

# FPGA Market by Configuration (Low-End FPGA, Mid-Range FPGA, High-End FPGA), Technology (SRAM, Flash, Antifuse), Node Size (?16 nm, 20-90 nm, and >90 nm), Vertical and Region (North America, Europe, APAC, RoW) - Global Forecast to 2027

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### **Report description:**

The FPGA market is projected to grow from USD 8.0 billion in 2022 and is projected to reach USD 15.5 billion by 2027; it is expected to grow at a CAGR of 14.2% from 2022 to 2027.

The growth of this market is driven by factors such as increasing adoption of robotics and Industry 4.0, rising demand for FPGAs in advanced driver assistance systems (ADAS) and increasing penetration of data centers across the globe.

"Market for flash technology segment to grow at the high CAGR during the forecast period."

The flash segment of the FPGA market is projected to record the highest CAGR during the forecast period. The high growth rate is attributed to several industry participants emphasizing developing technically advanced flash-based products to cater to the high demand for energy-efficient FPGA solutions in the market. For instance, in March 2022, Cobham Advanced Electronic Solutions (US) developed new radiation-hardened NOR Flash memory targeted for FPGAs that have applications in the aerospace sector. The new 1Gb monolithic NOR Flash memory is specifically designed for space applications and meets the needs of high-end FPGAs, including Certus NX-RT and CertusProNX-RT from Lattice Semiconductor Corporation (US) and RT Kintex UltraScale FPGA from Xilinx, Inc. (Advanced Micro Devices, Inc.) (US).

"The 20-90 nm node size segment will hold high market share during the forecast period."

The 20-90 nm node size segment will witness a high market share during the forecast period. FPGAs with node sizes ranging from 20 nm to 90 nm offer high-temperature tolerance, consume less power, and act as digital signal processing (DSP) solutions. They have embedded multipliers and offer high density, increased memory, and ease of packaging. These intuitive features increases the demand for FPGAs with 20-90 nm node sizes across industrial networks, vehicle networking and connectivity, high-resolution videos and graphics, 10G to 100G networking, and portable radars applications.

"Asia Pacific will be the fastest growing region in FPGA market during the forecast period"

Asia Pacific is expected to be the fastest-growing region in the FPGA market during the forecast period. Market growth is driven by the semiconductor and electronics manufacturing sector in the China that demand various test and measurement equipment in their facilities. The country has around 293 semiconductor wafer fabrication, IC testing, and packaging plants located across 20 provinces in China. Plant facilities require various equipment such as automated test equipment, assembly & packaging equipment, Lithography system, and wafer manufacturing equipment. This equipment is incorporated with FPGAs as functional enhancements can be done without spending time redesigning hardware or modifying the board layout. It reduces time to market and requires low development cost as compared to ASIC (Application Specific Integrated Circuit) based system. In the process of determining and verifying the market size for several segments and subsegments gathered through secondary research, extensive primary interviews have been conducted with key industry experts in the FPGA space. The break-up of primary participants for the report has been shown below:

-[]By Company Type: Tier 1 - 50%, Tier 2 - 30%, and Tier 3 - 20%

- By Designation: C-level Executives - 10%, Directors -20%, and Others - 70%

- By Region: North America -20%, Europe - 15%, Asia Pacific- 55%, and RoW - 10%

The report profiles key players in the FPGA market with their respective market ranking analysis. Prominent players profiled in this report are include Xilinx, Inc. (Advanced Micro Devices, Inc.) (US), Intel Corporation (US), Microchip Technology Inc. (US), Lattice Semiconductor Corporation (US), Achronix Semiconductor Corporation (US), QuickLogic Corporation (US), Efinix, Inc. (US), Flex Logix Technologies, Inc. (US), GOWIN Semiconductor Corporation (China), and S2C (China). Apart from these, Renesas Electronics Corporation (Japan), AGM Microelectronics (China), Shanghai Anlu Information Technology Co., Ltd. (China), Shenzhen Ziguang Tongchuang Electronics Co., Ltd. (China), Xi'an Zhiduoji Microelectronics Co., Ltd. (China), LeafLabs, LLC (US), Aldec, Inc. (US), and Mistral Solutions Pvt. Ltd. (India), are among a few emerging companies in the FPGA market. Research Coverage:

This research report categorizes the FPGA market on the basis of configuration, node size, technology, vertical and region. The report describes the major drivers, restraints, challenges, and opportunities pertaining to the FPGA market and forecasts the same till 2027. Apart from these, the report also consists of leadership mapping and analysis of all the companies included in the FPGA ecosystem.

Key Benefits of Buying the Report

The report would help leaders/new entrants in this market in the following ways:

1. This report segments the FPGA market comprehensively and provides the closest market size projection for all subsegments across different regions.

2. The report helps stakeholders understand the pulse of the market and provides them with information on key drivers, restraints, challenges, and opportunities for market growth.

3. This report would help stakeholders understand their competitors better and gain more insights to improve their position in the business. The competitive landscape section includes competitor ecosystem, product developments and launches, partnerships, and mergers and acquisitions.

4. The analysis of the top 25 companies, based on the market rank as well as the product footprint will help stakeholders visualize the market positioning of these key players.

5. Patent analysis, trade data, and technological trends that will shape the market in the coming years has also been covered in this report.

## **Table of Contents:**

1 INTRODUCTION 38 1.1 STUDY OBJECTIVES 38 1.2 MARKET DEFINITION 38 1.3 INCLUSIONS AND EXCLUSIONS 39 1.4 STUDY SCOPE 40 1.4.1 MARKETS COVERED 40 FIGURE 1 FPGA MARKET SCOPE 40

