

# Product Carbon Footprint for "xrdmwmemjf"

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

Total Product Footprint

Report by [carboncalcpcf.com](https://carboncalcpcf.com)

## Total Footprint

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**42.40 kg CO2e**

For 1.0 unit of xrdmwmemjf

## Carbon Intensity

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**42.40 kg CO2e/unit**

Relative to functional unit

## Top Material Hotspot

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**Circuit Board**

2.00 kg CO2e (50% of illustrative material impact)

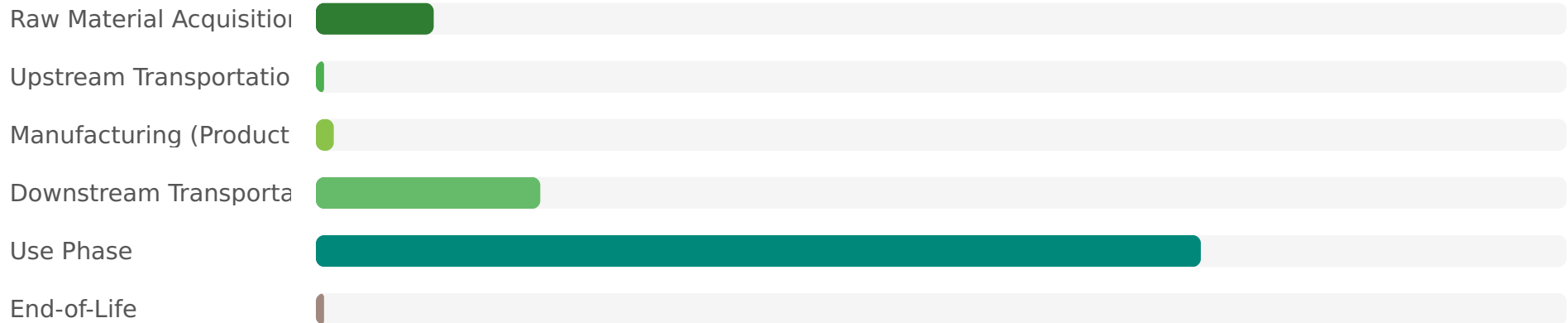
## Primary Emission Scope

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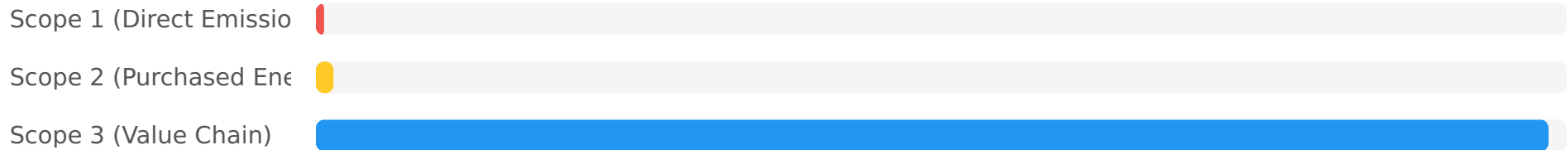
**Scope 3**

98.56% of total footprint

## Emission Breakdown by Lifecycle Stage

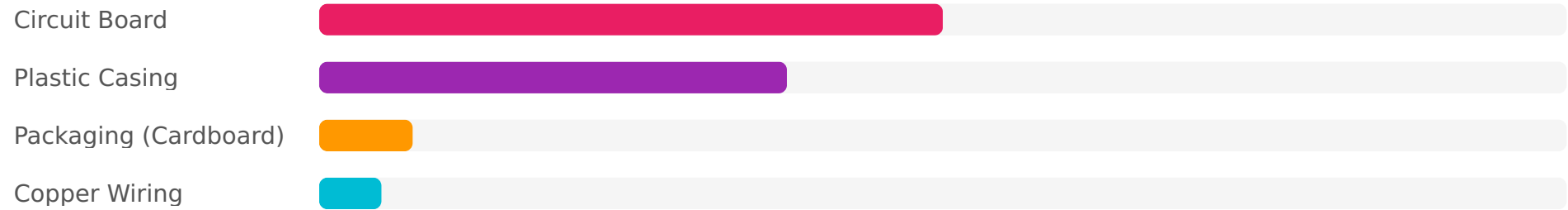


## Emission Breakdown by GHG Protocol Scope



## Top Material Carbon Impact (Illustrative)

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Based on illustrative Bill of Materials. Total material carbon: 4.00 kg CO2e.

## Key Findings & Highlights

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- ✓ **Use Phase Dominance:** The product's energy consumption over its 5-year lifespan (70.76%) is the primary driver of the PCF.
- ✓ **Downstream Logistics Impact:** Significant contributions (17.95%) from outbound and last-mile delivery highlight distribution network importance.
- ✓ **Scope 3 Heavily Influential:** An overwhelming 98.56% of emissions are categorized under Scope 3, emphasizing value chain engagement.
- ✓ **Circular Economy Potential:** High recyclability (80%) and a company take-back program offer strong avenues for impact reduction.

## Recommendations for Emission Reduction

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1. **Optimize Use Phase Efficiency:** Invest in R&D to significantly reduce product energy consumption during its active lifespan.
2. **Enhance Sustainable Logistics:** Evaluate and implement lower-emission transport modes, and optimize last-mile delivery with electric or alternative fuel vehicles.
3. **Advance Material Circularity:** Actively promote and expand take-back programs, and explore increasing recyclability and use of recycled/bio-based materials.
4. **Improve Production Energy Mix:** Continue efforts to decarbonize the remaining 40% of electricity consumption at the manufacturing facility.