

Microprocessor and GPU Market by Architecture, Functionality, GPU Type, Deployment, Application (Consumer Electronics, Server and Data Center, Automotive, BFSI, Aerospace & Defense, Healthcare, Industrial), and Geography - Global Forecast to 2025

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Abstracts

The global microprocessor and GPU market size is estimated to be USD 79.2 billion in 2020 and is projected to reach 112.7 billion by 2025, at a CAGR of 7.3% during the forecast period. The market has a promising growth potential due to several factors, including the increase in demand for consumer electronics and rise in adoption of Internet of Things (IoT)-enabled devices and equipment. Moreover, the implementation of cloud-based platforms and server environments during the COVID-19 pandemic could play a key role in driving the growth of the microprocessor and GPU market.

“In-premise GPU can be implemented for desktop, workstations, and enterprises, and therefore, offers a broad portfolio of products and solutions for end users”

The in-premise segment is projected to grow at the highest CAGR from 2020 to 2025 for microprocessor and GPU market, by deployment. In-premise GPU offers developers the advantage of performing unlimited iteration and testing time at a fixed, one-time cost. It can be used for game development, retail, supercomputing, telecommunication, smart cities, transportation, and other industrial applications. The increasing adoption of supercomputers to accelerate the discovery of drugs, predicting the weather, performing scientific discovery, and running simulation programs has also spurred the growth of in-premise GPU solutions.

“Real-time systems segment is estimated to have largest market share in 2025 and register higher CAGR growth during forecast period”

The real-time systems segment for microprocessor and GPU market is estimated to have the largest market share in 2025 and register higher CAGR growth during the forecast period, by functionality. Microprocessors used in real-time systems perform dedicated functions, including calculations and word processing within specified time constraints at high speeds through real-time computing capabilities. Some of the applications of real-time system based devices include anti-lock braking systems, process control systems, traffic control systems, simulation systems, network systems, medical systems, fly-by-wire (FBW) systems, among others. The high adoption of application-specific microprocessors and embedded microprocessors for various applications including medical systems, industrial, advanced driver assistance system (ADAS), and automotive electronics systems is expected to grow the demand for real-time system.

“APAC is projected to become the fastest geographical market between 2020 and 2025”

APAC is projected to grow at the highest CAGR for microprocessor and GPU market during the forecast period. The region is home to some of the major global semiconductor foundries, such as Taiwan Semiconductor Manufacturing Company, Limited (TSMC) (Taiwan), Samsung Group (South Korea), and United Microelectronics Corporation (UMC) (Taiwan). The presence of these companies, along with many other small-scale foundries in the region, is also expected to contribute to the growth of the microprocessor and GPU market in APAC during the forecast period. The semiconductor & electronics industry is booming in the region due to the high demand for consumer electronics. The availability and demand for low-cost electronic products in APAC countries such as China and India are expected to further contribute to an increased demand for microprocessors in the region. All these factors are expected to contribute to the growth of the microprocessor and GPU market in APAC.

Breakdown of profiles of primary participants:

By Company: Tier 1 = 60%, Tier 2 = 25%, and Tier 3 = 15%

By Designation: C-level Executives = 25%, Directors = 35%, and Others (sales, marketing, and product managers, as well as members of various organizations) = 40%

By Region: APAC = 45%, North America = 25%, Europe=20%, and ROW=10%

Major players profiled in this report:

The microprocessor and GPU market is dominated by a few globally established players such as Intel Corporation (US), Nvidia Corporation (US), Advanced Micro Devices (AMD), Inc. (US), Samsung Electronics Corporation (Samsung Semiconductor) (South Korea), Qualcomm Inc. (US), Broadcom Inc. (US), Texas Instruments (US), MediaTek Inc. (Taiwan), Marvell Technology Group (Bermuda), and IBM Corporation (US).

Research coverage

This report offers detailed insights into the microprocessor and GPU market based on architecture (x86, ARM, SPARC), GPU type (discrete and integrated), deployment (in-premise and on-cloud), functionality (real-time systems and standalone systems), application (consumer electronics, automotive, servers & datacenters, aerospace & defense, banking, financial services, and insurance (BFSI), healthcare, and industrial), and region (Americas, Europe, Asia Pacific (APAC), and Rest of the World (RoW) which includes the Middle East and Africa (MEA)).

The report also provides a comprehensive review of market drivers, restraints, opportunities, and challenges in the microprocessor and GPU market. The report also covers qualitative aspects in addition to the quantitative aspects of these markets.

Key Benefits of Buying the Report

The report will help the leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall market and the sub-segments. This report will help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the microprocessor and GPU market and provides them information on key market drivers, restraints, challenges, and opportunities.

Contents

1 INTRODUCTION

1.1 STUDY OBJECTIVES

1.2 DEFINITION

1.2.1 GENERAL INCLUSIONS & EXCLUSIONS

1.2.2 INCLUSIONS & EXCLUSIONS AT COMPANY-LEVEL

1.2.3 INCLUSIONS & EXCLUSIONS AT ARCHITECTURE LEVEL

1.2.4 INCLUSIONS & EXCLUSIONS AT FUNCTIONALITY LEVEL

1.2.5 INCLUSIONS & EXCLUSIONS AT APPLICATION LEVEL

1.3 SCOPE

1.3.1 MARKETS COVERED

FIGURE 1 MICROPROCESSOR AND GPU MARKET SEGMENTATION

1.3.2 GEOGRAPHIC SCOPE

1.3.3 YEARS CONSIDERED

1.4 CURRENCY

1.5 PACKAGING SIZE

1.6 MARKET STAKEHOLDERS

1.7 SUMMARY OF CHANGES

2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 2 MICROPROCESSOR AND GPU MARKET: RESEARCH DESIGN

2.1.1 SECONDARY DATA

2.1.1.1 Secondary sources

2.1.2 PRIMARY DATA

2.1.2.1 Breakdown of primary interviews

2.1.2.2 Key data from primary sources

2.1.2.3 Key industry insights

2.2 MARKET SIZE ESTIMATION

FIGURE 3 MARKET SIZE ESTIMATION METHODOLOGY: APPROACH 1 (SUPPLY SIDE)—REVENUE GENERATED BASED ON SALES

FIGURE 4 MARKET SIZE ESTIMATION METHODOLOGY: APPROACH 2

BOTTOM-UP (SUPPLY SIDE)—ILLUSTRATION OF REVENUE ESTIMATION OF COMPANIES BASED ON SALES

FIGURE 5 MARKET SIZE ESTIMATION METHODOLOGY: APPROACH 3—BOTTOM-UP ESTIMATION OF SIZE OF THE MICROPROCESSOR AND GPU MARKET, BY

PRODUCT TYPE (MICROPROCESSOR)

