

Precision Optics Market - A Global and Regional Analysis: Focus on Component, End User, and Region - Analysis and Forecast, 2022-2031

<https://marketpublishers.com/r/P0F41EB4C453EN.html>

Date: February 2023

Pages: 215

Price: US\$ 5,500.00 (Single User License)

ID: P0F41EB4C453EN

Abstracts

Precision Optics Market: Industry Overview

The rise in demand for precision optical components for consumer electronics and biomedical devices is among the major driving factors for the precision optics market and has created a significant demand for precision optical components such as lenses, mirrors, windows, and filters. According to the Consumer Electronics Association, across various consumer electronics sales categories, computers sale went up by 34%, television sets sale was up by 12%, and smartphones sale were up by 1% from 2019 to 2021 globally, likely due to COVID-19 restrictions and more time spent at home for working and learning. For instance, the next largest consumer electronics sales category is tablet computers which recorded nearly \$60 billion in sales in 2020. According to the World Health Organization (WHO), the adoption of smart medical devices is increasing rapidly, and in the year 2021, it reached to approximately two million different kinds of medical devices categorized into more than 7000 generic device groups. Therefore, the rising sales of consumer electronics and biomedical devices are leading to the rising need for precision optical components for continuous operation with high precision.

Market Lifecycle Stage

The precision optics market has been in its growth stage, and much has been attributed to the technological advancements in this field. The ecosystem of the precision optics market comprises raw material suppliers, including glass, polymers, and other suppliers, precision optics producers, photonic manufacturers, and end users. The market is still developing, with China at the forefront, followed by other regions such as North

America, Europe, Asia-Pacific, Rest-of-the-World, and the U.K.

Industrial Impact

Precision optics are used in a wide range of optical components used in autonomous vehicles, such as radars, lasers, sensors, cameras, and others. The use of autonomous vehicles in industries offers advantages such as saving on labor costs and reducing carbon dioxide emissions by as much as 60% through the use of optimized driving. With the increased adoption of autonomous vehicles, the demand for precision optics is anticipated to rise in the upcoming future.

Moreover, the recent focus of the medical industry is on the development of smart disease detection equipment and smart medical wearables by utilizing precision optical components such as lenses, windows, and filters, among others.

Impact of COVID-19

The COVID-19 pandemic-related global lockdown led to production halts, disruptions in supply chains, and manufacturing activity, all of which had a detrimental effect on the market for precision optics in 2020. For instance, the Panasonic Corporation mentioned that the company's sales decreased by around 11% in the fiscal year 2021 as compared to the fiscal year 2020. The key reasons for declining sales revenue were the impact of the spread of COVID-19 and deconsolidation in housing-related businesses. Further, the revenue of Nikon Corporation for the fiscal year ending March 2021 was 23.7% lower as compared to the fiscal year ending March 2020. Business segments of the company, such as imaging products business, precision equipment business, and industrial metrology and others, have shown several adverse impacts. However, the healthcare business segment witnessed a slight revenue growth as compared to the fiscal year 2020.

Market Segmentation:

Segmentation 1: by End User

Consumer Electronics

Aerospace and Defense

Semiconductor

Automotive

Biomedical

Manufacturing

Others

Based on end users, the precision optics market is estimated to be led by the consumer electronics segment during the forecast period, 2022-2031.

Segmentation 2: by Component

Transmissive

Filters

Prisms

Lenses

Windows

Polarizers

Beamsplitters

Others

Reflective

Mirrors

Retroreflectors

Others

Based on components, the precision optics market is estimated to be led by the transmissive segment during the forecast period, 2022-2031.

Segmentation 3: by Region

North America - U.S., Canada, and Mexico

Europe - Germany, France, Italy, Spain, and Rest-of-Europe (RoE)

China

U.K.

Asia-Pacific and Japan - Japan, India, South Korea, and Rest-of-Asia-Pacific and Japan

Rest-of-the-World

In the global precision optics market, China and North America are anticipated to gain traction in terms of precision optics production, owing to the continuous growth in consumer electronics and biomedical equipment and the presence of the world's largest manufacturers in those regions.

Recent Developments in Precision Optics Market

In December 2022, Precision Optics Corporation, Inc. announced the receipt of a follow-on production order totalling approximately \$2.6 million for optical assembly from one of the major U.S. defense contractors. In addition, the order is expected to be completed over the next 12 to 18 months.

In October 2021, Precision Optics Corporation, Inc. made an announcement for a strategic merger with a privately held company, Lighthouse Imaging LLC. Through this merger with a leader in medical optics and digital imaging, the company aims to help customers by leveraging its next-generation micro-optics capabilities with Lighthouse Imaging LLC's leading-edge optical imaging electronics.

In August 2021, Edmund Optics Inc. made an announcement for the relocation of its regional South Korea office to a larger facility in the Mapo district of Seoul, aiming to

facilitate internal and external collaboration and communication, enhanced services, a lab for specialized technical support, and easy access for visits.

Demand - Drivers and Limitations

The following are the demand drivers for the precision optics market:

Growing Demand in Life and Health Sciences Instruments

Increasing Adoption of Precision Optics in Advanced Manufacturing

Rising Uses of Precision Optics due to High Demand for Consumer Electronics

The market is expected to face some limitations due to the following challenges:

Complex Design and Manufacturing Process of Precision Optics

Lack of Skilled Workforce

How can this report add value to an organization?

