

# Memristor Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

<https://marketpublishers.com/r/M9074F03D7EDEN.html>

Date: September 2023

Pages: 145

Price: US\$ 2,499.00 (Single User License)

ID: M9074F03D7EDEN

## Abstracts

### Market Overview:

The global memristor market size reached US\$ 190 Million in 2022. Looking forward, IMARC Group expects the market to reach US\$ 2,621 Million by 2028, exhibiting a growth rate (CAGR) of 51.4% during 2023-2028.

A memristor, also known as a ReRAM, is a non-volatile electronic memory device having a variable electrical resistance. It relies on cell resistance for storing information, which remains saved even if devices lose power. As it is stable, fast, and reliable, it is widely utilized to enable modern computing and memory device technologies, such as nanoelectronic memories and neuromorphic computing architectures. Presently, with advances in silicon technology, electronics based on memristors are finding applications in on-chip memory and storage, in-memory computing, and biologically inspired computing around the world.

### Memristor Market Trends:

Due to the key advantages of memristors, including compact size, high retention, enhanced endurance, three-dimensional (3D) design capabilities, and fast reading and writing speed, they have emerged as highly reliable alternatives to flash memories. This, in confluence with the escalating demand for portable, miniature electronics, is influencing the market positively. Moreover, the emerging automation trend in industrial processes is promoting the adoption of robots, which, in turn, is driving the market. Apart from this, the increasing utilization of data centers in the healthcare, information and technology (IT) and telecommunications, and banking, financial services, and insurance (BFSI) industries is impelling the growth of the market worldwide. In line with this, governments of several countries are investing in improving IT infrastructure, which

is creating a favorable outlook for the market. Besides this, the increasing investment in research activities to develop innovative transparent electronics, which rely on memristors for storage purposes, is projected to strengthen the market growth in the coming years. Transparent electronics find extensive applications in transportation, energy sources, consumer electronics, and automobile windshields that can transmit visual information to the driver.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global memristor market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on type and industry vertical.

#### Breakup by Type:

- Molecular and Ionic Film Memristor
- Titanium Dioxide Memristor
- Polymeric Memristor
- Others
- Spin Based and Magnetic Memristor
- Spintronic Memristor
- Spin Torque Transfer (STT) MRAM

#### Breakup by Industry Vertical:

- Electronics
- IT and Telecommunication
- Industrial
- Aerospace and Defense
- Automotive
- Healthcare

#### Breakup by Region:

- North America
  - United States
  - Canada
- Asia-Pacific
- China

Japan  
India  
South Korea  
Australia  
Indonesia  
Others  
Europe  
Germany  
France  
United Kingdom  
Italy  
Spain  
Russia  
Others  
Latin America  
Brazil  
Mexico  
Others  
Middle East and Africa

#### Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Avalanche Technology, Crossbar Inc., Everspin Technologies Inc., Fujitsu Semiconductor Memory Solution (Fujitsu Limited), Honeywell International Inc., Knowm Inc., Renesas Electronics Corporation, STMicroelectronics and Weebit Nano.

#### Key Questions Answered in This Report

1. How big is the global memristor market?
2. What is the expected growth rate of the global memristor market during 2023-2028?
3. What are the key factors driving the global memristor market?
4. What has been the impact of COVID-19 on the global memristor market?
5. What is the breakup of the global memristor market based on the type?
6. What is the breakup of the global memristor market based on the industry vertical?
7. What are the key regions in the global memristor market?
8. Who are the key players/companies in the global memristor market?