2.2.1 BOTTOM-UP APPROACH

2.2.1.1 Approach for estimating market size using the bottom-up approach (demand side)

FIGURE 6 MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH

2.2.2 TOP-DOWN APPROACH

2.2.2.1 Approach for estimating market size using the top-down approach (supply-side)

FIGURE 7 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH

2.3 MARKET BREAKDOWN AND DATA TRIANGULATION

FIGURE 8 DATA TRIANGULATION

2.4 RESEARCH ASSUMPTIONS

2.5 LIMITATIONS OF THE STUDY

3 EXECUTIVE SUMMARY

3.1 SCENARIO ANALYSIS

FIGURE 9 SCENARIO ANALYSIS FOR THE MICROPROCESSOR MARKET WITH RESPECT TO THE IMPACT OF COVID-19

FIGURE 10 COMPARISON CHART FOR THE GPU MARKET WITH RESPECT TO THE IMPACT OF COVID-19

3.1.1 PRE-COVID-19 SCENARIO

3.1.2 PESSIMISTIC SCENARIO (POST-COVID-19)

3.1.3 OPTIMISTIC SCENARIO (POST-COVID-19)

3.1.4 REALISTIC SCENARIO (POST-COVID-19)

FIGURE 11 GPU MARKET IS PROJECTED TO GROW AT A HIGHER CAGR FROM 2020 TO 2025

FIGURE 12 MICROPROCESSORS TO HOLD LARGEST MARKET SHARE IN CONSUMER ELECTRONICS BY 2025

FIGURE 13 ARM ARCHITECTURE IN MICROPROCESSORS TO GROW AT THE HIGHEST CAGR FROM 2020 TO 2025

FIGURE 14 REAL-TIME SYSTEMS TO GROW AT A HIGHER CAGR FROM 2020 TO 2025

FIGURE 15 THE SERVERS & DATACENTERS SEGMENT IN THE GPU MARKET TO GROW AT A HIGHEST CAGR FROM 2020 TO 2025

FIGURE 16 APAC MARKET FOR MICROPROCESSORS TO GROW AT THE HIGHEST CAGR FROM 2020 TO 2025

4 PREMIUM INSIGHTS

4.1 ATTRACTIVE GROWTH OPPORTUNITIES IN THE MICROPROCESSOR AND GPU MARKET

FIGURE 17 INCREASING GLOBAL DEMAND FOR IOT, DATACENTERS, HIGH-PERFORMANCE COMPUTING (HPC) APPLICATIONS TO SPUR GROWTH OF THE MARKET

4.2 MICROPROCESSOR AND GPU MARKET, BY COUNTRY

FIGURE 18 MICROPROCESSOR MARKET IN CHINA PROJECTED TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

4.3 MICROPROCESSOR AND GPU MARKET, BY DEPLOYMENT

FIGURE 19 PREMISE DEPLOYMENT TO ACCOUNT FOR THE LARGEST SHARE OF THE GPU MARKET BY 2025

4.4 AMERICAS: MICROPROCESSOR MARKET, BY APPLICATION & COUNTRY

FIGURE 20 CONSUMER ELECTRONICS APPLICATION AND THE US TO ACCOUNT FOR LARGEST SHARES OF THE MICROPROCESSOR MARKET IN THE AMERICAS BY 2025

5 MARKET OVERVIEW

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

FIGURE 21 MICROPROCESSOR AND GPU MARKET DYNAMICS

5.2.1 DRIVERS

5.2.1.1 Increase in demand for high performance and energy-efficient processors and GPUs

5.2.1.2 Rise in the adoption of Internet of Things (IoT)-enabled devices and equipment

FIGURE 22 M2M CONNECTIONS, 2018–2023 (IN BILLION)

FIGURE 23 ESTIMATION OF IOT CONNECTIONS BY 2025 (BILLION)

5.2.1.3 Implementation of cloud-based platforms and server environments during the COVID-19 pandemic

FIGURE 24 DATA CENTER TRAFFIC, BY 2021 (ZETTABYTE)

FIGURE 25 MICROPROCESSOR AND GPU MARKET DRIVERS AND THEIR IMPACT

5.2.2 RESTRAINTS

5.2.2.1 Decrease in demand for PCs

5.2.2.2 Rise in adoption of alternative solutions

FIGURE 26 MICROPROCESSOR AND GPU MARKET RESTRAINTS AND THEIR IMPACT

5.2.3 OPPORTUNITIES

5.2.3.1 Increase in demand for artificial intelligence (AI) and deep learning-based applications, such as supercomputers, amidst COVID-19 pandemic

5.2.3.2 Increase in adoption of smart factories and Industry 4.0

FIGURE 27 SMART FACTORY MARKET SIZE, 2018–2022 (USD BILLION)

5.2.3.3 Adoption of remote working practices due to COVID-19 pandemic

FIGURE 28 MICROPROCESSOR AND GPU MARKET OPPORTUNITIES AND THEIR IMPACT

5.2.4 CHALLENGES

5.2.4.1 Instability in the prices of GPU

5.2.4.2 Rapid technological changes in the market with high consumer demands

5.2.4.3 Short-term decrease in demand for smartphones and tablets due to the COVID-19 pandemic

FIGURE 29 MICROPROCESSOR AND GPU MARKET CHALLENGES AND THEIR IMPACT

5.3 VALUE CHAIN ANALYSIS

FIGURE 30 VALUE CHAIN ANALYSIS OF MICROPROCESSOR AND GPU MARKET

5.4 ECOSYSTEM

FIGURE 31 ECOSYSTEM VIEW

5.5 AVERAGE SELLING PRICE TRENDS

FIGURE 32 AVERAGE SELLING PRICE TREND FOR GPU FROM 2016 TO 2025

5.6 TECHNOLOGY ANALYSIS

5.6.1 CLOUD GPU

5.7 CASE STUDIES

5.7.1 DEPLOYMENT OF AMD EPYC CPU AT THE LHCB EXPERIMENT AT CERN

5.7.2 DEVELOPMENT OF FUJIFILM'S AMULET FOR 3D-DISPLAY-ENABLED MAMMOGRAM IMAGING

5.8 REGULATORY UPDATE

6 MICROPROCESSOR MARKET, BY ARCHITECTURE

6.1 INTRODUCTION

FIGURE 33 ARM ARCHITECTURE PROJECTED TO GROW AT THE HIGHEST CAGR FROM 2020 TO 2025

TABLE 1 MICROPROCESSOR MARKET, BY ARCHITECTURE, 2016–2019 (USD MILLION)

TABLE 2 MICROPROCESSOR MARKET, BY ARCHITECTURE, 2020–2025 (USD MILLION)

TABLE 3 MICROPROCESSOR MARKET, BY ARCHITECTURE, 2016–2019

(THOUSAND UNITS)

TABLE 4 MICROPROCESSOR MARKET, BY ARCHITECTURE, 2020–2025

(THOUSAND UNITS)

6.2 X86

6.2.1 VARIOUS SOFTWARE AND OPERATING SYSTEM (OS) SUCH AS DOS, LINUX, WINDOWS, SOLARIS, BSD, AND MAC OS SUPPORT X86 BASED HARDWARE

6.3 ARM

6.3.1 EASY TO MANAGE, SIMPLE, AND POWER-EFFICIENT DESIGN OF THE ARM ARCHITECTURE LEAD TO ITS HIGH COMPATIBILITY WITH LOW-POWERED EMBEDDED AND PORTABLE DEVICES

6.4 SPARC

6.4.1 VARIOUS FIRMWARE RELEASES OVER THE PAST YEARS HAVE IMPROVED THE PERFORMANCE, SECURITY CAPABILITIES, AND EFFICIENCY OF THESE PROCESSORS

6.5 OTHER ARCHITECTURE TYPES

6.5.1 HIGH ADAPTABILITY OFFERED BY POWER ARCHITECTURE-BASED PLATFORM TO INTEGRATE AI TECHNOLOGY AND MACHINE LEARNING INTO ITS OPERATIONS DRIVE ITS MARKET GROWTH

7 GRAPHICS PROCESSOR UNIT (GPU) MARKET, BY DEPLOYMENT

7.1 INTRODUCTION

FIGURE 34 ON-CLOUD GPU MARKET PROJECTED TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

TABLE 5 GPU MARKET, BY DEPLOYMENT, 2016–2019 (USD MILLION)

TABLE 6 GPU MARKET, BY DEPLOYMENT, 2020–2025 (USD MILLION)

TABLE 7 GPU MARKET, BY DEPLOYMENT, 2016–2019 (THOUSAND UNITS)

TABLE 8 GPU MARKET, BY DEPLOYMENT, 2020–2025 (THOUSAND UNITS)

