Piezoelectric Devices Market by Material, Product, Application & Geography - Global Trend & Forecast to 2020

Description:

"Piezoelectric Devices Market by Material (Piezoceramic, Piezopolymer, Piezocomposite), Product (Actuators, Transducers, Motors, Sensors, Generators), Application (Industrial, Automotive, Medical, Consumer) & Geography - Global Trend & Forecast to 2020"

The piezoelectric devices market is a mature market with applications ranging from industrial machinery to compact electronic equipment & tools such as digital cameras, phones, and medical instruments. The base year considered for this research study is 2014 and the market size has been estimated between 2015 and 2020. The piezoelectric devices market in the report has been segmented on the basis of material (piezocrystals, piezoceramics, piezopolymers, and piezocomposite), product (sensors, actuators, motors, transducers, and generators), application (industrial & manufacturing, automotive, medical, information & communication, and others), and region (North America, Europe, APAC, and RoW).

Growing demand across various applications such as smartphones, semiconductors precision manufacturing, optics, robotics, HVAC control systems, and piezo mechanics-based eye surgery tools is likely to drive the market for piezoelectric devices during the forecast period.

Major players of the piezoelectric devices ecosystem have been identified across regions. The offerings, distribution channels, and regional presence of these players have been understood through in-depth discussions. The calculation of the overall market size was based on the number of shipments and average selling prices of the devices. In addition, top down and bottom up approaches were used to estimate the sizes of other individual markets by using percentage splits from secondary and primary researches. The entire process includes the study of the annual and financial reports of the top market players and extensive interview of key insights from industry leaders such as CEOs, VPs, directors, and marketing executives.

The piezoelectric devices market is primarily driven by the increase in demand for high precision micro-positioning devices; technological advancements in piezoelectric polymers and composite materials; emerging applications of piezoelectric technology in the medical device sector; and evolution of the high-speed communication industry.

Of all devices, piezoelectric actuators held the highest share in the overall piezoelectric devices market in 2014. The market for these actuators is expected to grow at a steady CAGR during in the forecast period. Many application areas require maximum positioning accuracy and piezoelectric actuators with their high precision and responsiveness fit these specifications perfectly. Piezoelectric actuators are also used in semiconductor manufacturing, optics and photonics, medical engineering, and industrial automation.

Some of the key players in this market include APC International, Inc. (U.S.), Exelis, Inc. (U.S.), Morgan Advanced Materials (U.K.), PI (Germany), Piezosystem Jena (Germany), CeramTec GmbH (Germany), Piezo Solutions (U.S.), Piezo Systems, Inc. (U.S.), Piezomechanik GmbH (Germany), Mad City Labs, Inc. (U.S.), and US Eurotek, Inc. (U.S.).

Target audience for this report:

- Original equipment manufacturers
- Governments and financial institutions
- Software solution providers
- Distributors and traders
- Research organizations
- Technology investors
- Forums, alliances, and associations
- End users who want to know more about piezoelectric devices and the latest technological developments in the piezoelectric devices market

Scope of the Report
Piezoelectric Devices Market, by Material
- Piezocrystals
- Piezoceramics
- Piezopolymers
- Piezocomposites

Piezoelectric Devices Market, by Product
- Piezoelectric sensors
- Piezoelectric actuators
- Piezoelectric transducers
- Piezoelectric motors
- Piezoelectric generators
- Others

Piezoelectric Devices Market, by Application
- Industrial & manufacturing
- Automotive
- Medical
- Information & communication
- Consumer
- Others

Piezoelectric Devices Market, by Geography
- North America
  - U.S.
  - Canada
  - Mexico
- Europe
  - Germany
  - France
- U.K.
- Italy
- Spain
- Others
- APAC
  - China
  - Japan
- South Korea
- Others
- RoW

Contents:
1 Introduction
  1.1 Objectives of the Study
  1.2 Market Definition
  1.3 Study Scope
    1.3.1 Markets Covered
    1.3.2 Years Considered for the Study
  1.4 Currency
  1.5 Limitations
  1.6 Stakeholders

2 Research Methodology
  2.1 Research Data
    2.1.1 Secondary Data
      2.1.1.1 Key Data From Secondary Sources
    2.1.2 Primary Data
      2.1.2.1 Key Data From Primary Sources
      2.1.2.2 Key Industry Insights
2.1.2.3 Breakdown of Primary Interviews
2.1.3 Market Size Estimation
   2.1.3.1 Top-Down Approach
   2.1.3.2 Bottom-Up Approach
2.2 Market Breakdown & Data Triangulation
2.3 Research Assumptions
   2.3.1 Assumptions

3 Executive Summary

4 Premium Insights
   4.1 Attractive Opportunities in the Piezoelectric Devices Market
   4.2 The Piezoelectric Generator Market Expected to Have the Highest Growth Opportunities During the Forecast Period
   4.3 Industrial and Manufacturing: the Largest Market for Piezoelectric Devices
   4.4 The Market for Piezoelectric Polymers is Expected to Grow at the Highest CAGR During the Forecast Period
   4.5 APAC Piezoelectric Devices Market, By Product
   4.6 APAC is Expected to Hold the Largest Share of the Piezoelectric Devices Market During the Forecast Period

