

# **Computer on Module Market Report by Architecture Type (ARM (Advanced RISC Machines) Architecture, x86 Architecture, Power Architecture, and Others), Standard (COM Express, SMARC (Smart Mobile Architecture), Qseven, ETX (Embedded Technology Extended), and Others), Application (Industrial Automation, Medical, Transportation, Gaming, Communication, and Others), and Region 2024-2032**

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## **Abstracts**

The global computer on module market size reached US\$ 1.6 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 2.3 Billion by 2032, exhibiting a growth rate (CAGR) of 4.4% during 2024-2032. The rising demand from various industries, increasing automation, and the expanding product utilization in unmanned aerial vehicles (UAVs), and robotics represent some of the key factors driving the market.

Computer-on-module (CoM), also known as system-on-module (SoM), is a self-contained, embedded computer designed on a single circuit board. The device is constructed around a microprocessor and includes random access memory (RAM), input or output (I/O) controllers, Ethernet, flash memory, and other essential components required for a fully functional computer. These products provide a consistent and cost-effective embedded platform for computing solutions, which helps reduce the manufacturing time for various products. In addition, it offers robust quality, enhanced platform scalability, supreme performance, and ease of use. As a result, CoM is widely used across industrial automation systems, medical electronics, transportation, communication, and gaming industries.

## Computer on Module Market Trends:

The rising demand for high-end computer modules in the automotive, medical, and aerospace industries represents one of the primary factors driving the market growth. These systems help expedite product development and provide better reliability, durability, and connectivity with other devices, which is fueling the market growth. Moreover, the increasing trend of Industry 4.0, the expanding automation across various industrial operations, and the extensive use of advanced technologies in manufacturing processes are creating a favorable outlook for the market. In addition to this, the largescale product utilization in manufacturing drones or unmanned aerial vehicles (UAVs) that are compact and capable of autonomous navigation is presenting remunerative growth opportunities for the market. Furthermore, innovative technological advancements, such as the incorporation of off-the-shelf CoMs and application-specific carrier boards with the Internet of Things (IoT) are positively impacting the market growth. In line with this, the growing product adoption in robotics, artificial intelligence (AI), machine learning (ML), smart electronics, wireless communication, and other electronic systems are acting as significant growth-inducing factors. Other factors, including rapid digitalization, the surging popularity of smart and miniaturized devices, and the exponential rise in demand for big data analytics, edge computing, and embedded computing systems, are contributing to the market growth.

## Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global computer on module market report, along with forecasts at the global, regional and country level from 2024-2032. Our report has categorized the market based on architecture type, standard and application.

### Architecture Type Insights:

ARM (Advanced RISC Machines) Architecture

x86 Architecture

Power Architecture

Others

The report has provided a detailed breakup and analysis of the computer on module market based on the architecture type. This includes ARM (advanced RISC machines), x86, power and other architecture. According to the report, ARM (advanced RISC machines) architecture represented the largest segment.

### Standard Insights:

COM Express

SMARC (Smart Mobile Architecture)

Qseven

ETX (Embedded Technology Extended)

Others

A detailed breakup and analysis of the computer on module market based on the standard has also been provided in the report. This includes COM express, smart mobile architecture (SMARC), Qseven, embedded technology extended (ETX), and others. According to the report, COM express accounted for the largest market share.

### Application Insights:

Industrial Automation

Medical

Transportation

Gaming

Communication

Others

The report has provided a detailed breakup and analysis of the computer on module market based on the application. This includes industrial automation, medical, transportation, gaming, communication, and others. According to the report, industrial automation represented the largest segment.

### Regional Insights:

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

The report has also provided a comprehensive analysis of all the major regional markets, which include North America (the United States and Canada); Asia Pacific (China, Japan, India, South Korea, Australia, Indonesia, and others); Europe (Germany, France, the United Kingdom, Italy, Spain, Russia, and others); Latin America (Brazil, Mexico, and others); and the Middle East and Africa. According to the report, Asia Pacific was the largest market for computer on module. Some of the factors driving the Asia Pacific computer on module market included increasing automation, largescale product demand from the automotive and medical industry, and rising demand for smart devices.

#### Competitive Landscape:

The report has also provided a comprehensive analysis of the competitive landscape in the global computer on module market. Competitive analysis such as market structure, market share by key players, player positioning, top winning strategies, competitive dashboard, and company evaluation quadrant has been covered in the report. Also, detailed profiles of all major companies have been provided. Some of the companies covered include AAEON Technology Inc., Advantech Co. Ltd., Axiomtek Co. Ltd., congatec AG, Digi International Inc., iWave Systems Technologies Pvt. Ltd., Kontron S&T AG (S&T AG), PHYTEC Embedded Pvt. Ltd., TechNexion, Toradex Systems (India) Pvt. Ltd. and Variscite. Kindly note that this only represents a partial list of companies, and the complete list has been provided in the report.

#### Key Questions Answered in This Report

1. How big is the global computer on module market?
2. What is the expected growth rate of the global computer on module market during 2024-2032?
3. What are the key factors driving the global computer on module market?
4. What has been the impact of COVID-19 on the global computer on module market?
5. What is the breakup of the global computer on module market based on the architecture type?
6. What is the breakup of the global computer on module market based on the standard?
7. What is the breakup of the global computer on module market based on the application?
8. What are the key regions in the global computer on module market?
9. Who are the key players/companies in the global computer on module market?

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