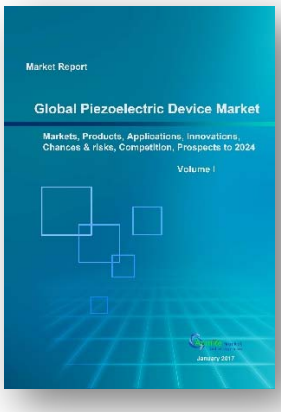

Market Report

Global Piezoelectric Device Market

Latest update:	January, 2017
Publisher:	Acmite Market Intelligence
Language:	English
Pages:	532 pages
Price:	from 1,490 Euro

Abstract

Piezoelectric devices, benefiting from the development of piezoelectric materials, have become a key enabling technology for a wide range of industrial and consumer products. Piezoelectric device market experienced robust growth in last two decades, and also sustained fairly healthy growth even during the global economic downturns. It will continue to witness strong growth in the next years, and certain application markets enjoy double digital growth.

Global demand on piezoelectric devices was valued at approximately US$21.60 billion in 2015. Piezoceramics is the largest material group for piezoelectric devices, while piezopolymer demonstrates fastest growth due to its light weight and small size.

Industrial & manufacturing is still the largest application market for piezoelectric devices, followed by automotive industry. However, the strongest demand comes from medical instruments and information & telecommunication which are gaining ever increasing importance among piezoelectric device suppliers.

Acmite Market Intelligence has finished a most comprehensive report on world piezoelectric device market. It is ready for order.

The report examines the current products and application areas, provides extensive market data of 2015, and market forecast through 2021 to 2024. It also outlines the competition landscape, evaluates market chances and risks and anticipates future trends based on a series of influence factors.

- 227 pages analyzing the market
- 64 figure tables
- 260 piezoelectric device manufacturers profiled

With a multi-dimensional and in-depth view of world piezoelectric device market, this report is ideal help for you with decisions about international market penetration, business expansion or project feasibility analysis.

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Note:

Regions:

North America: US, Canada, Mexico (NAFTA region)

Asia Pacific: Countries of Asia, Australia, New Zealand

Asia Pacific*: Asia Pacific excluding Japan

4.2 Piezoceramics

Products and uses

Piezoelectric ceramics or piezoceramics refer to the family of ceramics with perovskite or tungsten-bronze structures which exhibits piezoelectricity. Piezoelectric ceramics found fast development in late 20th century. The development of metal oxide-based piezoelectric ceramics and other piezoelectric ceramics enabled designers to employ the piezoelectric effect and the inverse piezoelectric effect in many new applications.

Artificial polarisation enables the piezoelectric properties to be controlled in the manufacturing process.

Currently the most important piezoelectric ceramic materials are based on mixed oxide crystal system consisting of lead zirconate and lead titanate known as lead zirconate titanate (PZT).

Commercially used piezoceramics include:

- Barium titanate (BaTiO3) - Barium titanate was the first piezoelectric ceramic discovered
- Lead titanate (PbTiO3)
- Lead zirconate titanate (Pb[ZrxTi1−x]O3 0<x<1), more commonly known as PZT. Lead zirconate titanate is the most common piezoelectric ceramic in use today
- Potassium niobate (KNbO3)
- Lithium niobate (LiNbO3)
- Lithium tantalate (LiTaO3)
- Sodium tungstate (Na2WO3)
- Ba2NaNb5O5

