+357 96 030922
info@marketpublishers.com

Automotive Data Logger Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Component Type (Hardware, Software), By Application (OBD, ADAS, Fleet Management, Automotive Insurance), By End User (OEMs, Service Station, Regulatory Body), By Region & Competition, 2021-2031F

https://marketpublishers.com/r/AA0FF90B83F6EN.html
Date: January 2026
Pages: 185
Price: US$ 4,500.00 (Single User License)
ID: AA0FF90B83F6EN

Abstracts

The Global Automotive Data Logger Market is projected to experience significant growth, rising from USD 4.47 Billion in 2025 to USD 6.75 Billion by 2031 at a compound annual growth rate (CAGR) of 7.11%. An automotive data logger is an essential electronic device used to monitor and record real-time parameters from a vehicle's internal networks, sensors, and electronic control units to facilitate diagnosis and validation. The market is primarily driven by strict government mandates regarding emissions and safety standards, which require manufacturers to keep detailed operational records. Additionally, the rapid adoption of autonomous driving technologies and electric powertrains creates a need for rigorous data collection during research and development to verify system reliability and ensure compliance with international regulations.

However, a major obstacle to market expansion is the high cost and complexity involved in managing the enormous amounts of data produced by modern connected vehicles. Developing the robust infrastructure necessary to store, process, and secure this high-frequency data places a heavy strain on development budgets. This commitment to technological progress is evident in industry expenditures; the German Association of the Automotive Industry (VDA) noted in 2026 that manufacturers pledged to invest approximately ?320 billion in research and development between 2025 and 2029. While

+357 96 030922
info@marketpublishers.com

this massive investment underscores the extent of the validation work required, the financial pressure associated with data management remains a significant barrier.

Market Driver

The rapid uptake of electric and autonomous vehicles is the main driver behind the need for advanced data logging solutions. As the industry shifts from internal combustion engines to electrified powertrains, high-speed data loggers are essential for monitoring battery management systems, thermal profiles, and voltage variations during real-world testing. This validation process is equally crucial for autonomous systems, which depend on synchronizing vast streams of raw inputs from LiDAR and radar setups to train driving algorithms. The scale of this transition is substantial; according to the International Energy Agency (IEA) in its 'Global EV Outlook 2024' published in April 2024, global electric car sales were expected to reach 17 million units in 2024, accounting for over 20% of total vehicle sales. This surge forces engineers to utilize robust logging tools capable of handling exponentially larger data bandwidths to guarantee safety compliance and system reliability.

Concurrently, the expansion of connected car ecosystems and the move toward software-defined vehicles (SDVs) are transforming data acquisition strategies. Modern vehicle architectures now demand continuous logging not only for pre-production validation but also for verifying post-deployment over-the-air (OTA) updates and conducting real-time fleet diagnostics. This connectivity increases complexity, as loggers must capture interactions across infotainment, telematics, and cloud interfaces. In June 2024, Stellantis revealed in its 'Stellantis Executes Software Strategic Plan' update that its monetizable connected car fleet had grown to 13.8 million vehicles, emphasizing the increasing reliance on live vehicle connectivity. To support this digital transformation, the industry is investing heavily in innovation; the European Automobile Manufacturers? Association (ACEA) reported that EU automotive R&D investment hit a record ?73 billion in 2024, highlighting the critical role data loggers play in validating the complex software stacks that define modern mobility.

Market Challenge

The significant cost and technical complexity involved in handling the massive volumes of data generated by connected vehicles serve as a primary restraint on the Global Automotive Data Logger Market. As modern vehicle architectures produce increasing amounts of high-frequency telemetry, the capital required for storage, processing, and security infrastructure places an immense burden on development budgets. This

+357 96 030922
info@marketpublishers.com

financial pressure forces automotive stakeholders to limit the scope of their validation projects, which directly reduces the demand for comprehensive data logging deployments.

The impact of this cost burden is intensified by the precarious financial position of key industry players, particularly the suppliers who are essential to the validation ecosystem. Without adequate capital reserves, these companies cannot afford the operational overhead necessary to support extensive data logging activities. This challenge is illustrated by recent financial metrics regarding sector profitability; according to the European Association of Automotive Suppliers (CLEPA), in 2025, 70% of automotive suppliers anticipated profit margins would remain below 5%, the minimum threshold required to sustain long-term technology investment. This prevailing lack of profitability prevents necessary spending on data management capabilities, thereby impeding the broader growth of the market.