5 Market Overview
   5.1 Introduction
   5.2 Market Segmentation
      5.2.1 By Material
      5.2.2 By Product
      5.2.3 By Application
   5.3 Market Dynamics
      5.3.1 Drivers
         5.3.1.1 Increasing Demand for Piezoelectric Materials: Piezoelectric Ceramic/Polymer/Composite Devices
         5.3.1.2 Emerging Applications of Piezoelectric Devices
         5.3.1.3 Increase in Funding From Investors and Governments
         5.3.1.4 Increase in Demand for Piezoelectric Generators and Energy Harvesting Devices
         5.3.1.5 Introduction of Piezoelectric Automotive Devices
      5.3.2 Restraints
         5.3.2.1 High Cost of Components and Investment in R&D
         5.3.2.2 Legal Restrictive Measures
      5.3.3 Opportunities
         5.3.3.1 Evolving Applications of Piezoelectric Materials
         5.3.3.2 Harvesting Energy From Vibrations Using Piezoelectric Transducers
         5.3.3.3 Advancements in Piezoelectric Actuators and Motors
         5.3.3.4 Emergence of Piezo Motion Technology
      5.3.4 Challenges
         5.3.4.1 Rapid Technological Changes
         5.3.4.2 Stringent Regulations and Policies By Governments

6 Industry Trends
   6.1 Introduction
   6.2 Value Chain Analysis
   6.3 Key Influencers
   6.4 Industry Trends
   6.5 Porter's Five Forces Analysis
      6.5.1 Threat of New Entrants
      This Force Assesses the Threat of New Entrants in the Piezoelectric Device Market. the Parameters Considered Here Include Low Barriers to Entry and Product Differentiation.
      6.5.2 Threat of Substitutes
      6.5.3 Bargaining Power of Suppliers
      6.5.4 Bargaining Power of Buyers
      6.5.5 Intensity of Rivalry

7 Piezoelectrical Device Market, By Material
   7.1 Introduction
12.3.1 Business Overview
12.3.2 Products & Services
12.3.3 Recent Developments
12.3.4 MnM View
  12.3.4.1 SWOT Analysis
12.4 Morgan Advanced Materials
  12.4.1 Business Overview
  12.4.2 Products & Services
  12.4.3 Recent Developments
  12.4.4 MnM View
  12.4.4.1 SWOT Analysis
12.5 Physik Instrumente
  12.5.1 Business Overview
  12.5.2 Products & Services
  12.5.3 Recent Developments
  12.5.4 MnM View
  12.5.4.1 SWOT Analysis
12.6 Piezosystem Jena GmbH
  12.6.1 Business Overview
  12.6.2 Products & Services
  12.6.3 Recent Developments
  12.6.4 MnM View
  12.6.4.1 SWOT Analysis
12.7 Ceramtec GmbH
  12.7.1 Business Overview
  12.7.2 Products & Services
  12.7.3 Recent Developments
12.8 Piezo Solutions
  12.8.1 Business Overview
  12.8.2 Products & Services
  12.8.3 MnM View
12.9 Piezo Systems, Inc.
  12.9.1 Business Overview
  12.9.2 Products & Services
12.10 Piezomechanik GmbH
  12.10.1 Business Overview
  12.10.2 Products & Services
12.11 MAD City Labs, Inc.
  12.11.1 Business Overview
  12.11.2 Products & Services
  12.11.3 Recent Developments
  12.11.4 MnM View
12.12 Us Eurotek, Inc
  12.12.1 Business Overview
  12.12.2 Products & Services
  12.12.3 MnM View

13 Appendix
  13.2 Discussion Guide
  13.3 Introducing RT: Real-Time Market Intelligence
  13.4 Available Customizations
  13.5 Related Reports

List of Tables

Table 1 Piezoelectric Devices Market: By Material
Table 2 Piezoelectric Devices Market: By Product
Table 3 Piezoelectric Devices Market: By Application
Table 4 Global Piezoelectric Device Market Drivers
Table 5 Global Piezoelectric Device Market Restraints
Table 6 Global Piezoelectric Device Market Opportunities
Table 7 Global Piezoelectric Device Market Challenges
Table 8 Some of the Players in the Piezoelectric Devices Market
Harvesting Techniques are Expected to Drive the Piezoelectric Devices Market
Table 69 RoW Piezoelectric Devices Market, By Product, 2013 - 2020 (USD Billion)
Table 70 RoW Piezoelectric Devices Market, By Material, 2013 - 2020 (USD Billion)
Table 71 Piezoelectric Devices Market: Key Players, 2014
Table 72 New Product Launches, 2011-2015
Table 73 Expansions, 2011-2015
Table 74 Agreements, Collaborations, Contracts, & Partnerships, 2011-2015
Table 75 Acquisition, 2011-2015

