Automotive V2X Market Set to Soar to USD 11,088.1 million by 2029 Driven by Rapid Advancements in Vehicle Connectivity

Key Companies Covered in the automotive V2X market report are Denso Corporation, Aptiv, Infineon Technologies AG, Continental AG, Qualcomm Technologies

Automotive V2X Market

PUNE, MAHARASHTRA, INDIA, May 29, 2025 /EINPresswire.com/ -- The global automotive V2X Market is witnessing explosive growth as the automotive industry rapidly adopts smart, connected vehicle technologies. According to recent market research, the global automotive V2X market was valued at USD 628.9 million in 2021 and is projected to reach USD 11,088.1 million by 2029, exhibiting a staggering CAGR of 45.2% over the forecast period (2022–2029).

Despite the initial setback caused by the COVID-19 pandemic—where the market declined by 10.8% in 2020 compared to 2019—automotive V2X technologies are now rebounding sharply, driven by the need for safer, smarter, and more efficient transportation systems.

> The U.S. market is projected to grow significantly, reaching an estimated value of USD 2847.7 million by 2029."
>
> *Fortune Business Insghts*

Segmentation

By Connectivity Type

Automotive V2X Market communication relies on two primary connectivity technologies: Dedicated Short-Range Communication (DSRC) and Cellular V2X (C-V2X). DSRC is a well-established, low-latency wireless communication protocol specifically designed for automotive use. It enables direct, short-range communication between vehicles and infrastructure, allowing

for rapid data exchange critical in real-time safety applications. On the other hand, C-V2X is a more recent advancement that utilizes existing 4G LTE and emerging 5G networks. It supports both direct communication between vehicles and long-range communication via cellular networks, offering higher bandwidth, broader coverage, and improved scalability. While DSRC has been widely tested and deployed, C-V2X is gaining momentum due to its potential to integrate seamlessly with the broader connected ecosystem and support future mobility applications like autonomous driving and smart city infrastructure.

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By Communication Type

Automotive V2X Market communication is categorized into several types, each serving a unique purpose in enhancing transportation efficiency and safety. Vehicle-to-Vehicle (V2V) communication allows cars to share crucial data such as speed, position, and braking activity with nearby vehicles. This real-time information exchange helps prevent collisions and enables safer driving decisions. Vehicle-to-Infrastructure (V2I) communication connects vehicles with traffic signals, toll booths, and other road infrastructure, helping to manage traffic flow more efficiently and reduce congestion. Vehicle-to-Pedestrian (V2P) technology detects pedestrians through smart devices or wearables, alerting drivers and potentially preventing accidents. In addition to these, other forms such as Vehicle-to-Network (V2N) and Vehicle-to-Grid (V2G) communication support broader integration with smart city infrastructure, enabling vehicles to interact with cloud systems and energy grids for enhanced connectivity, predictive analytics, and efficient energy management. Together, these V2X communication types are foundational to the development of intelligent, connected, and safer transportation ecosystems.

By Vehicle Type

In the automotive V2X market, passenger cars represent the leading segment, largely driven by the growing integration of advanced driver-assistance systems (ADAS) and modern infotainment features. These technologies rely heavily on real-time data exchange, making V2X communication essential for enhancing driving safety, navigation, and in-vehicle experiences. Meanwhile, commercial vehicles are also rapidly adopting V2X solutions to improve operational efficiency. Fleet operators use V2X technology for route optimization, vehicle tracking, and driver safety monitoring, all of which contribute to reduced fuel consumption, better delivery scheduling, and enhanced logistics performance. As a result, both passenger and commercial vehicle segments are playing significant roles in accelerating the adoption of V2X systems across the automotive industry.

By Unit Type

Onboard Units (OBU): Installed in vehicles to send and receive V2X data.

Roadside Units (RSU): Infrastructure components mounted on roadsides, communicating with OBUs for V2I applications.

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List of key companies profiled:
- Denso Corporation (Japan)
- Aptiv (Ireland)
- Infineon Technologies AG (Germany)
- Continental AG (Germany)
- Qualcomm Technologies, Inc. (U.S.)
- Autotalks Ltd. (Israel)
- Cohda Wireless (Australia)
- Kapsch TrafficCom (Austria)
- Savari Inc. (U.S.)
- Lear Corporation (U.S.)
- LG Electronics (South Korea)
- Ford Motor Company (U.S.)

Key trends include:

- Expansion of 5G-based V2X for ultra-low latency communication
- Rising urban traffic congestion pushing adoption of smart infrastructure
- Integration of AI and edge computing in V2X systems
- Increasing demand for vehicle safety features and real-time navigation data

Key industry developments:

- October 2021 – Brandmotion LLC, an automotive safety technology company, announced that it is collaborating with DENSO Products and Services Americas to offer a one-stop service to cities seeking to equip their automobiles with advanced V2X technology.
- October 2021 – Infineon Technologies announced to launch the SLS37 V2X hardware security module (HSM) and plug-and-play security solutions for V2X communication. The SLS37 V2X HSM is based on a highly secured, tamper-resistant microcontroller tailored to the security needs in V2X applications within the telematics control unit.

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