



High Resolution Sensitivity & Unmatched Performance

picoDAS

High Resolution Distributed Acoustic Sensing System



picoDAS

The Sentek picoDAS system consists of sensors placed within the fiber optic cable, an interrogator unit and software that provides data logging and exception monitoring.

Long-term Solution

High durability without degradation, corrosion or maintenance makes picoDAS a reliable solution for the entire life of each project.

Best in Class

Offering unbeatable reliability and effectiveness for perimeter security, asset monitoring, smart grid monitoring, structural health and oil and gas downhole monitoring.

- **High Sensitivity:** Most sensitive product on the market with resolution data **100 times more sensitive** than traditional DAS systems.
- **Reliability:** Lowest noise levels with **narrow sensitivity distribution** across entire sensing range.
- **Zero Cross-talk:** Eliminates spatial cross-sensitivity to ensure every sensing zone provides consistent accuracy.

Security



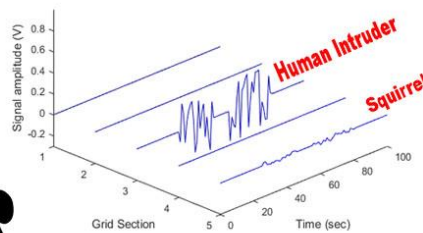
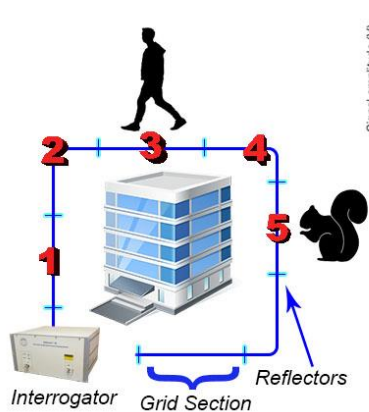
Infrastructure



Military



Oil & Gas

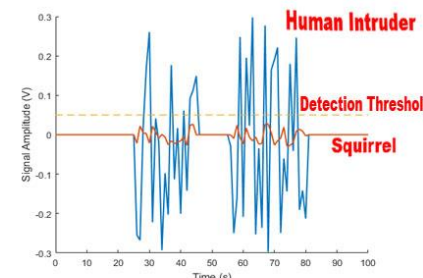


picoDAS is capable of detecting events as low as 0.5 nano strain

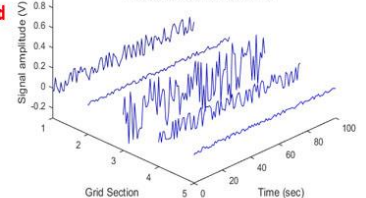
Up to 1,000 detection zones with consistent sensitivity in every zone

Traditional DAS:

- Inconsistent sensitivity zones
- Inherent system noise
- Extensive post processing
- Less imaging certainty



Traditional DAS



WE CHALLENGE THE IMPOSSIBLE

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Technical Specifications

Model	picoDAS - 05
Sensitivity	$< 3 \text{ p}\epsilon / \sqrt{\text{Hz}}$
Maximum Active Sensing Range	5km
Maximum Lead Fiber Length	15km
Spatial Resolution	5m
Max Data Update Rate	15.6 kHz
Computer Interface	Ethernet
Instrument Dimensions and Weight	27cm x 45cm x 44cm (H x W x D), 17.3 kg
Power	110V/220V , 60Hz/50Hz
Power Consumption	86 W

Cleanest Signal

Every event is captured due to the best in class signal response fidelity which eliminates the need for filters or signal averaging algorithms.

Ultra-Sensitive

With consistently distributed signal sensitivity as lows as 3 pico-strain per square root Hz, the picoDAS can detect a cotton ball dropped on one sensor zone while a vehicle drives over another sensor zone.

Hi Speed Acquisition

Reaching sampling rates as greater than 15.6 kHz ensures highly detailed and readable data for every application.

Security



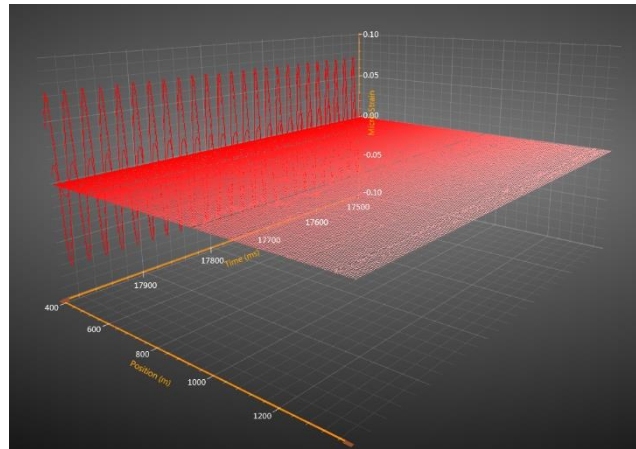
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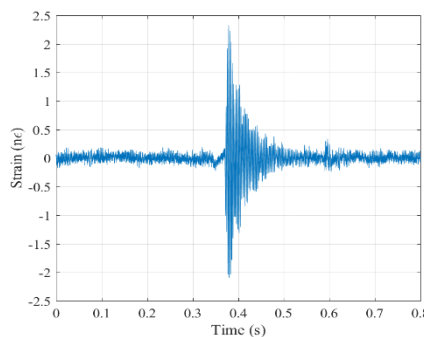
Oil & Gas



picoDAS offers best in class signal response fidelity enabled by its **superior response** linearity

Smooth flat shape demonstrates nearly **nonexistent noise** across all 1,000 sensor zones

Traditional DAS systems must use filtering to reduce noise which slows sampling speeds and decreases resolution of imaging.



picoDAS provides superior sensitivity for detection of **extremely small changes** in the environment

Signal (shown left) **detecting a cotton ball** dropped on the desk

Traditional DAS systems have at least two magnitude less sensitivity, making geological structures difficult to detect.

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