List of Figures

Figure 1 Global Piezoelectric Devices Market, By Material
Figure 2 Piezoelectric Devices Market: Research Design
Figure 3 Breakdown of Primary Interviews: By Company Type, Designation, and Region
Figure 4 Market Size Estimation Methodology: Top-Down Approach
Figure 5 Market Size Estimation Methodology: Bottom-Up Approach
Figure 6 Market Breakdown and Data Triangulation
Figure 7 Assumptions of the Research Study
Figure 8 Piezoelectric Devices Market Snapshot, By Application (2015 vs 2020):
Figure 9 Piezoelectric Actuators Expected to Develop Into A Large Component Market During the Forecast Period
Figure 10 Global Piezoelectric Devices Market, By Material, 2014
Figure 11 Global Piezoelectric Devices Market, By Region, 2014
Figure 12 Consumer Electronics, Medical, and Information & Communication Applications Would Drive the Piezoelectric Devices Market, 2015-2020
Figure 13 Geographic Snapshot: Piezoelectric Devices Market, By Product
Figure 14 Piezoelectric Devices Market, By Application, 2013 - 2020 (USD Billion)
Figure 15 Piezoelectric Devices Market, By Material, 2013 - 2020 (USD Billion)
Figure 16 Japan Was the Largest Market in APAC for Piezoelectric Devices in 2014
Figure 17 Region-Wise CAGR for the Piezoelectric Devices Market (2015 - 2020)
Figure 18 Increasing Demand for Energy Harvesting Devices is Expected to Drive the Piezoelectric Devices Market
Figure 19 Technology Developer Holds the Crucial Phase in the Overall Piezoelectric Devices Value Chain
Figure 20 Porter's Five Forces Analysis
Figure 21 Piezoelectric Devices Market, By Product
Figure 22 Piezoelectric Device Market: By Application
Figure 23 Geographic Snapshot : APAC (2015 - 2020) - the Largest Market for Piezoelectric Devices
Figure 24 APAC-An Attractive Marketplace for All End-User Industries of Piezoelectric Devices
Figure 25 Snapshot of the North American Piezoelectric Devices Market (2014 - 2020)
Figure 26 Snapshot of the European Piezoelectric Devices Market (2014 - 2020)
Figure 27 Snapshot of the APAC Piezoelectric Devices Market (2014 - 2020)
Figure 28 Companies Adopted New Product Launches as the Key Growth Strategy Over the Last Five Years (2011-2015)
Figure 29 Battle for Market Share: New Product Launches Was the Key Strategy in 2014
Figure 30 APC International Ltd.: Company Snapshot
Figure 31 APC International Ltd.: SWOT Analysis
Figure 32 Exelis, Inc.: Company Snapshot
Figure 33 Exelis, Inc.: SWOT Analysis
Figure 34 Morgan Advanced Materials.: Company Snapshot
Figure 35 Morgan Advanced Materials: SWOT Analysis
Figure 36 Physik Instrumente : Company Snapshot
Figure 37 Pi.: SWOT Analysis
Figure 38 Piezosystem Jena GmbH: Company Snapshot
Figure 39 Piezosystem Jena GmbH: SWOT Analysis
Figure 40 Ceramtec GmbH: Company Snapshot
Figure 41 Piezo Solutions: Company Snapshot
Figure 42 Piezo Systems, Inc.: Company Snapshot
Figure 43 Piezomechanik GmbH: Company Snapshot
Figure 44 MAD City Labs Inc.: Company Snapshot
Figure 45 US Eurotek, Inc.: Company Snapshot
Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct and select the format(s) you require.

Product Name: Piezoelectric Devices Market by Material, Product, Application & Geography - Global Trend & Forecast to 2020
Web Address: http://www.researchandmarkets.com/reports/3508540/
Office Code: SCPLD3KS

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF) -</td>
<td>USD 5650</td>
</tr>
<tr>
<td>Single User:</td>
<td>USD 6650</td>
</tr>
<tr>
<td>1 - 5 Users:</td>
<td>USD 8150</td>
</tr>
<tr>
<td>Site License:</td>
<td>USD 10000</td>
</tr>
<tr>
<td>Enterprisewide:</td>
<td></td>
</tr>
</tbody>
</table>

Contact Information
Please enter all the information below in **BLOCK CAPITALS**

Title: [ ] Mr [ ] Mrs [ ] Dr [ ] Miss [ ] Ms [ ] Prof
First Name: ___________________________________________ Last Name: _______________________________________
Email Address: * _______________________________________
Job Title: _____________________________________________
Organisation: __________________________________________
Address: _____________________________________________
City: _________________________________________________
Postal / Zip Code: _____________________________________
Country: _____________________________________________
Phone Number: _________________________________________
Fax Number: __________________________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:
Account number 833 130 83
Sort code 98-53-30
Swift code ULSBIE2D
IBAN number IE78ULSB98533083313083
Bank Address Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: ______________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World