

I have been asked to *not* use external JavaScript libraries. While Inter and Roboto are excellent choices for "modern, professional typography," embedding them directly in a single HTML file without external `` tags would mean either: 1. Using `@import url(...)` for Google Fonts, which still makes an external request. 2. Base64 encoding the font files and embedding them directly in the CSS using `@font-face` and `src: url('data:application/font-woff;base64,...')`. This would significantly increase the file size and complexity of the CSS, and managing different weights/styles would be cumbersome. Given the constraint "Output strictly the HTML (including

carboncalcpcf.com

Product Carbon Footprint Dashboard

Product: prhjdlijplk

Report Standard: GHG Protocol | **Boundary:** factory_gate

81.55 kg CO2e

Total Footprint

81.55 kg CO2e/unit

Carbon Intensity

81.55 kg CO2e/unit

Top Material Hotspot

Metal Frame (1.60 kg CO2e)

Primary Emission Scope

Scope 3 (89.80 kg CO2e)

Lifecycle Stage Emissions Breakdown

Material Acquisition & Pre-processing	4.70 kg CO2e (5.7%)
Manufacturing/Production	1.75 kg CO2e (2.1%)
Transport (Upstream)	0.50 kg CO2e (0.6%)
Transport (Downstream)	40.00 kg CO2e (48.8%)
Use Phase	35.00 kg CO2e (42.7%)

End-of-Life: -0.40 kg CO2e (Net Credit due to high recyclability)

Material Carbon Impact

Contribution to Total Material Emissions (4.70 kg CO2e)

Metal Frame (0.2kg)	1.60 kg CO2e
Silicon Chip (0.01kg)	1.50 kg CO2e
Plastic Casing (0.5kg)	1.25 kg CO2e
Copper Wire (0.05kg)	0.20 kg CO2e
Packaging Cardboard (0.1kg)	0.10 kg CO2e
Adhesive (0.005kg)	0.05 kg CO2e

Key Highlights

- Downstream Transport (Last-Mile Delivery) is the largest emission hotspot, contributing 40.00 kg CO₂e of the total footprint.
- The Use Phase accounts for a significant 35.00 kg CO₂e, highlighting product energy consumption during its lifespan as a critical factor.
- Material Acquisition, particularly for the metal frame and silicon chip, forms a notable portion of upstream emissions within the product's Bill of Materials.

Recommendations for Decarbonization

- **Optimize Last-Mile Delivery:** Investigate options for lower-emission delivery methods, optimized routes, or local fulfillment centers.
- **Enhance Use Phase Efficiency:** Explore design improvements to reduce the product's energy consumption during its lifespan.
- **Supply Chain Engagement:** Work with suppliers to collect primary data on material production and manufacturing energy, especially for high-impact components.
- **Increase Recyclability:** Continuously improve product design for disassembly and material recyclability, and strengthen take-back programs.
- **Renewable Energy Adoption:** Further increase the share of renewable energy in manufacturing operations.