

# **Automotive Electronic Control Unit (ECU) Market Report by Capacity (16-Bit ECU, 32-Bit ECU, 64-Bit ECU), Vehicle Type (Passenger Cars, Commercial Vehicles), Propulsion (Internal Combustion Engine, Hybrid, Battery Electric Vehicle), Application (ADAS and Safety System, Body Control and Comfort System, Infotainment and Communication System, Powertrain System, and Others), and Region 2024-2032**

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## **Abstracts**

The global automotive electronic control unit (ECU) market size reached US\$ 83.7 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 128.4 Billion by 2032, exhibiting a growth rate (CAGR) of 4.8% during 2024-2032.

An automotive electronic control unit (ECU) is embedded in vehicles to control electronic systems and subsystems. It also assists in collecting input from its sensors or other ECUs and relying on actuators to manage the functionalities of automobiles. Some of the commonly integrated automotive ECU are the powertrain control module (PCM), engine control module (ECM), parking aid module, transmission control module (TCM), skid control module, and seat belt control ECU.

Automotive Electronic Control Unit (ECU) Market Trends:

At present, there is a considerable rise in the sales of electric vehicles (EVs) across the globe. This, in confluence with the thriving automotive industry, represents one of the key factors impelling the growth of the market. Moreover, automotive ECU comprises in-vehicle infotainment (IVI) systems that offer handset integration and head-up display for

driver assistance, interior personalization, and cloud-based infotainment. It also enables users to customize their cars and infotainment systems with user experience data, music, apps, themes, and colors of their choice to enhance their driving experience. Besides this, governing authorities of numerous countries are mandating the incorporation of safety systems in a vehicle, including an anti-lock braking system (ABS) and adaptive front lighting system (AFS), to increase road safety. This, coupled with the increasing adoption of advanced driver-assistance systems (ADAS) in vehicles to reduce vehicular accidents and fatalities, is escalating the demand for automotive ECU around the world. Furthermore, key players operating in the industry are focusing on product innovations to offer better services, which is positively influencing the market. Other factors, including technological advancements and rising safety concerns among the masses, are projected to stimulate the market growth in the upcoming years.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global automotive electronic control unit (ECU) market report, along with forecasts at the global, regional and country level from 2024-2032. Our report has categorized the market based on capacity, vehicle type, propulsion and application.

#### Breakup by Capacity:

- 16-Bit ECU
- 32-Bit ECU
- 64-Bit ECU

#### Breakup by Vehicle Type:

- Passenger Cars
- Commercial Vehicles

#### Breakup by Propulsion:

- Internal Combustion Engine
- Hybrid
- Battery Electric Vehicle

#### Breakup By Application:

- ADAS and Safety System

Body Control and Comfort System  
Infotainment and Communication System  
Powertrain System  
Others

Breakup by Region:

North America  
United States  
Canada  
Asia-Pacific  
China  
Japan  
India  
South Korea  
Australia  
Indonesia  
Others  
Europe  
Germany  
France  
United Kingdom  
Italy  
Spain  
Russia  
Others  
Latin America  
Brazil  
Mexico  
Others  
Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Aptiv PLC, Continental AG, DENSO Corporation, Hitachi Ltd., Magna International Inc., Magneti Marelli S.p.A., Nidec Corporation, NXP Semiconductors N.V., Panasonic Corporation, Pektron Group Limited, Robert Bosch GmbH and ZF Friedrichshafen AG.

## Key Questions Answered in This Report

1. What was the size of the global automotive electronic control unit (ECU) market in 2023?
2. What is the expected growth rate of the global automotive electronic control unit (ECU) market during 2024-2032?
3. What are the key factors driving the global automotive electronic control unit (ECU) market?
4. What has been the impact of COVID-19 on the global automotive electronic control unit (ECU) market?
5. What is the breakup of the global automotive electronic control unit (ECU) market based on the capacity?
6. What is the breakup of the global automotive electronic control unit (ECU) market based on the vehicle type?
7. What is the breakup of the global automotive electronic control unit (ECU) market based on the propulsion?
8. What is the breakup of the global automotive electronic control unit (ECU) market based on the application?
9. What are the key regions in the global automotive electronic control unit (ECU) market?
10. Who are the key players/companies in the global automotive electronic control unit (ECU) market?