7.2 ON-CLOUD GPU

7.2.1 INCREASING ADOPTION OF VIRTUAL GPU IN PLACE OF VIRTUAL DESKTOP INFRASTRUCTURE DRIVING THE GROWTH OF ON-CLOUD GPU

7.3 IN-PREMISE GPU

7.3.1 IN-PREMISE GPU BENEFIT FROM DATA SOVEREIGNTY AND PRIVACY, WHICH MAKES THEM SUITABLE FOR USE IN THE HEALTHCARE AND FINANCIAL INDUSTRIES

8 GRAPHICS PROCESSOR UNIT (GPU) MARKET, BY TYPE

8.1 INTRODUCTION

FIGURE 35 DISCRETE GPU MARKET PROJECTED TO GROW AT A HIGHER CAGR FROM 2020 TO 2025

TABLE 9 GPU MARKET, BY TYPE, 2016–2019 (USD BILLION)

TABLE 10 GPU MARKET, BY TYPE, 2020–2025 (USD BILLION)

TABLE 11 GPU MARKET, BY TYPE, 2016–2019 (MILLION UNITS)

TABLE 12 GPU MARKET, BY TYPE, 2020–2025 (MILLION UNITS)

8.2 DISCRETE GPU

8.2.1 INCREASING DEMAND FOR RAY TRACING AND CLOUD COMPUTING APPLICATIONS PROJECTED TO INCREASE THE USE OF DISCRETE GPU

TABLE 13 MARKET FOR DISCRETE GPU, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 14 MARKET FOR DISCRETE GPU, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 15 MARKET FOR DISCRETE GPU, BY APPLICATION, 2016–2019 (MILLION UNITS)

TABLE 16 MARKET FOR DISCRETE GPU, BY APPLICATION, 2020–2025 (MILLION UNITS)

TABLE 17 MARKET FOR DISCRETE GPU, BY REGION, 2016–2019 (USD MILLION)

TABLE 18 MARKET FOR DISCRETE GPU, BY REGION, 2020–2025 (USD MILLION)

TABLE 19 MARKET FOR DISCRETE GPU, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 20 MARKET FOR DISCRETE GPU, BY REGION, 2020–2025 (MILLION UNITS)

8.3 INTEGRATED GPU

8.3.1 INCREASING SUPPORT FOR AUGMENTED REALITY (AR) AND VIRTUAL REALITY (VR) APPLICATIONS IN SMARTPHONES AND TABLETS INCREASING THE DEMAND FOR INTEGRATED GPUS

TABLE 21 MARKET FOR INTEGRATED GPU, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 22 MARKET FOR INTEGRATED GPU, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 23 MARKET FOR INTEGRATED GPU, BY APPLICATION, 2016–2019 (MILLION UNITS)

TABLE 24 MARKET FOR INTEGRATED GPU, BY APPLICATION, 2020–2025 (MILLION UNITS)

TABLE 25 MARKET FOR INTEGRATED GPU, BY REGION, 2016–2019 (USD MILLION)

TABLE 26 MARKET FOR INTEGRATED GPU, BY REGION, 2020–2025 (USD

MILLION)

TABLE 27 MARKET FOR INTEGRATED GPU, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 28 MARKET FOR INTEGRATED GPU, BY REGION, 2020–2025 (MILLION UNITS)

9 MICROPROCESSOR MARKET, BY FUNCTIONALITY

9.1 INTRODUCTION

FIGURE 36 MARKET FOR MICROPROCESSORS USED IN REAL-TIME SYSTEMS PROJECTED TO GROW AT THE HIGHEST CAGR FROM 2020 TO 2025

TABLE 29 MICROPROCESSOR MARKET, BY FUNCTIONALITY, 2016–2019 (USD BILLION)

TABLE 30 MICROPROCESSOR MARKET, BY FUNCTIONALITY, 2020–2025 (USD BILLION)

TABLE 31 MICROPROCESSOR MARKET, BY FUNCTIONALITY, 2016–2019 (MILLION UNITS)

TABLE 32 MICROPROCESSOR MARKET, BY FUNCTIONALITY, 2020–2025 (MILLION UNITS)

9.2 REAL-TIME SYSTEMS

9.2.1 HIGH ADOPTION OF REAL-TIME SYSTEMS MICROPROCESSOR FOR VARIOUS APPLICATIONS DRIVING THEIR MARKET DEMAND

TABLE 33 MICROPROCESSORS MARKET FOR REAL-TIME SYSTEMS, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 34 MICROPROCESSORS MARKET FOR REAL-TIME SYSTEMS, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 35 MICROPROCESSORS MARKET FOR REAL-TIME SYSTEMS, BY APPLICATION, 2016–2019 (THOUSAND UNITS)

TABLE 36 MICROPROCESSORS MARKET FOR REAL-TIME SYSTEMS, BY APPLICATION, 2020–2025 (THOUSAND UNITS)

TABLE 37 MICROPROCESSORS MARKET FOR REAL-TIME SYSTEMS, BY REGION, 2016–2019 (USD BILLION)

TABLE 38 MICROPROCESSORS MARKET FOR REAL-TIME SYSTEMS, BY REGION, 2020–2025 (USD BILLION)

TABLE 39 MICROPROCESSORS MARKET FOR REAL-TIME SYSTEMS, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 40 MICROPROCESSORS MARKET FOR REAL-TIME SYSTEMS, BY REGION, 2020–2025 (MILLION UNITS)

9.3 STANDALONE SYSTEMS

9.3.1 USE OF STANDALONE SYSTEMS IN DIGITAL CAMERAS, VIDEO GAME CONSOLES, DESKTOPS, WORKSTATIONS, AND INFORMATION KIOSK

TABLE 41 MICROPROCESSORS MARKET FOR STANDALONE SYSTEMS, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 42 MICROPROCESSORS MARKET FOR STANDALONE SYSTEMS, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 43 MICROPROCESSORS MARKET FOR STANDALONE SYSTEMS, BY APPLICATION, 2016–2019 (THOUSAND UNITS)

TABLE 44 MICROPROCESSORS MARKET FOR STANDALONE SYSTEMS, BY APPLICATION, 2020–2025 (THOUSAND UNITS)

TABLE 45 MICROPROCESSORS MARKET FOR STANDALONE SYSTEMS, BY REGION, 2016–2019 (USD BILLION)

TABLE 46 MICROPROCESSORS MARKET FOR STANDALONE SYSTEMS, BY REGION, 2020–2025 (USD BILLION)

TABLE 47 MICROPROCESSORS MARKET FOR STANDALONE SYSTEMS, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 48 MICROPROCESSORS MARKET FOR STANDALONE SYSTEMS, BY REGION, 2020–2025 (MILLION UNITS)

10 MICROPROCESSOR AND GPU MARKET, BY APPLICATION

10.1 MICROPROCESSOR BY APPLICATION

10.1.1 INTRODUCTION

FIGURE 37 AUTOMOTIVE SEGMENT PROJECTED TO GROW AT HIGHEST CAGR FROM 2020 TO 2025

TABLE 49 MICROPROCESSOR MARKET, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 50 MICROPROCESSOR MARKET, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 51 MICROPROCESSOR MARKET, BY APPLICATION, 2016–2019 (MILLION UNIT)

TABLE 52 MICROPROCESSOR MARKET, BY APPLICATION, 2020–2025 (MILLION UNITS)

10.1.2 CONSUMER ELECTRONICS

10.1.2.1 Ease of operation, low setup and maintenance costs, and high reliability expected to drive the market for low-voltage servo motors

TABLE 53 MICROPROCESSOR MARKET FOR CONSUMER ELECTRONICS, BY ARCHITECTURE, 2016–2019 (USD MILLION)

