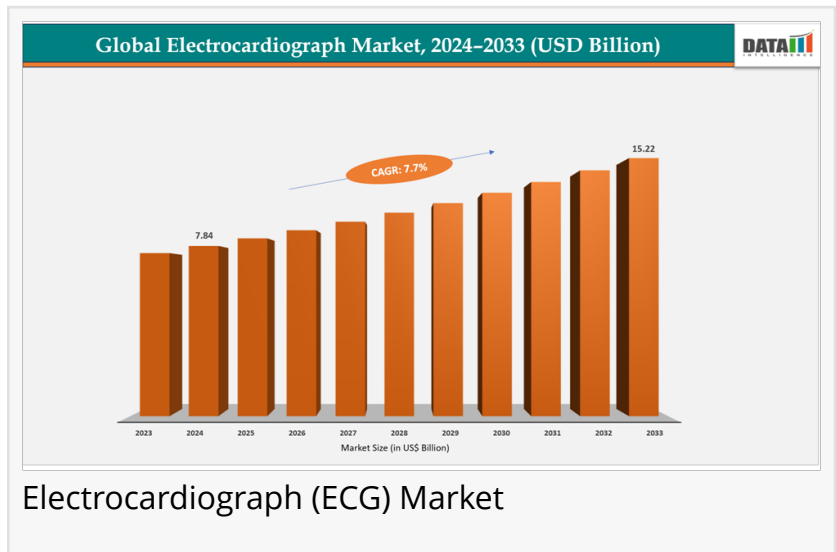


Electrocardiograph (ECG) Industry Set to Skyrocket US\$ 15.22B by 2033. What Top Companies Looking Growth Secrets

"Heart of the Market: Navigating the Electrocardiograph Boom"

AUSTIN, TX, UNITED STATES,
September 26, 2025 /
EINPresswire.com/ -- Market Size

According to the DataM Intelligence: The global [electrocardiograph market](#) surged from US\$ 7.29 Billion in 2024 to US\$ 7.84 Billion, and is projected to reach US\$ 15.22 Billion by 2033, expanding at a robust CAGR of 7.7% between 2025 and 2033.



Analyst Concludes: The performance of EchoNext highlights a pivotal shift in cardiovascular diagnostics, where AI is proving capable of not only supporting but surpassing physician accuracy in detecting hidden heart disease. By enabling earlier identification of high-risk patients, this technology could reduce reliance on expensive imaging, optimize resource allocation, and accelerate adoption of AI-enabled ECGs in both advanced and resource-limited healthcare systems. However, large-scale validation, regulatory approvals, and integration into clinical workflows remain critical before widespread deployment.

“
USA Electrocardiograph Market reached US\$7.29B in 2024, rising to US\$7.84B, expected US\$15.22B by 2033 at 7.7% CAGR (2025-2033).”
DataM Intelligence 4Market Research LLP

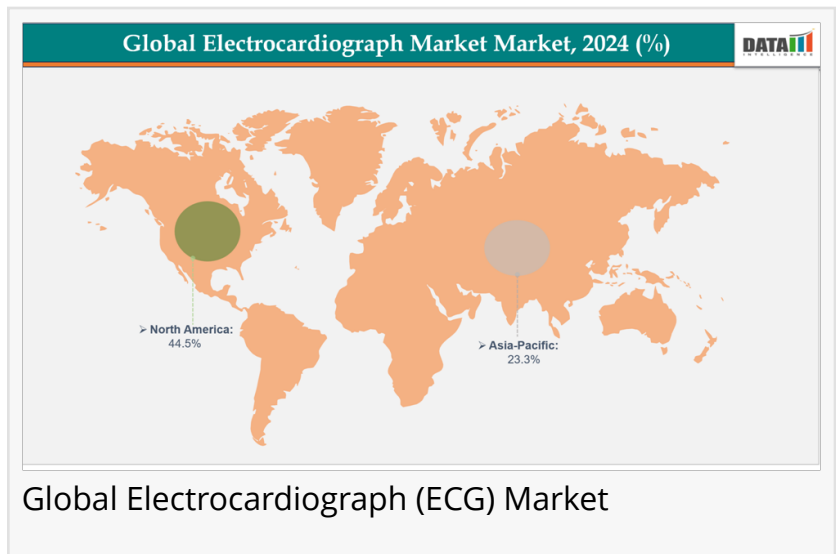
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Key Highlights

- North America leads the electrocardiograph market, holding the largest revenue share of 44.5% in 2024.

- The Asia Pacific region is the fastest-growing market, projected to expand at a CAGR of 7.1% over the forecast period.

- By type, the resting ECG segment dominated the market with a 42.3% share in 2024.



