

Global Silicon Germanium Materials & Devices Market: Focus on Material Type (Source, Substrate & Epitaxial Wafer), Device Type (Wireless, Radio, FOT) & End-User (Telecommunication, Consumer Electronics, Automotive) - Analysis & Forecast 2017-2021

https://marketpublishers.com/r/GD3700358FFBEN.html

Date: April 2018 Pages: 231 Price: US\$ 4,599.00 (Single User License) ID: GD3700358FFBEN

Abstracts

Hard copy option is available on any of the options above at an additional charge of \$500. Please email us at <u>order@marketpublishers.com</u> with your request.

Over the last decade, process enhancements have played a crucial role in the evolution and progress of the semiconductor sector globally. Due to the known restrictions of conventional silicon-based semiconductor materials, such as low electron mobility, temperature sensitivity and volatility, researchers have been working on substitute semiconductor materials. Silicon-based manufacturing process of modern microchips does not provide a competitive edge when it comes to enormously high-performance levels needed for some emerging wireless communications, signal processing, and radar applications. Several highly customized and cost-effective semiconductor materials such as silicon germanium, indium phosphide, gallium arsenide and gallium nitride, currently hold a significant share in these highly demanding application areas.

Concept of combining germanium with silicon materials to produce silicon-germanium alloy has been available for several years, yet the technology is only used in some niche applications. In SiGe technology, slight quantities of germanium are introduced into silicon substrates at the atomic scale to boost the semiconductor performance considerably. SiGe HBT technology was initially industrialized by IBM in the early 90s for the high-end computing and communications market. SiGe technology is the propelling factor behind the advancement of low-cost, lightweight, communications devices, and automobile collision avoidance systems. By the incorporation of SiGe



technology, device performance attributes such as low-noise, high yield, smaller size, high-durability and temperature resistance, are enhanced. These multifunction, cost-effective and advanced features of SiGe materials allow them to be used in varied end-markets.

Silicon germanium technology is expanding into varied end-markets such as telecommunications, computers, consumer electronics, automotive and military and aerospace. New developments in silicon germanium market such as expansion of bandwidth, high frequency applications and thermoelectric capabilities is expected to further boost the commercialization process. Moreover, rapid expansion of internet, high mobile adoption and growth in the global autonomous driving industry are the major opportunities lined up in the silicon germanium market in coming future. Several semiconductor companies are extensively tracking market opportunities for SiGe technology by forming partnerships along the value chain, with auto OEMs, telecom sector giants and wireless network providers.

Market growth over the forecast period will be driven by certain factors such as increasing internet traffic requiring high bandwidth functionality, increasing smartphone adoption and rising demand for advanced radio frequency (RF) devices in various industries. One of the major factors restraining the growth of SiGe market is the high competition from III-V semiconductors.

The report is a compilation of the different segments of the global silicon germanium materials & devices market, including market breakdown by material type, device type, and different application areas. Herein, the revenue generated from the different materials and device types in different end-users such as; telecommunication, computers, consumer electronics, automotive, aerospace & defense are tracked to calculate the overall market size. While highlighting the key driving, and restraining forces for this market, the report also provides a detailed summary of the market.

The report answers the following questions about the global silicon germanium materials & devices market:

What was the size, in terms of value (\$million) of the silicon germanium materials & devices market in 2016, and what will be the growth rate during the forecast period, 2017-2021?

What are different materials & devices being supplied by the key players in the silicon germanium materials & devices market?



What was the revenue generation of silicon germanium materials & devices market for different end-uses in 2016, and what is their growth prospect?

What is the market size of different materials and devices, in terms of value and their respective growth prospects and key developments?

What is the silicon germanium materials & devices market size for different regions, on the basis of various types and end-users?

What are the key trends and opportunities in the market, pertaining to the countries included in different geographical regions?

How attractive is the market for different stakeholders present in the industry by analyzing the futuristic scenario of silicon germanium materials & devices market?

What are the major driving forces that tend to increase the demand for silicon germanium materials & devices market during the forecast period?

What are the major challenges inhibiting the growth of the global silicon germanium materials & devices market?

What kind of new strategies are being adopted by the existing market players to expand their footprint in the industry?

What is the competitive strength of the key players in the silicon germanium materials & devices market by market share analysis?

