

Sleep Monitoring Devices Market - Forecast from 2026 to 2031

<https://marketpublishers.com/r/S53FB8C7C5F0EN.html>

Date: January 2026

Pages: 145

Price: US\$ 3,950.00 (Single User License)

ID: S53FB8C7C5F0EN

Abstracts

Sleep Monitoring Devices Market is projected to expand at a 6.89% CAGR, achieving USD 39.005 billion in 2031 from USD 26.156 billion in 2025.

Sleep monitoring devices encompass a maturing ecosystem of consumer wearables (wristbands, rings, smartwatches), nearables (bedside radar, under-mattress piezo sensors, smart pillows), and clinical-grade PSG-adjacent systems. Core metrics have standardized around actigraphy, photoplethysmography (PPG) heart-rate variability, SpO₂, respiratory effort, body temperature, and, increasingly, EEG-derived sleep staging via dry-electrode headbands or in-ear sensors.

Wearables dominate >85 % of unit volume and ~70 % of revenue. Oura Ring Gen 3, Whoop 4.0, Fitbit Sense 2/Charge 6, Apple Watch Series 9/Ultra 2, Samsung Galaxy Watch 7, and Garmin Vivosmart/Venu lines now deliver validated sleep-staging accuracy within $\pm 10\text{--}12\%$ of PSG for light/deep/REM classification. Continuous SpO₂ and respiratory-rate tracking have become table stakes, enabling population-level screening for undiagnosed obstructive sleep apnea (estimated prevalence 15–30 % in adults, >80 % undiagnosed).

The primary growth driver remains the convergence of rising sleep-disorder awareness with expanding reimbursement pathways. In the U.S., CMS added limited coverage for certain FDA-cleared wearable-derived sleep diagnostics in 2024, while private payors (UnitedHealthcare, Aetna) now recognize watchPAT-style home sleep apnea testing as Tier 1 evidence. Europe's DiGA fast-track and NHS Digital Health Technology pathways have similarly opened reimbursement for validated digital sleep therapeutics (Somryst, Sleepio) and companion diagnostics.

Clinical adoption is accelerating fastest in cardiology and neurology. Continuous nocturnal HRV and SpO₂ data are now integrated into remote patient monitoring (RPM) CPT 99457/99458 workflows for heart-failure and post-stroke patients, while epilepsy centers use multimodal wearables for seizure-related sleep fragmentation analysis. Hospital-at-home programs increasingly deploy FDA-cleared wearables (Withings Sleep Analyzer, ResMed NightOwl) to reduce readmission risk.

Consumer segmentation has bifurcated:

Premium tier (\$300–550) – Oura, Whoop, Ultrahuman Ring Air, Eight Sleep Pod, focusing on recovery scores, HRV-guided training load, and temperature-regulated bedding integration.

Mass tier (\$80–250) – Xiaomi Mi Band 9, Amazfit, Fitbit, emphasizing 14–21 day battery life and basic sleep-stage + SpO₂ tracking.

Accuracy expectations have risen sharply. Independent validation studies (e.g., Stanford, Harvard, KU Leuven) now routinely benchmark consumer devices against PSG, with top performers achieving 82–88 % four-stage (wake/light/deep/REM) Cohen's kappa versus 90 %+ for medical actigraphy. Manufacturers have responded with hybrid machine-learning models trained on multi-million-night datasets and continuous firmware updates.

Privacy and data ownership are emerging differentiators. Local-on-device processing (Apple S9/SiP, Google Tensor) now enables sleep staging without cloud upload, while subscription-free models (Garmin, Withings) are regaining share against Whoop and Oura's recurring-fee structures.

In conclusion, the sleep monitoring device market has crossed the inflection point from wellness gadget to clinically actionable tool. Success increasingly hinges on three capabilities: (1) validated accuracy against PSG for sleep apnea and circadian biomarkers, (2) seamless integration into RPM and chronic-disease management workflows with reimbursable data outputs, and (3) defensible privacy architecture in an era of expanding payer and employer access to biometric data. Companies that combine medical-grade sensor fusion with consumer-grade ergonomics and clear regulatory/reimbursement pathways will capture the lion's share of value as sleep moves from lifestyle metric to standard-of-care vital sign.

Key Benefits of this Report:

Insightful Analysis: Gain detailed market insights covering major as well as emerging geographical regions, focusing on customer segments, government policies and socio-economic factors, consumer preferences, industry verticals, and other sub-segments.

Competitive Landscape: Understand the strategic maneuvers employed by key players globally to understand possible market penetration with the correct strategy.

Market Drivers & Future Trends: Explore the dynamic factors and pivotal market trends and how they will shape future market developments.

Actionable Recommendations: Utilize the insights to exercise strategic decisions to uncover new business streams and revenues in a dynamic environment.

Caters to a Wide Audience: Beneficial and cost-effective for startups, research institutions, consultants, SMEs, and large enterprises.

What do businesses use our reports for?

Industry and Market Insights, Opportunity Assessment, Product Demand Forecasting, Market Entry Strategy, Geographical Expansion, Capital Investment Decisions, Regulatory Framework & Implications, New Product Development, Competitive Intelligence

Report Coverage:

Historical data from 2021 to 2025 & forecast data from 2026 to 2031

Growth Opportunities, Challenges, Supply Chain Outlook, Regulatory Framework, and Trend Analysis

Competitive Positioning, Strategies, and Market Share Analysis

Revenue Growth and Forecast Assessment of segments and regions including countries

Company Profiling (Strategies, Products, Financial Information, and Key Developments among others.

Sleep Monitoring Devices Market Segmentation:

By Product Type

Wearable

Watches And Wrist Bands

Rings

Earbuds

Others

Non-Wearable

Bed Sensors

Bed Side Devices

By Distribution Channel

Online

Offline

By Geography

North America

USA

Canada

Mexico

South America

Brazil

Argentina

Others

Europe

Germany

France

United Kingdom

Spain

Others

Middle East and Africa

Saudi Arabia

UAE

Others

Asia Pacific

China

India

Japan

South Korea

Indonesia

Thailand

Others

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