

# **Global Microelectromechanical Systems Market Size study & Forecast, by Type (Sensors, Actuators) By Application (Consumer Electronics, Automotive, Industrial, Aerospace and Defense, Healthcare, Telecommunication, Others) and Regional Analysis, 2023-2030**

<https://marketpublishers.com/r/G157B3A61C4DEN.html>

Date: October 2023

Pages: 200

Price: US\$ 4,950.00 (Single User License)

ID: G157B3A61C4DEN

## **Abstracts**

Global Microelectromechanical Systems Market is valued at approximately USD 83.18 billion in 2022 and is anticipated to grow with a healthy growth rate of more than 8.7% over the forecast period 2023-2030. Microelectromechanical Systems are miniaturized devices that integrate mechanical elements, sensors, actuators, and electronics on a single chip. MEMS technology combines microfabrication techniques with semiconductor processing to create devices with dimensions ranging from micrometers to millimeters. The Microelectromechanical Systems market is expanding because of factors such as rising adoption of smartphones and increasing popularity of the Internet of Things. Microelectromechanical Systems are designed to sense physical phenomena, such as acceleration, pressure, temperature, or humidity. They can also actuate or manipulate these phenomena by converting electrical signals into mechanical motion. Its importance has progressively increased during the forecast period 2023-2030.

According to Statista, the global number of smartphone users is expected to increase by 910.3 million around 17.33 percent in between year 2023 to 2028. The smartphone user base is expected to reach up to 6.2 billion users by 2028. Furthermore, North America holds the highest smartphone adoption rate in 2022, accounting for about 84% of total mobile connections and smartphone adoption rate is projected to reach up to 90% by 2030 in the region. Another important factor that drives the

Microelectromechanical Systems market is the increasing popularity of the Internet of Things. As Microelectromechanical Systems devices play a crucial role in the IoT ecosystem by providing sensing and actuation capabilities such as accelerometers, gyroscopes, temperature and pressure sensors, can collect real-time data from the surrounding environment. These sensors enable IoT devices to monitor physical parameters, such as motion, orientation, temperature, and environmental conditions. In addition, as per Statista, the global number of Internet of Things devices is expected to grow from 13.14 billion in 2022 to more than 29 billion by 2030. China will have the most IoT devices in 2030, with roughly 5 billion consumer devices. Moreover, growing demand of wearable devices and rising demand microelectromechanical systems in the automation industry is anticipated to create a lucrative growth opportunity for the market over the forecast period. However, lack of standardization in fabrication process stifles market growth throughout the forecast period of 2023-2030.

The key regions considered for the Global Microelectromechanical Systems Market study includes Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. Asia Pacific dominated the market in 2022 owing to the increasing number of smartphone users and growing adoption of 5G technology. In addition, Asia Pacific is expected to grow significantly during the forecast period, owing to factors such as rising government initiatives for healthcare equipment and devices in the region.

Major market player included in this report are:

Analog Devices Inc

Robert Bosch GmbH

Broadcom Inc

Knowles Electronics, LLC

STMicroelectronics

HP Development Company, L.P

Denso Corporation

NXP Semiconductors

Texas Instruments Inc

Panasonic Corporation

Recent Developments in the Market:

In February 2022, Bosch GmbH invested around \$296 million in new manufacturing facilities as part of an expansion of its wafer fab in Reutlingen, Germany. Bosch has already committed \$463 million to expand its wafer fabs in Dresden and Reutlingen, as well as to create a new semiconductor testing centre in Penang, Malaysia. The new investment will generate more production space as well as the requisite clean-room facilities. This expansion will help in meeting the increasing demand for chips used in mobility and IoT applications.

Global Microelectromechanical Systems Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

Report Coverage - Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered - Type, Application, Region

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope\*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries

involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

### By Type

Sensors

Actuators

### By Application

Consumer Electronics

Automotive

Industrial

Aerospace and Defense

Healthcare

Telecommunication

Others

### By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

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