Who are the key market players in the market, along with their detailed analysis & profiles (including company snapshots, their financials, key products & services, and SWOT analysis)?

The report puts special emphasis on the market share of the leading companies in the silicon germanium materials & devices market, owing to the changing paradigms in the industry. The report further includes a thorough analysis of the impact of the Porter's Five major Forces to understand the overall attractiveness of the industry. The report also focuses on the key developments and investments made in the silicon germanium.



materials & devices market by the key players.

The commonly used strategy adopted by the key players to enhance their geographical presence is product launch & development, followed by partnerships & collaborations. Moreover, the company profiles section highlights significant information about the key companies involved, along with their financial positions, key strategies & developmental activities since the past few years.

Further, the report includes an exhaustive analysis of the geographical split into North America, Europe, Asia-Pacific (APAC), and Rest of the World (RoW). Each geography details the individual push and pull forces in addition to the key players from that region. The prominent players operating in the global Silicon germanium materials & devices market are IBM, Infineon Technologies, NXP Semiconductors, Texas Instruments, TowerJazz, IQE Plc, MACOM, TSMC, Hitachi, RIBER, GlobalFoundries, Toshiba and Aixtron, among others



Contents

EXECUTIVE SUMMARY

1 REPORT SCOPE & METHODOLOGY

- 1.1 Report Scope
- 1.2 Global Silicon Germanium Materials & Devices Market Research Methodology
- 1.2.1 Assumptions
- 1.2.2 Limitations
- 1.2.3 Primary Data Sources
- 1.2.4 Secondary Data Sources
- 1.2.5 Data Triangulation
- 1.2.6 Market Estimation and Forecast

2 MARKET DYNAMICS

- 2.1 Market Drivers
 - 2.1.1 Increasing Demand for Huge Data Transfer & Bandwidth Requirements
 - 2.1.2 Large-scale Internet Connectivity & Smartphone Adoption
- 2.1.3 Application of Silicon Germanium (SiGe) Devices in Radio Frequency (RF) and

Cellular Base Station

- 2.2 Market Restraints
- 2.2.1 Intense Competition from Alternative Technologies
- 2.3 Market Opportunities
 - 2.3.1 Development of Silicon Germanium Technologies for 5G Network
- 2.3.2 Extensive Demand for SiGe Devices in the Automotive Electronics Sector

3 COMPETITIVE LANDSCAPE

- 3.1 Key Market Developments & Strategies
 - 3.1.1 Mergers & Acquisitions
 - 3.1.2 Partnerships, Collaborations & Joint Ventures
 - 3.1.3 Product Launches
 - 3.1.4 Business Expansion
 - 3.1.5 Others (Awards & Recognitions)
- 3.2 Market Share Analysis

3.2.1 Market Share Analysis of the Global Silicon Germanium Materials & Devices Market





4 INDUSTRY ANALYSIS

- 4.1 Opportunity Matrix by Region
- 4.2 Country Share Analysis
- 4.3 Industry Attractiveness
 - 4.3.1 Threat of New Entrants
 - 4.3.2 Bargaining Power of Buyers
 - 4.3.3 Bargaining Power of Suppliers
- 4.3.4 Threat from Substitutes
- 4.3.5 Intensity of Competitive Rivalry
- 4.4 Regulatory Bodies
 - 4.4.1 Silicon Germanium Materials and Devices Industry Regulations
- 4.4.2 North America
- 4.4.3 Europe
- 4.4.4 Asia-Pacific
- 4.5 Research Institutes Working on SiGe Technology

5 GLOBAL SILICON GERMANIUM MARKET OVERVIEW

5.1 Assumptions for Analysis and Forecast of the Global Silicon Germanium Materials & Devices Market

5.2 Limitations for Analysis and Forecast of the Global Silicon Germanium Materials & Devices Market

5.3 Market Overview

6 GLOBAL SILICON GERMANIUM MATERIALS MARKET BY TYPE

- 6.1 Source Materials
- 6.2 Substrate Materials
- 6.3 Epitaxial Wafers

7 GLOBAL SILICON GERMANIUM DEVICES MARKET BY TYPE

- 7.1 Wireless Devices
- 7.2 Radio & Global Positioning Devices
- 7.3 Fibre Optic Transceiver (FOT) Devices
- 7.4 Other Devices