Product/Innovation Strategy: The product segment helps the reader understand the different components involved in the precision optics market. The component segment has been segmented into transmissive (filters, prisms, lenses, windows, polarizers, beamsplitters, and others) and reflective (mirrors, retroreflectors, and others). Moreover, the study provides the reader with a detailed understanding of the precision optics market based on end users, including consumer electronics, aerospace and defense, semiconductor, automotive, biomedical, industrial, and others. The increasing adoption of precision optics in advanced manufacturing technology is fuelling the growth of the market.

Growth/Marketing Strategy: The precision optics market has seen major development by key players operating in the market, such as business expansions, partnerships, collaborations, mergers and acquisitions, and joint ventures. The favoured strategy for the companies has been business acquisition to strengthen their position in the precision optics market. For instance, in July 2019, Precision Optics Corporation completed the acquisition of Ross Optical Industries, Inc., a privately held company

based in El Paso, Texas. With this acquisition, the company would extend its precision optics product offering to include a wider range of lens and optical system sizes and expand its presence in the U.S. defense sector.

Competitive Strategy: Key players in the precision optics market analyzed and profiled in the study involve precision optics manufacturers and the overall ecosystem. Moreover, a detailed competitive benchmarking of the players operating in the precision optics market has been done to help the reader understand how players stack against each other, presenting a clear market landscape. Additionally, comprehensive competitive strategies such as partnerships, agreements, acquisitions, and collaborations will aid the reader in understanding the untapped revenue pockets in the market.

Key Market Players and Competition Synopsis

Precision optics comprises transmissive and reflective components used in optoelectronics, electro-optics, and optomechanical systems for light imaging, sensing, detection, and transmission applications in different wavelength bands. These are used in applications including consumer electronics, aerospace and defense, semiconductors, biomedical, and industrial, among others. Precision optics are passive optical components that are made precise with respect to the wavelength and accuracy needed for the applications. Based on end users, the transmissive segment is expected to dominate the market on the back of its wide range of applications in consumer electronics, biomedical, and semiconductors and accounted for around 78.7% of the total market, while the reflective segment accounted for a 21.3% share of the market in 2021.

Some of the prominent manufacturers of precision optics are:

Company Type 1 (by Component): Filters

Optics & Allied Engineering Pvt. Ltd.

Materion Corporation

Edmund Optics Inc.

Newport Corporation

Shanghai Optics

Sierra Precision Optics

Solaris Optics

Company Type 2 (by Component): Prisms

Optics & Allied Engineering Pvt. Ltd.

Edmund Optics Inc.

Newport Corporation

PFG Optics

Shanghai Optics

Precision Optics Corporation, Inc.

Sierra Precision Optics

Precision Optical

Solaris Optics

Company Type 3 (by Component): Lenses

ZEISS International

Optics & Allied Engineering Pvt. Ltd.

Corning Incorporated

Newport Corporation

Rochester Precision Optics, LLC

PFG Optics

Shanghai Optics

Precision Optics Corporation, Inc.

Sierra Precision Optics

Panasonic Holdings Corporation

Nikon Corporation

Solaris Optics

Momentum Optics

WayRay AG

Company Type 4 (by Component): Windows

Optics & Allied Engineering Pvt. Ltd.

Edmund Optics Inc.

Corning Incorporated

Newport Corporation

PFG Optics

Shanghai Optics

Sierra Precision Optics

Solaris Optics

Company Type 5 (by Component): Polarizers

Edmund Optics Inc.

PFG Optics

Newport Corporation

Solaris Optics

Company Type 6 (by Component): Beamsplitters

Optics & Allied Engineering Pvt. Ltd.

Edmund Optics Inc.

Newport Corporation

PFG Optics

Shanghai Optics

Sierra Precision Optics

Solaris Optics

Company Type 7 (by Component): Mirrors

Optics & Allied Engineering Pvt. Ltd.

Edmund Optics Inc.

Newport Corporation

PFG Optics

Shanghai Optics

Sierra Precision Optics

Solaris Optics

Company Type 8 (by Component): Retroreflectors

Opto Precision Pte. Ltd.

Various players are involved in the market, which has been covered in different sections of the report. Most of the players are also involved in providing custom solutions to customers.

