

Neuromorphic Chip Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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Abstracts

The global neuromorphic chip market size reached US\$ 2.6 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 8.6 Billion by 2028, exhibiting a growth rate (CAGR) of 16.6% during 2023-2028.

A neuromorphic chip is an application-specific integrated circuit (ASIC) microchip that is mainly designed to mimic the functions of the nervous system and human brain. It involves the utilization of software solutions and very-large-scale-integrated (VLSI) systems to imitate the human way of thinking and recognizing. Additionally, it is equipped with artificial synapses and neurons, which are manufactured using silicon that facilitates the system to process like a human brain. As a result, it finds extensive applications in robotics and neuroscience research.

Neuromorphic Chip Market Trends:

The global market is primarily driven by significant growth in the information technology (IT) industry. Along with this, continual technological advancements in the sector are creating a positive outlook for the market. For instance, the integration of artificial intelligence (AI), the Internet of Things (IoT) and advanced analytics with these microchips have positively contributed to the market growth across the globe. Moreover, the widespread adoption of neuromorphic chip-based computing systems to produce coronavirus disease (COVID-19) antibodies in a quick and accurate manner has contributed to the market growth on the global level. Furthermore, the increasing utilization of artificial intelligence (AI)-powered neuromorphic chips in the production of premium cars to build level 5 vehicle models is also positively influencing the market growth. The global market is further driven by the miniaturization of neuromorphic chips and the rising need for data governance. Some of the other factors contributing to the

market growth include rapid digitization across multiple sectors and extensive research and development (R&D) activities conducted by key players to introduce improved product variants with enhanced features.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global neuromorphic chip market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on offering, application and end use industry.

Breakup by Offering:

- Hardware
- Software

Breakup by Application:

- Image Recognition
- Signal Recognition
- Data Mining

Breakup by End Use Industry:

- Aerospace and Defense
- IT and Telecom
- Automotive
- Medical
- Industrial
- Consumer Electronics
- Others

Breakup by Region:

- 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

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Applied Brain Research Inc., BrainChip Holdings Ltd., General Vision Inc., GrAI Matter Labs, Hewlett Packard Enterprise Development LP, HRL Laboratories LLC, Intel Corporation, International Business Machines Corporation, Qualcomm Technologies Inc., Samsung Electronics Co. Ltd. and SK hynix Inc.

Key Questions Answered in This Report

1. What was the size of the global neuromorphic chip market in 2022?
2. What is the expected growth rate of the global neuromorphic chip market during 2023-2028?
3. What are the key factors driving the global neuromorphic chip market?
4. What has been the impact of COVID-19 on the global neuromorphic chip market?
5. What is the breakup of the global neuromorphic chip market based on the offering?
6. What is the breakup of the global neuromorphic chip market based on the application?
7. What are the key regions in the global neuromorphic chip market?
8. Who are the key players/companies in the global neuromorphic chip market?

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