

**RFID Cards Market Research Report by Type (Passive RFID Cards, Active RFID Cards), by Frequency [Low Frequency (LF), High Frequency (HF), Ultra-High Frequency (UHF)], by Application (Access Control, Payment and Transactions, Identification and Authentication, Inventory Management, Transportation and Logistics), by End-User Industry (Government and Defence, Healthcare, Retail, Banking and Finance, Transportation and Education), and by Region (North America, Europe, APAC, South America, MEA) Forecast till 2035**

Market Report | 2025-06-15 | 178 pages | Market Research Future

**AVAILABLE LICENSES:**

- Single User Price \$4950.00
- Enterprisewide Price \$7250.00

**Report description:**

RFID Cards Market Research Report by Type (Passive RFID Cards, Active RFID Cards), by Frequency [Low Frequency (LF), High Frequency (HF), Ultra-High Frequency (UHF)], by Application (Access Control, Payment and Transactions, Identification and Authentication, Inventory Management, Transportation and Logistics), by End-User Industry (Government and Defence, Healthcare, Retail, Banking and Finance, Transportation and Education), and by Region (North America, Europe, APAC, South America, MEA) Forecast till 2035

**Market Overview**

The global RFID cards market was valued at USD 7,002.4 million in 2024. From 2024 to 2035, it is expected to rise at a compound annual growth rate (CAGR) of 9.5% to reach USD 18,452.4 million. Corporate access cards and metro fare cards are some examples of Radio-Frequency Identification Card. Access control, identity verification, and cashless payments are made possible by its passive wireless communication with reader devices, which sends data to linked systems.

In the retail sector, RFID is increasingly used for inventory management, helping businesses reduce discrepancies and enable

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

real-time visibility in stock levels. Additionally, regulatory pressures and the need for product traceability, especially in food, pharmaceuticals, and critical goods, are pushing companies toward RFID adoption. Technological advancements are also making RFID systems more accurate for a wider range of applications, from large warehouses to outdoor environments. Moreover, sectors like healthcare and pharmaceuticals are leveraging RFID for tracking medications, managing patient records, and enhancing safety.

However, certain restraints slow market expansion. These include the high initial costs of RFID infrastructure and data privacy concerns, especially in sensitive industries. There's also competition from other tracking technologies such as barcodes and QR codes, which seem cheaper and smoother to implement. A lack of skilled personnel and supply chain disruptions, like raw material shortages, further challenge adoption.

Despite these hurdles, the market holds vast opportunities. RFID's integration with IoT and AI is opening new use cases. Emerging applications in smart agriculture, the miniaturization of RFID tags, and expansion into developing markets offer promising growth prospects for the future.

### Market Segmentations

In terms of type, the global RFID cards market is divided into passive RFID cards and active RFID cards.

The global RFID cards market is categorized based on frequency, such as low frequency, high frequency, and ultra-high frequency. Access control, payment and transactions, identification and authentication, inventory management, and transportation and logistics are part of the application of the global market.

Based on the end-user industry, the global market is classified into government and defence, healthcare, retail, banking and finance, transportation and education.

### Regional Insights

The RFID cards market is led by North America, which benefits from advanced tech infrastructure, widespread adoption of contactless payments, and strict security policies across sectors. The regional market growth is attributed to the adoption of RFID wristbands in healthcare organizations for patients and ID cards for staff to improve safety and efficiency.

Europe holds a mature yet expanding market, focusing heavily on GDPR-compliant data protection. The region sees strong deployment in transportation, where contactless RFID cards support urban transit in major cities like Paris, Berlin, and London. In Asia-Pacific, the surge in RFID uses stems from smart mobility systems. RFID cards are integrated into metro and bus fare systems, while retailers, especially in electronics and fashion, utilize RFID for efficient inventory control in China, Japan, and South Korea.

Latin America is gradually embracing RFID, with Mexico and Brazil leading the way. Adoption is supported by financial sector digitization and national ID initiatives. Contactless payment systems are also being rolled out in urban hubs, and RFID-based ticketing is seen in Bogota and Sao Paulo.

The Middle East & Africa show rising RFID deployment, primarily in GCC nations, where smart city developments are underway. Adoption is growing across oil and gas logistics, healthcare tracking, and mobile payment services, signalling promising growth in the region.

### Major Players

Major competitors of the global RFID card market are NXP Semiconductors, GAO RFID, Eco Track Systems, Avery Dennison, HID Worldwide, Zebra Technologies, Alien Technology, GIGA-TMS Inc., ZF Cards, and Sorex.

