

North America UHF RFID (RAIN) Market Size and Forecast (2021 - 2031)

<https://marketpublishers.com/r/NAC30194C7CBEN.html>

Date: April 2026

Pages: 172

Price: US\$ 3,450.00 (Single User License)

ID: NAC30194C7CBEN

Abstracts

The North America UHF RFID (RAIN) market is projected to experience significant growth, with an expected market size of approximately US\$ 4,945.7 million by 2031, up from US\$ 1,601.8 million in 2024. This growth translates to a compound annual growth rate (CAGR) of 18.1% from 2025 to 2031, driven primarily by the expanding retail sector's demand for efficient inventory tracking solutions.

Executive Summary and Market Analysis

The retail industry in North America is rapidly evolving, leading to an increased demand for UHF RFID technology. Retailers are keen to adopt this technology to enhance inventory management and streamline operations. A notable example of innovation in this space is the launch by Avery Dennison Corporation in May 2022, which introduced two new dual-frequency (DF) RFID inlays. These inlays, the AD Medio Web DF EM4425 and AD Web DF EM4425 V12, combine NFC (HF) and RAIN RFID (UHF) functionalities, allowing for cost-effective item-level tagging. The AD Medio Web DF is tailored for pharmaceuticals and healthcare, while the AD Web DF is designed for retail applications. This dual-frequency capability not only improves performance but also offers cost savings compared to using separate inlays for each frequency.

Strategic Insights

Market Segmentation

The North America UHF RFID (RAIN) market can be segmented by component, hardware type, and application:

By Component: The market is divided into Hardware, Software, and Services, with Hardware holding the largest market share in 2024.

By Hardware Type: This segment includes Tags and Labels, Readers, Printers, and Others, where Tags and Labels dominate the market.

By Application: The applications include Retail and Commerce Goods, Logistics and Transportation, Manufacturing, Healthcare, Automotive, Aerospace and Defense, among others, with Retail and Commerce Goods leading in market share.

Market Outlook

The growth of the retail sector is significantly influenced by advancements in inventory tracking technologies and the increasing use of online marketing tools. The retail industry is one of the most mature sectors in the U.S., with a strong consumer shift towards online shopping. According to the U.S. Census Bureau, retail e-commerce sales reached US\$ 1,192.6 billion in 2024, marking an 8.1% increase from the previous year.

In retail, RFID technology is increasingly utilized for apparel tagging, with vendors integrating digitalization and Big Data analytics into their RFID applications. RFID technology employs radio waves to transmit data from tags to readers, enabling efficient object identification and location tracking. Retailers are seeking cost-effective solutions to enhance operational efficiency and minimize overhead costs. Data from Accenture indicates that 93% of North American retailers are utilizing RFID technology to achieve these objectives. Major retail players such as H&M, Lululemon, Zara, and Nike have adopted UHF RFID for inventory management, which aids in maintaining effective supply chains, combating counterfeiting, and preventing stockouts.

Walmart has been a pioneer in this area, mandating its clothing suppliers to attach RFID labels to their products since 2020. This mandate has progressively expanded to include toys, electronics, and home items, with plans to cover a broader range of product categories by 2025. Such initiatives are propelling market growth within the retail segment.

Country Insights

The North America UHF RFID (RAIN) market is further segmented by country, primarily into the United States, Canada, and Mexico, with the United States holding the largest market share in 2024. The U.S. is a critical market for UHF RFID technology, bolstered by its advanced technological infrastructure and extensive retail operations. The strong adoption of RFID across various industries, including retail, logistics, healthcare, and manufacturing, underscores its importance.

As one of the largest economies globally, the U.S. leads in UHF RFID deployment, leveraging it for inventory management, asset tracking, supply chain optimization, and automation. According to the International Trade Administration, the retail trade industry's gross domestic product exceeded US\$ 1.8 trillion by the end of 2023. Major retailers like Walmart, Target, and Amazon are at the forefront of adopting UHF RFID solutions to enhance operational efficiency, improve product visibility, and reduce costs. The increasing demand for real-time data tracking and automation is further driving market expansion.