1.4.2 REGIONAL SCOPE 41 1.4.3 YEARS CONSIDERED 41 1.5 CURRENCY 41 1.6 LIMITATIONS 42 1.7 STAKEHOLDERS 42 1.8 SUMMARY OF CHANGES 42 2 RESEARCH METHODOLOGY 44 2.1 RESEARCH DATA 44 FIGURE 2 FPGA MARKET: RESEARCH DESIGN 44 2.1.1 SECONDARY DATA 45 2.1.1.1 Major secondary sources 45 2.1.1.2 Key data from secondary sources 46 2.1.2 PRIMARY DATA 46 2.1.2.1 Primary interviews with experts 46 2.1.2.2 Breakdown of primaries 47 2.1.2.3 Key data from primary sources 47 2.1.3 SECONDARY AND PRIMARY RESEARCH 49 2.1.3.1 Key industry insights 49 2.2 MARKET SIZE ESTIMATION 50 2.2.1 SUPPLY-SIDE APPROACH 50 FIGURE 3[MARKET SIZE ESTIMATION METHODOLOGY (SUPPLY SIDE): REVENUE OF MARKET PLAYERS[50 FIGURE 4[]MARKET SIZE ESTIMATION METHODOLOGY (SUPPLY SIDE): ILLUSTRATIVE EXAMPLE OF COMPANY OPERATING IN FPGA MARKET[51 2.2.2 DEMAND-SIDE APPROACH 52 FIGURE 5[ESTIMATION METHODOLOGY (DEMAND SIDE): CONSUMPTION OF FPGA BY CONFIGURATION[52 FIGURE 6[]ESTIMATION METHODOLOGY (DEMAND SIDE): DEMAND FOR FPGAS FOR TELECOMMUNICATIONS VERTICAL[]52 2.2.3 BOTTOM-UP APPROACH 53 FIGURE 7 MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH 53 2.2.3.1 Capturing market share using bottom-up approach (demand side) 53 2.2.4 TOP-DOWN APPROACH 54 FIGURE 8 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH 54 2.2.4.1 Estimating market size using top-down analysis (supply side) 54 2.3 MARKET BREAKDOWN AND DATA TRIANGULATION 55 FIGURE 9 DATA TRIANGULATION 55 2.4 RESEARCH ASSUMPTIONS 56 TABLE 1 ASSUMPTIONS FOR RESEARCH STUDY 56 2.5 RISK ASSESSMENT 56 TABLE 2 RISK ASSESSMENT: FPGA MARKET 56 2.6 RESEARCH LIMITATIONS 57 3 EXECUTIVE SUMMARY 58 3.1 GROWTH RATE ASSUMPTIONS/GROWTH FORECASTS 58 FIGURE 10[LOW-END FPGA SEGMENT TO DOMINATE MARKET DURING FORECAST PERIOD[60 FIGURE 11[]? 16 NM SEGMENT TO GROW AT HIGHEST CAGR BETWEEN 2022 AND 2027[]60 FIGURE 12 SRAM-BASED TECHNOLOGY TO ACCOUNT FOR LARGEST SIZE OF FPGA MARKET DURING FORECAST PERIOD 61 FIGURE 13 EFPGA SEGMENT TO GROW AT HIGHEST CAGR BETWEEN 2022 AND 2027 62 FIGURE 14 DATA CENTERS & COMPUTING VERTICAL OF FPGA MARKET TO RECORD HIGHEST CAGR FROM 2022 TO 2027 62 FIGURE 15 FPGA MARKET IN ASIA PACIFIC TO GROW AT HIGHEST CAGR FROM 2022 TO 2027 63

4 PREMIUM INSIGHTS 65 4.1 FPGA MARKET OVERVIEW 65 FIGURE 16 RISING ADOPTION OF FPGAS IN DATA CENTERS FOR AI/ML PROCESSING TO DRIVE MARKET OVER FORECAST PERIOD 65 4.2 FPGA MARKET, BY CONFIGURATION 65 FIGURE 17 LOW-END FPGA SEGMENT TO DOMINATE FPGA MARKET DURING FORECAST PERIOD 65 4.3□FPGA MARKET, BY NODE SIZE AND TECHNOLOGY□66 FIGURE 18[20-90 NM NODE SIZE AND SRAM SEGMENTS TO HOLD LARGEST SHARES OF FPGA MARKET IN 2022[66 4.4 MARKET SIZE FOR FPGA AND EFPGA 66 FIGURE 19[]EFPGA SEGMENT TO GROW AT HIGH CAGR FROM 2022 TO 2027[]66 4.5□FPGA MARKET, BY REGION□67 FIGURE 20 ASIA PACIFIC TO HOLD LARGEST SHARE OF FPGA MARKET IN 2022 67 4.6 FPGA MARKET, BY VERTICAL 67 FIGURE 21 TELECOMMUNICATIONS TO LEAD FPGA MARKET DURING FORECAST PERIOD 67 4.7 FPGA MARKET, BY COUNTRY 68 FIGURE 22 FPGA MARKET IN CHINA TO GROW AT HIGHEST CAGR FROM 2022 TO 2027 68 ? 5 MARKET OVERVIEW 69 5.1 INTRODUCTION 69 5.2 MARKET DYNAMICS 69 FIGURE 23 FPGA MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES 69 5.2.1 || DRIVERS || 70 5.2.1.1 Proliferation of AI & IoT technologies worldwide 70 5.2.1.2 Rising adoption of FPGAs in ADAS 70 FIGURE 24□PERCENT OF REGISTERED VEHICLES BY ADAS FEATURE (2020 & 2026)□71 5.2.1.3 Surging deployment of data centers and high-performance computing (HPC) 171 5.2.1.4 Mounting demand for FPGA hardware verification in avionics 72 FIGURE 25 DRIVERS AND THEIR IMPACTS ON FPGA MARKET 73 5.2.2 RESTRAINTS 73 5.2.2.1 Potential security threats due to hidden bugs in FPGAs 73 FIGURE 26 RESTRAINTS AND THEIR IMPACTS ON FPGA MARKET 73 5.2.3 OPPORTUNITIES 74 5.2.3.1 Rising demand for FPGAs in high bandwidth devices for high-end applications 74 5.2.3.2 Surging deployment of 5G communication infrastructure 74 5.2.3.3 Increasing penetration of eFPGAs in military and aerospace sectors 75 FIGURE 27 OPPORTUNITIES AND THEIR IMPACTS ON FPGA MARKET 75 5.2.4 CHALLENGES 76 5.2.4.1 Lack of improved and standardized verification techniques 76 5.2.4.2 Highly complex programming 76 FIGURE 28 CHALLENGES AND THEIR IMPACTS ON FPGA MARKET 76 5.3 TECHNOLOGY ANALYSIS 77 5.3.1 COMPLEMENTARY TECHNOLOGIES 77 5.3.1.1 Complex programmable logic device (CPLD) 77 TABLE 3□COMPARISON BETWEEN CPLD & FPGA□77 5.3.2 ADJACENT TECHNOLOGIES 77 5.3.2.1 Application-specific integrated circuit (ASIC) 77 TABLE 4 COMPARISON BETWEEN ASIC & FPGA 78 5.4 VALUE CHAIN ANALYSIS 78

