

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 correlating sensors that quickly detect leaks, enabling rapid response and minimizing water loss.

EXCEPTIONAL ACCURACY:

Detects leaks within ± 3.2 ft. Early detection of developing leaks enhances network resiliency 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 Mile, offering a reliable, cost-effective, and sustainable solution for large-scale water systems.*

Product Features and Technology Advantages:

AQS-Edge Accelerometer (AG)



AQS-Edge Accelerometer (BG)



AQS-Edge Hydrophone (BG)



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

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

- FCC Certification
- FW OTA update

- Suitable for Pipe Diameters between 2.5" – 20"
- Cost-effective network coverage – positioned up to 1000 ft

- Advanced hydrophone optimized for leak detection on PVC, PE, and large diameter pipes.
- Cost-effective coverage up to 2460 ft for transmission lines and 1000 ft 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 | 5.6 x 2.8 x 2.2" | D=2.5" H=6.7" | |
| Material | PA6 30%GF | Aluminum 6061 with anti-corrosive coating | |
| Weight | 10.93 oz | 13.40 oz | |
| Sensor type | Internal Accelerometer | External Accelerometer | External Hydrophone |
| Sensor dimensions | N/A | D=2.1" H=2" | D=1.6" H=2.1" |
| Standard Cable length | N/A | 6.5 Ft for ACC | 9.8 Ft for hydrophone |
| Cable connector | N/A | M12 | |
| Sensor weight | N/A | 5.3 oz | 6.3 oz |
| 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=0.5" H=2" (LTE) / D=0.5" H=4" (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 | (-5°F to 140°F) | | |
| 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 | | |