Contents

1 MARKETS

1.1 Industry Outlook

1.1.1 Trends: Current and Future

1.1.1.1 Increasing Investments in Microelectronics and Semiconductor Industry

1.1.1.2 Growing Adoption of Self Driving Vehicles

1.1.2 Supply Chain Analysis

1.1.3 Ecosystem of Precision Optics Market

1.1.3.1 Consortiums and Associations

1.1.3.2 Regulatory/Certification Bodies

1.1.3.3 Government Programs

1.1.3.4 Programs by Research Institutions and Universities

1.1.4 Impact of COVID-19 on the Precision Optics Market

1.1.5 Impact of Semiconductor War on the Precision Optics Market

1.1.5.1 Dependence on China and the U.S. in Taiwan

1.1.5.2 U.S. Initiatives to Control Exports

1.1.5.3 Critical Challenges Associated with the Policy

1.2 Business Dynamics

1.2.1 Business Drivers

1.2.1.1 Growing Demand in Life and Health Sciences Instruments

1.2.1.2 Increasing Adoption of Precision Optics in Advanced Manufacturing

1.2.1.3 Rising Uses of Precision Optics due to High Demand for Consumer

Electronics

1.2.2 Business Challenges

1.2.2.1 Complex Design and Manufacturing Process of Precision Optics

1.2.2.2 Lack of Skilled Workforce

1.2.3 Business Strategies

1.2.3.1 Product Developments

1.2.3.2 Market Developments

1.2.4 Corporate Strategies

1.2.4.1 Mergers and Acquisitions

1.2.4.2 Partnerships and Joint Ventures

1.2.5 Business Opportunities

1.2.5.1 Growing investments in Defence and Security Industry

1.2.5.2 Increasing Global Interest in the Space Industry

1.3 Start-Up Landscape

1.3.1 Key Start-Ups in the Ecosystem

2 APPLICATION

2.1 Global Precision Optics Market (Applications and Specifications)

2.1.1 Global Precision Optics Market (by End User)

- 2.1.1.1 Consumer Electronics
- 2.1.1.2 Aerospace and Defense
- 2.1.1.3 Automotive
- 2.1.1.4 Semiconductor
- 2.1.1.5 Biomedical
- 2.1.1.6 Manufacturing
- 2.1.1.7 Others

2.2 Demand Analysis of Precision Optics Market (by End User), Volume and Value Data

3 PRODUCTS

3.1 Global Precision Optics Market (Products and Specifications)

3.1.1 Global Precision Optics Market (by Component)

3.1.1.1 Transmissive Component

- 3.1.1.1.1 Filters
- 3.1.1.1.2 Prisms
- 3.1.1.1.3 Lenses
- 3.1.1.1.4 Windows
- 3.1.1.1.5 Polarizers
- 3.1.1.1.6 Beamsplitters
- 3.1.1.1.7 Others

