

Global Silicon Nitride Waveguide Market 2026 by Manufacturers, Regions, Type and Application, Forecast to 2032

<https://marketpublishers.com/r/GE3DE3C00782EN.html>

Date: July 2026

Pages: 89

Price: US\$ 3,480.00 (Single User License)

ID: GE3DE3C00782EN

Abstracts

According to our (Global Info Research) latest study, the global Silicon Nitride Waveguide market size was valued at US\$ 714 million in 2025 and is forecast to a readjusted size of US\$ 953 million by 2032 with a CAGR of 4.2% during review period.

Silicon nitride waveguides are low-loss on-chip light-guiding structures for photonic integrated circuits, typically composed of a silicon nitride core and silicon dioxide cladding, and are used to perform optical transmission, splitting, coupling, filtering, delay, resonance, and phase control within a chip. Their core value lies in overcoming the absorption limitations of silicon waveguides in visible and selected near-infrared applications while maintaining strong CMOS process compatibility, a broad transparency window, low propagation loss, high optical power handling, and good thermal stability.

Silicon nitride waveguides are becoming a key platform in integrated photonics, combining process maturity with strong performance scalability. Compared with conventional silicon waveguides, silicon nitride offers a broader transparency window across visible and near-infrared wavelengths and achieves a strong balance among low propagation loss, high optical power handling, and thermal stability. This makes it particularly suitable for applications that require stable optical paths, low noise, and long-coherence transmission. The platform can support basic on-chip interconnect, splitting, coupling, filtering, and delay functions, while also enabling higher-value system functions through resonators, arrayed waveguide gratings, optical phased arrays, and external-cavity structures. As MPW runs, PDKs, standard building block libraries, and packaging and testing capabilities mature, customers no longer need to build a full process from the ground up. Instead, they can complete design validation, prototype

iteration, and volume introduction on established platforms. As a result, industry value is expanding from standalone waveguide fabrication to coordinated optimization across materials, design, wafer runs, testing, packaging, and applications, creating long-term platform-level growth potential.

Demand for silicon nitride waveguides is growing across multiple application scenarios in parallel. Data center and communications markets emphasize low loss, high bandwidth, low power consumption, and efficient package coupling. Quantum computing and quantum communications markets emphasize low fluorescence, low phase noise, and compatibility with visible and near-infrared wavelengths. Sensing and biospectroscopy markets focus on broad wavelength coverage, low background noise, and surface interaction. Laser and microwave photonics markets value high-Q resonance, narrow linewidth, frequency comb generation, and stable delay lines. These diverse applications impose different combinations of performance requirements on the same platform, enabling suppliers to differentiate by wavelength range, loss level, mode field, coupling method, tunability, heterogeneous integration, and packaging capability. Future growth is more likely to come from system-level optoelectronic integration than from standalone waveguide chips, because customers ultimately purchase stable optical functions that can be embedded into communications modules, quantum processors, sensing instruments, and laser systems. As AI data centers, near-package optics, scalable quantum systems, and high-precision sensing equipment move into engineering deployment, silicon nitride waveguides are expected to shift from small-volume research prototypes toward more repeatable industrial orders.

The global competitive landscape is moving from a small group of specialized photonic platforms toward a broader semiconductor foundry ecosystem. Europe has a strong foundation in low-loss SiN processes, research commercialization, and open-access platforms. North America benefits from open MPW access, advanced packaging, AI optical interconnects, and a strong quantum ecosystem. Asia is rapidly strengthening its position in silicon photonics capacity, wafer manufacturing, and nanofabrication services. The entry of large foundries into silicon photonics will raise customer expectations for yield, capacity, design rules, and supply chain reliability, while also accelerating more complex heterogeneous integration routes combining SiN with silicon, III-V materials, thin-film lithium niobate, glass waveguides, and advanced packaging. Smaller specialized platforms can maintain advantages in low loss, special wavelength coverage, rapid customization, and high-value applications, while large wafer fabs can bring mature processes, design ecosystems, and volume manufacturing capability to data center and communications customers. Overall, silicon nitride waveguides are not an isolated materials segment, but a critical foundation layer in

integrated photonics platform competition, and their market growth will be closely tied to the commercialization pace of optical interconnects, quantum technologies, sensing instruments, and low-noise laser systems.

This report is a detailed and comprehensive analysis for global Silicon Nitride Waveguide market. Both quantitative and qualitative analyses are presented by manufacturers, by region & country, by Core Deposition Process and by Application. As the market is constantly changing, this report explores the competition, supply and demand trends, as well as key factors that contribute to its changing demands across many markets. Company profiles and product examples of selected competitors, along with market share estimates of some of the selected leaders for the year 2025, are provided.

Key Features:

Global Silicon Nitride Waveguide market size and forecasts, in consumption value (\$ Million), sales quantity (K Wafers), and average selling prices (US\$/Wafer), 2021-2032

Global Silicon Nitride Waveguide market size and forecasts by region and country, in consumption value (\$ Million), sales quantity (K Wafers), and average selling prices (US\$/Wafer), 2021-2032

Global Silicon Nitride Waveguide market size and forecasts, by Core Deposition Process and by Application, in consumption value (\$ Million), sales quantity (K Wafers), and average selling prices (US\$/Wafer), 2021-2032

Global Silicon Nitride Waveguide market shares of main players, shipments in revenue (\$ Million), sales quantity (K Wafers), and ASP (US\$/Wafer), 2021-2026

The Primary Objectives in This Report Are:

To determine the size of the total market opportunity of global and key countries

To assess the growth potential for Silicon Nitride Waveguide

To forecast future growth in each product and end-use market

To assess competitive factors affecting the marketplace

This report profiles key players in the global Silicon Nitride Waveguide market based on the following parameters - company overview, sales quantity, revenue, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include LioniX International B.V., LIGENTEC SA, imec, AIM Photonics, Applied Nanotools Inc., GlobalFoundries Inc., Tower Semiconductor Ltd., CORNERSTONE, CEA-Leti, Shanghai Omedasemi Co., Ltd., etc.

