

## Remote measurement system for harsh environment

Extreme conditions (high temperatures, radio-activity...) or harsh environments can disturb contactless measurement systems and involve measurement errors.

### COMPETITIVE ADVANTAGES

- Measurement accuracy
- Robustness
- Stability of the system
- Easy to implement
- Remote measurement

### DESCRIPTION\*

- Fiber laser system based on Fabry-Perot interferometry
- The system is based on dual modulation:
  - An optical fiber combined with a collimator forming the detection module
  - An electronic part forming the treatment module
- This system architecture enables to:
  - Identify target movements' direction
  - Detect very slight movements
- Due to the use of optic fiber:
  - Disturbance tolerance of the system
  - No embedded electronics within the measurement zone

### APPLICATIONS

- Applicable in harsh & hard to access environments
- Monitoring:
  - Structure
  - Seismic
  - Geophysics
- Multi-points measurement

### INTELLECTUAL PROPERTY

- Patent pending

### DEVELOPMENT STAGE

- Technology validated in relevant environment

1 2 3 4 5 6 7 8 9

### LABORATORY

- OSE team



### TECHNICAL SPECIFICATIONS

Target Contact	No
Bandwidth	10 <sup>-3</sup> Hz to 5 KHz
Response Time	Real Time
Minimum Detectable Move	2 Nanometers
Measurement Accuracy	1 Nanometer
Distance to the target	Kilometers

### CONTACT

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