- Leading companies in the electrocardiograph market include GE HealthCare, Koninklijke Philips N.V., NIHON KOHDEN CORPORATION, SCHILLER, Mindray Medical India Pvt. Ltd., EdanUSA, Baxter International Inc., iRhythm Inc., AliveCor, Inc., BPL Medical Technologies, and OMRON Healthcare, Inc., among others.

- A breakthrough AI ECG model, called EchoNext, has demonstrated the ability to detect silent structural heart disease (SHD) from a standard 12-lead ECG, significantly outperforming traditional physician review. In tests using over 1.2 million ECG-echocardiogram record pairs from more than 230,000 adults, EchoNext achieved an area under the receiver operating characteristic curve (AUROC) of 85.2% and area under the precision-recall curve (AUPRC) of 78.5%, showing strong diagnostic performance.

- In a comparative reader study involving 13 cardiologists and 150 de-identified ECGs, EchoNext correctly identified SHD in 77% of cases considerably higher than the cardiologists' 64% accuracy. When the doctors were shown the AI's risk score, their performance improved slightly to 69%, but still remained well below the AI's own stand-alone accuracy. The results suggest that AI-augmented ECG screening could play a critical role in flagging high-risk individuals for echocardiography, thereby reducing diagnostic delays and directing scarce imaging resources towards those most likely to benefit.

Industry Drivers:

Rising cardiovascular disease prevalence is driving the electrocardiograph (ECG) market. ECGs provide non-invasive, cost-effective, and reliable detection for conditions like heart failure, coronary artery disease, and arrhythmias, supporting early diagnosis and continuous monitoring. Aging populations, preventive healthcare initiatives, wearable devices, and AI-enabled ECGs further boost adoption. In 2022, CVDs caused 19.8 million deaths globally, accounting for 32% of all deaths, highlighting the urgent need for ECG diagnostics.

Restraints:

- High equipment costs limit ECG market growth, especially in emerging markets and smaller clinics. Advanced hospital-grade and AI-enabled ECG machines can cost USD 3,000–10,000, restricting access in rural and budget-limited facilities. This slows adoption of sophisticated diagnostic and remote monitoring tools despite rising cardiovascular disease prevalence.

Major Companies:

- Top companies in the electrocardiograph market include GE HealthCare., Koninklijke Philips N.V., NIHON KOHDEN CORPORATION., SCHILLER, Mindray Medical India Pvt. Ltd., EdanUSA, Baxter International Inc., iRhythm Inc., AliveCor, Inc., BPL Medical Technologies, OMRON Healthcare, Inc. and among others.

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Recent Developments:

- In July 2025, Cardiosense received FDA 510(k) clearance for its CardioTag device, which fused multiple sensing modalities to capture insights on cardiac mechanics, electrical activity, and blood flow. These unique data inputs were designed to support AI algorithms in assessing cardiac pressures and volume status, advancing cardiac function monitoring.
- In November 2024, the Frontier X Plus received FDA 510(k) clearance as a medical device that provided continuous, single-channel ECG monitoring through a comfortable chest-worn design. It was developed for healthcare professionals, patients with cardiac concerns, and health-focused individuals, enabling 24/7 remote ECG monitoring.

Regional Analysis

North America: North America dominates the global ECG market with a 44.5% share in 2024, driven by high cardiovascular disease prevalence, advanced healthcare infrastructure, and strong adoption of AI-enabled ECG technologies. In July 2024, Tempus received FDA 510(k) clearance for Tempus ECG-AF, the first AI-based AFib algorithm approved for clinical use in the U.S.

Europe: Europe holds the second-largest share at 34.5% in 2024, led by Germany, the UK, and France. Growth is fueled by advanced healthcare systems, aging populations, and adoption of digital and wearable ECG devices. In May 2024, Cardiomatics partnered with BIOTRONIK in Germany to expand AI-powered ECG analysis with netECG Patch Holter Monitors.

Asia Pacific: The fastest-growing region with a CAGR of 7.1% in 2024, driven by rising cardiovascular disease cases, expanding healthcare infrastructure, and preventive care

awareness. Japan leads with AI-powered devices. In November 2024, iRhythm Technologies received Japanese approval for the Zio ECG Monitoring System, a 14-day AI-enabled long-term monitoring patch.

Market Segments

Resting ECG leads the market with 42.3% share in 2024.

12-lead ECG holds 35.3% share of market in 2024.

By Type: (Resting, Stress, Holter Monitors, Cardiac Event Monitors, Others)

By Lead Type: (Single-lead, 3–6 lead, 12-lead, Others)

By End User: (Hospitals, Clinics & Outpatient Cardiac Centers, Ambulatory care, home care)

By Regions Covered: (North America, Europe, Asia-Pacific, South America and the Middle East & Africa)

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