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SenseCAP IoT 4G Solution Demo Kit: Comprehensive Remote Data Acquisition and Communication Solution

The SenseCAP IoT 4G Solution Demo Kit delivers a plug-and-play 4G remote data acquisition and communication solution for smart agriculture, smart city, power transmission, renewable energy, and transportation/traffic.

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Overview



The SenseCAP IoT 4G Solution Demo Kit enables remote data acquisition and communication using a 4G Sensor Hub with the SenseCAP ONE Weather Sensor V2 and optional RS485 Modbus-RTU sensors. It supports plug-and-play installation, cloud management via SenseCAP Portal, Mate App, API, and Dashboard, and suits smart agriculture, smart city, power transmission, renewable energy, and transportation/traffic applications.

Key Features

To enable you to better experience the features of different plans, we offer different kits:

- **Industrial IoT 4G Cellular Kit**

Unveiling Our 4G Solution Kit: Elevate Your IoT Journey! Purchase this kit, and insert your SIM card into the **4G Sensor Hub** for personalized network coverage. Seamlessly connect **SenseCAP ONE Weather Sensor** via RS485, and effortlessly gather and transmit data to your chosen cloud platform. You also have the option to purchase **solar panels** and a variety of RS485 sensors to enhance your IoT solution.

Introducing **SenseCAP ONE Weathe Sensor V2** with a sensor capturing up to 10 environmental data types. Buy our IoT solution, join our device experience program, and get a 50% discount coupon, saving up to $1000! Limited to 50 sets – act quickly!

The following table shows the details of the optional MODBUS RS485 Sensors:

Plug-and-Play Connectivity Solution by SenseCAP

For quick data acquisition and plug-and-play convenience, SenseCAP offers different networking solutions.

SenseCAP is dedicated to providing plug-and-play industrial-grade IoT products, ensuring users swiftly access necessary data. Choose between 4G cellular or LoRaWAN wide-area wireless solutions based on your needs.

Why choose the 4G solution

SenseCAP Sensorhub is a 4G data collector for remote areas data collection. With extensive cellular coverage, it enables remote data transmission in areas with no or unstable networks. It reliably monitors weather, water quality, and soil humidity, ensuring timely data transmission for analysis. The solution's solar power capability ensures stable operation, reducing maintenance costs. The Sensorhub supports integration with any RS485 Modbus-RTU sensors, easily configurable for quick setup and usage.

Explore other solutions: LoRaWAN® Solution Kit

In addition to 4G connectivity solutions, SenseCAP offers advanced LoRaWAN solutions. To learn more about this solution, please click **here**.

Now, when it comes to selecting the right solution for your specific applications, it's essential to consider your unique requirements. Let's briefly compare the advantages of our 4G and LoRaWAN solutions:

View data on the SenseCAP cloud within 5 minutes.

We also provide software and cloud services for quick configuration, making it easy to deploy Sensor Hub and manage devices and data:

SenseCAP Portal is a web-based platform for you to manage the devices, data, and access keys conveniently.

SenseCAP Mate App (with iOS and Android) is provided for you to bind the devices to your account conveniently.

SenseCAP API is provided for you to simplify the implementation of your applications.

SenseCAP Dashboard allows you to create your own visualized application conveniently.

Direct Data Connectivity/Private Deployment Solutions:

1. Retrieve data from the **SenseCAP Portal**.

SenseCAP provides an easy-to-use cloud platform for data transmission. Users can bind devices to their accounts by scanning QR codes using the mobile app, enabling device management and data viewing. The platform also offers complementary APIs, including MQTT, HTTP API and Data OpenStream API, for data access and integration.

- You can refer to the **SenseCAP API Document** for more details.

2. Connect device data to the client-server directly.

- The 4G Sensor Hub can directly transmit data to customer servers via MQTT. For more information, please refer to the **Developer Guide for Private MQTT Messaging of SenseCAP SensorHub**.
- For LoRaWAN solutions, users can set up their own LoRaWAN Network Server, such as TTN, Chirpstack, Loriot, etc.

Installation and Deployment Instructions

For a seamless installation experience, we have prepared a detailed installation guide with step-by-step instructions to ensure easy setup.

Quick Start Guide for 4G & LoRa® Solution Demo Kit

Features of the New SenseCAP ONE Weather Sensor V2

- **Comprehensive Monitoring:** The SenseCAP weather sensor integrates high-precision sensors to monitor various parameters, including temperature, humidity, wind speed, wind direction, rainfall, and air quality.
- **High-Precision Measurement:** Advanced sensing technology ensures accurate and reliable data, meeting rigorous requirements for scientific research and real-time monitoring.
- **Industry-Standard Design:** With a -40℃ to 85℃ working temperature range and an IP66 protection rating, it is ideal for outdoor and harsh environments, offering UV, rain, and dust protection.
- **Output interface:** RS485 (MODBUS-RTU) / SDI-12
- **Thermostatically-controlled heating system:** Independent heating power supply for use in extremely cold environments
- **Easy Installation:** Designed for simplicity and quick setup, the device is plug-and-play, requiring no specialized knowledge. With easy operations, you can install and configure the weather station effortlessly.
- **Versatile Application:** From agriculture to meteorological research, environmental monitoring, and urban settings, the SenseCAP ONE Weather Sensor adapts to diverse scenarios and applications.

Application

- Smart Agriculture
- Smart City
- Power Transmission
- Renewable Energy
- Transportation and Traffic

SenseCAP solutions have been deployed globally in diverse scenarios, including smart city urban heat island monitoring in Cagliari, Italy; real estate construction site monitoring in Johannesburg, South Africa; smart lighting poles in Shenzhen, China; smart vineyard monitoring in western Portugal; and smart high mountain tea monitoring in Sichuan, China. To learn more, please click **here**.

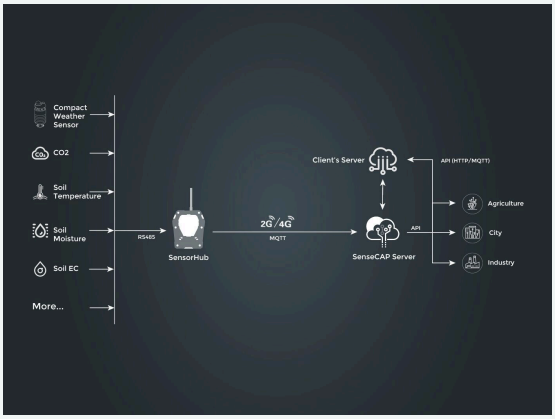
SenseCAP Tech Support

Thank you for choosing our products! We are here to provide you with different support to ensure that your experience with our products is as smooth as possible.

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Product Gallery





Applications

- **Smart Agriculture**
- **Smart City**
- **Power Transmission**
- **Renewable Energy**
- **Transportation and Traffic**

Resource Links

- https://www.seeedstudio.com/SenseCAP-IoT-4G-LoRaWAN-Dual-Kit-Solutions-Comprehensive-Remote-Data-Acquisition-and-Communication-Solution.html
- Quick Start Guide for 4G & LoRa® Solution Demo Kit
- SenseCAP Sensor Hub 4G Data Logger User Guide
- Developer Guide for Private MQTT Messaging of SenseCAP SensorHub
- SenseCAP S2100 LoRaWAN Data Logger User Guide
- How to Configure the 12V RS485 Sensor for S2100 Data Logger
- SenseCAP ONE Weather Station V2 User Guide
- SenseCAP S210X LoRaWAN Sensor Catalogue
- S210X Sensors User Guide
- Quick Start for SenseCAPGateway&Sensors
- SenseCAP API Document

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