+357 96 030922
info@marketpublishers.com

Global Laser for Semiconductor Equipment Supply, Demand and Key Producers, 2026-2032

https://marketpublishers.com/r/G1ED9B52CE55EN.html
Date: July 2026
Pages: 186
Price: US$ 4,480.00 (Single User License)
ID: G1ED9B52CE55EN

Abstracts

The global Laser for Semiconductor Equipment market size is expected to reach $ 6536 million by 2032, rising at a market growth of 8.5% CAGR during the forecast period (2026-2032).

Laser Sources for Semiconductor Manufacturing Equipment refer to high-stability laser sources, laser light-source modules, and laser-driven illumination systems embedded in or supplied for semiconductor manufacturing tools. These products are used in wafer fabrication, lithography exposure, mask and reticle inspection, wafer defect inspection, thin-film metrology, scatterometry, ellipsometry, wafer marking, stealth dicing, laser dicing, laser annealing, and selected advanced-packaging processes. They are typically supplied as critical optical subsystems rather than stand-alone end-user machines, and their competitiveness is determined by wavelength, linewidth, pulse duration, pulse energy, repetition rate, power stability, beam quality, pointing stability, uptime, maintenance interval, and integration capability with semiconductor equipment OEM platforms. The main technology routes include ArF/KrF excimer lasers, high-power CO? drive lasers for EUV source generation, deep-ultraviolet solid-state lasers, DPSS lasers, picosecond and femtosecond ultrafast lasers, fiber lasers, and laser-driven broadband or plasma light sources.

According to our research, laser sources for semiconductor manufacturing equipment should be analyzed as a high-barrier optical subsystem market rather than as a generic industrial laser market. The key value is created by short wavelength generation, long-term power and pointing stability, narrow linewidth, low noise, high uptime, and deep integration with semiconductor tool OEM platforms. Lithography light sources represent the highest-value and most concentrated segment. DUV lithography remains dominated by specialized excimer light-source suppliers, while EUV industrialization relies on the

+357 96 030922
info@marketpublishers.com

integration of a high-power CO? drive laser, tin droplet generation, vacuum source architecture, collector optics, debris mitigation, and system-level control. Compared with ordinary micromachining lasers, semiconductor equipment laser sources have longer qualification cycles, higher reliability requirements, and stronger lifecycle lock-in once they are designed into a tool platform.

From a supply-chain perspective, the market is structured around a small number of high-barrier lithography light-source leaders, several diversified photonics platform companies, and a group of specialized small and medium-sized laser manufacturers. ASML/Cymer, Gigaphoton, and TRUMPF occupy highly strategic positions in lithography and EUV-related light-source systems. Coherent, MKS/Spectra-Physics, Hamamatsu/Energetiq/NKT, Excelitas, Novanta, and IPG participate across inspection, metrology, OEM photonics subsystems, and selected wafer processing applications. Smaller companies such as TOPTICA, Spectronix, Xiton Photonics, CryLaS, H?BNER Photonics, and Skylark Lasers play important roles in narrow-linewidth, DUV, 193 nm, 266 nm, single-frequency, and ultrafast niches. In China, Beijing RSLaser, CNI Laser, Inno Laser, JPT, Focuslight, and Huaray Laser represent the emerging domestic supply base, but most are still transitioning from industrial or research-grade laser products toward semiconductor tool-grade qualification.

Demand growth is being driven not only by semiconductor capital expenditure, but also by increasing optical source value per tool. Advanced logic, HBM, 3D NAND, advanced packaging, SiC/GaN power devices, and high-end sensors all raise the performance requirements for light sources embedded in manufacturing tools. In lithography, installed-base maintenance, ArF immersion, EUV, and High-NA EUV create a resilient demand base. In inspection and metrology, shrinking defect sizes and more complex film stacks drive demand for DUV, UV, broadband, and low-noise laser-driven sources. In wafer processing, stealth dicing, laser annealing, glass substrate processing, TGV formation, and advanced packaging materials processing support broader adoption of picosecond and femtosecond ultrafast lasers.

Technology evolution is moving along three major directions. Lithography light sources are being upgraded toward higher power, higher availability, longer service intervals, and lower cost of ownership. Inspection and metrology sources are moving toward shorter wavelengths, higher brightness, lower noise, wider spectral coverage, and better long-term stability. Wafer processing sources are shifting toward ultrafast, multi-wavelength, higher-power, and tool-integrated architectures. Competition is therefore moving beyond nominal power or price. The decisive factors are OEM co-development capability, stable supply of optical and electronic subsystems, global service coverage,

+357 96 030922
info@marketpublishers.com

software controllability, cleanroom-compatible reliability, and the ability to pass fab-level qualification.

Policy and supply-chain localization are becoming increasingly important. Major semiconductor regions are reinforcing fab construction, equipment supply security, and local service capability. This does not immediately replace incumbent high-end light-source suppliers, but it increases the strategic value of local repair, refurbishment, spare parts, and second-source development. In China, domestic substitution is most likely to progress first in mature-node lithography support, wafer inspection auxiliary sources, power semiconductor wafer processing, laser trimming, marking, and selected advanced-packaging processes. High-end ArF immersion and leading-edge inspection platforms will require longer qualification cycles, more stable component supply, and deeper cooperation with domestic equipment OEMs.