FIGURE 29 GLOBAL FPGA MARKET: VALUE CHAIN ANALYSIS 78 5.5 ECOSYSTEM 80 FIGURE 30 FPGA MARKET: ECOSYSTEM 80 TABLE 5 COMPANIES AND THEIR ROLE IN FPGA MARKET ECOSYSTEM 80 5.6 TRENDS AND DISRUPTIONS IMPACTING CUSTOMERS 81 FIGURE 31 TRENDS AND DISRUPTIONS IN FPGA MARKET 81 5.7 PORTER'S FIVE FORCES ANALYSIS 82 TABLE 6 FPGA MARKET: PORTER'S FIVE FORCES ANALYSIS 82 FIGURE 32 PORTER'S FIVE FORCES ANALYSIS 83 5.7.1 ⊓INTENSITY OF COMPETITIVE RIVALRY 83 5.7.2 BARGAINING POWER OF SUPPLIERS 84 5.7.3 BARGAINING POWER OF BUYERS 84 5.7.4 THREAT OF SUBSTITUTES 84 5.7.5 THREAT OF NEW ENTRANTS 84 5.8 ASP ANALYSIS 85 TABLE 7 MAJOR PARAMETERS CONSIDERED TO DIFFERENTIATE FPGAS BASED ON CONFIGURATION 85 FIGURE 33 AVERAGE SELLING PRICE TRENDS FOR LOW-END FPGA FIGURE 34 AVERAGE SELLING PRICE TRENDS FOR MID-RANGE FPGA 86 FIGURE 35 AVERAGE SELLING PRICE TRENDS FOR HIGH-END FPGA 86 TABLE 8∏AVERAGE SELLING PRICES FOR FPGAS, BY CONFIGURATION, 2018 TO 2027∏86 5.8.1 AVERAGE SELLING PRICES OF LOW-END FPGAS BY KEY MARKET PLAYERS FOR TOP 3 VERTICALS 87 FIGURE 36 AVERAGE SELLING PRICES OF LOW-END FPGAS BY KEY MARKET PLAYERS FOR TOP 3 VERTICALS 87 TABLE 9∏AVERAGE SELLING PRICES OF LOW-END FPGAS BY KEY MARKET PLAYERS FOR TOP 3 VERTICALS (USD)∏87 5.8.2 AVERAGE SELLING PRICES OF MID-RANGE FPGAS BY KEY MARKET PLAYERS FOR TOP 3 VERTICALS 88 FIGURE 37 AVERAGE SELLING PRICES OF MID-RANGE FPGAS BY KEY MARKET PLAYERS FOR TOP 3 VERTICALS 88 TABLE 10 AVERAGE SELLING PRICES OF MID-RANGE FPGAS BY KEY MARKET PLAYERS FOR TOP 3 VERTICALS (USD) 88 5.8.3 AVERAGE SELLING PRICES OF HIGH-END FPGAS BY KEY MARKET PLAYERS FOR TOP 3 VERTICALS FIGURE 38 AVERAGE SELLING PRICES OF HIGH-END FPGAS BY KEY MARKET PLAYERS FOR TOP 3 VERTICALS 89 TABLE 11 AVERAGE SELLING PRICES OF HIGH-END FPGAS BY KEY MARKET PLAYERS FOR TOP 3 VERTICALS (USD) 89 5.9□CASE STUDY ANALYSIS□90 5.9.1⊓USE CASE 1: DIGIBIRD'S COST-EFFECTIVE DISTRIBUTED AUDIOVISUAL (AV) SOLUTION USING XILINX'S KINTEX SERIES FPGA∏90 5.9.2 USE CASE 2: NEWTOUCH'S FOURTH-GENERATION LARGE-SCALE PROTOTYPING SYSTEM WITH XILINX FPGA 90 5.9.3 TUSE CASE 3: CREATIVE FPGA DESIGN SOLUTIONS FOR SOCIAL 360 CAMERATION 5.9.4∏USE CASE 4: DEVELOPMENT OF SOFTWARE-DEFINED RADIO (SDR) SYSTEM USING GIDEL FPGA PLATFORM∏92 5.9.5 USE CASE 5: AEROSPACE-COMPLIANT FPGA DESIGN 92 5.10 TRADE ANALYSIS 93 FIGURE 39 IMPORTS DATA FOR HS CODE 854239, BY COUNTRY, 2017-2021 93 FIGURE 40 EXPORTS DATA FOR HS CODE 854239, BY COUNTRY, 2017-2021 94 5.11 PATENT ANALYSIS 94 FIGURE 41 NUMBER OF PATENTS GRANTED PER YEAR FROM 2012 TO 2021 94 FIGURE 42 TOP 10 COMPANIES WITH HIGH NUMBER OF PATENT APPLICATIONS IN LAST 10 YEARS 95 TABLE 12 TOP PATENT OWNERS IN LAST 10 YEARS 95 5.11.1 MAJOR PATENTS 96 TABLE 13 MAJOR PATENTS 96 5.12 KEY CONFERENCES & EVENTS IN 2022-2023 99 TABLE 14□FPGA MARKET: DETAILED LIST OF CONFERENCES & EVENTS□99 5.13 TARIFF ANALYSIS 101

TABLE 15 MFN TARIFF FOR HS CODE 8542.39 EXPORTED BY US 101 TABLE 16 MFN TARIFF FOR HS CODE 8542.39 EXPORTED BY CHINA 101 5.14 STANDARDS & REGULATORY LANDSCAPE 102 5.14.1 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS TABLE 17[NORTH AMERICA: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS[102 TABLE 18 EUROPE: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 103 TABLE 19∏ASIA PACIFIC: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS∏104 TABLE 20[REST OF THE WORLD: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS]104 5.14.2 REGULATORY STANDARDS 105 5.14.2.1 DO-254 105 5.14.2.2 ANSI/VITA Standards 105 5.14.2.3 MSL (Moisture Sensitivity Level) 105 5.14.2.4 ISO 9001:2015 105 5.14.2.5 ISO 14001:2015 106 5.14.2.6 IATF 16949 106 5.14.3 GOVERNMENT REGULATIONS 106 5.14.3.1 US 106 5.14.3.2 Europe 106 5.14.3.3 China 107 5.14.3.4 || apan || 107 5.15 KEY STAKEHOLDERS AND BUYING CRITERIA 107 5.15.1 KEY STAKEHOLDERS IN BUYING PROCESS 107 FIGURE 43⊓INFLUENCE OF STAKEHOLDERS IN BUYING PROCESS FOR TOP THREE VERTICALS∏107 TABLE 21 INFLUENCE OF STAKEHOLDERS IN BUYING PROCESS FOR TOP THREE VERTICALS (%) 108 5.15.2 BUYING CRITERIA 108 FIGURE 44 KEY BUYING CRITERIA FOR TOP THREE VERTICALS 108 TABLE 22 KEY BUYING CRITERIA FOR TOP THREE VERTICALS 108 ? 6 FPGA MARKET, BY CONFIGURATION 109 6.1⊓INTRODUCTION⊓110 TABLE 23 MAJOR PARAMETERS CONSIDERED TO DIFFERENTIATE FPGAS BASED ON CONFIGURATION 110 FIGURE 45 LOW-END FPGA SEGMENT TO DOMINATE FPGA MARKET DURING FORECAST PERIOD TABLE 24 FPGA MARKET, BY CONFIGURATION, 2018-2021 (USD MILLION) 111 TABLE 25□FPGA MARKET, BY CONFIGURATION, 2022-2027 (USD MILLION)□111 TABLE 26 FPGA MARKET, BY CONFIGURATION, 2018-2021 (THOUSAND UNITS) 112 TABLE 27 FPGA MARKET, BY CONFIGURATION, 2022-2027 (THOUSAND UNITS) 112 6.2 LOW-END FPGA 112 6.2.1 LOW-COST BENEFITS ASSOCIATED WITH LOW-END FPGA DEVICES 112 6.3 MID-RANGE FPGA 113 6.3.1 || INCREASED PRODUCTIVITY AND SHORT TIME-TO-MARKET FEATURES || 113 6.4⊓HIGH-END FPGA⊓113 6.4.1 SUPERIOR PERFORMANCE AND HIGH BANDWIDTH ATTRIBUTES 113 7
FPGA MARKET, BY NODE SIZE
114 7.1⊓INTRODUCTION⊓115 FIGURE 46□? 16 NM SEGMENT OF FPGA MARKET PROJECTED TO RECORD HIGHEST CAGR FROM 2022 TO 2027□115 TABLE 28□FPGA MARKET, BY NODE SIZE, 2018-2021 (USD MILLION)□116 TABLE 29□FPGA MARKET, BY NODE SIZE, 2022-2027 (USD MILLION)□116

