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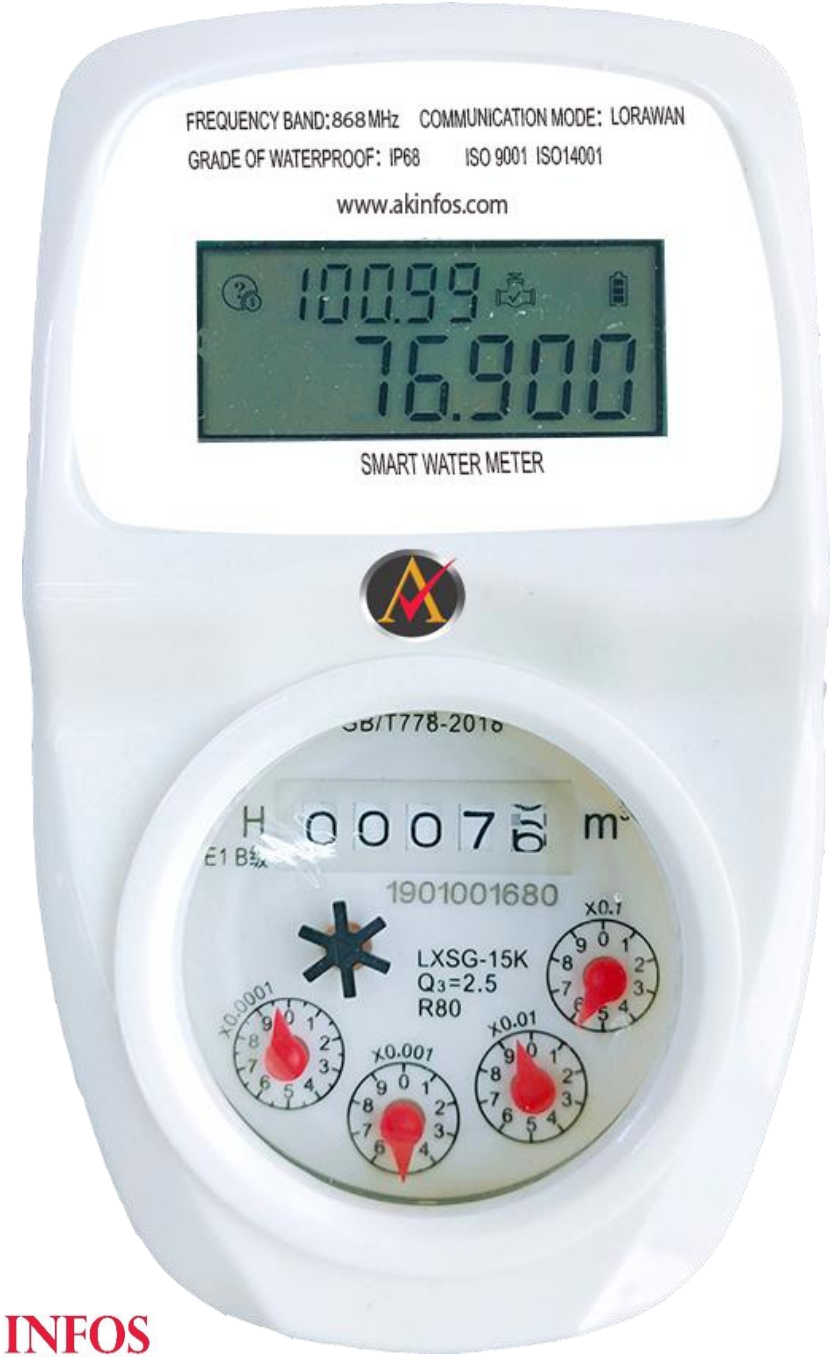
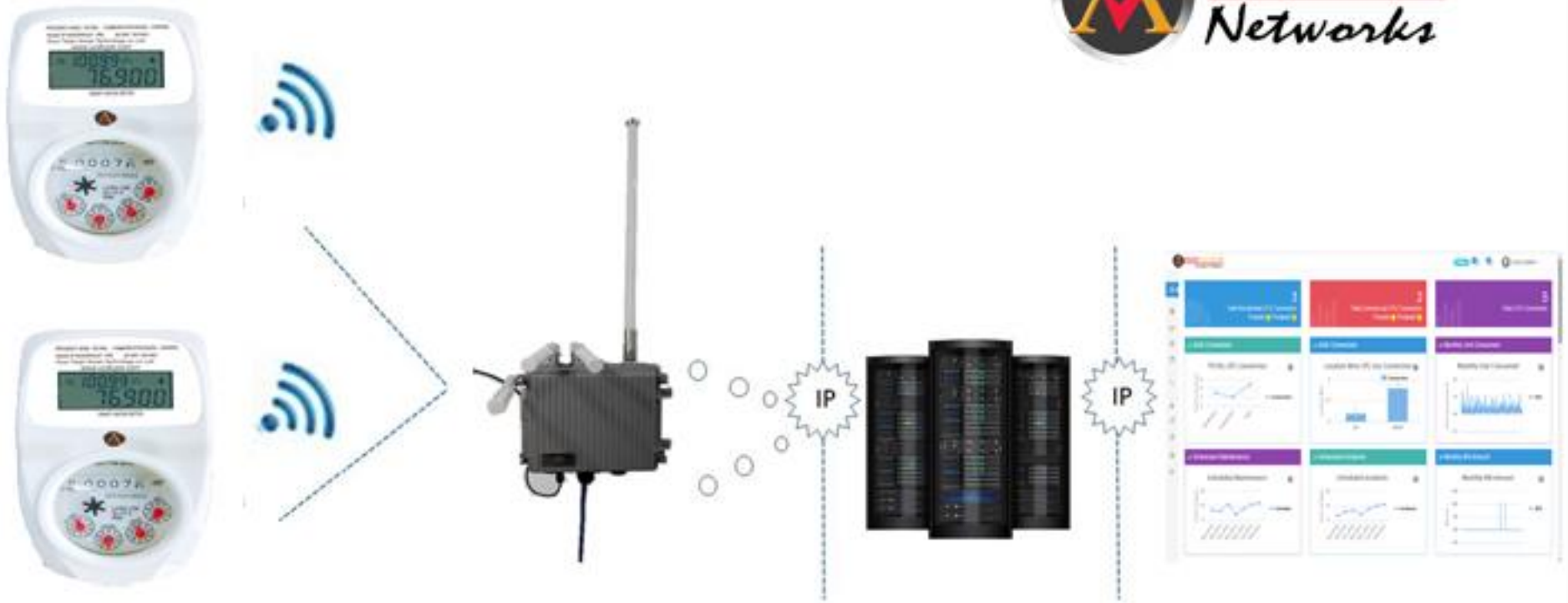
SMART WATER METER INTELLIGENT PLATFORM