## Contents

### **1 PREFACE**

### **2 SCOPE AND METHODOLOGY**

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
  - 2.3.1 Primary Sources
  - 2.3.2 Secondary Sources
- 2.4 Market Estimation
  - 2.4.1 Bottom-Up Approach
  - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

### **3 EXECUTIVE SUMMARY**

### **4 INTRODUCTION**

- 4.1 Overview
- 4.2 Key Industry Trends

### **5 GLOBAL AUTOMOTIVE ELECTRONIC CONTROL UNIT (ECU) MARKET**

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

### **6 MARKET BREAKUP BY CAPACITY**

- 6.1 16-Bit ECU
  - 6.1.1 Market Trends
  - 6.1.2 Market Forecast
- 6.2 32-Bit ECU
  - 6.2.1 Market Trends
  - 6.2.2 Market Forecast
- 6.3 64-Bit ECU

- 6.3.1 Market Trends
- 6.3.2 Market Forecast

## **7 MARKET BREAKUP BY VEHICLE TYPE**

- 7.1 Passenger Cars
  - 7.1.1 Market Trends
  - 7.1.2 Market Forecast
- 7.2 Commercial Vehicles
  - 7.2.1 Market Trends
  - 7.2.2 Market Forecast

## **8 MARKET BREAKUP BY PROPULSION**

- 8.1 Internal Combustion Engine
  - 8.1.1 Market Trends
  - 8.1.2 Market Forecast
- 8.2 Hybrid
  - 8.2.1 Market Trends
  - 8.2.2 Market Forecast
- 8.3 Battery Electric Vehicle
  - 8.3.1 Market Trends
  - 8.3.2 Market Forecast

## **9 MARKET BREAKUP BY APPLICATION**

- 9.1 ADAS and Safety System
  - 9.1.1 Market Trends
  - 9.1.2 Market Forecast
- 9.2 Body Control and Comfort System
  - 9.2.1 Market Trends
  - 9.2.2 Market Forecast
- 9.3 Infotainment and Communication System
  - 9.3.1 Market Trends
  - 9.3.2 Market Forecast
- 9.4 Powertrain System
  - 9.4.1 Market Trends
  - 9.4.2 Market Forecast
- 9.5 Others

