

Data Center Accelerator Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2022-2027

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Abstracts

The global data center accelerator market size reached US\$ 11.8 Billion in 2021. Looking forward, IMARC Group expects the market to reach US\$ 55.7 Billion by 2027, exhibiting a growth rate (CAGR) of 31.62% during 2022-2027. Keeping in mind the uncertainties of COVID-19, we are continuously tracking and evaluating the direct as well as the indirect influence of the pandemic. These insights are included in the report as a major market contributor.

Data center accelerators perform complex computational functions to facilitate a significant increase in the performance of data centers. They consume less power due to their resource-sharing capability with the main processor and reduce the overall cost by improving power efficiency. They can also speed up deep learning, machine learning (ML), and high-performance computing (HPC) workloads of modern data centers. At present, the rising need to increase the networking bandwidth is propelling the use of data center accelerators for managing complex data sets and analytics workloads with optimal performance and rapid efficiency.

Data Center Accelerator Market Trends:

A shift towards remote working culture on account of the coronavirus disease (COVID-19) outbreak and strict lockdown in various countries has positively influenced the use of artificial intelligence (AI) to ease business operations. This is driving the need for data center accelerators to manage AI workloads. Apart from this, due to escalating demand for accelerated computing, there is a rise in the adoption of on-demand graphics processing unit (GPU) cloud computing-based solutions that can run compute-intensive workloads and offer high bandwidth. This is contributing to the growth of the market. Moreover, gaming companies are focusing on expanding their online cloud

gaming services using hardware-based GPU virtualization to support real personal computer (PC) gameplay. This, in confluence with the increasing number of individuals who want to experience realistic online games, is strengthening the market growth. Furthermore, rising number of enterprises are offering machine learning (ML) as a cloud service for applications in voice recognition, fraud detection, voice search, recommendation engines, sentiment analysis, image recognition, and motion detection. This is anticipated to expand the applications of data center accelerators worldwide.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global data center accelerator market report, along with forecasts at the global, regional and country level from 2022-2027. Our report has categorized the market based on accelerator type, processor type and application.

Breakup by Accelerator Type:

- High-performance Computing
- Cloud Accelerator

Breakup by Processor Type:

- Central Processing Unit (CPU)
- Graphics Processing Unit (GPU)
- Field-Programmable Gate Array (FPGA)
- Application-specific Integrated Circuit (ASIC)

Breakup by Application:

- Deep Learning Training
- Public Cloud Interface
- Enterprise Interface

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 Achronix Semiconductor Corporation, Advanced Micro Devices Inc., Cisco Systems Inc., Dell Technologies Inc., Gyrfalcon Technology Inc., Intel Corporation, International Business Machines Corporation, Marvell Technology Inc., Microsemi Corporation (Microchip Technology Inc.), Nvidia Corporation, Qualcomm, and Xilinx Inc.

Key Questions Answered in This Report:

How has the global data center accelerator market performed so far and how will it perform in the coming years?
What has been the impact of COVID-19 on the global data center accelerator market?
What are the key regional markets?
What is the breakup of the market based on the accelerator type?
What is the breakup of the market based on the processor type?
What is the breakup of the market based on the application?
What are the various stages in the value chain of the industry?
What are the key driving factors and challenges in the industry?
What is the structure of the global data center accelerator market and who are the key

players?

What is the degree of competition in the industry?

Contents

1 PREFACE

2 SCOPE AND METHODOLOGY

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
 - 2.3.1 Primary Sources
 - 2.3.2 Secondary Sources
- 2.4 Market Estimation
 - 2.4.1 Bottom-Up Approach
 - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

3 EXECUTIVE SUMMARY

4 INTRODUCTION

- 4.1 Overview
- 4.2 Key Industry Trends

5 GLOBAL DATA CENTER ACCELERATOR MARKET

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

6 MARKET BREAKUP BY ACCELERATOR TYPE

- 6.1 High-performance Computing
 - 6.1.1 Market Trends
 - 6.1.2 Market Forecast
- 6.2 Cloud Accelerator
 - 6.2.1 Market Trends
 - 6.2.2 Market Forecast

7 MARKET BREAKUP BY PROCESSOR TYPE

- 7.1 Central Processing Unit (CPU)
 - 7.1.1 Market Trends
 - 7.1.2 Market Forecast
- 7.2 Graphics Processing Unit (GPU)
 - 7.2.1 Market Trends
 - 7.2.2 Market Forecast
- 7.3 Field-Programmable Gate Array (FPGA)
 - 7.3.1 Market Trends
 - 7.3.2 Market Forecast
- 7.4 Application-specific Integrated Circuit (ASIC)
 - 7.4.1 Market Trends
 - 7.4.2 Market Forecast

8 MARKET BREAKUP BY APPLICATION

- 8.1 Deep Learning Training
 - 8.1.1 Market Trends
 - 8.1.2 Market Forecast
- 8.2 Public Cloud Interface
 - 8.2.1 Market Trends
 - 8.2.2 Market Forecast
- 8.3 Enterprise Interface
 - 8.3.1 Market Trends
 - 8.3.2 Market Forecast

