

Quantum Photonics Market By Offering (Systems, Services), By Application (Quantum Communication, Quantum Computing, Quantum Sensing and Metrology), By Verticals (Banking and Finance, Space and Defense, Healthcare, Transportation and Logistics, Government, Others): Global Opportunity Analysis and Industry Forecast, 2023-2032

Market Report | 2023-08-01 | 250 pages | Allied Market Research

AVAILABLE LICENSES:

- Cloud Access License \$3456.00
- Business User License \$5730.00
- Enterprise License \$9600.00

Report description:

The quantum photonics market was valued for \$0.30 billion in 2022 and is estimated to reach \$5.29 billion by 2032, exhibiting a CAGR of 33.23% from 2023 to 2032

Quantum photonics refers to the study, manipulation, and utilization of individual photons at the quantum level, where the principles of quantum mechanics govern their behavior. It involves harnessing the unique properties of photons, such as superposition and entanglement, to create advanced technologies and applications. Quantum photonics plays a crucial role in various fields, including quantum computing, quantum communication, quantum cryptography, quantum sensing, and quantum metrology. The goal of quantum photonics is to leverage the fundamental properties of light particles to enable transformative advancements in information processing, communication, and precision measurements that go beyond the capabilities of classical photonic systems.□

Raw materials used to produce quantum photonics devices typically include specialized semiconductors, optical components, and superconducting materials. These materials are carefully engineered to exhibit specific quantum properties and interactions with light, enabling the manipulation and control of individual photons for various quantum technologies and applications.

The major end users of quantum photonics include industries such as telecommunications, information technology, defense, finance, and research institutions. These sectors leverage quantum photonics technologies for secure communication, quantum computing, advanced sensing, cryptography, and other transformative applications.

The growth of the global quantum photonics market is driven by strategic investments. With substantial financial support from

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

governments and private entities, quantum photonics research advances, collaborations flourish, and commercialization efforts accelerate. These investments attract top talent, establish a robust quantum industry ecosystem, and enhance global competitiveness in achieving quantum supremacy. Furthermore, the growing demand for secure and high-performance solutions represents a substantial opportunity for the quantum photonics market. As cybersecurity risks escalate, the need for secure communication and cryptography systems based on quantum photonics principles is on the rise. Moreover, the ability of quantum photonics to shift computational power through quantum computers, which handle sophisticated issues beyond the capability of classical computers, offers lucrative opportunities during the forecast period.

However, limited scalability and upgradeability of quantum photonics can pose challenges for the market growth and enhancements of systems, potentially requiring a complete redesign or migration to more capable platforms.

The primary goal of quantum photonics is to leverage the unique properties of individual photons at the quantum level to develop advanced technologies and applications that exploit the principles of quantum mechanics. Quantum photonics aims to achieve transformative advancements in various fields, including quantum computing, quantum communication, quantum cryptography, quantum sensing, and quantum metrology by controlling and manipulating photons in quantum systems.□

The quantum photonics market is segmented on the basis of offering, application, vertical, and region. By offering, the market is divided into systems and services. By application, the market is classified into quantum communication, quantum computing, quantum sensing, and metrology. By vertical, the market is segmented into banking and finance, space and defense, healthcare, transportation and logistics, government, and others.

By region, it is analyzed across North America (the U.S., Canada, and Mexico), Europe (UK, Germany, France, and rest of Europe), Asia-Pacific (China, Japan, India, South Korea, and rest of Asia-Pacific), and LAMEA (Latin America, the Middle East, and Africa).□

Competitive analysis and profiles of the major quantum photonics market players, such as Toshiba, Xanadu, Quandela, ID Quantique, ORCA Computing Limited, PsiQuantum, Tundra Systems Global LTD., Quix Quantum BV, IBM, and MagiQ Technologies are provided in this report. Market players have adopted various strategies such as product launch, partnerships, and acquisitions, to expand their foothold in the quantum photonics market.

Key Benefits For Stakeholders

- This report provides a quantitative analysis of the market segments, current trends, estimations, and dynamics of the quantum photonics market analysis from 2022 to 2032 to identify the prevailing quantum photonics market opportunities.
- The market research is offered along with information related to key drivers, restraints, and opportunities.
- Porter's five forces analysis highlights the potency of buyers and suppliers to enable stakeholders make profit-oriented business decisions and strengthen their supplier-buyer network.
- In-depth analysis of the quantum photonics market segmentation assists to determine the prevailing market opportunities.
- Major countries in each region are mapped according to their revenue contribution to the global market.
- Market player positioning facilitates benchmarking and provides a clear understanding of the present position of the market players.
- The report includes the analysis of the regional as well as global quantum photonics market trends, key players, market segments, application areas, and market growth strategies.