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

Market Segmentation

Silicon Nitride Waveguide market is split by Core Deposition Process and by Application. For the period 2021-2032, the growth among segments provides accurate calculations and forecasts for consumption value by Core Deposition Process, and by Application in terms of volume and value. This analysis can help you expand your business by targeting qualified niche markets.

Market segment by Core Deposition Process

LPCVD Deposition

PECVD Deposition

PVD Sputter Deposition

Low-Temperature Deposition

Damascene Deposition

Other

Market segment by Pattern Transfer Process

DUV Photolithography Etching

Electron-Beam Lithography Etching

Nanoimprint Lithography Etching

Laser Direct-Writing Etching

Hybrid Lithography Etching

Other

Market segment by Optical Confinement Strength

Weak-Confinement Large-Mode-Area Silicon Nitride Waveguide

Medium-Confinement Silicon Nitride Waveguide

Strong-Confinement High-Density Silicon Nitride Waveguide

Thick-Film Strongly Nonlinear Silicon Nitride Waveguide

Other

Market segment by Application

Data Center Interconnect

Quantum Computing Optical Path

LiDAR Beam Steering

Biosensing

Microwave Photonic Signal Processing

Visible-Light Integrated Imaging

Other

Major players covered

LioniX International B.V.

LIGENTEC SA

imec

AIM Photonics

Applied Nanotools Inc.

GlobalFoundries Inc.

Tower Semiconductor Ltd.

CORNERSTONE

CEA-Leti

Shanghai Omedasemi Co., Ltd.

Market segment by region, regional analysis covers

North America (United States, Canada, and Mexico)

Europe (Germany, France, United Kingdom, Russia, Italy, and Rest of Europe)

Asia-Pacific (China, Japan, Korea, India, Southeast Asia, and Australia)

South America (Brazil, Argentina, Colombia, and Rest of South America)

Middle East & Africa (Saudi Arabia, UAE, Egypt, South Africa, and Rest of Middle East & Africa)

The content of the study subjects, includes a total of 15 chapters:

Chapter 1, to describe Silicon Nitride Waveguide product scope, market overview, market estimation caveats and base year.

Chapter 2, to profile the top manufacturers of Silicon Nitride Waveguide, with price, sales quantity, revenue, and global market share of Silicon Nitride Waveguide from 2021 to 2026.

Chapter 3, the Silicon Nitride Waveguide competitive situation, sales quantity, revenue, and global market share of top manufacturers are analyzed emphatically by landscape contrast.

Chapter 4, the Silicon Nitride Waveguide breakdown data are shown at the regional level, to show the sales quantity, consumption value, and growth by regions, from 2021 to 2032.

Chapter 5 and 6, to segment the sales by Core Deposition Process and by Application, with sales market share and growth rate by Core Deposition Process, by Application, from 2021 to 2032.

Chapter 7, 8, 9, 10 and 11, to break the sales data at the country level, with sales quantity, consumption value, and market share for key countries in the world, from 2021 to 2026. and Silicon Nitride Waveguide market forecast, by regions, by Core Deposition Process, and by Application, with sales and revenue, from 2027 to 2032.

Chapter 12, market dynamics, drivers, restraints, trends, and Porters Five Forces analysis.

Chapter 13, the key raw materials and key suppliers, and industry chain of Silicon Nitride Waveguide.

Chapter 14 and 15, to describe Silicon Nitride Waveguide sales channel, distributors, customers, research findings and conclusion.

Contents

1 MARKET OVERVIEW

1.1 Product Overview and Scope

1.2 Market Estimation Caveats and Base Year

1.3 Market Analysis by Core Deposition Process

1.3.1 Overview: Global Silicon Nitride Waveguide Consumption Value by Core Deposition Process: 2021 Versus 2025 Versus 2032

1.3.2 LPCVD Deposition

1.3.3 PECVD Deposition

1.3.4 PVD Sputter Deposition

1.3.5 Low-Temperature Deposition

1.3.6 Damascene Deposition

1.3.7 Other

1.4 Market Analysis by Pattern Transfer Process

1.4.1 Overview: Global Silicon Nitride Waveguide Consumption Value by Pattern Transfer Process: 2021 Versus 2025 Versus 2032

1.4.2 DUV Photolithography Etching

1.4.3 Electron-Beam Lithography Etching

1.4.4 Nanoimprint Lithography Etching

1.4.5 Laser Direct-Writing Etching

1.4.6 Hybrid Lithography Etching

1.4.7 Other

1.5 Market Analysis by Optical Confinement Strength

1.5.1 Overview: Global Silicon Nitride Waveguide Consumption Value by Optical Confinement Strength: 2021 Versus 2025 Versus 2032

