

The Global Market for AI Chips 2024-2034

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Abstracts

The speed of development of generative AI, boosted by the success of OpenAI's ChatGPT, is raising investor interest in companies working on AI-related infrastructure such as AI chips. Artificial Intelligence (AI) chips are a new generation of microprocessors chips designed to efficiently run AI-related workloads like machine learning, neural networks, and deep learning. As AI technology has advanced rapidly in recent years, there has been increasing demand for hardware optimized for AI processing versus general-purpose computer chips. AI chips are designed to run such AI algorithms faster and more efficiently than traditional processors. This has driven extensive research, development, and investment into AI chip technology by established and emerging companies.

The Global Market for AI Chips 2024-2034 provides a comprehensive analysis of the global AI chip landscape. Spanning over 300 pages, the report covers AI chip technology fundamentals, key capabilities enabled, applications across industries, market segmentation, regional trends, major players, start-up ecosystem, funding and investments, challenges, manufacturing and supply chain dynamics, architectural innovations, sustainability impacts, and the future outlook for these transformative technologies.

Multiple data tables and charts quantify market size projections to 2034 by region, vertical, chip type, and more. Profiles of over 100 companies highlight competitive positioning. Expert insights identify growth opportunities as specialized AI hardware progresses. The Global Market for AI Chips 2024-2034 is ideal for semiconductor industry participants, tech investors, and companies strategizing AI chip adoption to inform planning amid this rapidly evolving space.

Report contents include:

AI Chip Technology Fundamentals

Architectures like GPUs, ASICs, neuromorphic chips

Processing capabilities enabled by AI hardware

Development history and ecosystem

Market Landscape and Segmentation

Market size forecasts globally and by region

Breakdown by chip type - ASICs, GPUs, CPUs, FPGAs

Split by training vs inference workloads

Segmentation by end-use industry vertical

Regional Analysis

AI chip development trends in China

Government policies in the US, Europe, South Korea, Japan

Edge AI advances by country

Industry Drivers and Adoption Factors

Key market growth drivers

Government funding and R&D initiatives

Corporate investments fuelling innovation

Applications propelling demand across domains

Competitive Environment

Profiles of over 130 leading companies. Companies profiled include AMD,

Astrus, Celestial AI,

Cerebras, d-Matrix, DEEPX, EdgeCortex® Inc., Etched.ai, Enfabrica, Enflame, Google, Horizon Robotics, IBM, Kneron, Lightmatter, Modular, MediaTek Inc, Mythic, Neuchips, Nvidia, Panmnesia, Rebellions, Samsung, SambaNova Systems, Sapeon, SiMa.ai, SpiNNcloud Systems GmbH and Tenstorrent.

Startups advancing new architectures

Silicon giants leveraging semiconductor expertise

Cloud providers and automotive supplier activity

Technology Innovations

Novel materials, packaging, software abstractions

Architectural advances in processing, memory, interconnects

Progress in manufacturing techniques like lithography, 3D stacking

Challenges and Sustainability

Design, benchmarking, programming complexities

Geopolitical implications and policy considerations

Environmental stewardship priorities and frameworks

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