

Field Programmable Gate Array Market Size, Share & Trends Analysis Report By Technology (SRAM, Antifuse, Flash), By Application (Military & Aerospace, Telecom), By Region, And Segment Forecasts, 2020 - 2027

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Abstracts

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The global field programmable gate array market size is anticipated to reach USD 18.8 billion by 2027, registering a CAGR of 9.7% over the forecast period, according to a new report by Grand View Research, Inc. The increased adoption of field programmable gate array (FPGA) across networking, data center, and Internet of Things (IoT) is projected to drive the industry growth over the forecast period.

Growing application of the FPGAs in the aerospace and military sector to develop drone systems for flight control, sensor interfacing, and image processing is driving the industry growth. Flash-based field programmable gate arrays are resistant to radiation-induced configuration shocks and also offer efficient functionality at high altitudes. The flash segment is anticipated to witness a substantial growth over the forecast period, owing to their abilities of consuming less power and delivering security, safety, and reliability throughout the design and deployment process.

Companies are largely seen to be leveraging the power of field programmable gate arrays to develop Artificial Intelligence (AI) based solutions for automotive applications. For instance, in June 2018, Xilinx, Inc. collaborated with Daimler AG to help the deep learning professionals from the Mercedes-Benz R&D centers for developing AI algorithms on the Xilinx adaptable acceleration platform. The automotive segment is likely to fully exploit the capacities of the FPGAs for deploying neural networks for

intelligent vehicle systems and optimizing battery management, power conversions, and electric motor control systems of the Electric Vehicles (EV) and Hybrid-Electric Vehicles (HEV).

Further key findings from the report suggest:

The FPGA market is anticipated to witness a noteworthy growth over the forecast period owing to increased usage of FPGAs in EVs, vehicle networking and connectivity, self-driving cars, and automotive infotainment

The SRAM technology segment is expected to witness significant growth over the forecast period owing to its features including greater logic density, better performance, non-volatility, and its manufacturing simplicity

The FPGAs used in the consumer electronics sector generated a revenue of over USD 1.0 billion in the year 2019, due to growing adoption of digital displays, televisions, cameras and camcorders, eReaders, and set-top boxes for households

The Asia Pacific region is expected to witness a substantial growth from 2020 to 2027 due to increase in sale of consumer electronics, especially smartphones, in countries like China and India, and growing number of data centers in the region

Xilinx, Inc.; Intel Corporation, Microsemi Corporation; Texas Instruments; Lattice Semiconductor Corporation; and Taiwan Semiconductor Manufacturing Company are some of the key players in the FPGA market.

Contents

CHAPTER 1. METHODOLOGY AND SCOPE

- 1.1. Market segmentation & scope
- 1.2. Information procurement
 - 1.2.1. Purchased database
 - 1.2.2. GVR's internal database
 - 1.2.3. Secondary sources & third-party perspectives
 - 1.2.4. Primary research
- 1.3. Information analysis
 - 1.3.1. Data analysis models
- 1.4. Market formulation & data visualization
- 1.5. Data validation & publishing

CHAPTER 2. EXECUTIVE SUMMARY

CHAPTER 3. MARKET DEFINITIONS

CHAPTER 4. FPGA MARKET VARIABLES, TRENDS & SCOPE

- 4.1. Market Size and Growth Prospects
- 4.2. Industry Value Chain Analysis
- 4.3. Market Dynamics
 - 4.3.1. Market Driver Analysis
 - 4.3.1.1. Efficiency of FPGAs over ASICs
 - 4.3.1.2. Growing Demand Across Industries
 - 4.3.1.3. Technological Advancement
 - 4.3.2. Market Restraint/ Challenges Analysis
 - 4.3.2.1. Designing Complexities
 - 4.3.2.2. Overlapping Market for Application Specific Standard Parts (ASSP), System On Chip (SOC), ASICs, and FPGA
- 4.4. Penetration & Growth Prospect Mapping
- 4.5. Business Environment Analysis Tools
 - 4.5.1. Industry Analysis - Porter's
 - 4.5.2. PEST Analysis
- 4.6. Company Market Share Analysis, 2019
- 4.7. FPGA Production Outlook