9.5.1 Market Trends

9.5.2 Market Forecast

## **10 MARKET BREAKUP BY REGION**

10.1 North America

10.1.1 United States

10.1.1.1 Market Trends

10.1.1.2 Market Forecast

10.1.2 Canada

10.1.2.1 Market Trends

10.1.2.2 Market Forecast

10.2 Asia-Pacific

10.2.1 China

10.2.1.1 Market Trends

10.2.1.2 Market Forecast

10.2.2 Japan

10.2.2.1 Market Trends

10.2.2.2 Market Forecast

10.2.3 India

10.2.3.1 Market Trends

10.2.3.2 Market Forecast

10.2.4 South Korea

10.2.4.1 Market Trends

10.2.4.2 Market Forecast

10.2.5 Australia

10.2.5.1 Market Trends

10.2.5.2 Market Forecast

10.2.6 Indonesia

10.2.6.1 Market Trends

10.2.6.2 Market Forecast

10.2.7 Others

10.2.7.1 Market Trends

10.2.7.2 Market Forecast

10.3 Europe

10.3.1 Germany

10.3.1.1 Market Trends

10.3.1.2 Market Forecast

10.3.2 France

- 10.3.2.1 Market Trends
- 10.3.2.2 Market Forecast
- 10.3.3 United Kingdom
  - 10.3.3.1 Market Trends
  - 10.3.3.2 Market Forecast
- 10.3.4 Italy
  - 10.3.4.1 Market Trends
  - 10.3.4.2 Market Forecast
- 10.3.5 Spain
  - 10.3.5.1 Market Trends
  - 10.3.5.2 Market Forecast
- 10.3.6 Russia
  - 10.3.6.1 Market Trends
  - 10.3.6.2 Market Forecast
- 10.3.7 Others
  - 10.3.7.1 Market Trends
  - 10.3.7.2 Market Forecast
- 10.4 Latin America
  - 10.4.1 Brazil
    - 10.4.1.1 Market Trends
    - 10.4.1.2 Market Forecast
  - 10.4.2 Mexico
    - 10.4.2.1 Market Trends
    - 10.4.2.2 Market Forecast
  - 10.4.3 Others
    - 10.4.3.1 Market Trends
    - 10.4.3.2 Market Forecast
- 10.5 Middle East and Africa
  - 10.5.1 Market Trends
  - 10.5.2 Market Breakup by Country
  - 10.5.3 Market Forecast

## **11 SWOT ANALYSIS**

- 11.1 Overview
- 11.2 Strengths
- 11.3 Weaknesses
- 11.4 Opportunities
- 11.5 Threats



## **12 VALUE CHAIN ANALYSIS**

## **13 PORTERS FIVE FORCES ANALYSIS**

- 13.1 Overview
- 13.2 Bargaining Power of Buyers
- 13.3 Bargaining Power of Suppliers
- 13.4 Degree of Competition
- 13.5 Threat of New Entrants
- 13.6 Threat of Substitutes

## **14 PRICE ANALYSIS**

## **15 COMPETITIVE LANDSCAPE**

- 15.1 Market Structure
- 15.2 Key Players
- 15.3 Profiles of Key Players
  - 15.3.1 Aptiv PLC
    - 15.3.1.1 Company Overview
    - 15.3.1.2 Product Portfolio
  - 15.3.2 Continental AG
    - 15.3.2.1 Company Overview
    - 15.3.2.2 Product Portfolio
    - 15.3.2.3 Financials
    - 15.3.2.4 SWOT Analysis
  - 15.3.3 DENSO Corporation
    - 15.3.3.1 Company Overview
    - 15.3.3.2 Product Portfolio
    - 15.3.3.3 Financials
    - 15.3.3.4 SWOT Analysis
  - 15.3.4 Hitachi Ltd.
    - 15.3.4.1 Company Overview
    - 15.3.4.2 Product Portfolio
    - 15.3.4.3 Financials
    - 15.3.4.4 SWOT Analysis
  - 15.3.5 Magna International Inc.
    - 15.3.5.1 Company Overview

- 15.3.5.2 Product Portfolio
- 15.3.5.3 Financials
- 15.3.5.4 SWOT Analysis
- 15.3.6 Magneti Marelli S.p.A.
  - 15.3.6.1 Company Overview
  - 15.3.6.2 Product Portfolio
- 15.3.7 Nidec Corporation
  - 15.3.7.1 Company Overview
  - 15.3.7.2 Product Portfolio
  - 15.3.7.3 Financials
  - 15.3.7.4 SWOT Analysis
- 15.3.8 NXP Semiconductors N.V.
  - 15.3.8.1 Company Overview
  - 15.3.8.2 Product Portfolio
- 15.3.9 Panasonic Corporation
  - 15.3.9.1 Company Overview
  - 15.3.9.2 Product Portfolio
  - 15.3.9.3 Financials
  - 15.3.9.4 SWOT Analysis
- 15.3.10 Pektron Group Limited
  - 15.3.10.1 Company Overview
  - 15.3.10.2 Product Portfolio
- 15.3.11 Robert Bosch GmbH
  - 15.3.11.1 Company Overview
  - 15.3.11.2 Product Portfolio
  - 15.3.11.3 SWOT Analysis
- 15.3.12 ZF Friedrichshafen AG
  - 15.3.12.1 Company Overview
  - 15.3.12.2 Product Portfolio
  - 15.3.12.3 SWOT Analysis

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