

# Global Surface Relief Waveguides for AR & MR Market 2023 by Manufacturers, Regions, Type and Application, Forecast to 2029

<https://marketpublishers.com/r/G5E041602D5BEN.html>

Date: July 2023

Pages: 104

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

ID: G5E041602D5BEN

## Abstracts

According to our (Global Info Research) latest study, the global Surface Relief Waveguides for AR & MR market size was valued at USD million in 2022 and is forecast to a readjusted size of USD million by 2029 with a CAGR of % during review period. The influence of COVID-19 and the Russia-Ukraine War were considered while estimating market sizes.

This report is a detailed and comprehensive analysis for global Surface Relief Waveguides for AR & MR market. Both quantitative and qualitative analyses are presented by manufacturers, by region & country, by Type 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 2023, are provided.

### Key Features:

Global Surface Relief Waveguides for AR & MR market size and forecasts, in consumption value (\$ Million), sales quantity (K Units), and average selling prices (US\$/Unit), 2018-2029

Global Surface Relief Waveguides for AR & MR market size and forecasts by region and country, in consumption value (\$ Million), sales quantity (K Units), and average selling prices (US\$/Unit), 2018-2029

Global Surface Relief Waveguides for AR & MR market size and forecasts, by Type and

by Application, in consumption value (\$ Million), sales quantity (K Units), and average selling prices (US\$/Unit), 2018-2029

Global Surface Relief Waveguides for AR & MR market shares of main players, shipments in revenue (\$ Million), sales quantity (K Units), and ASP (US\$/Unit), 2018-2023

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 Surface Relief Waveguides for AR & MR

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 Surface Relief Waveguides for AR & MR market based on the following parameters - company overview, production, value, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Microsoft, Wave Optics, Dispelix, Goertek and North Ocean Photonics, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals, COVID-19 and Russia-Ukraine War Influence.

## Market Segmentation

Surface Relief Waveguides for AR & MR market is split by Type and by Application. For the period 2018-2029, the growth among segments provides accurate calculations and forecasts for consumption value by Type, 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 Type

1D Grating

2D Grating

## Market segment by Application

Medical

Industrial

Education

Entertainment

Others

## Major players covered

Microsoft

Wave Optics

Dispelix

Goertek

North Ocean Photonics

Crystal-Optoech

Lochn Optics

Magic Leap

Greatar

Optiark Semiconductor

TRIPOLE OPTOELECTRONICS

Lingxi-AR Technology

Sunny Optical Technology (Group) Company

Beijing NED Display Technology

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 Surface Relief Waveguides for AR & MR product scope, market overview, market estimation caveats and base year.

Chapter 2, to profile the top manufacturers of Surface Relief Waveguides for AR & MR, with price, sales, revenue and global market share of Surface Relief Waveguides for AR & MR from 2018 to 2023.

Chapter 3, the Surface Relief Waveguides for AR & MR competitive situation, sales quantity, revenue and global market share of top manufacturers are analyzed emphatically by landscape contrast.

Chapter 4, the Surface Relief Waveguides for AR & MR breakdown data are shown at the regional level, to show the sales quantity, consumption value and growth by regions, from 2018 to 2029.

Chapter 5 and 6, to segment the sales by Type and application, with sales market share

and growth rate by type, application, from 2018 to 2029.

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 2017 to 2022. and Surface Relief Waveguides for AR & MR market forecast, by regions, type and application, with sales and revenue, from 2024 to 2029.

Chapter 12, market dynamics, drivers, restraints, trends, Porters Five Forces analysis, and Influence of COVID-19 and Russia-Ukraine War.

Chapter 13, the key raw materials and key suppliers, and industry chain of Surface Relief Waveguides for AR & MR.

Chapter 14 and 15, to describe Surface Relief Waveguides for AR & MR sales channel, distributors, customers, research findings and conclusion.

## Contents

### 1 MARKET OVERVIEW

- 1.1 Product Overview and Scope of Surface Relief Waveguides for AR & MR
- 1.2 Market Estimation Caveats and Base Year
- 1.3 Market Analysis by Type
  - 1.3.1 Overview: Global Surface Relief Waveguides for AR & MR Consumption Value by Type: 2018 Versus 2022 Versus 2029
  - 1.3.2 1D Grating
  - 1.3.3 2D Grating
- 1.4 Market Analysis by Application
  - 1.4.1 Overview: Global Surface Relief Waveguides for AR & MR Consumption Value by Application: 2018 Versus 2022 Versus 2029
  - 1.4.2 Medical
  - 1.4.3 Industrial
  - 1.4.4 Education
  - 1.4.5 Entertainment
  - 1.4.6 Others
- 1.5 Global Surface Relief Waveguides for AR & MR Market Size & Forecast
  - 1.5.1 Global Surface Relief Waveguides for AR & MR Consumption Value (2018 & 2022 & 2029)
  - 1.5.2 Global Surface Relief Waveguides for AR & MR Sales Quantity (2018-2029)
  - 1.5.3 Global Surface Relief Waveguides for AR & MR Average Price (2018-2029)