This report studies the global Laser for Semiconductor Equipment production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for Laser for Semiconductor Equipment and provides market size (US$ million) and Year-over-Year (YoY) Growth, considering 2025 as the base year. This report explores demand trends and competition, as well as details the characteristics of Laser for Semiconductor Equipment that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global Laser for Semiconductor Equipment total production and demand, 2021-2032, (Units)
Global Laser for Semiconductor Equipment total production value, 2021-2032, (USD Million)
Global Laser for Semiconductor Equipment production by region & country, production, value, CAGR, 2021-2032, (USD Million) & (Units), (based on production site)
Global Laser for Semiconductor Equipment consumption by region & country, CAGR, 2021-2032 & (Units)
U.S. VS China: Laser for Semiconductor Equipment domestic production, consumption, key domestic manufacturers and share
Global Laser for Semiconductor Equipment production by manufacturer, production, price, value and market share 2021-2026, (USD Million) & (Units)
Global Laser for Semiconductor Equipment production By Technology Route, production, value, CAGR, 2021-2032, (USD Million) & (Units)

+357 96 030922
info@marketpublishers.com

Global Laser for Semiconductor Equipment production by Application, production, value, CAGR, 2021-2032, (USD Million) & (Units)

This report profiles key players in the global Laser for Semiconductor Equipment market based on the following parameters - company overview, production, value, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include ASML / Cymer LLC, Gigaphoton Inc., TRUMPF SE, Coherent Corp., MKS Inc. / Spectra-Physics, Hamamatsu Photonics / Energetiq / NKT, OXIDE Corporation, Excelitas Technologies Corp., Novanta Inc., TOPTICA Photonics SE, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Stakeholders would have ease in decision-making through various strategy matrices used in analyzing the World Laser for Semiconductor Equipment market

Detailed Segmentation:

Each section contains quantitative market data including market by value (US$ Millions), volume (production, consumption) & (Units) and average price (K US$/Unit) by manufacturer, By Technology Route, and by Application. Data is given for the years 2021-2032 by year with 2025 as the base year, 2026 as the estimate year, and 2027-2032 as the forecast year.

Global Laser for Semiconductor Equipment Market, By Region:

United States

China

Europe

Japan

South Korea

ASEAN

+357 96 030922
info@marketpublishers.com

India

Rest of World

Global Laser for Semiconductor Equipment Market, Segmentation By Technology Route:

Excimer Laser

CO? Drive Laser

DPSS / Solid-state UV Laser

Other

Global Laser for Semiconductor Equipment Market, Segmentation By Wavelength:

EUV-related Source

DUV 157?248 nm

UV 250?400 nm

Visible 400?700 nm

Infrared / Near-infrared

Broadband Source

Global Laser for Semiconductor Equipment Market, Segmentation by Application:

Semiconductor Lithography Equipment

Semiconductor Inspection and Measurement Equipment

Semiconductor Laser Annealing Equipment

+357 96 030922
info@marketpublishers.com

Semiconductor Laser Dicing Machine

Wafer Laser Marking Machine

Others

Companies Profiled:

ASML / Cymer LLC

Gigaphoton Inc.

TRUMPF SE

Coherent Corp.

MKS Inc. / Spectra-Physics

Hamamatsu Photonics / Energetiq / NKT

OXIDE Corporation

Excelitas Technologies Corp.

Novanta Inc.

TOPTICA Photonics SE

IPG Photonics Corp.

Spectronix Corporation

Photonics Industries

Light Conversion UAB

Amplitude Laser Group

+357 96 030922
info@marketpublishers.com

Advanced Optowave Corporation

UVC Photonics

H?BNER Photonics

CryLaS

Xiton Photonics

EKSPLA

Skylark Lasers

Beijing RSLaser

CNI Laser

Shanghai Precilasers

Grace Laser

Inno Laser Technology

JPT Opto-Electronics

Focuslight Technologies

Wuhan Huaray Precision Laser

Key Questions Answered:
1. How big is the global Laser for Semiconductor Equipment market?
2. What is the demand of the global Laser for Semiconductor Equipment market?
3. What is the year over year growth of the global Laser for Semiconductor Equipment market?
4. What is the production and production value of the global Laser for Semiconductor Equipment market?

+357 96 030922
info@marketpublishers.com

5. Who are the key producers in the global Laser for Semiconductor Equipment market?
6. What are the growth factors driving the market demand?

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

3 WORLD MANUFACTURERS COMPETITIVE ANALYSIS

4 UNITED STATES VS CHINA VS REST OF THE WORLD

+357 96 030922
info@marketpublishers.com

5 MARKET ANALYSIS BY TECHNOLOGY ROUTE

+357 96 030922
info@marketpublishers.com

6 MARKET ANALYSIS BY WAVELENGTH

7 MARKET ANALYSIS BY APPLICATION

+357 96 030922
info@marketpublishers.com

8 COMPANY PROFILES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

9 INDUSTRY CHAIN ANALYSIS

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Global Laser for Semiconductor Equipment Supply, Demand and Key Producers, 2026-2032

Product link: https://marketpublishers.com/r/G1ED9B52CE55EN.html

Price: US$ 4,480.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/G1ED9B52CE55EN.html