CHAPTER 5. FPGA MARKET TECHNOLOGY OUTLOOK

5.1. Market Size Estimates & Forecasts and Trend Analysis, 2016 - 2027 (Revenue, USD Million)

5.2. SRAM

5.2.1. Market estimates and forecasts by region, 2016 - 2027 (Revenue, USD Million)

5.3. EEPROM

5.3.1. Market estimates and forecasts by region, 2016 - 2027 (Revenue, USD Million)

5.4. Antifuse

5.4.1. Market estimates and forecasts by region, 2016 - 2027 (Revenue, USD Million)

5.5. Flash

5.5.1. Market estimates and forecasts by region, 2016 - 2027 (Revenue, USD Million)

5.6. Others

5.6.1. Market estimates and forecasts by region, 2016 - 2027 (Revenue, USD Million)

CHAPTER 6. FPGA MARKET APPLICATION OUTLOOK

6.1. Market Size Estimates & Forecasts and Trend Analysis, 2016 - 2027 (Revenue, USD Million)

6.2. Consumer electronics

6.2.1. Market estimates and forecasts by region, 2016 - 2027 (Revenue, USD Million)

6.3. Automotive

6.3.1. Market estimates and forecasts by region, 2016 - 2027 (Revenue, USD Million)

6.4. Industrial

6.4.1. Market estimates and forecasts by region, 2016 - 2027 (Revenue, USD Million)

6.5. Data Processing

6.5.1. Market estimates and forecasts by region, 2016 - 2027 (Revenue, USD Million)

6.6. Military & Aerospace

6.6.1. Market estimates and forecasts by region, 2016 - 2027 (Revenue, USD Million)

6.7. Telecom

6.7.1. Market estimates and forecasts by region, 2016 - 2027 (Revenue, USD Million)

6.8. Others

6.8.1. Market estimates and forecasts by region, 2016 - 2027 (Revenue, USD Million)

CHAPTER 7. FPGA REGIONAL OUTLOOK

7.1. FPGA Market, By Region, 2019 & 2027

7.2. North America

7.2.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

Million)

7.2.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.2.3. U.S.

7.2.3.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.2.3.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.2.4. Canada

7.2.4.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.2.4.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.2.5. Mexico

7.2.5.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.2.5.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.3. Europe

7.3.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.3.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.3.3. Germany

7.3.3.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.3.3.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.3.4. U.K.

7.3.4.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.3.4.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.4. Asia Pacific

7.4.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.4.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.4.3. China

7.4.3.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.4.3.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.4.4. India

7.4.4.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.4.4.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.4.5. Japan

7.4.5.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.4.5.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.5. Latin America

7.5.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.5.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.5.3. Brazil

7.5.3.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.5.3.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

7.6. MEA

7.6.1. Market estimates and forecasts by technology, 2016 - 2027 (Revenue, USD Million)

7.6.2. Market estimates and forecasts by application, 2016 - 2027 (Revenue, USD Million)

CHAPTER 8. COMPETITIVE LANDSCAPE

8.1. Atmel Corporation

8.1.1. Company overview

8.1.2. Financial performance

8.1.3. Product benchmarking

8.1.4. Recent developments

8.2. Cobham Plc

8.2.1. Company overview

- 8.2.2. Financial performance
- 8.2.3. Product benchmarking
- 8.2.4. Recent developments
- 8.3. Cypress Semiconductor Corporation
 - 8.3.1. Company overview
 - 8.3.2. Financial performance
 - 8.3.3. Product benchmarking
 - 8.3.4. Recent developments
- 8.4. Intel Corporation
 - 8.4.1. Company overview
 - 8.4.2. Financial performance
 - 8.4.3. Product benchmarking
 - 8.4.4. Recent developments
- 8.5. Lattice Semiconductor Corporation
 - 8.5.1. Company overview
 - 8.5.2. Product benchmarking
 - 8.5.3. Product benchmarking
 - 8.5.4. Recent developments
- 8.6. Microsemi Corporation
 - 8.6.1. Company overview
 - 8.6.2. Financial performance
 - 8.6.3. Product benchmarking
 - 8.6.4. Recent developments
- 8.7. Quick Logic Corporation
 - 8.7.1. Company overview
 - 8.7.2. Financial performance
 - 8.7.3. Product benchmarking
 - 8.7.4. Recent developments
- 8.8. Taiwan Semiconductor Manufacturing Company
 - 8.8.1. Company overview
 - 8.8.2. Financial performance
 - 8.8.3. Product benchmarking
 - 8.8.4. Recent developments
- 8.9. Texas Instruments
 - 8.9.1. Company overview
 - 8.9.2. Financial performance
 - 8.9.3. Product benchmarking
 - 8.9.4. Recent developments
- 8.10. Xilinx, Inc.

