



# Square Tracker Xtreme for LoRaWAN

Meet the compact indoor/outdoor LoRaWAN asset tracking sensor with extended battery life

- 10+ years battery life
- Long-range (2 km)
- Motion controlled
- Location-aware
- Simple installation & mounting
- Built-in data memory
- WakeOnImpact
- Indoor & Outdoor

This compact sensor for LoRaWAN provides indoor and outdoor locations, using **GPS/Beidou and WiFi**. Like all Sensative products, it is designed with **precision and longevity** in mind. For instance, positioning can be **motion-triggered**, and the position calculation is performed in an external cloud service (rather than on-device) to save significant amounts of power.

The custom battery provides **many years of problem-free operations**. In contrast, most battery-powered asset-tracking devices last around a year before they need to be recharged or changed. Replacing batteries in hundreds or thousands of devices can be expensive, work-intensive, and lead to downtime, increasing overall operation and device ownership costs.

The Square Tracker comes in three different versions. The ultra-compact slim version is merely **7 mm thick** but yet provides **up to ten years of battery life** depending on application and transmission intervals. The medium and large versions are 15 mm thick and carry even larger batteries.

Our tracking sensors are designed to be user-friendly, easy to include in most LoRaWAN platforms, and **configurable over the air or NFC**. They also provide extra value by **monitoring the temperature** of the asset and its surroundings, highly interesting data in many applications.





## DESCRIPTION

### Square Tracker Xtreme LoRaWAN

Square Tracker Xtreme is a ruggedized, low-power device designed for reliable indoor positioning and asset tracking using Wi-Fi-based geolocation. By scanning nearby Wi-Fi MAC addresses, it enables accurate positioning in indoor and GPS-denied environments with significantly lower power consumption than traditional GPS trackers.

Built for industrial applications, it features a sealed enclosure, conformal-coated electronics, and a robust mechanical design, making it suitable for demanding indoor and outdoor use.

With a high-capacity battery and intelligent power management, Square Tracker Xtreme delivers 10+ years of operation, enabling long-term, maintenance-free deployments.

## TYPICAL USE CASES

- Indoor and site-wide asset tracking
- Logistics and equipment monitoring
- Construction and industrial asset tracking
- Healthcare equipment tracking
- Monitoring of containers and high-value assets

## KEY ADVANTAGES

- Wi-Fi-based positioning optimized for indoor and low-power tracking
- Ultra-low power consumption enabling long device lifetime
- 10+ years battery life for maintenance-free operation
- Ruggedized design with IP68 and IK06 ratings
- Motion and tilt detection using a built-in 3D accelerometer
- Flexible installation using adhesive, cable ties, or screws with mounting frame
- Reliable performance in demanding environments

## POSITIONING TECHNOLOGY

Square Tracker Xtreme primarily uses Wi-Fi-based positioning by scanning nearby Wi-Fi MAC addresses, with location calculated via a cloud-based location service.

This enables efficient positioning in indoor and GPS-denied environments with very low power consumption.

For outdoor use, the device also supports GNSS (GPS & BeiDou), providing additional positioning capability.

- Wi-Fi geolocation for indoor and low-power positioning
- GNSS (GPS & BeiDou) for outdoor positioning

This functionality requires a compatible cloud service such as Sensative Yggio.

# **SMART OPERATION & POWER EFFICIENCY**

The built-in 3D accelerometer enables intelligent operation by detecting motion and tilt. This can be used for movement alarms or to control device activity, such as entering sleep mode during inactivity to conserve energy.

## **BATTERY & PERFORMANCE**

Square Tracker Xtreme includes a 4 Ah battery supporting over 10 years of battery life under standard configuration.

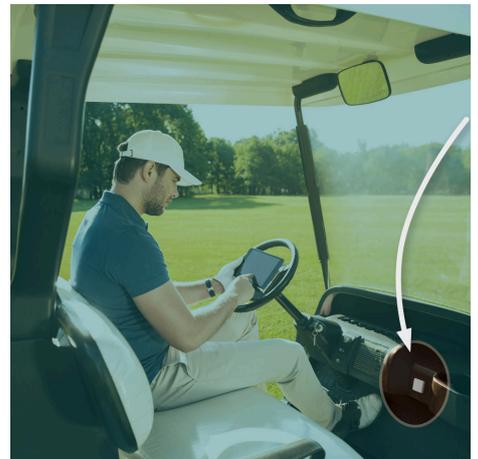
The device can be configured for different update intervals, such as periodic updates or event-based tracking, depending on application needs.

## **INSTALLATION**

Square Tracker Xtreme can be mounted using adhesive, cable ties, or screws with the included mounting frame, enabling secure installation across a wide range of surfaces.

Rev B, 2026-03-18

# IMAGE GALLERY



# SPECIFICATION

## Application

Application                      Tracking, Asset management

## Benefits

Benefits                              10+ years battery life, Long-range (2 km), Motion controlled, Location-aware, Simple installation & mounting, Built-in data memory, WakeOnImpact

In/Outdoor usage                Indoor & Outdoor

## Features

Sensor                                Temperature, 3D accelerometer

Configuration                    LoRaWAN OTAA, NFC

Geopositioning                  WIFI 2.4 GHz, GNSS (GPS & BeiDou)

## Connectivity data

Frequency                         EU (868 MHz) or India (868 MHz) or US (915 MHz) or AU915 - Australia 915 - 928 MHz or AS923-1 - Asia 902 - 928 MHz or KR920 - South Korea 902 - 928 MHz or AS923-2 - Asia 923-925 MHz

Protocols / Connectivity        LoRaWAN, NFC

LoRaWAN version                V 1.0.4

LoRaWAN class                  Class A

## Sensor data

Temperature accuracy          $\pm 2$  °C/ 3.6 °F @ 0-30 °C/32-86°F

Sensor type                        GPS/Beidou and WiFi receiver

## Power supply

Powered by                        Built-in battery (LiMnO2), LiMnO2, 4 AH

## Operating Conditions

IP Class                              68

Operating range                 -20 - +60 °C

## Mechanical data

Weight (g)                         61

Width (mm)                        60.4

Depth (mm)                        13

Height (mm)                       67.2

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