

# **Distributed Temperature Sensing Market Size, Share & Trends Analysis Report By Operating Principle (OTDR, OFDR), By Fiber Type (Single-Mode Fiber, Multi-Mode Fiber), By Application, And Segment Forecasts, 2019 - 2025**

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## **Abstracts**

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The global distributed temperature sensing market size is anticipated to reach USD 849.0 million by 2025, according to a new report by Grand View Research, Inc. It is expected to exhibit a CAGR of 10.7% from 2019 to 2025.

In the Distributed Temperature Sensing (DTS) the optical fiber are used as a sensor. The operators can receive information related to temperature after installing such sensors in the fiber cable. The adoption of these sensors has increased rapidly in recent years due to their cost advantages. The DTS uses standard telecoms fiber, thereby requiring no special sensors, and thus saving cost. The cost of material, system design, installation, and maintenance are very low for these sensors, which in turn is projected to positively influence the market growth.

DTS offer fully distributed data, which minimized uncertainties and increased the amount of information received. In addition, these sensors offer very high reliability along with immunity to electromagnetic interference and shock/vibration. Also, distributed temperature sensing can be easily used in space-restricted areas. It also offer other advantages, such as high-temperature performance, long measuring ranges, high-temperature resolutions.

Various advantages of DTS contribute to its adoption across various industrial

applications. Distributed temperature sensing is used for long length applications, such as in power cables, tunnels, and pipelines. The oil and gas segment are expected hold majority of the market share by 2025. The oil well industries are prominent customers, owing to its small size and easy accessibility of DTS. The safety and security segment is expected to register the fastest CAGR over the forecast period, due to substantial use of DTS in safety-critical applications where all points need to be monitored is also observed. These critical applications include electrochemical processes, LNG plants, and refineries.

Further key findings from the report suggest:

Optical Time Domain Reflectometry (OTDR) is anticipated to continue holding the largest market share over the forecast period, owing to high usage of OTDR as it offers robust measurements

The multi-mode fiber is projected to hold a high market share in near future. This type of fiber has better ability to launch more power than single-mode fiber, which is expected to drive the growth

Benefits such as high spatial density and distributed temperature profile provided by a distributed temperature sensing are driving the growth of market

Asia Pacific is expected to register significant growth over the forecast period, owing to the rising adoption of cost efficient and reliable temperature measuring solutions

Key market players are Silixa Ltd, AP Sensing GmbH, NKT Photonics A/S, Bandweaver, Sensornet Limited, OFS Fitel, LLC., Schlumberger Limited, Halliburton, OPTROMIX, and Yokogawa Corporation of America

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