

Smart Labels Market Report by Technology (Radio-Frequency Identification (RFID), Electronic Article Surveillance (EAS), Electronic Shelf Label (ESL), Sensing Labels, Near Field Communication (NFC)), Component (Batteries, Transceivers, Microprocessors, Memories, and Others), End-User (Retail, Logistics and Transportation, Healthcare, Food and Beverage, Aerospace, Data Centers and Libraries, and Others), and Region 2024-2032

https://marketpublishers.com/r/S5F9F2EDF017EN.html

Date: March 2024 Pages: 140 Price: US\$ 3,899.00 (Single User License) ID: S5F9F2EDF017EN

# **Abstracts**

The global smart labels market size reached US\$ 10.9 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 29.7 Billion by 2032, exhibiting a growth rate (CAGR) of 11.4% during 2024-2032. The growing need for reducing shoplifting and theft, increasing usage of built-in utility in smartphones to read QR codes, and rising awareness among manufacturers represent some of the key factors driving the market.

Rising Need to Access Nutritional Facts and Other Product Related Information Facilitating Market Growth

With the easy availability of information over the internet and the surging prevalence of chronic diseases, there is an increase in the number of people who are consciously paying attention to product labeling for understanding the nutrition facts. As a result, there is a rise in the need for smart labels that comprise information about allergens, third-party certifications, usage instructions, social compliance programs, and safe handling. Smart labels also offer smart traceability of a product and help maintain its



#### authenticity.

Competitive analysis such as market structure, market share by key players, player positioning, top winning strategies, competitive dashboard, and company evaluation quadrant has been covered in the report. Also, detailed profiles of all major companies have been provided. The market structure is fragmented with a large number of players operating in the industry. The volume of new entrants is low in the smart labels industry due to high capital investment, product differentiation and economies of scale required to remain profitable in the smart labels industry. In addition, the smart labels market is characterized by high product differentiation and switching costs as several manufacturers have patented their product.

#### What are Smart Labels?

Smart labels, also known as smart tags, act as innovative transparent labels associated with digital technology and smart devices that enable consumers to access detailed information about their products. They are manufactured from paper, fabrics, or plastics and are available as electronic labels, printed labels, or chip labels. They comprise various technologies, such as radio-frequency identification (RFID), electronic article surveillance (EAS), electronic shelf labels (ESLs), sensing labels, and near field communication (NFC). They offer various advantages, including automated reading, quick identification, re-programmability, high tolerance, and reduced errors. They also provide high levels of productivity, accuracy, readability, and inventory management to manufacturers. They assist in tracking products and recording information for inventory management. As a result, smart labels find applications in the retail, logistics and transportation, healthcare, automotive, manufacturing, and food and beverage (F&B) sectors across the globe.

#### Smart Labels Market Trends:

At present, the increasing demand for smart labels in security and tracking solutions, as they help in reducing shoplifting and theft, represents one of the key factors supporting the growth of the market. Additionally, the growing awareness among manufacturers about smart labels, is offering a positive market outlook. Besides this, the escalating demand for smart labels, as they enable consumers to access information by their own preferred method, such as visiting a website and scanning product codes using a smartphone, is propelling the growth of the market. In addition, the rising utilization of smart labels due to a built-in utility in smartphones to read QR codes and access the information provided by smart labels is offering lucrative growth opportunities to industry



investors. Apart from this, the increasing demand for smart labels, as they provide highly reliable and accurate information about any product, is strengthening the growth of the market. Moreover, the growing employment of smart labels, as they make packaging more appealing and informative in terms of content and shipping details on packaged goods, is positively influencing the market. In line with this, the rising demand for smart labels on account of the increasing demand for a green environment is contributing to the growth of the market. Some of the other growth-inducing factors include the growing number of retail outlets, increasing brand participation, and rising demand for demand for anti-theft devices.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global smart labels market report, along with forecasts at the global and regional level from 2024-2032. Our report has categorized the market based on technology, component and end-user.

Technology Insights:

Radio-Frequency Identification (RFID) Electronic Article Surveillance (EAS) Electronic Shelf Label (ESL) Sensing Labels Near Field Communication (NFC)

The report has provided a detailed breakup and analysis of the smart labels market based on the technology. This includes radio-frequency identification (RFID), electronic article surveillance (EAS), electronic shelf label (ESL), sensing labels, and near field communication (NFC). According to the report, radio-frequency identification (RFID) represented the largest segment due to the features offered, such as information accuracy, real-time tracking, and automatic data capture. RFID is highly preferred to maintain the synchronized record for inventory and supply chain management.