TABLE 54 MICROPROCESSOR MARKET FOR CONSUMER ELECTRONICS, BY

ARCHITECTURE, 2020–2025 (USD MILLION)

TABLE 55 MICROPROCESSOR MARKET FOR CONSUMER ELECTRONICS, BY ARCHITECTURE, 2016–2019 (MILLION UNITS)

TABLE 56 MICROPROCESSOR MARKET FOR CONSUMER ELECTRONICS, BY ARCHITECTURE, 2020–2025 (MILLION UNITS)

TABLE 57 MICROPROCESSOR MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2016–2019 (USD BILLION)

TABLE 58 MICROPROCESSOR MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2020–2025 (USD MILLION)

TABLE 59 MICROPROCESSOR MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 60 MICROPROCESSOR MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2020–2025 (MILLION UNITS)

10.1.2.2 Key applications in consumer electronics

10.1.2.2.1 Desktops

10.1.2.2.2 Laptops

10.1.2.2.3 Smartphones

10.1.2.2.4 Tablets

10.1.2.2.5 Embedded Consumer Electronics

10.1.2.2.6 Smart TVs

10.1.2.2.6.1 Smartwatches

10.1.2.2.6.2 E-readers

10.1.2.2.6.3 Gaming consoles

10.1.2.2.6.4 Smart eyewear

10.1.2.2.6.5 Digital media boxes

10.1.3 SERVERS & DATACENTERS

10.1.3.1 High adoption of enterprise AI servers, with support for deep learning training and inference models, leading to the growth of microprocessor used in servers

TABLE 61 MICROPROCESSOR MARKET FOR SERVERS & DATACENTERS, BY ARCHITECTURE, 2016–2019 (USD MILLION)

TABLE 62 MICROPROCESSOR MARKET FOR SERVERS & DATACENTERS, BY ARCHITECTURE, 2020–2025 (USD MILLION)

TABLE 63 MICROPROCESSOR MARKET FOR SERVERS & DATACENTERS, BY ARCHITECTURE, 2016–2019 (MILLION UNITS)

TABLE 64 MICROPROCESSOR MARKET FOR SERVERS & DATACENTERS, BY ARCHITECTURE, 2020–2025 (MILLION UNITS)

TABLE 65 MICROPROCESSOR MARKET FOR SERVERS & DATACENTERS, BY REGION, 2016–2019 (USD MILLION)

TABLE 66 MICROPROCESSOR MARKET FOR SERVERS & DATACENTERS, BY

REGION, 2020–2025 (USD MILLION)

TABLE 67 MICROPROCESSOR MARKET FOR SERVERS & DATACENTERS, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 68 MICROPROCESSOR MARKET FOR SERVERS & DATACENTERS, BY REGION, 2020–2025 (MILLION UNITS)

10.1.4 AUTOMOTIVE

10.1.4.1 Increasing penetration of advanced HMIs on shop floors to increase the use of processors

TABLE 69 MICROPROCESSOR MARKET FOR AUTOMOTIVE, BY ARCHITECTURE, 2016–2019 (USD MILLION)

TABLE 70 MICROPROCESSOR MARKET FOR AUTOMOTIVE, BY ARCHITECTURE, 2020–2025 (USD MILLION)

TABLE 71 MICROPROCESSOR MARKET FOR AUTOMOTIVE, BY ARCHITECTURE, 2016–2019 (MILLION UNITS)

TABLE 72 MICROPROCESSOR MARKET FOR AUTOMOTIVE, BY ARCHITECTURE, 2020–2025 (MILLION UNITS)

TABLE 73 MICROPROCESSOR MARKET FOR AUTOMOTIVE, BY REGION, 2016–2019 (USD MILLION)

TABLE 74 MICROPROCESSOR MARKET FOR AUTOMOTIVE, BY REGION, 2020–2025 (USD MILLION)

TABLE 75 MICROPROCESSOR MARKET FOR AUTOMOTIVE, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 76 MICROPROCESSOR MARKET FOR AUTOMOTIVE, BY REGION, 2020–2025 (MILLION UNITS)

10.1.4.2 Key applications in automotive

10.1.4.2.1 Infotainment

10.1.4.2.2 Advanced Driver Assistance Systems (ADAS)

10.1.5 BANKING, FINANCIAL SERVICES, AND INSURANCE (BFSI)

10.1.5.1 High penetration of robotics process automation (RPA), which combines robotic automation and artificial intelligence (AI)

TABLE 77 MICROPROCESSOR MARKET FOR BFSI, BY ARCHITECTURE, 2016–2019 (USD MILLION)

TABLE 78 MICROPROCESSOR MARKET FOR BFSI, BY ARCHITECTURE, 2020–2025 (USD MILLION)

TABLE 79 MICROPROCESSOR MARKET FOR BFSI, BY ARCHITECTURE, 2016–2019 (MILLION UNITS)

TABLE 80 MICROPROCESSOR MARKET FOR BFSI, BY ARCHITECTURE, 2020–2025 (MILLION UNITS)

TABLE 81 MICROPROCESSOR MARKET FOR BFSI, BY REGION, 2016–2019 (USD

MILLION)

TABLE 82 MICROPROCESSOR MARKET FOR BFSI, BY REGION, 2020–2025 (USD MILLION)

TABLE 83 MICROPROCESSOR MARKET FOR BFSI, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 84 MICROPROCESSOR MARKET FOR BFSI, BY REGION, 2020–2025 (MILLION UNITS)

10.1.5.2 Key applications in BFSI

10.1.5.2.1 Automated Teller Machine (ATM)

10.1.5.2.2 Point of Sale (POS)

10.1.6 HEALTHCARE

10.1.6.1 Medical equipment and devices for diagnostics, therapy, and imaging applications needing microprocessors

TABLE 85 MICROPROCESSOR MARKET FOR HEALTHCARE, BY ARCHITECTURE, 2016–2019 (USD MILLION)

TABLE 86 MICROPROCESSOR MARKET FOR HEALTHCARE, BY ARCHITECTURE, 2020–2025 (USD MILLION)

TABLE 87 MICROPROCESSOR MARKET FOR HEALTHCARE, BY ARCHITECTURE, 2016–2019 (MILLION UNITS)

TABLE 88 MICROPROCESSOR MARKET FOR HEALTHCARE, BY ARCHITECTURE, 2020–2025 (MILLION UNITS)

TABLE 89 MICROPROCESSOR MARKET FOR HEALTHCARE, BY REGION, 2016–2019 (USD MILLION)

TABLE 90 MICROPROCESSOR MARKET FOR HEALTHCARE, BY REGION, 2020–2025 (USD MILLION)

TABLE 91 MICROPROCESSOR MARKET FOR HEALTHCARE, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 92 MICROPROCESSOR MARKET FOR HEALTHCARE, BY REGION, 2020–2025 (MILLION UNITS)

10.1.7 AEROSPACE & DEFENSE

10.1.7.1 Increasing penetration of robots for use in surveillance, neutralizing explosive devices, and reconnaissance, in the defense sector

TABLE 93 MICROPROCESSOR MARKET FOR AEROSPACE & DEFENSE, BY ARCHITECTURE, 2016–2019 (USD MILLION)

TABLE 94 MICROPROCESSOR MARKET FOR AEROSPACE & DEFENSE, BY ARCHITECTURE, 2020–2025 (USD MILLION)

TABLE 95 MICROPROCESSOR MARKET FOR AEROSPACE & DEFENSE, BY ARCHITECTURE, 2016–2019 (MILLION UNITS)

TABLE 96 MICROPROCESSOR MARKET FOR AEROSPACE & DEFENSE, BY

ARCHITECTURE, 2020–2025 (MILLION UNITS)

TABLE 97 MICROPROCESSOR MARKET FOR AEROSPACE & DEFENSE, BY REGION, 2016–2019 (USD MILLION)