1.5.2 Weak-Confinement Large-Mode-Area Silicon Nitride Waveguide

1.5.3 Medium-Confinement Silicon Nitride Waveguide

1.5.4 Strong-Confinement High-Density Silicon Nitride Waveguide

1.5.5 Thick-Film Strongly Nonlinear Silicon Nitride Waveguide

1.5.6 Other

1.6 Market Analysis by Application

1.6.1 Overview: Global Silicon Nitride Waveguide Consumption Value by Application: 2021 Versus 2025 Versus 2032

1.6.2 Data Center Interconnect

1.6.3 Quantum Computing Optical Path

1.6.4 LiDAR Beam Steering

1.6.5 Biosensing

- 1.6.6 Microwave Photonic Signal Processing
- 1.6.7 Visible-Light Integrated Imaging
- 1.6.8 Other
- 1.7 Global Silicon Nitride Waveguide Market Size & Forecast
 - 1.7.1 Global Silicon Nitride Waveguide Consumption Value (2021 & 2025 & 2032)
 - 1.7.2 Global Silicon Nitride Waveguide Sales Quantity (2021-2032)
 - 1.7.3 Global Silicon Nitride Waveguide Average Price (2021-2032)

2 MANUFACTURERS PROFILES

- 2.1 LioniX International B.V.
 - 2.1.1 LioniX International B.V. Details
 - 2.1.2 LioniX International B.V. Major Business
 - 2.1.3 LioniX International B.V. Silicon Nitride Waveguide Product and Services
 - 2.1.4 LioniX International B.V. Silicon Nitride Waveguide Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.1.5 LioniX International B.V. Recent Developments/Updates
- 2.2 LIGENTEC SA
 - 2.2.1 LIGENTEC SA Details
 - 2.2.2 LIGENTEC SA Major Business
 - 2.2.3 LIGENTEC SA Silicon Nitride Waveguide Product and Services
 - 2.2.4 LIGENTEC SA Silicon Nitride Waveguide Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.2.5 LIGENTEC SA Recent Developments/Updates
- 2.3 imec
 - 2.3.1 imec Details
 - 2.3.2 imec Major Business
 - 2.3.3 imec Silicon Nitride Waveguide Product and Services
 - 2.3.4 imec Silicon Nitride Waveguide Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.3.5 imec Recent Developments/Updates
- 2.4 AIM Photonics
 - 2.4.1 AIM Photonics Details
 - 2.4.2 AIM Photonics Major Business
 - 2.4.3 AIM Photonics Silicon Nitride Waveguide Product and Services
 - 2.4.4 AIM Photonics Silicon Nitride Waveguide Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.4.5 AIM Photonics Recent Developments/Updates
- 2.5 Applied Nanotools Inc.

- 2.5.1 Applied Nanotools Inc. Details
- 2.5.2 Applied Nanotools Inc. Major Business
- 2.5.3 Applied Nanotools Inc. Silicon Nitride Waveguide Product and Services
- 2.5.4 Applied Nanotools Inc. Silicon Nitride Waveguide Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
- 2.5.5 Applied Nanotools Inc. Recent Developments/Updates
- 2.6 GlobalFoundries Inc.
 - 2.6.1 GlobalFoundries Inc. Details
 - 2.6.2 GlobalFoundries Inc. Major Business
 - 2.6.3 GlobalFoundries Inc. Silicon Nitride Waveguide Product and Services
 - 2.6.4 GlobalFoundries Inc. Silicon Nitride Waveguide Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.6.5 GlobalFoundries Inc. Recent Developments/Updates
- 2.7 Tower Semiconductor Ltd.
 - 2.7.1 Tower Semiconductor Ltd. Details
 - 2.7.2 Tower Semiconductor Ltd. Major Business
 - 2.7.3 Tower Semiconductor Ltd. Silicon Nitride Waveguide Product and Services
 - 2.7.4 Tower Semiconductor Ltd. Silicon Nitride Waveguide Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.7.5 Tower Semiconductor Ltd. Recent Developments/Updates
- 2.8 CORNERSTONE
 - 2.8.1 CORNERSTONE Details
 - 2.8.2 CORNERSTONE Major Business
 - 2.8.3 CORNERSTONE Silicon Nitride Waveguide Product and Services
 - 2.8.4 CORNERSTONE Silicon Nitride Waveguide Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.8.5 CORNERSTONE Recent Developments/Updates
- 2.9 CEA-Leti
 - 2.9.1 CEA-Leti Details
 - 2.9.2 CEA-Leti Major Business
 - 2.9.3 CEA-Leti Silicon Nitride Waveguide Product and Services
 - 2.9.4 CEA-Leti Silicon Nitride Waveguide Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)
 - 2.9.5 CEA-Leti Recent Developments/Updates
- 2.10 Shanghai Omedasemi Co., Ltd.
 - 2.10.1 Shanghai Omedasemi Co., Ltd. Details
 - 2.10.2 Shanghai Omedasemi Co., Ltd. Major Business
 - 2.10.3 Shanghai Omedasemi Co., Ltd. Silicon Nitride Waveguide Product and Services

2.10.4 Shanghai Omedasemi Co., Ltd. Silicon Nitride Waveguide Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2021-2026)