8 GLOBAL SILICON GERMANIUM DEVICES MARKET BY END-USERS

- 8.1 Telecommunications & Computers
- 8.2 Consumer Electronics
- 8.3 Automotive
- 8.4 Aerospace & Defense
- 8.5 Other End-Users

9 GLOBAL SILICON GERMANIUM MARKET BY REGION

- 9.1 North America
 - 9.1.1 North America Silicon Germanium Device Market by End-User
 - 9.1.2 North America by Country
 - 9.1.2.1 The U.S.
 - 9.1.2.2 Canada
 - 9.1.2.3 Mexico
- 9.2 Europe
 - 9.2.1 Europe Silicon Germanium Device Market by End-User
 - 9.2.2 Europe by Country
 - 9.2.2.1 Germany
 - 9.2.2.2 The U.K.
 - 9.2.2.3 France
 - 9.2.2.4 The Netherlands
 - 9.2.2.5 Sweden
 - 9.2.2.6 Rest of Europe
- 9.3 Asia Pacific
 - 9.3.1 Asia Pacific Silicon Germanium Device Market by End-User
 - 9.3.2 Asia Pacific by Country
 - 9.3.2.1 Taiwan
 - 9.3.2.2 South Korea
 - 9.3.2.3 China
 - 9.3.2.4 Japan
 - 9.3.2.5 Singapore
 - 9.3.2.6 Malaysia
 - 9.3.2.7 Rest of Asia Pacific
- 9.4 Rest of the World (RoW)
 - 9.4.1 Rest of the World (RoW) Silicon Germanium Device Market by End-User
 - 9.4.2 RoW by Country
 - 9.4.2.1 Brazil



9.4.2.2 Israel

10 COMPANY PROFILES

- 10.1 AIXTRON SE
 - 10.1.1 Company Overview
 - 10.1.2 Product Portfolio
 - 10.1.3 Financials
 - 10.1.3.1 Financial Summary
 - 10.1.4 SWOT Analysis
- 10.2 Analog Devices Inc.
 - 10.2.1 Company Overview
 - 10.2.2 Product Portfolio
 - 10.2.3 Financials
 - 10.2.3.1 Financial Summary
 - 10.2.4 SWOT Analysis
- 10.3 Applied Materials, Inc.
 - 10.3.1 Company Overview
 - 10.3.2 Product Portfolio
 - 10.3.3 Corporate Summary
- 10.3.4 SWOT Analysis
- 10.4 Atmel Corporation
 - 10.4.1 Company Overview
 - 10.4.2 Product Portfolio
 - 10.4.3 Corporate Summary
- 10.4.4 SWOT Analysis
- 10.5 GLOBALFOUNDRIES Inc.
- 10.5.1 Company Overview
- 10.5.2 Product Portfolio
- 10.5.3 Corporate Summary
- 10.5.4 SWOT Analysis
- 10.6 Hitachi Ltd.
 - 10.6.1 Company Overview
 - 10.6.2 Product Portfolio
 - 10.6.3 Financials
 - 10.6.3.1 Financial Summary
- 10.6.4 SWOT Analysis
- 10.7 IBM Corporation
- 10.7.1 Company Overview



10.7.2 Product Portfolio

10.7.3 Financials

10.7.3.1 Financial Summary

- 10.7.4 SWOT Analysis
- 10.8 IHP Microelectronics GmbH
 - 10.8.1 Company Overview
 - 10.8.2 Product Portfolio
 - 10.8.3 Corporate Summary
 - 10.8.4 SWOT Analysis
- 10.9 Infineon Technologies Inc.
- 10.9.1 Company Overview
- 10.9.2 Financials
- 10.9.2.1 Financial Summary
- 10.9.3 SWOT Analysis
- 10.10 IQE PLC
 - 10.10.1 Company Overview
 - 10.10.2 Product Portfolio
 - 10.10.3 Financials
 - 10.10.3.1 Financial Summary
- 10.10.4 SWOT Analysis
- 10.11 MACOM Technology Solutions Holdings, Inc.
 - 10.11.1 Company Overview
 - 10.11.2 Product Portfolio
 - 10.11.3 Financials
 - 10.11.3.1 Financial Summary
- 10.11.4 SWOT Analysis
- 10.12 NXP Semiconductors NV
- 10.12.1 Company Overview
- 10.12.2 Financials
- 10.12.2.1 Financial Summary
- 10.12.3 SWOT Analysis
- 10.13 Riber S.A.
 - 10.13.1 Company Overview
- 10.13.2 Product Portfolio
- 10.13.3 Corporate Summary
- 10.13.4 SWOT Analysis
- 10.14 Skyworks Solutions, Inc.
- 10.14.1 Company Overview
- 10.14.2 Product Portfolio



