+357 96 030922
info@marketpublishers.com

Global Data Center Chip Market Size, Share & Forecast, by Chip Type (Processors, Memory, Networking), by Data Center Type (Small and Medium-Sized Data Centers, Large Data Centers), by Application (Cloud Computing), by End-use, and Regional Forecasts 2025–2035

https://marketpublishers.com/r/G14ED0B60BE3EN.html
Date: October 2025
Pages: 285
Price: US$ 3,750.00 (Single User License)
ID: G14ED0B60BE3EN

Abstracts

The Global Data Center Chip Market is valued approximately at USD 21.21 billion in 2024 and is anticipated to grow at a CAGR of 12.60% over the forecast period 2025–2035. Data center chips are the backbone of the modern digital economy, driving the computation, storage, and networking functions that enable hyperscale and enterprise data centers to power artificial intelligence, cloud computing, and big data analytics. These chips—encompassing processors, memory, and networking units—are optimized for performance, energy efficiency, and data throughput. The market's expansion is underpinned by a surge in cloud service adoption, exponential data traffic growth, and the increasing penetration of AI-driven workloads. As enterprises shift toward virtualization and distributed computing, the need for powerful, efficient chips capable of handling complex data-intensive processes has never been greater. The ongoing evolution of semiconductor fabrication, coupled with the global rollout of 5G and edge computing infrastructure, further propels market growth, setting the stage for an era of accelerated digital transformation.

The acceleration of digitalization and cloud infrastructure buildout across industries has catalyzed a steep rise in demand for data center chips. According to industry estimates, global data creation is expected to exceed 180 zettabytes by 2025, underscoring the massive computational power required to manage, store, and process such data volumes. As hyperscalers like Amazon Web Services, Google Cloud, and Microsoft

+357 96 030922
info@marketpublishers.com

Azure expand their global data center footprints, the requirement for advanced CPUs, GPUs, and AI accelerators continues to mount. Additionally, the rise of machine learning applications, real-time analytics, and blockchain-based platforms is redefining data processing needs, placing data center chips at the epicenter of next-generation computing. However, the industry faces challenges such as high design costs, supply chain disruptions, and geopolitical trade constraints affecting semiconductor availability. Despite these hurdles, the ongoing shift toward heterogeneous computing architectures presents lucrative opportunities for innovation and market growth throughout 2025–2035.

The detailed segments and sub-segments included in the report are:

By Chip Type:

- Processors
- Memory
- Networking

By Data Center Type:

- Small and Medium-Sized Data Centers
- Large Data Centers

By Application:

- Cloud Computing

By End-use:

- IT & Telecom
- BFSI

+357 96 030922
info@marketpublishers.com

- Healthcare
- Government
- Energy
- Retail & E-commerce
- Manufacturing
- Others

By Region:

North America

- U.S.
- Canada

Europe

- UK
- Germany
- France
- Spain
- Italy
- Rest of Europe

Asia Pacific

+357 96 030922
info@marketpublishers.com

China

India

Japan

Australia

South Korea

Rest of Asia Pacific

Latin America

Brazil

Mexico

Middle East & Africa

UAE

Saudi Arabia

South Africa

Rest of Middle East & Africa

Processors Segment Expected to Dominate the Market

Among the various chip types, the processor segment—including CPUs, GPUs, and specialized AI accelerators—continues to command the largest market share. The segment's dominance is attributed to its pivotal role in executing complex computational workloads, managing virtualized environments, and supporting AI-driven applications. The increasing integration of GPU and FPGA technologies into data center frameworks has revolutionized performance efficiency, allowing for higher throughput

+357 96 030922
info@marketpublishers.com

and reduced latency in data-heavy operations. Furthermore, the ongoing race among semiconductor giants to develop more energy-efficient and high-performance chips tailored for hyperscale facilities has further reinforced processor demand. Although processors dominate the current market landscape, the future is poised for hybrid architectures that balance CPU, GPU, and ASIC capabilities to optimize power consumption and performance efficiency in diverse workload environments.