3.1.1.2 Reflective Component

- 3.1.1.2.1 Mirrors
- 3.1.1.2.2 Retroreflectors
- 3.1.1.2.3 Others

3.2 Demand Analysis of Precision Optics Market (by Component), Volume and Value Data

3.3 Product Benchmarking: Growth Rate - Market Share Matrix (by Component), 2021

3.4 Patent Analysis

3.5 Average Pricing Analysis, By Component

4 REGIONS

4.1 North America

4.1.1 Markets

4.1.1.1 Key Producers and Suppliers in North America:

4.1.1.2 Business Drivers

4.1.1.3 Business Challenges

4.1.2 Applications

4.1.2.1 North America Precision Optics Market (by End User), Volume and Value Data

4.1.3 Products

4.1.3.1 North America Precision Optics Market (by Component), Volume and Value Data

4.1.4 North America (by Country)

4.1.4.1 U.S.

4.1.4.1.1 Markets

4.1.4.1.1.1 Buyer Attributes

4.1.4.1.1.2 Key Producers and Suppliers in the U.S.

4.1.4.1.1.3 Regulatory Landscape

4.1.4.1.1.4 Business Drivers

4.1.4.1.1.5 Business Challenges

4.1.4.1.2 Applications

4.1.4.1.2.1 U.S. Precision Optics Market (by End User), Volume and Value Data

4.1.4.1.3 Products

4.1.4.1.3.1 U.S. Precision Optics Market (by Component), Volume and Value Data

4.1.4.2 Canada

4.1.4.2.1 Markets

4.1.4.2.1.1 Buyer Attributes

4.1.4.2.1.2 Key Producers and Suppliers in Canada:

4.1.4.2.1.3 Business Drivers

4.1.4.2.1.4 Business Challenges

4.1.4.2.2 Applications

4.1.4.2.2.1 Canada Precision Optics Market (by End User), Volume and Value Data

4.1.4.2.3 Products

4.1.4.2.3.1 Canada Precision Optics Market (by Component), Volume and Value Data

4.1.4.3 Mexico

4.1.4.3.1 Markets

4.1.4.3.1.1 Buyer Attributes

4.1.4.3.1.2 Key Producers and Suppliers in Mexico:

4.1.4.3.1.3 Business Drivers

4.1.4.3.1.4 Business Challenges

4.1.4.3.2 Applications

4.1.4.3.2.1 Mexico Precision Optics Market (by End User), Volume and Value Data

4.1.4.3.3 Products

4.1.4.3.3.1 Mexico Precision Optics Market (by Component), Volume and Value

Data

4.2 Europe

4.2.1 Markets

4.2.1.1 Key Manufacturers/Suppliers in Europe

4.2.1.2 Business Drivers

4.2.1.3 Business Challenges

4.2.2 Applications

4.2.2.1 Europe Precision Optics Market (by End User), Volume and Value Data

4.2.3 Products

4.2.3.1 Europe Precision Optics Market (by Component), Volume and Value Data

4.2.4 Europe (by Country)

4.2.4.1 Germany

4.2.4.1.1 Market

4.2.4.1.1.1 Buyer Attributes

4.2.4.1.1.2 Key Producers and Suppliers in Germany

4.2.4.1.1.3 Business Drivers

4.2.4.1.1.4 Business Challenges

4.2.4.1.2 Applications

4.2.4.1.2.1 Germany Precision Optics Market (by End User), Volume and Value

Data

4.2.4.1.3 Products

4.2.4.1.3.1 Germany Precision Optics Market (by Component), Volume and Value

Data

4.2.4.2 France

4.2.4.2.1 Market

4.2.4.2.1.1 Buyer Attributes

4.2.4.2.1.2 Key Producers and Suppliers in France

4.2.4.2.1.3 Business Drivers

4.2.4.2.1.4 Business Challenges

4.2.4.2.2 Applications

4.2.4.2.2.1 France Precision Optics Market (by End User), Volume and Value Data

4.2.4.2.3 Products

4.2.4.2.3.1 France Precision Optics Market (by Component), Volume and Value

Data

4.2.4.3 Italy

4.2.4.3.1 Market

4.2.4.3.1.1 Buyer Attributes

4.2.4.3.1.2 Key Producers and Suppliers in Italy

4.2.4.3.1.3 Business Drivers

4.2.4.3.1.4 Business Challenges

4.2.4.3.2 Applications

4.2.4.3.2.1 Italy Precision Optics Market (by End User), Volume and Value Data

4.2.4.3.3 Products

4.2.4.3.3.1 Italy Precision Optics Market (by Component), Volume and Value Data

4.2.4.4 Spain

4.2.4.4.1 Markets

4.2.4.4.1.1 Buyer Attributes

4.2.4.4.1.2 Key Producers and Suppliers in Spain

4.2.4.4.1.3 Business Drivers

4.2.4.4.1.4 Business Challenges

4.2.4.4.2 Applications

4.2.4.4.2.1 Spain Precision Optics Market (by End User), Volume and Value Data

4.2.4.4.3 Products

4.2.4.4.3.1 Spain Precision Optics Market (by Component), Volume and Value

Data

4.2.4.5 Rest-of-Europe (RoE)

4.2.4.5.1 Market

4.2.4.5.1.1 Buyer Attributes

4.2.4.5.1.2 Key Producers and Suppliers in Rest-of-Europe

4.2.4.5.1.3 Business Drivers

4.2.4.5.1.4 Business Challenges

4.2.4.5.2 Applications

4.2.4.5.2.1 Rest-of-Europe Precision Optics Market (by End User), Volume and

Value Data

4.2.4.5.3 Products

4.2.4.5.3.1 Rest-of-Europe Precision Optics Market (by Component), Volume and

Value Data

4.3 U.K.

4.3.1 Markets

4.3.1.1 Buyer Attributes

4.3.1.2 Key Producers and Suppliers in the U.K.

4.3.1.3 Business Drivers

4.3.1.4 Business Challenges

- 4.3.2 Applications
 - 4.3.2.1 U.K. Precision Optics Market (by End User), Volume and Value Data
- 4.3.3 Products
 - 4.3.3.1 U.K. Precision Optics Market (by Component), Volume and Value Data
- 4.4 China
 - 4.4.1 Markets
 - 4.4.1.1 Buyer Attributes
 - 4.4.1.2 Key Producers and Suppliers in China
 - 4.4.1.3 Business Drivers
 - 4.4.1.4 Business Challenges
 - 4.4.2 Applications
 - 4.4.2.1 China Precision Optics Market (by End User), Volume and Value Data
 - 4.4.3 Products
 - 4.4.3.1 China Precision Optics Market (by Component), Volume and Value Data
- 4.5 Asia-Pacific and Japan
 - 4.5.1 Markets
 - 4.5.1.1 Key Producers and Suppliers in Asia-Pacific and Japan
 - 4.5.1.2 Business Drivers
 - 4.5.1.3 Business Challenges
 - 4.5.2 Applications
 - 4.5.2.1 Asia-Pacific and Japan Precision Optics Market (by End User), Volume and Value Data
 - 4.5.3 Products
 - 4.5.3.1 Asia-Pacific and Japan Precision Optics Market (by Component), Volume and Value Data
 - 4.5.4 Asia-Pacific and Japan (by Country)
 - 4.5.4.1 Japan
 - 4.5.4.1.1 Markets
 - 4.5.4.1.1.1 Buyer Attributes
 - 4.5.4.1.1.2 Key Producers and Suppliers in Japan
 - 4.5.4.1.1.3 Business Drivers
 - 4.5.4.1.1.4 Business Challenges
 - 4.5.4.1.2 Applications
 - 4.5.4.1.2.1 Japan Precision Optics Market (by End User), Volume and Value Data
 - 4.5.4.1.3 Products
 - 4.5.4.1.3.1 Japan Precision Optics Market (by Component), Volume and Value Data
 - 4.5.4.2 South Korea
 - 4.5.4.2.1 Market