2.10.5 Shanghai Omedasemi Co., Ltd. Recent Developments/Updates

3 COMPETITIVE ENVIRONMENT: SILICON NITRIDE WAVEGUIDE BY MANUFACTURER

3.1 Global Silicon Nitride Waveguide Sales Quantity by Manufacturer (2021-2026)

3.2 Global Silicon Nitride Waveguide Revenue by Manufacturer (2021-2026)

3.3 Global Silicon Nitride Waveguide Average Price by Manufacturer (2021-2026)

3.4 Market Share Analysis (2025)

3.4.1 Producer Shipments of Silicon Nitride Waveguide by Manufacturer Revenue (\$MM) and Market Share (%): 2025

3.4.2 Top 3 Silicon Nitride Waveguide Manufacturer Market Share in 2025

3.4.3 Top 6 Silicon Nitride Waveguide Manufacturer Market Share in 2025

3.5 Silicon Nitride Waveguide Market: Overall Company Footprint Analysis

3.5.1 Silicon Nitride Waveguide Market: Region Footprint

3.5.2 Silicon Nitride Waveguide Market: Company Product Type Footprint

3.5.3 Silicon Nitride Waveguide Market: Company Product Application Footprint

3.6 New Market Entrants and Barriers to Market Entry

3.7 Mergers, Acquisition, Agreements, and Collaborations

4 CONSUMPTION ANALYSIS BY REGION

4.1 Global Silicon Nitride Waveguide Market Size by Region

4.1.1 Global Silicon Nitride Waveguide Sales Quantity by Region (2021-2032)

4.1.2 Global Silicon Nitride Waveguide Consumption Value by Region (2021-2032)

4.1.3 Global Silicon Nitride Waveguide Average Price by Region (2021-2032)

4.2 North America Silicon Nitride Waveguide Consumption Value (2021-2032)

4.3 Europe Silicon Nitride Waveguide Consumption Value (2021-2032)

4.4 Asia-Pacific Silicon Nitride Waveguide Consumption Value (2021-2032)

4.5 South America Silicon Nitride Waveguide Consumption Value (2021-2032)

4.6 Middle East & Africa Silicon Nitride Waveguide Consumption Value (2021-2032)

5 MARKET SEGMENT BY CORE DEPOSITION PROCESS

5.1 Global Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2021-2032)

5.2 Global Silicon Nitride Waveguide Consumption Value by Core Deposition Process

(2021-2032)

5.3 Global Silicon Nitride Waveguide Average Price by Core Deposition Process
(2021-2032)

6 MARKET SEGMENT BY APPLICATION

6.1 Global Silicon Nitride Waveguide Sales Quantity by Application (2021-2032)

6.2 Global Silicon Nitride Waveguide Consumption Value by Application (2021-2032)

6.3 Global Silicon Nitride Waveguide Average Price by Application (2021-2032)

7 NORTH AMERICA

7.1 North America Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2021-2032)

7.2 North America Silicon Nitride Waveguide Sales Quantity by Application (2021-2032)

7.3 North America Silicon Nitride Waveguide Market Size by Country

7.3.1 North America Silicon Nitride Waveguide Sales Quantity by Country (2021-2032)

7.3.2 North America Silicon Nitride Waveguide Consumption Value by Country
(2021-2032)

7.3.3 United States Market Size and Forecast (2021-2032)

7.3.4 Canada Market Size and Forecast (2021-2032)

7.3.5 Mexico Market Size and Forecast (2021-2032)

8 EUROPE

8.1 Europe Silicon Nitride Waveguide Sales Quantity by Core Deposition Process
(2021-2032)

8.2 Europe Silicon Nitride Waveguide Sales Quantity by Application (2021-2032)

8.3 Europe Silicon Nitride Waveguide Market Size by Country

8.3.1 Europe Silicon Nitride Waveguide Sales Quantity by Country (2021-2032)

8.3.2 Europe Silicon Nitride Waveguide Consumption Value by Country (2021-2032)

8.3.3 Germany Market Size and Forecast (2021-2032)

8.3.4 France Market Size and Forecast (2021-2032)

8.3.5 United Kingdom Market Size and Forecast (2021-2032)

8.3.6 Russia Market Size and Forecast (2021-2032)

8.3.7 Italy Market Size and Forecast (2021-2032)

9 ASIA-PACIFIC

9.1 Asia-Pacific Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2021-2032)

9.2 Asia-Pacific Silicon Nitride Waveguide Sales Quantity by Application (2021-2032)

9.3 Asia-Pacific Silicon Nitride Waveguide Market Size by Region

9.3.1 Asia-Pacific Silicon Nitride Waveguide Sales Quantity by Region (2021-2032)

9.3.2 Asia-Pacific Silicon Nitride Waveguide Consumption Value by Region (2021-2032)

9.3.3 China Market Size and Forecast (2021-2032)

9.3.4 Japan Market Size and Forecast (2021-2032)

9.3.5 South Korea Market Size and Forecast (2021-2032)

9.3.6 India Market Size and Forecast (2021-2032)

9.3.7 Southeast Asia Market Size and Forecast (2021-2032)

9.3.8 Australia Market Size and Forecast (2021-2032)

10 SOUTH AMERICA

10.1 South America Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2021-2032)

10.2 South America Silicon Nitride Waveguide Sales Quantity by Application (2021-2032)

10.3 South America Silicon Nitride Waveguide Market Size by Country

10.3.1 South America Silicon Nitride Waveguide Sales Quantity by Country (2021-2032)

10.3.2 South America Silicon Nitride Waveguide Consumption Value by Country (2021-2032)

10.3.3 Brazil Market Size and Forecast (2021-2032)

10.3.4 Argentina Market Size and Forecast (2021-2032)

11 MIDDLE EAST & AFRICA

11.1 Middle East & Africa Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2021-2032)

11.2 Middle East & Africa Silicon Nitride Waveguide Sales Quantity by Application (2021-2032)

11.3 Middle East & Africa Silicon Nitride Waveguide Market Size by Country

11.3.1 Middle East & Africa Silicon Nitride Waveguide Sales Quantity by Country (2021-2032)

11.3.2 Middle East & Africa Silicon Nitride Waveguide Consumption Value by Country (2021-2032)

- 11.3.3 Turkey Market Size and Forecast (2021-2032)
- 11.3.4 Egypt Market Size and Forecast (2021-2032)
- 11.3.5 Saudi Arabia Market Size and Forecast (2021-2032)
- 11.3.6 South Africa Market Size and Forecast (2021-2032)