Additional benefits you will get with this purchase are:

- Quarterly Update and* (only available with a corporate license, on listed price)
- 5 additional Company Profile of client Choice pre- or Post-purchase, as a free update.
- Free Upcoming Version on the Purchase of Five and Enterprise User License.
- 16 analyst hours of support* (post-purchase, if you find additional data requirements upon review of the report, you may receive support amounting to 16 analyst hours to solve questions, and post-sale queries)
- 15% Free Customization* (in case the scope or segment of the report does not match your requirements, 20% is equivalent to 3 working days of free work, applicable once)
- Free data Pack on the Five and Enterprise User License. (Excel version of the report)
- Free Updated report if the report is 6-12 months old or older.
- 24-hour priority response*

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- Free Industry updates and white papers.

Possible Customization with this report (with additional cost and timeline talk to the sales executive to know more)

- Product Life Cycles
- Market share analysis of players by products/segments
- Additional company profiles with specific to client's interest
- Additional country or region analysis- market size and forecast
- Expanded list for Company Profiles
- Key player details (including location, contact details, supplier/vendor network etc. in excel format)
- Market share analysis of players at global/region/country level

Key Market Segments

By Offering

- Systems
- Services

By Application

- Quantum Computing
- Quantum Sensing and Metrology
- Quantum Communication

By Verticals

- Banking and Finance
- Space and Defense
- Healthcare
- Transportation and Logistics
- Government
- Others

By Region

- North America
- U.S.
- Canada
- Mexico
- Europe
- Germany
- UK
- France
- Netherlands
- Rest of Europe
- Asia-Pacific
- China
- Japan
- India
- South Korea
- Rest of Asia-Pacific
- LAMEA
- Latin America
- Middle East
- Africa
- Key Market Players

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- Toshiba Corporation
- PsiQuantum
- Quix Quantum BV
- IBM Corporation
- Xanadu
- ID Quantique
- Quandela
- ORCA Computing Limited
- TundraSystems Global LTD.
- MagiQ Technologies, Inc.

Table of Contents:

CHAPTER 1: INTRODUCTION

- 1.1. Report description
- 1.2. Key market segments
- 1.3. Key benefits to the stakeholders
- 1.4. Research Methodology
 - 1.4.1. Primary research
 - 1.4.2. Secondary research
 - 1.4.3. Analyst tools and models

CHAPTER 2: EXECUTIVE SUMMARY

- 2.1. CXO Perspective

CHAPTER 3: MARKET OVERVIEW

- 3.1. Market definition and scope
- 3.2. Key findings
 - 3.2.1. Top impacting factors
 - 3.2.2. Top investment pockets
- 3.3. Porter's five forces analysis
 - 3.3.1. Moderate to high bargaining power of suppliers
 - 3.3.2. Moderate threat of new entrants
 - 3.3.3. Low to moderate threat of substitutes
 - 3.3.4. Low to high intensity of rivalry
 - 3.3.5. Moderate bargaining power of buyers
- 3.4. Market dynamics
 - 3.4.1. Drivers
 - 3.4.1.1. Increase in demand for secure communication
 - 3.4.1.2. Advancements in quantum technologies
 - 3.4.2. Restraints
 - 3.4.2.1. High cost in manufacturing process
 - 3.4.3. Opportunities
 - 3.4.3.1. Increase in demand for secure and high-performance solutions
- 3.5. COVID-19 Impact Analysis on the market