Company Profiles

Key players in the North America UHF RFID (RAIN) market include Honeywell International Inc., Zebra Technologies Corp., Convergence Systems Limited, NXP Semiconductors NV, Avery Dennison Corp., CAEN RFID S.r.l., Impinj Inc., INVENGO TECHNOLOGY PTE. LTD, Jadak, LOWRY SOLUTIONS INC., Murata Manufacturing Co. Ltd, SAG Securitag Assembly Group Co., LTD, WALKI GROUP OY, Alien Technology, LLC, and Checkpoint Systems Inc. These companies are employing various strategies, including expansion, product innovation, and mergers and acquisitions, to enhance their product offerings and increase market share.

Contents

1. INTRODUCTION

- 1.1 Report Guidance
- 1.2 Market Segmentation

2. EXECUTIVE SUMMARY

- 2.1 Key Insights
- 2.2 Market Attractiveness

3. RESEARCH METHODOLOGY

- 3.1 Secondary Research
- 3.2 Primary Research
 - 3.2.1 Hypothesis formulation:
 - 3.2.2 Macroeconomic factor analysis:
 - 3.2.3 Developing base number:
 - 3.2.4 Data Triangulation:
 - 3.2.5 Country-level data:

4. UHF RFID (RAIN) MARKET LANDSCAPE

- 4.1 Market Overview
- 4.2 PEST Analysis
- 4.3 Ecosystem Analysis
 - 4.3.1 List of Vendors in the Value Chain

5. NORTH AMERICA UHF RFID (RAIN) MARKET - KEY MARKET DYNAMICS

- 5.1 Market Drivers
- 5.2 Market Restraints
- 5.3 Market Opportunities
- 5.4 Future Trends
- 5.5 Impact of Drivers and Restraints:

6. UHF RFID (RAIN) MARKET - NORTH AMERICA MARKET ANALYSIS

6.1 North America UHF RFID (RAIN) Market Revenue (US\$ Million), 2024 - 2031

6.2 North America UHF RFID (RAIN) Market Forecast and Analysis

7. NORTH AMERICA UHF RFID (RAIN) MARKET REVENUE ANALYSIS - BY COMPONENT

7.1 Hardware

7.1.1 Overview

7.1.2 Hardware: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

7.2 Software

7.2.1 Overview

7.2.2 Software: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

7.3 Services

7.3.1 Overview

7.3.2 Services: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

8. NORTH AMERICA UHF RFID (RAIN) MARKET REVENUE ANALYSIS - BY HARDWARE TYPE

8.1 Tags and Labels

8.1.1 Overview

8.1.2 Tags and Labels: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

8.2 Readers

8.2.1 Overview

8.2.2 Readers: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

8.3 Printers

8.3.1 Overview

8.3.2 Printers: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

8.4 Others

8.4.1 Overview

8.4.2 Others: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9. NORTH AMERICA UHF RFID (RAIN) MARKET REVENUE ANALYSIS - BY APPLICATION

9.1 Retail and Commerce Goods

9.1.1 Overview

9.1.2 Retail and Commerce Goods: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.2 Logistics and Transportation

9.2.1 Overview

9.2.2 Logistics and Transportation: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.3 Manufacturing

9.3.1 Overview

9.3.2 Manufacturing: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.4 Healthcare

9.4.1 Overview

9.4.2 Healthcare: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.5 Automotive

9.5.1 Overview

9.5.2 Automotive: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.6 Aerospace and Defense

9.6.1 Overview

9.6.2 Aerospace and Defense: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.7 Others

9.7.1 Overview

9.7.2 Others: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10. NORTH AMERICA UHF RFID (RAIN) MARKET - COUNTRY ANALYSIS

