

Global AI Hardware Market Predicted to Achieve Significant Growth, growing at a CAGR of 31.3% from 2024-2030

LONDON, UK, UNITED KINGDOM, July 9, 2024 /EINPresswire.com/ -- Key contents of the [Global AI Hardware Market](#) report include:-

Market size & Forecast segmented by Geography, Component, Technology, and End User

Technology Trends, Challenges, and Emerging AI Hardware Technologies
Major impact on Technological advancements

Competitive landscape and market share of leading players

New product development in AI Hardware Technologies

The Global AI hardware marketplace is experiencing a sizable increase due to advancements in artificial intelligence

technology and the increasing demand for AI-enabled applications throughout various industries. According to Mobility Foresights, the "Global AI Hardware Market 2024-2030" is predicted to develop at a compounded growth rate (CAGR) of 31.3%.

Market Overview:

The worldwide AI hardware marketplace is booming and is expected to develop at an annual growth charge of compounded (CAGR) of 31.3% according to Mobility Foresights. This surge is driven by the growing adoption of artificial intelligence across various industries, from production and corporation programs to client electronics with smart capabilities.

Edge AI hardware, in particular, designed for actual-time data evaluation at the supply will see the largest growth rate among use cases in the industry. Major players in this area encompass tech giants like Nvidia, Intel, and Samsung, in conjunction with Qualcomm and Huawei.

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KEY FINDINGS:-

- Significant investments in AI studies and development are propelling advancements in AI hardware, with tech giants and startups alike that specialize in modern solutions.
- Sectors which include healthcare, automotive, finance, retail, and manufacturing are the main adoption of AI hardware, leveraging AI for programs starting from diagnostics and self-reliant riding to fraud detection and predictive upkeep.
- North America currently dominates the AI hardware marketplace, with massive investments and a robust presence of primary tech corporations. However, Asia-Pacific is predicted to have the largest growth rate due to increasing investments in AI and a strong manufacturing base.
- Major players like NVIDIA, Intel, IBM, Qualcomm, AMD, and Xilinx are at the leading edge of the market, focusing on strategic collaborations, mergers, acquisitions, and product improvements to decorate their market presence.
- High charges related to AI hardware components, facts privacy, and safety issues, along with the technical complexity of integrating AI systems are remarkably demanding situations that might prevent a market boom.
- The enlargement of AI into emerging markets, improvements in AI hardware together with neuromorphic and quantum computing, and the upward push of side computing are growing opportunities.
- There is a developing need for standardization and interoperability in AI hardware for seamless integration and scalability of AI answers throughout exceptional platforms and industries.
- Government policies and policies concerning the AI era, information usage, and privacy are influencing the development and adoption of AI hardware, necessitating compliance and edition through market players.

Regional Insights:

North America:

The North American marketplace, in particular the United States, will be one of the prime markets for [AI Hardware Market](#) due to the character of business automation inside the vicinity, high customer spending as compared to other areas, and the growth of various industries, specifically AI, along with constant technological improvements.

Europe:

The European marketplace, specifically Western Europe, is another high marketplace for AI Hardware due to the sturdy economic situations within the place, bolstered by robust systems that support sustained growth. This includes research and development of recent technologies, steady innovation, and developments throughout numerous industries that sell regional boom.

Asia:

Asia will stay the global manufacturing hub for AI Hardware Market over the forecast length with China dominating the production. However, there can be a shift in production toward other Asian international locations which includes India and Vietnam. The technological tendencies will come from China, Japan, South Korea, and India with an overarching trend to improve efficiency.

“The AI hardware emphasizes the crucial position of technological improvements in shaping its future. Persevered innovation in AI-particular processors, with GPUs, TPUs, and specialized ASICs, will force the marketplace ahead.”

- Karthik Heroor

Key Growth Drivers:

Healthcare, automotive, finance, and manufacturing sectors are leading the way in AI adoption. For instance, in healthcare, AI is used for diagnostics and personalized remedies, whilst in automotive, it's crucial for independent automobiles and ADAS. These programs require robust AI hardware, driving a market boom.

Continuous innovations in GPUs, ASICs, FPGAs, and rising technologies like neuromorphic and quantum computing are enhancing AI hardware capabilities. These improvements offer better processing energy, efficiency, and specialized solutions tailor-made for complex AI tasks.

The explosion of data from IoT devices and virtual platforms necessitates advanced AI hardware for actual-time data processing and analytics. Additionally, the rise of facet computing, which procedures statistics towards the supply, increases the demand for AI hardware designed for side devices, permitting low latency and real-time analytics.

Governments internationally are helping AI improvement through funding, manufacturing subsidies, and grants. This public investment speeds up studies and improvement in AI technologies and infrastructure, fostering a conducive surrounding for the AI hardware marketplace boom.