10.14.3 Financials

10.14.3.1 Financial Summary 10.14.4 SWOT Analysis 10.15 STMicroelectronics N.V 10.15.1 Company Overview 10.15.2 Financials 10.15.2.1 Financial Summary 10.15.3 SWOT Analysis 10.16 Taiwan Semiconductor Manufacturing Company, Ltd. 10.16.1 Company Overview 10.16.2 Product Portfolio 10.16.3 Financials 10.16.3.1 Financial Summary 10.16.4 SWOT Analysis 10.17 Texas Instruments Inc. 10.17.1 Company Overview 10.17.2 Product Portfolio 10.17.3 Financials 10.17.3.1 Financial Summary 10.17.4 SWOT Analysis 10.18 Toshiba Corporation 10.18.1 Company Overview 10.18.2 Product Portfolio 10.18.3 Financials 10.18.3.1 Financial Summary 10.18.4 SWOT Analysis 10.19 Tower Semiconductor Ltd. 10.19.1 Company Overview 10.19.2 Product Portfolio 10.19.3 Financials 10.19.3.1 Financial Summary 10.19.4 SWOT Analysis

Global Silicon Germanium Materials & Devices Market: Focus on Material Type (Source, Substrate & Epitaxial Waf...



List Of Tables

LIST OF TABLES

Table 2.1 Global Internet Traffic Forecast Table 3.1 Key Mergers & Acquisitions (2014-18) Table 3.2 Key Partnerships, Collaborations & Joint Ventures (2014-18) Table 3.3 Key Product Launch and Development Activities (2014-18) Table 3.4 Key Business Expansion Activities (2014-18) Table 4.1 Analyzing the Threat of New Entrants Table 4.2 Analyzing Bargaining Power of Buyers Table 4.3 Analyzing the Bargaining Power of Suppliers Table 4.4 Analyzing the Threat from Substitutes Table 4.5 Analyzing the Intensity of Competitive Rivalry Table 4.6 ISO Standards used in the Semiconductor Industry Table 5.1 Global Silicon Germanium Market Overview by Materials & Devices, 2016-2021 Table 6.1 Global Silicon Germanium Materials Market by Type, 2016-2021 Table 7.1 Global Silicon Germanium Devices Market by Type, 2016-2021 Table 8.1 Global Silicon Germanium Devices Market by End-User, 2016-2021 Table 9.1 Global Silicon Germanium Market by Region, 2016-2021 Table 9.2 North America Silicon Germanium Market by Type, 2016-2021 Table 9.3 North America Silicon Germanium Devices Market by End-Users, 2016-2021 Table 9.4 North American Silicon Germanium Materials & Devices Market by Country, 2016-2021 Table 9.5 Europe Silicon Germanium Market by Type, 2016-2021 Table 9.6 Europe Silicon Germanium Devices Market by End-Users, 2016-2021 Table 9.7 Europe Silicon Germanium Materials & Devices Market by Country, 2016-2021 Table 9.8 Asia Pacific Silicon Germanium Market by Type, 2016-2021 Table 9.9 Asia Pacific Silicon Germanium Devices Market by End-Users, 2016-2021 Table 9.10 Asia Pacific Silicon Germanium Market by Country, 2016-2021 Table 9.11 Asia Pacific Silicon Germanium Devices Market by End-Users, 2016-2021 Table 9.12 RoW Silicon Germanium Materials & Devices Market by Country, 2016-2021 Table 10.1 AIXTRON SE: Product Portfolio Table 10.2 Analog Devices Inc.: Product Portfolio Table 10.3 Applied Materials, Inc.: Product Portfolio Table 10.4 Atmel Corporation: Product Portfolio Table 10.5 GLOBALFOUNDRIES Inc.: Product Portfolio



