

Epilepsy Monitoring Device Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

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Abstracts

The Global Epilepsy Monitoring Device Market was valued at USD 632.5 million in 2024 and is estimated to grow at a CAGR of 5.2% to reach USD 1.04 billion by 2034, driven by the growing global burden of epilepsy and the increasing demand for accurate diagnostic tools are key drivers of this market. Healthcare providers are adopting advanced technologies to monitor brain activity in patients experiencing seizures, enabling better diagnosis and treatment strategies. These tools help detect irregular electrical signals in the brain, offering valuable insights into seizure patterns and supporting personalized treatment plans. Additionally, the integration of next-generation technologies such as wearable devices, real-time data tracking, and AI-powered systems enhances diagnostic capabilities while expanding their use across homecare, ambulatory, and hospital settings.

Continuous innovation is shaping the landscape of epilepsy monitoring. Devices today offer improved accuracy, portability, and convenience, making them more accessible and patient-friendly. As the demand for non-invasive and real-time monitoring rises, these advancements encourage wider adoption in various clinical environments. The growing awareness about early diagnosis and the need for long-term seizure management accelerate market expansion.

The conventional epilepsy monitoring devices segment generated USD 383.3 million in 2024. Their strong clinical performance, enhanced diagnostic features, and adaptability to diverse medical needs continue to drive their dominance. These devices have evolved to include capabilities like Al-based seizure detection, cloud connectivity, and continuous brainwave tracking, making them indispensable in pharmaceutical research and clinical diagnosis. EEG systems remain the core of epilepsy monitoring due to their



non-invasive nature and real-time brain activity mapping, contributing to the sustained growth of this segment.

The hospitals and clinics segment is projected to generate USD 480 million by 2034, driven by their critical role in managing complex neurological conditions like epilepsy. These healthcare settings offer an integrated environment for patient care, making them ideal for advanced epilepsy monitoring technologies. Equipped with specialized tools such as neuroimaging systems, centralized data management platforms, and high-acuity care units, these facilities enable round-the-clock monitoring and precise diagnosis of seizure disorders.

United States Epilepsy Monitoring Device Market is anticipated to reach USD 403.7 million by 2034, supported by a rising number of epilepsy cases and one of the world's most advanced healthcare systems. The increasing awareness of neurological health, paired with favorable reimbursement policies and the adoption of telemedicine, is expanding access to diagnostic technologies. Major players and research institutions across the country are actively investing in next-generation solutions, including Albased analytics, portable EEG systems, and real-time cloud-connected platforms.

Leading companies in this space include Cadwell Industries, NeuroWave Systems, Medtronic, NIHON KOHDEN CORPORATION, Seer Medical, Zeto, Medpage, Natus Medical Incorporated, Boston Scientific Corporation, The Magstim, Masimo Corporation, Compumedics, Koninklijke Philips, Stratus, and Empatica. To strengthen their market position, key companies focus on strategic initiatives such as expanding product portfolios through AI integration and wearable solutions, forming partnerships with healthcare providers, and investing in R&D for next-gen monitoring technologies. They are also scaling manufacturing capabilities and improving device connectivity to support remote patient management.

Companies Mentioned

Boston Scientific Corporation, Cadwell Industries, Compumedics, Empatica, Koninklijke Philips, Masimo Corporation, Medpage, Medtronic, Natus Medical Incorporated, NeuroWave Systems, NIHON KOHDEN CORPORATION, Seer Medical, Stratus, The Magstim, Zeto



Contents

CHAPTER 1 METHODOLOGY AND SCOPE

- 1.1 Market scope and definitions
- 1.2 Research design
 - 1.2.1 Research approach
 - 1.2.2 Data collection methods
- 1.3 Base estimates and calculations
 - 1.3.1 Base year calculation
 - 1.3.2 Key trends for market estimation
- 1.4 Forecast model
- 1.5 Primary research and validation
 - 1.5.1 Primary sources
 - 1.5.2 Data mining sources

