

## Fueling the Network: Automotive Ethernet Market Anticipated to Exceed \$8.8 Billion by 2031

Automotive ethernet market to grow at 14.4% CAGR by 2031

PORTLAND, OREGON, UNITED STATES, May 25, 2023 /EINPresswire.com/ --According to a new report published by Allied Market Research, titled, "Automotive Ethernet Market," The automotive ethernet market was valued at \$2.1 billion in 2021 and is estimated to reach \$8.8 billion by 2031, growing at a CAGR of 14.4% from 2022 to 2031.



The widespread use of advanced driver assistant systems (ADAS), infotainment, the quick advancement of autonomous vehicle technology, and the low cost of ethernet have all contributed to the enormous growth of automotive ethernet because it connects in-vehicle electronic systems more effectively than traditional harness does. Vehicle ethernet provides connectivity for a variety of automotive applications, including ADAS, infotainment systems, body and comfort, powertrain, and chassis. The difficulties that designers and engineers encounter when integrating various systems are addressed by providing high bandwidth applications that operate at either high or low speed. All car components can connect using thinner, more efficient wires thanks to Ethernet's propensity to forego conventional cabling for communication. In a connected car, the system must be kept "always on" due to the highperformance navigation systems, high-end entertainment, and telematics. The market for ethernet deployments has been driven by the growing amount of bandwidth available for invehicle data connections.

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Globally, the development of electric vehicles (EVs) has shown potential during the past few years. Automobile original equipment manufacturers (OEMs) have made large financial investments in the development of EVs. The government has launched several efforts to speed

up the manufacture of EVs for the consumer and business markets. The proliferation of EVs around the world has been fueled by technological developments and the growth of the complete ecosystem, including improvements in chipsets and modules, the accessibility of lithium-ion batteries, and the modernization of charging infrastructure. The main factors promoting EV production are, in brief, government legislation, consumer economy growth, OEM investments, and technological developments. These aspects are anticipated to fuel the automotive ethernet market size during the forecast period.

In the in-car infrastructure, connectivity is crucial. The in-vehicle communication market has been dominated by Controlled Area Network (CAN), Local Interconnect Network (LIN), FlexRay, and Radio Frequency (RF) for the past few decades. Traditional technologies are frequently used by automotive OEMs and Tier 1 suppliers for the in-car network. These discrete protocols provide end-to-end connectivity for the vehicle's Engine Control Units (ECU). Some technologies, like MOST and FlexRay, were created to support brand-new ADAS and infotainment application areas. However, technologies are insufficient to provide high bandwidth and low latency for infotainment applications.

The development of sophisticated IoT applications that need high bandwidth is now possible thanks to the standardized high bandwidth ethernet. The demand for high bandwidth connectivity for in-vehicle computer systems is anticipated to rise further as these applications proliferate. In 2015, the establishment of the 100BASE-T1 Physical Layer (PHY) standard by the Institute of Electrical and Electronics Engineers (IEEE) for high-speed 100Mbps ethernet. Application developers have a lot of opportunities thanks to high-speed ethernet. It can also provide in-vehicle real-time connectivity with the outside world and has an impact on the vehicle's functional design. The ability to access the outside world in a connected car allows the user additional freedom to select programs from OEMs, partners, or third-party application providers.

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The global automotive ethernet market is segmented based on component, vehicle type, application, and region. By component, it is classified into hardware, software, and services. By vehicle type, it is classified into passenger cars and commercial vehicles. By application, it is classified into chassis, infotainment, driver assistance, power train, body & comfort, and others. By region, the market is analyzed across North America, Europe, Asia-Pacific, and LAMEA.

The key players profiled in the automotive ethernet market report include Vector Informatik GmbH, NXP Semiconductors N. V., Marvell Semiconductor, Inc., Molex, Broadcom Inc., Microchip Technology Inc., Aukua Systems, Keysight Technologies, Cadence Design Systems, Inc, and Texas Instruments Incorporated.

The report offers a comprehensive analysis of the global automotive ethernet market trends by

thoroughly studying different aspects of the market including major segments, market statistics, market dynamics, regional market outlook, investment opportunities, and top players working towards the growth of the market. The report also sheds light on the present scenario and upcoming trends & developments that are contributing to the growth of the market. Moreover, restraints and challenges that hold power to obstruct the market growth are also profiled in the report along with Porter's five forces analysis of the market to elucidate factors such as competitive landscape, bargaining power of buyers and suppliers, threats of new players, and the emergence of substitutes in the market.

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Key Findings of the Study

Based on components, the hardware sub-segment emerged as the global leader in 2019, and the services sub-segment is anticipated to be the fastest growing sub-segment during the forecast period

Based on vehicle type, the passenger cars sub-segment emerged as the global leader in 2019 and the commercial vehicles sub-segment is anticipated to be the fastest growing sub-segment during the forecast period

Based on application, the driver assistance sub-segment emerged as the global leader in 2019 as well as it is predicted to show the fastest growth in the upcoming years

Based on region, the Asia-Pacific market registered the highest market share in 2019 as well as it is projected to show the fastest growth during the forecast period

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