Table 10.6 Hitachi Ltd.: Product Portfolio

Table 10.7 IBM Corporation: Product Portfolio

Table 10.8 IHP GmbH: Product Portfolio

Table 10.9 IQE PLC: Product Portfolio

Table 10.10 MACOM Technology Solutions Holdings, Inc.: Product Portfolio

Table 10.11 Riber S.A.: Product Portfolio

Table 10.12 Skyworks Solutions, Inc.: Product Portfolio

Table 10.13 Taiwan Semiconductor Manufacturing Company, Ltd.: Product Portfolio

Table 10.14 Texas Instruments Inc.: Product Portfolio

Table 10.15 Toshiba Corporation: Product Portfolio

Table 10.16 Tower Semiconductor Ltd.: Product Portfolio



List Of Figures

LIST OF FIGURES

Figure 1 Key Features of SiGe Materials

Figure 2 Key Drivers & Restraints Impacting the Global Silicon Germanium Materials & Devices Market

Figure 3 Global Silicon Germanium Materials & Devices Market Snapshot

Figure 4 Global Silicon Germanium Materials & Devices Market Overview

Figure 5 Global Silicon Germanium Materials & Devices Market by End-User (\$Million)

Figure 6 Global Silicon Germanium Materials & Devices Market by Region

Figure 7 Global Silicon Germanium Materials & Devices Market by Country 2016 (\$Million)

Figure 1.1 Silicon Germanium Materials & Devices Market Scope

Figure 1.2 Report Design

Figure 1.3 Primary Interviews Breakdown, by Player, Designation, and Region

Figure 1.4 Sources of Secondary Research

Figure 1.5 Data Triangulation

Figure 1.6 Top Down-Bottom-Up Approach for Market Estimation

Figure 2.1 Market Dynamics

Figure 2.2 Impact Analysis of Drivers

Figure 2.3 Global Bandwidth Growth, 2012-2016 (Tbps)

Figure 2.4 Rise in Global Smartphones Users, 2015-2020

Figure 2.5 Key Applications of Silicon Germanium Radio Frequency ICs

Figure 2.6 Impact Analysis of Restraints

Figure 2.7 Opportunities for Semiconductor Companies in the Automotive Electronics Industry

Figure 3.1 Strategies Adopted by the Key Players

Figure 3.2 Share of Key Market Strategies & Developments

Figure 3.3 Market Share Analysis of Leading Companies in Global Market, 2016 (%)

Figure 4.1 Global Silicon Germanium Materials & Devices Market Opportunity Matrix, by Region, 2016-2021

Figure 4.2 Global Silicon Germanium Materials & Devices Market Opportunity Matrix, by Country, 2016-2021

Figure 4.3 Country Share Analysis of Global Silicon Germanium Materials & Devices Market, 2016

Figure 4.4 Porter's Five Forces Analysis for the Silicon Germanium Materials & Devices Market

Figure 5.1 Global Silicon Germanium Materials & Devices Market Overview



Figure 5.2 Silicon Germanium Market by Materials & Devices, 2016, 2017 & 2021 Figure 6.1 Types of Materials in Silicon Germanium Materials Market Figure 6.2 Silicon Germanium Materials Market by Type, 2016, 2017 & 2021 Figure 6.3 Silicon Germanium Source Materials Market, 2016-2021 Figure 6.4 Silicon Germanium Substrate Materials Market, 2016-2021 Figure 6.5 Silicon-Germanium Epitaxial Growth Processes Figure 6.6 Leading Players in the Silicon Wafers Market Figure 6.7 Silicon Germanium Epitaxial Wafer Materials Market, 2016-2021 Figure 7.1 Types of Silicon Germanium Devices Figure 7.2 Silicon Germanium Devices Market by Type, 2016, 2017 & 2021 Figure 7.3 Wireless Devices in Silicon Germanium Market, 2016-2021 Figure 7.4 Radio & Global Positioning Silicon Germanium Devices Market, 2016-2021 Figure 7.5 Fibre Optic Transceiver (FOT) Silicon Germanium Devices Market, 2016-2021 Figure 7.6 Other Silicon Germanium Devices Market, 2016-2021 Figure 8.1 Key End-Users for the Silicon Germanium Devices Market Figure 8.2 Silicon Germanium Devices Market by End-User, (%), 2016 & 2021 Figure 8.3 Silicon Germanium Devices Market by End Users, 2016, 2017 & 2021 Figure 8.4 Global Market Growth for Telecommunication Media Technology Segments, 2016-2021 (\$Billion) Figure 8.5 Silicon Germanium Devices Market in Telecommunications & Computers, 2016-2021 Figure 8.6 Number of Internet Users by Countries, 2016 (Millions) Figure 8.7 Silicon Germanium Devices Market in Consumer Electronics, 2016-2021 Figure 8.8 Silicon Germanium Devices Market in Automotive Industry, 2016-2021 Figure 8.9 Silicon Germanium Devices Market in Aerospace & Defense Industry, 2016-2021 Figure 8.10 Silicon Germanium Devices Market in Other Industry, 2016-2021 Figure 9.1 Global Silicon Germanium Materials & Devices Market, Regional Segmentation Figure 9.2 Global Silicon Germanium Market, Market Share and CAGR by Region Figure 9.3 North America Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.4 Sales Growth for Automotive Semiconductors in North America (\$Billion) Figure 9.5 North America Silicon Germanium Devices Market by End-Users, 2016-2021 Figure 9.6 North American Silicon Germanium Market, by Country Figure 9.7 The U.S. Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.8 Canada Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.9 Mexico Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.10 Europe Silicon Germanium Materials & Devices Market, 2016-2021



