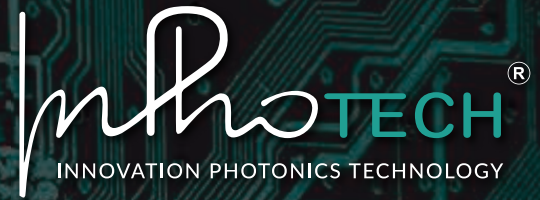


DISTRIBUTED ACOUSTIC SENSOR



A single standard optical fiber becomes a “**distributed microphone**”, featuring **thousands** of sensing points along **tens of kilometers**.

APPLICATIONS

- Border control and military applications
- SHM of civil infrastructures:
Telecom, energy, water, and transportation
- Oil & Gas: Pipeline integrity, early leak
detection, refinery monitoring
- Residential areas surveillance

KEY ADVANTAGES

- **Fast & Reliable - 24/7 monitoring**
of critical assets
- Enabling real-time **detection and location**
of multiple **threats**: individuals, vehicles, heavy
machinery, structural failures...
- Customized configurations (buried sensing
fiber, fiber-over-fences, etc.)
- Highly **combinable** with conventional
surveillance systems.

LONG MONITORING RANGES: 50 KM

LOCATION ACCURACY: 2 M

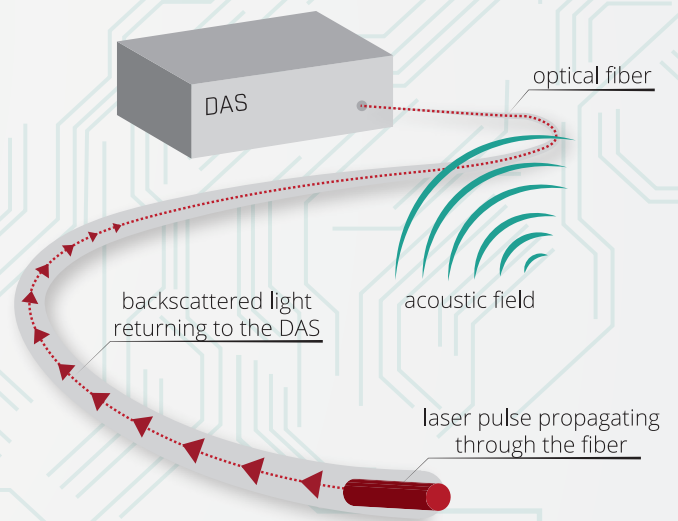
REMOTE SENSING

SENSING IN HARSH ENVIRONMENTS



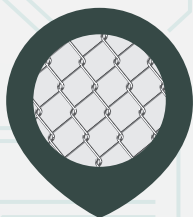
Design **Future** With Photonics

- **Single interrogation unit** featuring **several thousand sensors** along **tens of km of fiber**.
- **Invisible** and **undetectable** sensing fiber
- Records acoustic signals up to **several kilohertz** of frequency.
- The interrogation unit can be placed far from the area of interest (**remote sensing**).
- **Access to only one end** of the fiber is needed.
- The optical fiber is **lightweight**, and it can be placed in existing infrastructures, such as fences, power-transportation grids, railway catenaries or roads.
- The fiber itself is **immune** to Electromagnetic Interference (EMI).
- It is suitable for use in monitoring harsh environments (high temperatures, presence of flammable materials or gases, high electromagnetic radiation areas, etc.)



DAS INTEGRAL ASSET MONITORING SOLUTION

With DAS, critical assets will remain secure at all times, and in the case that an unexpected activity takes place in the area surrounding the fiber, it will enable fast and effective intervention.



24/7
ASSET
MONITORING



DATA
MEASUREMENTS



PROCESSING
INFORMATION:
THREATS & ALARMS
IDENTIFICATION



ACTION

The DAS technology has established itself as the **best sensing solution on the market**, allowing large areas and assets to be **monitored accurately**, thus significantly reducing the cost and interrogation time per sensing point. It features smart detection schemes able to differentiate threats from harmless events, permitting action to be taken only when necessary, i.e. truly **optimizing the available resources**.