### 2 MANUFACTURERS PROFILES

- 2.1 Microsoft
  - 2.1.1 Microsoft Details
  - 2.1.2 Microsoft Major Business
  - 2.1.3 Microsoft Surface Relief Waveguides for AR & MR Product and Services
  - 2.1.4 Microsoft Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)
  - 2.1.5 Microsoft Recent Developments/Updates
- 2.2 Wave Optics
  - 2.2.1 Wave Optics Details
  - 2.2.2 Wave Optics Major Business
  - 2.2.3 Wave Optics Surface Relief Waveguides for AR & MR Product and Services
  - 2.2.4 Wave Optics Surface Relief Waveguides for AR & MR Sales Quantity, Average

## Price, Revenue, Gross Margin and Market Share (2018-2023)

### 2.2.5 Wave Optics Recent Developments/Updates

## 2.3 Dispelix

### 2.3.1 Dispelix Details

### 2.3.2 Dispelix Major Business

### 2.3.3 Dispelix Surface Relief Waveguides for AR & MR Product and Services

### 2.3.4 Dispelix Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)

### 2.3.5 Dispelix Recent Developments/Updates

## 2.4 Goertek

### 2.4.1 Goertek Details

### 2.4.2 Goertek Major Business

### 2.4.3 Goertek Surface Relief Waveguides for AR & MR Product and Services

### 2.4.4 Goertek Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)

### 2.4.5 Goertek Recent Developments/Updates

## 2.5 North Ocean Photonics

### 2.5.1 North Ocean Photonics Details

### 2.5.2 North Ocean Photonics Major Business

### 2.5.3 North Ocean Photonics Surface Relief Waveguides for AR & MR Product and Services

### 2.5.4 North Ocean Photonics Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)

### 2.5.5 North Ocean Photonics Recent Developments/Updates

## 2.6 Crystal-Optoech

### 2.6.1 Crystal-Optoech Details

### 2.6.2 Crystal-Optoech Major Business

### 2.6.3 Crystal-Optoech Surface Relief Waveguides for AR & MR Product and Services

### 2.6.4 Crystal-Optoech Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)

### 2.6.5 Crystal-Optoech Recent Developments/Updates

## 2.7 Lochn Optics

### 2.7.1 Lochn Optics Details

### 2.7.2 Lochn Optics Major Business

### 2.7.3 Lochn Optics Surface Relief Waveguides for AR & MR Product and Services

### 2.7.4 Lochn Optics Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)

### 2.7.5 Lochn Optics Recent Developments/Updates

## 2.8 Magic Leap

- 2.8.1 Magic Leap Details
- 2.8.2 Magic Leap Major Business
- 2.8.3 Magic Leap Surface Relief Waveguides for AR & MR Product and Services
- 2.8.4 Magic Leap Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)
- 2.8.5 Magic Leap Recent Developments/Updates
- 2.9 Greatear
  - 2.9.1 Greatear Details
  - 2.9.2 Greatear Major Business
  - 2.9.3 Greatear Surface Relief Waveguides for AR & MR Product and Services
  - 2.9.4 Greatear Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)
  - 2.9.5 Greatear Recent Developments/Updates
- 2.10 Optiark Semiconductor
  - 2.10.1 Optiark Semiconductor Details
  - 2.10.2 Optiark Semiconductor Major Business
  - 2.10.3 Optiark Semiconductor Surface Relief Waveguides for AR & MR Product and Services
  - 2.10.4 Optiark Semiconductor Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)
  - 2.10.5 Optiark Semiconductor Recent Developments/Updates
- 2.11 TRIPOLE OPTOELECTRONICS
  - 2.11.1 TRIPOLE OPTOELECTRONICS Details
  - 2.11.2 TRIPOLE OPTOELECTRONICS Major Business
  - 2.11.3 TRIPOLE OPTOELECTRONICS Surface Relief Waveguides for AR & MR Product and Services
  - 2.11.4 TRIPOLE OPTOELECTRONICS Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)
  - 2.11.5 TRIPOLE OPTOELECTRONICS Recent Developments/Updates
- 2.12 Lingxi-AR Technology
  - 2.12.1 Lingxi-AR Technology Details
  - 2.12.2 Lingxi-AR Technology Major Business
  - 2.12.3 Lingxi-AR Technology Surface Relief Waveguides for AR & MR Product and Services
  - 2.12.4 Lingxi-AR Technology Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)
  - 2.12.5 Lingxi-AR Technology Recent Developments/Updates
- 2.13 Sunny Optical Technology (Group) Company
  - 2.13.1 Sunny Optical Technology (Group) Company Details

