

AnyQuest Enhanced Cyble

Radio Module for Mobile AMR

Built on Itron proven expertise to design and manufacture high performance radio modules, AnyQuest Enhanced is the significant next evolution step going far beyond the simple reading of the actual meter index for billing purpose.

Mobile meter data collection systems have been widely adopted by utilities and service companies. This mature technology significantly accelerates meter reading speed and avoids risk of visual reading mistakes. It also largely improves meter readers safety and customer satisfaction - avoiding intrusion in private facilities.

AnyQuest Enhanced offers the benefits of unprecedented functionalities within a mobile data collection system. Whether your challenge is to reduce non-revenue water, manage water conservation programs, or increase operation efficiency, the versatility of AnyQuest Enhanced functionalities provides you all the necessary tools.

You are about to get far more than just an AMR system...

Peak flow

Recording highest flow rate of a selectable interval (day / week / month) 13 monthly flags & 5 highest peak flow rates are stored (date & time stamped)

Use case examples:

- > Monitoring abnormal water usage
- > Contract supervision for large consumers
- > Contract negotiations with suppliers
- > Network pressure drop investigations
- > Meter peak load monitoring



Record consumption within day period & year season. Example configuration: Consumption from 15 June to 1 Sept; 3pm to 7pm stored in TOU index 1, Consumption from 01 Jan to 31 Dec, 2am to 4am stored in TOU index 2 Use case examples:

- > Enable water conservation programs
- > Measure night line consumption
- > Multi tariff billing
- > Contract management
- > Pumping hour monitoring

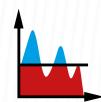


Record consumption within hour/day/ week/month interval.

46, 89 or 181 intervals are stored (depending on selected consumption resolution).

Use case examples:

- > Customer evaluation / benchmarking
- > Minimum flow recording
- > Fix date reading and billing
- > Seasonal tariff management
- > Detect water theft



Volume below & above

Record total consumption below flow rate threshold 1 and above flow rate threshold 2.

Use case examples:

- > Multi tariff billing
- > Enable water conservation
- > Detect damaged meters





Consumption in reverse direction is detected.

Storing the index of total reverse flow consumption, 13 monthly alarm flags Usage / detection / monitoring examples:

- > Non return valves
- > Doubtful installations
- > Network areas with pressure drops
- > Water quality claims
- > Meter fraud



Meter under & over sized indication

Example configuration for monthly alarm flag: Volume above Qn/ Q3 or below Qt/Q2 has exceeded 20%

Storing: Actual & previous year alarm, 2 x 13 monthly flags Use case examples:

- > Detect too small & too big meters
- > Manage meter replacement campaigns
- > Change out meters with non adapted dynamic range



If within 24h permanent flow above leakage flow rate threshold has been detected, the day is counted as a leakage day. Storing 13 month history of number of leakage days per month, monthly & yearly leakage alarm,

Use case examples:

- > Detect water leakage after meter
- > Manage customer bill disputes
- > Reduce water consumption

ENHANCED FUNCTIONALITIES

AnyQuest delivers a comprehensive list of functionalities to get the most out of the mobile data collection process.

*functions also available with EverBlu Cyble Enhanced (Fixed network ready)

10-11-5	Volume index	Volume index at time of reading
	Preset billing date	Volume index recorded at 4 preset dates (programmable)
	Data-logging	History of up to 181 consumption intervals (hourly,daily,weekly,monthly)
	2 Time-Of-Use Indexes	Registers consumption within a defined intervals of the year
	Volume above threshold	Total consumption above a high flow-rate threshold
	Volume below threshold	Total consumption below a low flow-rate threshold
	Meter sizing indicators	2×13 monthly indicators if the meter is oversized or undersized
۵!	Leakage information	13 month history of number of leakage days
	Backflow volume and alarm	Total backflow volume and 13 monthly alarms
	Meter stopped detection	Alarm if no consumption over a configurable period has been recorded
	Reversed meter detection	Alarm if > 1000 consecutive target turns in reverse flow have been recorded
	Module tamper detection	Alarm if the radio module module has been tampered
	Alarm log	Log of start and end dates for last recorded alarms
	Peak flow-rates	5 highest peak flow-rate values with date of occurrence
1	Peak flow alams	13 monthly alarms if the peak flow threshold has been exceeded



Temetra Software

Functional Specifications	
Dimensions	92 x 57 x 50 mm
Power source	Lithium battery
Battery lifetime (min)*	15 years
Case protection	IP68
Relative humidity	0 to 100% - submersible
Operating temperature **	-10°C / +55°C***
Accidental temperature	-20°C / +70°C
Conformity	CE certified, in accordance with the European RED Directive (2014/53/UE), ATEX certified

* Under norma	l applications withir	n the specified r	eference operat	ing conditions.

 $^{^{**} \} High \ Temperature \ (HT) \ version \ also \ available \ on \ request.$

Radio Frequency Features				
Protocol	RADIAN			
Modulation	Frequency Shift Keying			
Frequency carrier	433.82 MHz			
Radiated power	\leq 10 mW			
Transmission	Symmetrical 2-way communication			
Line of sight reading distance (LOS)	> 1500m			



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9, rue Ampère 71031 Mâcon cedex France

Phone: +33 3 85 29 39 00 Fax: +33 3 85 29 38 58

ITRON WATER METERING

^{***} Operation: $+5^{\circ}$ C to $+35^{\circ}$ C / Storage: $+5^{\circ}$ C to $+35^{\circ}$ C / Transport: Min. -20° C (< 24 hours continuous), Max. $+70^{\circ}$ C (< 24 hours continuous) / Min. operational temperature: -10° C (< 15 days/years) / Max. operational temperature: $+55^{\circ}$ C (< 15 days/years).