- 4.5.4.2.1.1 Buyer Attributes
- 4.5.4.2.1.2 Key Producers and Suppliers in South Korea
- 4.5.4.2.1.3 Business Drivers
- 4.5.4.2.1.4 Business Challenges
- 4.5.4.2.2 Applications
 - 4.5.4.2.2.1 South Korea Precision Optics Market (by End User), Volume and Value Data
- 4.5.4.2.3 Products
 - 4.5.4.2.3.1 South Korea Precision Optics Market (by Component), Volume and Value Data
- 4.5.4.3 India
 - 4.5.4.3.1 Markets
 - 4.5.4.3.1.1 Buyer Attributes
 - 4.5.4.3.1.2 Key Producers and Suppliers in India
 - 4.5.4.3.1.3 Business Drivers
 - 4.5.4.3.1.4 Business Challenges
 - 4.5.4.3.2 Applications
 - 4.5.4.3.2.1 India Precision Optics Market (by End User), Volume and Value Data
 - 4.5.4.3.3 Products
 - 4.5.4.3.3.1 India Precision Optics Market (by Component), Volume and Value Data
- 4.5.4.4 Rest-of-Asia-Pacific and Japan
 - 4.5.4.4.1 Market
 - 4.5.4.4.1.1 Buyer Attributes
 - 4.5.4.4.1.2 Key Producers and Suppliers in Rest-of-Asia-Pacific
 - 4.5.4.4.1.3 Business Drivers
 - 4.5.4.4.1.4 Business Challenges
 - 4.5.4.4.2 Applications
 - 4.5.4.4.2.1 Rest-of-Asia-Pacific Precision Optics Market (by End User), Volume and Value Data
 - 4.5.4.4.3 Products
 - 4.5.4.4.3.1 Rest-of-Asia-Pacific Precision Optics Market (by Component), Volume and Value Data
- 4.6 Rest-of-the-World
 - 4.6.1 Markets
 - 4.6.1.1 Key Producers and Suppliers in Rest-of-the-World
 - 4.6.1.2 Business Drivers
 - 4.6.1.3 Business Challenges
 - 4.6.2 Applications
 - 4.6.2.1 Rest-of-the-World Precision Optics Market (by End User), Volume and Value

Data

4.6.3 Products

4.6.3.1 Rest-of-the-World Precision Optics Market (by Component), Volume and Value Data

4.6.4 Rest-of-the-World (by Region)

4.6.4.1 Middle East and Africa

4.6.4.1.1 Markets

4.6.4.1.1.1 Key Producers and Suppliers in the Middle East and Africa

4.6.4.1.1.2 Business Drivers

4.6.4.1.1.3 Business Challenges

4.6.4.1.2 Applications

4.6.4.1.2.1 Middle East and Africa Precision Optics Market (by End User), Volume and Value Data

4.6.4.1.3 Products

4.6.4.1.3.1 Middle East and Africa Precision Optics Market (by Component), Volume and Value Data

4.6.4.2 South America

4.6.4.2.1 Markets

4.6.4.2.1.1 Key Producers and Suppliers in South America

4.6.4.2.1.2 Business Drivers

4.6.4.2.1.3 Business Challenges

4.6.4.2.2 Applications

4.6.4.2.2.1 South America Precision Optics Market (by End User), Volume and Value Data

4.6.4.2.3 Products

4.6.4.2.3.1 South America Precision Optics Market (by Component), Volume and Value Data

5 MARKETS – COMPETITIVE BENCHMARKING & COMPANY PROFILES

5.1 Competitive Benchmarking

5.1.1 Competitive Position Matrix

5.1.2 Product Matrix for Key Companies

5.1.3 Market Share Analysis of Key Companies, 2021

5.2 Company Profiles

5.2.1 Materion Corporation

5.2.1.1 Company Overview

5.2.1.2 Role of Materion Corporation in the Precision Optics Market

5.2.1.2.1 Product Portfolio

- 5.2.1.2.2 Production Sites
- 5.2.1.2.3 R&D Analysis
- 5.2.1.3 Analyst View
- 5.2.2 ZEISS International
 - 5.2.2.1 Company Overview
 - 5.2.2.2 Role of ZEISS International in the Precision Optics Market
 - 5.2.2.2.1 Product Portfolio
 - 5.2.2.2.2 Production/Operation Sites
 - 5.2.2.2.3 R&D Analysis
 - 5.2.2.3 Analyst View
- 5.2.3 Optics & Allied Engineering Pvt. Ltd.
 - 5.2.3.1 Company Overview
 - 5.2.3.2 Role of Optics & Allied Engineering Pvt. Ltd. in the Precision Optics Market
 - 5.2.3.2.1 Product Portfolio
 - 5.2.3.2.2 Production/Operation Sites
 - 5.2.3.3 Analyst View
- 5.2.4 Edmund Optics Inc.
 - 5.2.4.1 Company Overview
 - 5.2.4.2 Role of Edmund Optics Inc. in the Precision Optics Market
 - 5.2.4.2.1 Product Portfolio
 - 5.2.4.2.2 Production/Operation Sites
 - 5.2.4.2.3 Business Strategies
 - 5.2.4.2.3.1 Product Developments
 - 5.2.4.2.3.2 Market Developments
 - 5.2.4.2.4 Corporate Strategies
 - 5.2.4.2.4.1 Mergers and Acquisitions
 - 5.2.4.2.4.2 Partnerships & Joint Ventures
 - 5.2.4.3 Analyst View
- 5.2.5 Corning Incorporated
 - 5.2.5.1 Company Overview
 - 5.2.5.2 Role of Corning Incorporated in the Precision Optics Market
 - 5.2.5.2.1 Product Portfolio
 - 5.2.5.2.2 Production Sites
 - 5.2.5.2.3 R&D Analysis
 - 5.2.5.3 Analyst View
- 5.2.6 Newport Corporation
 - 5.2.6.1 Company Overview
 - 5.2.6.2 Role of Newport Corporation in the Precision Optics Market
 - 5.2.6.2.1 Product Portfolio

