

Memristor Market - Forecasts from 2018 to 2023

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Abstracts

Memristor market was valued at US\$12.693 million in 2017 and is projected to expand at a CAGR of 57.19% over the forecast period to reach US\$191.501 million by 2023.

The word Memristor is made up of two words memory and resistors, and the first memristor was introduced in 2008 by Hewlett Packard, although it was conceptualized in 1971. Memristors can assist to develop energy efficient and significant computing systems with such dynamic memory that can perpetuate information after the power gets turned off. It is an advanced class of integrated circuits such as capacitors, resistors, and inductors that display their peculiar features predominantly at the nanoscale. Memristor can be used in remote sensing applications, can replace transistors and imitate neuromorphic and biological systems.

Advancements in technology such as growing use of cloud computing, penetration of IoT or big data trends in this sector creates a need for powerful hardware components. And this need of hardware components is the strongest element responsible for growth in memristor market. Moreover, factors like improved performance, lower heat generation and their growing adoption across various applications drive the global market for memristor market. However, the complexity of memristors makes their implementation in systems sometimes difficult thus, restraining its adoption.

This research study examines the current market trends related to the demand, supply, and sales, in addition to the recent developments. Major drivers, restraints, and opportunities have been covered to provide an exhaustive picture of the market. The analysis presents in-depth information regarding the development, trends, and industry policies and regulations implemented in each of the geographical regions. Further, the overall regulatory framework of the market has been exhaustively covered to offer stakeholders a better understanding of the key factors affecting the overall market environment.

Identification of key industry players in the industry and their revenue contribution to the

overall business or relevant segment aligned to the study have been covered as a part of competitive intelligence done through extensive secondary research. Various studies and data published by industry associations, analyst reports, investor presentations, press releases and journals among others have been taken into consideration while conducting the secondary research. Both bottom-up and top down approaches have been utilized to determine the market size of the overall market and key segments. The values obtained are correlated with the primary inputs of the key stakeholders in the memristor value chain. Last step involves complete market engineering which includes analyzing the data from different sources and existing proprietary datasets while using various data triangulation methods for market breakdown and forecasting.

Market intelligence is presented in the form of analysis, charts, and graphics to help the clients in gaining faster and efficient understanding of the memristor market.

Major industry players profiled as part of the report are HP Development Company LP, Rambus, Knowm Inc., Fujitsu, and Crossbar among others.

Segmentation

Memristor market has been analyzed through following segments:

By Type

Molecular and Ionic Thin Film Memristive Systems

Titanium Dioxide Memristors

Polymeric (Ionic) Memristors

Others

Spin Based and Magnetic Memristive Systems

Spintronic Memristors

Spin Torque Transfer (STT) MRAM

3-Terminal Memristors

By Application

Analog

Memory

Digital

Neuromorphic

By Industry Vertical

IT and Telecommunication

Automotive

Consumer Electronics

Others

By Geography

North America

U.S.

Canada

Mexico

Others

South America

Brazil

Others

Europe

UK

Germany

France

Others

Middle East and Africa

Saudi Arabia

UAE

Israel

Others

Asia-Pacific

Japan

China

India

Australia

Others

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