



Communication skills for ultra low powered objects



WAVETANK is a leading telemetry wireless product line dedicated to the remote control and monitoring of liquid levels within a tank (LPG, gas, water...).

With this product line, you can optimize the supplying management with automatic restocking, anticipation and optimization of the deliveries together with other additional services...

Based on the Ultra Low Power and long range WAVENIS technology, this product line is battery powered with several years of autonomy and the capability to be reached even in hard-to-reach places. The optimized design and manufacturing of the WAVETANK modules dedicates them for applications with highly constrained environments requiring highly reliable products.

TECHNICAL CHARACTERISTICS

- ISM bands 868MHz (EU), 915MHz (US)
- Radio range : up to 1km line of sight
- Indoor range : up to 200m
- Gaussian Frequency Shift Keying Modulation Receiver
- Sensitivity : -110dBm @ Frame Error Rate 0.1%
- Output power : +8dBm with integrated antenna
- Certification
 - CE : EN 300 – 683
 - ART : EN 300 – 220 – 1
 - FCC : 15-249 & 15-247
- Intrinsic security
 - EN 500 14
 - EN 5020 class 3
- Integrated WAVENIS secured communication protocol
- Possibility to use each module as a radio repeater to address other further modules
- Automatic wireless installation and configuration procedure

OPERATING FEATURES

- Lifetime : up to several years according to the user scenario
- 1 input for connection to resistive gauge (Rochester type)
- Wireless monitoring of level and operating status
- Wireless programming of applicative parameters
- Time synchronization
- Programmable period for periodic transmission
- Time & date management (night & day configuration, ... time windows)
- Programmable threshold alarms
- Programmable data logging
- Data logging up to x500 values
- Automatic alarm setup
- Real-time or delayed alarm setup upon high and low thresholds
- Alarm setup upon cable cut detection
- End of battery life detection



RADIO FUNCTIONS

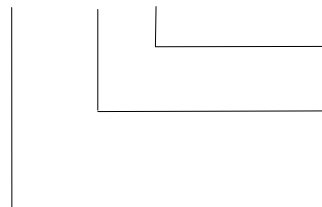
The **Wavetank** module establishes a 2-way transmission with an access point. Thanks to the Ultra Low Power technology, the module has a very long battery lifetime and makes the telemetry costs very low compared to other traditional wired solutions. Wavetank is wirelessly controlled and offers the following services :

- periodical transmission to the the wireless network central unit
- transmission of spontaneous alarm messages upon predetermined events
- peer-to-peer communication : data transmission upon request from the data collector
- radio repeater capability to relay radio frames intended for modules that are out of direct radio coverage
- wireless update of the configuration parameters

The Wavetank module is also made to be integrated into a **Wavenis** network and cooperate with other Wavenis-enabled modules. The radio protocol also features broadcast and polling operating modes for efficient wireless network management.

REFERENCE GUIDE

WAVETANK-868-65-IS



- with(IS) or without () intrinsec security
- protection class 65=IP65
 68=IP68
- carrier frequency 868=868MH
 915=915MHZ

WAVETANK-SPEC = upon custom request (casing, sensor interface, marking...)

REMOTE ACCESS

- The **Wavetank** products are compatible with the following Coronis data collection solutions :
- **Waveport** : PC radio modem with USB/RS232 interface and Windows2000/ WindowsCE drivers
- **Wavecell** : GSM/ Wavenis concentrator relaying the teleoperations of a Wavenis network
- **Wavecard** : Wireless OEM card integrating the Wavenis technology. This card has been designed for integration into industrial equipments or mass market products such as notebooks, PDAs, handheld terminals...
- With the integration of the Wavenis protocol all the Coronis telemetry modules are interoperable and compatible within a network or peer-to-peer mode.

MECHANICAL CHARACTERISTICS

- IP 65 casing (optional IP68)
- Operating temperature range [-20°C;+70°C]
- Dimensions (H/L/P) : 12x4x3 cm
- Weight : from 110g to 160g