.Reduce Water Loss and Maximize Efficiency with AQS-Edge

The Most Accurate Leak Detection Solution with Integrated Cat-M/NB-IoT Communication.

Engineered for any environment, pipe material, or diameter, AQS-Edge acoustic correlating sensor detects even the smallest leaks, ensuring your network's resiliency and operational efficiency.

Key Benefits:

ENHANCED WATER SAVINGS:
Reduces Non-Revenue Water by up to 20% with advanced acoustic corelating sensors that quickly detect leaks, enabling rapid response and minimizing water loss.

EXCEPTIONAL ACCURACY:
Detects leaks within ±1 m. Early detection of developing leaks enhances network resilience and extends its lifespan.

ADVANCED AUDIO ANALYSIS:
Flexibility to deploy a tailored mix of sensors within the same network, optimizing performance based on your infrastructure type.

HIGH-PERFORMANCE LEAK DETECTION:
AQS sensors boost performance by up to 50% compared to traditional methods, contributing to a rapid Return On Investment of 1 year or less.

LONG-TERM VALUE:
Utilizes fewer sensors per kilometer, offering a reliable, cost-effective, and sustainable solution for large-scale water systems.*

Product Features and Technology Advantages:

AQS-Edge Accelerometer (AG)

- Easy & Fast installation
- Cat-M/NB-IoT communication
- Bluetooth communication

AQS-Edge Accelerometer (BG)

- iOS & Android App support
- Up to 8 years battery (standard use)

AQS-Edge Hydrophone (BG)

- FCC Certification
- FW OTA update

- Suitable for Pipe Diameters between 65mm – 500mm
- Cost-effective network coverage – positioned up to 300m

- Advanced hydrophone optimized for leak detection on PVC, PE, and large diameter pipes.
- Cost-effective coverage up to 750m for transmission lines and 300m for distribution lines.

- Field replaceable battery
- Fits on fire hydrants and pipes without interfering with ports and openings

- Replaceable battery
- Build-to-fit any material type, including mix materials network

* Varies based on pipe's material, topology, diameter and water pressure.

AQS-Edge: Cat-M/NB-IoT Fixed Acoustic Correlating Sensors

Sensor Type/Model	Above-ground Accelerometer (AG ACC)	Below-ground Accelerometer (BG ACC)	Below-ground Hydrophone (BG HYD)
Cellular			
Cellular Communication	Cat-M/NB-IoT		
Supported Cellular Radio Bands	Cat-M1: B1, B2, B3, B4, B5, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B66 Cat-NB1/NB2: B1, B2, B3, B4, B5, B8, B12, B13, B17, B18, B20, B25, B26, B28, B66		
Analog Recording & Performance			
Frequency range	1-1000Hz		
Dynamic range	20 Bit		
Pressure rating			232 psi (16 bar)
Sampling	Typically once per day, configurable up to 48 times per day		
Time synchronization	Less than 1ms using RF		
Self-test	Comprehensive self-test upon installation		
Enclosure			
Water-proof	IP 65	IP 68	
Dimensions	142 x 72 x 56mm	D=64mm H=170mm	
Material	PA6 30%GF	Aluminum 6061 with anti-corrosive coating	
Weight	310g	380g	
Sensor type	Internal Accelerometer	External Accelerometer	External Hydrophone
Sensor dimensions	N/A	D=53mm H=52mm	D=42mm H=54mm
Standard Cable length	N/A	2m for ACC	3m for Hydrophone
Cable connector	N/A	M12	
Sensor weight	N/A	150g	180g
Sensor material	N/A	PA6 20%GF	SS316
Sensor threads	N/A	N/A	Male -1" NPT
Antenna			
Type	Internal	External SMA Standard	
Dimensions	N/A	D=12mm H=50mm (LTE) / D=13mm H=102mm (FM)	
Polarization	Linear, omni directional		
Average / Peak Gain / LTE	2.3 / 3.4 dBi	2.1 / 3.5 dBi	
Interface			
Interface physical layer	BLE communication		
Mobile application support	IOS, Android		
Operating Conditions			
Certification	CE / FCC / Mil810 / WRAS		
Temperature range	(-15°C to 60°C)		
Battery type	Replaceable Lithium Metal 3.6V battery size D		
Expected battery life	Up to 8 years of operation at standard conditions and 1 sample per day		
Product lifetime	Over 20 years		

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For more information, visit **aqs-systems.com**