Market Trends

The transition toward cybersecurity-compliant data logging is fundamentally reshaping market requirements as vehicle architectures become increasingly susceptible to remote exploitation. With regulations such as UN R155 enforcing strict cyber management systems, data loggers must now function as secure flight recorders, capturing intrusion detection system (IDS) alerts and verifying the integrity of critical network communications. This shift is driven by a sharp rise in the sophistication of threats; according to Upstream Security?s '2025 Global Automotive Cybersecurity Report' from February 2025, massive-scale cyber incidents affecting thousands to millions of vehicles simultaneously tripled in frequency in 2024, accounting for 19% of all reported attacks. Consequently, suppliers are prioritizing encrypted storage and authenticated data capture to mitigate liability during such high-impact breaches.

Simultaneously, the rapid advancement of loggers for software-defined vehicles (SDVs) is driving the integration of high-performance edge computing capabilities directly into logging hardware. Unlike traditional distributed architectures, SDVs centralize processing within powerful digital chassis, necessitating loggers that can interface with high-bandwidth zones and filter terabytes of telemetry in real-time. The explosive growth of this computing layer is evident in component demand; according to Qualcomm?s 'First Quarter Fiscal 2025 Results' released in February 2025, the company's automotive revenue jumped by 61% year-over-year to reach $961 million, fueled by the adoption of its digital chassis platforms. This hardware expansion compels logger manufacturers to develop devices compatible with these centralized supercomputers to

+357 96 030922
info@marketpublishers.com

efficiently validate complex software stacks.

Key Market Players

Robert Bosch GmbH

Vector Informatik GmbH

Continental AG

Racelogic Limited

TT Tech Auto AG

National Instruments Corporation

Intrepid Control Systems Inc.

Men Micro Inc.

Ipetronik GmbH & Co

NSM Industrial Solutions Private Limited

Report Scope

In this report, the Global Automotive Data Logger Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Automotive Data Logger Market, By Component Type

Hardware

Software

Automotive Data Logger Market, By Application

+357 96 030922
info@marketpublishers.com

- OBD
- ADAS
- Fleet Management
- Automotive Insurance

Automotive Data Logger Market, By End User

- OEMs
- Service Station
- Regulatory Body

Automotive Data Logger Market, By Region

- North America
  - United States
  - Canada
  - Mexico
- Europe
  - France
  - United Kingdom
  - Italy
  - Germany
  - Spain
- Asia Pacific

+357 96 030922
info@marketpublishers.com

China

India

Japan

Australia

South Korea

South America

Brazil

Argentina

Colombia

Middle East & Africa

South Africa

Saudi Arabia

UAE

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global Automotive Data Logger Market.

Available Customizations:

Global Automotive Data Logger Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

+357 96 030922
info@marketpublishers.com

Company Information

Detailed analysis and profiling of additional market players (up to five).

+357 96 030922
info@marketpublishers.com

Contents

1. PRODUCT OVERVIEW

1.1. Market Definition
1.2. Scope of the Market
  1.2.1. Markets Covered
  1.2.2. Years Considered for Study
  1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

2.1. Objective of the Study
2.2. Baseline Methodology
2.3. Key Industry Partners
2.4. Major Association and Secondary Sources
2.5. Forecasting Methodology
2.6. Data Triangulation & Validation
2.7. Assumptions and Limitations

3. EXECUTIVE SUMMARY

3.1. Overview of the Market
3.2. Overview of Key Market Segmentations
3.3. Overview of Key Market Players
3.4. Overview of Key Regions/Countries
3.5. Overview of Market Drivers, Challenges, Trends

4. VOICE OF CUSTOMER

5. GLOBAL AUTOMOTIVE DATA LOGGER MARKET OUTLOOK

5.1. Market Size & Forecast
  5.1.1. By Value
5.2. Market Share & Forecast
  5.2.1. By Component Type (Hardware, Software)
  5.2.2. By Application (OBD, ADAS, Fleet Management, Automotive Insurance)
  5.2.3. By End User (OEMs, Service Station, Regulatory Body)
  5.2.4. By Region

