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Product Carbon Footprint Analysis

Smart Home Device nuuxnwlfnx

14.687 kgCO₂e

Report Generated: May 18, 2026 | Company: urinlpvexv

Total Footprint

14.687 kgCO₂e

Carbon Intensity

14.687 kgCO₂e/unit

Top Material Hotspot

Circuit Board (PCB)

Highlights & Key Insights

- The **Use Phase** is the overwhelming largest contributor, accounting for approximately 85% of the total product carbon footprint due to operational energy consumption.
- **Material Acquisition** is the second-largest hotspot (14.6%), with the Circuit Board (PCB) and Plastic Casing (ABS) being the primary material-related impacts.
- The product demonstrates a **net negative End-of-Life impact** due to high recyclability (60%) and circular economy programs, leading to significant avoided emissions from virgin material production.

Action Plan: How to Reduce Emissions

- **Optimize Use Phase Efficiency:** Prioritize R&D to drastically reduce the device's operational energy consumption over its 5-year lifespan.
- **Enhance Material Circularity & Low-Carbon Sourcing:** Focus on sourcing recycled materials (e.g., recycled ABS) and working with suppliers to reduce the footprint of key components like PCBs and Lithium Batteries.
- **Strengthen Renewable Energy Integration:** Continue and expand the adoption of renewable energy in manufacturing, aiming for 100% to eliminate Scope 2 emissions.