

Electronic Design Automation (EDA) Market Forecasts to 2034 – Global Analysis By Tool Type (IC Physical Design & Verification, Logic Design & Verification, PCB Design & Multi-Chip Module (MCM) and Semiconductor Intellectual Property (SIP)), Deployment, Application and By Geography

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Abstracts

According to Statistics MRC, the Global Electronic Design Automation (EDA) Market is accounted for \$13.6 billion in 2026 and is expected to reach \$26.0 billion by 2034 growing at a CAGR of 8.5% during the forecast period. Electronic Design Automation (EDA) encompasses specialized software that assists in the creation, simulation, validation, and production of electronic components, including integrated circuits and circuit boards. It allows designers to build highly intricate chip structures accurately, enhancing efficiency and shortening development cycles. EDA tools facilitate activities such as circuit drafting, physical layout, performance evaluation, and design verification to ensure reliability prior to manufacturing. Increasing demand for compact, high-speed, and power-efficient devices is fueling progress in EDA technologies. Integration of artificial intelligence and cloud-based platforms is making these tools more flexible, intelligent, and capable of addressing advanced semiconductor design requirements today globally.

According to the Semiconductor Industry Association (SIA), global semiconductor sales reached \$595 billion in 2021 and are projected to surpass \$1 trillion by 2030. EDA tools are indispensable in enabling this growth by automating chip design and verification.

Market Dynamics:

Driver:

Increasing complexity of integrated circuits

The growing intricacy of integrated circuits significantly fuels the Electronic Design Automation (EDA) market. Today's chips contain billions of transistors and complex structures, making manual design approaches inefficient. EDA software assists engineers by automating design, simulation, and validation processes. With the adoption of advanced technologies such as FinFET and 3D architectures, demand for advanced design tools is rising steadily. These solutions minimize errors, enhance precision, and speed up development timelines. As a result, semiconductor firms increasingly depend on EDA technologies to efficiently manage complex chip development while achieving optimal performance, power efficiency, and compact design in a competitive industry landscape.

Restraint:

High cost of EDA tools and licensing

One of the major limitations of the Electronic Design Automation (EDA) market is the high cost associated with tools and licensing. Sophisticated EDA software demands significant financial investment, which poses challenges for small and mid-sized companies. Ongoing expenses such as subscription fees, updates, and maintenance further increase operational costs. Moreover, organizations must invest in training skilled personnel to utilize these tools efficiently, adding to the overall expenditure. This cost barrier restricts adoption, particularly in developing regions, and hinders innovation among smaller firms that struggle to access advanced design technologies despite increasing demand in the semiconductor industry.

Opportunity:

Increasing demand for automotive electronics

The expanding use of electronics in the automotive sector, especially in electric and self-driving vehicles, offers substantial opportunities for the Electronic Design Automation (EDA) market. Advanced semiconductor components are essential for enabling modern vehicle features such as safety systems, connectivity, and performance enhancements. EDA tools are critical in designing and verifying these components to ensure compliance with strict standards. As the automotive industry shifts toward electrification

and automation, the need for advanced chip design solutions continues to grow. This trend provides EDA companies with new opportunities to support evolving automotive technologies worldwide.

Threat:

Intense market competition among key players

Strong competition among major and emerging companies poses a serious threat to the Electronic Design Automation (EDA) market. Established players consistently focus on innovation, competitive pricing, and unique offerings to retain their market share. This rivalry can result in pricing pressures, lower profit margins, and higher investments in research and development. Smaller organizations find it challenging to compete with dominant vendors that possess advanced technologies and loyal customer networks. Moreover, rapid product introductions and continuous technological progress further intensify competition, making it difficult for companies to achieve stable growth and profitability in the evolving EDA industry landscape.

Covid-19 Impact:

The COVID-19 pandemic influenced the Electronic Design Automation (EDA) market in both challenging and positive ways. Early in the crisis, supply chain interruptions and factory shutdowns hindered semiconductor design and delayed ongoing projects. Nevertheless, the transition to remote working, along with rising demand for digital services, consumer electronics, and cloud infrastructure, increased the need for advanced chip development. EDA solutions played a vital role in enabling remote collaboration and sustaining workflow efficiency. As the situation improved, growing semiconductor demand drove higher adoption of EDA tools, contributing to the market's recovery and long-term expansion despite initial setbacks.