- 2.13.2 Sunny Optical Technology (Group) Company Major Business
- 2.13.3 Sunny Optical Technology (Group) Company Surface Relief Waveguides for AR & MR Product and Services
- 2.13.4 Sunny Optical Technology (Group) Company Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)
- 2.13.5 Sunny Optical Technology (Group) Company Recent Developments/Updates
- 2.14 Beijing NED Display Technology
  - 2.14.1 Beijing NED Display Technology Details
  - 2.14.2 Beijing NED Display Technology Major Business
  - 2.14.3 Beijing NED Display Technology Surface Relief Waveguides for AR & MR Product and Services
  - 2.14.4 Beijing NED Display Technology Surface Relief Waveguides for AR & MR Sales Quantity, Average Price, Revenue, Gross Margin and Market Share (2018-2023)
  - 2.14.5 Beijing NED Display Technology Recent Developments/Updates

### **3 COMPETITIVE ENVIRONMENT: SURFACE RELIEF WAVEGUIDES FOR AR & MR BY MANUFACTURER**

- 3.1 Global Surface Relief Waveguides for AR & MR Sales Quantity by Manufacturer (2018-2023)
- 3.2 Global Surface Relief Waveguides for AR & MR Revenue by Manufacturer (2018-2023)
- 3.3 Global Surface Relief Waveguides for AR & MR Average Price by Manufacturer (2018-2023)
- 3.4 Market Share Analysis (2022)
  - 3.4.1 Producer Shipments of Surface Relief Waveguides for AR & MR by Manufacturer Revenue (\$MM) and Market Share (%): 2022
  - 3.4.2 Top 3 Surface Relief Waveguides for AR & MR Manufacturer Market Share in 2022
  - 3.4.2 Top 6 Surface Relief Waveguides for AR & MR Manufacturer Market Share in 2022
- 3.5 Surface Relief Waveguides for AR & MR Market: Overall Company Footprint Analysis
  - 3.5.1 Surface Relief Waveguides for AR & MR Market: Region Footprint
  - 3.5.2 Surface Relief Waveguides for AR & MR Market: Company Product Type Footprint
  - 3.5.3 Surface Relief Waveguides for AR & MR 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 Surface Relief Waveguides for AR & MR Market Size by Region
  - 4.1.1 Global Surface Relief Waveguides for AR & MR Sales Quantity by Region (2018-2029)
  - 4.1.2 Global Surface Relief Waveguides for AR & MR Consumption Value by Region (2018-2029)
  - 4.1.3 Global Surface Relief Waveguides for AR & MR Average Price by Region (2018-2029)
- 4.2 North America Surface Relief Waveguides for AR & MR Consumption Value (2018-2029)
- 4.3 Europe Surface Relief Waveguides for AR & MR Consumption Value (2018-2029)
- 4.4 Asia-Pacific Surface Relief Waveguides for AR & MR Consumption Value (2018-2029)
- 4.5 South America Surface Relief Waveguides for AR & MR Consumption Value (2018-2029)
- 4.6 Middle East and Africa Surface Relief Waveguides for AR & MR Consumption Value (2018-2029)

## **5 MARKET SEGMENT BY TYPE**

- 5.1 Global Surface Relief Waveguides for AR & MR Sales Quantity by Type (2018-2029)
- 5.2 Global Surface Relief Waveguides for AR & MR Consumption Value by Type (2018-2029)
- 5.3 Global Surface Relief Waveguides for AR & MR Average Price by Type (2018-2029)

## **6 MARKET SEGMENT BY APPLICATION**

- 6.1 Global Surface Relief Waveguides for AR & MR Sales Quantity by Application (2018-2029)
- 6.2 Global Surface Relief Waveguides for AR & MR Consumption Value by Application (2018-2029)
- 6.3 Global Surface Relief Waveguides for AR & MR Average Price by Application (2018-2029)