7.2□? 16 NM□116 7.2.1 MINIATURIZED FOOTPRINT AND HIGH-SPEED PROCESSING FEATURES 116 7.3 20-90 NM 7.3.1 SURGE IN GLOBAL ADOPTION DUE TO HIGH-TEMPERATURE TOLERANCE 7.4[]>90 NM[]117 7.4.1□INCREASE IN DEPLOYMENT OF FPGAS WITH >90 NM NODE SIZE IN AUTOMOTIVE APPLICATIONS□117 8 FPGA MARKET, BY TECHNOLOGY 118 8.1⊓INTRODUCTION⊓119 FIGURE 47 FLASH SEGMENT OF FPGA MARKET PROJECTED TO RECORD HIGHEST CAGR FROM 2022 TO 2027 119 TABLE 30 FPGA MARKET, BY TECHNOLOGY, 2018-2021 (USD MILLION) 120 TABLE 31 FPGA MARKET, BY TECHNOLOGY, 2022-2027 (USD MILLION) 120 8.2 SRAM 120 8.2.1 EASY AND CUSTOMIZED RECONFIGURATION AND REPROGRAMMING 120 8.3 FLASH 121 8.3.1 LOW POWER CONSUMPTION FEATURES 121 8.4 ∩ ANTIFUSE ⊓121 8.4.1 LOW PRICE FEATURES AND ABILITY TO BE PROGRAMMED OFFLINE 121 9 MARKET SIZE FOR FPGA AND EFPGA 123 9.1 INTRODUCTION 124 FIGURE 48 EFPGA SEGMENT OF FPGA MARKET TO RECORD HIGHEST CAGR FROM 2022 TO 2027 2027 TABLE 32[COMPARISON OF MARKET SIZE OF FPGA AND EFPGA, 2018-2021 (USD MILLION)]125 TABLE 33 COMPARISON OF MARKET SIZE OF FPGA AND EFPGA, 2022-2027 (USD MILLION) 125 9.2□FPGA□126 9.2.1 PARALLEL DATA PROCESSING CAPABILITIES AND SHORTER TIME-TO-MARKET 126 9.3[EFPGA]126 9.3.1 HIGHER FLEXIBILITY AND CUSTOMIZED POSTPRODUCTION 126 10 FPGA MARKET, BY VERTICAL 127 10.1 INTRODUCTION 128 FIGURE 49 DATA CENTERS & COMPUTING VERTICAL TO RECORD HIGHEST CAGR FROM 2022 TO 2027 128 TABLE 34□FPGA MARKET, BY VERTICAL, 2018-2021 (USD MILLION)□129 TABLE 35 FPGA MARKET, BY VERTICAL, 2022-2027 (USD MILLION) 129 10.2 TELECOMMUNICATIONS 130 TABLE 36⊓FPGA MARKET FOR TELECOMMUNICATIONS. BY CONFIGURATION. 2018-2021 (USD MILLION)⊓130 TABLE 37∏FPGA MARKET FOR TELECOMMUNICATIONS, BY CONFIGURATION, 2022-2027 (USD MILLION)∏130 FIGURE 50[]5G SEGMENT OF FPGA MARKET FOR TELECOMMUNICATIONS TO RECORD HIGHEST CAGR FROM 2022 TO 2027[]131 TABLE 38∏FPGA MARKET FOR TELECOMMUNICATIONS, BY TYPE, 2018-2021 (USD MILLION)∏131 TABLE 39 FPGA MARKET FOR TELECOMMUNICATIONS, BY TYPE, 2022-2027 (USD MILLION) 131 10.2.1 WIRED COMMUNICATION 132 TABLE 40 FPGA MARKET FOR WIRED COMMUNICATION, BY TYPE, 2018-2021 (USD MILLION) 132 TABLE 41∏FPGA MARKET FOR WIRED COMMUNICATION, BY TYPE, 2022-2027 (USD MILLION)∏132 10.2.1.1 Optical transport network (OTN) 133 10.2.1.1.1 Rising use of FPGAs in OTN applications 133 10.2.1.2 Backhaul & access network 133 10.2.1.2.1 Ability of FPGAs to address requirements of 4G to spur adoption 133 10.2.1.3 Network processing 134 10.2.1.3.1 Surge in demand for FPGAs for use in wired applications 134 10.2.1.4 Wired connectivity 134

10.2.1.4.1 Adoption of FPGAs in wired connectivity to enable network access for wireless communication and mobile computing 134

10.2.1.5 Packet-based processing & switching 135

10.2.1.5.1 Widespread use of FPGAs for packet-based processing & switching applications 135

10.2.2 WIRELESS COMMUNICATION 135

TABLE 42 FPGA MARKET FOR WIRELESS COMMUNICATION, BY TYPE, 2018-2021 (USD MILLION) 135

TABLE 43 FPGA MARKET FOR WIRELESS COMMUNICATION, BY TYPE, 2022-2027 (USD MILLION) 136

10.2.2.1 Wireless baseband solutions 136

10.2.2.1.1 Increasing use of FPGAs in smart cells in wireless baseband solutions 136

10.2.2.2 Wireless backhaul solutions 136

10.2.2.2.1 Rising adoption of FPGAs due to high capacity and throughput 136

10.2.2.3 Radio solutions 137

10.2.2.3.1 Surge in deployment of low-power FPGAs in SDR 137

10.2.3[]5G[]137

10.2.3.1 Rising use of FPGAs in 5G applications 137

10.3 CONSUMER ELECTRONICS 138

10.3.1 EXTENSIVE USE OF FPGAS IN CONSUMER ELECTRONICS PRODUCTS 138

TABLE 44 FPGA MARKET FOR CONSUMER ELECTRONICS, BY CONFIGURATION, 2018-2021 (USD MILLION) 139

TABLE 45 FPGA MARKET FOR CONSUMER ELECTRONICS, BY CONFIGURATION, 2022-2027 (USD MILLION) 139

10.4 TEST, MEASUREMENT & EMULATION 139

10.4.1 MULTIPLE ADVANTAGES OF FPGA-BASED EQUIPMENT 139

TABLE 46 FPGA MARKET FOR TEST, MEASUREMENT & EMULATION, BY CONFIGURATION, 2018-2021 (USD MILLION) 140 TABLE 47 FPGA MARKET FOR TEST, MEASUREMENT & EMULATION, BY CONFIGURATION, 2022-2027 (USD MILLION) 140 10.5 DATA CENTERS & COMPUTING 140

TABLE 48[]FPGA MARKET FOR DATA CENTERS & COMPUTING, BY CONFIGURATION, 2018-2021 (USD MILLION)[]141 TABLE 49[]FPGA MARKET FOR DATA CENTERS & COMPUTING, BY CONFIGURATION, 2022-2027 (USD MILLION)[]141 FIGURE 51[]HIGH-PERFORMANCE COMPUTING SEGMENT OF FPGA MARKET FOR DATA CENTERS & COMPUTING TO RECORD HIGHEST CAGR FROM 2022 TO 2027[]142

