

# Global Piezoelectric Device Market Research and Forecast 2018-2023

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# Abstracts

Piezoelectric device market are the devices made up of piezoelectric substances. Piezoelectric substances can change their shape and size when subjected to mechanical strain, additionally they also have tendency to generate electricity. Zircanate, Titanate, Piezo crystals, and Piezo polymers are some of the commonly used piezoelectric substances. Wide applications of piezoelectric devices and technological advancement of the Nano technology are the major factors that are driving the growth of the across the globe.

Increasing applications in medical & automotive and rising application of Nano technology are estimated to be the primary factors for driving the growth of the market. In addition, advancement in high speed communications are also estimated to contribute towards the growth of the market. Piezoelectric devices are widely used in the manufacturing of sensors that are used widely in automotive such as knock sensors, distance sensors and so on. Furthermore, other applications of piezoelectric devices in automotive such as usage in air bag sensors, anti-lock braking and so on.

However, there are certain factors that are hindering the growth of the market. The high cost of raw material that is being used for the development of the piezoelectric devices and government policies to reduce the lead consumption in some countries are estimated to be one of the major constraints in the growth of the market. Due to this, new opportunities can be found out in lead free components. Some lead-free components are Bismuth ferrite, Barium titanate, Barium titanate, Bismuth titanate Increasing awareness towards energy harvesting, use of piezo motion technology and its wide application are developing myriad growth opportunities for the growth of the market during forecast period.



The market has been segmented on the basis of application, material and product. The piezoelectric devices find application in various industry. The major industry where it finds application are aerospace, automotive, industrial and manufacturing, communication, medical, military and defence. Automotive and industrial is expected to have the major market share across the globe. The material of piezoelectric devices can be naturally occurred or synthetic derived. Naturally occurring piezoelectric material are Quartz, Berlinite, Sucrose, Rochelle salt, Topaz, Tourmaline-group minerals and Lead Titanate. Synthetic crystal includes Langasite, a quartz-analogous crystal, Gallium orthophosphate, Lithium Niobate, Lithium tantalite and so on. Synthetic piezoelectric material can be crystals, ceramics, polymer and composite. By products the market is divided into actuators, acoustic devices, motors, transducers, generators, resonators, and sensors. Piezoelectric sensor market is expected to have the largest market share across the globe. The major reason behind the market share is high application of sensor in automotive, medical, military and other segments.

The global piezoelectric devices market is further analyzed on the basis of the geographical regions that are contributing significantly towards the growth of the market. Asia Pacific and North America are expected to be the major market of the piezoelectric devices. Large customer base in the Asia Pacific and numerous research carried in the region are the factor behind the large market. As an instance, Japan is using the piezoelectric material on the surface of the railway stations to generate electricity. The factor behind the large market of North America large healthcare, automotive, military, and other market and high adoption of technology across the region. Europe is expected to show a lucrative growth across the market. The major economy contributing in the market are the UK, Germany, France, Italy and Spain.

Some of the key vendors of the piezoelectric devices market are APC International Ltd., Cedrat technologies SA, Ceramatec GmbH, EMFIT Ltd., and others. In order to sustain in the competitive market, these players adopt various strategies such as Acquisitions, mergers, expansions, joint ventures and product development and so on. As an instance in Feb, 2016, vesper technology announced the strategic alliance with AAC technologies holding Inc. to develop world's first piezoelectric micro electro mechanical systems (MEMS) microphones for the consumer electronic devices.

## **RESEARCH METHODOLOGY**

The market study of piezoelectric devices market is incorporated by extensive primary and secondary research conducted by research team at OMR. Secondary research has



been conducted to refine the available data to breakdown the market in various segments, derive total market size, market forecast and growth rate. Different approaches have been worked on to derive the market value and market growth rate. Our team collects facts and data related to the market from different geography to provide a better regional outlook. In the report country level analysis is provided by analyzing various regional players, regional tax laws and policies, consumer behavior and macro-economic factors. Numbers extracted from Secondary research have been authenticated by conducting proper primary research. It includes tracking down key people from the industry and interviewing them to validate the data. This enables our analyst to derive the closest possible figures without any major deviations in the actual number. Our analysts try to contact as many executives, managers, key opinion leaders and industry experts. Primary research brings the authenticity in our reports.

Secondary sources include:

Financial reports of companies involved in the market

Authentic Public Databases

Whitepapers, research-papers and news blogs

Company websites and their product catalogue.

Supplier Websites such as Alibaba, amazon for pricing analysis.

The report provides in-depth analysis on pricing, market size, intended quality of the product preferred by consumers, initial norms and vehicle segment. The report will serve as a source for 360-degree analysis of the market thoroughly integrating different models such as PEST analysis, Porter five analysis delivering insights into the market for better business decisions.

#### MARKET SEGMENTATION:

Global Piezoelectric Device market is segmented on the basis of regional outlook and following segments:

- 1. Global Piezoelectric Device Market Research and Analysis, By Product
- 2. Global Piezoelectric Device Market Research and Analysis, By Material



- 3. Global Piezoelectric Device Market Research and Analysis, By Application
- 4. Global Piezoelectric Device Market Research and Analysis, By Region

#### THE REPORT COVERS:

Comprehensive research methodology of Global Piezoelectric Device Market.

This report also includes detailed and extensive market overview with key analyst insights.

Exhaustive analysis of macro and micro factors influencing the market guided by key recommendations.

Analysis of regional regulations and other government policies impacting the

Global Piezoelectric Device Market.

Insights about market determinants which are stimulating the Global Piezoelectric Device Market.

Detailed and extensive market segments with regional distribution of forecasted revenues.

Extensive profiles and recent developments of market players.



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#### **COMPANIES MENTIONED**

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- 2. CEDRAT TECHNOLOGIES SA
- 3. CERAMATEC GMBH
- 4. EMFIT LTD.
- 5. ENOCEAN GMBH
- 6. HARRIS CORPORATION
- 7. IONIX ADVANCED TECHNOLOGIES
- 8. KINETIC CERAMICS
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