12 MARKET DYNAMICS

- 12.1 Silicon Nitride Waveguide Market Drivers
- 12.2 Silicon Nitride Waveguide Market Restraints
- 12.3 Silicon Nitride Waveguide Trends Analysis
- 12.4 Porters Five Forces Analysis
 - 12.4.1 Threat of New Entrants
 - 12.4.2 Bargaining Power of Suppliers
 - 12.4.3 Bargaining Power of Buyers
 - 12.4.4 Threat of Substitutes
 - 12.4.5 Competitive Rivalry

13 RAW MATERIAL AND INDUSTRY CHAIN

- 13.1 Raw Material of Silicon Nitride Waveguide and Key Manufacturers
- 13.2 Manufacturing Costs Percentage of Silicon Nitride Waveguide
- 13.3 Silicon Nitride Waveguide Production Process
- 13.4 Industry Value Chain Analysis

14 SHIPMENTS BY DISTRIBUTION CHANNEL

- 14.1 Sales Channel
 - 14.1.1 Direct to End-User
 - 14.1.2 Distributors
- 14.2 Silicon Nitride Waveguide Typical Distributors
- 14.3 Silicon Nitride Waveguide Typical Customers

15 RESEARCH FINDINGS AND CONCLUSION

16 APPENDIX

- 16.1 Methodology
- 16.2 Research Process and Data Source
- 16.3 Disclaimer

List Of Tables

LIST OF TABLES

Table 1. Global Silicon Nitride Waveguide Consumption Value by Core Deposition Process, (USD Million), 2021 & 2025 & 2032

Table 2. Global Silicon Nitride Waveguide Consumption Value by Pattern Transfer Process, (USD Million), 2021 & 2025 & 2032

Table 3. Global Silicon Nitride Waveguide Consumption Value by Optical Confinement Strength, (USD Million), 2021 & 2025 & 2032

Table 4. Global Silicon Nitride Waveguide Consumption Value by Application, (USD Million), 2021 & 2025 & 2032

Table 5. LioniX International B.V. Basic Information, Manufacturing Base and Competitors

Table 6. LioniX International B.V. Major Business

Table 7. LioniX International B.V. Silicon Nitride Waveguide Product and Services

Table 8. LioniX International B.V. Silicon Nitride Waveguide Sales Quantity (K Wafers), Average Price (US\$/Wafer), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 9. LioniX International B.V. Recent Developments/Updates

Table 10. LIGENTEC SA Basic Information, Manufacturing Base and Competitors

Table 11. LIGENTEC SA Major Business

Table 12. LIGENTEC SA Silicon Nitride Waveguide Product and Services

Table 13. LIGENTEC SA Silicon Nitride Waveguide Sales Quantity (K Wafers), Average Price (US\$/Wafer), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 14. LIGENTEC SA Recent Developments/Updates

Table 15. imec Basic Information, Manufacturing Base and Competitors

Table 16. imec Major Business

Table 17. imec Silicon Nitride Waveguide Product and Services

Table 18. imec Silicon Nitride Waveguide Sales Quantity (K Wafers), Average Price (US\$/Wafer), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 19. imec Recent Developments/Updates

Table 20. AIM Photonics Basic Information, Manufacturing Base and Competitors

Table 21. AIM Photonics Major Business

Table 22. AIM Photonics Silicon Nitride Waveguide Product and Services

Table 23. AIM Photonics Silicon Nitride Waveguide Sales Quantity (K Wafers), Average Price (US\$/Wafer), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 24. AIM Photonics Recent Developments/Updates

Table 25. Applied Nanotools Inc. Basic Information, Manufacturing Base and Competitors

Table 26. Applied Nanotools Inc. Major Business

Table 27. Applied Nanotools Inc. Silicon Nitride Waveguide Product and Services

Table 28. Applied Nanotools Inc. Silicon Nitride Waveguide Sales Quantity (K Wafers), Average Price (US\$/Wafer), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 29. Applied Nanotools Inc. Recent Developments/Updates

Table 30. GlobalFoundries Inc. Basic Information, Manufacturing Base and Competitors

Table 31. GlobalFoundries Inc. Major Business

Table 32. GlobalFoundries Inc. Silicon Nitride Waveguide Product and Services

Table 33. GlobalFoundries Inc. Silicon Nitride Waveguide Sales Quantity (K Wafers), Average Price (US\$/Wafer), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 34. GlobalFoundries Inc. Recent Developments/Updates

Table 35. Tower Semiconductor Ltd. Basic Information, Manufacturing Base and Competitors

Table 36. Tower Semiconductor Ltd. Major Business

Table 37. Tower Semiconductor Ltd. Silicon Nitride Waveguide Product and Services

Table 38. Tower Semiconductor Ltd. Silicon Nitride Waveguide Sales Quantity (K Wafers), Average Price (US\$/Wafer), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 39. Tower Semiconductor Ltd. Recent Developments/Updates

Table 40. CORNERSTONE Basic Information, Manufacturing Base and Competitors

Table 41. CORNERSTONE Major Business

Table 42. CORNERSTONE Silicon Nitride Waveguide Product and Services

Table 43. CORNERSTONE Silicon Nitride Waveguide Sales Quantity (K Wafers), Average Price (US\$/Wafer), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 44. CORNERSTONE Recent Developments/Updates

Table 45. CEA-Leti Basic Information, Manufacturing Base and Competitors

Table 46. CEA-Leti Major Business

Table 47. CEA-Leti Silicon Nitride Waveguide Product and Services

Table 48. CEA-Leti Silicon Nitride Waveguide Sales Quantity (K Wafers), Average Price (US\$/Wafer), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 49. CEA-Leti Recent Developments/Updates