+357 96 030922
info@marketpublishers.com

5.2.5. By Company (2025)
5.3. Market Map

6. NORTH AMERICA AUTOMOTIVE DATA LOGGER MARKET OUTLOOK

6.1. Market Size & Forecast
6.1.1. By Value
6.2. Market Share & Forecast
6.2.1. By Component Type
6.2.2. By Application
6.2.3. By End User
6.2.4. By Country
6.3. North America: Country Analysis
6.3.1. United States Automotive Data Logger Market Outlook
6.3.1.1. Market Size & Forecast
6.3.1.1.1. By Value
6.3.1.2. Market Share & Forecast
6.3.1.2.1. By Component Type
6.3.1.2.2. By Application
6.3.1.2.3. By End User
6.3.2. Canada Automotive Data Logger Market Outlook
6.3.2.1. Market Size & Forecast
6.3.2.1.1. By Value
6.3.2.2. Market Share & Forecast
6.3.2.2.1. By Component Type
6.3.2.2.2. By Application
6.3.2.2.3. By End User
6.3.3. Mexico Automotive Data Logger Market Outlook
6.3.3.1. Market Size & Forecast
6.3.3.1.1. By Value
6.3.3.2. Market Share & Forecast
6.3.3.2.1. By Component Type
6.3.3.2.2. By Application
6.3.3.2.3. By End User

7. EUROPE AUTOMOTIVE DATA LOGGER MARKET OUTLOOK

7.1. Market Size & Forecast
7.1.1. By Value

+357 96 030922
info@marketpublishers.com

7.2. Market Share & Forecast
7.2.1. By Component Type
7.2.2. By Application
7.2.3. By End User
7.2.4. By Country
7.3. Europe: Country Analysis
7.3.1. Germany Automotive Data Logger Market Outlook
7.3.1.1. Market Size & Forecast
7.3.1.1.1. By Value
7.3.1.2. Market Share & Forecast
7.3.1.2.1. By Component Type
7.3.1.2.2. By Application
7.3.1.2.3. By End User
7.3.2. France Automotive Data Logger Market Outlook
7.3.2.1. Market Size & Forecast
7.3.2.1.1. By Value
7.3.2.2. Market Share & Forecast
7.3.2.2.1. By Component Type
7.3.2.2.2. By Application
7.3.2.2.3. By End User
7.3.3. United Kingdom Automotive Data Logger Market Outlook
7.3.3.1. Market Size & Forecast
7.3.3.1.1. By Value
7.3.3.2. Market Share & Forecast
7.3.3.2.1. By Component Type
7.3.3.2.2. By Application
7.3.3.2.3. By End User
7.3.4. Italy Automotive Data Logger Market Outlook
7.3.4.1. Market Size & Forecast
7.3.4.1.1. By Value
7.3.4.2. Market Share & Forecast
7.3.4.2.1. By Component Type
7.3.4.2.2. By Application
7.3.4.2.3. By End User
7.3.5. Spain Automotive Data Logger Market Outlook
7.3.5.1. Market Size & Forecast
7.3.5.1.1. By Value
7.3.5.2. Market Share & Forecast
7.3.5.2.1. By Component Type

+357 96 030922
info@marketpublishers.com

7.3.5.2.2. By Application
7.3.5.2.3. By End User

8. ASIA PACIFIC AUTOMOTIVE DATA LOGGER MARKET OUTLOOK

8.1. Market Size & Forecast
8.1.1. By Value
8.2. Market Share & Forecast
8.2.1. By Component Type
8.2.2. By Application
8.2.3. By End User
8.2.4. By Country
8.3. Asia Pacific: Country Analysis
8.3.1. China Automotive Data Logger Market Outlook
8.3.1.1. Market Size & Forecast
8.3.1.1.1. By Value
8.3.1.2. Market Share & Forecast
8.3.1.2.1. By Component Type
8.3.1.2.2. By Application
8.3.1.2.3. By End User
8.3.2. India Automotive Data Logger Market Outlook
8.3.2.1. Market Size & Forecast
8.3.2.1.1. By Value
8.3.2.2. Market Share & Forecast
8.3.2.2.1. By Component Type
8.3.2.2.2. By Application
8.3.2.2.3. By End User
8.3.3. Japan Automotive Data Logger Market Outlook
8.3.3.1. Market Size & Forecast
8.3.3.1.1. By Value
8.3.3.2. Market Share & Forecast
8.3.3.2.1. By Component Type
8.3.3.2.2. By Application
8.3.3.2.3. By End User
8.3.4. South Korea Automotive Data Logger Market Outlook
8.3.4.1. Market Size & Forecast
8.3.4.1.1. By Value
8.3.4.2. Market Share & Forecast
8.3.4.2.1. By Component Type

+357 96 030922
info@marketpublishers.com

8.3.4.2.2. By Application
8.3.4.2.3. By End User
8.3.5. Australia Automotive Data Logger Market Outlook
8.3.5.1. Market Size & Forecast
8.3.5.1.1. By Value
8.3.5.2. Market Share & Forecast
8.3.5.2.1. By Component Type
8.3.5.2.2. By Application
8.3.5.2.3. By End User

