

Automotive Software Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031)

> **Industry:** Connected Cars, Software & Cockpit (Automotive & Transportation)

> **Source:** <https://www.mordorintelligence.com/industry-reports/global-automotive-software-market>

> **Scraped Date:** 2026-09-17

Executive Market Summary

Market Metric	Details
:--	:--
Base Market Size	USD 21.08 billion
Projected Forecast (2031)	USD 21.08 billion
Growth Rate (CAGR)	9.33 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

! [Major players in Automotive Software industry](images/chart_2.png)

! [Automotive Software Market Size](images/chart_3.png)

! [Automotive Software Market Share by Software Layer, 2025](images/chart_4.png)

! [Automotive Software Market Share by Propulsion, 2025](images/chart_5.png)

! [Automotive Software Market Growth Rate by Region](images/chart_6.png)

! [Automotive Software Market Concentration](images/chart_7.png)

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Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market Overview

Study Period
|
2019 - 2031
|

Market Size (2026)
|
USD 21.08 Billion
|

Market Size (2031)
|
USD 32.93 Billion
|

Growth Rate (2026 - 2031)
|
9.33 %
|

Fastest Growing Market
|
Asia Pacific
|

Largest Market

Asia Pacific

Market Concentration

Medium

Major Players

*Disclaimer: Major Players sorted in no particular order

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Market Overview

Automotive Software Market Analysis by Mordor Intelligence

The automotive software market size is expected to grow from USD 19.28 billion in 2025 to USD 21.08 billion in 2026 and is forecast to reach USD 32.93 billion by 2031, advancing at a 9.33% CAGR during the forecast period (2026 to 2031). Centralized compute platforms, continuous over-the-air (OTA) update pipelines, and subscription-based feature monetization are reshaping competitive priorities for vehicle manufacturers and suppliers. Software spend is rising fastest in battery-electric architectures, where energy-management algorithms, thermal strategies, and cloud-linked diagnostics replace legacy mechanical complexity. Regulatory mandates in Europe and North America requiring secure OTA infrastructure are forcing every program to embed hardware security, encryption, and vulnerability-monitoring capabilities. Meanwhile, Chinese original-equipment manufacturers (OEMs) are offering Level-2+ driver-assistance features free of charge, accelerating code volume growth but compressing near-term monetization. Across regions, the automotive software market is evolving from a traditional license model toward recurring revenue streams tied to post-sale digital services, making middleware and operating-system control central to long-term profitability.

Key Report Takeaways

- * By software layer, application software accounted for 48.53% of the automotive software market share in 2025, while operating-system platforms are forecast to expand at a 9.82% CAGR through 2031.
- * By application, ADAS and safety systems led with 33.76% of the automotive software market share in 2025; powertrain and battery-management software are expected to grow at a 13.35% CAGR through 2031.
- * By vehicle type, passenger cars accounted for 74.91% of the automotive software market size in 2025, whereas light commercial vehicles are projected to advance at a 9.77% CAGR over the same period.
- * By propulsion type, internal-combustion vehicles accounted for 66.47% of the automotive software market share in 2025, yet battery-electric vehicles are poised for an 18.94% CAGR through 2031.
- * By deployment model, on-board embedded code captured 92.84% of the automotive software market share in 2025, and off-board cloud or edge services are forecasted to climb at a 17.44% CAGR through 2031.
- * By geography, Asia-Pacific held 39.04% of the automotive software market share in 2025 and is forecast to expand at a 11.79% CAGR through 2031.

Key Market Trends

Market Trends and Insights

Drivers Impact Analysis of Automotive Software Market*

- Driver |
- (~) % Impact on CAGR Forecast |
- Geographic Relevance |
- Impact Timeline |

Centralized Zonal E/E Architectures

|

+1.9%
|

Global, with early adoption in North America and Europe
|

Medium term (2-4 years)
|

Level-2+ Autonomous Launches

|

+2.1%
|

Asia-Pacific core, particularly China
|

Short term (≤ 2 years)

|

EU WP.29 OTA-Update Mandate

|

+1.6%
|

Europe, with spillover to global platforms
|

Short term (≤ 2 years)
|

'Functions-on-Demand' Models

|

+1.4%
|

North America, expanding to Europe and Asia-Pacific
|

Medium term (2-4 years)
|

U.S. IRA EV Incentives

|

+1.2%
|

North America, with technology transfer to global BEV platforms

Medium term (2-4 years)

5G-V2X Network Roll-out

+0.9%

South Korea, pilot deployments in Japan and select Chinese cities

Long term (≥ 4 years)

Source: Mordor Intelligence
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Competitive Landscape

Competitive Landscape

Established players like Robert Bosch, Continental, BlackBerry QNX, NXP Semiconductors, and NVIDIA dominate the automotive software market. These suppliers, with their strong ties to OEMs and expertise in functional safety, effectively safeguard their shares in middleware and operating systems. Cloud hyperscalers, Microsoft, Google, and AWS, provide CI/CD pipelines, digital twins, and managed security services that lower entry barriers for emerging vehicle programs but raise OEM concerns over data sovereignty. Open-source alliances like SOAFEE and Eclipse SDV are gaining momentum as automakers seek to avoid vendor lock-in, pooling non-differentiating development costs in shared repositories.

