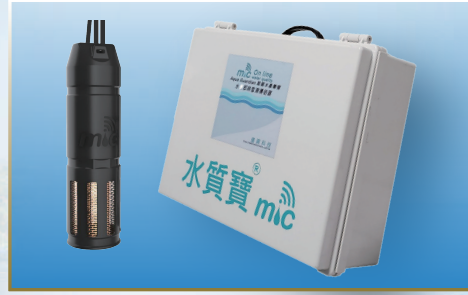




LAND-BASED IOT SMART WATER QUALITY MONITORING SYSTEM

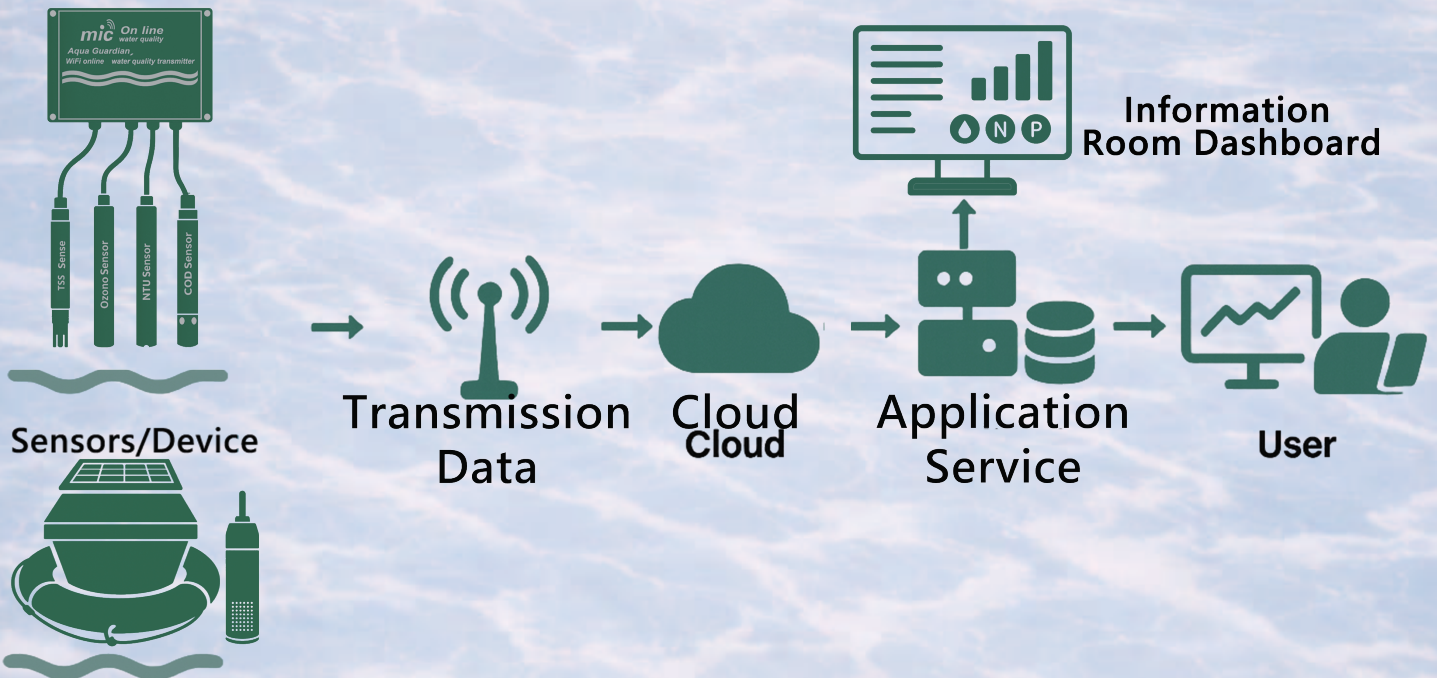


Indoor



Outdoor

System Architecture



MIC METER INDUSTRIAL COMPANY

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REMOVABLE WATER QUALITY DEVICE (OUTDOOR LAND-BASED-ON LINE MONITORING)



PATENTED INNOVATION

WaterGuard™ is a smart water quality monitoring system designed for agrivoltaic aquaculture and outdoor fish farming environments. It provides 24/7 real-time monitoring of pond conditions, helping farmers detect risks early, reduce labor burden, and manage water quality with greater confidence and efficiency.



The system utilizes high-stability, high-precision sensors to continuously monitor key water quality parameters such as dissolved oxygen and temperature. With remote monitoring support, users can stay informed of water conditions anytime, anywhere—even when they are not on-site.

Flexible Power and Connectivity for Different Farming Scenarios



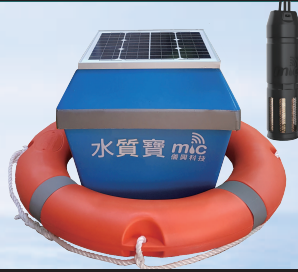
Outdoor Aquaculture Ponds

Powered by solar energy and connected via 4G cellular transmission, the system operates independently without the need for grid electricity, making it ideal for remote or off-grid farming locations.

Agrioltaic / Indoor Aquaculture Facilities

Powered by grid electricity, with support for 4G or Wi-Fi connectivity, enabling stable integration with indoor infrastructure and ensuring uninterrupted data transmission.

Water Quality Monitor Smart Aquaculture System Specifications

Smart Online Water Monitoring		
Application	Indoor	Outdoor
		
Interface	4G/5G/WiFi/NBioT/RS485(Indoor)	
Transmission Method	Wireless Cloud Monitoring	
Measured Fish Ponds	A Single (movable) Fish Pond	
pH Measurement Range	0~14 pH	
pH Accuracy	±1% of full scale + 1 digit	
ORP Measurement Range	-1999mV~1999mV	
ORP Accuracy	±0.2 mV (for -199.9 mV to +199.9 mV), ±2 mV (for other ranges)	
Cond. Measurement Range	20 uS/cm to 200 mS/cm	
Cond. Accuracy	±1% of full scale + 1 digit	
Salt Measurement Range	0~133 ppt	
DO Measurement Range	0-199.9% Saturation; 0.0-20.0 mg/L	
DO Accuracy	±2% of full scale + 1 digit	
7M cable	Optical DO sensor	Dissolved Oxygen & Water Temperature (Inline Electrode)
6M cable	pH Sensor	pH (Inline Electrode)
6M cable	ORP Sensor	ORP (Inline Electrode)
6M cable	Salinity Sensor	Salinity (Inline Electrode)
Carrier	Hard carrying case	Fibreglass and Lifebuoy
Power Supply	AC Power	Solar (Controller & Battery)
Calibration Unit	Yes	Yes
Size	40x30x11 cm	30x38x40 cm
Weight	6 kgs	8 kgs
Free Cloud Storage	Yes, Monthly Data Download	
Warranty	Main Unit: 1 year; Sensors: 6 months	