

Circular Electronics Component Recovery Market Forecasts to 2034 – Global Analysis By Recovered Component (Printed Circuit Boards, Integrated Circuits, Central Processing Units, Memory Components, Connectors, Capacitors and Resistors, Displays and Display Components and Other Electronic Components), Recovery Material, Recovery Process, Electronic Waste Source, Recovery Model, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Circular Electronics Component Recovery Market is accounted for \$14.0 billion in 2026 and is expected to reach \$30.0 billion by 2034 growing at a CAGR of 9.9% during the forecast period. Circular electronics component recovery refers to the specialized processes and technologies designed to extract and reclaim valuable materials from end-of-life electronic devices. They function by utilizing mechanical, chemical, and thermal methods to separate precious metals, rare earth elements, and reusable components from electronic waste. These systems encompass dismantling, sorting, and refining technologies that enable the sustainable recovery of critical resources. Their application ensures the reduction of environmental impact and conservation of natural resources, supporting the global transition to a circular economy.

Market Dynamics:

Driver:

Rising Demand for Critical Raw Materials

The escalating global demand for critical raw materials compels manufacturers to adopt circular electronics component recovery platforms offering sustainable resource alternatives. Growing scarcity of precious metals and rare earth elements is accelerating the integration of these recovery processes into supply chain frameworks. This transition is supported by advancements in refining technology, which enhance material purity. Consequently, electronics firms are investing in specialized recovery technologies to achieve compliance with sustainability benchmarks while optimizing material procurement costs.

Restraint:

Complex Recycling and Separation Processes

The substantial difficulties associated with separating diverse electronic components represent a significant barrier to widespread commercial adoption. Developing highly efficient recovery processes often requires complex dismantling techniques and sophisticated sorting systems, which escalate overall operational costs. Furthermore, the variability in electronic waste composition limits the operational reliability of standardized recovery pipelines. These factors collectively constrain market expansion, particularly for smaller enterprises with limited processing infrastructure budgets.

Opportunity:

Expansion in Urban Mining Initiatives

The urban mining sector presents substantial growth opportunities for circular electronics component recovery providers due to increasing demand for secondary raw material sources. Advanced recovery platforms offer a highly effective pathway to extract valuable metals from discarded devices without relying on traditional mining, utilizing automated sorting techniques as primary inputs. As global investments in circular economy initiatives expand, the adoption of advanced urban mining solutions is expected to surge significantly.

Threat:

Competition from Virgin Material Extraction

The continuous reliance on traditional virgin material extraction poses a considerable threat to the circular electronics component recovery market. Conventional mining operations and established refining methods often exhibit superior cost-effectiveness

under current commodity prices and can be more economically viable for large-scale production. Additionally, the rapid advancement of mining technologies is enhancing the efficiency of conventional material extraction methods. This competitive pressure may hinder market penetration.

Covid-19 Impact:

The pandemic initially disrupted electronics supply chains and delayed recycling operations due to facility closures. However, the subsequent need for sustainable resource management accelerated the adoption of advanced component recovery platforms for electronic waste processing. Post-pandemic, the heightened focus on resource security and environmental protection has reinforced long-term investments in circular recovery technologies, driving robust market recovery and expansion across diverse electronics sectors globally.

The printed circuit boards segment is expected to be the largest during the forecast period

The printed circuit boards segment is expected to account for the largest market share during the forecast period, due to its foundational role and widespread applicability across diverse electronic waste environments. Printed circuit boards offer exceptional material recovery potential and operate effectively in containing high concentrations of precious metals, which significantly reduces resource depletion and minimizes environmental contamination in daily recovery processes. As industries increasingly prioritize efficient and cost-effective material recovery methods, the demand for specialized PCB recycling continues to surge, thereby solidifying its dominant market position.

The other critical and precious materials segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the other critical and precious materials segment is predicted to witness the highest growth rate, driven by rapid advancements in chemical refining and separation engineering. These technologies enable the precise extraction of rare elements to produce highly specialized and robust material outputs tailored for specific electronics applications. The ability to enhance recovery yield, operational scalability, and material purity through advanced refining integration significantly improves process

economics, accelerating commercial adoption globally.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, due to the presence of well-established electronics industries and advanced recycling infrastructure that heavily utilize circular electronics component recovery. The region benefits from substantial research and development investments, robust intellectual property protection, and supportive government initiatives promoting technological innovation in sustainability. Furthermore, the early adoption of advanced recovery platforms by key industry players in the United States and Canada reinforces the region's dominant position globally.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, due to rapid electronics manufacturing modernization and expanding waste management sectors in emerging economies. Countries such as China, India, and Japan are increasingly investing in recycling infrastructure and component recovery technologies to meet growing domestic resource demands and stringent environmental regulations. Additionally, favorable government policies, rising foreign direct investment, and the availability of cost-effective technological resources are collectively driving the accelerated adoption of circular electronics recovery across the region.

Key players in the market

Some of the key players in Circular Electronics Component Recovery Market include Umicore SA, Sims Limited, Aurubis AG, Boliden AB, DOWA Holdings Co., Ltd., Mitsubishi Materials Corporation, JX Advanced Metals Corporation, Glencore plc, Befesa S.A., 5N Plus Inc., Materion Corporation, RecycLiCo Battery Materials Inc., Enviri Corporation, Gravita India Limited, Jain Resource Recycling Limited, Attero Recycling Private Limited, Veolia Environnement S.A., and SUEZ S.A.

Key Developments:

In September 2026, Umicore SA launched a next-generation precious metal recovery platform optimized for high-purity extraction, achieving a thirty percent improvement in yield while significantly reducing environmental impact requirements for global electronics manufacturers.

In August 2026, Sims Limited expanded its component recovery capacity through a strategic partnership with a leading recycling firm, enabling the scalable deployment of novel sorting modules for electronic waste processing.

In July 2026, Aurubis AG secured a major supply agreement to provide customized refined metals for a prominent semiconductor company, facilitating the efficient integration of advanced recovery tools into next-generation sustainable manufacturing ecosystems globally.

Recovered Components Covered:

Printed Circuit Boards

Integrated Circuits

Central Processing Units

Memory Components

Connectors

Capacitors and Resistors

Displays and Display Components

Other Electronic Components

Recovery Materials Covered:

Gold

Silver

Palladium

Copper

Aluminum

Tin

Nickel

Other Critical and Precious Materials

Recovery Processes Covered:

Mechanical Separation

Dismantling and Sorting

Pyrometallurgical Recovery

Hydrometallurgical Recovery

Biometallurgical Recovery

Chemical Leaching

Electrochemical Recovery

Refining and Purification

Electronic Waste Sources Covered:

Consumer Electronics

Information Technology Equipment

Telecommunication Equipment

Industrial Electronics

Automotive Electronics

Medical Electronics

Consumer Appliances

Other Electronic Equipment

Recovery Models Covered:

Component Reuse

Component Refurbishment

Component Remanufacturing

Material Recovery

Precious Metal Recovery

Critical Material Recovery

Closed-Loop Recovery

Open-Loop Recovery

End Users Covered:

Electronics Manufacturers

Semiconductor Manufacturers

Automotive Manufacturers

Telecommunication Companies

Consumer Electronics Companies

Recycling and Refining Companies

Electronic Equipment Refurbishers

Other End Users

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

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