

Wireless Fluid Level Telemetry

GTank™ is a wireless bridge dedicated to the remote control and monitoring of liquid levels within a tank. Some examples of these usage areas are LPG, gas, water, septic tank, petroleum containers, brewery kegs, etc.

Companies dealing with liquid assets use GTank™ to optimize their supply chain on automatic restocking, stock level prediction and delivery optimization together with other real-time information services.



Based on the GTelemetry long range Ultra-Low-Power technology, GTank is battery powered with several years of autonomy and is contactable even in hard-to-reach places.

The optimized design and manufacture of the module is ideal for applications with highly constrained environments requiring very robust and reliable devices.

BENEFITS

Being Intrinsically Safe for hazardous environment, GTank turns traditional manual fluid monitoring into a real-time control environment with low overall investment and rapid deployment speed.

TECHNICAL CHARACTERISTICS

- License-free ISM bands -868 / 915MHz
- Radio range: Up to 1km LOS
- Indoor range: Up to 200m
- Gaussian frequency shift key modulation (GFSK) receiver
- Sensitivity: -110dBm @ Frame Error Rate 0.1%
- Output power: +8dBm with integrated antenna
- Certifications:
 - CE EN300-683
 - ART EN300-220-1
 - FCC: 15-249 & 15-247
- Intrinsic Safety:
 - EN 500 14
 - EN 5020 class 3
- Full compatibility with the high reliability GT&T ULP RF network

RADIO FUNCTIONS

GTank™ establishes a 2-way transmission with an access point.

Using Ultra Low Power technology, the module has a very long battery lifetime and makes the telemetry costs extremely low compared to other traditional wired or unwired solutions. GTank is controlled over-the-air and offers the following services :

- Periodical transmission of information to a central wireless network node
- Automatically send event-triggered alerts
- Point-to-point (transmission of data on request), broadcast and polling mode
- Can be used to relay frames intended for other modules outside the sender's transmission range
- Capability to update configuration parameters over the air

GTank™ can also be integrated in a network and interoperates with others GTelemetry ULP modules.

FUNCTIONAL FEATURES

- Operating autonomy of several years depending on operating conditions
- 1 input for connection to resistive gauge (Rochester type)
- Wireless reporting of fluid level and operating status
- Wireless programming of application parameters
- Time synchronization
- Programmable reporting frequency
- Time & date management - night & day configuration, time windows
- Programmable threshold alarm
- Programmable data logging; up to 500 values stored
- Automatic alarm set up
- Cable cut tamper detection
- End of battery life detection

REMOTE ACCESS

Tank™ establishes a 2-way transmission with an access point.

- GPort™: wireless modem with USB/RS232 interface to Windows 2000 or Windows CE drivers
- GCard™: OEM wireless communication card using GT&T ULP technology. This RF card is designed for incorporation in all types of equipment (portable PC, Palm Pilot, hand-held terminals, gateway service providers)
- By incorporating GT&T ULP protocol, all GTelemetry remote measurement modules become inter-operable and compatible in a network or peer to peer mode.

ENVIRONMENTAL AND MECHANICAL CHARACTERISTICS

- Operating temperature (module): [-20°C; +70°C]
 - IP 65 or IP68 casing
- Dimensions (H x L x W): 12x4x3 cm
- Weight: From 110g to 160g