- 5.2.6.2.2 Production Sites
- 5.2.6.3 Analyst View
- 5.2.7 Rochester Precision Optics, LLC
 - 5.2.7.1 Company Overview
 - 5.2.7.2 Role of Rochester Precision Optics, LLC in the Precision Optics Market
 - 5.2.7.2.1 Product Portfolio
 - 5.2.7.2.2 Production Sites
 - 5.2.7.3 Analyst View
- 5.2.8 PFG Optics
 - 5.2.8.1 Company Overview
 - 5.2.8.2 Role of PFG Optics in the Precision Optics Market
 - 5.2.8.2.1 Product Portfolio
 - 5.2.8.2.2 Production/Operation Sites
 - 5.2.8.2.3 Business Strategies
 - 5.2.8.2.3.1 Product Developments
 - 5.2.8.3 Analyst View
- 5.2.9 Shanghai Optics
 - 5.2.9.1 Company Overview
 - 5.2.9.2 Role of Shanghai Optics in the Precision Optics Market
 - 5.2.9.2.1 Product Portfolio
 - 5.2.9.2.2 Production/Operation Sites
 - 5.2.9.3 Analyst View
- 5.2.10 Precision Optics Corporation, Inc.
 - 5.2.10.1 Company Overview
 - 5.2.10.2 Role of Precision Optics Corporation, Inc. in the Precision Optics Market
 - 5.2.10.2.1 Product Portfolio
 - 5.2.10.2.2 Production Sites
 - 5.2.10.2.3 Business Strategies
 - 5.2.10.2.3.1 Market Developments
 - 5.2.10.2.4 Corporate Strategies
 - 5.2.10.2.4.1 Mergers and Acquisitions
 - 5.2.10.2.5 R&D Analysis
 - 5.2.10.3 Analyst View
- 5.2.11 Sierra Precision Optics
 - 5.2.11.1 Company Overview
 - 5.2.11.2 Role of Sierra Precision Optics in the Precision Optics Market
 - 5.2.11.2.1 Product Portfolio
 - 5.2.11.2.2 Production/Operation Sites
 - 5.2.11.3 Analyst View

