Microelectromechanical Systems (MEMS) in Global Medical Markets

Market Research Report | 2024-02-09 | 122 pages | BCC Research

AVAILABLE LICENSES:

- Single User License $5500.00
- 2-5 Users License $6600.00
- Site License $7920.00
- Enterprise License $9504.00

Report description:

Description

Report Scope:

The current version provides an overview of the global market for MEMS medical devices. This report analyzes the market trends associated with MEMS devices using data from 2020, 2021, the base year data for 2022, estimated from 2023, with projections of compound annual growth rates (CAGRs) through 2028. The report will analyze the current market drivers, restraints, and opportunities, as well as market projections for 2028.

The products covered in this report include sensors (pressure, inertial, optical, magnetic, temperature and other sensors), drug delivery systems (inhalers/nebulizers, microneedles and micropumps), and microfluidic and lab-on-a-chip devices (clinical in vitro diagnostic, point-of-care, medical research, and analytical devices). Applications covered include in vitro diagnostics, medical devices, pharmaceutical and life sciences research, and home healthcare. The market has been segmented into four regions: North America, Europe, Asia-Pacific, and Rest of the World (RoW). For market estimates, 2022 serves as the base year; forecasts are given for 2023 through 2028.

Report Includes:

- 56 data tables and 28 additional tables
- An overview of the global markets for microelectromechanical systems (MEMS) in the medical industry
- Analyses of the global market trends, with historical market revenue data (sales figures) from 2020 to 2022, estimates for 2023, and projections of compound annual growth rates (CAGRs) through 2028
- Estimate of the current market size and revenue forecast for MEMS devices in global medical markets, and a corresponding market share analysis based on product, application and region

- Facts and figures pertaining to the market drivers, opportunities and challenges, emerging technologies and future prospects
- Discussion of sustainability trends and ESG trends in the global market, with emphasis on consumer attitudes, ESG score analysis, case studies and the ESG practices of leading companies
- Review of patents on MEMS devices in the medical industry
- An analysis of the industry structure, including company market shares, recent M&A activity and venture funding.
- Competitive intelligence related to leading companies, their global rankings, recent developments, key financials and segmental revenues, and product portfolios
- Profiles of the leading market players, including TE Connectivity, Honeywell International Inc., STMicroelectronics, Teledyne Dalsa, and Silex Microsystems

Executive Summary

Summary:

This report provides an analysis of MEMS devices in medical markets. The MEMS device market for the medical industry is expected to grow from $REDACTED billion in 2022 by a CAGR of REDACTED% to nearly $REDACTED billion by the end of 2028. The products covered in this report include sensors (pressure, inertial, optical, magnetic, temperature and other sensors), drug delivery systems (inhalers/nebulizers, microneedles and micropumps), and microfluidic and lab-on-a-chip (LOC) devices (clinical in vitro diagnostic, point-of-care, medical research and analytical devices).

Of these, microfluidic and LOC devices account for the largest segment of the MEMS device market. In terms of microfluidic devices, the key potential lies in developing cartridges that are highly sensitive, multichannel and multiplexing systems.

The market is also segmented by application, which in this report includes pharmaceutical and life sciences research (high throughput, cellular analysis, genomics, proteomics and others), in vitro diagnostics (molecular diagnostics, immunology, biochemistry and others), and home healthcare and medical devices (diagnosis and patient monitoring, and surgical and medical equipment).

Application areas that hold immense potential for future growth include drug delivery devices, devices for medical research (especially genomics, cellular analysis and high throughput), cardiology, ophthalmology, endocrinology, in vitro diagnostics and tissue regeneration.

Drug delivery systems (DDS) based on organic, inorganic and hybrid nanoparticles are being developed as drug carriers for active targeting, especially in chemotherapy. The newest generation of DDS are designed with qualities such stability, toxicity, prolonged delivery, precise site targeting, higher permeability, increased solubility and reduced particle sizes. Compared to traditional dosage forms, they can greatly enhance the medicinal agent's performance.

MEMS technology creates miniature drug delivery systems using polymers, micropumps, sensors, microvalves, reservoirs, actuators and high-performance computers, among other materials like silicon, glass, metals, and nitrides. However, because there are not enough refilling techniques, they would need frequent replacement procedures, making them less appropriate for long-term use. Furthermore, microvalves are used to regulate the rate of fluid flow, seal, and turning the delivery device on and off.

Table of Contents:

HONEYWELL INTERNATIONAL INC.
INTEGRATED SENSING SYSTEMS INC.
KNOWLES ELECTRONICS LLC
MEMSCAP
SILEX MICROSYSTEMS AB
STMICROELECTRONICS
TE CONNECTIVITY
TELEDYNE DALSA
TEXAS INSTRUMENTS INC.

SCOTTS INTERNATIONAL

Microelectromechanical Systems (MEMS) in Global Medical Markets

Market Research Report | 2024-02-09 | 122 pages | BCC Research

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	$5500.00
	2-5 Users License	$6600.00
	Site License	$7920.00
	Enterprise License	$9504.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2025-06-25
		Signature