The on-premise segment is expected to be the largest during the forecast period

The on-premise segment is expected to account for the largest market share during the forecast period as organizations prioritize security, control, and system reliability. Since EDA processes handle critical and confidential design data, many companies prefer to use internal infrastructure to reduce the risk of cyber threats and unauthorized access. These solutions allow greater flexibility for customization and seamless integration with existing systems while ensuring stable performance without relying on internet connections. Large-scale enterprises especially adopt this model to retain complete

oversight of their design operations, helping them meet strict regulatory requirements and maintain efficiency in complex semiconductor development processes.

The automotive segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the automotive segment is predicted to witness the highest growth rate, driven by the rise of electric vehicles, self-driving technologies, and connected automotive systems. Today's vehicles depend heavily on advanced semiconductor components for functions such as safety, navigation, entertainment, and energy management. EDA solutions are essential for developing and verifying these complex chips while ensuring high reliability and performance. The ongoing transition toward electrified and intelligent mobility is fueling innovation in automotive electronics; increasing the need for advanced design tools and making this segment a major contributor to EDA market expansion.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, supported by the presence of major semiconductor firms, robust technological capabilities, and strong investment in innovation. The region has a mature ecosystem that includes chip manufacturers, software developers, and research institutions, all contributing to advancements in EDA technologies. Widespread adoption of emerging technologies like artificial intelligence, cloud platforms, and advanced chip designs enhances its leading position. Furthermore, partnerships between companies and universities promote continuous development, enabling North America to maintain its leadership and play a crucial role in driving the overall growth of the global EDA industry.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, driven by expanding semiconductor manufacturing activities and rising investments in electronics production. Nations including China, India, South Korea, and Taiwan are becoming key centers for chip development and fabrication. Supportive government policies and improvements in technological infrastructure are further boosting market expansion. Moreover, increasing adoption of advanced technologies such as 5G, artificial intelligence, and IoT is fueling demand for advanced chip design solutions, making Asia-Pacific the most rapidly growing region in the global EDA

industry.

Key players in the market

Some of the key players in Electronic Design Automation (EDA) Market include Synopsys Inc., Cadence Design Systems Inc., Siemens EDA, Ansys Inc., Keysight Technologies Inc., Altium Limited, Zuken Inc., Silvaco Inc., Aldec Inc., EMA Design Automation, Sigasi NV, AMD (Xilinx), Labcenter Electronics Ltd., Agnisys Inc., Empyrean Technology, Proteus EDA, Blue Pearl Software and Xpedic Technology.

Key Developments:

In January 2026, Synopsys, Inc. announced it has entered into a definitive agreement for the sale of its Processor IP Solutions business to GlobalFoundries (GF). Synopsys' extensive investment in IP quality, comprehensive technical support and robust IP development methodology enables designers to reduce integration risk and accelerate time-to-market.

In September 2025, Cadence Design Systems, Inc. announced it has entered into a definitive agreement to acquire Hexagon AB's Design & Engineering business, including its MSC Software operations, for approximately €2.7 billion. Under the terms of the agreement, Cadence will pay 70% of the consideration in cash and 30% through the issuance of Cadence common stock to Hexagon.

In January 2025, Ansys and Synopsys announced that Ansys has entered into a definitive agreement for the sale of its PowerArtist™ business to Keysight Technologies, Inc., a global leader in design and simulation software for semiconductors, electronics and high-performance systems. The transaction is subject to customary closing conditions, including review by regulatory authorities, and the closing of Synopsys' proposed acquisition of Ansys, which is pending regulatory approvals and expected to close in the first half of 2025.

Tool Types Covered:

IC Physical Design & Verification

Logic Design & Verification

PCB Design & Multi-Chip Module (MCM)

Semiconductor Intellectual Property (SIP)

Deployments Covered:

On-premise

Cloud-based

Applications Covered:

Consumer Electronics

Automotive

Aerospace & Defense

Industrial Automation

Medical Electronics

Telecommunications & Networking

Energy & Utilities

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

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