CHAPTER 4: QUANTUM PHOTONICS MARKET, BY OFFERING

- 4.1. Overview

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 4.1.1. Market size and forecast
- 4.2. Systems
 - 4.2.1. Key market trends, growth factors and opportunities
 - 4.2.2. Market size and forecast, by region
 - 4.2.3. Market share analysis by country
- 4.3. Services
 - 4.3.1. Key market trends, growth factors and opportunities
 - 4.3.2. Market size and forecast, by region
 - 4.3.3. Market share analysis by country
- CHAPTER 5: QUANTUM PHOTONICS MARKET, BY APPLICATION
 - 5.1. Overview
 - 5.1.1. Market size and forecast
 - 5.2. Quantum Communication
 - 5.2.1. Key market trends, growth factors and opportunities
 - 5.2.2. Market size and forecast, by region
 - 5.2.3. Market share analysis by country
 - 5.3. Quantum Computing
 - 5.3.1. Key market trends, growth factors and opportunities
 - 5.3.2. Market size and forecast, by region
 - 5.3.3. Market share analysis by country
 - 5.4. Quantum Sensing and Metrology
 - 5.4.1. Key market trends, growth factors and opportunities
 - 5.4.2. Market size and forecast, by region
 - 5.4.3. Market share analysis by country
- CHAPTER 6: QUANTUM PHOTONICS MARKET, BY VERTICALS
 - 6.1. Overview
 - 6.1.1. Market size and forecast
 - 6.2. Banking and Finance
 - 6.2.1. Key market trends, growth factors and opportunities
 - 6.2.2. Market size and forecast, by region
 - 6.2.3. Market share analysis by country
 - 6.3. Space and Defense
 - 6.3.1. Key market trends, growth factors and opportunities
 - 6.3.2. Market size and forecast, by region
 - 6.3.3. Market share analysis by country
 - 6.4. Healthcare
 - 6.4.1. Key market trends, growth factors and opportunities
 - 6.4.2. Market size and forecast, by region
 - 6.4.3. Market share analysis by country
 - 6.5. Transportation and Logistics
 - 6.5.1. Key market trends, growth factors and opportunities
 - 6.5.2. Market size and forecast, by region
 - 6.5.3. Market share analysis by country
 - 6.6. Government
 - 6.6.1. Key market trends, growth factors and opportunities
 - 6.6.2. Market size and forecast, by region
 - 6.6.3. Market share analysis by country

