ADR-Util

ADR-Util is an application-ready Sigfox enabled transceiver allowing to transmit data from utility meters (water, gas, electricity & heat meter compliant). ADR-Util provides a connection to national and global network infrastructure for reliable and secure communications.

The configuration of the transceiver can be done via the product or network allowing the choice of periodicity, pulse, weight, data encryption. ADR-Util further provides a downlink function to the device for switching functionality. Powered through a Li-SOCL2 battery. 4-10 years battery life depending on which mode is used.

Highlights

- Meter data through Sigfox compliant radio networks
- Utility meter support (water, gas, electricity & heat meter compliant)
- Supports various meter reading interface standards
- Long range connectivity
- Low cost low power design with up to 10+ year autonomy

Performances

- SF RF power: 14dBm (25mW)
- SF RF sensitivity: up to –127dBM
- Interfaces: Pulse, eco and serial

Warnings

- Battery end of life
- Over temperature
- Tamper detect

Firmware

SIGFOX network protocol
Transmission cycles: 2, 50, 100 or 140 update links per day
Data encryption: AES128 (Optional)

Software and Data Management

Data from the device, transmitted via the Sigfox cloud infrastructure to the backend server platform with build in device support can be provided or easily integrate the device into your own platform.

Peripheral Options

- Temperature / humidity sensor
- Ambient light sensor
- Quality of air sensor
- Digital and Analog IO
- Bluetooth (BLE)
- GPS
- Accelerometer

Typical Applications

- Water, gas, electricity and heat meters

General Information

Operating temperature: -20 °C / +65 °C
Mounting Options: Screws, rivets, tie-wraps and 2-sided tape
Dimensions: 110 x 58 x 30 mm
Weight: 100 grams
Housing: IP67
Antenna: All Integrated (Internal)
Standards: EN 300-220, EN 301-489, EN 60950, ICASA; CE

Support

The device is available for RC1 (Europe, Middle East & South Africa)

Standard Operation (can be modified on request)

Default Mode:
- Unit is programmed to send two readings (30 min resolution - pulse totaliser) every 1 hour
- Unit only start sending after 10 pulses received

No Wait Mode:
- Unit is programmed to send two readings (30 min resolution - pulse totaliser) every 1 hour
- Unit start sending messages every hour from start of device

Quicksend Mode:
- Unit is programmed to send two readings (30 min resolution - pulse totaliser) every 1 hour
- Unit sends 5 messages (5 minute interval) and then switch over to every hour from start of device

Quicksend + TimeSync Mode:
- Unit is programmed to send two readings (30 min resolution - pulse totaliser) every 1 hour
- Unit sends 5 messages (5 minute interval) and then switch over to every hour from start of device
- Downlink is used to sync time every 24 hours.

Device Lifespan:
4-10 years battery life depending which mode is used.