Component Insights:

Batteries Transceivers Microprocessors Memories Others



A detailed breakup and analysis of the smart labels market based on the component has also been provided in the report. This includes batteries, transceivers, microprocessors, memories, and others. According to the report, batteries accounted for the largest market share as they are used to power the radio signal transceiver embedded in smart label tags. The presence of batteries in active smart labels help them activate regardless of the presence of a reader or interrogator in proximity. In addition, batteries enabled smart labels are very useful for tracking high-value goods that need to be scanned over long ranges.

End-User Insights:

Retail Logistics and Transportation Healthcare Food and Beverage Aerospace Data Centers and Libraries Others

A detailed breakup and analysis of the smart labels market based on the end-user has also been provided in the report. This includes retail, logistics and transportation, healthcare, food and beverage, aerospace, data centers and libraries, and others. According to the report, retail accounted for the largest market share as companies in the retail segment are highly benefiting from smart label technology. They can use the data to understand the mindset of customers and manufacture products accordingly. Moreover, organizations can achieve huge time savings, which is also leading to reduced labor costs as companies no longer have to rely on a handheld scanner to extract information on products.

**Regional Insights:** 

North America Europe Asia Pacific Middle East and Africa Latin America

The report has also provided a comprehensive analysis of all the major regional



markets, which include North America, Europe, Asia Pacific, the Middle East and Africa, and Latin America. According to the report, North America was the largest market for smart labels. Some of the factors driving the North America smart labels market included the growing penetration of smart labels in merchandises and assets tracking applications, increasing labor costs and issues related to price integrity, and rising demand among large manufacturers and wholesalers. Additionally, the increasing utilization of digital technology, along with the growing demand for smart labels in various sectors, such as healthcare, pharmaceuticals, logistics, retail, food and beverage (F&B), is positively influencing the market.

#### Competitive Landscape:

The report has also provided a comprehensive analysis of the competitive landscape in the global smart labels market. Some of the companies covered in the report include:

Avery Dennison Corporation CCL Industries Inc. Checkpoints Systems, Inc. Zebra Technologies Corporation Intermec Inc. Invengo Technology Pte. Ltd. Sato Holdings Corporation Thin Film Electronics ASA (Ensurge Micropower ASA) Smartrac N.V. Muehlbauer Holding AG

Please note that this only represents a partial list of companies, and the complete list has been provided in the report.

Key Questions Answered in This Report

1. How big is the global smart labels market?

2. What is the expected growth rate of the global smart labels market during 2024-2032?

- 3. What are the key factors driving the global smart labels market?
- 4. What has been the impact of COVID-19 on the global smart labels market?
- 5. What is the breakup of the global smart labels market based on the technology?
- 6. What is the breakup of the global smart labels market based on the component?
- 7. What is the breakup of the global smart labels market based on the end-user?
- 8. What are the key regions in the global smart labels market?



9. Who are the key players/companies in the global smart labels market?



# Contents

#### **1 PREFACE**

#### **2 SCOPE AND METHODOLOGY**

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
- 2.3.1 Primary Sources
- 2.3.2 Secondary Sources
- 2.4 Market Estimation
- 2.4.1 Bottom-Up Approach
- 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

#### **3 EXECUTIVE SUMMARY**

#### **4 INTRODUCTION**

- 4.1 Overview
- 4.2 Key Industry Trends

#### **5 GLOBAL SMART LABELS MARKET**

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Breakup by Technology
- 5.5 Market Breakup by Component
- 5.6 Market Breakup by End-User
- 5.7 Market Breakup by Region
- 5.8 Market Forecast
- 5.9 SWOT Analysis
  - 5.9.1 Overview
  - 5.9.2 Strengths
  - 5.9.3 Weaknesses
  - 5.9.4 Opportunities
  - 5.9.5 Threats





- 5.10 Value Chain Analysis
- 5.11 Porters Five Forces Analysis
- 5.11.1 Overview
- 5.11.2 Bargaining Power of Buyers
- 5.11.3 Bargaining Power of Suppliers
- 5.11.4 Degree of Competition
- 5.11.5 Threat of New Entrants
- 5.11.6 Threat of Substitutes
- 5.12 Price Analysis
  - 5.12.1 Key Price Indicators
  - 5.12.2 Price Structure
  - 5.12.3 Margin Analysis