- 8.10.1. Company overview
- 8.10.2. Financial performance
- 8.10.3. Product benchmarking
- 8.10.4. Recent developments

List Of Tables

LIST OF TABLES

TABLE 1 FPGA - Industry snapshot & Critical Success Factors (CSFs), 2016 - 2027

TABLE 2 Global FPGA Market, 2016 - 2027 (USD Billion)

TABLE 3 Global FPGA Market estimates and forecasts by Technology, 2016 - 2027 (USD Million)

TABLE 4 Global FPGA Market estimates and forecasts by application, 2016 - 2027 (USD Million)

TABLE 5 FPGA- Key Market Restraint

TABLE 6 Production Outlook

TABLE 7 Intel Corporation - Production Outlook

TABLE 8 Global SRAM-based FPGA market by region, 2016 - 2027 (USD Million)

TABLE 9 Global EEPROM-based FPGA market by region, 2016 - 2027 (USD Million)

TABLE 10 Global antifuse-based FPGA market by region, 2016 - 2027 (USD Million)

TABLE 11 Global flash-based FPGA market by region, 2016 - 2027 (USD Million)

TABLE 12 Global other technologies-based FPGA market by region, 2016 - 2027 (USD Million)

TABLE 13 Global FPGA demand in consumer electronics by region, 2016 - 2027 (USD Million)

TABLE 14 Global FPGA demand in automotive by region, 2016 - 2027 (USD Million)

TABLE 15 Global FPGA demand in industrial applications by region, 2016 - 2027 (USD Million)

TABLE 16 Global FPGA demand in data processing by region, 2016 - 2027 (USD Million)

TABLE 17 Global FPGA demand in military & aerospace by region, 2016 - 2027 (USD Million)

TABLE 18 Global FPGA demand in telecom by region, 2016 - 2027 (USD Million)

TABLE 19 Global FPGA demand in other applications by region, 2016 - 2027 (USD Million)

TABLE 20 North America FPGA market by technology, 2016 - 2027 (USD Million)

TABLE 21 North America FPGA market by application, 2016 - 2027 (USD Million)

TABLE 22 U.S. FPGA market by technology, 2016 - 2027 (USD Million)

TABLE 23 U.S. FPGA market by application, 2016 - 2027 (USD Million)

TABLE 24 Canada FPGA market by technology, 2016 - 2027 (USD Million)

TABLE 25 Canada FPGA market by application, 2016 - 2027 (USD Million)

TABLE 26 Mexico FPGA market by technology, 2016 - 2027 (USD Million)

TABLE 27 Mexico FPGA market by application, 2016 - 2027 (USD Million)

TABLE 28 Europe FPGA market by technology, 2016 - 2027 (USD Million)
TABLE 29 Europe FPGA market by application, 2016 - 2027 (USD Million)
TABLE 30 Germany FPGA market by technology, 2016 - 2027 (USD Million)
TABLE 31 Germany FPGA market by application, 2016 - 2027 (USD Million)
TABLE 32 U.K. FPGA market by technology, 2016 - 2027 (USD Million)
TABLE 33 U.K. FPGA market by application, 2016 - 2027 (USD Million)
TABLE 34 Asia Pacific FPGA market by technology, 2016 - 2027 (USD Million)
TABLE 35 Asia Pacific FPGA market by application, 2016 - 2027 (USD Million)
TABLE 36 China FPGA market by technology, 2016 - 2027 (USD Million)
TABLE 37 China FPGA market by application, 2016 - 2027 (USD Million)
TABLE 38 India FPGA market by technology, 2016 - 2027 (USD Million)
TABLE 39 India FPGA market by application, 2016 - 2027 (USD Million)
TABLE 40 Japan FPGA market by technology, 2016 - 2027 (USD Million)
TABLE 41 Japan FPGA market by application, 2016 - 2027 (USD Million)
TABLE 42 South America FPGA market by technology, 2016 - 2027 (USD Million)
TABLE 43 South America FPGA market by application, 2016 - 2027 (USD Million)
TABLE 44 Brazil FPGA market by technology, 2016 - 2027 (USD Million)
TABLE 45 Brazil FPGA market by application, 2016 - 2027 (USD Million)
TABLE 46 MEA FPGA market by technology, 2016 - 2027 (USD Million)
TABLE 47 MEA FPGA market by application, 2016 - 2027 (USD Million)

