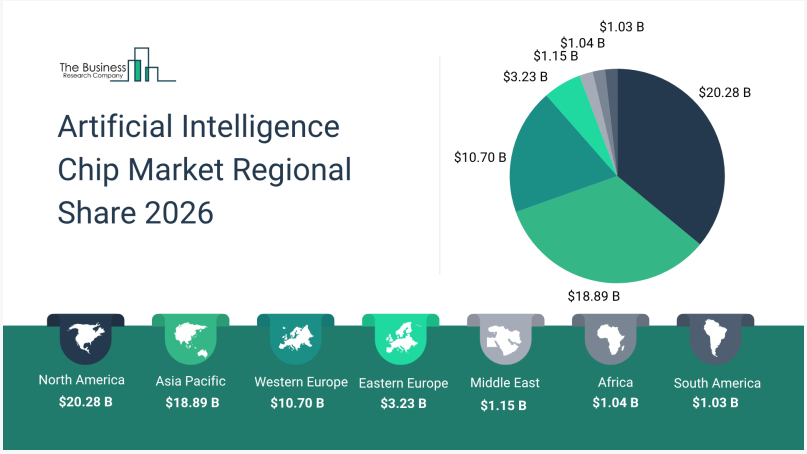
Artificial Intelligence Chip Market: Future Demand and Trends Analysis Analysis | 2030

The Business Research Company's Artificial Intelligence Chip Market: Future Demand and Trends Analysis Analysis | 2030



Artificial Intelligence Chip Market Size

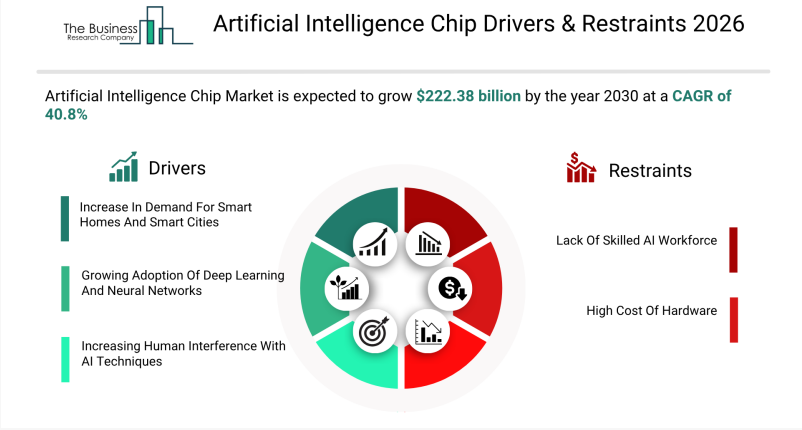
LONDON, GREATER LONDON, UNITED KINGDOM, April 30, 2026 /EINPresswire.com/ -- "Artificial Intelligence Chip market to surpass $222 billion in 2030. In comparison, the Semiconductor And Related Devices market, which is considered as its parent market, is expected to be approximately $941 billion by 2030, with Artificial Intelligence Chip to represent around 24% of the parent market. Within the broader Electrical And Electronics industry, which is expected to be $5,611 billion by 2030, the Artificial Intelligence Chip market is estimated to account for nearly 4% of the total market value.

> Expected to grow to $223.95 billion in 2030 at a compound annual growth rate (CAGR) of 41.1%”
>
> *The Business Research Company*