TABLE 50 FPGA MARKET FOR DATA CENTERS & COMPUTING, BY TYPE, 2018-2021 (USD MILLION) 142

TABLE 51 FPGA MARKET FOR DATA CENTERS & COMPUTING, BY TYPE, 2022-2027 (USD MILLION) 142

10.5.1 STORAGE INTERFACE CONTROL 143

10.5.1.1 Increasing deployment of FPGAs to manage large data volumes 143

10.5.2 NETWORK INTERFACE CONTROL 143

10.5.2.1 Rising use of FPGAs for applications requiring additional processing functions 143

10.5.3 HARDWARE ACCELERATOR 143

10.5.3.1 FPGAs suited to hosting hardware accelerators 143

10.5.4 HIGH-PERFORMANCE COMPUTING 144

10.5.4.1 Use of FPGAs to provide customized coprocessing for wide range of applications 144

10.6 MILITARY & AEROSPACE 144

TABLE 52 FPGA MARKET FOR MILITARY & AEROSPACE, BY CONFIGURATION, 2018-2021 (USD MILLION) 145

TABLE 53[]FPGA MARKET FOR MILITARY & AEROSPACE, BY CONFIGURATION, 2022-2027 (USD MILLION)[]145

FIGURE 52 AVIONICS SEGMENT OF FPGA MARKET FOR MILITARY & AEROSPACE TO RECORD HIGHEST CAGR FROM 2022 TO 2027 145

TABLE 54 FPGA MARKET FOR MILITARY & AEROSPACE, BY TYPE, 2018-2021 (USD MILLION)

TABLE 55[]FPGA MARKET FOR MILITARY & AEROSPACE, BY TYPE, 2022-2027 (USD MILLION)[]146

10.6.1 AVIONICS 146

10.6.1.1 Extensive use of low-cost and compact FPGAs in avionics applications 146

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10.6.2 MISSILES & MUNITION 147 10.6.2.1 Rapid adoption of FPGAs by defense contractors and agencies to facilitate development of cutting-edge technologies 147 10.6.3 RADARS & SENSORS 147 10.6.3.1 Increasing use of FPGAs in high-speed radars 147 10.6.4 OTHERS 147 10.7 INDUSTRIAL 148 TABLE 56∏FPGA MARKET FOR INDUSTRIAL, BY CONFIGURATION, 2018-2021 (USD MILLION)∏148 TABLE 57∏FPGA MARKET FOR INDUSTRIAL, BY CONFIGURATION, 2022-2027 (USD MILLION)∏149 FIGURE 53[]VIDEO SURVEILLANCE SYSTEMS SEGMENT OF FPGA MARKET FOR INDUSTRIAL TO RECORD HIGHEST CAGR FROM 2022 TO 2027 149 TABLE 58⊓FPGA MARKET FOR INDUSTRIAL, BY TYPE, 2018-2021 (USD MILLION)⊓149 TABLE 59 FPGA MARKET FOR INDUSTRIAL, BY TYPE, 2022-2027 (USD MILLION) 150 10.7.1 VIDEO SURVEILLANCE SYSTEMS 150 10.7.1.1 Growing demand for FPGA-enabled smart cameras 150 10.7.2 MACHINE VISION SOLUTIONS 150 10.7.2.1 Surge in demand for machine vision systems in automated industries 150 10.7.3 INDUSTRIAL NETWORKING SOLUTIONS 151 10.7.3.1 Rising adoption of FPGAs in industrial networking solutions 151 10.7.4 INDUSTRIAL MOTOR CONTROL SOLUTIONS 151 10.7.4.1 Growing use of FPGAs in motor control systems 151 10.7.5 ROBOTICS 151 10.7.5.1 FPGAs offer common embedded hardware and software platform 151 ? 10.7.6 INDUSTRIAL SENSORS 152 10.7.6.1 Rising use of FPGAs in industrial sensors 152 10.7.7 OTHERS 152 10.8 AUTOMOTIVE 152 TABLE 60 FPGA MARKET FOR AUTOMOTIVE, BY CONFIGURATION, 2018-2021 (USD MILLION) 153 TABLE 61 FPGA MARKET FOR AUTOMOTIVE, BY CONFIGURATION, 2022-2027 (USD MILLION) 153 FIGURE 54∏ADAS/SENSOR FUSION SEGMENT OF FPGA MARKET FOR AUTOMOTIVE TO HOLD HIGH MARKET SHARE∏153 TABLE 62 FPGA MARKET FOR AUTOMOTIVE, BY TYPE, 2018-2021 (USD MILLION) 154 TABLE 63∏FPGA MARKET FOR AUTOMOTIVE, BY TYPE, 2022-2027 (USD MILLION)∏154 10.8.1 ADAS/SENSOR FUSION 154 10.8.1.1 Growing preference for customizable and versatile FPGAs 154 10.8.2□AUTOMOTIVE INFOTAINMENT & DRIVER INFORMATION SYSTEMS□155 10.8.2.1 Growing demand for entertainment, safety & security, and navigation services 155 10.8.3 ELECTRIC VEHICLES 155 10.8.3.1 EV powertrain 155 10.8.3.1.1 Increasing use of FPGAs in EVs for battery management applications 155 10.8.3.2 EV charging 156 10.8.3.2.1 Rising penetration of EV charging infrastructure 156 10.9 HEALTHCARE 156 TABLE 64∏FPGA MARKET FOR HEALTHCARE, BY CONFIGURATION, 2018-2021 (USD MILLION)∏157 TABLE 65∏FPGA MARKET FOR HEALTHCARE, BY CONFIGURATION, 2022-2027 (USD MILLION)∏157 FIGURE 55 WEARABLE DEVICES SEGMENT OF FPGA MARKET FOR HEALTHCARE TO RECORD HIGHEST CAGR FROM 2022 TO 2027[]157 TABLE 66 FPGA MARKET FOR HEALTHCARE, BY TYPE, 2018-2021 (USD MILLION) 158

