

Global Markets for Laser Systems, Components and Materials

Market Research Report | 2025-04-23 | 143 pages | BCC Research

AVAILABLE LICENSES:

- Single User License \$4650.00
- 2-5 Users License \$5580.00
- Site License \$6696.00
- Enterprise License \$8035.00

Report description:

Description

Report Scope:

This report provides a comprehensive overview of the global market for laser systems, components, and materials and a detailed analysis of the market players' products and key initiatives. Using 2023 as the base year, the report provides estimated market data for 2024, and the market values are forecast from 2024 through 2029. It also includes details about the different applications and end-use verticals for laser technology. Projected revenue values are in constant U.S. dollars that have not been adjusted for inflation.

The global market for laser systems, components and materials has been divided into the following market segments:

- Type: Solid-state lasers, semiconductor lasers, gas lasers, liquid lasers.
- Solid-state lasers are further segmented into fiber lasers, Nd:YAG lasers, and others (bulk crystal solid-state lasers and thin-disk lasers).
- Gas lasers are further segmented into CO2 lasers, excimer lasers, He-Ne lasers, and other gas lasers (chemical and argon lasers).
- End use: Industrial, semiconductor and electronics, medical and aesthetics, telecommunications, defense and surveillance, instrumentation and scientific research, automotive, and others (retail, consumer electronics, and entertainment).
- Application: Macro-processing and micro-processing.
- Region: North America, Europe, Asia-Pacific, and Rest of the World.

Note: We have shortened the name of the market "global market for laser systems, components, and materials" as "global laser technology market" for the rest of the report. The name of the report title has been shortened to avoid repeated mention of the complete market name throughout the report.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Report Includes:

- 63 data tables and 52 additional tables
- Analyses of global market trends for laser systems, components and materials, with market revenue data for 2023, estimates for 2024, and forecasts for 2025 and 2027, and projected CAGRs through 2029
- Size and growth forecasts for the global market, and a corresponding market share analysis by laser type, application, end use, and region
- Facts and figures pertaining to current trends, market dynamics, technological advances, regulations and standards, and the impact of macroeconomic factors
- Insights derived from the Porter's Five Forces model, as well as global value/supply chain analyses, and case studies
- Review of emerging trends and technologies, and new developments in the laser market
- Evaluation of recent patent activity and key granted and published patents
- Overview of sustainability trends and ESG developments, with emphasis on consumer attitudes, and the ESG scores and practices of leading companies
- Analysis of the industry structure, including companies' market shares and rankings, strategic alliances, M&A activity and a venture funding outlook
- Profiles of leading companies, including TRUMPF, IPG Photonics Corp., Coherent Corp., Han's Laser Technology Industry Group Co. Ltd., and Lumentum Operations LLC.

Executive Summary

Summary:

The global market for laser systems, components and materials is expected to grow from \$21.0 billion in 2024 to reach \$30.4 billion by the end of 2029, at a compound annual growth rate (CAGR) of 7.7% from 2024 through 2029.

The global laser technology market is growing steadily because increasing numbers of industries including manufacturing, healthcare, telecommunications, and defense are using lasers systems in greater numbers. Factories are adopting laser-based tools for applications such as cutting, welding, and engraving as they move toward automation and precision manufacturing. In the telecom sector, the need for faster data transfer is increasing the use of fiber-optic lasers. Lasers are also becoming important in healthcare for diagnostics, surgeries, and beauty treatments. Lasers are now widely used in manufacturing semiconductors, especially for tasks such as wafer inspection and lithography. In the defense sector, laser-based weapons and advanced surveillance systems are increasingly developed and modernized for enhanced precision and performance. All these factors support the laser market growth worldwide.

