

# Infrared & Terahertz Spectroscopy Market by Instrument Type (Benchtop Instruments, Microscopy Instruments, Portable Instruments, Hyphenated Instruments), Spectrum, Application - Global Forecast to 2025

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# **Abstracts**

The infrared spectroscopy market is expected to reach USD 1.3 billion by 2025 from USD 1.0 billion in 2020, at a CAGR of 5.2% during the forecast period.

Growth in the market can primarily be attributed to factors such as stringent regulations in the pharmaceutical industry, growing food safety concerns, increasing government in Infrared technologies and technological advancements in the market.

The terahertz spectroscopy market is expected to reach USD 45 million by 2025 from USD 30 million in 2020, at a CAGR of 8.3% during the forecast period. Growth in the market can primarily be attributed to factors such as increasing applications of terahertz spectroscopy as a screening technique in homeland security, the growing semiconductor industry, and technological advancements.

"The benchtop segment to hold the largest market share in 2020."

Based on instrument type, the infrared spectroscopy market is segmented into benchtop instruments, portable instruments, microscopy instruments and hyphenated instruments. In 2020, the benchtop instruments segment is expected to command the largest share of the infrared spectroscopy market. The large share of this segment can be attributed to the advantages offered by benchtop instruments such as improved workflow, minimum space requirements, and fewer maintenance requirements



"The pharmaceutical and biotechnology applications segment to hold the largest market share in 2020."

Based on the applications, the infrared spectroscopy market is segmented into food & beverage testing, pharmaceutical & biotechnology applications, industrial chemistry applications, environmental testing, and other applications (academic applications, forensic applications, biomonitoring, and agricultural applications). In 2020, the pharmaceutical and biotechnology applications segment to command the largest share of the infrared spectroscopy market. The large share of this segment can be attributed to the stringent regulations in the pharmaceutical industry.

"The mid-infrared radiation segment to hold the largest market share in 2020."

Based on spectrum, the infrared spectroscopy market is segmented into mid-infrared radiation, near-infrared radiation and far-infrared radiation. In 2020, the mid-infrared radiation segment is expected to command the largest share of the infrared spectroscopy market. The increase in the number of healthcare and pharmaceuticals applications and extensive usage in the food industry are driving the growth of this segment.

"The semiconductor segment to hold the largest market share in 2020."

Based on application, the terahertz spectroscopy market is segmented into semiconductor, homeland security, non-destructive testing and research & development. In 2020, the semiconductor segment is expected to command the largest share of the terahertz spectroscopy market. Technologicala dvancements in the growing semiconductor industry is the major factor riving the growth of this segment.

"The Asia Pacific region to witness the highest growth during the forecast period."

Geographically, North America dominated the global infrared & terahertz spectroscopy market in 2020. However, the Asia Pacific market is expected to register the highest during the forecast period. The major factors driving the growth of the Asia Pacific market include strategic expansions by key players, increasing food safety concerns and adoption of technologically advanced products.

Break of primary participants was as mentioned below:

By Company Type: Tier I: 43%, Tier II: 33%, Tier III: 24%



By Designation: C-Level Executives: 37%, Directors: 40%, Others: 23%

By Region: North America: 30%, Europe: 25%, Asia Pacific: 28%, RoW: 17%

PerkinElmer (US), Bruker Corporation (US) Shimadzu Corporation (US), Thermo Fisher Scientiific (US) were the leading players in the infrared spectroscopy market.

TeraView Ltd (UK), Advantest Corporation (Japan), Menlo Systems GmbH (Germany) were the leading players in the terahertz spectroscopy market.

# **Research Coverage**

This report studies the infrared & terahertz spectroscopy market based on instrument type, spectrum, application and region. The report also studies the different factors (such as drivers, restraints, and opportunities) affecting the market growth. It provides details of the competitive landscape for market leaders. Furthermore, the report analyzes micromarkets with respect to their individual growth trends and forecasts the revenue of the market segments with respect to four main regions and respective countries.

# **Key Benefits of Buying the Report**

This report focuses on various levels of analysis—industry trends, market shares of top players, and company profiles, which together form basic views and analyze the competitive landscape, emerging segments of the infrared & terahertz spectroscopy market and their drivers, restraints, and opportunities. The report also provides impact of Covid-19 on the infrared & terahertz spectroscopy market and will help both established firms as well as new entrants/smaller firms to gauge the pulse of the infrared & terahertz spectroscopy market and garner greater market shares.