Key Parameters	LoRa(LoRAWAN)
Techniques	Spread Spectrum
Network Deployment	Independent Station
Network Mode	Star Network
RF Band	EU 868 Mhz
Transmission Bandwidth	125khz-500khz
Indoor Penetration Capability	8dBm link boost
Transmission Distance	Visual distance 3km
Rate	＜300kbps
Number of Connections	2000-3000/hub
Meter TX power	14dBm
Meter RX sensitivity	LoRa -148dBm
Meter TX current	130mA
Meter RX current	10mA
Gateway TX power	0.5w
Gateway	Needed
Link Robustness	148dBm



LoRa(LoRAWAN)
Smart Gateway

LoRa(LoRAWAN)
Application Server

LoRa(LoRAWAN)
Management Software

LoRaWAN™

Features:

Measurement function:

The measurement conforms to the implementation standards of CJ/ t224-2012 electronic remote water meter and GB/T778.1~5-2018 drinking cold water meter and hot water meter.

Data storage:

The meter has more than 90 days of hourly usage data, more than 180 days of daily data, and more than one year of monthly usage data..

Main battery:

Report the current battery capacity at the time of each metering data report

1. Low battery threshold: 20% and will trigger low battery capacity alarm message upstream report and report every 24 hours until the standby battery switch threshold.
2. Battery switch threshold: 10% capacity, will trigger the standby battery switch

Backup battery:

Spare battery switch only under the following circumstances, otherwise use the main battery

1. Pull out the main battery or the main battery does not exist.
2. The power of the main battery meets the switching threshold (10%).
3. The spare battery switch is automatic, so it will never lose power

Battery life : 6years

Data report:

IoT meter will regularly reports measurement data to server (user configurable)

1. Latest cumulative measurement data.
2. Water meter status: valve status/power supply/strong magnetic detection.
3. Battery capacity level
4. Signal strength of LoRaWAN downlink indicates RSSI/SNR

Alarm:

The iot table will automatically report the alarm information under the following circumstances:

1. low level alarm of battery capacity, Standby battery switch alarm
2. Valve fault alarm.
3. Strong magnetic detection and alarm

Server function:

The iot table will automatically report the alarm information under the following circumstances:

1. Set/query the cycle of LoRaWAN's regular measurement data report.
2. Open/close/set/query/time of fixed time measurement data report, close/open the valve by control.
3. Modify the accumulated water flow data for calibration, Read the current accumulated water flow data.
4. Read the battery capacity level

Communication mode : NB-IoT/LoRaWAN/RS485

SMART METER
Water & Electricity

Platinum 3 0 GOLD ADMIN

CUSTOMER METER INFORMATION

Search By ○ Mobile No ◉ UserCode/Meter

UserCode/Meter 00220003 Search Clear Back Database Live

UserCode: 00220003 **Meter#:** 474a7314002f0025 **Valve :** OPEN **Month (m^3):** 0.00 **Day (m^3):** 0.00

First name	Last Name	Mobile No	Email	Community Name	Villa number	Last Retrieve Date
Water	01	00971550123456	support@akinfos.com	MIDRIF	113	03/08/2020

RSSI	SNR	Class	Mode	Reporting Time	Reporting Period	Temp °C	Battery	Valve	Reading	Bal(AED)	Month (m^3)	Day (m^3)
-30	9.5	B	Pre	23:30	1440min	27	100%	OPEN	0.00	0.00	0.00	0.00

CLOSE VALUE OPEN VALUE TOP UP