5.2.12 Precision Optical

5.2.12.1 Company Overview

5.2.12.2 Role of Precision Optical in the Precision Optics Market

5.2.12.2.1 Product Portfolio

5.2.12.2.2 Production Sites

5.2.12.2.3 Business Strategies

5.2.12.2.3.1 Product Developments

5.2.12.3 Analyst View

5.2.13 Panasonic Holdings Corporation

5.2.13.1 Company Overview

5.2.13.2 Role of Panasonic Holdings Corporation in the Precision Optics Market

5.2.13.2.1 Product Portfolio

5.2.13.2.2 Business Strategies

5.2.13.2.2.1 Partnerships, Collaborations, Agreements, Investments, and

Contracts

5.2.13.2.3 R&D Analysis

5.2.13.3 Analyst View

5.2.14 Nikon Corporation

5.2.14.1 Company Overview

5.2.14.2 Role of Nikon Corporation in the Precision Optics market

5.2.14.2.1 Product Portfolio

5.2.14.2.2 R&D Analysis

5.2.14.3 Analyst view

5.2.15 Solaris Optics

5.2.15.1 Company Overview

5.2.15.2 Role of Solaris Optics in the Precision Optics market

5.2.15.2.1 Product Portfolio

5.2.15.3 Analyst View

5.2.16 Syntec Optics

5.2.16.1 Company Overview

5.2.16.2 Role of Syntec Optics in the Precision Optics Market

5.2.16.2.1 Product Portfolio

5.2.16.3 Analyst View

5.2.17 WayRay AG

5.2.17.1 Company Overview

5.2.17.2 Role of WayRay AG in the Precision Optics Market

5.2.17.2.1 Product Portfolio

5.2.17.2.2 Business Strategies

5.2.17.2.2.1 Partnerships, Collaborations, Agreements, Investments, and

Contracts

5.2.17.3 Analyst View

5.2.18 Momentum Optics

5.2.18.1 Company Overview

5.2.18.2 Role of Momentum Optics in the Precision Optics Market

5.2.18.2.1 Product Portfolio

5.2.18.3 Analyst View

5.2.19 Astro Optics Pvt. Ltd.

5.2.19.1 Company Overview

5.2.19.2 Role of Astro Optics Pvt. Ltd. in the Precision Optics Market

5.2.19.2.1 Product Portfolio

5.2.19.3 Analyst view

5.2.20 Opto Precision Pte. Ltd.

5.2.20.1 Company Overview

5.2.20.2 Role of Opto Precision Pte. Ltd. in the Precision Optics Market

5.2.20.2.1 Product Portfolio

5.2.20.3 Analyst View

5.2.21 CLZ Precision Optics

5.2.21.1 Company Overview

5.2.21.2 Role of CLZ Precision Optics in the Precision Optics Market

5.2.21.2.1 Product Portfolio

5.2.21.3 Analyst View

5.2.22 Zuend Group

5.2.22.1 Company Overview

5.2.22.2 Role of Zuend Group in the Precision Optics Market

5.2.22.2.1 Product Portfolio

5.2.22.3 Analyst View

6 RESEARCH METHODOLOGY

6.1 Primary Data Sources

6.2 BIS Data Sources

6.3 Assumptions and Limitations

List Of Figures

LIST OF FIGURES

- Figure 1: Global Precision Optics Market, \$Million, 2021, 2022, and 2031
- Figure 2: Global Precision Optics Market (by End User), \$Million, 2021 and 2031
- Figure 3: Global Precision Optics Market (by Component), \$Million, 2021 and 2031
- Figure 4: Global Precision Optics Market (by Region), \$Million, 2021 and 2031
- Figure 5: Global Precision Optics Market Coverage
- Figure 6: Supply Chain Analysis of the Precision Optics Market
- Figure 7: Global Aircraft Deliveries (by Region, Number of Aircraft), 2018-2022
- Figure 8: Global Billing of Semiconductor Industry, \$Billion, January 2018-October 2022)
- Figure 9: Global Smartphone Personal Computers and Television Sales, \$Billion, 2018-2021
- Figure 10: Global Passenger Cars Production Statistics, Units, 2019-2021
- Figure 11: Electric Vehicle Sales, Million Units, 2020-2030
- Figure 12: Global IoT Installed Base of Connected Devices, Billion, 2015-2025
- Figure 13: Global Connected Wearable Devices, Million, 2016-2022
- Figure 14: Product Benchmarking
- Figure 15: Total Year-Wise Patents Filed for Global Precision Optics Market, January 2019-December 2022
- Figure 16: Patent Analysis (by Status), January 2019-December 2022
- Figure 17: Patent Analysis (by Organization), January 2019-December 2022
- Figure 18: Materion Corporation: R&D Expenditure
- Figure 19: ZEISS International: R&D Expenditure
- Figure 20: Corning Incorporated: R&D Expenditure
- Figure 21: Precision Optics Corporation, Inc.: R&D Expenditure
- Figure 22: Research Methodology
- Figure 23: Top-Down and Bottom-Up Approach
- Figure 24: Precision Optics Market: Influencing Factors
- Figure 25: Assumptions and Limitations

List Of Tables

LIST OF TABLES

Table 1: Consortiums and Associations

Table 2: Regulatory/Certification Bodies

Table 3: 12. List of Government Programs for Precision Optics

Table 4: 12. List of Programs by Research Institutions and Universities

Table 5: Key Product Developments

Table 6: Key Market Developments (2018-2021)

Table 7: Key Mergers and Acquisitions

Table 8: Key Partnerships and Joint Ventures

Table 9: End-User Industry Analysis for Semiconductor Industry, 2021

Table 10: Global Precision Optics Market (by End User), Million Units, 2021-2031

Table 11: Global Precision Optics Market (by End User), \$Million, 2021-2031

Table 12: Global Precision Optics Market (by Component), Million Units, 2021-2031

Table 13: Global Precision Optics Market (by Component), \$Million, 2021-2031

Table 14: Average Global Pricing Analysis, Precision Optics Market (by Component), \$/Unit, 2021-2031

Table 15: Global Precision Optics Market (by Region), Million Units, 2021-2031

Table 16: Global Precision Optics Market (by Region), \$Million, 2021-2031

Table 17: North America Precision Optics Market (by End User), Million Units, 2021-2031

Table 18: North America Precision Optics Market (by End User), \$Million, 2021-2031

Table 19: North America Precision Optics Market (by Component), Million Units, 2021-2031

Table 20: North America Precision Optics Market (by Component), \$Million, 2021-2031

Table 21: U.S. Precision Optics Market (by End User), Million Units, 2021-2031

Table 22: U.S. Precision Optics Market (by End User), \$Million, 2021-2031

Table 23: U.S. Precision Optics Market (by Component), Million Units, 2021-2031

Table 24: U.S. Precision Optics Market (by Component), \$Million, 2021-2031

Table 25: Canada Precision Optics Market (by End User), Million Units, 2021-2031

Table 26: Canada Precision Optics Market (by End User), \$Million, 2021-2031

Table 27: Canada Precision Optics Market (by Component), Million Units, 2021-2031

Table 28: Canada Precision Optics Market (by Component), \$Million, 2021-2031

Table 29: Mexico Precision Optics Market (by End User), Million Units, 2021-2031

Table 30: Mexico Precision Optics Market (by End User), \$Million, 2021-2031

Table 31: Mexico Precision Optics Market (by Component), Million Units, 2021-2031