TABLE 98 MICROPROCESSOR MARKET FOR AEROSPACE & DEFENSE, BY REGION, 2020–2025 (USD MILLION)

TABLE 99 MICROPROCESSOR MARKET FOR AEROSPACE & DEFENSE, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 100 MICROPROCESSOR MARKET FOR AEROSPACE & DEFENSE, BY REGION, 2020–2025 (MILLION UNITS)

10.1.7.2 Key applications in aerospace & defense

10.1.7.2.1 Unmanned aerial vehicles

10.1.7.2.2 Avionics and defense systems

10.1.8 INDUSTRIAL

10.1.8.1 Penetration of industrial robots and sensors in several industrial sectors could lead to the market growth of microprocessors

TABLE 101 MICROPROCESSOR MARKET FOR INDUSTRIAL, BY ARCHITECTURE, 2016–2019 (USD MILLION)

TABLE 102 MICROPROCESSOR MARKET FOR INDUSTRIAL, BY ARCHITECTURE, 2020–2025 (USD MILLION)

TABLE 103 MICROPROCESSOR MARKET FOR INDUSTRIAL, BY ARCHITECTURE, 2016–2019 (MILLION UNITS)

TABLE 104 MICROPROCESSOR MARKET FOR INDUSTRIAL, BY ARCHITECTURE, 2020–2025 (MILLION UNITS)

TABLE 105 MICROPROCESSOR MARKET FOR INDUSTRIAL, BY REGION, 2016–2019 (USD MILLION)

TABLE 106 MICROPROCESSOR MARKET FOR INDUSTRIAL, BY REGION, 2020–2025 (USD MILLION)

TABLE 107 MICROPROCESSOR MARKET FOR INDUSTRIAL, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 108 MICROPROCESSOR MARKET FOR INDUSTRIAL, BY REGION, 2020–2025 (MILLION UNITS)

10.1.8.2 Key applications in industrial application

10.1.8.2.1 Human-machine interface (HMI)

10.1.8.2.2 Machine vision

10.1.8.2.3 Robotics

10.1.8.2.4 Automated guided vehicles

10.1.8.2.5 Building automation

10.1.9 OTHER APPLICATIONS

10.1.9.1 Increasing use of satellites and computing devices used to

process the data captured by satellites boosting the market for microprocessors
TABLE 109 MICROPROCESSOR MARKET FOR OTHER APPLICATIONS, BY
ARCHITECTURE, 2016–2019 (USD MILLION)

TABLE 110 MICROPROCESSOR MARKET FOR OTHER APPLICATIONS, BY
ARCHITECTURE, 2020–2025 (USD MILLION)

TABLE 111 MICROPROCESSOR MARKET FOR OTHER APPLICATIONS, BY
ARCHITECTURE, 2016–2019 (MILLION UNITS)

TABLE 112 MICROPROCESSOR MARKET FOR OTHER APPLICATIONS, BY
ARCHITECTURE, 2020–2025 (MILLION UNITS)

TABLE 113 MICROPROCESSOR MARKET FOR OTHER APPLICATIONS, BY
REGION, 2016–2019 (USD MILLION)

TABLE 114 MICROPROCESSOR MARKET FOR OTHER APPLICATIONS, BY
REGION, 2020–2025 (USD MILLION)

TABLE 115 MICROPROCESSOR MARKET FOR OTHER APPLICATIONS, BY
REGION, 2016–2019 (MILLION UNITS)

TABLE 116 MICROPROCESSOR MARKET FOR OTHER APPLICATIONS, BY
REGION, 2020–2025 (MILLION UNITS)

10.1.10 NEGATIVELY IMPACTED APPLICATION BY COVID-19 IN THE
MICROPROCESSOR MARKET

10.1.10.1 Consumer electronics

FIGURE 38 PRE-COVID-19 AND POST-COVID-19 MARKET COMPARISON FOR
CONSUMER ELECTRONICS

TABLE 117 MICROPROCESSOR MARKET FOR CONSUMER ELECTRONICS, BY
PRE-COVID-19 AND POST-COVID-19 SCENARIOS, 2016–2025 (USD BILLION)

10.1.10.1.1 Impact analysis

10.1.11 LEAST IMPACTED APPLICATION BY COVID-19

10.1.11.1 Servers & datacenters

FIGURE 39 PRE-COVID-19 AND POST-COVID-19 MARKET COMPARISON FOR
SERVERS & DATACENTERS

TABLE 118 MICROPROCESSOR MARKET FOR SERVERS & DATACENTERS, BY
PRE-COVID-19 AND POST-COVID-19 SCENARIOS, 2016–2025 (USD BILLION)

10.1.11.1.1 Impact analysis

10.2 GPU BY APPLICATION

10.2.1 INTRODUCTION

FIGURE 40 SERVERS & DATACENTERS SEGMENT PROJECTED TO GROW AT
HIGHEST CAGR FROM 2020 TO 2025

TABLE 119 GPU MARKET, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 120 GPU MARKET, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 121 GPU MARKET, BY APPLICATION, 2016–2019 (THOUSAND UNITS)

TABLE 122 GPU MARKET, BY APPLICATION, 2020–2025 (THOUSAND UNITS)**10.2.2 CONSUMER ELECTRONICS**

10.2.2.1 Adoption of workstations supported by powerful GPUs to train deep learning model

TABLE 123 GPU MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2016–2019 (USD MILLION)

TABLE 124 GPU MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2020–2025 (USD MILLION)

TABLE 125 GPU MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 126 GPU MARKET FOR CONSUMER ELECTRONICS, BY REGION, 2020–2025 (MILLION UNITS)

10.2.3 SERVERS & DATACENTERS

10.2.3.1 Increasing leverage of custom GPU servers, which handle various high-performance computing (HPC) application, leading to the growth of the GPU market

TABLE 127 GPU MARKET FOR SERVERS & DATACENTERS, BY REGION, 2016–2019 (USD MILLION)

TABLE 128 GPU MARKET FOR SERVERS & DATACENTERS, BY REGION, 2020–2025 (USD MILLION)

TABLE 129 GPU MARKET FOR SERVERS & DATACENTERS, BY REGION, 2016–2019 (THOUSAND UNITS)

TABLE 130 GPU MARKET FOR SERVERS & DATACENTERS, BY REGION, 2020–2025 (THOUSAND UNITS)

10.2.4 AUTOMOTIVE

10.2.4.1 Advancements in GPU have led to the development of tiny AI supercomputers, which are used to provide high computation power to autonomous vehicles

TABLE 131 GPU MARKET FOR AUTOMOTIVE, BY REGION, 2016–2019 (USD MILLION)

TABLE 132 GPU MARKET FOR AUTOMOTIVE, BY REGION, 2020–2025 (USD MILLION)

TABLE 133 GPU MARKET FOR AUTOMOTIVE, BY REGION, 2016–2019 (THOUSAND UNITS)

TABLE 134 GPU MARKET FOR AUTOMOTIVE, BY REGION, 2020–2025 (THOUSAND UNITS)

10.2.5 HEALTHCARE

10.2.5.1 Increasing use of GPUs to power surgical robots and robots that support home-based healthcare

TABLE 135 GPU MARKET FOR HEALTHCARE, BY REGION, 2016–2019 (USD

MILLION)

TABLE 136 GPU MARKET FOR HEALTHCARE, BY REGION, 2020–2025 (USD MILLION)

TABLE 137 GPU MARKET FOR HEALTHCARE, BY REGION, 2016–2019 (THOUSAND UNITS)

TABLE 138 GPU MARKET FOR HEALTHCARE, BY REGION, 2020–2025 (THOUSAND UNITS)