## Contents

### **1 PREFACE**

### **2 SCOPE AND METHODOLOGY**

2.1 Objectives of the Study

2.2 Stakeholders

2.3 Data Sources

2.3.1 Primary Sources

2.3.2 Secondary Sources

2.4 Market Estimation

2.4.1 Bottom-Up Approach

2.4.2 Top-Down Approach

2.5 Forecasting Methodology

### **3 EXECUTIVE SUMMARY**

### **4 INTRODUCTION**

4.1 Overview

4.2 Key Industry Trends

### **5 GLOBAL MEMRISTOR MARKET**

5.1 Market Overview

5.2 Market Performance

5.3 Impact of COVID-19

5.4 Market Forecast

### **6 MARKET BREAKUP BY TYPE**

6.1 Molecular and Ionic Film Memristor

6.1.1 Market Trends

6.1.2 Key Segments

6.1.2.1 Titanium Dioxide Memristor

6.1.2.2 Polymeric Memristor

6.1.2.3 Others

6.1.3 Market Forecast

## 6.2 Spin Based and Magnetic Memristor

### 6.2.1 Market Trends

### 6.2.2 Key Segments

#### 6.2.2.1 Spintronic Memristor

#### 6.2.2.2 Spin Torque Transfer (STT) MRAM

### 6.2.3 Market Forecast

## 7 MARKET BREAKUP BY INDUSTRY VERTICAL

### 7.1 Electronics

#### 7.1.1 Market Trends

#### 7.1.2 Market Forecast

### 7.2 IT and Telecommunication

#### 7.2.1 Market Trends

#### 7.2.2 Market Forecast

### 7.3 Industrial

#### 7.3.1 Market Trends

#### 7.3.2 Market Forecast

### 7.4 Aerospace and Defense

#### 7.4.1 Market Trends

#### 7.4.2 Market Forecast

### 7.5 Automotive

#### 7.5.1 Market Trends

#### 7.5.2 Market Forecast

### 7.6 Healthcare

#### 7.6.1 Market Trends

#### 7.6.2 Market Forecast

## 8 MARKET BREAKUP BY REGION

### 8.1 North America

#### 8.1.1 United States

##### 8.1.1.1 Market Trends

##### 8.1.1.2 Market Forecast

#### 8.1.2 Canada

##### 8.1.2.1 Market Trends

##### 8.1.2.2 Market Forecast

### 8.2 Asia-Pacific

#### 8.2.1 China

- 8.2.1.1 Market Trends
- 8.2.1.2 Market Forecast
- 8.2.2 Japan
  - 8.2.2.1 Market Trends
  - 8.2.2.2 Market Forecast
- 8.2.3 India
  - 8.2.3.1 Market Trends
  - 8.2.3.2 Market Forecast
- 8.2.4 South Korea
  - 8.2.4.1 Market Trends
  - 8.2.4.2 Market Forecast
- 8.2.5 Australia
  - 8.2.5.1 Market Trends
  - 8.2.5.2 Market Forecast
- 8.2.6 Indonesia
  - 8.2.6.1 Market Trends
  - 8.2.6.2 Market Forecast
- 8.2.7 Others
  - 8.2.7.1 Market Trends
  - 8.2.7.2 Market Forecast
- 8.3 Europe
  - 8.3.1 Germany
    - 8.3.1.1 Market Trends
    - 8.3.1.2 Market Forecast
  - 8.3.2 France
    - 8.3.2.1 Market Trends
    - 8.3.2.2 Market Forecast
  - 8.3.3 United Kingdom
    - 8.3.3.1 Market Trends
    - 8.3.3.2 Market Forecast
  - 8.3.4 Italy
    - 8.3.4.1 Market Trends
    - 8.3.4.2 Market Forecast
  - 8.3.5 Spain
    - 8.3.5.1 Market Trends
    - 8.3.5.2 Market Forecast
  - 8.3.6 Russia
    - 8.3.6.1 Market Trends
    - 8.3.6.2 Market Forecast