Table 50. Shanghai Omedasemi Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 51. Shanghai Omedasemi Co., Ltd. Major Business

Table 52. Shanghai Omedasemi Co., Ltd. Silicon Nitride Waveguide Product and Services

Table 53. Shanghai Omedasemi Co., Ltd. Silicon Nitride Waveguide Sales Quantity (K Wafers), Average Price (US\$/Wafer), Revenue (USD Million), Gross Margin and Market Share (2021-2026)

Table 54. Shanghai Omedasemi Co., Ltd. Recent Developments/Updates

Table 55. Global Silicon Nitride Waveguide Sales Quantity by Manufacturer (2021-2026) & (K Wafers)

Table 56. Global Silicon Nitride Waveguide Revenue by Manufacturer (2021-2026) & (USD Million)

Table 57. Global Silicon Nitride Waveguide Average Price by Manufacturer (2021-2026) & (US\$/Wafer)

Table 58. Market Position of Manufacturers in Silicon Nitride Waveguide, (Tier 1, Tier 2, and Tier 3), Based on Revenue in 2025

Table 59. Head Office and Silicon Nitride Waveguide Production Site of Key Manufacturer

Table 60. Silicon Nitride Waveguide Market: Company Product Type Footprint

Table 61. Silicon Nitride Waveguide Market: Company Product Application Footprint

Table 62. Silicon Nitride Waveguide New Market Entrants and Barriers to Market Entry

Table 63. Silicon Nitride Waveguide Mergers, Acquisition, Agreements, and Collaborations

Table 64. Global Silicon Nitride Waveguide Consumption Value by Region (2021-2025-2032) & (USD Million) & CAGR

Table 65. Global Silicon Nitride Waveguide Sales Quantity by Region (2021-2026) & (K Wafers)

Table 66. Global Silicon Nitride Waveguide Sales Quantity by Region (2027-2032) & (K Wafers)

Table 67. Global Silicon Nitride Waveguide Consumption Value by Region (2021-2026) & (USD Million)

Table 68. Global Silicon Nitride Waveguide Consumption Value by Region (2027-2032) & (USD Million)

Table 69. Global Silicon Nitride Waveguide Average Price by Region (2021-2026) & (US\$/Wafer)

Table 70. Global Silicon Nitride Waveguide Average Price by Region (2027-2032) & (US\$/Wafer)

Table 71. Global Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2021-2026) & (K Wafers)

Table 72. Global Silicon Nitride Waveguide Sales Quantity by Core Deposition Process

(2027-2032) & (K Wafers)

Table 73. Global Silicon Nitride Waveguide Consumption Value by Core Deposition Process (2021-2026) & (USD Million)

Table 74. Global Silicon Nitride Waveguide Consumption Value by Core Deposition Process (2027-2032) & (USD Million)

Table 75. Global Silicon Nitride Waveguide Average Price by Core Deposition Process (2021-2026) & (US\$/Wafer)

Table 76. Global Silicon Nitride Waveguide Average Price by Core Deposition Process (2027-2032) & (US\$/Wafer)

Table 77. Global Silicon Nitride Waveguide Sales Quantity by Application (2021-2026) & (K Wafers)

Table 78. Global Silicon Nitride Waveguide Sales Quantity by Application (2027-2032) & (K Wafers)

Table 79. Global Silicon Nitride Waveguide Consumption Value by Application (2021-2026) & (USD Million)

Table 80. Global Silicon Nitride Waveguide Consumption Value by Application (2027-2032) & (USD Million)

Table 81. Global Silicon Nitride Waveguide Average Price by Application (2021-2026) & (US\$/Wafer)

Table 82. Global Silicon Nitride Waveguide Average Price by Application (2027-2032) & (US\$/Wafer)

Table 83. North America Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2021-2026) & (K Wafers)

Table 84. North America Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2027-2032) & (K Wafers)

Table 85. North America Silicon Nitride Waveguide Sales Quantity by Application (2021-2026) & (K Wafers)

Table 86. North America Silicon Nitride Waveguide Sales Quantity by Application (2027-2032) & (K Wafers)

Table 87. North America Silicon Nitride Waveguide Sales Quantity by Country (2021-2026) & (K Wafers)

Table 88. North America Silicon Nitride Waveguide Sales Quantity by Country (2027-2032) & (K Wafers)

Table 89. North America Silicon Nitride Waveguide Consumption Value by Country (2021-2026) & (USD Million)

Table 90. North America Silicon Nitride Waveguide Consumption Value by Country (2027-2032) & (USD Million)

Table 91. Europe Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2021-2026) & (K Wafers)

Table 92. Europe Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2027-2032) & (K Wafers)

Table 93. Europe Silicon Nitride Waveguide Sales Quantity by Application (2021-2026) & (K Wafers)

Table 94. Europe Silicon Nitride Waveguide Sales Quantity by Application (2027-2032) & (K Wafers)

Table 95. Europe Silicon Nitride Waveguide Sales Quantity by Country (2021-2026) & (K Wafers)

Table 96. Europe Silicon Nitride Waveguide Sales Quantity by Country (2027-2032) & (K Wafers)

Table 97. Europe Silicon Nitride Waveguide Consumption Value by Country (2021-2026) & (USD Million)

Table 98. Europe Silicon Nitride Waveguide Consumption Value by Country (2027-2032) & (USD Million)

Table 99. Asia-Pacific Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2021-2026) & (K Wafers)

Table 100. Asia-Pacific Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2027-2032) & (K Wafers)