## **7 NORTH AMERICA**

7.1 North America Surface Relief Waveguides for AR & MR Sales Quantity by Type (2018-2029)

7.2 North America Surface Relief Waveguides for AR & MR Sales Quantity by Application (2018-2029)

7.3 North America Surface Relief Waveguides for AR & MR Market Size by Country

7.3.1 North America Surface Relief Waveguides for AR & MR Sales Quantity by Country (2018-2029)

7.3.2 North America Surface Relief Waveguides for AR & MR Consumption Value by Country (2018-2029)

7.3.3 United States Market Size and Forecast (2018-2029)

7.3.4 Canada Market Size and Forecast (2018-2029)

7.3.5 Mexico Market Size and Forecast (2018-2029)

## **8 EUROPE**

8.1 Europe Surface Relief Waveguides for AR & MR Sales Quantity by Type (2018-2029)

8.2 Europe Surface Relief Waveguides for AR & MR Sales Quantity by Application (2018-2029)

8.3 Europe Surface Relief Waveguides for AR & MR Market Size by Country

8.3.1 Europe Surface Relief Waveguides for AR & MR Sales Quantity by Country (2018-2029)

8.3.2 Europe Surface Relief Waveguides for AR & MR Consumption Value by Country (2018-2029)

8.3.3 Germany Market Size and Forecast (2018-2029)

8.3.4 France Market Size and Forecast (2018-2029)

8.3.5 United Kingdom Market Size and Forecast (2018-2029)

8.3.6 Russia Market Size and Forecast (2018-2029)

8.3.7 Italy Market Size and Forecast (2018-2029)

## **9 ASIA-PACIFIC**

9.1 Asia-Pacific Surface Relief Waveguides for AR & MR Sales Quantity by Type (2018-2029)

9.2 Asia-Pacific Surface Relief Waveguides for AR & MR Sales Quantity by Application (2018-2029)

9.3 Asia-Pacific Surface Relief Waveguides for AR & MR Market Size by Region

9.3.1 Asia-Pacific Surface Relief Waveguides for AR & MR Sales Quantity by Region (2018-2029)

9.3.2 Asia-Pacific Surface Relief Waveguides for AR & MR Consumption Value by Region (2018-2029)

9.3.3 China Market Size and Forecast (2018-2029)

9.3.4 Japan Market Size and Forecast (2018-2029)

9.3.5 Korea Market Size and Forecast (2018-2029)

9.3.6 India Market Size and Forecast (2018-2029)

9.3.7 Southeast Asia Market Size and Forecast (2018-2029)

9.3.8 Australia Market Size and Forecast (2018-2029)

## **10 SOUTH AMERICA**

10.1 South America Surface Relief Waveguides for AR & MR Sales Quantity by Type (2018-2029)

10.2 South America Surface Relief Waveguides for AR & MR Sales Quantity by Application (2018-2029)

10.3 South America Surface Relief Waveguides for AR & MR Market Size by Country

10.3.1 South America Surface Relief Waveguides for AR & MR Sales Quantity by Country (2018-2029)

10.3.2 South America Surface Relief Waveguides for AR & MR Consumption Value by Country (2018-2029)

10.3.3 Brazil Market Size and Forecast (2018-2029)

10.3.4 Argentina Market Size and Forecast (2018-2029)

## **11 MIDDLE EAST & AFRICA**

11.1 Middle East & Africa Surface Relief Waveguides for AR & MR Sales Quantity by Type (2018-2029)

11.2 Middle East & Africa Surface Relief Waveguides for AR & MR Sales Quantity by Application (2018-2029)

11.3 Middle East & Africa Surface Relief Waveguides for AR & MR Market Size by Country

11.3.1 Middle East & Africa Surface Relief Waveguides for AR & MR Sales Quantity by Country (2018-2029)

11.3.2 Middle East & Africa Surface Relief Waveguides for AR & MR Consumption Value by Country (2018-2029)

11.3.3 Turkey Market Size and Forecast (2018-2029)

11.3.4 Egypt Market Size and Forecast (2018-2029)

11.3.5 Saudi Arabia Market Size and Forecast (2018-2029)

11.3.6 South Africa Market Size and Forecast (2018-2029)

## **12 MARKET DYNAMICS**

12.1 Surface Relief Waveguides for AR & MR Market Drivers

12.2 Surface Relief Waveguides for AR & MR Market Restraints

12.3 Surface Relief Waveguides for AR & MR 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

12.5 Influence of COVID-19 and Russia-Ukraine War

12.5.1 Influence of COVID-19

12.5.2 Influence of Russia-Ukraine War

## **13 RAW MATERIAL AND INDUSTRY CHAIN**

13.1 Raw Material of Surface Relief Waveguides for AR & MR and Key Manufacturers

13.2 Manufacturing Costs Percentage of Surface Relief Waveguides for AR & MR

13.3 Surface Relief Waveguides for AR & MR Production Process

13.4 Surface Relief Waveguides for AR & MR Industrial Chain

## **14 SHIPMENTS BY DISTRIBUTION CHANNEL**

14.1 Sales Channel

14.1.1 Direct to End-User

14.1.2 Distributors

14.2 Surface Relief Waveguides for AR & MR Typical Distributors

14.3 Surface Relief Waveguides for AR & MR 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 Surface Relief Waveguides for AR & MR Consumption Value by Type, (USD Million), 2018 & 2022 & 2029

Table 2. Global Surface Relief Waveguides for AR & MR Consumption Value by Application, (USD Million), 2018 & 2022 & 2029

Table 3. Microsoft Basic Information, Manufacturing Base and Competitors

Table 4. Microsoft Major Business

Table 5. Microsoft Surface Relief Waveguides for AR & MR Product and Services

Table 6. Microsoft Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 7. Microsoft Recent Developments/Updates

Table 8. Wave Optics Basic Information, Manufacturing Base and Competitors

Table 9. Wave Optics Major Business

Table 10. Wave Optics Surface Relief Waveguides for AR & MR Product and Services

Table 11. Wave Optics Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 12. Wave Optics Recent Developments/Updates

