



Category: water pipe monitoring.
Leak detection

Company profile

Aquarius Spectrum is a Startup Company developing advanced solutions for water on-line leakage detection in pipes. Aquarius Spectrum takes the acoustic leakage detection methods to the next level of performance and integration with AMR/AMI. Aquarius Spectrum has developed novel technology that includes ultra low cost vibration sensors that can be integrated within water meters, and advanced software for leakage detection. The system analyses the signals from the acoustic sensors and provides alerts for developing leaks in real time. The system has undergone extensive testing in metal and plastic pipes, as well as pilot installation in Israel. The calculated ROI for Aquarius leak detection system is less than 2 years, providing great opportunity to reduce NRW and improve pipeline maintenance.

Background on the company

Aquarius Spectrum is a private VC backed company, incorporated in Israel in 2009. The company has a very strong engineering team including 2 PhD researchers and experienced business people from water industry. The company addresses the unmet need for reliable, automatic and cost-effective leak monitoring system.

Technology & product(s)

Aquarius has made a significant advancement in the field of acoustic sensing by development novel sensors and detection algorithms. The novel sensors are based on piezo thin films enabling to produce very low cost, highly sensitive and compact vibration sensors. The sensors can be used in a stand alone devices or integrated within water meter that transmit the data via AMR or AMI infrastructure.

Additional innovation is in the field of leak detection and location algorithms. Aquarius spectrum has gone beyond the traditional noise logging or correlation methods, increasing the range and reliability by using innovative algorithms and distributed processing.

The company products include:

- Integrated sensors that can be installed near water meters and interface AMR/AMI transducers. The integrated sensors are very low cost and energy efficient.
- Long range sensors that contain RF transmitter and provide leakage detection coverage for over 500 meter range with one meter location accuracy. This high end system can monitor the complex pipes network with less than 20 sensors per square km of the city, providing very cost effective solution for leak monitoring.

Objectives / Target companies

Aquarius Spectrum is interested in strategic partners in water metering or communication vendors for marketing, distribution, OEM agreements.