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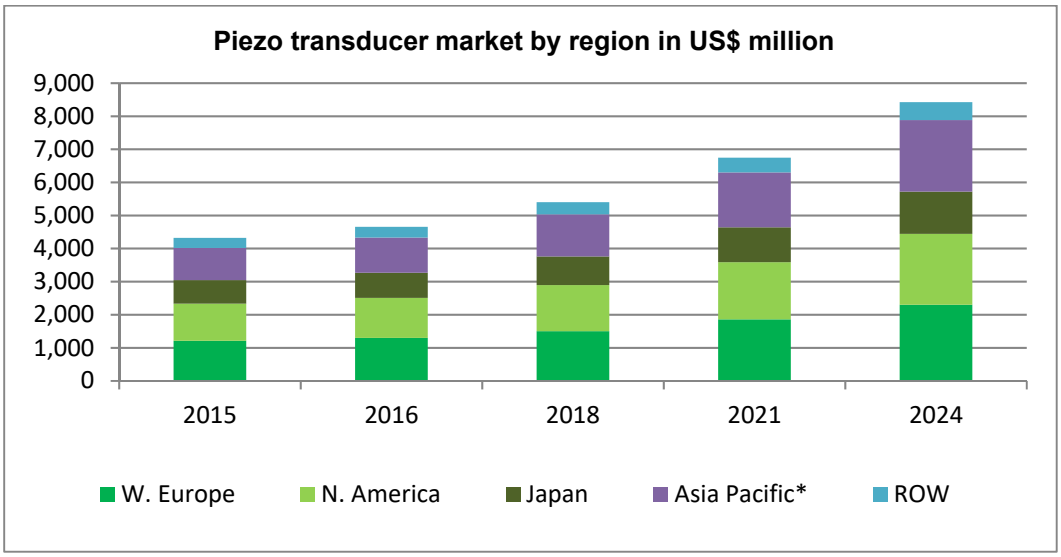
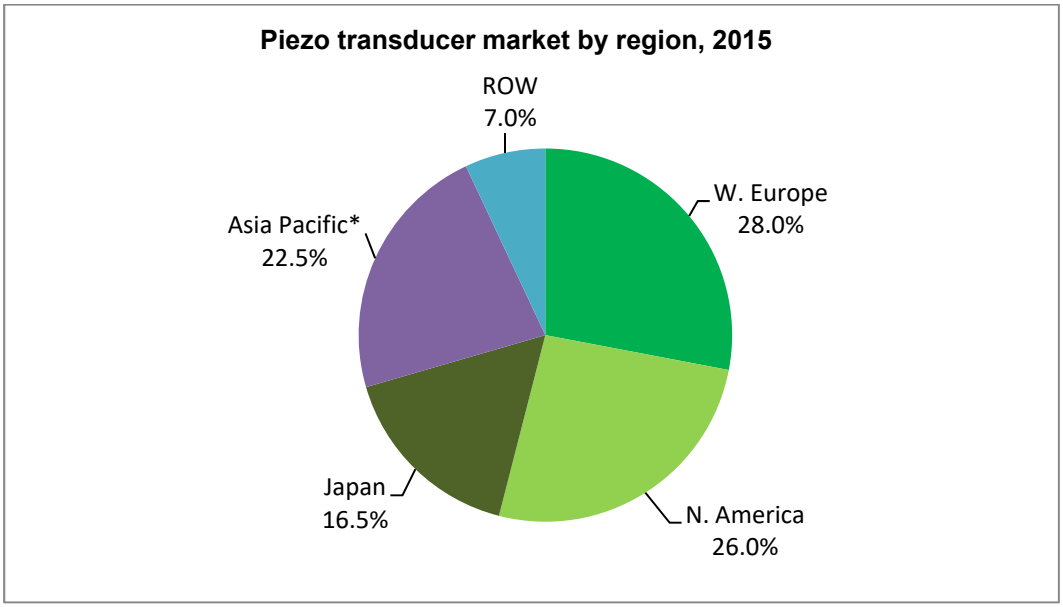
5.3.2.4 Piezoelectric transducer market by region

Piezoelectric transducer market by region in US$ million

	2015	2016	2018	2021	2024	CAGR
W. Europe	1210	1300	1500	1858	2299	7.4%
N. America	1123	1207	1394	1730	2144	7.5%
Japan	713	761	867	1053	1277	6.7%
Asia Pacific*	972	1063	1270	1658	2163	9.3%
ROW	302	323	368	447	542	6.7%
Total	4320	4653	5398	6745	8425	7.7%





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6.4 Information & telecommunication

6.4.1 Market segmentation

Piezoelectric devices are increasingly used in IT and telecommunication industry. Major application areas include cellular phone, laptop, inkjet printer, etc.

Cellular Phone

Cellular phone applications are the current major focus of the piezo-actuators. 80% of the present cellular phones installed a camera already, among which the newest versions from the beginning of 2006 have an automatic focus mechanism.

Laptop Computer

Laptop computer applications of piezoelectric devices are also developing quickly. Piezoelectric pump water cooling module has been developed for a fuel cell power supply in a laptop computer.
Piezoelectric transformers are used in laptop computers with LCD-display, as LCD-display requires a very thin, no electromagnetic-noise transformer with a high efficiency as an inverter of a fluorescent backlight.
The use of piezoelectric film as a low-cost, shock, and vibration sensor is used in computer hard disk and CD-ROM drives where space is at a premium and mass loading may be a concern.

Printer

Piezoelectric inkjet printers have become inexpensive and gain popularity due to the introduction of piezoelectric material which reduced the manufacturing cost … …

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AVX Corporation (USA)

One AVX Boulevard
Fountain Inn, SC 29644-9039
USA
Phone: +1 843-448-9411
Fax: +1 843-448-7139
http://www.avxcorp.com

Year of foundation: 1972
Number of employees: 10,600
Revenue: US$ 1, 353 million

Company profile

AVX Corporation is a global leading manufacturer and supplier of a wide range of passive electronic components and Interconnects.

The company operates three segments:

- Passive Components, including includes electrical components for automotive braking, cell phones, copiers, hearing aids, and locomotives
- Kyocera Electronic Devices (KED) resale components, including primarily ceramic capacitors, timing devices, SAW devices, RF modules and Interconnects produced by Kyocera Corporation and resold by AVX.
- Interconnect Components, including mainly Elco automotive, mobile phone/PDAs, backpanel, solid state lighting and memory product Interconnects produced by AVX and Kyocera..

Some of the company’s key products are:

- Capacitors
- Ceramics
- Integrated Passive Components

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M0902	Global Piezoelectric Device Market, Volume II	305	☐ EUR 790	☐ EUR 990	☐ EUR 1290
M0900	Global Piezoelectric Device Market, Total (Volume I + II)	532	☐ EUR 1990	☐ EUR 2390	☐ EUR 3390
Sum			☐ *EUR* _____	☐ *EUR* _____	☐ *EUR* _____

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