Figure 9.12 Europe Silicon Germanium Devices Market by End-Users, 2016-2021 Figure 9.13 Europe Silicon Germanium Market, by Country Figure 9.14 Germany Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.15 The U.K. Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.16 France Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.17 The Netherlands Silicon Germanium Market, 2016-2021 Figure 9.18 Sweden Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.19 Rest of Europe Silicon Germanium Market, 2016-2021 Figure 9.20 Asia Pacific Silicon Germanium Market, 2016-2021 Figure 9.21 Asia Pacific Silicon Germanium Devices Market by End-User, 2016-2021 Figure 9.22 Asia Pacific Silicon Germanium Materials & Devices Market, by Country Figure 9.23 Taiwan Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.24 South Korea Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.25 Sales Growth for Automotive Semiconductors in China, 2010-2015-2020 (\$Billion) Figure 9.26 China Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.27 Japan Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.28 Singapore Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.29 Malaysia Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.30 Rest of Asia Pacific Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.31 Rest of the World (RoW) Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.32 RoW Silicon Germanium Devices Market by End-User, 2016-2021 Figure 9.33 Brazil Silicon Germanium Materials & Devices Market, 2016-2021 Figure 9.34 Israel Silicon Germanium Materials & Devices Market, 2016-2021 Figure 10.1 AIXTRON SE: Overall Financials, 2014-2016 Figure 10.2 AIXTRON SE: Net Revenue by Business Segment, 2014-2016 Figure 10.3 AIXTRON SE: Net Revenue by Region, 2014-2016 Figure 10.4 AIXTRON SE: SWOT Analysis Figure 10.5 Analog Devices Inc.: Overall Financials, 2015-2017 Figure 10.6 Analog Devices Inc.: Net Revenue by Business Segment, 2015-2017 Figure 10.7 Analog Devices Inc.: Net Revenue by Region, 2015-2017 Figure 10.8 Analog Devices Inc.: SWOT Analysis Figure 10.9 Applied Materials, Inc.: SWOT Analysis Figure 10.10 Atmel Corporation: SWOT Analysis Figure 10.11 GLOBALFOUNDRIES Inc.: SWOT Analysis Figure 10.12 Hitachi Ltd.: Overall Financials, 2014-2016 Figure 10.13 Hitachi Ltd.: Net Revenue by Business Segment, 2014-2016