Market Challenges:

Component Costs: AI hardware additives, particularly excessive-overall performance GPUs, ASICs, and FPGAs, are expensive and low in supply, making it tough for small and medium-sized enterprises (SMEs) to undertake these technologies.

Total Cost of Ownership: The overall cost of deploying and maintaining AI hardware infrastructure, consisting of energy consumption, cooling, and renovation, can be initially excessive.

Sensitive Data Handling: AI structures frequently require large quantities of records, some of

which can be touchy or non-public. Ensuring information privacy and safety is a considerable venture.

Regulatory Compliance: Compliance with information protection rules such as GDPR, CCPA, and others requires strong safety features, including complexity and fee to AI hardware deployment.

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Recent Launches in the Global AI Hardware Market:

NVIDIA Corporation:

NVIDIA A100 Tensor Core GPU

Description: Built on the Ampere structure, the A100 GPU offers extraordinary acceleration at each scale for AI, facts analytics, and excessive-overall performance computing (HPC) packages.

Key Features: 3rd technology Tensor Cores, multi-instance GPU (MIG) generation, and guide for diverse workloads.

Intel Corporation:

Intel Habana Gaudi2 AI Training Processor

Description: Designed for education deep getting to know fashions, Gaudi2 offers high overall performance and efficiency, providing an alternative to GPUs for AI workloads.

Key Features: Advanced memory structure, excessive-bandwidth connectivity, and optimized for popular AI frameworks.

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Future Outlook:

AI hardware will become more and more integrated into sectors like healthcare, automotive, finance, manufacturing, and retail, enhancing skills in areas that include diagnostics, self-driving, threat management, and predictive maintenance.

Quantum computing and neuromorphic chips are on the horizon, promising to supply remarkable computational strength and performance, revolutionizing AI processing capabilities.

There will be a developing demand for AI hardware optimized for facet computing, permitting

actual-time information processing and analytics on the device level, lowering latency and bandwidth requirements.

The integration of AI into IoT gadgets will boost up, driving the need for efficient AI hardware to guide packages in clever homes, towns, and industrial automation.

Key Benefits for Stakeholders:-

- Quantitative Market Analysis: This report delivers a quantitative analysis of market segments, current trends, estimations, and dynamics from 2024 to 2030 for the Global AI Hardware market, highlighting significant opportunities.
- Driver and Restraint Insights: Detailed insights into key factors driving the market growth, alongside major restraints, help stakeholders understand the impact of various market dynamics.
- Detailed Market Segmentation: An in-depth analysis of market segmentation aids stakeholders in identifying the most lucrative niches.
- Geographic Revenue Mapping: Major countries in each region are mapped according to their revenue contribution to the Global AI Hardware market.
- Market Player Positioning: The report facilitates benchmarking and delivers a clear understanding of the current position of the market players involved.
- Comprehensive Market Outlook: Includes an analysis of regional and Global AI Hardware trends, key players, market segments, application areas, and strategic market growth approaches.

Reasons to Purchase:

- Strategic Decision Support: This report offers valuable data on market forecasts, sector trends, and micro and macro details to support strategic decisions.
- Competitive Strategy Development: Insights into market share and positioning of key market players aid in developing competitive strategies and positioning one's own business effectively.
- Risk Evaluation: Understanding market drivers, restraints, and dynamics helps in assessing potential risks and developing risk mitigation strategies.
- Market Entry and Expansion: Detailed analysis of segmented market growth, geographic trends, and regulatory frameworks assists businesses in planning market entry and expansion strategies.
- Optimal Investment Planning: The report guides stakeholders in identifying regions and sectors ripe for investment, helping optimize investment strategies.
- Regulatory Impact Analysis: Provides a detailed understanding of the regulatory landscape and upcoming changes, which are crucial for compliance and strategic planning.

The report provides insight into current and future potential applications, which help the stakeholder to collaborate with certain players across industries.

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COMPANY PROFILES:

NVIDIA Corporation

Intel Corporation

IBM Corporation

Google LLC

Advanced Micro Devices, Inc. (AMD)

Qualcomm Incorporated

Amazon Web Services (AWS)

Microsoft Corporation

Huawei Technologies Co., Ltd.

Graphcore

THIS REPORT WILL ANSWER FOLLOWING QUESTIONS:

Global AI Hardware market size and forecast, By Geography, Component, Technology, and End User

Competitive landscape and market share of Top Players

Key drivers and restraints shaping the growth of the Global AI Hardware market

Technology trends and related opportunities for Global AI Hardware Manufacturers and suppliers

Unmet Needs And Market Opportunity For Upcoming Players

The potential entry barriers and risks for new players entering the Global AI Hardware market

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