10.1 North America

10.1.1 North America UHF RFID (RAIN) Market Revenue and Forecast and Analysis - by Country

10.1.1.1 North America UHF RFID (RAIN) Market Revenue and Forecast and Analysis - by Country

10.1.2.2 United States: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.1.2.2.1 United States: North America UHF RFID (RAIN) Market Share - by Component

10.1.2.2.2 United States: North America UHF RFID (RAIN) Market Share - by Hardware Type

10.1.2.2.3 United States: North America UHF RFID (RAIN) Market Share - by Application

10.2.3.3 Canada: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.2.3.3.1 Canada: North America UHF RFID (RAIN) Market Share - by Component

10.2.3.3.2 Canada: North America UHF RFID (RAIN) Market Share - by Hardware Type

10.2.3.3.3 Canada: North America UHF RFID (RAIN) Market Share - by Application

10.3.4.4 Mexico: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.3.4.4.1 Mexico: North America UHF RFID (RAIN) Market Share - by Component

10.3.4.4.2 Mexico: North America UHF RFID (RAIN) Market Share - by Hardware Type

10.3.4.4.3 Mexico: North America UHF RFID (RAIN) Market Share - by Application

11 COMPETITIVE LANDSCAPE

11.1 Heat Map Analysis by Key Players

11.2 Company Positioning & Concentration

12 INDUSTRY LANDSCAPE

12.1 Overview

12.2 New Product Development

12.3 Merger and Acquisition

12.4 Other Strategic Developments

13 COMPANY PROFILES

13.1 Honeywell International Inc

13.1.1 Key Facts

13.1.2 Business Description

13.1.3 Products and Services

- 13.1.4 Financial Overview
- 13.1.5 SWOT Analysis
- 13.1.6 Key Developments
- 13.2 Zebra Technologies Corp
 - 13.2.1 Key Facts
 - 13.2.2 Business Description
 - 13.2.3 Products and Services
 - 13.2.4 Financial Overview
 - 13.2.5 SWOT Analysis
 - 13.2.6 Key Developments
- 13.3 Convergence Systems Limited
 - 13.3.1 Key Facts
 - 13.3.2 Business Description
 - 13.3.3 Products and Services
 - 13.3.4 Financial Overview
 - 13.3.5 SWOT Analysis
 - 13.3.6 Key Developments
- 13.4 NXP Semiconductors NV
 - 13.4.1 Key Facts
 - 13.4.2 Business Description
 - 13.4.3 Products and Services
 - 13.4.4 Financial Overview
 - 13.4.5 SWOT Analysis
 - 13.4.6 Key Developments
- 13.5 Avery Dennison Corp
 - 13.5.1 Key Facts
 - 13.5.2 Business Description
 - 13.5.3 Products and Services
 - 13.5.4 Financial Overview
 - 13.5.5 SWOT Analysis
 - 13.5.6 Key Developments
- 13.6 CAEN RFID S.r.l.
 - 13.6.1 Key Facts
 - 13.6.2 Business Description
 - 13.6.3 Products and Services
 - 13.6.4 Financial Overview
 - 13.6.5 SWOT Analysis
 - 13.6.6 Key Developments
- 13.7 Impinj Inc

