

Automotive Supply Chain Tracking Hardware Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

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Abstracts

The Global Automotive Supply Chain Tracking Hardware Market was valued at USD 2.2 billion in 2024 and is estimated to grow at a CAGR of 11.8% to reach USD 6.4 billion by 2034.

The market is undergoing expansion fueled by increasing digital transformation, advancements in IoT, and rapid progress in connectivity and semiconductor innovations. Companies are prioritizing the development of energy-efficient, high-performance hardware that enables real-time tracking, predictive analysis, and seamless communication across logistics and manufacturing networks. With major automakers and suppliers integrating sensor-enabled systems, automotive tracking hardware is becoming vital for ensuring data visibility, traceability, and operational efficiency throughout global supply chains. Modern tracking modules are being co-engineered with AI processors, IoT gateways, and edge computing technologies to deliver real-time insights, automation, and enhanced energy management. This evolution is especially critical for hybrid and electric vehicles, where tracking of essential components such as semiconductors, batteries, and electronic systems ensures quality, safety, and sustainability compliance. The rapid electrification of vehicles is also spurring demand for eco-friendly, low-latency monitoring tools designed to oversee the movement and condition of vital energy and powertrain components.

The RFID tags and readers segment held 30% in 2024 and is expected to grow at a CAGR of 12.3% from 2025 to 2034. The strong position of this segment highlights the widespread acceptance and maturity of RFID technology in automotive manufacturing and logistics. These systems provide precise, contactless identification and real-time location tracking for parts, work orders, returnable transport assets, and completed

vehicles throughout the production cycle. The technology's ability to operate without line of sight and handle bulk data collection makes it particularly valuable in large-scale automotive manufacturing environments, where efficiency and accuracy are critical.

The in-plant logistics segment held a 30.65% share in 2024 and is projected to grow at a CAGR of 12.4% from 2025 to 2034. This segment focuses on the utilization of tracking hardware for managing and monitoring inbound materials, subassemblies, and components within production facilities. Its substantial share underscores the essential role of real-time material visibility in enabling just-in-time manufacturing and optimizing production planning. As manufacturers move toward digitized and interconnected operations, in-plant logistics tracking systems are becoming indispensable for improving inventory accuracy and ensuring uninterrupted production workflows.

North America Automotive Supply Chain Tracking Hardware Market reached USD 680.1 million in 2024, and is anticipated to reach USD 1.8 billion by 2034, reflecting a CAGR of 11.4%. The region's leadership is attributed to advanced logistics systems, strong regulatory frameworks, and the early implementation of digital tracking solutions by major automotive manufacturers. The United States drives much of this growth due to its large-scale vehicle production capacity and complex supply chain structures. North America also benefits from a robust telecommunication infrastructure and extensive 5G network coverage, which support advanced real-time data transmission and IoT-enabled connectivity across automotive facilities and logistics networks.

Key companies operating in the Global Automotive Supply Chain Tracking Hardware Market include Avery Dennison, Honeywell, Zebra, Siemens, NXP Semiconductors, Impinj, SICK, Zetes Industries, RFID Discovery, and Tageos. To strengthen their foothold in the Automotive Supply Chain Tracking Hardware Market, leading companies are adopting strategies centered on innovation, partnerships, and global expansion. Firms are investing heavily in R&D to develop next-generation tracking devices with improved accuracy, energy efficiency, and seamless IoT integration. Many are forming strategic alliances with automotive OEMs and logistics providers to co-create customized tracking solutions. Companies are also focusing on expanding production capacity, enhancing sensor and RFID technologies, and leveraging AI for predictive analytics.

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