Table of Contents:

Table of Contents

Chapter 1 Executive Summary

Market Outlook

Scope of the Report

Market Summary

Market Dynamics and Growth Factors

Future Trends and Developments

Segmental Analysis

Regional Insights and Emerging Markets

Conclusion

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Chapter 2 Market Overview
Current Market Overview and Future Expectations
Porter's Five Forces Analysis
Bargaining Power of Suppliers
Bargaining Power of Buyers
Potential for New Entrants in the Market
Threat of Substitutes
Competition in the Industry
Value Chain Analysis
Raw Material Providers
Component Manufacturers
Laser System Manufacturing and Integration
Sales and Distribution
End Users
Regulatory Landscape
North America
Asia-Pacific
Europe
Rest of the World
Case Studies
Renishaw Plc.: Laser Interferometry to Ensure Spherical Lens Quality
ADHMT: Using Fiber Lasers to Enhance Precision in Medical Implant Manufacturing
Macroeconomic Factors Impacting the Laser Industry
Impact of the Russia-Ukraine War
Advances in Telecom Networks and 5G Deployments Worldwide
Investments in the Defense Sector for Advanced Weapons Development
Chapter 3 Market Dynamics
Market Dynamics Snapshot
Market Drivers
Market Restraints and Challenges
Current Market Trends
Market Opportunities
Chapter 4 Emerging Technologies and Developments
Overview
Emerging Technologies in Laser Systems
Ultrafast Lasers
Extreme Ultraviolet (EUV) Lithography
Mid-Infrared (MIR) Lasers
Integration of AI and Machine Learning with Lasers
Patent Analysis
Key Patent Analysis for Laser Technology
Key Takeaways
Chapter 5 Market Segmentation Analysis
Segmentation Breakdown
Global Laser Technology Market, by Type
Key Takeaways
Solid-state Lasers

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Semiconductor Lasers
Gas Lasers
Liquid Lasers
Global Laser Technology Market, by End Use
Key Takeaways
Industrial
Semiconductor and Electronics
Medical and Aesthetics
Telecommunications
Defense and Surveillance
Instrumentation and Scientific Research
Automotive
Other End Uses
Global Laser Technology Market, by Application
Key Takeaways
Macro-processing
Micro-processing
Geographic Breakdown
Global Laser Technology Market, by Region
Key Takeaways
North America
Europe
Asia-Pacific
Rest of the World
Chapter 6 Competitive Intelligence
Overview
Product Mapping of Key Players
Market Rankings of Top Players
TRUMPF SE + Co. KG
Han's Laser Technology Industry Group Co. Ltd.
Coherent Corp.
IPG Photonics Corp.
Lumentum Operations LLC.
Strategic Analysis
Chapter 7 Sustainability in the Laser Technology Industry: ESG Perspective
Introduction to ESG
Environmental Impact/Performance
Social Impact/Performance
Governance Impact/Performance
Case Studies
Coherent Corp.
IPG Photonics Corp.
TRUMPF SE + Co. KG
Concluding Remarks from BCC
Chapter 8 Appendix
Methodology
Research Steps

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

References

Acronyms

Company Profiles

BYSTRONIC GROUP

COHERENT CORP.

EPILOG LASER

EUROLASER GMBH

HAMAMATSU PHOTONICS K.K.

HAN'S LASER TECHNOLOGY INDUSTRY GROUP CO. LTD.

IPG PHOTONICS CORP.

JENOPTIK AG

LASERLINE GMBH

LASER STAR TECHNOLOGIES

LUMENTUM OPERATIONS LLC.

LUMIBIRD

MKS INSTRUMENTS

NOVANTA INC.

TRUMPF

Other Notable Players

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Global Markets for Laser Systems, Components and Materials

Market Research Report | 2025-04-23 | 143 pages | BCC Research

To place an Order with Scotts International:

- ☐ - Print this form
- ☐ - Complete the relevant blank fields and sign
- ☐ - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4650.00
	2-5 Users License	\$5580.00
	Site License	\$6696.00
	Enterprise License	\$8035.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2025-05-07"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com



Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com
www.scotts-international.com