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SMART WATER METER INTELLIGENT PLATFORM

AK Smart Water Meter – With Valve

Key Parameters	LoRa(LoRAWAN)
Techniques	Spread Spectrum
Network Deployment	Independent Station
Network Mode	Star Network
RF Band	IN 865 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

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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

16 CHANNEL LoRaWAN GW – GEN SPECS

- ✓ Maximum output power: 25dBm
- ✓ High Sensitivity: -140dBm@300bps
- ✓ Hall duplex or Full duplex optional
- ✓ LoRaWAN Antenna Gain: 2dBi
- ✓ Compatible with PoE IEEE 802.3 af/at
- ✓ 10/100M Ethernet or 4G modem (WCDMA/TD-LTE/GPRS/EDGE) for networking
- ✓ Synchronization with GPS PPS signal
- ✓ Quick configuration and maintenance with WiFi
- ✓ USB interface to debug
- ✓ Power supply: DC jack, PoE and internal LiFePO4 battery
- ✓ Up to 4hr duration time with back up battery
- ✓ Support acid battery charged with solar panels
- ✓ Operating temperature: -40 degree C to +75 degree C
- ✓ Waterproof level: IP67
- ✓ 10kA surge protection
- ✓ LoRaWAN Uplink Optional - 16 normal multi-SF channels (SF7 to SF12, 125kHz), 1 single SF high speed data rate channel and 1 GFSK Channel
- ✓ LoRaWAN downlink: 1 normal channel (125kHz/250kHz/500kHz LoRa configurable or GFSK)

DESCRIPTION

AKI2S208 is a new generation LoRaWAN GW which supports 8 channels with frequency IN 865MHz.

The GW integrates one 1.2 GHz ARM Cortex-A53 CPU which runs Linux OS and also 1x or 2x SX1301 to provide LoRa transmit and receive functionality. SX1301 is a high performance LoRa processor. The 2 x SX1301 full duplex hardware version will extend the network capacity to 4x compared to the traditional 8 channels half duplex version.

The gateway is backhauled via 10/100M Ethernet or LTE. An on-board GPS module could be used to generate a PPS signal for synchronization. Internal web UI is integrated for quick configuration and fault diagnosis analysis and maintenance. Benefitting from AKI2S208 WiFi interface, customers can use devices like PC or laptop to connect with it directly to initial, configure or debug when needed.Various power supply plans are supported, like DC injector, PoE and internal LiFePO4 battery. It also provides an acid battery charged with solar panels as choice.

GATEWAY APPLICATIONS COMPATIBILITY

- ✓ Smart security
- ✓ Industrial control
- ✓ Data collection from sensor mode
- ✓ Automatic meter reading
- ✓ Environment monitoring
- ✓ Building automation

SMART WATER METER

Analytical Intelligence

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Sign In

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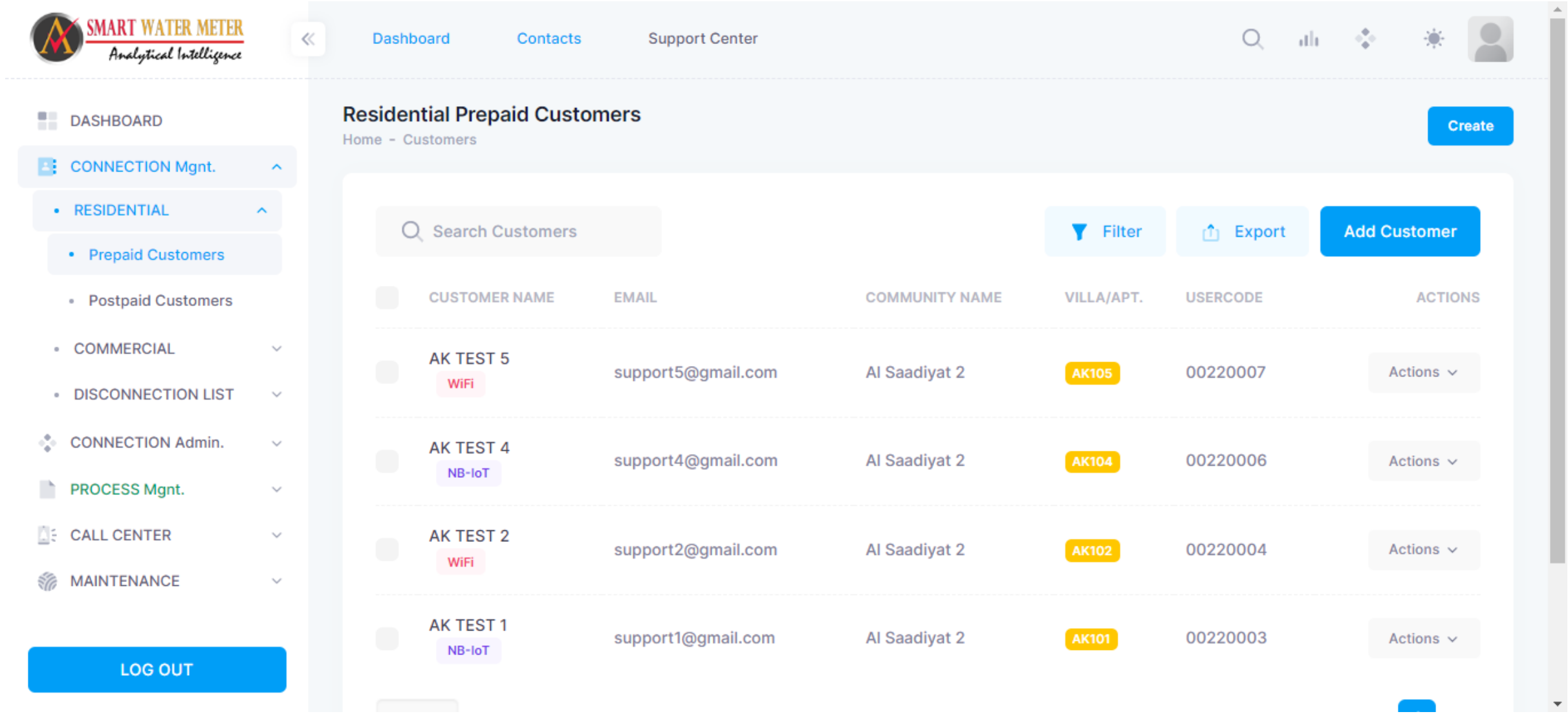

Dashboard Contacts Support Center

- DASHBOARD
- CONNECTION Mgnt.
- CONNECTION Admin.
- PROCESS Mgnt.
  - METER MANAGEMENT
  - STATUS - LIVE
  - STATUS - BASE
- CALL CENTER
- MAINTENANCE
- MASTER
- USER Mgnt.

LOG OUT

Status Live

Home - Status Live

Live - Active | Inactive

Search Customers

Filter | Export

CUSTOMER NAME	DOOR#	METER#	BATTERY	READ#	VALVE	ACTIONS

No data available in table

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Thank You