TABLE 67□FPGA MARKET FOR HEALTHCARE, BY TYPE, 2022-2027 (USD MILLION)□158 10.9.1 IMAGE DIAGNOSTIC SYSTEMS 158 TABLE 68∏FPGA MARKET FOR IMAGING DIAGNOSTIC SYSTEMS, BY TYPE, 2018-2021 (USD MILLION)∏158 TABLE 69∏FPGA MARKET FOR IMAGING DIAGNOSTIC SYSTEMS, BY TYPE, 2022-2027 (USD MILLION)∏159 10.9.1.1 Ultrasound machines 159 10.9.1.1.1 Surge in use of FPGAs in portable ultrasound machines 159 10.9.1.2 X-ray Machines 159 10.9.1.2.1 Growing adoption of FPGAs with high processing power 159 10.9.1.3 CT scanners 160 10.9.1.3.1 Use of FPGAs to reduce size and weight of CT scanners 160 ? 10.9.1.4 MRI machines 160 10.9.1.4.1 □Increasing use of FPGAs to facilitate handling of large volumes of data □160 10.9.2 WEARABLE DEVICES 160 10.9.2.1 High demand for reprogrammable FPGAs to add new features to devices 160 10.9.3 OTHERS 160 10.10 MULTIMEDIA 160 TABLE 70[FPGA MARKET FOR MULTIMEDIA, BY CONFIGURATION, 2018-2021 (USD MILLION)[]161 TABLE 71 FPGA MARKET FOR MULTIMEDIA, BY CONFIGURATION, 2022-2027 (USD MILLION) 161 FIGURE 56[]VIDEO PROCESSING SEGMENT OF FPGA MARKET FOR MULTIMEDIA TO RECORD HIGHER CAGR FROM 2022 TO 2027[]161 TABLE 72 FPGA MARKET FOR MULTIMEDIA, BY TYPE, 2018-2021 (USD MILLION) 161 TABLE 73 FPGA MARKET FOR MULTIMEDIA, BY TYPE, 2022-2027 (USD MILLION) 162 10.10.1 AUDIO DEVICES 162 10.10.1.1 Increasing adoption of FPGAs for DSP to propel market growth 162 10.10.2 VIDEO PROCESSING 162 10.10.2.1 Rising use of FPGAs in video processing applications 162 10.11 BROADCASTING 163 TABLE 74 PFGA MARKET FOR BROADCASTING, BY CONFIGURATION, 2018-2021 (USD MILLION) 163 TABLE 75[]FPGA MARKET FOR BROADCASTING, BY CONFIGURATION, 2022-2027 (USD MILLION)]]163 FIGURE 57[]HIGH-END BROADCASTING SYSTEMS SEGMENT OF FPGA MARKET FOR BROADCASTING TO RECORD HIGHER CAGR FROM 2022 TO 2027 164 TABLE 76∏FPGA MARKET FOR BROADCASTING, BY TYPE, 2018-2021 (USD MILLION)∏164 TABLE 77 FPGA MARKET FOR BROADCASTING. BY TYPE, 2022-2027 (USD MILLION) 164 10.11.1 BROADCASTING PLATFORM SYSTEMS 165 10.11.1.1 High adoption of FPGAs due to hardware acceleration ability 165 10.11.2 HIGH-END BROADCASTING SYSTEMS 165 10.11.2.1 Surge in use of FPGA-based broadcast systems for displays and signage 165 11 FPGA MARKET, BY REGION 166 11.1 INTRODUCTION 167 FIGURE 58 ASIA PACIFIC FPGA MARKET TO RECORD HIGHEST CAGR FROM 2022 TO 2027 167 TABLE 78 FPGA MARKET, BY REGION, 2018-2021 (USD MILLION) 168 TABLE 79 FPGA MARKET, BY REGION, 2022-2027 (USD MILLION) 168 11.2 NORTH AMERICA 168 FIGURE 59 SNAPSHOT OF FPGA MARKET IN NORTH AMERICA 169 TABLE 80[]FPGA MARKET IN NORTH AMERICA, BY CONFIGURATION, 2018-2021 (USD MILLION)[]169 TABLE 81 FPGA MARKET IN NORTH AMERICA, BY CONFIGURATION, 2022-2027 (USD MILLION) 170 TABLE 82∏FPGA MARKET IN NORTH AMERICA, BY TECHNOLOGY, 2018-2021 (USD MILLION)∏170

TABLE 83[]FPGA MARKET IN NORTH AMERICA, BY TECHNOLOGY, 2022-2027 (USD MILLION)[]170 TABLE 84 FPGA MARKET IN NORTH AMERICA, BY VERTICAL, 2018-2021 (USD MILLION) TABLE 85[]FPGA MARKET IN NORTH AMERICA, BY VERTICAL, 2022-2027 (USD MILLION)[]171 TABLE 86∏FPGA MARKET IN NORTH AMERICA FOR TELECOMMUNICATIONS, BY TYPE, 2018-2021 (USD MILLION)∏172 TABLE 87∏FPGA MARKET IN NORTH AMERICA FOR TELECOMMUNICATIONS, BY TYPE, 2022-2027 (USD MILLION)∏172 TABLE 88 TFPGA MARKET, IN NORTH AMERICA FOR DATA CENTERS & COMPUTING, BY TYPE, 2018-2021 (USD MILLION) 172 TABLE 89[]FPGA MARKET IN NORTH AMERICA FOR DATA CENTERS & COMPUTING, BY TYPE, 2022-2027 (USD MILLION)[]172 TABLE 90[]FPGA MARKET IN NORTH AMERICA FOR MILITARY & AEROSPACE, BY TYPE, 2018-2021 (USD MILLION)[]173 TABLE 91□FPGA MARKET IN NORTH AMERICA FOR MILITARY & AEROSPACE, BY TYPE, 2022-2027 (USD MILLION)□173 TABLE 92∏FPGA MARKET IN NORTH AMERICA FOR INDUSTRIAL, BY TYPE, 2018-2021 (USD MILLION)∏173 TABLE 93∏FPGA MARKET IN NORTH AMERICA FOR INDUSTRIAL, BY TYPE, 2022-2027 (USD MILLION)∏174 TABLE 94 FPGA MARKET IN NORTH AMERICA FOR AUTOMOTIVE, BY TYPE, 2018-2021 (USD MILLION) 174 TABLE 95∏FPGA MARKET IN NORTH AMERICA FOR AUTOMOTIVE, BY TYPE, 2022-2027 (USD MILLION)∏174 TABLE 96∏FPGA MARKET IN NORTH AMERICA FOR HEALTHCARE, BY TYPE, 2018-2021 (USD MILLION)∏175 TABLE 97 FPGA MARKET IN NORTH AMERICA FOR HEALTHCARE, BY TYPE, 2022-2027 (USD MILLION) 175 TABLE 98 FPGA MARKET IN NORTH AMERICA FOR MULTIMEDIA, BY TYPE, 2018-2021 (USD MILLION) 175 TABLE 99[]FPGA MARKET IN NORTH AMERICA FOR MULTIMEDIA, BY TYPE, 2022-2027 (USD MILLION)[]175 TABLE 100∏FPGA MARKET IN NORTH AMERICA FOR BROADCASTING, BY TYPE, 2018-2021 (USD MILLION)∏176 TABLE 101 FPGA MARKET IN NORTH AMERICA FOR BROADCASTING, BY TYPE, 2022-2027 (USD MILLION) 176 FIGURE 60 FPGA MARKET IN US PROJECTED TO RECORD HIGHEST CAGR FROM 2022 TO 2027 176 TABLE 102□FPGA MARKET IN NORTH AMERICA, BY COUNTRY, 2018-2021 (USD MILLION)□176 TABLE 103 ⊓FPGA MARKET IN NORTH AMERICA, BY COUNTRY, 2022-2027 (USD MILLION) ⊓177 11.2.1 US 177 11.2.1.1 Increased budget for military and defense sectors 177 11.2.2 CANADA 178 11.2.2.1 Growing investment in data center infrastructure 178 11.2.3 MEXICO 178 11.2.3.1 Rapidly developing aerospace industry to create lucrative market growth opportunities 178 11.3 EUROPE 179 FIGURE 61 SNAPSHOT OF FPGA MARKET IN EUROPE 180 TABLE 104⊓FPGA MARKET IN EUROPE, BY CONFIGURATION, 2018-2021 (USD MILLION)∏180 TABLE 105 FPGA MARKET IN EUROPE, BY CONFIGURATION, 2022-2027 (USD MILLION) 181 TABLE 106□FPGA MARKET IN EUROPE. BY TECHNOLOGY. 2018-2021 (USD MILLION)□181 TABLE 107 FPGA MARKET IN EUROPE, BY TECHNOLOGY, 2022-2027 (USD MILLION) 181 TABLE 108 FPGA MARKET IN EUROPE, BY VERTICAL, 2018-2021 (USD MILLION) 182 TABLE 109 FPGA MARKET IN EUROPE, BY VERTICAL, 2022-2027 (USD MILLION) 182 TABLE 110 TPGA MARKET IN EUROPE FOR TELECOMMUNICATIONS, BY TYPE, 2018-2021 (USD MILLION) 183 TABLE 111 TFPGA MARKET IN EUROPE FOR TELECOMMUNICATIONS, BY TYPE, 2022-2027 (USD MILLION) 183 TABLE 112∏FPGA MARKET IN EUROPE FOR DATA CENTERS & COMPUTING, BY TYPE, 2018-2021 (USD MILLION)∏183 TABLE 113 ⊓FPGA MARKET IN EUROPE FOR DATA CENTERS & COMPUTING, BY TYPE, 2022-2027 (USD MILLION) ⊓184 TABLE 114 TFPGA MARKET IN EUROPE FOR MILITARY & AEROSPACE, BY TYPE, 2018-2021 (USD MILLION) 184 TABLE 115[]FPGA MARKET IN EUROPE FOR MILITARY & AEROSPACE, BY TYPE, 2022-2027 (USD MILLION)[]184 TABLE 116∏FPGA MARKET IN EUROPE FOR INDUSTRIAL, BY TYPE, 2018-2021 (USD MILLION)∏185 TABLE 117 FPGA MARKET IN EUROPE FOR INDUSTRIAL, BY TYPE, 2022-2027 (USD MILLION) 185 TABLE 118 FPGA MARKET IN EUROPE FOR AUTOMOTIVE, BY TYPE, 2018-2021 (USD MILLION) TABLE 119 TFPGA MARKET IN EUROPE FOR AUTOMOTIVE, BY TYPE, 2022-2027 (USD MILLION) 186 TABLE 120 FPGA MARKET IN EUROPE FOR HEALTHCARE, BY TYPE, 2018-2021 (USD MILLION) 186

