

# LoRa module in Emdoor rugged tablet

## Technical background

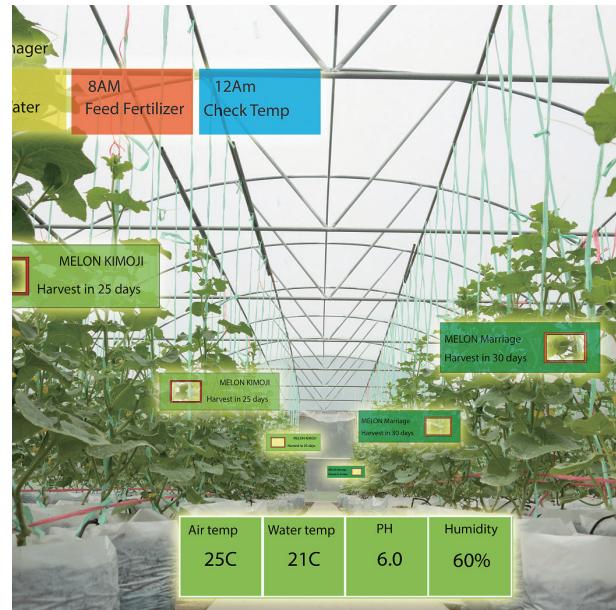
LoRa, as one of the mainstream technologies in LPWAN (Low Power Wide Area Network), is giving various industries the transformation of the Internet of Things. LoRa is a subset of LoRaWAN, which belongs to a modulation technology of the physical layer. It adopts linear modulation spread spectrum method, which can significantly improve the receiving sensitivity and achieve a longer communication distance than other modulation technologies. The most complete LoRa communication system integrates a complete set of LoRa node modules, gateways and cloud platforms, which can realize end-to-cloud data transmission in one step.



## Application

As a large agricultural country, my country is in a critical period of transition from traditional agriculture to smart agriculture. LoRa's long-distance transmission method can realize the accurate transmission of agricultural irrigation, pests, and fertilization status data, comprehensively improve the level of farm production management, reduce traditional production costs, timely and effectively understand the growth status of crops, and improve economic benefits. We apply the LoRa module to a rugged tablet computer terminal, which can monitor the status of the greenhouse in real time through the rugged tablet computer terminal, including greenhouse temperature, soil humidity, light intensity, irrigation time, etc., and upload the data to the cloud platform for real-time implementation Real-time adjustment, with high control accuracy, stable and reliable work, etc.





### Advantage

1. In smart agriculture applications, the application of the LoRa module in the rugged tablet terminal can effectively solve the problems include temperature and humidity data cannot be transmitted in real time, manual statistical data is time-consuming, laborious and error-prone, ineffective remote control, and low level of intelligent management.
2. In smart agriculture applications, the gateway and various sensors are wirelessly connected through LoRa technology. On the one hand, it can solve the wiring problem. On the other hand, the use of LoRa low-power technology can greatly reduce the power consumption of sensor nodes.
3. In smart agriculture applications, a rugged tablet computer terminal with LoRa module can display agricultural data and changes in each monitoring station completely and intuitively, and can use IO control equipment to reversely control fans, water curtains, and solenoid valves in the greenhouse And other equipment.

### Related device



EM-T75