Table 13. Dispelix Basic Information, Manufacturing Base and Competitors

Table 14. Dispelix Major Business

Table 15. Dispelix Surface Relief Waveguides for AR & MR Product and Services

Table 16. Dispelix Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 17. Dispelix Recent Developments/Updates

Table 18. Goertek Basic Information, Manufacturing Base and Competitors

Table 19. Goertek Major Business

Table 20. Goertek Surface Relief Waveguides for AR & MR Product and Services

Table 21. Goertek Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 22. Goertek Recent Developments/Updates

Table 23. North Ocean Photonics Basic Information, Manufacturing Base and Competitors

Table 24. North Ocean Photonics Major Business

Table 25. North Ocean Photonics Surface Relief Waveguides for AR & MR Product and Services

Table 26. North Ocean Photonics Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 27. North Ocean Photonics Recent Developments/Updates

Table 28. Crystal-Optoech Basic Information, Manufacturing Base and Competitors

Table 29. Crystal-Optoech Major Business

Table 30. Crystal-Optoech Surface Relief Waveguides for AR & MR Product and Services

Table 31. Crystal-Optoech Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 32. Crystal-Optoech Recent Developments/Updates

Table 33. Lochn Optics Basic Information, Manufacturing Base and Competitors

Table 34. Lochn Optics Major Business

Table 35. Lochn Optics Surface Relief Waveguides for AR & MR Product and Services

Table 36. Lochn Optics Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 37. Lochn Optics Recent Developments/Updates

Table 38. Magic Leap Basic Information, Manufacturing Base and Competitors

Table 39. Magic Leap Major Business

Table 40. Magic Leap Surface Relief Waveguides for AR & MR Product and Services

Table 41. Magic Leap Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 42. Magic Leap Recent Developments/Updates

Table 43. Greatar Basic Information, Manufacturing Base and Competitors

Table 44. Greatar Major Business

Table 45. Greatar Surface Relief Waveguides for AR & MR Product and Services

Table 46. Greatar Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 47. Greatar Recent Developments/Updates

Table 48. Optiark Semiconductor Basic Information, Manufacturing Base and Competitors

Table 49. Optiark Semiconductor Major Business

Table 50. Optiark Semiconductor Surface Relief Waveguides for AR & MR Product and

## Services

Table 51. Optiark Semiconductor Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 52. Optiark Semiconductor Recent Developments/Updates

Table 53. TRIPOLE OPTOELECTRONICS Basic Information, Manufacturing Base and Competitors

Table 54. TRIPOLE OPTOELECTRONICS Major Business

Table 55. TRIPOLE OPTOELECTRONICS Surface Relief Waveguides for AR & MR Product and Services

Table 56. TRIPOLE OPTOELECTRONICS Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 57. TRIPOLE OPTOELECTRONICS Recent Developments/Updates

Table 58. Lingxi-AR Technology Basic Information, Manufacturing Base and Competitors

Table 59. Lingxi-AR Technology Major Business

Table 60. Lingxi-AR Technology Surface Relief Waveguides for AR & MR Product and Services

Table 61. Lingxi-AR Technology Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 62. Lingxi-AR Technology Recent Developments/Updates

Table 63. Sunny Optical Technology (Group) Company Basic Information, Manufacturing Base and Competitors

Table 64. Sunny Optical Technology (Group) Company Major Business

Table 65. Sunny Optical Technology (Group) Company Surface Relief Waveguides for AR & MR Product and Services

Table 66. Sunny Optical Technology (Group) Company Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross Margin and Market Share (2018-2023)

Table 67. Sunny Optical Technology (Group) Company Recent Developments/Updates

Table 68. Beijing NED Display Technology Basic Information, Manufacturing Base and Competitors

Table 69. Beijing NED Display Technology Major Business

Table 70. Beijing NED Display Technology Surface Relief Waveguides for AR & MR Product and Services

Table 71. Beijing NED Display Technology Surface Relief Waveguides for AR & MR Sales Quantity (K Units), Average Price (US\$/Unit), Revenue (USD Million), Gross

Margin and Market Share (2018-2023)

Table 72. Beijing NED Display Technology Recent Developments/Updates

Table 73. Global Surface Relief Waveguides for AR & MR Sales Quantity by Manufacturer (2018-2023) & (K Units)

Table 74. Global Surface Relief Waveguides for AR & MR Revenue by Manufacturer (2018-2023) & (USD Million)

Table 75. Global Surface Relief Waveguides for AR & MR Average Price by Manufacturer (2018-2023) & (US\$/Unit)

Table 76. Market Position of Manufacturers in Surface Relief Waveguides for AR & MR, (Tier 1, Tier 2, and Tier 3), Based on Consumption Value in 2022

Table 77. Head Office and Surface Relief Waveguides for AR & MR Production Site of Key Manufacturer