TABLE 121 TFPGA MARKET IN EUROPE FOR HEALTHCARE, BY TYPE, 2022-2027 (USD MILLION) 186 TABLE 122 FPGA MARKET IN EUROPE FOR MULTIMEDIA, BY TYPE, 2018-2021 (USD MILLION) 186 TABLE 123 FPGA MARKET IN EUROPE FOR MULTIMEDIA, BY TYPE, 2022-2027 (USD MILLION) 187 TABLE 124 FPGA MARKET IN EUROPE FOR BROADCASTING, BY TYPE, 2018-2021 (USD MILLION) 187 TABLE 125 FPGA MARKET IN EUROPE FOR BROADCASTING, BY TYPE, 2022-2027 (USD MILLION) 187 FIGURE 62 FPGA MARKET IN GERMANY TO RECORD HIGHEST CAGR FROM 2022 TO 2027 187 TABLE 126 FPGA MARKET IN EUROPE, BY COUNTRY, 2018-2021 (USD MILLION) 188 TABLE 127 FPGA MARKET IN EUROPE, BY COUNTRY, 2022-2027 (USD MILLION) 188 11.3.1 GERMANY 188 11.3.1.1∏Increasing adoption of robotics and Industry 4.0∏188 11.3.2 UK 189 11.3.2.1 Rising penetration of data centers 189 11.3.3 FRANCE 190 11.3.3.1 Presence of major aerospace companies in France 190 11.3.4 REST OF EUROPE 191 11.4 ASIA PACIFIC 191 FIGURE 63 SNAPSHOT OF FPGA MARKET IN ASIA PACIFIC 192 TABLE 128 FPGA MARKET IN ASIA PACIFIC, BY CONFIGURATION, 2018-2021 (USD MILLION) TABLE 129[]FPGA MARKET IN ASIA PACIFIC, BY CONFIGURATION, 2022-2027 (USD MILLION)[]193 TABLE 130∏FPGA MARKET IN ASIA PACIFIC, BY TECHNOLOGY, 2018-2021 (USD MILLION)∏193 TABLE 131 [FPGA MARKET IN ASIA PACIFIC, BY TECHNOLOGY, 2022-2027 (USD MILLION)]193 TABLE 132 FPGA MARKET IN ASIA PACIFIC, BY VERTICAL, 2018-2021 (USD MILLION) 194 TABLE 133 FPGA MARKET IN ASIA PACIFIC, BY VERTICAL, 2022-2027 (USD MILLION) 194 TABLE 134∏FPGA MARKET IN ASIA PACIFIC FOR TELECOMMUNICATIONS, BY TYPE, 2018-2021 (USD MILLION)∏195 TABLE 135∏FPGA MARKET IN ASIA PACIFIC FOR TELECOMMUNICATIONS, BY TYPE, 2022-2027 (USD MILLION)∏195 TABLE 136∏FPGA MARKET IN ASIA PACIFIC FOR DATA CENTERS & COMPUTING, BY TYPE, 2018-2021 (USD MILLION)∏195 TABLE 137∏FPGA MARKET IN ASIA PACIFIC FOR DATA CENTERS & COMPUTING, BY TYPE, 2022-2027 (USD MILLION)∏195 TABLE 138∏FPGA MARKET IN ASIA PACIFIC FOR MILITARY & AEROSPACE, BY TYPE, 2018-2021 (USD MILLION)∏196 TABLE 139□FPGA MARKET IN ASIA PACIFIC FOR MILITARY & AEROSPACE, BY TYPE, 2022-2027 (USD MILLION)□196 TABLE 140∏FPGA MARKET IN ASIA PACIFIC FOR INDUSTRIAL, BY TYPE, 2018-2021 (USD MILLION)∏196 TABLE 141 ⊓FPGA MARKET IN ASIA PACIFIC FOR INDUSTRIAL, BY TYPE, 2022-2027 (USD MILLION) ⊓197 TABLE 142□FPGA MARKET IN ASIA PACIFIC FOR AUTOMOTIVE, BY TYPE, 2018-2021 (USD MILLION)□197 TABLE 143⊓FPGA MARKET IN ASIA PACIFIC FOR AUTOMOTIVE. BY TYPE, 2022-2027 (USD MILLION)⊓197 TABLE 144∏FPGA MARKET IN ASIA PACIFIC FOR HEALTHCARE, BY TYPE, 2018-2021 (USD MILLION)∏198 TABLE 145∏FPGA MARKET IN ASIA PACIFIC FOR HEALTHCARE, BY TYPE, 2022-2027 (USD MILLION)∏198 TABLE 146 FPGA MARKET IN ASIA PACIFIC FOR MULTIMEDIA, BY TYPE, 2018-2021 (USD MILLION) 198 TABLE 147 FPGA MARKET IN ASIA PACIFIC FOR MULTIMEDIA, BY TYPE, 2022-2027 (USD MILLION) 198 TABLE 148 FPGA MARKET IN ASIA PACIFIC FOR BROADCASTING, BY TYPE, 2018-2021 (USD MILLION) 199 TABLE 149 FPGA MARKET IN ASIA PACIFIC FOR BROADCASTING, BY TYPE, 2022-2027 (USD MILLION) 199 FIGURE 64 FPGA MARKET IN CHINA IS PROJECTED TO RECORD HIGHEST CAGR FROM 2022 TO 2027 199 TABLE 150 FPGA MARKET IN ASIA PACIFIC, BY COUNTRY, 2018-2021 (USD MILLION) 200 TABLE 151 FPGA MARKET IN ASIA PACIFIC, BY COUNTRY, 2022-2027 (USD MILLION) 200 11.4.1 CHINA 200 11.4.1.1 Increasing adoption of FPGAs by telecom operators for 5G networking 200 11.4.2 JAPAN 201 11.4.2.1 Surging demand for FPGAs in level-4 autonomous cars 201

