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# Product Carbon Footprint Dashboard

Report for **pfmuetunzm** by lvjpgvxxio

Standard: GHG Protocol, Consultant: rofzxzierw

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

Total Carbon Footprint

**16.62 kg**

**per 1.0 unit**

Carbon Intensity

**16.62 kgCO<sub>2</sub>e**

**per unit**

Top Material Hotspot

**Aluminum Casing**

**3.75 kgCO<sub>2</sub>e**

Primary Emission Scope

**Scope 3**

**14.47 kgCO<sub>2</sub>e**

## Lifecycle Stage Breakdown

Materials (Scope 3, Cat 1)	7.25 kgCO2e (42.6%)
Production (Scope 2)	2.15 kgCO2e (12.6%)
Logistics (Scope 3, Cat 4)	0.10 kgCO2e (0.6%)
Use Phase (Scope 3, Cat 11)	7.50 kgCO2e (44.1%)
End-of-Life (Scope 3, Cat 12)	-0.38 kgCO2e (Net Credit)

\*Percentages calculated based on gross emissions (excluding End-of-Life credit for proportional breakdown).

## Material Carbon Impact

Aluminum Casing	3.75 kgCO2e (51.7%)
Circuit Board	2.50 kgCO2e (34.5%)
Plastic Housing	0.60 kgCO2e (8.3%)
Copper Wire	0.40 kgCO2e (5.5%)

## Highlights & Emission Hotspots

- The **Use Phase** accounts for the largest share of emissions, primarily due to product energy consumption, contributing 7.50 kgCO<sub>2</sub>e.
- **Material Acquisition & Pre-processing** represents the second most significant hotspot at 7.25 kgCO<sub>2</sub>e, with Aluminum Casing being the single largest material contributor.
- The **Production Phase** contributes 2.15 kgCO<sub>2</sub>e, indicating a need to further decarbonize manufacturing operations, despite current renewable energy usage.

## Recommendations for Impact Reduction

- ✓ **Product Redesign for Energy Efficiency:** Prioritize initiatives to reduce energy consumption during the product's operational life.
- ✓ **Sustainable Material Sourcing:** Explore alternative materials with lower embodied carbon, higher recycled content, or bio-based origins.
- ✓ **Increase Renewable Energy Share:** Accelerate the transition to 100% renewable energy for manufacturing facilities in China.
- ✓ **Optimize Logistics:** Implement strategies to consolidate shipments and utilize lower-emission transport modes where feasible.
- ✓ **Strengthen Circular Economy Programs:** Enhance take-back schemes and ensure high recycling rates to maximize end-of-life credits and reduce waste.