Table 78. Surface Relief Waveguides for AR & MR Market: Company Product Type Footprint

Table 79. Surface Relief Waveguides for AR & MR Market: Company Product Application Footprint

Table 80. Surface Relief Waveguides for AR & MR New Market Entrants and Barriers to Market Entry

Table 81. Surface Relief Waveguides for AR & MR Mergers, Acquisition, Agreements, and Collaborations

Table 82. Global Surface Relief Waveguides for AR & MR Sales Quantity by Region (2018-2023) & (K Units)

Table 83. Global Surface Relief Waveguides for AR & MR Sales Quantity by Region (2024-2029) & (K Units)

Table 84. Global Surface Relief Waveguides for AR & MR Consumption Value by Region (2018-2023) & (USD Million)

Table 85. Global Surface Relief Waveguides for AR & MR Consumption Value by Region (2024-2029) & (USD Million)

Table 86. Global Surface Relief Waveguides for AR & MR Average Price by Region (2018-2023) & (US\$/Unit)

Table 87. Global Surface Relief Waveguides for AR & MR Average Price by Region (2024-2029) & (US\$/Unit)

Table 88. Global Surface Relief Waveguides for AR & MR Sales Quantity by Type (2018-2023) & (K Units)

Table 89. Global Surface Relief Waveguides for AR & MR Sales Quantity by Type (2024-2029) & (K Units)

Table 90. Global Surface Relief Waveguides for AR & MR Consumption Value by Type (2018-2023) & (USD Million)

Table 91. Global Surface Relief Waveguides for AR & MR Consumption Value by Type

(2024-2029) & (USD Million)

Table 92. Global Surface Relief Waveguides for AR & MR Average Price by Type (2018-2023) & (US\$/Unit)

Table 93. Global Surface Relief Waveguides for AR & MR Average Price by Type (2024-2029) & (US\$/Unit)

Table 94. Global Surface Relief Waveguides for AR & MR Sales Quantity by Application (2018-2023) & (K Units)

Table 95. Global Surface Relief Waveguides for AR & MR Sales Quantity by Application (2024-2029) & (K Units)

Table 96. Global Surface Relief Waveguides for AR & MR Consumption Value by Application (2018-2023) & (USD Million)

Table 97. Global Surface Relief Waveguides for AR & MR Consumption Value by Application (2024-2029) & (USD Million)

Table 98. Global Surface Relief Waveguides for AR & MR Average Price by Application (2018-2023) & (US\$/Unit)

Table 99. Global Surface Relief Waveguides for AR & MR Average Price by Application (2024-2029) & (US\$/Unit)

Table 100. North America Surface Relief Waveguides for AR & MR Sales Quantity by Type (2018-2023) & (K Units)

Table 101. North America Surface Relief Waveguides for AR & MR Sales Quantity by Type (2024-2029) & (K Units)

Table 102. North America Surface Relief Waveguides for AR & MR Sales Quantity by Application (2018-2023) & (K Units)

Table 103. North America Surface Relief Waveguides for AR & MR Sales Quantity by Application (2024-2029) & (K Units)

Table 104. North America Surface Relief Waveguides for AR & MR Sales Quantity by Country (2018-2023) & (K Units)

Table 105. North America Surface Relief Waveguides for AR & MR Sales Quantity by Country (2024-2029) & (K Units)

Table 106. North America Surface Relief Waveguides for AR & MR Consumption Value by Country (2018-2023) & (USD Million)

Table 107. North America Surface Relief Waveguides for AR & MR Consumption Value by Country (2024-2029) & (USD Million)

Table 108. Europe Surface Relief Waveguides for AR & MR Sales Quantity by Type (2018-2023) & (K Units)

Table 109. Europe Surface Relief Waveguides for AR & MR Sales Quantity by Type (2024-2029) & (K Units)

Table 110. Europe Surface Relief Waveguides for AR & MR Sales Quantity by Application (2018-2023) & (K Units)

Table 111. Europe Surface Relief Waveguides for AR & MR Sales Quantity by Application (2024-2029) & (K Units)

Table 112. Europe Surface Relief Waveguides for AR & MR Sales Quantity by Country (2018-2023) & (K Units)

Table 113. Europe Surface Relief Waveguides for AR & MR Sales Quantity by Country (2024-2029) & (K Units)

Table 114. Europe Surface Relief Waveguides for AR & MR Consumption Value by Country (2018-2023) & (USD Million)

Table 115. Europe Surface Relief Waveguides for AR & MR Consumption Value by Country (2024-2029) & (USD Million)

Table 116. Asia-Pacific Surface Relief Waveguides for AR & MR Sales Quantity by Type (2018-2023) & (K Units)

Table 117. Asia-Pacific Surface Relief Waveguides for AR & MR Sales Quantity by Type (2024-2029) & (K Units)

Table 118. Asia-Pacific Surface Relief Waveguides for AR & MR Sales Quantity by Application (2018-2023) & (K Units)

