

# Field Programmable Gate Array (FPGA) Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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## Abstracts

The global field programmable gate array (FPGA) market size reached US\$ 11.4 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 19.7 Billion by 2028, exhibiting a growth rate (CAGR) of 8.8% during 2023-2028.

A field-programmable gate array (FPGA) is a digital integrated circuit (IC) device based around a matrix of configurable logic blocks (CLBs) and connected via programmable interconnects. It is a flexible and low-cost approach that can be reprogrammed according to an end user's desired applications or functional requirements compared to application-specific integrated circuits (ASICs). It also allows users to create custom chips with a programmable logic element arranged in different configurations. Nowadays, new variants of FPGA devices comprise memory blocks, programmable input/output (I/O), reprogrammable elements, processor cores, and other hardened blocks that do not require programming.

### Field Programmable Gate Array (FPGA) Market Trends:

The growth can be attributed to the expanding applications of FPGA devices in a wide range of end use industries across the globe. For instance, they are employed in the aerospace industry for aircraft navigation, image processing, waveform generation, and partial reconfiguration. Moreover, the growing trend of autonomous driving experience and the increasing reliance on advanced sensors and domain controllers equipped with artificial intelligence (AI) to control vehicle perception are contributing to market growth. FPGA solutions are used in automated vehicles for driver assistance systems, comfort, convenience, and in-vehicle infotainment. Apart from this, FPGA devices are integrated into medical imaging equipment, which is employed in the healthcare industry for diagnostic, monitoring, and therapy purposes. This, in confluence with the rising

prevalence of chronic diseases and the increasing awareness among individuals about the benefits of early diagnosis, is influencing the market positively. Furthermore, FPGAs are used in manufacturing cost-effective, next-generation devices, such as converged handsets, digital flat panel displays, information appliances, home networking, and residential set-top boxes. This, coupled with the escalating demand for consumer electronics, is creating a favorable market outlook.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global field programmable gate array (FPGA) market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on architecture, configuration and end use industry.

#### Breakup by Architecture:

- SRAM-Based FPGA
- Anti-Fuse Based FPGA
- Flash-Based FPGA

#### Breakup by Configuration:

- Low-range FPGA
- Mid-range FPGA
- High-range FPGA

#### Breakup by End Use Industry:

- IT and Telecommunication
- Consumer Electronics
- Automotive
- Industrial
- Military and Aerospace
- 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 Achronix Semiconductor, Cypress Semiconductor Corporation (Infineon Technologies AG), Efinix Inc., EnSilica Limited, Flex Logix Technologies Inc., Gidel Inc., Intel Corporation, Lattice Semiconductor Corporation, Microsemi Corporation (Microchip Technology Inc.), Quicklogic Corporation, Taiwan Semiconductor Manufacturing Company and Xilinx Inc.

#### Key Questions Answered in This Report

1. What was the size of the global field programmable gate array (FPGA) market in 2022?
2. What is the expected growth rate of the global field programmable gate array (FPGA) market during 2023-2028?
3. What are the key factors driving the global field programmable gate array (FPGA) market?
4. What has been the impact of COVID-19 on the global field programmable gate array (FPGA) market?

5. What is the breakup of the global field programmable gate array (FPGA) market based on the architecture?
6. What is the breakup of the global field programmable gate array (FPGA) market based on the configuration?
7. What is the breakup of the global field programmable gate array (FPGA) market based on the end use industry?
8. What are the key regions in the global field programmable gate array (FPGA) market?
9. Who are the key players/companies in the global field programmable gate array (FPGA) market?

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