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

6.7. Others

6.7.1. Key market trends, growth factors and opportunities

6.7.2. Market size and forecast, by region

6.7.3. Market share analysis by country

CHAPTER 7: QUANTUM PHOTONICS MARKET, BY REGION

7.1. Overview

7.1.1. Market size and forecast By Region

7.2. North America

7.2.1. Key market trends, growth factors and opportunities

7.2.2. Market size and forecast, by Offering

7.2.3. Market size and forecast, by Application

7.2.4. Market size and forecast, by Verticals

7.2.5. Market size and forecast, by country

7.2.5.1. U.S.

7.2.5.1.1. Market size and forecast, by Offering

7.2.5.1.2. Market size and forecast, by Application

7.2.5.1.3. Market size and forecast, by Verticals

7.2.5.2. Canada

7.2.5.2.1. Market size and forecast, by Offering

7.2.5.2.2. Market size and forecast, by Application

7.2.5.2.3. Market size and forecast, by Verticals

7.2.5.3. Mexico

7.2.5.3.1. Market size and forecast, by Offering

7.2.5.3.2. Market size and forecast, by Application

7.2.5.3.3. Market size and forecast, by Verticals

7.3. Europe

7.3.1. Key market trends, growth factors and opportunities

7.3.2. Market size and forecast, by Offering

7.3.3. Market size and forecast, by Application

7.3.4. Market size and forecast, by Verticals

7.3.5. Market size and forecast, by country

7.3.5.1. Germany

7.3.5.1.1. Market size and forecast, by Offering

7.3.5.1.2. Market size and forecast, by Application

7.3.5.1.3. Market size and forecast, by Verticals

7.3.5.2. UK

7.3.5.2.1. Market size and forecast, by Offering

7.3.5.2.2. Market size and forecast, by Application

7.3.5.2.3. Market size and forecast, by Verticals

7.3.5.3. France

7.3.5.3.1. Market size and forecast, by Offering

7.3.5.3.2. Market size and forecast, by Application

7.3.5.3.3. Market size and forecast, by Verticals

7.3.5.4. Netherlands

7.3.5.4.1. Market size and forecast, by Offering

7.3.5.4.2. Market size and forecast, by Application

7.3.5.4.3. Market size and forecast, by Verticals

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 7.3.5.5. Rest of Europe
 - 7.3.5.5.1. Market size and forecast, by Offering
 - 7.3.5.5.2. Market size and forecast, by Application
 - 7.3.5.5.3. Market size and forecast, by Verticals
- 7.4. Asia-Pacific
 - 7.4.1. Key market trends, growth factors and opportunities
 - 7.4.2. Market size and forecast, by Offering
 - 7.4.3. Market size and forecast, by Application
 - 7.4.4. Market size and forecast, by Verticals
 - 7.4.5. Market size and forecast, by country
 - 7.4.5.1. China
 - 7.4.5.1.1. Market size and forecast, by Offering
 - 7.4.5.1.2. Market size and forecast, by Application
 - 7.4.5.1.3. Market size and forecast, by Verticals
 - 7.4.5.2. Japan
 - 7.4.5.2.1. Market size and forecast, by Offering
 - 7.4.5.2.2. Market size and forecast, by Application
 - 7.4.5.2.3. Market size and forecast, by Verticals
 - 7.4.5.3. India
 - 7.4.5.3.1. Market size and forecast, by Offering
 - 7.4.5.3.2. Market size and forecast, by Application
 - 7.4.5.3.3. Market size and forecast, by Verticals
 - 7.4.5.4. South Korea
 - 7.4.5.4.1. Market size and forecast, by Offering
 - 7.4.5.4.2. Market size and forecast, by Application
 - 7.4.5.4.3. Market size and forecast, by Verticals
 - 7.4.5.5. Rest of Asia-Pacific
 - 7.4.5.5.1. Market size and forecast, by Offering
 - 7.4.5.5.2. Market size and forecast, by Application
 - 7.4.5.5.3. Market size and forecast, by Verticals
- 7.5. LAMEA
 - 7.5.1. Key market trends, growth factors and opportunities
 - 7.5.2. Market size and forecast, by Offering
 - 7.5.3. Market size and forecast, by Application
 - 7.5.4. Market size and forecast, by Verticals
 - 7.5.5. Market size and forecast, by country
 - 7.5.5.1. Latin America
 - 7.5.5.1.1. Market size and forecast, by Offering
 - 7.5.5.1.2. Market size and forecast, by Application
 - 7.5.5.1.3. Market size and forecast, by Verticals
 - 7.5.5.2. Middle East
 - 7.5.5.2.1. Market size and forecast, by Offering
 - 7.5.5.2.2. Market size and forecast, by Application
 - 7.5.5.2.3. Market size and forecast, by Verticals
 - 7.5.5.3. Africa
 - 7.5.5.3.1. Market size and forecast, by Offering
 - 7.5.5.3.2. Market size and forecast, by Application

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

7.5.5.3.3. Market size and forecast, by Verticals

CHAPTER 8: COMPETITIVE LANDSCAPE

8.1. Introduction

8.2. Top winning strategies

8.3. Product Mapping of Top 10 Player

8.4. Competitive Dashboard

8.5. Competitive Heatmap

8.6. Top player positioning, 2022

CHAPTER 9: COMPANY PROFILES

9.1. Toshiba Corporation

9.1.1. Company overview

9.1.2. Key Executives

9.1.3. Company snapshot

9.1.4. Operating business segments

9.1.5. Product portfolio

9.1.6. Business performance

9.2. Xanadu

9.2.1. Company overview

9.2.2. Key Executives

9.2.3. Company snapshot

9.2.4. Operating business segments

9.2.5. Product portfolio

9.2.6. Key strategic moves and developments

9.3. Quandela

9.3.1. Company overview

9.3.2. Key Executives

9.3.3. Company snapshot

9.3.4. Operating business segments

9.3.5. Product portfolio

9.3.6. Key strategic moves and developments

9.4. ID Quantique

9.4.1. Company overview

9.4.2. Key Executives

9.4.3. Company snapshot

9.4.4. Operating business segments

9.4.5. Product portfolio

9.5. ORCA Computing Limited

9.5.1. Company overview

9.5.2. Key Executives

9.5.3. Company snapshot

9.5.4. Operating business segments

9.5.5. Product portfolio

9.6. PsiQuantum

9.6.1. Company overview

9.6.2. Key Executives

9.6.3. Company snapshot

9.6.4. Operating business segments

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 9.6.5. Product portfolio
- 9.7. TundraSystems Global LTD.
 - 9.7.1. Company overview
 - 9.7.2. Key Executives
 - 9.7.3. Company snapshot
 - 9.7.4. Operating business segments
 - 9.7.5. Product portfolio
- 9.8. Quix Quantum BV
 - 9.8.1. Company overview
 - 9.8.2. Key Executives
 - 9.8.3. Company snapshot
 - 9.8.4. Operating business segments
 - 9.8.5. Product portfolio
- 9.9. IBM Corporation
 - 9.9.1. Company overview
 - 9.9.2. Key Executives
 - 9.9.3. Company snapshot
 - 9.9.4. Operating business segments
 - 9.9.5. Product portfolio
 - 9.9.6. Business performance
- 9.10. MagiQ Technologies, Inc.
 - 9.10.1. Company overview
 - 9.10.2. Key Executives
 - 9.10.3. Company snapshot
 - 9.10.4. Operating business segments
 - 9.10.5. Product portfolio

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

Quantum Photonics Market By Offering (Systems, Services), By Application (Quantum Communication, Quantum Computing, Quantum Sensing and Metrology), By Verticals (Banking and Finance, Space and Defense, Healthcare, Transportation and Logistics, Government, Others): Global Opportunity Analysis and Industry Forecast, 2023-2032

Market Report | 2023-08-01 | 250 pages | Allied Market 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
	Cloud Access License	\$3456.00
	Business User License	\$5730.00
	Enterprise License	\$9600.00
		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"/>

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-03-11"/>
		Signature	<input type="text"/>