

Europe Quantum Cascade Laser (QCL) Market 2021-2031 by Fabrication Technology (Fabry–Perot, Distributed Feedback, Tunable External Cavities), Operation Mode (Continuous Wave, Pulsed), Packaging Type (C-Mount, HHL & VHL, TO3), Industry Vertical, and Country: Trend Forecast and Growth Opportunity

https://marketpublishers.com/r/E4AE2064088AEN.html

Date: November 2022

Pages: 94

Price: US\$ 2,380.00 (Single User License)

ID: E4AE2064088AEN

Abstracts

Europe quantum cascade laser (QCL) market was valued at \$ 131.8 million in 2021 and will grow by 3.1% annually over 2021-2031, driven by the increasing the use of quantum cascade lasers in gas sensing and chemical detection applications, and growing demand for quantum cascade lasers in healthcare and other industrial applications.

Highlighted with 30 tables and 41 figures, this 94-page report "Europe Quantum Cascade Laser (QCL) Market 2021-2031 by Fabrication Technology (Fabry–Perot, Distributed Feedback, Tunable External Cavities), Operation Mode (Continuous Wave, Pulsed), Packaging Type (C-Mount, HHL & VHL, TO3), Industry Vertical, and Country: Trend Forecast and Growth Opportunity" is based on a comprehensive research of the entire Europe quantum cascade laser (QCL) market and all its sub-segments through extensively detailed classifications. Profound analysis and assessment are generated from premium primary and secondary information sources with inputs derived from industry professionals across the value chain. The report is based on studies on 2019-2021 and provides forecast from 2022 till 2031 with 2021 as the base year. (Please note: The report will be updated before delivery so that the latest historical year is the base year and the forecast covers at least 5 years over the base year.)

In-depth qualitative analyses include identification and investigation of the following



aspects:

Market Structure

Growth Drivers

Restraints and Challenges

Emerging Product Trends & Market Opportunities

Porter's Fiver Forces

The trend and outlook of Europe market is forecast in optimistic, balanced, and conservative view by taking into account of COVID-19 and Russia-Ukraine conflict. The balanced (most likely) projection is used to quantify Europe quantum cascade laser (QCL) market in every aspect of the classification from perspectives of Fabrication Technology, Operation Mode, Packaging Type, Industry Vertical, and Country.

Based on Fabrication Technology, the Europe market is segmented into the following sub-markets with annual revenue (\$ mn) for 2021-2031 included in each section.

Fabry-Perot (FP) Lasers

Distributed Feedback (DFB) Lasers

Tunable External Cavities (TEC) Lasers

Based on Operation Mode, the Europe market is segmented into the following submarkets with annual revenue (\$ mn) for 2021-2031 included in each section.

Continuous Wave Mode

Pulsed Mode

By Packaging Type, the Europe market is segmented into the following sub-markets with annual revenue (\$ mn) for 2021-2031 included in each section.



C-Mount Package

HHL & VHL Package
TO3 Package
By Industry Vertical, the Europe market is segmented into the following sub-markets with annual revenue (\$ mn) for 2021-2031 included in each section.
Industrial
Healthcare
Telecommunication
Military & Defense
Research & Development
Other Verticals
Geographically, the following national/local markets are fully investigated:
Germany
UK
France
Spain
Italy
Netherlands
Rest of Europe (further segmented into Russia, Switzerland, Poland, Sweden, Belgium, Austria, Ireland, Norway, Denmark, and Finland)
Europe Quantum Cascade Laser (QCL) Market 2021-2031 by Fabrication Technology (Fabry–Perot, Distributed Feedba



For each key country, detailed analysis and data for annual revenue (\$ mn) are available for 2021-2031. The breakdown of national markets by Fabrication Technology, Operation Mode and Industry Vertical over the forecast years are also included.

The report also covers current competitive scenario and the predicted trend; and profiles key vendors including market leaders and important emerging players.



