

Thermoelectric Module Global Market Report 2025 | Business Growth, Development Factors, Future Trends till 2029

*The Business Research Company's
Thermoelectric Module Global Market
Report 2025 – Market Size, Trends, And
Forecast 2025-2034*

LONDON, GREATER LONDON, UNITED
KINGDOM, October 7, 2025

/EINPresswire.com/ -- How Much Is The
[Thermoelectric Module Market](#)
Worth?

The Business
Research Company

The Business Research Company



Get 30% Off All Global
Market Reports With Code
ONLINE30 – Stay Ahead Of
Trade Shifts,
Macroeconomic Trends, And
Industry Disruptors”

*The Business Research
Company*

result of several factors such as the growing use of wearable medical devices, increased demand for miniaturized thermal management systems, the proliferating need for mobile refrigeration units, a boost in renewable energy applications, and rising technological adoption in consumer electronics.

The market for thermoelectric modules is predicted to experience a significant upturn in the coming years, ballooning to a value of \$1.20 billion by 2029, reflecting a compound annual growth rate (CAGR) of 11.3%. Factors

propelling this growth during the forecast period encompass a heightened demand for precision cooling in electronics, intensified utilization of thermoelectric modules in automotive applications, a progressive shift towards electric vehicles, increasing preference for solid-state refrigeration, and a burgeoning need for off-grid power generation. Looking forward, key market trends involve advancements in energy harvesting technology, the emergence of advanced miniaturized module designs, innovation in solid-state cooling technology, the introduction of thermoelectric modules in wearable devices, and progress in automotive thermal management systems.

Download a free sample of the thermoelectric module market report:

<https://www.thebusinessresearchcompany.com/sample.aspx?id=27799&type=smp>

What Are The Factors Driving The Thermoelectric Module Market?

The expansion of the electric vehicle market is predicted to propel the rise in the thermoelectric module market. An electric vehicle (EV) is powered either wholly or partly by one or several electric motors that utilize energy stored in rechargeable batteries, rather than relying exclusively on internal combustion engines. The popularity of electric vehicles is increasing due to rising environmental worries, as these vehicles provide a greener substitute to traditional vehicles powered by fossil fuels, curbing greenhouse gas emissions and air pollution. The thermoelectric module boosts the efficiency of electric vehicles by transforming the battery and motor's waste heat into practical electrical energy, thereby enhancing the overall energy management and extending the driving range. For instance, reported by the US Energy Information Administration in January 2024, the combined sales of hybrid, plug-in hybrid, and battery electric vehicles made up 16.3% of total U.S. light-duty vehicle sales in 2023, a rise from 12.9% in 2022. As a result, the thriving electric vehicle market is leading to the expansion of the thermoelectric module market.

Who Are The Major Players In The Thermoelectric Module Market?

Major players in the Thermoelectric Module Global Market Report 2025 include:

- Komatsu Ltd.
- Kyocera Corporation
- Coherent Corp
- Ferrotec Holdings Corporation
- Laird Technologies Inc.
- Crystal Ltd.
- Phononic Inc.
- Adafruit Industries LLC.
- Kryotherm Oy Ab
- Te Technology Inc.

What Are The Top Trends In The Thermoelectric Module Industry?

Leading companies in the thermoelectric module market are prioritizing the creation of innovative solutions like thermoelectric cooling systems in order to improve thermal control and dependability across a variety of uses. Thermoelectric cooling devices are sophisticated systems that use semiconductor materials for precise temperature regulation, resulting in superior thermal performance and reliability for uses such as laser stability, sensor cooling, and medical storage. For example, Coherent Corp., a US manufacturing corporation, debuted the CT-Series thermoelectric coolers in January 2025, which are fashioned to render prime and economical thermal control. These coolers attain remarkable temperature differentials of over 70°C at 27°C and up to 80°C at 50°C, guaranteeing accurate thermal regulation. Crafted for dependability and longevity, they are capable of withstanding up to 100,000 thermal cycles, which makes them

ideal for rigorous applications while still maintaining compatibility with existing systems.

Which Segment Accounted For The Largest [Thermoelectric Module Market Share](#)?

The thermoelectric module market covered in this report is segmented

- 1) By Type: Bulk Thermoelectric Modules, Micro Thermoelectric Modules, Thin Film Thermoelectric Modules
- 2) By Material: Bismuth Telluride, Lead Telluride, Silicon-Germanium, Half-Heusler Alloys
- 3) By Functionality: Single-Stage, Multi-Stage
- 4) By End-Use Application: Energy And Utility, Aerospace And Defense, Automotive, Consumer Electronics, Healthcare, Food And Beverage, Other End-User Applications

Subsegments:

- 1) By Bulk Thermoelectric Modules: Standard Bulk Modules, High-Temperature Bulk Modules
- 2) By Micro Thermoelectric Modules: Low-Power Micro Modules, High-Efficiency Micro Modules
- 3) By Thin Film Thermoelectric Modules: Flexible Thin Film Modules, Rigid Thin Film Modules

View the full thermoelectric module market report:

<https://www.thebusinessresearchcompany.com/report/thermoelectric-module-global-market-report>

What Are The Regional Trends In The Thermoelectric Module Market?

In the 2025 Thermoelectric Module Global Market Report, Asia-Pacific led as the most dominating region in the previous year, 2024, and is also anticipated to be the fastest expanding region within the forecast period. The report encompasses a comprehensive geographical analysis, which includes regions like Asia-Pacific, Western Europe, Eastern Europe, North America, South America, as well as the Middle East and Africa.

Browse Through More Reports Similar to the Global Thermoelectric Module Market 2025, By [The Business Research Company](#)

Thermal Insulation Material Global Market Report 2025

<https://www.thebusinessresearchcompany.com/report/thermal-insulation-material-global-market-report>

Thermal Interface Materials Global Market Report 2025

<https://www.thebusinessresearchcompany.com/report/thermal-interface-materials-global-market-report>

Thermoforming Plastic Global Market Report 2025

<https://www.thebusinessresearchcompany.com/report/thermoforming-plastic-global-market-report>

Speak With Our Expert:

Saumya Sahay

Americas +1 310-496-7795

Asia +44 7882 955267 & +91 8897263534

Europe +44 7882 955267

Email: saumyas@tbrc.info

The Business Research Company - www.thebusinessresearchcompany.com

Follow Us On:

• LinkedIn: <https://in.linkedin.com/company/the-business-research-company>

Oliver Guirdham

The Business Research Company

+44 7882 955267

info@tbrc.info

Visit us on social media:

[LinkedIn](#)

[Facebook](#)

[X](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/855588276>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.