

html

carboncalcpcf.com

Product Carbon Footprint Dashboard

Product: lzlpkrdftw | Company: hwuxgwvszp

Total PCF for 1 Unit

18.23 kgCO₂e

Total Footprint

18.23 kgCO₂e

Carbon Intensity

18.23 kgCO₂e/unit

Top Material Hotspot

Silicon Chipset

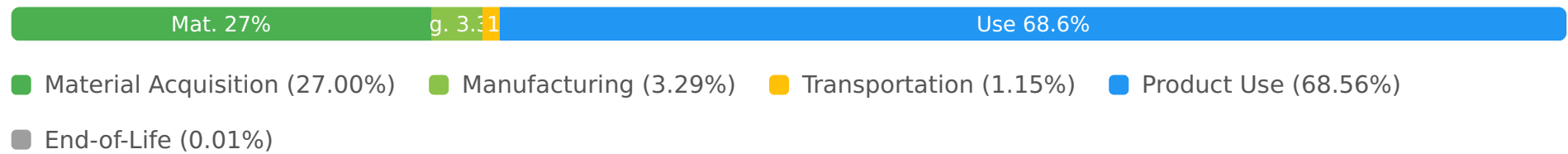
2.00 kgCO₂e

Primary Emission Scope

Product Use

68.56%

Lifecycle Stage Breakdown



Top Material Carbon Impact

Silicon Chipset	2.00 kgCO ₂ e
PCB	1.20 kgCO ₂ e
ABS Plastic Casing	0.70 kgCO ₂ e
Aluminum Heat Sink	0.49 kgCO ₂ e
Li-ion Battery	0.32 kgCO ₂ e

Key Carbon Hotspots

- **Product Use Dominance:** The operational lifetime of Izlpkrdfw accounts for 68.56% of its total carbon footprint, making it the most critical area for reduction.

- **High-Impact Materials:** Material acquisition, particularly for components like silicon chipsets and PCBs, contributes 27.00% of emissions.
- **Manufacturing Efficiency:** While 60% renewable energy is used, the remaining 3.29% from manufacturing electricity indicates room for further decarbonization.

Recommendations for Reduction

1. **Optimize Use Phase:** Invest in R&D for more energy-efficient designs and promote smart energy management features to consumers.
2. **Material Innovation:** Explore lower-carbon alternatives and increase recycled content in high-impact components, engaging suppliers for embodied emission reductions.
3. **Increase Renewable Energy Adoption:** Strive for 100% renewable energy in manufacturing operations through on-site generation or power purchase agreements.
4. **Logistics Optimization:** Continuously refine transport routes, modes (prioritize sea/rail over air), and load factors to minimize upstream and downstream emissions.
5. **Enhance Circularity:** Strengthen take-back programs to maximize material recovery, reuse, and high-quality recycling, generating significant avoided emissions.