### Table of Contents:

TABLE OF CONTENTS	
1 EXECUTIVE SUMMARY	19
1.1 MARKET OVERVIEW:	20
1.2 MARKET SEGMENTATION	20
1.3 COMPETITIVE LANDSCAPE	20

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

1.4 FUTURE OUTLOOK	. 21
2 MARKET INTRODUCTION	23
2.1 DEFINITION	23
2.2 SCOPE OF THE STUDY	23
2.3 RESEARCH OBJECTIVE	23
2.4 MARKET STRUCTURE	24
3 RESEARCH METHODOLOGY	. 25
3.1 OVERVIEW	25
3.2 DATA FLOW	27
3.2.1 Data Mining Process	27
3.3 PURCHASED DATABASE:	28
3.4 SECONDARY SOURCES:	29
3.4.1 Secondary Research Data Flow:	30
3.5 PRIMARY RESEARCH:	. 31
3.5.1 Primary Research DATA FLOW:	32
3.5.2 Primary Research: Number of Interviews conducted	33
3.5.3 Primary Research: Regional Coverage	. 33
3.6 APPROACHES FOR MARKET END USER ESTIMATION:	34
3.6.1 Revenue Analysis Approach	. 34
3.6.2 Data forecasting	. 35
3.6.3 Data Forecasting Technique	. 35
3.7 DATA MODELING	36
3.7.1 microeconomic factor analysis:	36
3.7.2 Data modeling:	. 37
3.8 TEAMS AND ANALYST CONTRIBUTION	38
4 MARKET DYNAMICS	. 40
4.1 INTRODUCTION	. 40
4.2 DRIVERS	. 41
4.2.1 Increasing Demand for Supply Chain Visibility and Efficiency	. 41
4.2.2 Rising Adoption in Retail for Inventory Management	41
4.2.3 Regulatory Compliance and Product Traceability Requirements	. 41
4.2.4 Technological Advancements in RFID Systems	42
4.2.5 Expansion in Healthcare and Pharmaceutical Applications	42
4.3 RESTRAINTS	43
4.3.1 High Initial Costs of RFID Implementation	. 43
4.3.2 Privacy and Data Security Concerns	43
4.3.3 Competition from Alternative Technologies	43
4.3.4 Lack of Awareness and Skilled Workforce	. 43
4.3.5 Supply Chain Disruptions and Raw Material Shortages	. 44
4.4 OPPORTUNITY	. 45
4.4.1 Integration with IoT and AI Technologies	45
4.4.2 Growth in Smart Agriculture Applications	45
4.4.3 Development of Smaller and More Affordable Tags	. 45
4.4.4 Expansion in Emerging Markets	45
4.5 IMPACT ANALYSIS OF COVID - 19	46
5 MARKET FACTOR ANALYSIS	. 47
5.1 SUPPLY CHAIN ANALYSIS	47

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

5.1.1 Raw Material Sourcing and Component Manufacturing	47
5.1.2 RFID Inlay and Card Assembly	48
5.1.3 Software Development and Card Programming	. 48
5.1.4 Distribution and Logistics	49
5.1.5 Deployment and End-User Application	49
5.2 PORTER'S FIVE FORCES MODEL	50
5.2.1 Threat of New Entrants (Moderate)	. 51
5.2.2 Bargaining Power of Suppliers (Moderate)	51
5.2.3 Threat of Substitutes (Low to Moderate)	. 52
5.2.4 Bargaining Power of Buyers (Moderate to High)	52
5.2.5 Intensity of Rivalry (High)	. 53
6 GLOBAL RFID CARDS MARKET, BY TYPE	. 55
6.1 INTRODUCTION	. 55
6.2 PASSIVE RFID CARDS	. 55
6.3 ACTIVE RFID CARDS	56
7 GLOBAL RFID CARDS MARKET, BY FREQUENCY	. 57
7.1 INTRODUCTION	. 57
7.2 LOW FREQUENCY (LF)	57
7.3 HIGH FREQUENCY (HF)	58
7.4 ULTRA-HIGH FREQUENCY (UHF)	59
8 GLOBAL RFID CARDS MARKET, BY APPLICATION	. 60
8.1 INTRODUCTION	. 60
8.2 ACCESS CONTROL	61
8.3 PAYMENT AND TRANSACTIONS	61
8.4 IDENTIFICATION AND AUTHENTICATION	62
8.5 INVENTORY MANAGEMENT	63
8.6 TRANSPORTATION AND LOGISTICS	64
9 GLOBAL RFID CARDS MARKET, BY END-USER INDUSTRY	. 65
9.1 INTRODUCTION	. 65
9.2 GOVERNMENT AND DEFENSE	. 66
9.3 HEALTHCARE	66
9.4 RETAIL	. 67
9.5 BANKING AND FINANCE	68
9.6 TRANSPORTATION	69
9.7 EDUCATION	69
10 GLOBAL RFID CARDS MARKET, BY REGION	. 71
10.1 GLOBAL	71
10.2 NORTH AMERICA	. 72
10.2.1 USA	. 76
10.2.2 CANADA	78
10.3 EUROPE	80
10.3.1 united kingdom	. 85
10.3.2 germany	. 87
10.3.3 france	89
10.3.4 italy	. 91
10.3.5 spain	. 93
10.3.6 RUSSIA	95