#### **6 MARKET BREAKUP BY TECHNOLOGY**

- 6.1 Radio-Frequency Identification (RFID)
  - 6.1.1 Market Trends
  - 6.1.2 Market Forecast
- 6.2 Electronic Article Surveillance (EAS)
  - 6.2.1 Market Trends
  - 6.2.2 Market Forecast
- 6.3 Electronic Shelf Label (ESL)
  - 6.3.1 Market Trends
  - 6.3.2 Market Forecast
- 6.4 Sensing Labels
  - 6.4.1 Market Trends
  - 6.4.2 Market Forecast
- 6.5 Near Field Communication (NFC)
  - 6.5.1 Market Trends
  - 6.5.2 Market Forecast

#### 7 MARKET BREAKUP BY COMPONENT

- 7.1 Batteries
  - 7.1.1 Market Trends
  - 7.1.2 Market Forecast
- 7.2 Transceivers
  - 7.2.1 Market Trends
  - 7.2.2 Market Forecast



- 7.3 Microprocessors
  7.3.1 Market Trends
  7.3.2 Market Forecast
  7.4 Memories
  7.4.1 Market Trends
  7.4.2 Market Forecast
  7.5 Others
  7.5.1 Market Trends
  - 7.5.2 Market Forecast

#### 8 MARKET BREAKUP BY END-USER

- 8.1 Retail
  - 8.1.1 Market Trends
  - 8.1.2 Market Forecast
- 8.2 Logistics and Transportation
  - 8.2.1 Market Trends
  - 8.2.2 Market Forecast
- 8.3 Healthcare
  - 8.3.1 Market Trends
- 8.3.2 Market Forecast
- 8.4 Food and Beverage
  - 8.4.1 Market Trends
  - 8.4.2 Market Forecast
- 8.5 Aerospace
  - 8.5.1 Market Trends
  - 8.5.2 Market Forecast
- 8.6 Data Centers and Libraries
  - 8.6.1 Market Trends
  - 8.6.2 Market Forecast
- 8.7 Others
  - 8.7.1 Market Trends
  - 8.7.2 Market Forecast

#### 9 MARKET BREAKUP BY REGION

9.1 North America9.1.1 Market Trends9.1.2 Market Forecast



9.2 Europe
9.2.1 Market Trends
9.2.2 Market Forecast
9.3 Asia Pacific
9.3.1 Market Trends
9.3.2 Market Forecast
9.4 Middle East and Africa
9.4.1 Market Trends
9.4.2 Market Forecast
9.5 Latin America
9.5.1 Market Trends
9.5.2 Market Forecast

# 10 SMART LABELS MANUFACTURING PROCESS

- 10.1 Product Overview
- 10.2 Raw Material Requirements
- 10.3 Manufacturing Process
- 10.4 Key Success and Risk Factors

#### **11 COMPETITIVE LANDSCAPE**

- 11.1 Market Structure
- 11.2 Key Players
- 11.3 Profiles of Key Players
- 11.3.1 Avery Dennison Corporation
- 11.3.2 CCL Industries Inc.
- 11.3.3 Checkpoints Systems, Inc.
- 11.3.4 Zebra Technologies Corporation
- 11.3.5 Intermec Inc.
- 11.3.6 Invengo Technology Pte. Ltd.
- 11.3.7 Sato Holdings Corporation
- 11.3.8 Thin Film Electronics ASA (Ensurge Micropower ASA)
- 11.3.9 Smartrac N.V.
- 11.3.10 Muehlbauer Holding AG



# **List Of Tables**

#### LIST OF TABLES

Table 1: Global: Smart Labels Market: Key Industry Highlights, 2023 and 2032
Table 2: Global: Smart Labels Market Forecast: Breakup by Technology (in Million US\$), 2024-2032
Table 3: Global: Smart Labels Market Forecast: Breakup by Component (in Million US\$), 2024-2032
Table 4: Global: Smart Labels Market Forecast: Breakup by End-User (in Million US\$), 2024-2032
Table 5: Global: Smart Labels Market Forecast: Breakup by Region (in Million US\$), 2024-2032
Table 6: Smart Labels Manufacturing: Raw Material Requirements
Table 7: Global: Smart Labels Market: Competitive Structure