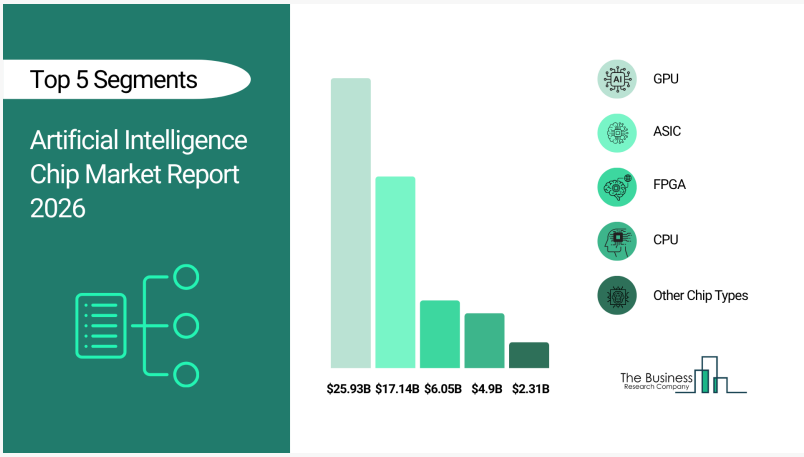
Which Will Be The Biggest Region In The Artificial Intelligence Chip Market In 2030?
Asia Pacific will be the largest region in the artificial intelligence chip market in 2030, valued at $78 billion. The market is expected to grow from $13 billion in 2025 at a compound annual growth rate (CAGR) of 42%. The strong growth can be attributed to the presence of major semiconductor manufacturing hubs in countries such as China, Taiwan, South Korea, and Japan, increasing investments in AI infrastructure and data centers, rapid expansion of consumer electronics and smart device ecosystems, strong government support for domestic chip development, and growing adoption of AI across industries including automotive, healthcare, and manufacturing.

Which Will Be The Largest Country In The Global Artificial Intelligence Chip Market In 2030?
The USA will be the largest country in the artificial intelligence chip market in 2030, valued at $62 billion. The market is expected to grow from $12 billion in 2025 at a compound annual growth

rate (CAGR) of 39%. The strong growth can be attributed to the presence of leading AI chip designers and technology companies, high adoption of cloud computing and generative AI applications, significant investments in hyperscale data centers, rapid advancements in AI research and development, and increasing deployment of AI across enterprise, defense, and autonomous systems.



Artificial Intelligence Chip Market Growth Forecast



Artificial Intelligence Chip Market Segmentation

Request A Free Sample Of The Artificial Intelligence Chip Market Report
https://www.thebusinessresearchcompany.com/sample_request?id=7639&type=smp&utm_source=EINPresswire&utm_medium=Paid&utm_campaign=Apr_PR

What Will Be The Largest Segment In The Artificial Intelligence Chip Market In 2030?
The artificial intelligence chip market is segmented by chip type into GPU, ASIC, FPGA, CPU, and other chip types. The GPU segment will be the largest segment of the artificial intelligence chip market segmented by chip type, accounting for 46% or $103 billion of the total in 2030. The GPU market will be supported by the growing demand for high-performance parallel processing in AI model training and inference, widespread adoption in data centers and cloud environments, increasing use in generative AI and large language models, continuous advancements in GPU architecture, and strong ecosystem support including software frameworks and developer tools.

The artificial intelligence chip market is segmented by processing type into edge and cloud.

The artificial intelligence chip market is segmented by technology into system-on-chip, system-in-package, multi-chip module, and other technologies.

The artificial intelligence chip market is segmented by application into natural language processing, robotics, computer vision, network security, and other applications.

The artificial intelligence chip market is segmented by industry into media and advertising, BFSI, IT and telecom, retail, healthcare, automotive and transportation, and other industries.

What Is The Expected CAGR For The Artificial Intelligence Chip Market Leading Up To 2030?
The expected CAGR for the artificial intelligence chip market leading up to 2030 is 41%.

What Will Be The Growth Driving Factors In The Global Artificial Intelligence Chip Market In The Forecast Period?
The rapid growth of the global artificial intelligence chip market leading up to 2030 will be driven by the following key factors that are expected to reshape demand for smart homes and smart city infrastructure, expanding use of deep learning and neural network technologies, increasing human interaction with AI systems, growth in edge AI and Internet of Things (IoT) deployments, and advancements in semiconductor design and fabrication technologies.

