

ABOUT

## AgilFence

### Intelligent Solutions, Smarter Protection

Innovation-driven and objective-led, AgilFence specializes in the security of critical infrastructures. Our ability to deliver unique and confident solutions have seen implementations at a global scale, and have transformed how organizations protect their key assets and installations.

From intrusion detection systems, security surveillance solutions to integrated alarm management systems – we've got you covered.

OUR COMPANY

## ST Electronics

ST Electronics (Singapore Technologies Electronics Limited) is the electronics arm of Singapore Technologies Engineering Ltd, one of the largest public-listed companies on the Singapore Stock Exchange. ST Electronics is a global engineering company specialising in the design, development and integration of advanced electronics and communications systems. We have a presence in over 20 countries spanning North America, Latin America, Europe, Africa, the Middle East, China, India and Southeast Asia.

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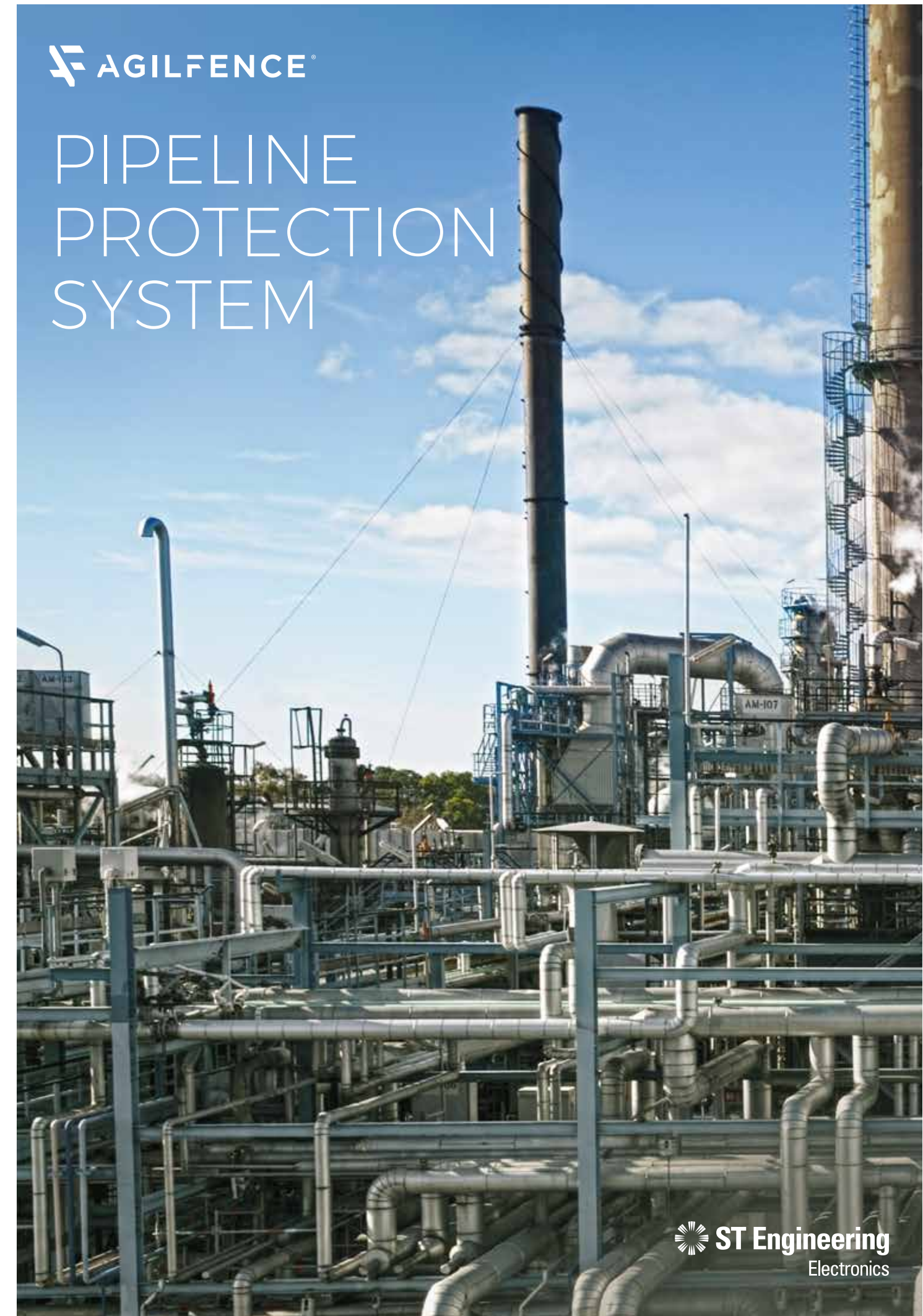
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# PIPELINE PROTECTION SYSTEM



## OVERVIEW

# Pipeline Protection System

## Security Our Commodity, Your Protection Assured

The safe operations of key oil and gas installations are mission critical to the balance of the global economy. Our intelligently-designed pipeline protection system is capable of supporting comprehensive strategies that integrate complex systems over long distances and through the remotest of regions.

With far-ranging capabilities that will not only deliver critical protection and early detection of sabotage, vandalism, supply disruption and detection of leaks and pipeline breaks; AgilFence goes above and beyond to customize and meet the needs of today's most critical assets.

### Our Solutions include:

1. Smart DroneBox
2. DAS Detection
3. DTS Leakage Detection



### UAV Alarm Response

#### Using H3 Dynamics Dronebox

AgilFence solutions can be integrated with DroneBox to offer our clients a smart unmanned response system which launches drone missions for alarm verification.

- Auto-launch based on pin-pointed location provided by AgilFence solutions
- Robust standalone system with auto-recovery capability
- Solar powered off-grid capabilities, ready for next mission

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### Excavation & Theft Detection

#### Using Fibre Optic Acoustic Sensing Cable

AgilFence DAS is a distributed acoustic sensing system for buried pipelines that require protection. It senses and records real-time sound signals along the entire length of a pipeline continuously without any blind spot.

- Advanced Phase-Sensitive Optical Time Domain Reflectometer (PS-OTDR) technology
- Effectively detects scenarios of theft and unauthorized excavation attempts down to 50m
- Extremely low false alarm rates with intelligent signal processing that sieves out unwanted signals
- High-grade fibre optic cable that is resistant to EMIC / EMC and lightning

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### Leakage Detection

#### Using Fibre Optic Temperature Sensing Cable

AgilFence DTS is a distributed temperature sensing system. It records real-time temperature along the entire length of a pipeline as a safety measure for occurrences such as gas or oil leakage.

- Advanced Raman Optical Time Domain Reflectometer (ROTDR) technology
- Measurement accuracy down to 1°C
- 24/7 real-time monitoring
- Accurate and instantaneous alert on abnormal activities
- Cost-effective and easy to deploy

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