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Product Carbon Footprint: xtukruvkvk

48.70 kg
CO2e (Total)

48.70

Total Footprint (kg CO2e)

48.70

Carbon Intensity (kg CO2e/unit)

Circuit Board (PCB)

Top Material Hotspot

Use Phase (Scope 3)

Primary Emission Scope

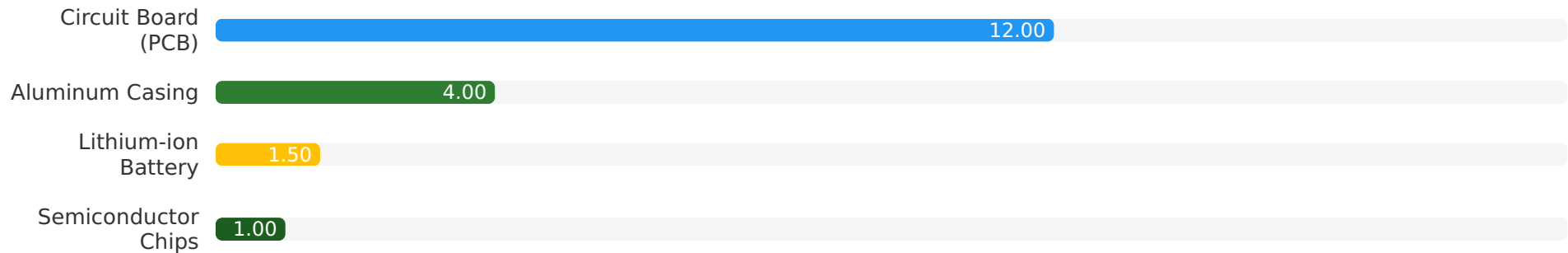
48.70 kgCO2e

Lifecycle Stage Breakdown

- Material Acquisition: 39.7% (19.35 kg CO2e)
- Manufacturing: 9.2% (4.50 kg CO2e)
- Transportation: 0.8% (0.40 kg CO2e)
- Use Phase: 51.3% (25.00 kg CO2e)
- End-of-Life: -1.1% (-0.55 kg CO2e Net Saving)

**Net Total:
48.70 kgCO2e**

Top Material Carbon Impact (kg CO2e)



Highlights & Emission Hotspots

- The **Use Phase** is the largest contributor, accounting for approximately **51.3%** (25.00 kg CO2e) of the total carbon footprint, primarily due to energy consumption over the product's lifespan.

Action Plan: How to Reduce Carbon Footprint

- • **Enhance Energy Efficiency in Use:** Prioritize product design modifications to significantly reduce energy consumption during the product's 5-year lifespan. This includes exploring low-power components and smart energy management features.
- • **Optimize Material Sourcing & Design:** Increase the incorporation of recycled content, particularly for materials such as aluminum and plastics. Collaborate with suppliers demonstrating strong commitments to low-carbon manufacturing processes for key components like PCBs and batteries.
- • **Transition to 100% Renewable Energy in Manufacturing:** Implement further strategies to fully transition factory operations to 100% renewable energy sources, thereby eliminating remaining Scope 2 emissions.
- • **Refine End-of-Life Strategies:** Continuously strengthen and expand take-back and refurbishment programs. Investigate and integrate innovative recycling technologies to maximize material recovery and minimize residual disposal impact.