Increase In Demand For Smart Homes And Smart Cities - The increasing demand for smart homes and smart cities is expected to become a key growth driver for the artificial intelligence chip market by 2030. The proliferation of connected devices, smart sensors, and intelligent infrastructure is driving the need for AI-enabled chips capable of real-time data processing and decision-making at the edge. Applications such as smart surveillance, energy management, traffic optimization, and home automation rely heavily on efficient AI processors. Governments and urban planners are investing in digital infrastructure to enhance operational efficiency and sustainability, further accelerating demand for AI chips. As a result, the increase in demand for smart homes and smart cities is anticipated to contribute approximately 2.8% annual growth to the market.

Growing Adoption Of Deep Learning And Neural Networks - The growing adoption of deep learning and neural networks is expected to emerge as a major factor driving the expansion of the artificial intelligence chip market by 2030. Advanced AI models require high computational power for training and inference, leading to increased demand for specialized processors such as GPUs, ASICs, and AI accelerators. Industries including healthcare, finance, automotive, and retail are leveraging deep learning for applications such as image recognition, natural language processing, and predictive analytics. Continuous advancements in model complexity and data volumes are further intensifying the need for high-performance AI chips. Consequently, the growing adoption of deep learning and neural networks is projected to contribute around 2.5% annual growth to the market.

Increasing Human Interference With AI Techniques - The increasing human interference with AI techniques is expected to act as a key growth catalyst for the artificial intelligence chip market by 2030. Human involvement in training, fine-tuning, and monitoring AI systems is driving the development of more interactive, adaptive, and responsive AI applications that require efficient processing capabilities. Use cases such as human-in-the-loop systems, real-time decision support, and personalized AI services are expanding across sectors including healthcare, defense, and enterprise solutions. This growing interaction between humans and AI systems necessitates faster, low-latency, and energy-efficient chip solutions. Therefore, increasing human interference with AI techniques is projected to contribute approximately 2.3% annual growth to

the market.

Access The Detailed Artificial Intelligence Chip Market Report Here
https://www.thebusinessresearchcompany.com/report/artificial-intelligence-chip-global-market-report?utm_source=EINPresswire&utm_medium=Paid&utm_campaign=Apr_PR

What Are The Key Growth Opportunities In The Artificial Intelligence Chip Market In 2030?
The most significant growth opportunities are anticipated in the GPU, ASIC, FPGA, CPU, and other chip types market. Collectively, these segments are projected to contribute over $182 billion in market value by 2030, driven by the rapid expansion of generative AI applications, increasing deployment of AI workloads in hyperscale data centers, rising adoption of edge AI across consumer and industrial devices, and continuous advancements in high-performance and energy-efficient chip architectures. This momentum reflects the growing reliance on AI-driven computing, accelerating demand for specialized processors that support faster training, real-time inference, and scalable AI infrastructure across industries.

The GPU market is projected to grow by $85 billion, the ASIC market by $60 billion, the FPGA market by $18 billion, the CPU market by $14 billion, and the other chip types market by $6 billion over the next five years from 2025 to 2030.

Learn More About The Business Research Company
The Business Research Company (www.thebusinessresearchcompany.com) is a leading market intelligence firm renowned for its expertise in company, market, and consumer research. We have published over 17,500 reports across 27 industries and 60+ geographies. Our research is powered by 1,500,000 datasets, extensive secondary research, and exclusive insights from interviews with industry leaders.

We provide continuous and custom research services, offering a range of specialized packages tailored to your needs, including Market Entry Research Package, Competitor Tracking Package, Supplier & Distributor Package and much more.

Disclaimer: Please note that the findings, conclusions and recommendations that TBRC Business Research Pvt Ltd delivers are based on information gathered in good faith from both primary and secondary sources, whose accuracy we are not always in a position to guarantee. As such TBRC Business Research Pvt Ltd can accept no liability whatever for actions taken based on any information that may subsequently prove to be incorrect. Analysis and findings included in TBRC reports and presentations are our estimates, opinions and are not intended as statements of fact or investment guidance."

Oliver Guirdham
The Business Research Company
+44 7882 955267
info@tbrc.info

Visit us on social media:
LinkedIn
Facebook
X