9 MARKET BREAKUP BY REGION

- 9.1 North America
 - 9.1.1 United States
 - 9.1.1.1 Market Trends
 - 9.1.1.2 Market Forecast
 - 9.1.2 Canada
 - 9.1.2.1 Market Trends
 - 9.1.2.2 Market Forecast
- 9.2 Asia-Pacific
 - 9.2.1 China
 - 9.2.1.1 Market Trends

- 9.2.1.2 Market Forecast
- 9.2.2 Japan
 - 9.2.2.1 Market Trends
 - 9.2.2.2 Market Forecast
- 9.2.3 India
 - 9.2.3.1 Market Trends
 - 9.2.3.2 Market Forecast
- 9.2.4 South Korea
 - 9.2.4.1 Market Trends
 - 9.2.4.2 Market Forecast
- 9.2.5 Australia
 - 9.2.5.1 Market Trends
 - 9.2.5.2 Market Forecast
- 9.2.6 Indonesia
 - 9.2.6.1 Market Trends
 - 9.2.6.2 Market Forecast
- 9.2.7 Others
 - 9.2.7.1 Market Trends
 - 9.2.7.2 Market Forecast
- 9.3 Europe
 - 9.3.1 Germany
 - 9.3.1.1 Market Trends
 - 9.3.1.2 Market Forecast
 - 9.3.2 France
 - 9.3.2.1 Market Trends
 - 9.3.2.2 Market Forecast
 - 9.3.3 United Kingdom
 - 9.3.3.1 Market Trends
 - 9.3.3.2 Market Forecast
 - 9.3.4 Italy
 - 9.3.4.1 Market Trends
 - 9.3.4.2 Market Forecast
 - 9.3.5 Spain
 - 9.3.5.1 Market Trends
 - 9.3.5.2 Market Forecast
 - 9.3.6 Russia
 - 9.3.6.1 Market Trends
 - 9.3.6.2 Market Forecast
 - 9.3.7 Others

9.3.7.1 Market Trends

9.3.7.2 Market Forecast

9.4 Latin America

9.4.1 Brazil

9.4.1.1 Market Trends

9.4.1.2 Market Forecast

9.4.2 Mexico

9.4.2.1 Market Trends

9.4.2.2 Market Forecast

9.4.3 Others

9.4.3.1 Market Trends

9.4.3.2 Market Forecast

9.5 Middle East and Africa

9.5.1 Market Trends

9.5.2 Market Breakup by Country

9.5.3 Market Forecast

10 SWOT ANALYSIS

10.1 Overview

10.2 Strengths

10.3 Weaknesses

10.4 Opportunities

10.5 Threats

11 VALUE CHAIN ANALYSIS

12 PORTERS FIVE FORCES ANALYSIS

12.1 Overview

12.2 Bargaining Power of Buyers

12.3 Bargaining Power of Suppliers

12.4 Degree of Competition

12.5 Threat of New Entrants

12.6 Threat of Substitutes

13 PRICE ANALYSIS

14 COMPETITIVE LANDSCAPE

14.1 Market Structure

14.2 Key Players

14.3 Profiles of Key Players

14.3.1 Achronix Semiconductor Corporation

14.3.1.1 Company Overview

14.3.1.2 Product Portfolio

14.3.2 Advanced Micro Devices Inc.

14.3.2.1 Company Overview

14.3.2.2 Product Portfolio

14.3.2.3 Financials

14.3.2.4 SWOT Analysis

14.3.3 Cisco Systems Inc.

14.3.3.1 Company Overview

14.3.3.2 Product Portfolio

14.3.3.3 Financials

14.3.3.4 SWOT Analysis

14.3.4 Dell Technologies Inc.

14.3.4.1 Company Overview

14.3.4.2 Product Portfolio

14.3.4.3 Financials

14.3.4.4 SWOT Analysis

14.3.5 Gyrfalcon Technology Inc.

14.3.5.1 Company Overview

14.3.5.2 Product Portfolio

14.3.6 Intel Corporation

14.3.6.1 Company Overview

14.3.6.2 Product Portfolio

14.3.6.3 Financials

14.3.6.4 SWOT Analysis

14.3.7 International Business Machines Corporation

14.3.7.1 Company Overview

14.3.7.2 Product Portfolio

14.3.7.3 Financials

14.3.7.4 SWOT Analysis

14.3.8 Marvell Technology Inc.

14.3.8.1 Company Overview

14.3.8.2 Product Portfolio

14.3.9 Microsemi Corporation (Microchip Technology Inc.)

- 14.3.9.1 Company Overview
- 14.3.9.2 Product Portfolio
- 14.3.9.3 SWOT Analysis
- 14.3.10 Nvidia Corporation
 - 14.3.10.1 Company Overview
 - 14.3.10.2 Product Portfolio
 - 14.3.10.3 Financials
 - 14.3.10.4 SWOT Analysis
- 14.3.11 Qualcomm
 - 14.3.11.1 Company Overview
 - 14.3.11.2 Product Portfolio
 - 14.3.11.3 Financials
 - 14.3.11.4 SWOT Analysis
- 14.3.12 Xilinx Inc.
 - 14.3.12.1 Company Overview
 - 14.3.12.2 Product Portfolio
 - 14.3.12.3 Financials
 - 14.3.12.4 SWOT Analysis

