

# RTcom™ SMART Log: Data Logging AMR Endpoint

## Applications

With ever increasing pressures on energy and water resources more and more utility companies are looking to AMR as a means of limiting both growth in demand, reducing customer complaints, eliminating estimated bills, detecting and mitigating leakage and ultimately reducing wastage. In the past this required 24/7 monitoring and control only offered by fixed network AMR systems. The RTcom™ Smart Log provides a real alternative without the need to invest in fixed network infrastructure or where a fixed network exist the Smart Log can be used to extend the coverage into outlying locations beyond the economic reach of the fixed network.

## Technical data

<b>Radio technology</b>	869 MHz
<b>Approvals</b>	CE, R&TTE Directive
<b>Data format</b>	Secure encrypted protocol
<b>Operating mode</b>	Chirp Transmission and requested download
<b>Modulation</b>	Wide Band FM
<b>Operating distance</b>	Up to 100m
<b>Operating temp.</b>	-10°C to +40°C
<b>Battery life</b>	10 years
<b>Antenna</b>	Magnetic coupling to mounting plate in lid
<b>Warranty</b>	3 years from manufacture



## Mechanical data

<b>Dimensions</b>	50 x 80 x 115mm
<b>Weight</b>	360g
<b>Sealing</b>	IP68
<b>Mounting</b>	magnetic mount

In summary, unlike a conventional walk-by or drive-by AMR device the Smart Log can be used to emulate the characteristics of a fixed network and hence to monitor and control consumption of water, monitor for leakage, be used to enforce drought restrictions, be used to apply rising block tariffs, be used to apply seasonal tariffs, reduce utility costs due to change of occupancy, plus detect and record the time and duration of customer meter fraud.

## Key features

<b>Cost Effective</b>	Low cost alternative to fixed network
<b>Installation</b>	Not limited by the availability of infrastructure or cell phone coverage
<b>Capacity</b>	1-year's capacity at 30-minute samples
<b>Data Download</b>	Fast, 2-way secure, frequency agile wireless data link
<b>Mechanically</b>	Tough can be submersed
<b>Meters</b>	Supports reed switch, electronic pulse encoders and flow turbines
<b>Safety</b>	Eliminates operator RSI through lifting covers
<b>In reader compatible</b>	Emits a regular chirp for operation of in-readers (Smart View)
<b>Protection</b>	Data fully check-sum protected and 100% secure

## Operational Overview

In simple terms the Smart Log is a low cost, micro-power data logger designed to capture meter readings or flow rates at 5-minute to hourly intervals but with the ability to be de-briefed remotely via a secure wireless link over distances of 100m even from below ground, in for example a meter pit or boundary box!

In operation the Smart Log simply accumulates and stores the pulses or flow rate from a meter or turbine against time. The Smart Log also generates a regular "chirps" containing the Smart Log ID, tamper, leakage status and the running total. This permits the Smart Log to work with walk-by and drive-by AMR systems as well as in house readers.

Data download is fast – with typically 6 months data (at say 30 minute sampling) download taking less than 15 seconds. Combining this with a read range of approximately 100m means that the Smart Log can be downloaded from a vehicle moving at 20mph. If the amount of data is reduced for example 1 month, a drive by speed faster can be achieved.

## Associated Hardware & Software

- RTcom™ SMART Patrol AMR Data Management & Meter Reading Software
- RTcom™ SMART View wireless in-house reader; commercially available July 2008
- RTcom™ SMART USB Rx vehicle based receiver
- Vehicle Magnetic Mount Antenna

## Associated Accessories – Pulse Generators

Actaris



Sappel



Sensus



Elster



Description	Part Number
SMART Log AMR Endpoint with flying leads	549-003
SMART Log AMR Endpoint with pulse generator; type must be specified	549-00X