10.2.6 AEROSPACE & DEFENSE

10.2.6.1 Low power GPUs are preferred for use in XMC and VNX module-based embedded computers used in aircraft

TABLE 139 GPU MARKET FOR AEROSPACE & DEFENSE, BY REGION, 2016–2019 (USD MILLION)

TABLE 140 GPU MARKET FOR AEROSPACE & DEFENSE, BY REGION, 2020–2025 (USD MILLION)

TABLE 141 GPU MARKET FOR AEROSPACE & DEFENSE, BY REGION, 2016–2019 (THOUSAND UNITS)

TABLE 142 GPU MARKET FOR AEROSPACE & DEFENSE, BY REGION, 2020–2025 (THOUSAND UNITS)

10.2.7 INDUSTRIAL

10.2.7.1 Industrial computers employ GPUs to offer the accelerated performance required in applications involving machine vision and real-time inferencing

TABLE 143 GPU MARKET FOR INDUSTRIAL, BY REGION, 2016–2019 (USD MILLION)

TABLE 144 GPU MARKET FOR INDUSTRIAL, BY REGION, 2020–2025 (USD MILLION)

TABLE 145 GPU MARKET FOR INDUSTRIAL, BY REGION, 2016–2019 (THOUSAND UNITS)

TABLE 146 GPU MARKET FOR INDUSTRIAL, BY REGION, 2020–2025 (THOUSAND UNITS)

10.2.8 OTHER APPLICATIONS

10.2.8.1 Use OF GPUs in the agriculture industry to power AI platforms, which turn satellite data into crucial analytics for crop and soil conditions

TABLE 147 GPU MARKET FOR OTHER APPLICATIONS, BY REGION, 2016–2019 (USD MILLION)

TABLE 148 GPU MARKET FOR OTHER APPLICATIONS, BY REGION, 2020–2025 (USD MILLION)

TABLE 149 GPU MARKET FOR OTHER APPLICATIONS, BY REGION, 2016–2019 (THOUSAND UNITS)

TABLE 150 GPU MARKET FOR OTHER APPLICATIONS, BY REGION, 2020–2025

(THOUSAND UNITS)

10.2.9 NEGATIVELY IMPACTED APPLICATION BY COVID-19

10.2.9.1 Automotive

FIGURE 41 PRE- AND POST-COVID-19 MARKET COMPARISON FOR THE AUTOMOTIVE SEGMENT

TABLE 151 GPU MARKET FOR AUTOMOTIVE, BY PRE-COVID-19 AND POST-COVID-19 SCENARIOS, 2016–2025 (USD MILLION)

10.2.9.1.1 Impact analysis

10.2.10 LEAST-IMPACTED APPLICATION BY COVID-19 IN THE GPU MARKET

10.2.10.1 Servers & datacenters

FIGURE 42 PRE- AND POST-COVID-19 MARKET COMPARISON FOR SERVERS & DATACENTERS

TABLE 152 GPU MARKET FOR SERVERS & DATACENTERS, BY PRE- AND POST-COVID-19 SCENARIO, 2016–2025 (USD MILLION)

10.2.10.1.1 Impact analysis

11 GEOGRAPHIC ANALYSIS

11.1 INTRODUCTION

FIGURE 43 MICROPROCESSOR MARKET TO GROW AT THE HIGHEST CAGR IN APAC FROM 2020 TO 2025

FIGURE 44 THE GPU MARKET IN THE AMERICAS TO GROW AT THE HIGHEST CAGR

FROM 2020 TO 2025

TABLE 153 MICROPROCESSOR MARKET SIZE, BY REGION, 2016–2019 (USD BILLION)

TABLE 154 MICROPROCESSOR MARKET SIZE, BY REGION, 2020–2025 (USD BILLION)

TABLE 155 MICROPROCESSOR MARKET SIZE, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 156 MICROPROCESSOR MARKET SIZE, BY REGION, 2020–2025 (MILLION UNITS)

TABLE 157 GPU MARKET SIZE, BY REGION, 2016–2019 (USD MILLION)

TABLE 158 GPU MARKET SIZE, BY REGION, 2020–2025 (USD MILLION)

TABLE 159 GPU MARKET SIZE, BY REGION, 2016–2019 (MILLION UNITS)

TABLE 160 GPU MARKET SIZE, BY REGION, 2020–2025 (MILLION UNITS)

11.2 AMERICAS

FIGURE 45 SNAPSHOT OF THE MICROPROCESSOR AND GPU MARKET IN THE AMERICAS

TABLE 161 AMERICAS: MICROPROCESSOR MARKET SIZE, BY FUNCTIONALITY, 2016–2019 (USD BILLION)

TABLE 162 AMERICAS: MICROPROCESSOR MARKET SIZE, BY FUNCTIONALITY, 2020–2025 (USD BILLION)

TABLE 163 AMERICAS: MICROPROCESSOR MARKET SIZE, BY FUNCTIONALITY, 2016–2019 (MILLION UNITS)

TABLE 164 AMERICAS: MICROPROCESSOR MARKET SIZE, BY FUNCTIONALITY, 2020–2025 (MILLION UNITS)

TABLE 165 AMERICAS: MICROPROCESSOR MARKET SIZE, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 166 AMERICAS: MICROPROCESSOR MARKET SIZE, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 167 AMERICAS: MICROPROCESSOR MARKET SIZE, BY APPLICATION, 2016–2019 (MILLION UNITS)

TABLE 168 AMERICAS: MICROPROCESSOR MARKET SIZE, BY APPLICATION, 2020–2025 (MILLION UNITS)

TABLE 169 AMERICAS: GPU MARKET SIZE, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 170 AMERICAS: GPU MARKET SIZE, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 171 AMERICAS: GPU MARKET SIZE, BY APPLICATION, 2016–2019 (THOUSAND UNITS)

TABLE 172 AMERICAS: GPU MARKET SIZE, BY APPLICATION, 2020–2025 (THOUSAND UNITS)

TABLE 173 AMERICAS: MICROPROCESSOR MARKET SIZE, BY COUNTRY/REGION, 2016–2019 (USD BILLION)

TABLE 174 AMERICAS: MICROPROCESSOR MARKET SIZE, BY COUNTRY/REGION, 2020–2025 (USD BILLION)

TABLE 175 AMERICAS: MICROPROCESSOR MARKET SIZE, BY COUNTRY/REGION, 2016–2019 (MILLION UNITS)

TABLE 176 AMERICAS: MICROPROCESSOR MARKET SIZE, BY COUNTRY/REGION, 2020–2025 (MILLION UNITS)

11.2.1 US

11.2.1.1 The Healthcare industry uses supercomputers to advance the research on vaccines and other research purposes

11.2.2 CANADA

11.2.2.1 Adoption of application processors for PLCs, sensors, and HMIs in automotive manufacturing facilities

11.2.3 MEXICO

11.2.3.1 Adoption of smart farming and other AI-enabled cloud-based technologies in the agriculture sector for cloud servers

11.2.4 SOUTH AMERICA

11.2.4.1 Brazil

11.2.4.1.1 Adoption of smart farming practices to improve productivity and quality of the crops

11.2.4.2 Argentina

11.2.4.2.1 The penetration of GPU-powered AI platforms in hydropower stations could increase for various deep learning models

11.2.5 IMPACT OF COVID-19 ON THE AMERICAS

11.2.5.1 High demand for servers and datacenters in various service- and manufacturing-based industries during and post-COVID-19

FIGURE 46 AMERICAS: COMPARISON OF PRE- & POST-COVID-19 MARKET SCENARIO FOR MICROPROCESSORS, 2016–2025 (USD MILLION)

TABLE 177 AMERICAS: COMPARISON TABLE OF PRE- & POST-COVID-19 MARKET SCENARIO FOR MICROPROCESSORS, 2016–2025 (USD BILLION)

