

# SCPS LoRa Tracker

## Product Summary

- Compact package design and Waterproof (IPX7)
- Energy harvesting by solar cell
- Hybrid geolocation by GNSS+Wi-Fi for outdoor and indoor tracking.  
(Locational accuracy  $\pm 9\text{m}$ )
- Ultra-low power BLE for parameter settings by smart phones.
- Equipped with various environmental sensors : Temp./humidity, accelerometer, ambient light, gas and mic (TBD)
- 6 days operation with 24 transmissions/day of position data from a fully charged state.
- Full charge time is 2.5 hours under outdoor illumination of 50k Lux.
- Will be available in Japan, North America and Europe.\*

\* Software and antennas will be tuned for each area.

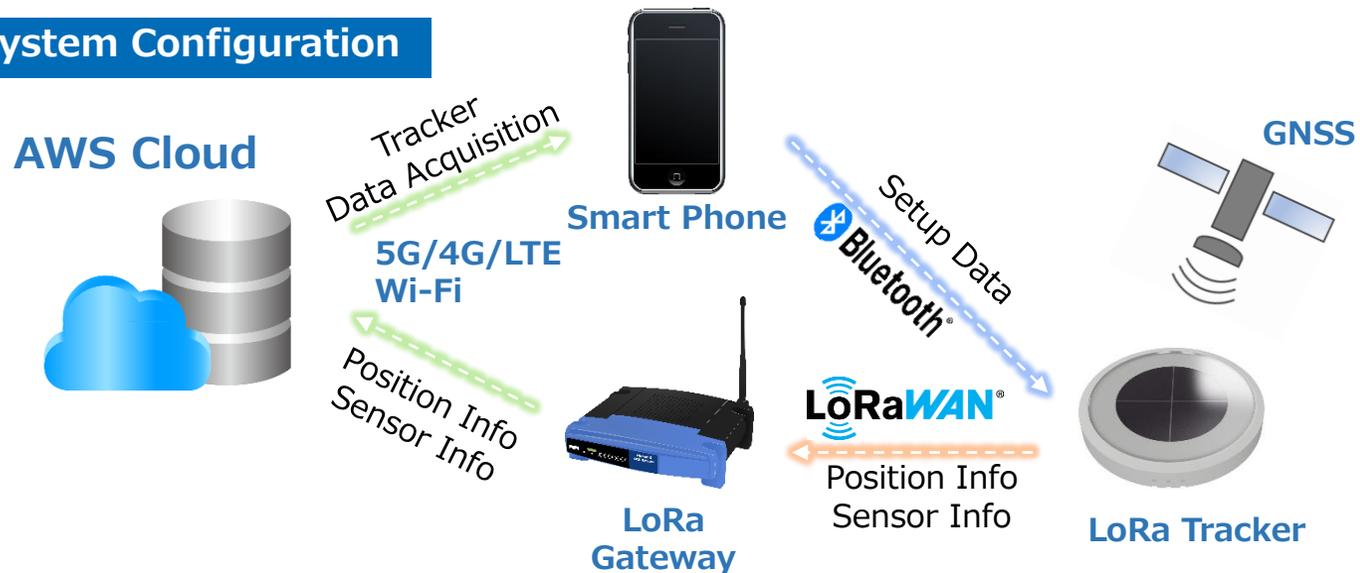


## LoRa Communication Features

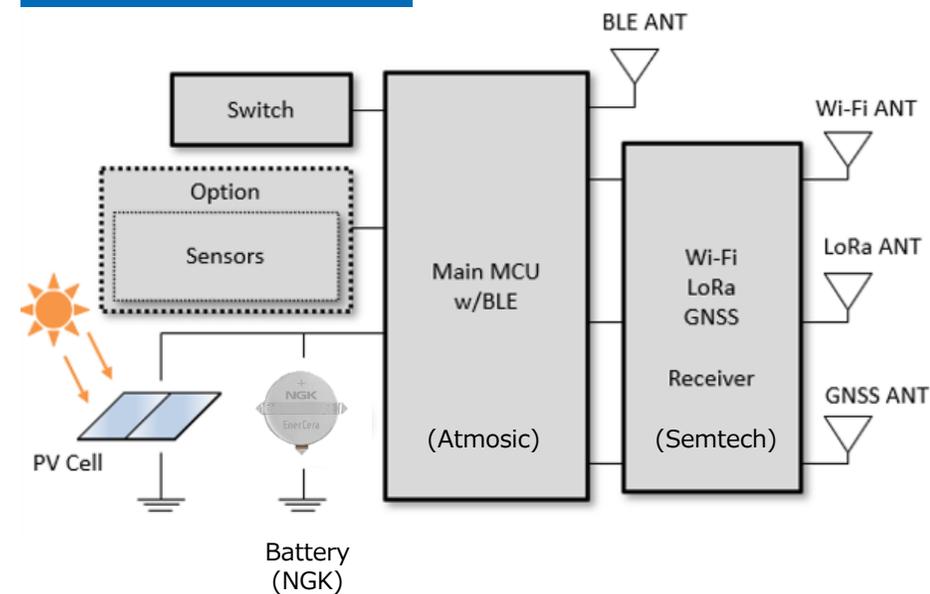
1. Long distance communication (Around 10km)
2. Low-power consumption
3. Free license

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## System Configuration



## Block Diagram



## Specification

Size	Φ66×8.7mm	GNSS	GPS(L1)、BeiDou
Weight	27.2g	Waterproof	IPX7
Battery	25mAh (EnerCera ET2016C-R)	Charging	Light charging of hybrid PV cell
Wireless standard	BLE/LoRa/Wi-Fi Scanner	Operating temperature	-20~60℃
Frequency	2.4GHz/920MHz	Other	Switch×1

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## SMK Energy Harvest Initiative

1<sup>st</sup> Gen.  
2019



2<sup>nd</sup> Gen.  
2020



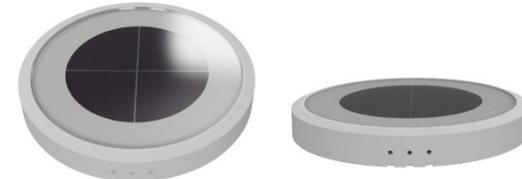
3<sup>rd</sup> Gen.  
2021



4<sup>th</sup> Gen.  
2022



5<sup>th</sup> Gen.  
2023



Low Power BLE

Energy Harvest



LoRa

GNSS

# Use Cases

## Pet Locator

Monitor the location and movement of a pet. Attached to a pet's collar to communicate with a mobile app to provide real-time information.



## Asset Tracking

Monitor the location and status of physical assets, such as vehicles, equipment, or tools. It provides real-time data on the asset's location, movement, and other relevant information such as speed, temperature, or humidity levels.



## Danger Detection

Detect and monitor the occurrence of rockfalls to alert people of potential hazards. Used in transportation infrastructure, and mining operations to improve safety and reduce the risk of accidents.



## Cattle Grazing

Monitor the movement and behavior of cattle, as well as the condition and productivity of the land, while also reducing the environmental impact of grazing.

