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Product Carbon Footprint Dashboard

Detailed analysis for: **ouhqiodsnu**

13.62 kgCO₂e per 1.0 unit

Company: oiojllwxow | Standard: GHG Protocol

Consultant: xpxexsllr | Production Country: China

TOTAL PRODUCT FOOTPRINT

13.62 kgCO₂e

CARBON INTENSITY

13.62 kgCO₂e/unit

TOP MATERIAL HOTSPOT

Aluminum Casing

(3.75 kgCO₂e)

PRIMARY EMISSION SCOPE

Scope 3

(Materials, Use Phase)

Lifecycle Stage Breakdown (Positive Emissions)

Raw Materials (Scope 3)	8.79 kgCO2e (54.8%)
Manufacturing Energy (Scope 2)	3.75 kgCO2e (23.4%)
Use Phase (Scope 3)	2.63 kgCO2e (16.4%)
Downstream Transport (Scope 3)	0.47 kgCO2e (2.9%)
Upstream Transport (Scope 3)	0.40 kgCO2e (2.5%)
End-of-Life (Credit)	-2.42 kgCO2e
Net Credit: -2.42 kgCO2e	

Material Carbon Impact

Aluminum Casing	3.75 kgCO2e (42.7%)
Printed Circuit Board (PCB)	2.00 kgCO2e (22.8%)
Lithium-ion Battery	1.80 kgCO2e (20.5%)
Plastic Enclosure	0.96 kgCO2e (10.9%)
Cardboard Packaging	0.20 kgCO2e (2.3%)
Copper Wiring	0.08 kgCO2e (0.9%)

Highlights & Key Insights

Raw Material Acquisition (Scope 3) is the largest positive contributor, accounting for ~54.8% of emissions, with Aluminum Casing and PCBs as major hotspots.

Manufacturing Energy (Scope 2) is a significant emission source at ~23.4% of positive emissions, highlighting the need for further energy decarbonization.

The product's high recyclability and circular programs at End-of-Life result in a substantial carbon credit (-2.42 kgCO₂e), actively reducing the overall PCF.

Recommended Actions for Reduction

Material Decarbonization: Engage suppliers for lower-carbon alternatives and increased recycled content, especially for aluminum and PCBs.

Manufacturing Efficiency: Invest in energy-efficient processes and expand procurement of certified green electricity beyond current 60%.

Product Design for Efficiency: Innovate product design to minimize energy consumption during the 7-year use phase.

Expand Circularity: Further invest in and expand take-back programs and explore innovative circular business models.

Data Granularity: Prioritize collecting primary activity data from critical suppliers to enhance future PCF accuracy and Scope 3 compliance.