FIGURE 47 AMERICA: COMPARISON OF PRE- & POST-COVID-19 MARKET SCENARIO FOR GPUS, 2016–2025 (USD MILLION)

TABLE 178 AMERICAS: COMPARISON OF PRE- & POST- COVID-19 MARKET SCENARIO FOR GPUS, 2016–2025 (USD MILLION)

11.2.5.2 Impact of COVID-19 on the US

11.2.5.3 Impact of COVID-19 on Canada

11.2.5.4 Impact of COVID-19 on Mexico

11.2.5.5 Impact of Covid-19 on South America

11.3 EUROPE

FIGURE 48 SNAPSHOT OF MICROPROCESSOR AND GPU MARKET IN EUROPE

TABLE 179 EUROPE: MICROPROCESSOR MARKET SIZE, BY FUNCTIONALITY, 2016–2019 (USD BILLION)

TABLE 180 EUROPE: MICROPROCESSOR MARKET SIZE, BY FUNCTIONALITY, 2020–2025 (USD BILLION)

TABLE 181 EUROPE: MICROPROCESSOR MARKET SIZE, BY FUNCTIONALITY, 2016–2019 (MILLION UNITS)

TABLE 182 EUROPE: MICROPROCESSOR MARKET SIZE, BY FUNCTIONALITY, 2020–2025 (MILLION UNITS)

TABLE 183 EUROPE: MICROPROCESSOR MARKET SIZE, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 184 EUROPE: MICROPROCESSOR MARKET SIZE, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 185 EUROPE: MICROPROCESSOR MARKET SIZE, BY APPLICATION,

2016–2019 (MILLION UNITS)

TABLE 186 EUROPE: MICROPROCESSOR MARKET SIZE, BY APPLICATION, 2020–2025 (MILLION UNITS)

TABLE 187 EUROPE: GPU MARKET SIZE, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 188 EUROPE: GPU MARKET SIZE, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 189 EUROPE: GPU MARKET SIZE, BY APPLICATION, 2016–2019 (THOUSAND UNITS)

TABLE 190 EUROPE: GPU MARKET SIZE, BY APPLICATION, 2020–2025 (THOUSAND UNITS)

TABLE 191 EUROPE: MICROPROCESSOR MARKET SIZE, BY COUNTRY, 2016–2019 (USD BILLION)

TABLE 192 EUROPE: MICROPROCESSOR MARKET SIZE, BY COUNTRY, 2020–2025 (USD BILLION)

TABLE 193 EUROPE: MICROPROCESSOR MARKET SIZE, BY COUNTRY, 2016–2019 (MILLION UNITS)

TABLE 194 EUROPE: MICROPROCESSOR MARKET SIZE, BY REGION, 2020–2025 (MILLION UNITS)

11.3.1 GERMANY

11.3.1.1 Increase in demand for automotive processors to power sensors and camera in advanced automotive technologies

11.3.2 FRANCE

11.3.2.1 Increase in the demand for high-performance computing (HPC) solutions, including supercomputers used in unmanned ground vehicles (UGV), warships, and combat

11.3.3 UK

11.3.3.1 Government initiatives such as 'Made Smarter' to drive growth and transformation in the UK's manufacturing ecosystem

11.3.4 REST OF EUROPE

11.3.4.1 Continuous demand from automotive, electronics, healthcare, petrochemicals, textile, and other industrial sectors to spur growth

11.3.5 IMPACT OF COVID-19 ON EUROPE

11.3.5.1 The falling demand for automotive vehicles is expected to slow down the growth of the microprocessor and GPU market in the region

FIGURE 49 EUROPE: COMPARISON OF PRE- & POST-COVID-19 MARKET SCENARIO FOR MICROPROCESSORS, 2016–2025 (USD MILLION)

TABLE 195 EUROPE: COMPARISON TABLE OF PRE- & POST-COVID-19 MARKET SCENARIO FOR MICROPROCESSORS, 2016–2025 (USD BILLION)

FIGURE 50 EUROPE: COMPARISON OF PRE- & POST-COVID-19 MARKET
SCENARIO FOR GPUS, 2016–2025 (USD MILLION)

TABLE 196 EUROPE: COMPARISON TABLE OF PRE- & POST-COVID-19 MARKET
SCENARIO FOR GPUS, 2016–2025 (USD MILLION)

11.3.5.2 Impact of COVID-19 on Germany

11.3.5.3 Impact of COVID-19 on France

11.3.5.4 Impact of COVID-19 on the UK

11.3.5.5 Impact of COVID-19 on Rest of Europe

11.4 APAC

FIGURE 51 SNAPSHOT OF MICROPROCESSORS AND GPU MARKET IN APAC

TABLE 197 MICROPROCESSOR MARKET FOR APAC, BY FUNCTIONALITY,
2016–2019 (USD MILLION)

TABLE 198 MICROPROCESSOR MARKET FOR APAC, BY FUNCTIONALITY,
2020–2025 (USD MILLION)

TABLE 199 MICROPROCESSOR MARKET FOR APAC, BY FUNCTIONALITY,
2016–2019 (MILLION UNITS)

TABLE 200 MICROPROCESSOR MARKET FOR APAC, BY FUNCTIONALITY,
2020–2025 (MILLION UNITS)

TABLE 201 MICROPROCESSOR MARKET IN APAC, BY APPLICATION, 2016–2019
(USD MILLION)

TABLE 202 MICROPROCESSOR MARKET IN APAC, BY APPLICATION, 2020–2025
(USD MILLION)

TABLE 203 MICROPROCESSOR MARKET IN APAC, BY APPLICATION, 2016–2019
(MILLION UNITS)

TABLE 204 MICROPROCESSOR MARKET IN APAC, BY APPLICATION, 2020–2025
(MILLION UNITS)

TABLE 205 GPU MARKET IN APAC, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 206 GPU MARKET IN APAC, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 207 GPU MARKET IN APAC, BY APPLICATION, 2016–2019 (THOUSAND
UNITS)

TABLE 208 GPU MARKET IN APAC, BY APPLICATION, 2020–2025 (THOUSAND
UNITS)

TABLE 209 MICROPROCESSOR MARKET FOR APAC, BY REGION, 2016–2019
(USD BILLION)

TABLE 210 MICROPROCESSOR MARKET FOR APAC, BY REGION, 2020–2025
(USD BILLION)

TABLE 211 MICROPROCESSOR MARKET FOR APAC, BY REGION, 2016–2019
(MILLION UNITS)

TABLE 212 MICROPROCESSOR MARKET FOR APAC, BY REGION, 2020–2025

(MILLION UNITS)

11.4.1 CHINA

11.4.1.1 Developments related to 5G technology fueling the growth of the microprocessor and GPU market

11.4.2 JAPAN

11.4.2.1 High demand for service robots expected to increase the penetration of processors used in smart edge devices for several industries

11.4.3 INDIA

11.4.3.1 Increasing use of IoT connected devices and mobile robots expected to drive the use of microprocessors

11.4.4 REST OF APAC

11.4.4.1 Growth of the electronics, automotive, and petrochemicals industries expected to boost the microprocessor market

11.4.5 IMPACT OF COVID-19 ON APAC

11.4.5.1 Lockdown measures implemented in China have led to the fall in global shipments of consumer electronics, automotive vehicles, and other industrial equipment and devices

FIGURE 52 COMPARISON OF PRE- AND POST-COVID-19 SCENARIOS FOR MICROPROCESSOR MARKET IN APAC, 2016–2025 (USD MILLION)

TABLE 213 COMPARISON TABLE OF PRE-COVID-19 AND POST-COVID-19 SCENARIOS FOR MICROPROCESSOR MARKET IN APAC, 2016–2025 (USD BILLION)

