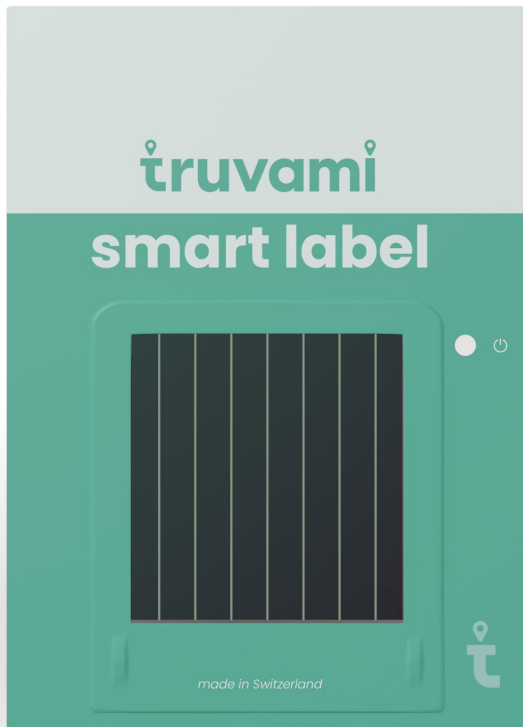


# truvami



**truvami® smart label** is a powerful, seamless indoor/outdoor tracker offering precise localization with minimal energy consumption. It integrates a multi-standard GNSS receiver, passive Wi-Fi MAC address scanner, and sensors such as an accelerometer, temperature/humidity, and pressure sensor, all within an ultra-slim, flexible form factor. Fully autonomous, the device is completely battery free, powered entirely by ambient light through OPV technology, and can even last for weeks without light.



# smart label



## multi-protocol approach

seamless indoor and outdoor positioning through WiFi, LoRaWAN and GNSS technology



## powered by ambient light harvesting

battery-free using environmental friendly LiC capacitor, powered by ambient light through OPV technology



## built-in accelerometer

features an integrated accelerometer to trigger motion-induced location fixes,



## flexible and slim form factor

designed for the slimmest requirements and curved assets, with reusable seal and shelf mode for highest longevity



## environmental sensors

offers additional sensing capabilities such as temperature, relative humidity and pressure sensors



## easy commissioning

quickly associate the tracker with any asset by simply scanning the QR code

## mechanics & power

### mechanical specifications

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weight	20g
dimensions	135 x 100 x 2 mm
enclosure	sticker cover and 3M Dual Lock Thin SJ-4570

### operating conditions

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temperature	0 - 60 °C
humidity	0 - 95 % RH, non-condensing

### power management

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storage type	LiC capacitor
power	3.8V, 50F
charging	OPV through ambient light

### estimated battery life without light source

\*Capacitor self-charging is disregarded, battery lifetime calculated for SF10, 50% indoor, 50% outdoor distribution, 1 transmission per position, no sensor data

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1 position / day	59 days
4 position / day	30 days
1 position / hour	7 days

## communication

### LoRaWAN frequencies

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EU868 MHz

US915 MHz – on request

AU915 MHz – on request

### LoRaWAN details

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LoRaWAN® device type	class A
LoRaWAN® version	LoRaWAN® 1.0.3
supported LoRaWAN® features	OTAA, ADR, adaptive channel setup
LoRaWAN® receiver sensitivity	-127 dBm (SF7, 125 kHz) to -141 dBm (SF12, 125 kHz)
LoRaWAN® transmission power	14 dBm / 22 dBm (depending on region)

## location

### GNSS

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receiver	LR11xx GNSS scanner
GNSS	GPS, BeiDou, geostationary
GNSS bands	L1
accuracy (assuming -130 dBm)	10 meters

### WiFi

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receiver	2.4 GHz passive MAC scanning 802.11 b/g/n
frequency band	2412 – 2484 MHz
sniffer sensitivity (best-case)	-75 dBm
accuracy	10 – 20 meters

## sensors and peripherals

### LED/Button

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status LED	red/green/blue
button: power on	0.2 s in shelf mode to power on
button: power off	10 s in active mode to power off

### accelerometer (3-axis)

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range	±2, ±4, ±8, ±16
resolution	16 bit
accuracy (typ.)	±20 mg

### temperature/relative humidity

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range	-40 to +125°C / 0 - 100 %RH
resolution	0.01 °C / 0.01 %RH
accuracy (typ.)	±0.2 °C / ±2 %RH

### pressure

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range	30 – 120 kPa
resolution	1/64 Pa
accuracy (typ.)	±75 Pa, full range

## integration and security

### truvami application

The truvami's application offers a range of powerful features, including receiving, decoding, storage, and efficient accessibility of the data for further processing. With the option of on-premise or cloud service installation, the application provides flexible deployment options to suit your needs. The application is built on a scalable and highly available architecture, allowing for independent scaling of microservices. When deployed on-premises, it can be horizontally and vertically scaled to meet the demands of your IoT solution.

### third party integration

**SSO:** Bring your own identity provider to truvami. We support OpenID Connect and SAML 2.0.

**API:** Integrate truvami with your existing systems. We provide a RESTful API for easy integration.

### data security

**LoRaWAN:** Securely connect your LoRaWAN devices to truvami. LoRaWAN® networks use AES-128 Encryption.

**TLS:** Securely connect your devices to truvami.

### device management

Configure device parameters such as position update rate, movement and accelerometer settings, and more to fit any tracking application. The firmware can be upgraded with Bluetooth, while the settings can be configured via LoRaWAN downlink.

### operating modes

efficiency mode	settings optimized for battery saving
dynamic mode	regular interval for real-time tracking
custom	configure the parameters yourself to fit your needs

### customization

branding	Customize the look and feel of truvami to match your corporate identity.
custom views	Create custom views to display the data in a way that suits your needs.
bring your own map	Use your own map provider in truvami

## disclaimer

We reserve the right to make technical changes, which serve to improve the product, without prior notification.

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truvami® is an IoT startup specialized in flexible end-to-end tracking solutions, based in Zurich, Switzerland. Our mission is to support enterprises in safeguarding their workforce and valuable assets through cutting-edge tracking technologies at smallest size. truvami offers a portfolio of different trackers that are designed to serve different use-cases in vertical markets like transport, logistics, industrial, construction, fleet- and animal tracking. The innovative multi-protocol approach combined with a dedicated geolocation engine allows seamless in- and outdoor tracking. Together with truvami's cloud software platform, customers can easily integrate the solution into their existing IT landscape.

## Get in touch today!

[truvami.com](https://truvami.com)

