LoRaWAN Air Quality Sensor

LAQ-4

OVERVIEW:

The Dragino LAQ4 is a LoRaWAN Air Quality Sensor for Internet of Things solution. It is designed to measure the surrounding environment parameters include: TVOC(Total Volatile Organic Compound), eCO2(equivalent CO2), Temperature and Relative Air Humidity, and then upload to IoT server via LoRaWAN wireless protocol.

IAQ (Indoor Air Quality) is very important factor for indoor activity and human life. VOC(Volatile Organic Compound) are emitted as gases from certain solids or liquids and they are the main source for poor indoor air quality. LAQ4 provides the trend for IAQ measurement and, like all other TVOC sensors, LAQ4 requires calibration for more accuracy measurement on TVOC and eCO2.

LAQ4 supports temperature and humidity alarm feature, user can get alarm for instant notice.

LAQ4 supports Datalog feature, User can retrieve the sensor data from LoRaWAN commands.

LAQ4 is powered by ER18505 Li-SOCl2 battery. The battery can run 7 ~ 10 monthes depends on the network enviroment and working mode. The battery is replaceable easily by open the enclosure.

Each LAQ4 is pre-load with a set of unique keys for LoRaWAN registration, register these keys to local LoRaWAN server and it will auto connect after activation.

Features:

- LoRaWAN 1.0.3 compliant
- Monitor TVOC and eCO2
- Alarm for TVOC, CO2 monitoring
- Monitor Battery, Temperature & Humdity
- Firmware upgrable
- Wall Mountable
- Configurable via LoRa or UART
- ER18505 Li-SOCl2 Battery
- Auto adjust timing. Remote retrieve data.

Power Comsuption:

- Sleeping Mode: 9uA
- Sampling: 11.5mA@ 2s for every 60 seconds
- LoRa Transmit: 24 ~ 150mA

Dimension:

- Size: 110 x 70 x 30 mm
- Net Weight: 130g

Specification:

Temperature Sensor:
- Range: -40 ~ +80 °C
- Accurancy: ± 0.3°C
- Resolution: 0.01°C

Humidity Sensor:
- Range: 0 ~ 99.9% RH
- Accurancy: ± 3%RH (10 ~ 90%RH)
- Resolution: 0.04% RH
- Response Time: < 5s

eTVOC:
- Range: 0ppb up to 29206 ppb

eCO2:
- Range: 400ppm up to 32768 ppm

Order Info:

LAQ4-XXXXX

XXXXX for valid frequency band, include: EU868, US915, AU915, AS923, EU433 IN865, KR920, CN470