Table 119. Asia-Pacific Surface Relief Waveguides for AR & MR Sales Quantity by Application (2024-2029) & (K Units)

Table 120. Asia-Pacific Surface Relief Waveguides for AR & MR Sales Quantity by Region (2018-2023) & (K Units)

Table 121. Asia-Pacific Surface Relief Waveguides for AR & MR Sales Quantity by Region (2024-2029) & (K Units)

Table 122. Asia-Pacific Surface Relief Waveguides for AR & MR Consumption Value by Region (2018-2023) & (USD Million)

Table 123. Asia-Pacific Surface Relief Waveguides for AR & MR Consumption Value by Region (2024-2029) & (USD Million)

Table 124. South America Surface Relief Waveguides for AR & MR Sales Quantity by Type (2018-2023) & (K Units)

Table 125. South America Surface Relief Waveguides for AR & MR Sales Quantity by Type (2024-2029) & (K Units)

Table 126. South America Surface Relief Waveguides for AR & MR Sales Quantity by Application (2018-2023) & (K Units)

Table 127. South America Surface Relief Waveguides for AR & MR Sales Quantity by Application (2024-2029) & (K Units)

Table 128. South America Surface Relief Waveguides for AR & MR Sales Quantity by Country (2018-2023) & (K Units)

Table 129. South America Surface Relief Waveguides for AR & MR Sales Quantity by Country (2024-2029) & (K Units)

Table 130. South America Surface Relief Waveguides for AR & MR Consumption Value

by Country (2018-2023) & (USD Million)

Table 131. South America Surface Relief Waveguides for AR & MR Consumption Value by Country (2024-2029) & (USD Million)

Table 132. Middle East & Africa Surface Relief Waveguides for AR & MR Sales Quantity by Type (2018-2023) & (K Units)

Table 133. Middle East & Africa Surface Relief Waveguides for AR & MR Sales Quantity by Type (2024-2029) & (K Units)

Table 134. Middle East & Africa Surface Relief Waveguides for AR & MR Sales Quantity by Application (2018-2023) & (K Units)

Table 135. Middle East & Africa Surface Relief Waveguides for AR & MR Sales Quantity by Application (2024-2029) & (K Units)

Table 136. Middle East & Africa Surface Relief Waveguides for AR & MR Sales Quantity by Region (2018-2023) & (K Units)

Table 137. Middle East & Africa Surface Relief Waveguides for AR & MR Sales Quantity by Region (2024-2029) & (K Units)

Table 138. Middle East & Africa Surface Relief Waveguides for AR & MR Consumption Value by Region (2018-2023) & (USD Million)

Table 139. Middle East & Africa Surface Relief Waveguides for AR & MR Consumption Value by Region (2024-2029) & (USD Million)

Table 140. Surface Relief Waveguides for AR & MR Raw Material

Table 141. Key Manufacturers of Surface Relief Waveguides for AR & MR Raw Materials

Table 142. Surface Relief Waveguides for AR & MR Typical Distributors

Table 143. Surface Relief Waveguides for AR & MR Typical Customers

## List Of Figures

### LIST OF FIGURES

- Figure 1. Surface Relief Waveguides for AR & MR Picture
- Figure 2. Global Surface Relief Waveguides for AR & MR Consumption Value by Type, (USD Million), 2018 & 2022 & 2029
- Figure 3. Global Surface Relief Waveguides for AR & MR Consumption Value Market Share by Type in 2022
- Figure 4. 1D Grating Examples
- Figure 5. 2D Grating Examples
- Figure 6. Global Surface Relief Waveguides for AR & MR Consumption Value by Application, (USD Million), 2018 & 2022 & 2029
- Figure 7. Global Surface Relief Waveguides for AR & MR Consumption Value Market Share by Application in 2022
- Figure 8. Medical Examples
- Figure 9. Industrial Examples
- Figure 10. Education Examples
- Figure 11. Entertainment Examples
- Figure 12. Others Examples
- Figure 13. Global Surface Relief Waveguides for AR & MR Consumption Value, (USD Million): 2018 & 2022 & 2029
- Figure 14. Global Surface Relief Waveguides for AR & MR Consumption Value and Forecast (2018-2029) & (USD Million)
- Figure 15. Global Surface Relief Waveguides for AR & MR Sales Quantity (2018-2029) & (K Units)
- Figure 16. Global Surface Relief Waveguides for AR & MR Average Price (2018-2029) & (US\$/Unit)
- Figure 17. Global Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Manufacturer in 2022
- Figure 18. Global Surface Relief Waveguides for AR & MR Consumption Value Market Share by Manufacturer in 2022
- Figure 19. Producer Shipments of Surface Relief Waveguides for AR & MR by Manufacturer Sales Quantity (\$MM) and Market Share (%): 2021
- Figure 20. Top 3 Surface Relief Waveguides for AR & MR Manufacturer (Consumption Value) Market Share in 2022
- Figure 21. Top 6 Surface Relief Waveguides for AR & MR Manufacturer (Consumption Value) Market Share in 2022
- Figure 22. Global Surface Relief Waveguides for AR & MR Sales Quantity Market Share

by Region (2018-2029)

