

Automotive Vehicle-To-Everything (V2X) Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

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Abstracts

The Global Automotive Vehicle-To-Everything (V2X) Market reached USD 4.1 billion in 2024 and is projected to experience a CAGR of 25.1% during 2025-2034. This growth is primarily driven by the increasing need for enhanced road safety and the ongoing advancements in autonomous driving technologies. As governments push for stricter traffic safety standards and the development of smart transportation systems, the integration of connected vehicle systems is becoming more widespread. The rollout of 5G networks, enabling real-time communication between vehicles, infrastructure, and pedestrians, is also playing a crucial role in improving traffic efficiency, safety, and urban mobility.

The rise of smart cities and the ongoing transformation of urban infrastructure are further accelerating the adoption of connected vehicle technologies. The need for sustainable transportation solutions, coupled with the growing trend of urbanization, is driving investments in intelligent traffic management systems, electric vehicle (EV) charging stations, and V2X-enabled infrastructure. These innovations aim to create smoother traffic flows, reduce emissions, and enhance public safety, contributing to the overall growth of the market.

The market is categorized by component into hardware and software, with hardware accounting for 64% of the market share in 2024. The hardware segment is projected to grow substantially, generating USD 24.8 billion through 2034. Key advancements in hardware, such as high-performance sensors, antennas, and onboard units, are enhancing the connectivity and data processing capabilities necessary for real-time communication between vehicles and infrastructure. The incorporation of multi-band antennas and edge computing technologies is driving more efficient data exchange,

while cost reductions in chipsets and modules are making these solutions more accessible for both passenger and commercial vehicles.

Communication technologies within the V2X market are also evolving, with segments such as vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I), vehicle-to-pedestrian (V2P), and others. Among these, V2V communication holds the largest share, accounting for 42% of the market in 2024. The development of low-latency communication technologies like 5G and C-V2X is accelerating the adoption of V2V systems, facilitating real-time data sharing for tasks like collision avoidance and cooperative driving. These technologies are laying the groundwork for safer, more efficient roads, ultimately supporting the shift toward fully autonomous vehicle operations.

Europe automotive vehicle-to-everything (V2X) market accounted for a 34% share in 2024. This region is seeing significant growth due to its advanced automotive sector and strong governmental support for intelligent transportation systems. Investments in 5G infrastructure and autonomous driving technologies are further driving market expansion, positioning Europe as a key player in the global shift towards connected mobility.

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