

Product Carbon Footprint Dashboard

Product: tfqjmsijwy by zfuzxtkuwf | carboncalcpcf.com

TOTAL	46.67 kg
PCF:	CO2e

Total Footprint

46.67

kg CO2e / unit

Carbon Intensity

33.34

kg CO2e / kg product

Top Material Hotspot

Circuit Board

10.0 kg CO2e

Primary Emission Scope

Scope 3

38.32 kg CO2e (82.11%)

Key Highlights

- **Dominant Emissions:** Materials Acquisition (40.0%) and Use Phase (41.9%) are the primary drivers of the product's carbon footprint.
- **Top Hotspot Component:** The 'Circuit Board' is identified as the single highest impact material component, contributing 10.0 kg CO₂e.
- **Value Chain Focus:** A significant 82.11% of emissions fall under Scope 3, emphasizing the need for supply chain engagement and downstream interventions.

Recommendations for Reduction

- **Source Sustainable Materials:** Prioritize low-carbon alternatives and work with suppliers for less impactful circuit boards and aluminum.
- **Enhance Production Efficiency:** Increase renewable energy procurement and optimize manufacturing processes in China to further reduce Scope 2 emissions.
- **Optimize Product Lifespan & Use:** Design for extended durability, repairability, and explore solutions for reduced energy consumption during the product's 5-year use phase.
- **Boost Circularity:** Strengthen existing take-back programs and increase the recyclability percentage beyond the current 80% for all components.