Figure 10.14 Hitachi Ltd.: Net Revenue by Region, 2014-2016 Figure 10.15 Hitachi Ltd.: SWOT Analysis Figure 10.16 IBM Corporation: Overall Financials, 2014-2016 Figure 10.17 IBM Corporation: Geographic Revenue Mix, 2014-2016 Figure 10.18 IBM Corporation: Segment Revenue Mix, 2015-2016 Figure 10.19 IBM Corporation: SWOT Analysis Figure 10.20 IHP GmbH: SWOT Analysis Figure 10.21 Infineon Technologies Inc.: Overall Financials: 2015-2017 Figure 10.22 Infineon Technologies Inc.: Net Revenue by Business Segment, 2015-2017 Figure 10.23 Infineon Technologies Inc.: Net Revenue by Region, 2015-2017 Figure 10.24 Infineon Technologies Inc.: SWOT Analysis Figure 10.25 IQE PLC: Overall Financials, 2014-2016 Figure 10.26 IQE PLC: Net Revenue by Business Segment, 2014-2016 Figure 10.27 IQE PLC: Net Revenue by Region, 2014-2016 Figure 10.28 IQE PLC: SWOT Analysis Figure 10.29 MACOM Technology Solutions Holdings, Inc.: Overall Financials, 2014-2016 Figure 10.30 MACOM Technology Solutions Holdings, Inc.: Net Revenue by Business Segment, 2014-2016 Figure 10.31 MACOM Technology Solutions Holdings, Inc.: Net Revenue by Region, 2014-2016 Figure 10.32 MACOM Technology Solutions Holdings, Inc.: SWOT Analysis Figure 10.33 NXP Semiconductor NV: Overall Financials, 2014-2016 Figure 10.34 NXP Semiconductor NV: Net Revenue by Region, 2014-2016 Figure 10.35 NXP Semiconductor NV: Net Revenue by Business Segment, 2014-2016 Figure 10.36 NXP Semiconductors NV: SWOT Analysis Figure 10.37 Riber S.A.: SWOT Analysis Figure 10.38 Skyworks Solutions, Inc.: Overall Financials, 2015-2017 Figure 10.39 Skyworks Solutions, Inc.: Net Revenue by Region, 2015-2017 Figure 10.40 Skyworks Solutions, Inc.: SWOT Analysis Figure 10.41 STMicroelectronics N.V: Overall Financials, 2014-2016 Figure 10.42 STMicroelectronics N.V: Net Revenue by Business Segment, 2014-2016 Figure 10.43 STMicroelectronics N.V: Net Revenue by Region, 2014-16 Figure 10.44 STMicroelectronics: SWOT Analysis Figure 10.45 Taiwan Semiconductor Manufacturing Company, Ltd.: Overall Financials, 2014-2016 Figure 10.46 Taiwan Semiconductor Manufacturing Company, Ltd.: Net Revenue by

Business Segment, 2014-2016



Figure 10.47 Taiwan Semiconductor Manufacturing Company, Ltd.: Net Revenue by Region, 2014-2016

Figure 10.48 Taiwan Semiconductor Manufacturing Company, Ltd.: SWOT Analysis

Figure 10.49 Texas Instruments Inc.: Overall Financials, 2014-2016

Figure 10.50 Texas Instruments Inc.: Net Revenue by Business Segment, 2014-2016

Figure 10.51 Texas Instruments Inc.: Net Revenue by Region, 2014-2016

Figure 10.52 Texas Instruments Inc.: SWOT Analysis

Figure 10.53 Toshiba Corporation: Overall Financials, 2015-2017

Figure 10.54 Toshiba Corporation: Net Revenue by Business Segment, 2015-2017

Figure 10.55 Toshiba Corporation: Net Revenue by Region, 2015-2017

Figure 10.56 Toshiba Corporation: SWOT Analysis

Figure 10.57 Tower Semiconductor Ltd.: Overall Financials, 2014-2016

Figure 10.58 Tower Semiconductor Ltd.: Net Revenue by Region, 2014-2016

Figure 10.59 Tower Semiconductor Ltd.: SWOT Analysis



I would like to order

- Product name: Global Silicon Germanium Materials & Devices Market: Focus on Material Type (Source, Substrate & Epitaxial Wafer), Device Type (Wireless, Radio, FOT) & End-User (Telecommunication, Consumer Electronics, Automotive) - Analysis & Forecast 2017-2021
 - Product link: https://marketpublishers.com/r/GD3700358FFBEN.html
 - Price: US\$ 4,599.00 (Single User License / Electronic Delivery) If you want to order Corporate License or Hard Copy, please, contact our Customer Service: <u>info@marketpublishers.com</u>

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <u>https://marketpublishers.com/r/GD3700358FFBEN.html</u>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name: Last name: Email: Company: Address: City: Zip code: Country: Tel: Fax: Your message:

**All fields are required

Custumer signature ___

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <u>https://marketpublishers.com/docs/terms.html</u>

Global Silicon Germanium Materials & Devices Market: Focus on Material Type (Source, Substrate & Epitaxial Waf...



To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970