Europe Quantum Cascade Laser (QCL) Market 2021-2031 by Fabrication Technology (Fabry-Perot, Distributed Feedba...

is the base year and the forecast covers at least 5 years over the base year.)



Contents

1 INTRODUCTION

- 1.1 Industry Definition and Research Scope
 - 1.1.1 Industry Definition
 - 1.1.2 Research Scope
- 1.2 Research Methodology
 - 1.2.1 Overview of Market Research Methodology
 - 1.2.2 Market Assumption
 - 1.2.3 Secondary Data
 - 1.2.4 Primary Data
 - 1.2.5 Data Filtration and Model Design
 - 1.2.6 Market Size/Share Estimation
 - 1.2.7 Research Limitations
- 1.3 Executive Summary

2 MARKET OVERVIEW AND DYNAMICS

- 2.1 Market Size and Forecast
 - 2.1.1 Impact of COVID-19 on World Economy
 - 2.1.2 Impact of COVID-19 on the Market
- 2.2 Major Growth Drivers
- 2.3 Market Restraints and Challenges
- 2.4 Emerging Opportunities and Market Trends
- 2.5 Porter's Fiver Forces Analysis

3 SEGMENTATION OF EUROPE MARKET BY FABRICATION TECHNOLOGY

- 3.1 Market Overview by Fabrication Technology
- 3.2 Fabry-Perot (FP) Lasers
- 3.3 Distributed Feedback (DFB) Lasers
- 3.4 Tunable External Cavities (TEC) Lasers

4 SEGMENTATION OF EUROPE MARKET BY OPERATION MODE

- 4.1 Market Overview by Operation Mode
- 4.2 Continuous Wave Mode
- 4.3 Pulsed Mode



5 SEGMENTATION OF EUROPE MARKET BY PACKAGING TYPE

- 5.1 Market Overview by Packaging Type
- 5.2 C-Mount Package
- 5.3 HHL & VHL Package
- 5.4 TO3 Package

6 SEGMENTATION OF EUROPE MARKET BY INDUSTRY VERTICAL

- 6.1 Market Overview by Industry Vertical
- 6.2 Industrial
- 6.3 Healthcare
- 6.4 Telecommunication
- 6.5 Military & Defense
- 6.6 Research & Development
- 6.7 Other Verticals

7 EUROPEAN MARKET 2021-2031 BY COUNTRY

- 7.1 Overview of European Market
- 7.2 Germany
- 7.3 U.K.
- 7.4 France
- 7.5 Spain
- 7.6 Italy
- 7.7 Netherlands
- 7.8 Rest of European Market

8 COMPETITIVE LANDSCAPE

- 8.1 Overview of Key Vendors
- 8.2 New Product Launch, Partnership, Investment, and M&A
- 8.3 Company Profiles

AdTech Optics Inc.

Alpes Lasers S.A.

Block Engineering LLC

Boston Electronics Corporation

DRS Daylight Solutions Inc.



Emerson Electric Corporation
Frankfurt Laser Company
Hamamatsu Photonics K.K.
mirSense SA
Nanoplus Nanosystems and Technologies GmbH
Pranalytica Inc.
Thorlabs Inc.
Wavelength Electronics Inc.
RELATED REPORTS



List Of Tables

LIST OF TABLES:

