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xkvghndpux Carbon Footprint

Report by oygfodioyz | Standard: GHG Protocol | Consultant: xxlnnrkwvf

15.304
kg CO2e / unit

Total Product Footprint

15.304 kg CO2e

Per 1.0 unit of xkvghndpux

Primary Emission Scope

Scope 3

Dominant contribution from Use Phase

Top Material Hotspot

Electronic Components

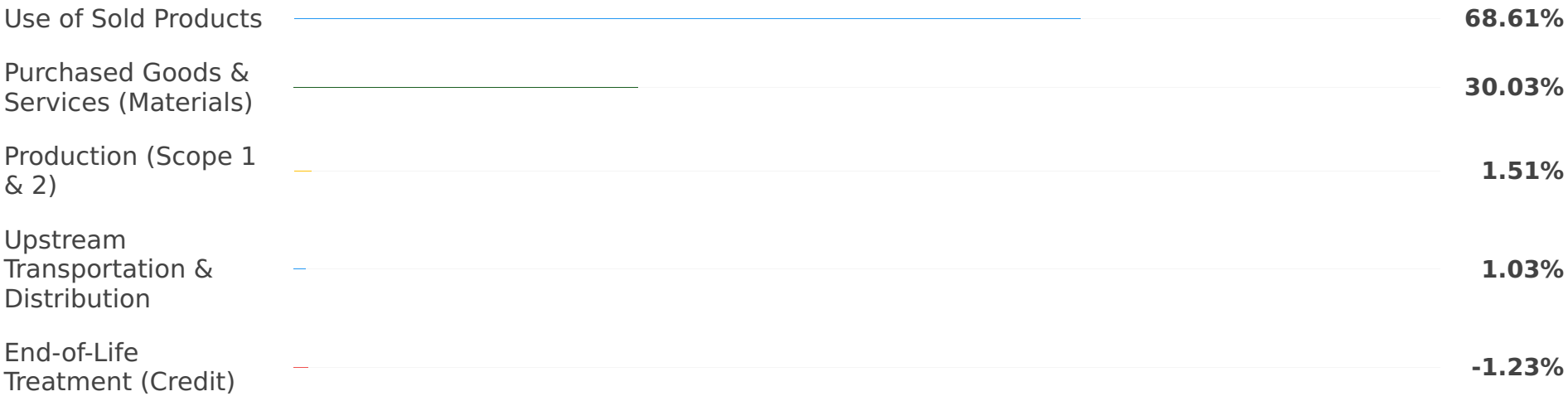
2.000 kg CO2e for 0.10 kg

Production Country

China

System Boundary: factory_gate

Lifecycle Stage Breakdown



Use Phase — Materials — Production — Logistics — EoL Credit

Material Carbon Impact

Electronic Components	**2.000 kg CO2e**
Circuit Board (PCB)	**1.200 kg CO2e**
ABS Plastic Casing	**0.625 kg CO2e**
Aluminum Heat Sink	**0.420 kg CO2e**
Copper Wiring	**0.200 kg CO2e**
Packaging (Cardboard)	**0.150 kg CO2e**

Total Material Footprint: 4.595 kg CO2e

Key Insights & Hotspots

The **Use Phase** dominates the PCF, accounting for 68.61% of total emissions.

Purchased Goods & Services (Materials) contribute significantly at 30.03%, highlighting material sourcing as a key impact area.

Circular Economy initiatives, particularly a 75% recyclability rate, result in a net emissions credit at End-of-Life (-1.23%).

Action Plan: How to Reduce Impact

Prioritize **energy-efficient design** for the product to reduce use-phase consumption.

Investigate and adopt **lower-carbon materials** and increase recycled content for electronics and plastics.

Further **strengthen and expand circular economy programs** to maximize end-of-life benefits.

Optimize **global logistics** by exploring lower-emission transport modes and consolidating shipments.

Increase the share of **renewable energy** in production beyond the current 60% to reduce Scope 2 emissions.