

Product Carbon Footprint Analysis

79.165

Product: **iktottnmg**i | Company: uptehwsffd
Standard: GHG Protocol | Consultant: osxphxdewo

kgCO₂e per unit (Net PCF)

TOTAL FOOTPRINT

79.17 kgCO₂e

CARBON INTENSITY

79.17 kgCO₂e/unit

TOP MATERIAL HOTSPOT

Aluminum Casing

PRIMARY EMISSION SCOPE

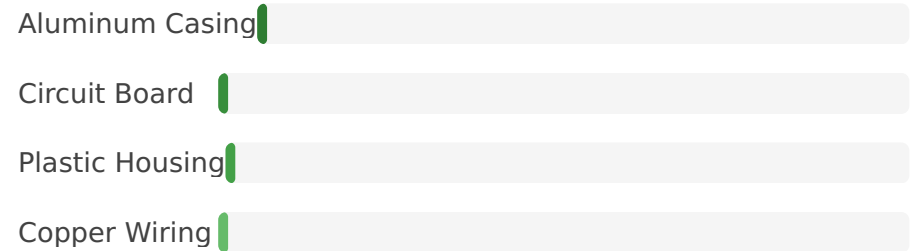
Scope 3 (Use Phase)

Lifecycle Stage Breakdown (Gross Emissions)



End-of-Life Credit: -1.10 kgCO₂e (-1.39% of Net PCF)

Material Carbon Impact Breakdown



Key Insights & Hotspots

- The **Use Phase (Scope 3, Category 11)** is the dominant emission hotspot, accounting for approximately 88.4% of the product's net carbon footprint, primarily due to energy consumption over its 5-year lifespan.
- **Upstream Materials (Scope 3, Category 1)**, especially Aluminum Casing and Circuit Board, represent the second largest impact, contributing about 9.3% to the net PCF.
- Despite 60% renewable energy use, **Production Energy (Scope 2)** still contributes a notable 3.5% to the net PCF, indicating room for further renewable energy integration.

Recommendations for Emission Reduction

- **Optimize Use Phase Efficiency:** Invest in R&D for more energy-efficient components, power-saving modes, and enhanced product durability to extend lifespan.
- **Material Decarbonization:** Explore lower-carbon alternative materials and increased recycled content for high-impact components like aluminum and circuit boards.
- **Enhance Circularity:** Maximize material recovery through the existing product take-back scheme and investigate product-as-a-service or repairability models.