

Product Carbon Footprint for okhemzeqyn

Total PCF (1 unit)

60.47 kg CO₂e

Key Metrics

Total Footprint

60.47 kg

Per functional unit

Carbon Intensity

52.58 kg/kg

kg CO2e per kg of product (1.15 kg)

Top Material Hotspot

Circuit Board

1.50 kg CO2e (26.1% of material emissions)

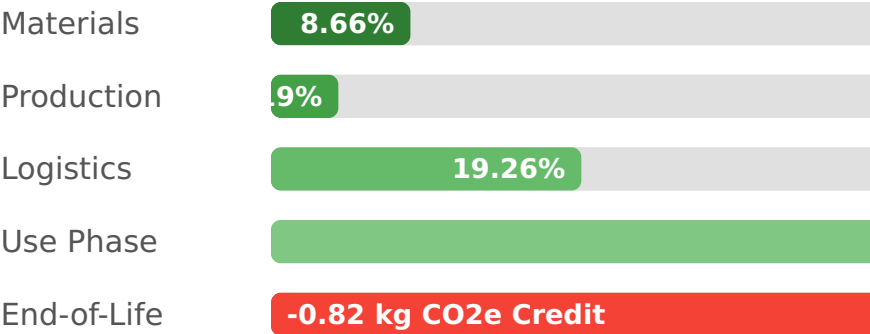
Primary Emission Scope

Scope 3

Use Phase (Category 11)

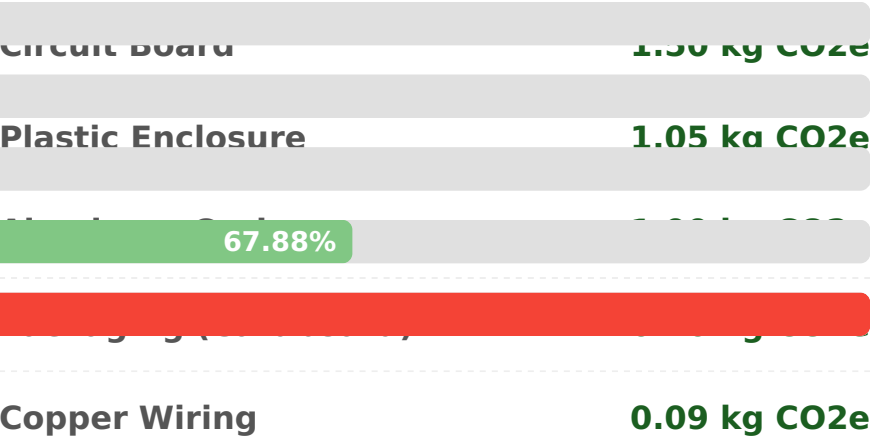
Detailed Analysis

Lifecycle Stage Breakdown



*Percentages above represent positive contributions to the total footprint. End-of-Life provides a net carbon credit.

Material Carbon Impact



Insights & Recommendations

Emission Hotspots

- The **Use Phase** (45.00 kg CO2e) is the most significant contributor to the product's footprint, driven by energy consumption over its lifespan.
- **Downstream Transportation** (Last Mile) (12.50 kg CO2e) presents a considerable impact due to the intensity of delivery methods.
- **Material Acquisition & Processing** (5.74 kg CO2e), particularly for the Circuit Board and Plastic Enclosure, highlights opportunities in upstream supply chain decarbonization.

Strategic Action Plan

- **Energy Efficiency:** Implement product design changes to drastically reduce energy consumption during the use phase.
- **Sustainable Sourcing:** Prioritize lower-carbon materials and increase the use of recycled content for components like Aluminum and Plastic.
- **Green Logistics:** Optimize last-mile delivery networks by exploring electric vehicles, consolidating shipments, and establishing local distribution hubs.
- **Renewable Energy:** Accelerate the transition to 100% renewable energy sources for all manufacturing operations in China to eliminate Scope 2 emissions.