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 ±9m)

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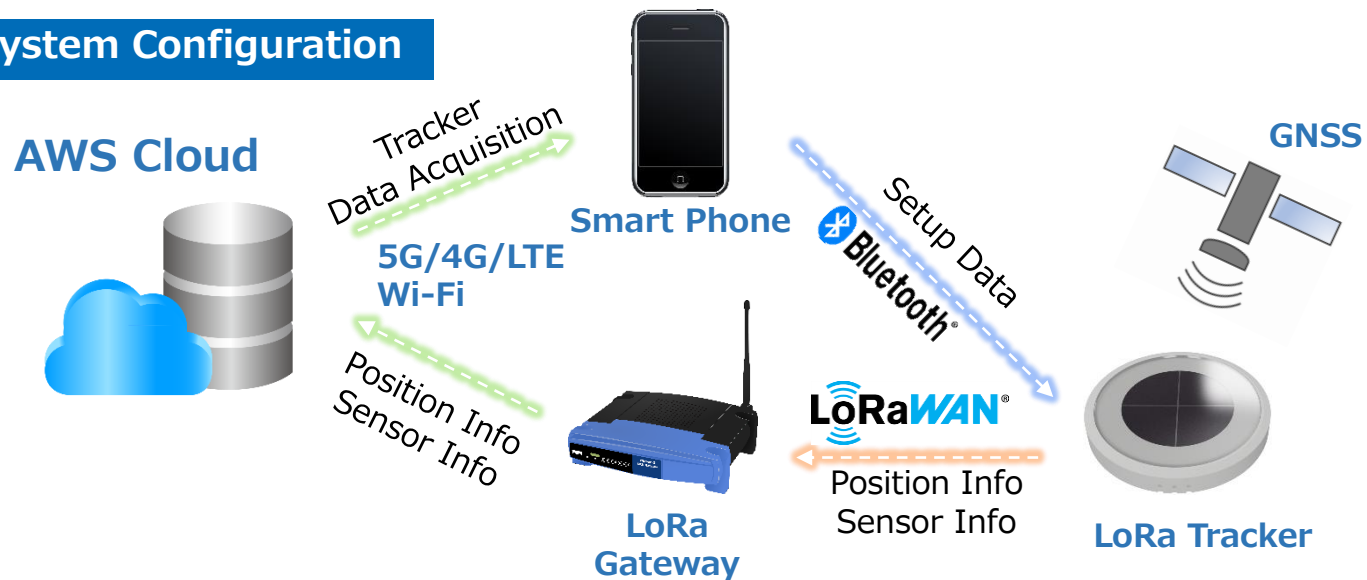
　＊Software and antennas will be tuned for each area.
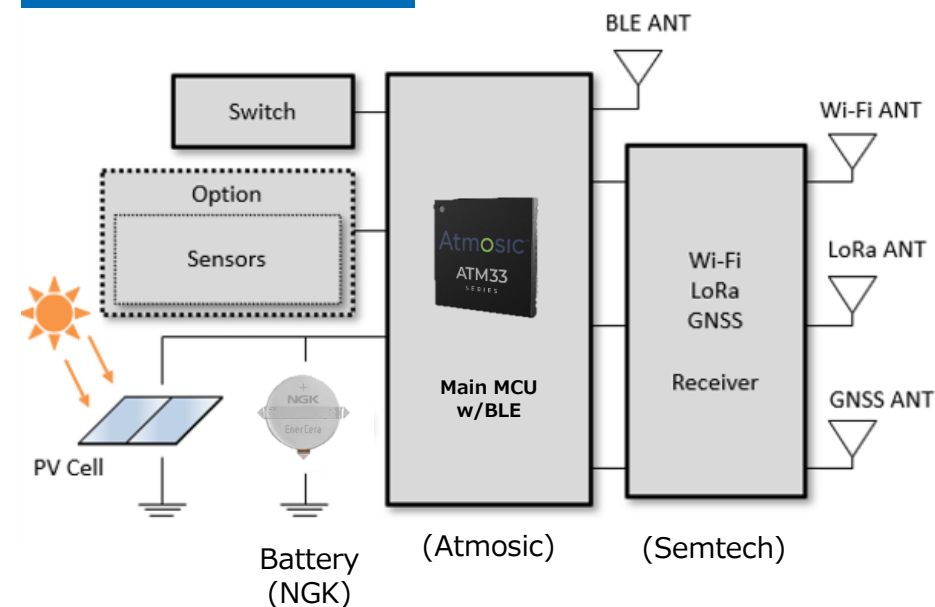

LoRa Communication Features

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

CREATIVE CONNECTIVITY

SCPS LoRa Tracker

System Configuration

AWS Cloud

Tracker Data Acquisition

5G/4G/LTE Wi-Fi

Position Info Sensor Info

Smart Phone

Setup Data

Bluetooth®

LoRaWAN®

Position Info Sensor Info

LoRa Gateway

GNSS

LoRa Tracker

Block Diagram

Switch

Option

Sensors

Atmosic ATM33 SERIES

Main MCU w/BLE

Wi-Fi LoRa GNSS Receiver

BLE ANT

Wi-Fi ANT

LoRa ANT

GNSS ANT

PV Cell

Battery (NGK)

(Atmosic)

(Semtech)

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

SMK

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SCPS LoRa Tracker

SMK Energy Harvest Initiative

1st Gen.
2019

2nd Gen.
2020

3rd Gen.
2021

4th Gen.
2022

5th Gen.
2023
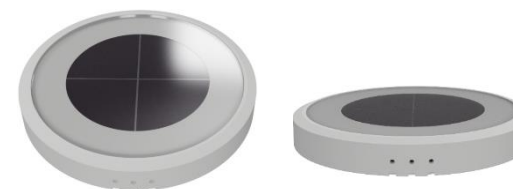
Low Power BLE

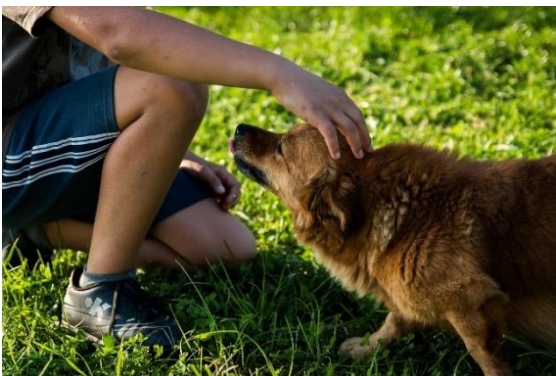**Energy Harvest**

✖

LoRa

GNSS

CREATIVE CONNECTIVITY

Use Cases

Pet Locator

Monitor the location and movement of a pet. Attached to a pet's collar to communicates 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.