Table 101. Asia-Pacific Silicon Nitride Waveguide Sales Quantity by Application (2021-2026) & (K Wafers)

Table 102. Asia-Pacific Silicon Nitride Waveguide Sales Quantity by Application (2027-2032) & (K Wafers)

Table 103. Asia-Pacific Silicon Nitride Waveguide Sales Quantity by Region (2021-2026) & (K Wafers)

Table 104. Asia-Pacific Silicon Nitride Waveguide Sales Quantity by Region (2027-2032) & (K Wafers)

Table 105. Asia-Pacific Silicon Nitride Waveguide Consumption Value by Region (2021-2026) & (USD Million)

Table 106. Asia-Pacific Silicon Nitride Waveguide Consumption Value by Region (2027-2032) & (USD Million)

Table 107. South America Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2021-2026) & (K Wafers)

Table 108. South America Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2027-2032) & (K Wafers)

Table 109. South America Silicon Nitride Waveguide Sales Quantity by Application (2021-2026) & (K Wafers)

Table 110. South America Silicon Nitride Waveguide Sales Quantity by Application (2027-2032) & (K Wafers)

Table 111. South America Silicon Nitride Waveguide Sales Quantity by Country

(2021-2026) & (K Wafers)

Table 112. South America Silicon Nitride Waveguide Sales Quantity by Country

(2027-2032) & (K Wafers)

Table 113. South America Silicon Nitride Waveguide Consumption Value by Country

(2021-2026) & (USD Million)

Table 114. South America Silicon Nitride Waveguide Consumption Value by Country

(2027-2032) & (USD Million)

Table 115. Middle East & Africa Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2021-2026) & (K Wafers)

Table 116. Middle East & Africa Silicon Nitride Waveguide Sales Quantity by Core Deposition Process (2027-2032) & (K Wafers)

Table 117. Middle East & Africa Silicon Nitride Waveguide Sales Quantity by Application (2021-2026) & (K Wafers)

Table 118. Middle East & Africa Silicon Nitride Waveguide Sales Quantity by Application (2027-2032) & (K Wafers)

Table 119. Middle East & Africa Silicon Nitride Waveguide Sales Quantity by Country (2021-2026) & (K Wafers)

Table 120. Middle East & Africa Silicon Nitride Waveguide Sales Quantity by Country (2027-2032) & (K Wafers)

Table 121. Middle East & Africa Silicon Nitride Waveguide Consumption Value by Country (2021-2026) & (USD Million)

Table 122. Middle East & Africa Silicon Nitride Waveguide Consumption Value by Country (2027-2032) & (USD Million)

Table 123. Silicon Nitride Waveguide Raw Material

Table 124. Key Manufacturers of Silicon Nitride Waveguide Raw Materials

Table 125. Silicon Nitride Waveguide Typical Distributors

Table 126. Silicon Nitride Waveguide Typical Customers

List Of Figures

LIST OF FIGURES

- Figure 1. Silicon Nitride Waveguide Picture
- Figure 2. Global Silicon Nitride Waveguide Revenue by Core Deposition Process, (USD Million), 2021 & 2025 & 2032
- Figure 3. Global Silicon Nitride Waveguide Revenue Market Share by Core Deposition Process in 2025
- Figure 4. LPCVD Deposition Examples
- Figure 5. PECVD Deposition Examples
- Figure 6. PVD Sputter Deposition Examples
- Figure 7. Low-Temperature Deposition Examples
- Figure 8. Damascene Deposition Examples
- Figure 9. Other Examples
- Figure 10. Global Silicon Nitride Waveguide Revenue by Pattern Transfer Process, (USD Million), 2021 & 2025 & 2032
- Figure 11. Global Silicon Nitride Waveguide Revenue Market Share by Pattern Transfer Process in 2025
- Figure 12. DUV Photolithography Etching Examples
- Figure 13. Electron-Beam Lithography Etching Examples
- Figure 14. Nanoimprint Lithography Etching Examples
- Figure 15. Laser Direct-Writing Etching Examples
- Figure 16. Hybrid Lithography Etching Examples
- Figure 17. Other Examples
- Figure 18. Global Silicon Nitride Waveguide Revenue by Optical Confinement Strength, (USD Million), 2021 & 2025 & 2032
- Figure 19. Global Silicon Nitride Waveguide Revenue Market Share by Optical Confinement Strength in 2025
- Figure 20. Weak-Confinement Large-Mode-Area Silicon Nitride Waveguide Examples
- Figure 21. Medium-Confinement Silicon Nitride Waveguide Examples
- Figure 22. Strong-Confinement High-Density Silicon Nitride Waveguide Examples
- Figure 23. Thick-Film Strongly Nonlinear Silicon Nitride Waveguide Examples
- Figure 24. Other Examples
- Figure 25. Global Silicon Nitride Waveguide Consumption Value by Application, (USD Million), 2021 & 2025 & 2032
- Figure 26. Global Silicon Nitride Waveguide Revenue Market Share by Application in 2025
- Figure 27. Data Center Interconnect Examples

Figure 28. Quantum Computing Optical Path Examples

Figure 29. LiDAR Beam Steering Examples

Figure 30. Biosensing Examples

Figure 31. Microwave Photonic Signal Processing Examples

Figure 32. Visible-Light Integrated Imaging Examples

Figure 33. Other Examples

Figure 34. Global Silicon Nitride Waveguide Consumption Value, (USD Million): 2021 & 2025 & 2032

Figure 35. Global Silicon Nitride Waveguide Consumption Value and Forecast (2021-2032) & (USD Million)

Figure 36. Global Silicon Nitride Waveguide Sales Quantity (2021-2032) & (K Wafers)