- Table 1. Snapshot of Europe Quantum Cascade Laser Market in Balanced Perspective, 2021-2031
- Table 2. World Economic Outlook, 2021-2031
- Table 3. Main Product Trends and Market Opportunities in Europe Quantum Cascade Laser Market
- Table 4. Europe Quantum Cascade Laser Market by Fabrication Technology, 2021-2031, \$ mn
- Table 5. Europe Quantum Cascade Laser Market by Operation Mode, 2021-2031, \$ mn
- Table 6. Europe Quantum Cascade Laser Market by Packaging Type, 2021-2031, \$ mn
- Table 7. Europe Quantum Cascade Laser Market by Industry Vertical, 2021-2031, \$ mn
- Table 8. Europe Quantum Cascade Laser Market by Country, 2021-2031, \$ mn
- Table 9. Germany Quantum Cascade Laser Market by Fabrication Technology, 2021-2031, \$ mn
- Table 10. Germany Quantum Cascade Laser Market by Operation Mode, 2021-2031, \$ mn
- Table 11. Germany Quantum Cascade Laser Market by Industry Vertical, 2021-2031, \$ mn
- Table 12. U.K. Quantum Cascade Laser Market by Fabrication Technology, 2021-2031, \$ mn
- Table 13. U.K. Quantum Cascade Laser Market by Operation Mode, 2021-2031, \$ mn
- Table 14. U.K. Quantum Cascade Laser Market by Industry Vertical, 2021-2031, \$ mn
- Table 15. France Quantum Cascade Laser Market by Fabrication Technology, 2021-2031, \$ mn
- Table 16. France Quantum Cascade Laser Market by Operation Mode, 2021-2031, \$ mn
- Table 17. France Quantum Cascade Laser Market by Industry Vertical, 2021-2031, \$ mn
- Table 18. Spain Quantum Cascade Laser Market by Fabrication Technology, 2021-2031, \$ mn
- Table 19. Spain Quantum Cascade Laser Market by Operation Mode, 2021-2031, \$ mn
- Table 20. Spain Quantum Cascade Laser Market by Industry Vertical, 2021-2031, \$ mn
- Table 21. Italy Quantum Cascade Laser Market by Fabrication Technology, 2021-2031, \$ mn
- Table 22. Italy Quantum Cascade Laser Market by Operation Mode, 2021-2031, \$ mn
- Table 23. Italy Quantum Cascade Laser Market by Industry Vertical, 2021-2031, \$ mn



Table 24. Netherlands Quantum Cascade Laser Market by Fabrication Technology, 2021-2031, \$ mn

Table 25. Netherlands Quantum Cascade Laser Market by Operation Mode, 2021-2031, \$ mn

Table 26. Netherlands Quantum Cascade Laser Market by Industry Vertical, 2021-2031, \$ mn

Table 27. Quantum Cascade Laser Market in Rest of Europe by Country, 2021-2031, \$ mn

Table 28. AdTech Optics Inc.: Company Snapshot

Table 29. AdTech Optics Inc.: Business Segmentation

Table 30. AdTech Optics Inc.: Product Portfolio



List Of Figures

LIST OF FIGURES:

- Figure 1. Research Method Flow Chart
- Figure 2. Bottom-up Approach and Top-down Approach for Market Estimation
- Figure 3. Europe Market Forecast in Optimistic, Conservative and Balanced Perspectives, 2021-2031
- Figure 4. Europe Quantum Cascade Laser Market, 2021-2031, \$ mn
- Figure 5. Impact of COVID-19 on Business
- Figure 6. Primary Drivers and Impact Factors of Europe Quantum Cascade Laser Market
- Figure 7. Primary Restraints and Impact Factors of Europe Quantum Cascade Laser Market
- Figure 8. Investment Opportunity Analysis
- Figure 9. Porter's Fiver Forces Analysis of Europe Quantum Cascade Laser Market
- Figure 10. Breakdown of Europe Quantum Cascade Laser Market by Fabrication Technology, 2021-2031, % of Revenue
- Figure 11. Europe Addressable Market Cap in 2022-2031 by Fabrication Technology,
- Value (\$ mn) and Share (%)
- Figure 12. Europe Quantum Cascade Laser Market by Fabrication Technology:
- Fabry-Perot (FP) Lasers, 2021-2031, \$ mn
- Figure 13. Europe Quantum Cascade Laser Market by Fabrication Technology:
- Distributed Feedback (DFB) Lasers, 2021-2031, \$ mn
- Figure 14. Europe Quantum Cascade Laser Market by Fabrication Technology: Tunable External Cavities (TEC) Lasers, 2021-2031, \$ mn
- Figure 15. Breakdown of Europe Quantum Cascade Laser Market by Operation Mode, 2021-2031, % of Sales Revenue
- Figure 16. Europe Addressable Market Cap in 2022-2031 by Operation Mode, Value (\$mn) and Share (%)
- Figure 17. Europe Quantum Cascade Laser Market by Operation Mode: Continuous Wave Mode, 2021-2031, \$ mn
- Figure 18. Europe Quantum Cascade Laser Market by Operation Mode: Pulsed Mode, 2021-2031, \$ mn
- Figure 19. Breakdown of Europe Quantum Cascade Laser Market by Packaging Type, 2021-2031, % of Sales Revenue
- Figure 20. Europe Addressable Market Cap in 2022-2031 by Packaging Type, Value (\$mn) and Share (%)
- Figure 21. Europe Quantum Cascade Laser Market by Packaging Type: C-Mount



