

# In-Vehicle Payment System Hardware Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

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## Abstracts

The Global In-Vehicle Payment System Hardware Market was valued at USD 671.8 million in 2024 and is estimated to grow at a CAGR of 11.4% to reach USD 1.94 billion by 2034.

The expansion of connected and autonomous vehicles worldwide is accelerating the adoption of integrated in-vehicle payment technologies. Advanced hardware components such as secure chips, biometric sensors, and NFC modules enable real-time and seamless transactions directly from vehicles. This evolution is reshaping the mobility landscape by streamlining automated payments for services such as fueling, parking, and tolls within mobility-as-a-service ecosystems. The widespread shift in consumer preferences toward digital and contactless transactions, particularly following the pandemic, has further increased demand for secure, frictionless, and fast payment experiences. Automakers are responding by increasing their investment in embedded vehicle payment systems using technologies like Bluetooth, NFC, and RFID. These systems integrate with infotainment platforms and digital wallets, allowing secure synchronization with external payment networks. Meanwhile, cities and transport authorities are modernizing tolling, parking, and charging infrastructure using V2X and DSRC technologies that depend on in-vehicle payment hardware to enable interoperability and cross-border functionality. Partnerships between automakers, fintech firms, and payment providers are expanding opportunities for monetization through in-car commerce, subscriptions, and connected digital services.

The payment interface module segment is expected to grow at a CAGR of 12.5% from 2025 to 2034. These modules, embedded into infotainment systems, enable cashless and contactless transactions for parking, fuel, and tolls, offering convenience and high

security through tokenized payment methods. OEMs and top-tier suppliers are heavily investing in automotive-grade interface modules designed for reliability, scalability, and compliance with global safety standards. These integrated modules help standardize payment experiences across various vehicle models and enhance user confidence in secure, on-the-go transactions.

The fuel and EV charging payment segment held a 39% share in 2024. Growing adoption of electric vehicles and rising demand for efficient refueling and recharging solutions are fostering the use of in-vehicle payment systems. These systems enable drivers to complete transactions for fuel or EV charging directly from their infotainment systems, reducing reliance on physical cards or cash. The inclusion of contactless payment support and compatibility with diverse payment platforms adds flexibility and simplifies user interaction, enhancing convenience for consumers.

United States In-Vehicle Payment System Hardware Market held 86.4% share in 2024. The strong preference among U.S. drivers for secure, contactless, and instant payments integrated directly into vehicle systems continues to drive market growth. OEMs are prioritizing the implementation of advanced security features, including biometric verification, embedded wallets, and PCI-compliant tokenization to protect consumer data and ensure payment safety. The focus on privacy standards and compliance requirements, combined with collaboration between vehicle manufacturers and financial networks, is strengthening the country's leadership in this space.

Major companies operating in the Global In-Vehicle Payment System Hardware Market include BMW, Continental, Daimler, Thales Group, Mastercard Incorporated, Harman International, Hyundai Motor Company, and Honda Motor. Key players in the in-vehicle payment system hardware market are pursuing strategic initiatives to reinforce their competitive standing and expand their technological capabilities. Companies are focusing on developing integrated payment modules equipped with advanced authentication, encryption, and connectivity features to ensure seamless and secure transactions. Strategic collaborations between automakers, fintech providers, and payment technology companies are fostering innovation and expanding ecosystem compatibility. Heavy investment in R&D is driving the creation of standardized, interoperable hardware solutions that align with global security and data protection standards.

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