11.4.3 INDIA 202

11.4.3.1 Favorable government initiative supporting electronic manufacturing in India 202

11.4.4 REST OF ASIA PACIFIC 202

11.5 REST OF THE WORLD (ROW) 203

TABLE 152 FPGA MARKET IN ROW, BY CONFIGURATION, 2018-2021 (USD MILLION) 203 TABLE 153 FPGA MARKET IN ROW, BY CONFIGURATION, 2022-2027 (USD MILLION) 203 TABLE 154 FPGA MARKET IN ROW, BY TECHNOLOGY, 2018-2021 (USD MILLION) 204 TABLE 155 FPGA MARKET IN ROW, BY TECHNOLOGY, 2022-2027 (USD MILLION) 204 TABLE 156 FPGA MARKET IN ROW, BY VERTICAL, 2018-2021 (USD MILLION) 204 TABLE 157 FPGA MARKET IN ROW, BY VERTICAL, 2022-2027 (USD MILLION) 205 TABLE 158 FPGA MARKET IN ROW FOR TELECOMMUNICATIONS, BY TYPE, 2018-2021 (USD MILLION)205 TABLE 159 TFPGA MARKET IN ROW FOR TELECOMMUNICATIONS, BY TYPE, 2022-2027 (USD MILLION) 205 TABLE 160∏FPGA MARKET IN ROW FOR DATA CENTERS & COMPUTING, BY TYPE, 2018-2021 (USD MILLION)∏206 TABLE 161□FPGA MARKET IN ROW FOR DATA CENTERS & COMPUTING, BY TYPE, 2022-2027 (USD MILLION)□206 TABLE 162□FPGA MARKET IN ROW FOR MILITARY & AEROSPACE, BY TYPE, 2018-2021 (USD MILLION)□206 TABLE 163 FPGA MARKET IN ROW FOR MILITARY & AEROSPACE, BY TYPE, 2022-2027 (USD MILLION) 207 TABLE 164□FPGA MARKET IN ROW FOR INDUSTRIAL, BY TYPE, 2018-2021 (USD MILLION)□207 TABLE 165 FPGA MARKET IN ROW FOR INDUSTRIAL, BY TYPE, 2022-2027 (USD MILLION) 207 TABLE 166[[FPGA MARKET IN ROW FOR AUTOMOTIVE, BY TYPE, 2018-2021 (USD MILLION)][208 TABLE 167 FPGA MARKET IN ROW FOR AUTOMOTIVE, BY TYPE, 2022-2027 (USD MILLION) 208 TABLE 168∏FPGA MARKET IN ROW FOR HEALTHCARE, BY TYPE, 2018-2021 (USD MILLION)∏208 TABLE 169[[FPGA MARKET IN ROW FOR HEALTHCARE, BY TYPE, 2022-2027 (USD MILLION)]208 TABLE 170[[FPGA MARKET IN ROW FOR MULTIMEDIA, BY TYPE, 2018-2021 (USD MILLION)][209 TABLE 171 TFPGA MARKET IN ROW FOR MULTIMEDIA, BY TYPE, 2022-2027 (USD MILLION) 209 TABLE 172 FPGA MARKET IN ROW FOR BROADCASTING, BY TYPE, 2018-2021 (USD MILLION) 209 TABLE 173 FPGA MARKET IN ROW FOR BROADCASTING, BY TYPE, 2022-2027 (USD MILLION) 209 FIGURE 65[]FPGA MARKET IN SOUTH AMERICA PROJECTED TO RECORD HIGHEST CAGR FROM 2022 TO 2027[]210 TABLE 174□FPGA MARKET IN ROW, BY COUNTRY, 2018-2021 (USD MILLION)□210 TABLE 175 FPGA MARKET IN ROW, BY COUNTRY, 2022-2027 (USD MILLION) 210 11.5.1 MIDDLE EAST 211 11.5.1.1 [Increasing investments by governments to develop healthcare infrastructure]211 11.5.2 SOUTH AMERICA 211 11.5.2.1 Growing automotive industry in Brazil 211 11.5.3 AFRICA 212 11.5.3.1 Emphasis on penetration of data centers across Africa 212 12 COMPETITIVE LANDSCAPE 213 12.1 OVERVIEW 213 12.1.1 OVERVIEW OF KEY GROWTH STRATEGIES ADOPTED BY FPGA COMPANIES TABLE 176 OVERVIEW OF KEY GROWTH STRATEGIES ADOPTED BY FPGA COMPANIES 12.2 REVENUE ANALYSIS 216 FIGURE 66 REVENUE ANALYSIS OF FPGA FOR TOP 5 COMPANIES IN PAST 5 YEARS 216 12.3 MARKET SHARE ANALYSIS (2021) 216 TABLE 177 FPGA MARKET: DEGREE OF COMPETITION 216 12.4 COMPANY EVALUATION MATRIX 218 12.4.1 STARS 218 12.4.2 EMERGING LEADERS 219 12.4.3 PERVASIVE PLAYERS 219

12.4.4 PARTICIPANTS 219

FIGURE 67 FPGA MARKET, COMPANY EVALUATION MATRIX, 2021 220 12.5 START-UP/SME EVALUATION MATRIX 221 TABLE 178 START-UPS IN FPGA MARKET 221 12.5.1 PROGRESSIVE COMPANIES 222 12.5.2 RESPONSIVE COMPANIES 222 12.5.3 DYNAMIC COMPANIES 222 12.5.4 STARTING BLOCKS 223 FIGURE 68 START-UP/SME EVALUATION MATRIX, 2021 223 TABLE 179 STARTUP/SME MATRIX: DETAILED LIST OF KEY STARTUPS 224 12.6 COMPETITIVE BENCHMARKING 225 TABLE 180 FPGA MARKET: COMPETITIVE BENCHMARKING OF KEY START-UPS/SME 225 12.7 FPGA MARKET: COMPANY FOOTPRINT 226 TABLE 181 COMPANY FOOTPRINT 226 TABLE 182 COMPANY CONFIGURATION FOOTPRINT 227 TABLE 183 COMPANY NODE SIZE FOOTPRINT 228 TABLE 184 COMPANY TECHNOLOGY FOOTPRINT 229 TABLE 185 COMPANY VERTICAL FOOTPRINT 230 TABLE 186 COMPANY REGIONAL FOOTPRINT 231 12.8 COMPETITIVE SCENARIO AND TRENDS 233 12.8.1 PRODUCT LAUNCHES 233 TABLE 187 PRODUCT LAUNCHES, 2018-2021 233 12.8.2 DEALS 239 TABLE 188 DEALS, 2018-2021 239



# FPGA Market by Configuration (Low-End FPGA, Mid-Range FPGA, High-End FPGA), Technology (SRAM, Flash, Antifuse), Node Size (?16 nm, 20-90 nm, and >90 nm), Vertical and Region (North America, Europe, APAC, RoW) - Global Forecast to 2027

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