Package, 2021-2031, \$ mn

Figure 22. Europe Quantum Cascade Laser Market by Packaging Type: HHL & VHL Package, 2021-2031, \$ mn

Figure 23. Europe Quantum Cascade Laser Market by Packaging Type: TO3 Package, 2021-2031, \$ mn

Figure 24. Breakdown of Europe Quantum Cascade Laser Market by Industry Vertical, 2021-2031, % of Revenue

Figure 25. Europe Addressable Market Cap in 2022-2031 by Industry Vertical, Value (\$ mn) and Share (%)

Figure 26. Europe Quantum Cascade Laser Market by Industry Vertical: Industrial, 2021-2031, \$ mn

Figure 27. Europe Quantum Cascade Laser Market by Industry Vertical: Healthcare, 2021-2031, \$ mn

Figure 28. Europe Quantum Cascade Laser Market by Industry Vertical:

Telecommunication, 2021-2031, \$ mn

Figure 29. Europe Quantum Cascade Laser Market by Industry Vertical: Military & Defense, 2021-2031, \$ mn

Figure 30. Europe Quantum Cascade Laser Market by Industry Vertical: Research & Development, 2021-2031, \$ mn

Figure 31. Europe Quantum Cascade Laser Market by Industry Vertical: Other Verticals, 2021-2031, \$ mn

Figure 32. Breakdown of European Quantum Cascade Laser Market by Country, 2021 and 2031, % of Revenue

Figure 33. Contribution to Europe 2022-2031 Cumulative Market by Country, Value (\$mn) and Share (%)

Figure 34. Quantum Cascade Laser Market in Germany, 2021-2031, \$ mn

Figure 35. Quantum Cascade Laser Market in U.K., 2021-2031, \$ mn

Figure 36. Quantum Cascade Laser Market in France, 2021-2031, \$ mn

Figure 37. Quantum Cascade Laser Market in Spain, 2021-2031, \$ mn

Figure 38. Quantum Cascade Laser Market in Italy, 2021-2031, \$ mn

Figure 39. Quantum Cascade Laser Market in Netherlands, 2021-2031, \$ mn

Figure 40. Quantum Cascade Laser Market in Rest of Europe, 2021-2031, \$ mn

Figure 41. Growth Stage of Europe Quantum Cascade Laser Industry over the Forecast Period



I would like to order

Product name: Europe Quantum Cascade Laser (QCL) Market 2021-2031 by Fabrication Technology

(Fabry-Perot, Distributed Feedback, Tunable External Cavities), Operation Mode (Continuous Wave, Pulsed), Packaging Type (C-Mount, HHL & VHL, TO3), Industry

Vertical, and Country: Trend Forecast and Growth Opportunity

Product link: https://marketpublishers.com/r/E4AE2064088AEN.html

Price: US\$ 2,380.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

First name:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/E4AE2064088AEN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html



To place an order via fax simply print this form, fill in the information below and fax the completed form to $+44\ 20\ 7900\ 3970$