CHAPTER 2 EXECUTIVE SUMMARY

2.1 Industry 360° synopsis

CHAPTER 3 INDUSTRY INSIGHTS

- 3.1 Industry ecosystem analysis
- 3.2 Industry impact forces
 - 3.2.1 Growth drivers
 - 3.2.1.1 Increasing prevalence of epilepsy
 - 3.2.1.2 Rising use of wearable devices
 - 3.2.1.3 Technological advancements in epilepsy monitoring technologies
 - 3.2.1.4 Growing awareness of neurodegenerative disorders
 - 3.2.2 Industry pitfalls and challenges
 - 3.2.2.1 High cost of complex epilepsy monitoring procedures and devices
 - 3.2.2.2 Unfavorable reimbursement policies
- 3.3 Growth potential analysis
- 3.4 Regulatory landscape
- 3.5 Trump administration tariffs
 - 3.5.1 Impact on trade
 - 3.5.1.1 Trade volume disruptions
 - 3.5.1.2 Country-wise response
 - 3.5.2 Impact on the industry



- 3.5.2.1 Supply-side impact (Cost of manufacturing)
 - 3.5.2.1.1 Price volatility in key materials
 - 3.5.2.1.2 Supply chain restructuring
 - 3.5.2.1.3 Production cost implications
- 3.5.2.2 Demand-side impact (Cost to consumers)
 - 3.5.2.2.1 Price transmission to end markets
 - 3.5.2.2.2 Market share dynamics
 - 3.5.2.2.3 Consumer response patterns
- 3.5.3 Key companies impacted
- 3.5.4 Strategic industry responses
 - 3.5.4.1 Supply chain reconfiguration
 - 3.5.4.2 Pricing and product strategies
 - 3.5.4.3 Policy engagement
- 3.5.5 Outlook and future considerations
- 3.6 Technological landscape
- 3.7 Future market trends
- 3.8 Gap analysis
- 3.9 Porter's analysis
- 3.10 PESTEL analysis

CHAPTER 4 COMPETITIVE LANDSCAPE, 2024

- 4.1 Introduction
- 4.2 Company market share analysis
- 4.3 Company matrix analysis
- 4.4 Competitive analysis of major market players
- 4.5 Competitive positioning matrix
- 4.6 Strategy dashboard

CHAPTER 5 MARKET ESTIMATES AND FORECAST, BY PRODUCT, 2021 - 2034 (\$ MN)

- 5.1 Key trends
- 5.2 Wearable devices
- 5.3 Conventional devices
 - 5.3.1 Deep brain stimulation devices
 - 5.3.2 Monitoring devices
 - 5.3.2.1 EEG devices
 - 5.3.2.1.1 Standard EEG



- 5.3.2.1.2 Video EEG
- 5.3.2.1.3 Other EEG devices
- 5.3.2.2 EMG devices
- 5.3.2.3 MEG devices
- 5.3.2.4 Other monitoring devices

CHAPTER 6 MARKET ESTIMATES AND FORECAST, BY END USE, 2021 - 2034 (\$ MN)

- 6.1 Key trends
- 6.2 Hospitals and clinics
- 6.3 Ambulatory surgical centers
- 6.4 Neurology centers
- 6.5 Diagnostic centers
- 6.6 Home care settings

CHAPTER 7 MARKET ESTIMATES AND FORECAST, BY REGION, 2021 - 2034 (\$ MN)

- 7.1 Key trends
- 7.2 North America
 - 7.2.1 U.S.
 - 7.2.2 Canada
- 7.3 Europe
 - 7.3.1 Germany
 - 7.3.2 UK
 - 7.3.3 France
 - 7.3.4 Spain
 - 7.3.5 Italy
 - 7.3.6 Netherlands
- 7.4 Asia Pacific
 - 7.4.1 China
 - 7.4.2 Japan
 - 7.4.3 India
 - 7.4.4 Australia
- 7.5 Latin America
 - 7.5.1 Brazil
 - 7.5.2 Mexico
 - 7.5.3 Argentina



- 7.6 Middle East and Africa
 - 7.6.1 South Africa
 - 7.6.2 Saudi Arabia
 - 7.6.3 UAE

CHAPTER 8 COMPANY PROFILES

- 8.1 Boston Scientific Corporation
- 8.2 Cadwell Industries
- 8.3 Compumedics
- 8.4 Empatica
- 8.5 Koninklijke Philips
- 8.6 Masimo Corporation
- 8.7 Medpage
- 8.8 Medtronic
- 8.9 Natus Medical Incorporated
- 8.10 NeuroWave Systems
- 8.11 NIHON KOHDEN CORPORATION
- 8.12 Seer Medical
- 8.13 Stratus
- 8.14 The Magstim
- 8.15 Zeto



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