9. MIDDLE EAST & AFRICA AUTOMOTIVE DATA LOGGER MARKET OUTLOOK

9.1. Market Size & Forecast
9.1.1. By Value
9.2. Market Share & Forecast
9.2.1. By Component Type
9.2.2. By Application
9.2.3. By End User
9.2.4. By Country
9.3. Middle East & Africa: Country Analysis
9.3.1. Saudi Arabia Automotive Data Logger Market Outlook
9.3.1.1. Market Size & Forecast
9.3.1.1.1. By Value
9.3.1.2. Market Share & Forecast
9.3.1.2.1. By Component Type
9.3.1.2.2. By Application
9.3.1.2.3. By End User
9.3.2. UAE Automotive Data Logger Market Outlook
9.3.2.1. Market Size & Forecast
9.3.2.1.1. By Value
9.3.2.2. Market Share & Forecast
9.3.2.2.1. By Component Type
9.3.2.2.2. By Application
9.3.2.2.3. By End User
9.3.3. South Africa Automotive Data Logger Market Outlook
9.3.3.1. Market Size & Forecast
9.3.3.1.1. By Value
9.3.3.2. Market Share & Forecast
9.3.3.2.1. By Component Type

+357 96 030922
info@marketpublishers.com

9.3.3.2.2. By Application
9.3.3.2.3. By End User

10. SOUTH AMERICA AUTOMOTIVE DATA LOGGER MARKET OUTLOOK

10.1. Market Size & Forecast
10.1.1. By Value
10.2. Market Share & Forecast
10.2.1. By Component Type
10.2.2. By Application
10.2.3. By End User
10.2.4. By Country
10.3. South America: Country Analysis
10.3.1. Brazil Automotive Data Logger Market Outlook
10.3.1.1. Market Size & Forecast
10.3.1.1.1. By Value
10.3.1.2. Market Share & Forecast
10.3.1.2.1. By Component Type
10.3.1.2.2. By Application
10.3.1.2.3. By End User
10.3.2. Colombia Automotive Data Logger Market Outlook
10.3.2.1. Market Size & Forecast
10.3.2.1.1. By Value
10.3.2.2. Market Share & Forecast
10.3.2.2.1. By Component Type
10.3.2.2.2. By Application
10.3.2.2.3. By End User
10.3.3. Argentina Automotive Data Logger Market Outlook
10.3.3.1. Market Size & Forecast
10.3.3.1.1. By Value
10.3.3.2. Market Share & Forecast
10.3.3.2.1. By Component Type
10.3.3.2.2. By Application
10.3.3.2.3. By End User

11. MARKET DYNAMICS

11.1. Drivers
11.2. Challenges

+357 96 030922
info@marketpublishers.com

12. MARKET TRENDS & DEVELOPMENTS

12.1. Merger & Acquisition (If Any)
12.2. Product Launches (If Any)
12.3. Recent Developments

13. GLOBAL AUTOMOTIVE DATA LOGGER MARKET: SWOT ANALYSIS

14. PORTER'S FIVE FORCES ANALYSIS

14.1. Competition in the Industry
14.2. Potential of New Entrants
14.3. Power of Suppliers
14.4. Power of Customers
14.5. Threat of Substitute Products

15. COMPETITIVE LANDSCAPE

15.1. Robert Bosch GmbH
  15.1.1. Business Overview
  15.1.2. Products & Services
  15.1.3. Recent Developments
  15.1.4. Key Personnel
  15.1.5. SWOT Analysis
15.2. Vector Informatik GmbH
15.3. Continental AG
15.4. Racelogic Limited
15.5. TT Tech Auto AG
15.6. National Instruments Corporation
15.7. Intrepid Control Systems Inc.
15.8. Men Micro Inc.
15.9. Ipetronik GmbH & Co
15.10. NSM Industrial Solutions Private Limited

16. STRATEGIC RECOMMENDATIONS

17. ABOUT US & DISCLAIMER

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Automotive Data Logger Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Component Type (Hardware, Software), By Application (OBD, ADAS, Fleet Management, Automotive Insurance), By End User (OEMs, Service Station, Regulatory Body), By Region & Competition, 2021-2031F

Product link: https://marketpublishers.com/r/AA0FF90B83F6EN.html

Price: US$ 4,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/AA0FF90B83F6EN.html