
<b>Power</b>	Battery	> ER14250 (½ AA), 1200 mAh > user-replaceable (e.g., Saft LS14250)
	<b>Enclosure</b>	Dimensions
	Weight	39 g (including battery)
	Ingress protection	IP68 (waterproof: 1.2 m underwater surface for at least 2 hours)
	Wall mount	Detachable
<b>Certifications</b>	LoRaWAN	ioTracker embedded software is built on the Stackforce/STM certified reference stack, version 4.4.2

Specifications subject to change

# IOTRACKER 3 PRO

A multi-sensor tracker with an exceptional battery performance

## Key features

- › National and international connectivity coverage through NB-IoT<sup>2</sup>/LTE-M<sup>3</sup>/EGPRS
- › Indoor and outdoor location tracking via GPS, Wi-Fi and Bluetooth 5.1<sup>4</sup>
- › Safety alerting via button and sensors
- › Highly configurable over-the-air (NB-IoT/LTE-M/EGPRS and Bluetooth 5.1)
- › Exceptional battery life and sub-zero temperature performance
- › Firmware updates over-the-air (FOTA)<sup>4</sup>
- › Log synchronization over-the-air (LSOTA)<sup>4</sup>
- › Bulk device management<sup>4</sup>
- › Easily mountable via integrated mount

## ioTracker 3 Pro

Looking for a multi-sensor IoT device which has already proven itself in the field? Great!

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power efficiency in almost every in- and outdoor situation.

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## Integrations

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- › Integrate the ioTracker directly in your own software (hardware-only).
- › Use the services of one of our trusted integrators (see our website for details).

## More information

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<sup>2</sup> Also referred to as LTE Cat NB1

<sup>3</sup> Also referred to as LTE Cat M1

**NB-IoT<sup>2</sup>**

<sup>4</sup> Coming this year



**LTE-M<sup>3</sup>  
EGPRS**



<https://iotracker.nl>

## Technical details

<b>Internal log storage</b>	2 MB	Approx. 65000 log entries on average <sup>4 above</sup>
<b>Inputs &amp; outputs</b>	4 input/output (I/O) pins	<ul style="list-style-type: none"> <li>&gt; Serial (UART)</li> <li>&gt; I<sup>2</sup>C</li> <li>&gt; GPIO</li> <li>&gt; Analog input</li> </ul>
<b>Sensors</b>	Push button	With tactile feedback
	3D accelerometer	Measurement range : ±2 / 4 / 8 / 16 g Sensitivity : 15.6 / 31.2 / 62.5 / 187.5 mg/digit
	Temperature sensor	Resolution : 0.01 °Celsius Accuracy : 0.2 °Celsius
	Light sensor	0,01 lux – 83000 lux
	Humidity (optional)	Accuracy tolerance : ± 3 % relative humidity Hysteresis : ≤ 2 % relative humidity
	Air pressure (optional)	RMS Noise : 0.2 Pa (equiv. to 1.7 cm) Sensitivity Error : ± 0.25 % (equiv. to 1 m at 400 m height change)
	High g-shock (optional)	Measurement range : ± 100 g / ± 200 g Sensitivity : 780 mg/digit / 1560 mg/digit
<b>Audio-visual</b>	LED	Red, Green, Blue
	Buzzer	Piezo
<b>Connectivity</b>	Cellular	<ul style="list-style-type: none"> <li>&gt; LTE CAT NB1 (also referred to as “NB-IOT”)</li> <li>&gt; LTE Cat M1 (also referred to as “LTE-M”)</li> <li>&gt; GPRS (also referred to “2G”, data-only)</li> </ul>
	Bluetooth	Bluetooth LE
	Wi-Fi	802.11 B/G/N, 2.4 Ghz
<b>Cabled connectivity</b>	Cable gland (optional)	Through the waterproof cable gland, external power and the four I/O pins can be connected.
<b>Antenna</b>	Ceramic	698MHz-2.7GHz cellular ceramic quad-band antenna
<b>Localisation</b>	Satellite	<ul style="list-style-type: none"> <li>&gt; GPS, Galileo and BeiDou</li> <li>&gt; uBlox EVA-M8M GPS chip</li> </ul>
	Wi-Fi	802.11 B/G/N, 2.4 Ghz
	Bluetooth LE <sup>4 above</sup>	<ul style="list-style-type: none"> <li>&gt; Scanning for beacons</li> <li>&gt; Being a beacon</li> </ul>
<b>Temperature range</b>	Operating temperature range	-20 °Celsius – +65 °Celsius
<b>Power</b>	Battery	<ul style="list-style-type: none"> <li>&gt; 2x rechargeable 18650, 3600 mAh</li> <li>&gt; user-replaceable, rechargeable</li> </ul>
	USB micro	<ul style="list-style-type: none"> <li>&gt; any USB compliant charger (charger spec BC 1.2)</li> <li>&gt; supports fast charging (automatic charger detection)</li> </ul>
	External	6 V – 28 V (connection via cable gland)
<b>Enclosure</b>	Dimensions	116 x 52 x 30 mm
	Weight	198 g (including 2 batteries)
	Ingress protection	IP54
	Wall mount	Integrated

Specifications subject to change