

carboncalcpcf.com

# Product Carbon Footprint Dashboard

**Product:** pkntnvuvuy | **Standard:** GHG Protocol | **Boundary:** Cradle-to-Grave

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

Total Carbon Footprint per unit

**Total Footprint**

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

**Carbon Intensity**

**32.08** kgCO<sub>2</sub>e/unit

**Top Material Hotspot**

**Electronic Comp.**

(2.00 kgCO<sub>2</sub>e)

**Primary Emission Scope**

**Scope 3**

(29.08 kgCO<sub>2</sub>e)

## Lifecycle Stage Breakdown

Materials

5.41 kgCO<sub>2</sub>e

Manufacturing

3.00 kgCO<sub>2</sub>e

Transport

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Use Phase

25.00 kgCO<sub>2</sub>e

End-of-Life

1.79 kgCO<sub>2</sub>e

## Material Composition Carbon Impact (Upstream)

Electronic Comp.

2.00 kgCO<sub>2</sub>e

Plastic Casing

1.75 kgCO<sub>2</sub>e

Aluminum Frame

1.60 kgCO<sub>2</sub>e

Packaging Card.

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## Highlights & Key Hotspots

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- **Use Phase Dominance:** The product's operational life accounts for the largest portion of emissions (25.00 kgCO<sub>2</sub>e), primarily due to energy consumption.
- **Material Impact:** Material acquisition contributes significantly (5.41 kgCO<sub>2</sub>e), with electronic components being the top material hotspot.
- **Manufacturing Emissions:** Despite 50% renewable energy use, manufacturing still adds 3.00 kgCO<sub>2</sub>e due to grid electricity reliance in China.

## Action Plan: How to Reduce Emissions

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1. **Optimize Use Phase Energy:** Redesign for lower power components and encourage energy-efficient user behavior to drastically cut emissions.
2. **Increase Renewable Energy:** Target 100% renewable energy sourcing for manufacturing operations in China to eliminate Scope 2 emissions.
3. **Sustainable Material Sourcing:** Prioritize lower-carbon or recycled content for electronic components, plastics, and aluminum.
4. **Enhance Circularity:** Maximize product take-back and recycling rates to increase avoided emissions beyond current targets.
5. **Supply Chain Decarbonization:** Engage suppliers for primary data and support their transition to lower-carbon practices.