Large Data Centers Lead the Market's Revenue Contribution

By data center type, large data centers account for the lion's share of market revenue and are expected to maintain their lead throughout the forecast period. These facilities serve as critical nodes for hyperscalers, hosting thousands of interconnected servers and demanding state-of-the-art chips for high-speed data transmission and computation. Large-scale deployments of AI, deep learning, and predictive analytics have intensified the need for scalable processing power, memory bandwidth, and advanced networking chips. Meanwhile, small and medium-sized data centers are experiencing rapid growth, driven by edge computing and localized cloud operations. These centers prioritize low-latency processing and decentralized infrastructure, aligning with the broader industry shift toward distributed computing ecosystems. In essence, large data centers hold the revenue crown, but the rise of agile, smaller facilities is reshaping market dynamics and investment priorities.

The key regions considered for the Global Data Center Chip Market include Asia Pacific, North America, Europe, Latin America, and the Middle East & Africa. North America dominated the market in 2025, supported by robust cloud infrastructure, early AI adoption, and continuous investments by hyperscale data center operators. The presence of leading chip manufacturers and favorable policy frameworks promoting domestic semiconductor production have reinforced the region's leadership. Asia Pacific, however, is anticipated to be the fastest-growing market over the forecast period. Massive digitalization initiatives in China, India, and Southeast Asia, coupled with rising cloud adoption and governmental support for semiconductor ecosystem development, are propelling growth. Europe is steadily expanding its data center capacity to support regional sovereignty over data and sustainability goals, while Latin America and the Middle East & Africa are emerging as promising frontiers for cloud service expansion and digital transformation investments.

Major market players included in this report are:

Intel Corporation

+357 96 030922
info@marketpublishers.com

Advanced Micro Devices, Inc. (AMD)

NVIDIA Corporation

Broadcom Inc.

Qualcomm Technologies, Inc.

Taiwan Semiconductor Manufacturing Company (TSMC)

Samsung Electronics Co., Ltd.

Micron Technology, Inc.

IBM Corporation

Marvell Technology Group Ltd.

Huawei Technologies Co., Ltd.

SK Hynix Inc.

Texas Instruments Incorporated

MediaTek Inc.

Fujitsu Limited

Global Data Center Chip Market Report Scope:

Historical Data – 2023, 2024

Base Year for Estimation – 2024

Forecast Period – 2025–2035

Report Coverage – Revenue forecast, Company Ranking, Competitive

+357 96 030922
info@marketpublishers.com

Landscape, Growth factors, and Trends

Regional Scope – North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope – Free report customization (equivalent to up to 8 analysts' working hours) with purchase. Addition or alteration to country, regional & segment scope*

The objective of the study is to define market sizes of different segments and countries in recent years and to forecast values for the coming years. The report integrates both qualitative and quantitative insights across key geographies, offering an in-depth perspective on growth drivers, restraints, opportunities, and emerging technologies shaping the market's trajectory. Additionally, it provides granular information on market dynamics, micro-market investment opportunities, and a detailed assessment of competitive strategies adopted by leading players operating in the global data center chip landscape.

Key Takeaways:

Market Estimates & Forecast for 10 years from 2025 to 2035.

Annualized revenues and regional-level analysis for each market segment.

Detailed analysis of the geographical landscape with country-level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of the competitive structure of the market.

Demand-side and supply-side analysis of the market.

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

CHAPTER 9. GLOBAL DATA CENTER CHIP MARKET SIZE & FORECASTS BY REGION 2025–2035

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

CHAPTER 10. COMPETITIVE INTELLIGENCE

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Global Data Center Chip Market Size, Share & Forecast, by Chip Type (Processors, Memory, Networking), by Data Center Type (Small and Medium-Sized Data Centers, Large Data Centers), by Application (Cloud Computing), by End-use, and Regional Forecasts 2025–2035

Product link: https://marketpublishers.com/r/G14ED0B60BE3EN.html

Price: US$ 3,750.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/G14ED0B60BE3EN.html