

A stylized teal graphic consisting of two overlapping, wavy, leaf-like shapes that curve upwards and to the right, positioned on the left side of the page.

# WATER QUALITY

KernelSphere

A large, dark blue graphic that spans the width of the page, curving upwards from the left and downwards towards the right, resembling a wave or a stylized water surface.A cluster of light blue bubbles of various sizes, located in the bottom right corner of the page, appearing to rise from the dark blue wave graphic.

## Water Quality measurement

The common method of water quality testing is to collect samples manually and then send them to laboratory for analysis. However, it has been unable to meet the demands of water quality monitoring today. So, a set of automatic measurement and reporting system of water quality has been developed. The system consists of pH sensor, Turbidity sensor and Conductivity sensors of water quality testing.

The data are instantaneously sent to monitoring center by This Device works with both GSM and Lora WAN Network (which gives ultra-low power consumption and provides long range coverage). If the water quality is unusual, the data will be sent to monitoring center and management's mobile in the same way at the same time. It is agreeable for management to take corresponding measures timely and can detect real-time situation of water quality remotely. The system has, recognize, the automation of water quality monitoring, intelligence of data analyzing and networking of information transferring. The system has widespread application value and can be extended and transplanted to other fields of automatic monitoring where needed.

### Features of Water Quality

- 24/7 monitoring of water quality (pH, Turbidity and Conductivity) at finger prints.
- Improves water quality
- Real time monitoring.
- Check from anywhere and receive SMS/email on your smart phone.

### Specifications

Wireless Frequency Band	865 ISM for LoRa.
Communication	LoRa data transmission network and GSM.
Operating Voltage	Solar powered, no charging needed ever
Receive Sensitivity	-136 dBm typ.
Transmission frequency	60 seconds
Number of Channel	Configurable 8 channels (SKU-EU)
Transmit Power	+20 dBm
Antenna Type	Internal antennas
Modulation	Based on IEEE 802.15.4g
Protection Requirements	IP67