List Of Tables

LIST OF TABLES

Table 1: Global: Data Center Accelerator Market: Key Industry Highlights, 2021 and 2027

Table 2: Global: Data Center Accelerator Market Forecast: Breakup by Accelerator Type (in Million US\$), 2022-2027

Table 3: Global: Data Center Accelerator Market Forecast: Breakup by Processor Type (in Million US\$), 2022-2027

Table 4: Global: Data Center Accelerator Market Forecast: Breakup by Application (in Million US\$), 2022-2027

Table 5: Global: Data Center Accelerator Market Forecast: Breakup by Region (in Million US\$), 2022-2027

Table 6: Global: Data Center Accelerator Market: Competitive Structure

Table 7: Global: Data Center Accelerator Market: Key Players

List Of Figures

LIST OF FIGURES

Figure 1: Global: Data Center Accelerator Market: Major Drivers and Challenges

Figure 2: Global: Data Center Accelerator Market: Sales Value (in Billion US\$), 2016-2021

Figure 3: Global: Data Center Accelerator Market Forecast: Sales Value (in Billion US\$), 2022-2027

Figure 4: Global: Data Center Accelerator Market: Breakup by Accelerator Type (in %), 2021

Figure 5: Global: Data Center Accelerator Market: Breakup by Processor Type (in %), 2021

Figure 6: Global: Data Center Accelerator Market: Breakup by Application (in %), 2021

Figure 7: Global: Data Center Accelerator Market: Breakup by Region (in %), 2021

Figure 8: Global: Data Center Accelerator (High-performance Computing) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 9: Global: Data Center Accelerator (High-performance Computing) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 10: Global: Data Center Accelerator (Cloud Accelerator) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 11: Global: Data Center Accelerator (Cloud Accelerator) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 12: Global: Data Center Accelerator (Central Processing Unit-CPU) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 13: Global: Data Center Accelerator (Central Processing Unit-CPU) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 14: Global: Data Center Accelerator (Graphics Processing Unit-GPU) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 15: Global: Data Center Accelerator (Graphics Processing Unit-GPU) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 16: Global: Data Center Accelerator (Field-Programmable Gate Array-FPGA) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 17: Global: Data Center Accelerator (Field-Programmable Gate Array-FPGA) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 18: Global: Data Center Accelerator (Application-specific Integrated Circuit-ASIC) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 19: Global: Data Center Accelerator (Application-specific Integrated Circuit-ASIC) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 20: Global: Data Center Accelerator (Deep Learning Training) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 21: Global: Data Center Accelerator (Deep Learning Training) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 22: Global: Data Center Accelerator (Public Cloud Interface) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 23: Global: Data Center Accelerator (Public Cloud Interface) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 24: Global: Data Center Accelerator (Enterprise Interface) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 25: Global: Data Center Accelerator (Enterprise Interface) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 26: North America: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 27: North America: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 28: United States: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 29: United States: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 30: Canada: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 31: Canada: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 32: Asia-Pacific: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 33: Asia-Pacific: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 34: China: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 35: China: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 36: Japan: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 37: Japan: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 38: India: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 39: India: Data Center Accelerator Market Forecast: Sales Value (in Million US\$),

2022-2027

Figure 40: South Korea: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 41: South Korea: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 42: Australia: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 43: Australia: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 44: Indonesia: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 45: Indonesia: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 46: Others: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 47: Others: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 48: Europe: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 49: Europe: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 50: Germany: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 51: Germany: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 52: France: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 53: France: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 54: United Kingdom: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 55: United Kingdom: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 56: Italy: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 57: Italy: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 58: Spain: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 59: Spain: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 60: Russia: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 61: Russia: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 62: Others: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 63: Others: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 64: Latin America: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 65: Latin America: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 66: Brazil: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 67: Brazil: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 68: Mexico: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 69: Mexico: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 70: Others: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 71: Others: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 72: Middle East and Africa: Data Center Accelerator Market: Sales Value (in Million US\$), 2016 & 2021

Figure 73: Middle East and Africa: Data Center Accelerator Market: Breakup by Country (in %), 2021

Figure 74: Middle East and Africa: Data Center Accelerator Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 75: Global: Data Center Accelerator Industry: SWOT Analysis

Figure 76: Global: Data Center Accelerator Industry: Value Chain Analysis

Figure 77: Global: Data Center Accelerator Industry: Porter's Five Forces Analysis

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