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# Product Carbon Footprint Dashboard for "jsruzmmmef"

Total Lifecycle Emissions: **53.18 kg CO2e** per unit

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# Key Metrics Overview

Total Footprint

## 53.18 kg CO2e

for 1.0 unit of jsruzmmmef

Carbon Intensity

## 53.18 kg CO2e/unit

Relative emissions per functional unit.

Top Material Hotspot

## Printed Circuit Board

15.00 kg CO2e (80% of material impact)

Primary Emission Scope

## Use Phase (Scope 3, Cat 11)

40.00 kg CO2e (75.2% of gross emissions)

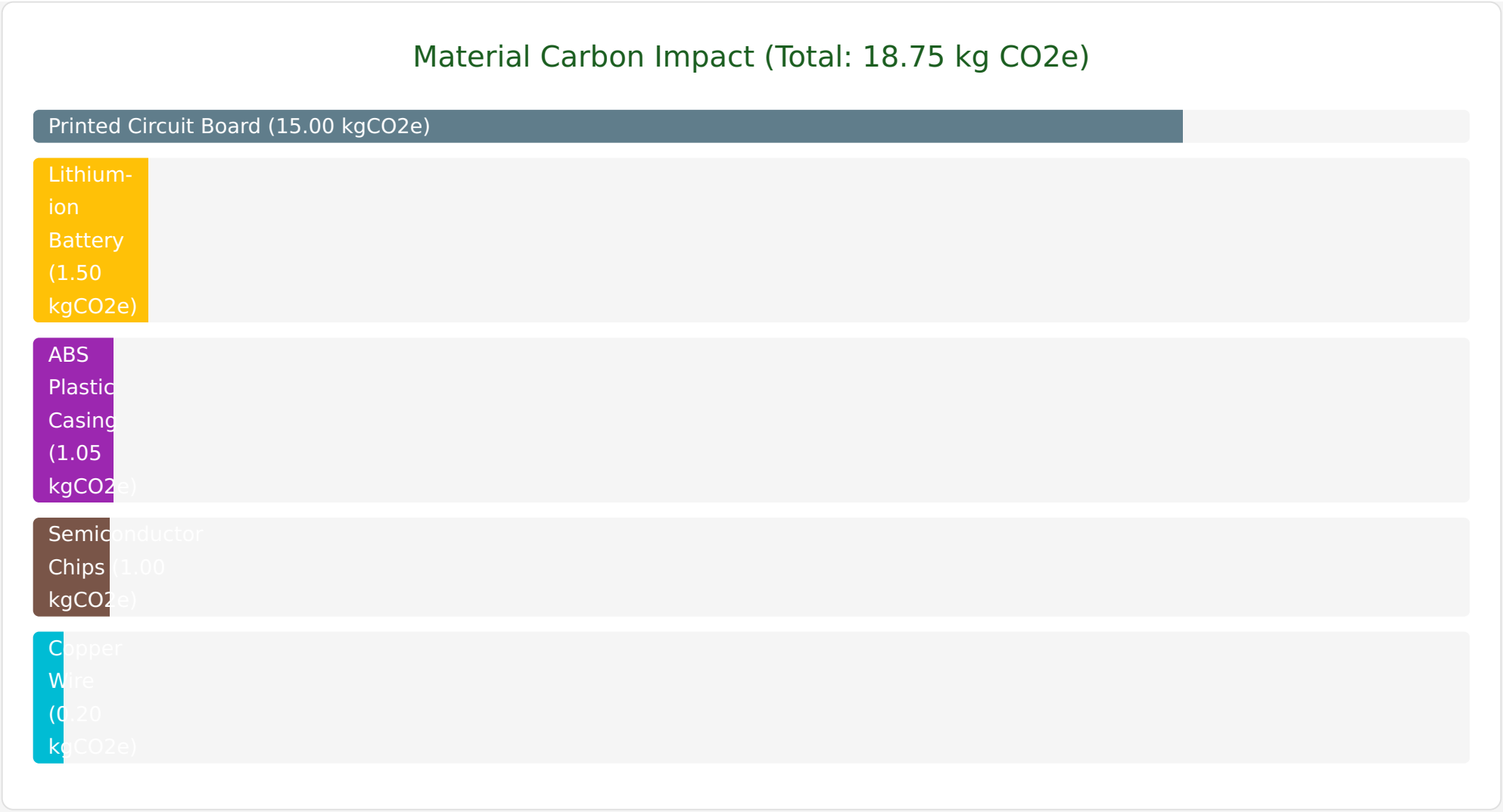
# Emissions Breakdown

## Lifecycle Stage Contributions


Note: End-of-Life provides a credit of -7.39 kg CO2e due to active recycling and take-back programs.

Materials (Scope 3, Cat 1) Production (Scope 2) Logistics (Scope 3, Cat 4 & 9) Use Phase (Scope 3, Cat 11)

EoL Credit (Scope 3, Cat 12)


Material Carbon Impact (Total: 18.75 kg CO2e)
Printed Circuit Board (15.00 kgCO2e)
Lithium-ion Battery (1.50 kgCO2e)
ABS Plastic Casing (1.05 kgCO2e)
Semiconductor Chips (1.00 kgCO2e)
Copper Wire (0.20 kgCO2e)

## Highlights & Hotspot Analysis

The **Use Phase** accounts for the largest share of emissions (40.00 kg CO2e), representing 75.2% of the gross product carbon footprint. This is due to the product's annual energy consumption over its 5-year lifespan.

**Purchased Goods and Services** (materials and components) are the second largest contributor, with 18.75 kg CO2e, making up 35.2% of gross emissions. The Printed Circuit Board is a significant factor here.

**End-of-Life Treatment** demonstrates a net positive impact, resulting in a credit of -7.39 kg CO2e, attributed to the 80% recyclability and active take-back programs with material recovery.

## Recommendations for Emission Reduction

**Optimize Use Phase Efficiency:** Prioritize R&D to drastically lower the product's energy consumption during its operational lifespan.

**Source Low-Carbon Materials:** Actively engage with suppliers to acquire verified primary emission data and choose materials with lower embedded carbon footprints.

**Enhance Renewable Energy Adoption:** Further increase the renewable energy share at production facilities in China beyond the current 75% to reduce Scope 2 emissions.

**Strengthen Circular Economy Initiatives:** Expand existing take-back and refurbishment programs to maximize material recovery and extend product lifespans.

**Logistics Optimization:** Investigate and implement more carbon-efficient transportation modes and optimize routes, particularly for the upstream supply chain.