

carboncalcpcf.com

# Product Carbon Footprint for tztipvpmpq

**Total Carbon Footprint: 17.24 kg CO<sub>2</sub>e per unit**

Report Generated: June 3, 2026

## Key Metrics

Total PCF (1 unit)

**17.24 kg CO<sub>2</sub>e**

System Boundary

**Factory-gate (Cradle-to-grave)**

Top Material Hotspot

**Internal Circuit Board**

Primary Emission Scope

**Scope 3**

**Detailed Breakdown**

## Highlights from the Report

- The **\*\*Use Phase\*\*** is the largest contributor to the product's carbon footprint (8.40 kg CO<sub>2</sub>e), emphasizing the need for enhanced energy efficiency during product operation.
- **\*\*Material Acquisition\*\*** (7.72 kg CO<sub>2</sub>e) is the second most significant hotspot, driven by components like the internal circuit board and lithium-ion battery.
- The robust **\*\*End-of-Life (EoL) program\*\*** generates a net carbon credit (-0.94 kg CO<sub>2</sub>e), demonstrating the positive impact of circular economy initiatives.

## Actionable Strategies

## Recommendations for PCF Reduction

- **Enhance Product Energy Efficiency:** Focus on design improvements to significantly reduce energy consumption during the longest-contributing use phase.
- **Sustainable Material Sourcing:** Explore and prioritize lower-carbon materials or suppliers for high-impact components like circuit boards and batteries.
- **Increase Renewable Energy Procurement:** Further raise the percentage of renewable electricity used in production facilities beyond the current 60%.
- **Strengthen Circular Economy Practices:** Continue and expand take-back and refurbishment programs, and implement design-for-disassembly principles to improve recycling rates.