FIGURE 53 COMPARISON OF PRE-COVID-19 AND POST-COVID-19 SCENARIOS FOR

GPU IN APAC, 2016–2025 (USD MILLION)

TABLE 214 COMPARISON TABLE OF PRE-COVID-19 AND POST-COVID-19 SCENARIOS FOR GPU IN APAC, 2016–2025 (USD MILLION)

11.4.5.2 Impact of COVID-19 on China

11.4.5.3 Impact of COVID-19 on Japan

11.4.5.4 Impact of COVID-19 on India

11.4.5.5 Impact of COVID-19 on Rest of APAC

11.5 REST OF THE WORLD (ROW)

TABLE 215 MICROPROCESSOR MARKET FOR ROW, BY FUNCTIONALITY, 2016–2019 (USD BILLION)

TABLE 216 MICROPROCESSOR MARKET FOR ROW, BY FUNCTIONALITY, 2020–2025 (USD BILLION)

TABLE 217 MICROPROCESSOR MARKET FOR ROW, BY FUNCTIONALITY, 2016–2019 (MILLION UNITS)

TABLE 218 MICROPROCESSOR MARKET FOR ROW, BY FUNCTIONALITY,

2020–2025 (MILLION UNITS)

TABLE 219 MICROPROCESSOR MARKET IN ROW, BY APPLICATION, 2016–2019
(USD MILLION)

TABLE 220 MICROPROCESSOR MARKET IN ROW, BY APPLICATION,
2020–2025(USD MILLION)

TABLE 221 MICROPROCESSOR MARKET IN ROW, BY APPLICATION, 2016–2019
(MILLION UNITS)

TABLE 222 MICROPROCESSOR MARKET IN ROW, BY APPLICATION, 2020–2025
(MILLION UNITS)

TABLE 223 GPU MARKET IN ROW, BY APPLICATION, 2016–2019 (USD MILLION)

TABLE 224 GPU MARKET IN ROW, BY APPLICATION, 2020–2025 (USD MILLION)

TABLE 225 GPU MARKET IN ROW, BY APPLICATION, 2016–2019 (THOUSAND
UNITS)

TABLE 226 GPU MARKET IN ROW, BY APPLICATION, 2020–2025 (THOUSAND
UNITS)

11.5.1 IMPACT OF COVID-19 ON REST OF THE WORLD (ROW)

11.5.1.1 Adoption of advanced healthcare infrastructure in Africa spurring the growth
of the microprocessor and GPU market

FIGURE 54 COMPARISON OF PRE-AND POST- COVID-19 SCENARIOS FOR
MICROPROCESSOR MARKET IN ROW, 2016–2025 (USD MILLION)

TABLE 227 COMPARISON TABLE OF PRE- AND POST-COVID-19 SCENARIOS FOR
MICROPROCESSOR MARKET IN ROW, 2016–2025 (USD BILLION)

FIGURE 55 COMPARISON OF PRE- AND POST-COVID-19 SCENARIOS FOR GPU
IN ROW, 2016–2025 (USD MILLION)

TABLE 228 COMPARISON TABLE OF PRE- AND POST-COVID-19 SCENARIOS FOR
GPU IN ROW, 2016–2025 (USD MILLION)

11.5.1.2 Impact of COVID-19 on the Middle East

11.5.1.3 Impact of COVID-19 on Africa

12 COMPETITIVE LANDSCAPE

12.1 OVERVIEW

FIGURE 56 COMPANIES ADOPTED PRODUCT LAUNCHES AS KEY GROWTH
STRATEGIES DURING 2017–2020

12.2 KEY PLAYERS IN THE MICROPROCESSOR AND GPU MARKET

FIGURE 57 MARKET SHARE ANALYSIS OF TOP FIVE COMPANIES IN THE
MICROPROCESSOR AND GPU MARKET

12.3 COMPANY EVALUATION MATRIX

FIGURE 58 MICROPROCESSOR AND GPU MARKET (GLOBAL), COMPANY

EVALUATION MATRIX, 2019**12.3.1 STAR****12.3.2 PERVASIVE****12.3.3 EMERGING LEADER****12.3.4 PARTICIPANT****12.4 STRENGTH OF PRODUCT PORTFOLIO (FOR 25 COMPANIES)**

FIGURE 59 PRODUCT PORTFOLIO ANALYSIS OF TOP PLAYERS IN MICROPROCESSOR AND GPU MARKET

12.5 BUSINESS STRATEGY EXCELLENCE (FOR 25 COMPANIES)

FIGURE 60 BUSINESS STRATEGY EXCELLENCE OF TOP PLAYERS IN MICROPROCESSOR AND GPU MARKET

12.6 COMPETITIVE SCENARIO**12.6.1 PRODUCT LAUNCHES & DEVELOPMENTS**

TABLE 229 TOP 10 PRODUCT LAUNCHES & DEVELOPMENTS (2017–2020)

12.6.2 PARTNERSHIPS, COLLABORATIONS, & JOINT VENTURES

TABLE 230 KEY PARTNERSHIPS, COLLABORATIONS, & AGREEMENTS (2017—2020)

12.6.3 ACQUISITIONS & EXPANSIONS

TABLE 231 KEY ACQUISITIONS & EXPANSIONS (2017–2020)

13 COMPANY PROFILES**13.1 INTRODUCTION****13.2 KEY PLAYERS**

(Business Overview, Products/Solutions Offered, Recent Developments, SWOT Analysis, and MnM View)*

13.2.1 INTEL

FIGURE 61 INTEL: COMPANY SNAPSHOT

13.2.2 QUALCOMM

FIGURE 62 QUALCOMM: COMPANY SNAPSHOT

13.2.3 SAMSUNG

FIGURE 63 SAMSUNG: COMPANY SNAPSHOT

13.2.4 NVIDIA

FIGURE 64 NVIDIA: COMPANY SNAPSHOT

13.2.5 AMD

FIGURE 65 AMD: COMPANY SNAPSHOT

13.2.6 BROADCOM

FIGURE 66 BROADCOM: COMPANY SNAPSHOT

13.2.7 MEDIATEK

FIGURE 67 MEDIATEK: COMPANY SNAPSHOT**13.2.8 TEXAS INSTRUMENTS****FIGURE 68 TEXAS INSTRUMENTS: COMPANY SNAPSHOT****13.2.9 MARVELL****FIGURE 69 MARVELL: COMPANY SNAPSHOT****13.2.10 IBM****FIGURE 70 IBM: COMPANY SNAPSHOT**

* Business Overview, Products/Solutions Offered, Recent Developments, SWOT Analysis, and MnM View might not be captured in case of unlisted companies.

13.3 RIGHT TO WIN**13.4 5 YEAR COMPANY REVENUE ANALYSIS**

TABLE 232 MARKET REVENUE OF TOP 10 KEY COMPANIES IN MICROPROCESSOR AND GPU MARKET FOR PAST 5 YEARS, FROM 2015-2019 (USD BILLION)

13.5 OTHER COMPANIES**13.5.1 NXP SEMICONDUCTORS****13.5.2 APPLE****13.5.3 HUAWEI****13.5.4 UNISOC COMMUNICATIONS****13.5.5 ALLWINNER TECHNOLOGY****13.5.6 FUJITSU****13.5.7 XILINX****13.5.8 RENESAS****13.5.9 VIA TECHNOLOGIES****13.5.10 IMAGINATION TECHNOLOGIES****14 APPENDIX****14.1 INSIGHTS OF INDUSTRY EXPERTS****14.2 DISCUSSION GUIDE****14.3 KNOWLEDGE STORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL****14.4 AVAILABLE CUSTOMIZATIONS****14.5 RELATED REPORTS****14.6 AUTHOR DETAILS**

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