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

10.3.7 rest of europe	. 97
10.4 ASIA PACIFIC	. 99
10.4.1 china	104
10.4.2 South Korea	. 106
10.4.3 india	108
10.4.4 Japan	110
10.4.5 indonesia	. 112
10.4.6 malaysia	114
10.4.7 thailand	116
10.4.8 rest of asia pacific	118
10.5 SOUTH AMERICA	. 120
10.5.1 brazil	. 125
10.5.2 mexico	. 127
10.5.3 argentina	129
10.5.4 rest of south america	. 131
10.6 MIDDEL EAST AND AFRICA	. 133
10.6.1 gcc countries	. 138
10.6.2 south africa	140
10.6.3 rest of middle east & africa	142
11 COMPETITIVE LANDSCAPE	. 144
11.1 INTRODUCTION	. 144
11.2 MARKET SHARE ANALYSIS, 2024SS	. 144
11.3 COMPETITOR DASHBOARD	145
11.4 KEY DEVELOPMENTS & GROWTH STRATEGIES	. 146
12 COMPANY PROFILES	. 147
12.1 ECO TRACK SYSTEMS (ETS)	. 147
12.1.1 COMPANY OVERVIEW	147
12.1.2 PRODUCTS OFFERED	. 147
12.1.3 SWOT ANALYSIS	148
12.1.4 Key Strategy	. 148
12.2 ALIEN TECHNOLOGY, INC.	. 149
12.2.1 COMPANY OVERVIEW	149
12.2.2 PRODUCT OFFERED	. 150
12.2.3 SWOT ANALYSIS	150
12.2.4 Key Strategy	. 151
12.3 ZEBRA TECHNOLOGIES	152
12.3.1 COMPANY OVERVIEW	152
12.3.2 product OFFERed	153
12.3.3 SWOT ANALYSIS	153
12.3.4 financial analysis	154
12.3.5 Key Strategy	. 155
12.4 AVERY DENNISON	. 156
12.4.1 COMPANY OVERVIEW	156
12.4.2 PRODUCT OFFERED	. 157
12.4.3 SWOT ANALYSIS	157
12.4.4 financial analysis	158
12.4.5 Key Strategy	. 158

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

12.5 GAO RFID	. 160
12.5.1 COMPANY OVERVIEW	160
12.5.2 Product OFFERed	161
12.5.3 SWOT ANALYSIS	161
12.5.4 Key Strategy	. 162
12.6 GIGA-TMS INC.	163
12.6.1 COMPANY OVERVIEW	163
12.6.2 product OFFERed	163
12.6.3 SWOT ANALYSIS	164
12.7 NXP SEMICONDUCTORS	165
12.7.1 COMPANY OVERVIEW	165
12.7.2 PRODUTS OFFERED	. 166
12.7.3 SWOT ANALYSIS	167
12.7.4 financial analysis	168
12.7.5 Key Strategy	. 168
12.8 HID GLOBAL	170
12.8.1 COMPANY OVERVIEW	170
12.8.2 product OFFERed	171
12.8.3 SWOT ANALYSIS	171
12.8.4 Key Strategy	. 172
12.9 SOREX	. 173
12.9.1 COMPANY OVERVIEW	173
12.9.2 PRODUCT OFFERED	. 173
12.9.3 SWOT ANALYSIS	174
12.10 ZHANFENG (ZF) CARDS	175
12.10.1 COMPANY OVERVIEW	175
12.10.2 PRODUCT OFFERED	. 175
12.10.3 SWOT ANALYSIS	176
12.10.4 Key Strategy	. 176

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

**RFID Cards Market Research Report by Type (Passive RFID Cards, Active RFID Cards), by Frequency [Low Frequency (LF), High Frequency (HF), Ultra-High Frequency (UHF)], by Application (Access Control, Payment and Transactions, Identification and Authentication, Inventory Management, Transportation and Logistics), by End-User Industry (Government and Defence, Healthcare, Retail, Banking and Finance, Transportation and Education), and by Region (North America, Europe, APAC, South America, MEA) Forecast till 2035**

Market Report | 2025-06-15 | 178 pages | Market Research Future

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

**ORDER FORM:**

Select license	License	Price
	Single User Price	\$4950.00
	Enterprisewide Price	\$7250.00
		VAT
		Total

\*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

\*\* VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Job title\*

Company Name\*

Address\*

Zip Code\*

EU Vat / Tax ID / NIP number\*

City\*

Country\*

Date

Signature

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com