- 13.7.1 Key Facts
- 13.7.2 Business Description
- 13.7.3 Products and Services
- 13.7.4 Financial Overview
- 13.7.5 SWOT Analysis
- 13.7.6 Key Developments
- 13.8 INVENGO TECHNOLOGY PTE. LTD.
 - 13.8.1 Key Facts
 - 13.8.2 Business Description
 - 13.8.3 Products and Services
 - 13.8.4 Financial Overview
 - 13.8.5 SWOT Analysis
 - 13.8.6 Key Developments
- 13.9 JadaK
 - 13.9.1 Key Facts
 - 13.9.2 Business Description
 - 13.9.3 Products and Services
 - 13.9.4 Financial Overview
 - 13.9.5 SWOT Analysis
 - 13.9.6 Key Developments
- 13.10 LOWRY SOLUTIONS INC.
 - 13.10.1 Key Facts
 - 13.10.2 Business Description
 - 13.10.3 Products and Services
 - 13.10.4 Financial Overview
 - 13.10.5 SWOT Analysis
 - 13.10.6 Key Developments
- 13.11 Murata Manufacturing Co Ltd
 - 13.11.1 Key Facts
 - 13.11.2 Business Description
 - 13.11.3 Products and Services
 - 13.11.4 Financial Overview
 - 13.11.5 SWOT Analysis
 - 13.11.6 Key Developments
- 13.12 SAG Securitag Assembly Group Co., LTD
 - 13.12.1 Key Facts
 - 13.12.2 Business Description
 - 13.12.3 Products and Services
 - 13.12.4 Financial Overview

13.12.5 SWOT Analysis

13.12.6 Key Developments

13.13 WALKI GROUP OY

13.13.1 Key Facts

13.13.2 Business Description

13.13.3 Products and Services

13.13.4 Financial Overview

13.13.5 SWOT Analysis

13.13.6 Key Developments

13.14 Alien Technology, LLC

13.14.1 Key Facts

13.14.2 Business Description

13.14.3 Products and Services

13.14.4 Financial Overview

13.14.5 SWOT Analysis

13.14.6 Key Developments

13.15 Checkpoint Systems Inc

13.15.1 Key Facts

13.15.2 Business Description

13.15.3 Products and Services

13.15.4 Financial Overview

13.15.5 SWOT Analysis

13.15.6 Key Developments

14. APPENDIX

14.1 About The Insight Partners

List Of Tables

LIST OF TABLES

Table 1. North America UHF RFID (RAIN) Market Segmentation

Table 2. List of Vendors

Table 3. North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Table 4. North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Component

Table 5. North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Hardware Type

Table 6. North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 7. North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Country

Table 8. United States: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Component

Table 9. United States: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Hardware Type

Table 10. United States: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 11. Canada: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Component

Table 12. Canada: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Hardware Type

Table 13. Canada: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 14. Mexico: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Component

Table 15. Mexico: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Hardware Type

Table 16. Mexico: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Application

Table 17. Heat Map Analysis by Key Players

List Of Figures

LIST OF FIGURES

Figure 1. North America UHF RFID (RAIN) Market Segmentation - Country

Figure 2. PEST Analysis

Figure 3. Ecosystem: UHF RFID (RAIN) Market

Figure 4. North America UHF RFID (RAIN) Market - Key Market Dynamics

Figure 5. Impact Analysis of Drivers and Restraints

Figure 6. North America UHF RFID (RAIN) Market Revenue (US\$ Million), 2024 - 2031

Figure 7. North America UHF RFID (RAIN) Market Share (%) - by Component, 2024 and 2031

Figure 8. Hardware: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 9. Software: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 10. Services: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 11. North America UHF RFID (RAIN) Market Share (%) - by Hardware Type, 2024 and 2031

Figure 12. Tags and Labels: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 13. Readers: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 14. Printers: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 15. Others: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 16. North America UHF RFID (RAIN) Market Share (%) - by Application, 2024 and 2031

Figure 17. Retail and Commerce Goods: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 18. Logistics and Transportation: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 19. Manufacturing: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 20. Healthcare: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 21. Automotive: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 22. Aerospace and Defense: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 23. Others: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 24. North America UHF RFID (RAIN) Market Breakdown by Key Countries, 2024 and 2031 (%)

Figure 25. United States: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 26. Canada: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 27. Mexico: North America UHF RFID (RAIN) Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 28. Company Positioning & Concentration

I would like to order

Product name: North America UHF RFID (RAIN) Market Size and Forecast (2021 - 2031)

Product link: <https://marketpublishers.com/r/NAC30194C7CBEN.html>

Price: US\$ 3,450.00 (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/NAC30194C7CBEN.html>