Figure 23. Global Surface Relief Waveguides for AR & MR Consumption Value Market Share by Region (2018-2029)

Figure 24. North America Surface Relief Waveguides for AR & MR Consumption Value (2018-2029) & (USD Million)

Figure 25. Europe Surface Relief Waveguides for AR & MR Consumption Value (2018-2029) & (USD Million)

Figure 26. Asia-Pacific Surface Relief Waveguides for AR & MR Consumption Value (2018-2029) & (USD Million)

Figure 27. South America Surface Relief Waveguides for AR & MR Consumption Value (2018-2029) & (USD Million)

Figure 28. Middle East & Africa Surface Relief Waveguides for AR & MR Consumption Value (2018-2029) & (USD Million)

Figure 29. Global Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Type (2018-2029)

Figure 30. Global Surface Relief Waveguides for AR & MR Consumption Value Market Share by Type (2018-2029)

Figure 31. Global Surface Relief Waveguides for AR & MR Average Price by Type (2018-2029) & (US\$/Unit)

Figure 32. Global Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Application (2018-2029)

Figure 33. Global Surface Relief Waveguides for AR & MR Consumption Value Market Share by Application (2018-2029)

Figure 34. Global Surface Relief Waveguides for AR & MR Average Price by Application (2018-2029) & (US\$/Unit)

Figure 35. North America Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Type (2018-2029)

Figure 36. North America Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Application (2018-2029)

Figure 37. North America Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Country (2018-2029)

Figure 38. North America Surface Relief Waveguides for AR & MR Consumption Value Market Share by Country (2018-2029)

Figure 39. United States Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 40. Canada Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 41. Mexico Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 42. Europe Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Type (2018-2029)

Figure 43. Europe Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Application (2018-2029)

Figure 44. Europe Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Country (2018-2029)

Figure 45. Europe Surface Relief Waveguides for AR & MR Consumption Value Market Share by Country (2018-2029)

Figure 46. Germany Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 47. France Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 48. United Kingdom Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 49. Russia Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 50. Italy Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 51. Asia-Pacific Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Type (2018-2029)

Figure 52. Asia-Pacific Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Application (2018-2029)

Figure 53. Asia-Pacific Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Region (2018-2029)

Figure 54. Asia-Pacific Surface Relief Waveguides for AR & MR Consumption Value Market Share by Region (2018-2029)

Figure 55. China Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 56. Japan Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 57. Korea Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 58. India Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 59. Southeast Asia Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 60. Australia Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 61. South America Surface Relief Waveguides for AR & MR Sales Quantity

Market Share by Type (2018-2029)

Figure 62. South America Surface Relief Waveguides for AR & MR Sales Quantity

Market Share by Application (2018-2029)

Figure 63. South America Surface Relief Waveguides for AR & MR Sales Quantity

Market Share by Country (2018-2029)

Figure 64. South America Surface Relief Waveguides for AR & MR Consumption Value

Market Share by Country (2018-2029)

Figure 65. Brazil Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 66. Argentina Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 67. Middle East & Africa Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Type (2018-2029)

Figure 68. Middle East & Africa Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Application (2018-2029)

Figure 69. Middle East & Africa Surface Relief Waveguides for AR & MR Sales Quantity Market Share by Region (2018-2029)

Figure 70. Middle East & Africa Surface Relief Waveguides for AR & MR Consumption Value Market Share by Region (2018-2029)

Figure 71. Turkey Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 72. Egypt Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 73. Saudi Arabia Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 74. South Africa Surface Relief Waveguides for AR & MR Consumption Value and Growth Rate (2018-2029) & (USD Million)

Figure 75. Surface Relief Waveguides for AR & MR Market Drivers

Figure 76. Surface Relief Waveguides for AR & MR Market Restraints

Figure 77. Surface Relief Waveguides for AR & MR Market Trends

Figure 78. Porters Five Forces Analysis

Figure 79. Manufacturing Cost Structure Analysis of Surface Relief Waveguides for AR & MR in 2022

Figure 80. Manufacturing Process Analysis of Surface Relief Waveguides for AR & MR

Figure 81. Surface Relief Waveguides for AR & MR Industrial Chain

Figure 82. Sales Quantity Channel: Direct to End-User vs Distributors

Figure 83. Direct Channel Pros & Cons

Figure 84. Indirect Channel Pros & Cons

Figure 85. Methodology

Figure 86. Research Process and Data Source

## I would like to order

Product name: Global Surface Relief Waveguides for AR & MR Market 2023 by Manufacturers, Regions, Type and Application, Forecast to 2029

Product link: <https://marketpublishers.com/r/G5E041602D5BEN.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](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G5E041602D5BEN.html>