### 8.3.7 Others

#### 8.3.7.1 Market Trends

#### 8.3.7.2 Market Forecast

### 8.4 Latin America

#### 8.4.1 Brazil

##### 8.4.1.1 Market Trends

##### 8.4.1.2 Market Forecast

#### 8.4.2 Mexico

##### 8.4.2.1 Market Trends

##### 8.4.2.2 Market Forecast

#### 8.4.3 Others

##### 8.4.3.1 Market Trends

##### 8.4.3.2 Market Forecast

### 8.5 Middle East and Africa

#### 8.5.1 Market Trends

#### 8.5.2 Market Breakup by Country

#### 8.5.3 Market Forecast

## 9 SWOT ANALYSIS

### 9.1 Overview

### 9.2 Strengths

### 9.3 Weaknesses

### 9.4 Opportunities

### 9.5 Threats

## 10 VALUE CHAIN ANALYSIS

## 11 PORTERS FIVE FORCES ANALYSIS

### 11.1 Overview

### 11.2 Bargaining Power of Buyers

### 11.3 Bargaining Power of Suppliers

### 11.4 Degree of Competition

### 11.5 Threat of New Entrants

### 11.6 Threat of Substitutes

## 12 PRICE ANALYSIS

## 13 COMPETITIVE LANDSCAPE

### 13.1 Market Structure

### 13.2 Key Players

### 13.3 Profiles of Key Players

#### 13.3.1 Avalanche Technology

##### 13.3.1.1 Company Overview

##### 13.3.1.2 Product Portfolio

#### 13.3.2 Crossbar Inc.

##### 13.3.2.1 Company Overview

##### 13.3.2.2 Product Portfolio

#### 13.3.3 Everspin Technologies Inc.

##### 13.3.3.1 Company Overview

##### 13.3.3.2 Product Portfolio

##### 13.3.3.3 Financials

#### 13.3.4 Fujitsu Semiconductor Memory Solution (Fujitsu Limited)

##### 13.3.4.1 Company Overview

##### 13.3.4.2 Product Portfolio

#### 13.3.5 Honeywell International Inc.

##### 13.3.5.1 Company Overview

##### 13.3.5.2 Product Portfolio

##### 13.3.5.3 Financials

##### 13.3.5.4 SWOT Analysis

#### 13.3.6 Knowm Inc.

##### 13.3.6.1 Company Overview

##### 13.3.6.2 Product Portfolio

#### 13.3.7 Renesas Electronics Corporation

##### 13.3.7.1 Company Overview

##### 13.3.7.2 Product Portfolio

##### 13.3.7.3 Financials

##### 13.3.7.4 SWOT Analysis

#### 13.3.8 STMicroelectronics

##### 13.3.8.1 Company Overview

##### 13.3.8.2 Product Portfolio

#### 13.3.9 Weebit Nano

##### 13.3.9.1 Company Overview

##### 13.3.9.2 Product Portfolio

##### 13.3.9.3 Financials?



## List Of Tables

### LIST OF TABLES

Table 1: Global: Memristor Market: Key Industry Highlights, 2022 and 2028

Table 2: Global: Memristor Market Forecast: Breakup by Type (in Million US\$), 2023-2028

Table 3: Global: Memristor Market Forecast: Breakup by Industry Vertical (in Million US\$), 2023-2028

Table 4: Global: Memristor Market Forecast: Breakup by Region (in Million US\$), 2023-2028

Table 5: Global: Memristor Market: Competitive Structure

Table 6: Global: Memristor Market: Key Players

## List Of Figures

### LIST OF FIGURES

Figure 1: Global: Memristor Market: Major Drivers and Challenges

Figure 2: Global: Memristor Market: Sales Value (in Million US\$), 2017-2022

Figure 3: Global: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 4: Global: Memristor Market: Breakup by Type (in %), 2022

Figure 5: Global: Memristor Market: Breakup by Industry Vertical (in %), 2022

Figure 6: Global: Memristor Market: Breakup by Region (in %), 2022

Figure 7: Global: Memristor (Molecular and Ionic Film Memristor) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 8: Global: Memristor (Molecular and Ionic Film Memristor) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 9: Global: Memristor (Spin Based and Magnetic Memristor) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 10: Global: Memristor (Spin Based and Magnetic Memristor) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 11: Global: Memristor (Electronics) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 12: Global: Memristor (Electronics) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 13: Global: Memristor (IT and Telecommunication) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 14: Global: Memristor (IT and Telecommunication) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 15: Global: Memristor (Industrial) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 16: Global: Memristor (Industrial) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 17: Global: Memristor (Aerospace and Defense) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 18: Global: Memristor (Aerospace and Defense) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 19: Global: Memristor (Automotive) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 20: Global: Memristor (Automotive) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 21: Global: Memristor (Healthcare) Market: Sales Value (in Million US\$), 2017 &

2022

Figure 22: Global: Memristor (Healthcare) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 23: North America: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 24: North America: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 25: United States: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 26: United States: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 27: Canada: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 28: Canada: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 29: Asia-Pacific: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 30: Asia-Pacific: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 31: China: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 32: China: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 33: Japan: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 34: Japan: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 35: India: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 36: India: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 37: South Korea: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 38: South Korea: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 39: Australia: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 40: Australia: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 41: Indonesia: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 42: Indonesia: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 43: Others: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 44: Others: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 45: Europe: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 46: Europe: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 47: Germany: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 48: Germany: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 49: France: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 50: France: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 51: United Kingdom: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 52: United Kingdom: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 53: Italy: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 54: Italy: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 55: Spain: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 56: Spain: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 57: Russia: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 58: Russia: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 59: Others: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 60: Others: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 61: Latin America: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 62: Latin America: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 63: Brazil: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 64: Brazil: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 65: Mexico: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 66: Mexico: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 67: Others: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 68: Others: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 69: Middle East and Africa: Memristor Market: Sales Value (in Million US\$), 2017 & 2022

Figure 70: Middle East and Africa: Memristor Market: Breakup by Country (in %), 2022

Figure 71: Middle East and Africa: Memristor Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 72: Global: Memristor Industry: SWOT Analysis

Figure 73: Global: Memristor Industry: Value Chain Analysis

Figure 74: Global: Memristor Industry: Porter's Five Forces Analysis

## I would like to order

Product name: Memristor Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

Product link: <https://marketpublishers.com/r/M9074F03D7EDEN.html>

Price: US\$ 2,499.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/M9074F03D7EDEN.html>

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**

Customer signature \_\_\_\_\_

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

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

