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INDUSTRIAL PRODUCT DATASHEET

Farming Environment Monitoring

Farming environment monitoring with cloud access and local deployment options.

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Overview



The Farming Environment Monitoring system is ready for cloud access via SenseCraft for remote device management and data services. It also supports local deployment with LoRaWAN gateways compatible with mainstream LNS like ChirpStack for private, offline networks.

Key Features

Specification

Product	Air Temp	Air Humidity	CO_2	Soil Temperature
S2101	✅	✅		✅
S2102				✅
S2103	✅	✅	✅	
S2105				✅
S2106				✅
S2107				✅
S2108				✅

Solution	Use Case	Interfaces	Cable Connector	Network
SenseCAP S2100 LoRaWAN® DTU	Retrofit one or a few traditional wired sensors into low-power, long-range wireless nodes.	RS485 / Analog Input / GPIO	Hook-up wires	LoRaWAN®
SenseCAP Sensor Hub 4G Data Logger	Connect multiple RS485 sensors (up to 32) for centralized and stable data transmission over a 4G network.	RS485 (Modbus-RTU)	Aviation Connector	4G/LTE

Selection Criteria	Description
Quantity	A single Device covers a radius of 2-5 km. Estimate the quantity based on site area and obstacles.
Deployment Environment	Choose a device with the appropriate protection rating based on the gateway's deployment location (indoor/outdoor).
Power Supply	For outdoor locations without a power source, choose a gateway with a battery / solar power.
Network Conditions	Choose an Ethernet Gateway if a wired network is available. Choose a 4G Gateway for wireless or flexible deployments.
Frequency Band	[Required] Select the corresponding frequency band based on the project's country/region. Eg. EU - 863 , US - 915, Japan - 923

Deployment Mode	Advantages	Requirements
SenseCraft Public Cloud (Recommended)	Simple, fast, maintenance-free, with API and open-source App	Gateway requires internet access
Private On-Premises Deployment	Data is completely private and highly secure	Requires self-deployment of servers and certain technical skills

Applications

- **Cloud Access:** Ready for the SenseCraft for remote device management and data services.
- **Local Deployment:** LoRaWAN gateways are compatible with mainstream LNS like ChirpStack for building private, offline networks.

Resource Links

- https://www.seeedstudio.com/Farming-Environment-Monitoring.html

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