White-space innovation is emerging around wireless battery-management systems that reduce harness mass, federated-learning frameworks that keep raw data on vehicles while sharing insights across fleets, and mixed-criticality OTA orchestration capable of updating safety-critical ECUs alongside infotainment without downtime. Smaller specialists such as TTTech Auto focus on deterministic middleware, while Airbiquity positions secure update orchestration as a standalone service. Regulatory requirements for continuous vulnerability scanning and secure-boot at testations give incumbents with established DevSecOps tool-chains an advantage. Yet, nimble startups respond with domain-specific point solutions that can be integrated via standardized APIs, intensifying competition for niche profit pools.

Strategic collaborations are becoming common: semiconductor vendors bundle software development kits and hypervisors with hardware reference designs, accelerating time-to-market for OEMs but funneling revenue toward platform owners. Meanwhile, traditional Tier-1 suppliers acquire cybersecurity boutique firms to shore up skills gaps exposed by UNECE mandates. The boundary between hardware and software suppliers continues to blur, with success increasingly measured by the completeness and continuous certification level of the delivered stack rather than by individual product wins. Over the forecast horizon, competitive positioning will hinge on the ability to maintain secure, updatable platforms that bridge the edge and the cloud while unlocking recurring revenue streams central to the growth trajectory of the automotive software market.

Automotive Software Industry Leaders

*

BlackBerry Limited

*

Robert Bosch GmbH

*

Continental AG

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NXP Semiconductors N.V.

*

NVIDIA Corporation

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*Disclaimer: Major Players sorted in no particular order

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Component Component 3 Scope Of The Report Bottom

Global Automotive Software Market Report Scope

Automotive software refers to the computer programs, applications, and systems used in the design, manufacturing, operation, and maintenance of automobiles, including software for developing and operating vehicle components and systems.

The Automotive Software market is segmented by software layer, application, vehicle type, propulsion, deployment, and geography. By Software Layer, the market is segmented into Application Software, Middleware, Operating System, and Firmware / Basic Input. By Application, the market is segmented into ADAS and Safety Systems, Infotainment and Telematics, Powertrain and Battery Management, Body Control and Comfort, and Connected Vehicle Services. By Vehicle Type, the market is segmented into Passenger Cars, Light Commercial Vehicles, and Heavy Commercial Vehicles. By Propulsion, the market is segmented into Internal Combustion Engine, Battery Electric Vehicle, and Hybrid Electric Vehicle. By Deployment, the market is segmented into On-Board (Embedded) and Off-Board (Cloud / Edge). By Geography, the market is segmented into North America (United States, Canada, and Rest of North America), South America (Brazil, Argentina, and Rest of South America), Europe (Germany, United Kingdom, France, Italy, Spain, and Rest of Europe), Asia-Pacific (China, Japan, India, South Korea, and Rest of Asia), and Middle East and Africa (United Arab Emirates, Saudi Arabia, Turkey, and Rest of the Middle East and Africa).

Market forecasts are provided in terms of Value (USD).

Segmentation Overview

By Software Layer

Application Software
|

Middleware
|

Operating System
|

Firmware / Basic Input-Output Software
|

Segmentation Accordion Item
By Geography

North America
|

United States
|

|

Canada

|

|

Rest of North America

|

South America

|

Brazil

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Argentina

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Rest of South America

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Europe
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Germany
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United Kingdom
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France
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Italy
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Spain
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Rest of Europe
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Asia-Pacific
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China
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Japan
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India

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South Korea

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Rest of Asia-Pacific

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Middle East and Africa

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United Arab Emirates

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Saudi Arabia

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Turkey

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South Africa

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Rest of the Middle East and Africa

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Frequently Asked Questions

How large is the automotive software market in 2026, and what is its expected CAGR?

The automotive software market, valued at USD 21.08 billion in 2026, is anticipated to grow at a CAGR of 9.33% through 2031.

How are European regulations influencing automotive software?

UNECE R155 and R156 require secure cyber-security and software-update management on every new vehicle, effectively standardizing encrypted OTA pipelines and raising compliance thresholds.

Why is battery-management software growing faster than other applications?

Electrification introduces complex energy-management tasks such as accurate state-of-health prediction and thermal balancing, which demand advanced algorithms and continuous cloud analytics.

Which region shows the highest growth potential?

Asia-Pacific leads, powered by Chinese OEMs that deploy Level-2+ autonomy at volume and South Korean 5G-V2X roll-outs that enable low-latency edge services.