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TABLE 108 ROW: TERAHERTZ SPECTROSCOPY MARKET, BY APPLICATION, 2018–2025 (USD MILLION)

TABLE 109 ROW: INFRARED SPECTROSCOPY MARKET, BY SPECTRUM, 2018–2025 (USD MILLION)

TABLE 110 ROW: INFRARED SPECTROSCOPY MARKET, BY INSTRUMENT TYPE, 2018–2025 (USD MILLION)

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### 11 COMPETITIVE LANDSCAPE

### 11.1 OVERVIEW

FIGURE 26 KEY DEVELOPMENTS IN THE TERAHERTZ AND INFRARED SPECTROSCOPY MARKET

11.1.1 INFRARED SPECTROSCOPY

FIGURE 27 MARKET SHARE ANALYSIS: INFRARED SPECTROSCOPY MARKET

11.1.1.1 Key market developments

11.1.1.1 Product launches

11.1.1.1.2 Acquisitions

11.1.1.3 Partnerships, collaborations, and agreements

11.1.1.1.4 Expansions

11.1.2 TERAHERTZ SPECTROSCOPY

11.1.2.1 Key market developments



11.1.2.1.1 Product launches

11.1.2.1.2 Acquisitions

11.1.2.1.3 Expansions

11.1.2.1.4 Partnerships & collaborations

### 12 COMPETITIVE EVALUATION MATRIX AND COMPANY PROFILES

12.1 COMPETITIVE EVALUATION MATRIX

12.2 COMPETITIVE LEADERSHIP MAPPING: MAJOR MARKET PLAYERS (2019)

12.2.1 STARS

12.2.2 EMERGING LEADERS

12.2.3 EMERGING COMPANIES

12.2.4 PERVASIVE PLAYERS

FIGURE 28 TERAHERTZ AND INFRARED SPECTROSCOPY MARKET:

COMPETITIVE LEADERSHIP MAPPING, 2019

12.3 START-UP EVALUATION MATRIX

12.3.1 PROGRESSIVE COMPANIES

12.3.2 RESPONSIVE COMPANIES

12.3.3 DYNAMIC COMPANIES

12.3.4 STARTING BLOCKS

FIGURE 29 SME EVALUATION MATRIX: INFRARED & TERAHERTZ

SPECTROSCOPY MARKET

12.4 COMPANY PROFILES

(Business Overview, Products Offered, Recent Developments, SWOT Analysis, MnM View)\*

12.4.1 PERKINELMER, INC.

FIGURE 30 PERKINELMER, INC.: COMPANY SNAPSHOT

12.4.2 BRUKER CORPORATION

FIGURE 31 BRUKER CORPORATION: COMPANY SNAPSHOT

12.4.3 THERMO FISHER SCIENTIFIC, INC.

FIGURE 32 THERMO FISHER SCIENTIFIC, INC.: COMPANY SNAPSHOT

12.4.4 SHIMADZU CORPORATION

FIGURE 33 SHIMADZU CORPORATION: COMPANY SNAPSHOT

12.4.5 AGILENT TECHNOLOGIES, INC.

FIGURE 34 AGILENT TECHNOLOGIES, INC.: COMPANY SNAPSHOT

12.4.6 HORIBA LTD.

FIGURE 35 HORIBA LTD.: COMPANY SNAPSHOT

12.4.7 FOSS

12.4.8 JASCO, INC.



- 12.4.9 BAYSPEC INC.
- 12.4.10 SPECTRA ANALYSIS INSTRUMENTS INC.
- 12.4.11 TELEDYNE PRINCETON INSTRUMENTS
- 12.4.12 TERAVIEW LTD.
- 12.4.13 ADVANTEST CORPORATION
- FIGURE 36 ADVANTEST CORPORATION: COMPANY SNAPSHOT
  - 12.4.14 MENLO SYSTEMS GMBH
  - 12.4.15 TOPTICA PHOTONIX AG
  - 12.4.16 MICROTECH INSTRUMENTS INC.
  - 12.4.17 BATOP GMBH
  - 12.4.18 H?BNER GMBH
  - 12.4.19 ADVANCED PHOTONIX, INC.
  - 12.4.20 EKSPLA
- \*Business Overview, Products Offered, Recent Developments, MnM View might not be captured in case of unlisted companies.

### 13 APPENDIX

- 13.1 DISCUSSION GUIDE: TERAHERTZ SPECTROSCOPY
- 13.2 DISCUSSION GUIDE: INFRARED SPECTROSCOPY
- 13.3 KNOWLEDGE STORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL
- 13.4 AVAILABLE CUSTOMIZATIONS
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