NB-IoT Leaf Moisture Sensor

NLMS01

OVERVIEW:

The Dragino NLMS01 is a NB-IOT Leaf Moisture Sensor for IoT of Agriculture. It is designed to measure the leaf moisture and temperature, so to send to the platform to analyze the leaf status such as : watering, moisturizing, dew, frozen. The probe is IP67 waterproof.

NLMS01 detects leaf's moisture and temperature use FDR method, it senses the dielectric constant cause by liquid over the leaf surface, and cover the value to leaf moisture. The probe is design in a leaf shape to best simulate the real leaf characterizes. The probe has as density as 15 leaf vein lines per centimeter which make it can senses small drop and more accuracy.

NarrowBand-Internet of Things (NB-IoT) is a standards-based low power wide area (LPWA) technology developed to enable a wide range of new IoT devices and services. NB-IoT significantly improves the power consumption of user devices, system capacity and spectrum efficiency, especially in deep coverage.

NLMS01 supports different uplink methods include TCP,MQTT,UDP and CoAP for different application requirement.

NLMS01 is powered by 8500mAh Li-SOCI2 battery, It is designed for long term use up to 5 years. (Actually Battery life depends on the use environment, update period & uplink method)

To use NLMS01, user needs to check if there is NB-IoT coverage in local area and with the bands NLMS01 supports. If the local operate support it, user needs to get a NB-IoT SIM card from local operator and install NLMS01 to get NB-IoT network connection

Features:

- Monitor Battery Level
- Uplink on periodically
- Monitor Leaf moisture
- Monitor Leaf temperature
- Ultra-low power consumption
- 8500mAh Battery for long term use
- IP66 Waterproof Enclosure
- IP67 rate for the Sensor Probe
- Downlink to change configure
- Micro SIM card slot for NB-IoT SIM
- AT Commands to change parameters
- Moisture and Temperature alarm function
- NB-IoT Bands: B1/B3/B8/B5/B20/B28 @H-FDD

Specifications:

Common DC Characteristics:

- Supply Voltage: 2.1v ~ 3.6v
- Operating Temperature: -40 ~ 85°C

NB-IoT Spec:

- - B1 @H-FDD: 2100MHz
- - B3 @H-FDD: 1800MHz
- - B8 @H-FDD: 900MHz
- - B5 @H-FDD: 850MHz
- - B20 @H-FDD: 800MHz
- - B28 @H-FDD: 700MHz

Applications:

- Smart Agriculture

Order Info :   NLMS01