

Circelec

Recyclable and compostable electronics for the circular economy

In a nutshell

We develop simple eco-friendly printed circuit boards (PCBs) and RFID tags using entirely biodegradable materials to simplify recycling and participate in the circular economy.

Why is our technology important?

In 2023, over 62 million tons of electronic waste were generated, but less than 20% underwent recycling. Furthermore, the utilization of simple connected Internet-of-Things (IoT) devices is projected to double by 2030. Our technological capabilities empower us to address the escalating sustainability concerns in the electronics industry by introducing innovative eco-friendly solutions.

At Circelec, we specialize in fabricating highly conductive circuit boards that prioritize environmental responsibility. These boards cater to a diverse array of growing markets, including RFID, smart packaging, and consumer electronics.

Our approach involves employing biodegradable materials for substrates, conductive traces, and encapsulation, all while upholding performance stability and ensuring prolonged shelf life. By harnessing printed technology, we minimize material wastage and seamlessly integrate with standard industrial production lines.

The benefits of our solution

- Eco-friendly to simplify recycling and allow compostability
- Additive manufacturing to minimize fabrication waste
- Scalable, industrializable and cost-effective

Keywords

Printed electronics, Biodegradable materials, RFID, Printed Circuit Boards, IoT, Sustainable

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