Figure 37. Global Silicon Nitride Waveguide Price (2021-2032) & (US\$/Wafer)

Figure 38. Global Silicon Nitride Waveguide Sales Quantity Market Share by Manufacturer in 2025

Figure 39. Global Silicon Nitride Waveguide Revenue Market Share by Manufacturer in 2025

Figure 40. Producer Shipments of Silicon Nitride Waveguide by Manufacturer Sales (\$MM) and Market Share (%): 2025

Figure 41. Top 3 Silicon Nitride Waveguide Manufacturer (Revenue) Market Share in 2025

Figure 42. Top 6 Silicon Nitride Waveguide Manufacturer (Revenue) Market Share in 2025

Figure 43. Global Silicon Nitride Waveguide Sales Quantity Market Share by Region (2021-2032)

Figure 44. Global Silicon Nitride Waveguide Consumption Value Market Share by Region (2021-2032)

Figure 45. North America Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 46. Europe Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 47. Asia-Pacific Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 48. South America Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 49. Middle East & Africa Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 50. Global Silicon Nitride Waveguide Sales Quantity Market Share by Core Deposition Process (2021-2032)

Figure 51. Global Silicon Nitride Waveguide Consumption Value Market Share by Core

Deposition Process (2021-2032)

Figure 52. Global Silicon Nitride Waveguide Average Price by Core Deposition Process (2021-2032) & (US\$/Wafer)

Figure 53. Global Silicon Nitride Waveguide Sales Quantity Market Share by Application (2021-2032)

Figure 54. Global Silicon Nitride Waveguide Revenue Market Share by Application (2021-2032)

Figure 55. Global Silicon Nitride Waveguide Average Price by Application (2021-2032) & (US\$/Wafer)

Figure 56. North America Silicon Nitride Waveguide Sales Quantity Market Share by Core Deposition Process (2021-2032)

Figure 57. North America Silicon Nitride Waveguide Sales Quantity Market Share by Application (2021-2032)

Figure 58. North America Silicon Nitride Waveguide Sales Quantity Market Share by Country (2021-2032)

Figure 59. North America Silicon Nitride Waveguide Consumption Value Market Share by Country (2021-2032)

Figure 60. United States Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 61. Canada Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 62. Mexico Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 63. Europe Silicon Nitride Waveguide Sales Quantity Market Share by Core Deposition Process (2021-2032)

Figure 64. Europe Silicon Nitride Waveguide Sales Quantity Market Share by Application (2021-2032)

Figure 65. Europe Silicon Nitride Waveguide Sales Quantity Market Share by Country (2021-2032)

Figure 66. Europe Silicon Nitride Waveguide Consumption Value Market Share by Country (2021-2032)

Figure 67. Germany Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 68. France Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 69. United Kingdom Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 70. Russia Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 71. Italy Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 72. Asia-Pacific Silicon Nitride Waveguide Sales Quantity Market Share by Core Deposition Process (2021-2032)

Figure 73. Asia-Pacific Silicon Nitride Waveguide Sales Quantity Market Share by Application (2021-2032)

Figure 74. Asia-Pacific Silicon Nitride Waveguide Sales Quantity Market Share by Region (2021-2032)

Figure 75. Asia-Pacific Silicon Nitride Waveguide Consumption Value Market Share by Region (2021-2032)

Figure 76. China Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 77. Japan Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 78. South Korea Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 79. India Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 80. Southeast Asia Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 81. Australia Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 82. South America Silicon Nitride Waveguide Sales Quantity Market Share by Core Deposition Process (2021-2032)

Figure 83. South America Silicon Nitride Waveguide Sales Quantity Market Share by Application (2021-2032)

Figure 84. South America Silicon Nitride Waveguide Sales Quantity Market Share by Country (2021-2032)

Figure 85. South America Silicon Nitride Waveguide Consumption Value Market Share by Country (2021-2032)

Figure 86. Brazil Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 87. Argentina Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 88. Middle East & Africa Silicon Nitride Waveguide Sales Quantity Market Share by Core Deposition Process (2021-2032)

Figure 89. Middle East & Africa Silicon Nitride Waveguide Sales Quantity Market Share by Application (2021-2032)

Figure 90. Middle East & Africa Silicon Nitride Waveguide Sales Quantity Market Share

by Country (2021-2032)

Figure 91. Middle East & Africa Silicon Nitride Waveguide Consumption Value Market Share by Country (2021-2032)

Figure 92. Turkey Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 93. Egypt Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 94. Saudi Arabia Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 95. South Africa Silicon Nitride Waveguide Consumption Value (2021-2032) & (USD Million)

Figure 96. Silicon Nitride Waveguide Market Drivers

Figure 97. Silicon Nitride Waveguide Market Restraints

Figure 98. Silicon Nitride Waveguide Market Trends

Figure 99. Porters Five Forces Analysis

Figure 100. Manufacturing Cost Structure Analysis of Silicon Nitride Waveguide in 2025

Figure 101. Manufacturing Process Analysis of Silicon Nitride Waveguide

Figure 102. Silicon Nitride Waveguide Industrial Chain

Figure 103. Sales Channel: Direct to End-User vs Distributors

Figure 104. Direct Channel Pros & Cons

Figure 105. Indirect Channel Pros & Cons

Figure 106. Methodology

Figure 107. Research Process and Data Source

I would like to order

Product name: Global Silicon Nitride Waveguide Market 2026 by Manufacturers, Regions, Type and Application, Forecast to 2032

Product link: <https://marketpublishers.com/r/GE3DE3C00782EN.html>

Price: US\$ 3,480.00 (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/GE3DE3C00782EN.html>