Table 32: Mexico Precision Optics Market (by Component), \$Million, 2021-2031

- Table 33: Europe Precision Optics Market (by End User), Million Units, 2021-2031
- Table 34: Europe Precision Optics Market (by End User), \$Million, 2021-2031
- Table 35: Europe Precision Optics Market (by Component), Million Units, 2021-2031
- Table 36: Europe Precision Optics Market (by Component), \$Million, 2021-2031
- Table 37: Germany Precision Optics Market (by End User), Million Units, 2021-2031
- Table 38: Germany Precision Optics Market (by End User), \$Million, 2021-2031
- Table 39: Germany Precision Optics Market (by Component), Million Units, 2021-2031
- Table 40: Germany Precision Optics Market (by Component), \$Million, 2021-2031
- Table 41: France Precision Optics Market (by End User), Million Units, 2021-2031
- Table 42: France Precision Optics Market (by End User), \$Million, 2021-2031
- Table 43: France Precision Optics Market (by Component), Million Units, 2021-2031
- Table 44: France Precision Optics Market (by Component), \$Million, 2021-2031
- Table 45: Italy Precision Optics Market (by End User), Million Units, 2021-2031
- Table 46: Italy Precision Optics Market (by End User), \$Million, 2021-2031
- Table 47: Italy Precision Optics Market (by Component), Million Units, 2021-2031
- Table 48: Italy Precision Optics Market (by Component), \$Million, 2021-2031
- Table 49: Spain Precision Optics Market (by End User), Million Units, 2021-2031
- Table 50: Spain Precision Optics Market (by End User), \$Million, 2021-2031
- Table 51: Spain Precision Optics Market (by Component), Million Units, 2021-2031
- Table 52: Spain Precision Optics Market (by Component), \$Million, 2021-2031
- Table 53: Rest-of-Europe Precision Optics Market (by End User), Million Units, 2021-2031
- Table 54: Rest-of-Europe Precision Optics Market (by End User), \$Million, 2021-2031
- Table 55: Rest-of-Europe Precision Optics Market (by Component), Million Units, 2021-2031
- Table 56: Rest-of-Europe Precision Optics Market (by Component), \$Million, 2021-2031
- Table 57: U.K. Precision Optics Market (by End User), Million Units, 2021-2031
- Table 58: U.K. Precision Optics Market (by End User), \$Million, 2021-2031
- Table 59: U.K. Precision Optics Market (by Component), Million Units, 2021-2031
- Table 60: U.K. Precision Optics Market (by Component), \$Million, 2021-2031
- Table 61: China Precision Optics Market (by End User), Million Units, 2021-2031
- Table 62: China Precision Optics Market (by End User), \$Million, 2021-2031
- Table 63: China Precision Optics Market (by Component), Million Units, 2021-2031
- Table 64: China Precision Optics Market (by Component), \$Million, 2021-2031
- Table 65: Asia-Pacific and Japan Precision Optics Market (by End User), Million Units, 2021-2031
- Table 66: Asia-Pacific and Japan Precision Optics Market (by End User), \$Million, 2021-2031
- Table 67: Asia-Pacific and Japan Precision Optics Market (by Component), Million

Units, 2021-2031

Table 68: Asia-Pacific and Japan Precision Optics Market (by Component), \$Million, 2021-2031

Table 69: Japan Precision Optics Market (by End User), Million Units, 2021-2031

Table 70: Japan Precision Optics Market (by End User), \$Million, 2021-2031

Table 71: Japan Precision Optics Market (by Component), Million Units, 2021-2031

Table 72: Japan Precision Optics Market (by Component), \$Million, 2021-2031

Table 73: South Korea Precision Optics Market (by End User), Million Units, 2021-2031

Table 74: South Korea Precision Optics Market (by End User), \$Million, 2021-2031

Table 75: South Korea Precision Optics Market (by Component), Million Units, 2021-2031

Table 76: South Korea Precision Optics Market (by Component), \$Million, 2021-2031

Table 77: India Precision Optics Market (by End User), Million Units, 2021-2031

Table 78: India Precision Optics Market (by End User), \$Million, 2021-2031

Table 79: India Precision Optics Market (by Component), Million Units, 2021-2031

Table 80: India Precision Optics Market (by Component), \$Million, 2021-2031

Table 81: Rest-of-Asia-Pacific Precision Optics Market (by End User), Million Units, 2021-2031

Table 82: Rest-of-Asia-Pacific Precision Optics Market (by End User), \$Million, 2021-2031

Table 83: Rest-of-Asia-Pacific Precision Optics Market (by Component), Million Units, 2021-2031

Table 84: Rest-of-Asia-Pacific Precision Optics Market (by Component), \$Million, 2021-2031

Table 85: Rest-of-the-World Precision Optics Market (by End User), Million Units, 2021-2031

Table 86: Rest-of-the-World Precision Optics Market (by End User), \$Million, 2021-2031

Table 87: Rest-of-the-World Precision Optics Market (by Component), Million Units, 2021-2031

Table 88: Rest-of-the-World Precision Optics Market (by Component), \$Million, 2021-2031

Table 89: Middle East and Africa Precision Optics Market (by End User), Million Units, 2021-2031

Table 90: Middle East and Africa Precision Optics Market (by End User), \$Million, 2021-2031

Table 91: Middle East and Africa Precision Optics Market (by Component), Million Units, 2021-2031

Table 92: Middle East and Africa Precision Optics Market (by Component), \$Million, 2021-2031

Table 93: South America Precision Optics Market (by End User), Million Units, 2021-2031

Table 94: South America Precision Optics Market (by End User), \$Million, 2021-2031

Table 95: South America Precision Optics Market (by Component), Million Units, 2021-2031

Table 96: South America Precision Optics Market (by Component), \$Million, 2021-2031

Table 97: Product Matrix for Key Companies

Table 98: Market Shares of Key Companies, 2021

I would like to order

Product name: Precision Optics Market - A Global and Regional Analysis: Focus on Component, End User, and Region - Analysis and Forecast, 2022-2031

Product link: <https://marketpublishers.com/r/P0F41EB4C453EN.html>

Price: US\$ 5,500.00 (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/P0F41EB4C453EN.html>

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

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer 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