Table 8: Global: Smart Labels Market: Key Players



# **List Of Figures**

#### LIST OF FIGURES

Figure 1: Global: Smart Labels Market: Major Drivers and Challenges Figure 2: Global: Smart Labels Market: Sales Value (in Billion US\$), 2018-2023 Figure 3: Global: Smart Labels Market: Breakup by Technology (in %), 2023 Figure 4: Global: Smart Labels Market: Breakup by Component (in %), 2023 Figure 5: Global: Smart Labels Market: Breakup by End-User (in %), 2023 Figure 6: Global: Smart Labels Market: Breakup by Region (in %), 2023 Figure 7: Global: Smart Labels Market Forecast: Sales Value (in Billion US\$), 2024-2032 Figure 8: Smart Labels Market: Price Structure Figure 9: Global: Smart Labels Industry: SWOT Analysis Figure 10: Global: Smart Labels Industry: Value Chain Analysis Figure 11: Global: Smart Labels Industry: Porter's Five Forces Analysis Figure 12: Global: Smart Labels (Radio-Frequency Identification) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 13: Global: Smart Labels (Radio-Frequency Identification) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 14: Global: Smart Labels (Electronic Article Surveillance) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 15: Global: Smart Labels (Electronic Article Surveillance) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 16: Global: Smart Labels (Electronic Shelf Label) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 17: Global: Smart Labels (Electronic Shelf Label) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 18: Global: Smart Labels (Sensing Labels) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 19: Global: Smart Labels (Sensing Labels) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 20: Global: Smart Labels (Near Field Communication) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 21: Global: Smart Labels (Near Field Communication) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 22: Global: Smart Labels (Batteries) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 23: Global: Smart Labels (Batteries) Market Forecast: Sales Value (in Million



US\$), 2024-2032 Figure 24: Global: Smart Labels (Transceivers) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 25: Global: Smart Labels (Transceivers) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 26: Global: Smart Labels (Microprocessors) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 27: Global: Smart Labels (Microprocessors) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 28: Global: Smart Labels (Memories) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 29: Global: Smart Labels (Memories) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 30: Global: Smart Labels (Other Components) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 31: Global: Smart Labels (Other Components) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 32: Global: Smart Labels (Retail) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 33: Global: Smart Labels (Retail) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 34: Global: Smart Labels (Logistics and Transportation) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 35: Global: Smart Labels (Logistics and Transportation) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 36: Global: Smart Labels (Healthcare) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 37: Global: Smart Labels (Healthcare) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 38: Global: Smart Labels (Food and Beverage) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 39: Global: Smart Labels (Food and Beverage) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 40: Global: Smart Labels (Aerospace) Market: Sales Value (in Million US\$), 2018 & 2023 Figure 41: Global: Smart Labels (Aerospace) Market Forecast: Sales Value (in Million US\$), 2024-2032 Figure 42: Global: Smart Labels (Data Centers and Libraries) Market: Sales Value (in Million US\$), 2018 & 2023



Figure 43: Global: Smart Labels (Data Centers and Libraries) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 44: Global: Smart Labels (Other End-Users) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 45: Global: Smart Labels (Other End-Users) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 46: North America: Smart Labels Market: Sales Value (in Million US\$), 2018 & 2023

Figure 47: North America: Smart Labels Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 48: Europe: Smart Labels Market: Sales Value (in Million US\$), 2018 & 2023 Figure 49: Europe: Smart Labels Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 50: Asia Pacific: Smart Labels Market: Sales Value (in Million US\$), 2018 & 2023 Figure 51: Asia Pacific: Smart Labels Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 52: Middle East and Africa: Smart Labels Market: Sales Value (in Million US\$), 2018 & 2023

Figure 53: Middle East and Africa: Smart Labels Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 54: Latin America: Smart Labels Market: Sales Value (in Million US\$), 2018 & 2023

Figure 55: Latin America: Smart Labels Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 56: Smart Labels Manufacturing: Detailed Process Flow



#### I would like to order

Product name: Smart Labels Market Report by Technology (Radio-Frequency Identification (RFID), Electronic Article Surveillance (EAS), Electronic Shelf Label (ESL), Sensing Labels, Near Field Communication (NFC)), Component (Batteries, Transceivers, Microprocessors, Memories, and Others), End-User (Retail, Logistics and Transportation, Healthcare, Food and Beverage, Aerospace, Data Centers and Libraries, and Others), and Region 2024-2032

Product link: https://marketpublishers.com/r/S5F9F2EDF017EN.html

Price: US\$ 3,899.00 (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 <u>https://marketpublishers.com/r/S5F9F2EDF017EN.html</u>

# 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

Custumer signature \_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms



& Conditions at https://marketpublishers.com/docs/terms.html

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