List Of Figures

LIST OF FIGURES

- FIG. 1 Market segmentation & scope
- FIG. 2 FPGA market size and growth prospects
- FIG. 3 FPGA Value chain analysis
- FIG. 4 Market Dynamics
- FIG. 5 Global mobile phone penetration
- FIG. 6 FPGA Market- Penetration & Growth Prospect Mapping
- FIG. 7 Porter's Five Forces Analysis
- FIG. 8 PEST Analysis for FPGA Industry
- FIG. 9 FPGA - Company market share analysis, 2019
- FIG. 10 FPGA market technology type outlook key takeaways
- FIG. 11 FPGA market: Technology type movement analysis
- FIG. 12 SRAM-based FPGA market, 2016 - 2027 (USD Million)
- FIG. 13 EEPROM-based FPGA market, 2016 - 2027 (USD Million)
- FIG. 14 Antifuse-based FPGA market, 2016 - 2027 (USD Million)
- FIG. 15 Flash-based FPGA market, 2016 - 2027 (USD Million)
- FIG. 16 Global other technologies-based FPGA market, 2016 - 2027 (USD Million)
- FIG. 17 FPGA market application outlook key takeaways
- FIG. 18 FPGA market: Application analysis
- FIG. 19 Global FPGA demand in consumer electronics, 2016 - 2027 (USD Million)
- FIG. 20 Global FPGA demand in automotive, 2016 - 2027 (USD Million)
- FIG. 21 Global FPGA demand in industrial applications, 2016 - 2027 (USD Million)
- FIG. 22 Global FPGA demand in data processing, 2016 - 2027 (USD Million)
- FIG. 23 Global FPGA demand in military & aerospace, 2016 - 2027 (USD Million)
- FIG. 24 Global FPGA demand in telecom, 2016 - 2027 (USD Million)
- FIG. 25 Global FPGA demand in other applications, 2016 - 2027 (USD Million)
- FIG. 26 Regional market place: Key takeaways
- FIG. 27 Regional outlook, 2019 & 2027
- FIG. 28 North America FPGA market by technology, 2016 - 2027 (USD Million)
- FIG. 29 North America FPGA market by application, 2016 - 2027 (USD Million)
- FIG. 30 U.S. FPGA market by technology, 2016 - 2027 (USD Million)
- FIG. 31 U.S. FPGA market by application, 2016 - 2027 (USD Million)
- FIG. 32 Canada FPGA market by technology, 2016 - 2027 (USD Million)
- FIG. 33 Canada FPGA market by application, 2016 - 2027 (USD Million)
- FIG. 34 Mexico FPGA market by technology, 2016 - 2027 (USD Million)
- FIG. 35 Mexico FPGA market by application, 2016 - 2027 (USD Million)

FIG. 36 Europe FPGA market by technology, 2016 - 2027 (USD Million)
FIG. 37 Europe FPGA market by application, 2016 - 2027 (USD Million)
FIG. 38 Germany FPGA market by technology, 2016 - 2027 (USD Million)
FIG. 39 Germany FPGA market by application, 2016 - 2027 (USD Million)
FIG. 40 U.K. FPGA market by technology, 2016 - 2027 (USD Million)
FIG. 41 U.K. FPGA market by application, 2016 - 2027 (USD Million)
FIG. 42 Asia Pacific FPGA market by technology, 2016 - 2027 (USD Million)
FIG. 43 Asia Pacific FPGA market by application, 2016 - 2027 (USD Million)
FIG. 44 China FPGA market by technology, 2016 - 2027 (USD Million)
FIG. 45 China FPGA market by application, 2016 - 2027 (USD Million)
FIG. 46 India FPGA market by technology, 2016 - 2027 (USD Million)
FIG. 47 India FPGA market by application, 2016 - 2027 (USD Million)
FIG. 48 Japan FPGA market by technology, 2016 - 2027 (USD Million)
FIG. 49 Japan FPGA market by application, 2016 - 2027 (USD Million)
FIG. 50 South America FPGA market by technology, 2016 - 2027 (USD Million)
FIG. 51 South America FPGA market by application, 2016 - 2027 (USD Million)
FIG. 52 Brazil FPGA market by technology, 2016 - 2027 (USD Million)
FIG. 53 Brazil FPGA market by application, 2016 - 2027 (USD Million)
FIG. 54 MEA FPGA market by technology, 2016 - 2027 (USD Million)
FIG. 55 MEA FPGA market by application, 2016 - 2027 (USD Million)

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