

Product Carbon Footprint

Report Date: 04/24/2026




Product name

ThinkPad X1 Carbon Gen 14 IPL

Machine Type/PN

21V7,21V8

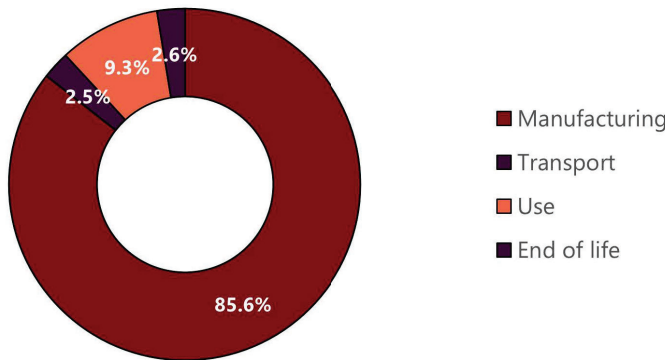
117 Total Carbon Footprint
kg CO₂ eq.

This estimate uses the following operating environment assumptions:

Manufacturing Location	Product Weight (kg)	Transport			
		Air (km)	Sea (km)	Truck (km)	Rail (km)
China	0.99	2185	16354	392	0

Use Location	Lifetime (years)	Use Electricity (kWh/yr)	Electricity Grid Mix			
			Grid (%)	Wind (%)	Solar (%)	Hydro (%)
EU	4	8.65	100%	0	0	0

Below is a breakout of the carbon emissions of the major components.



Manufacturing PCF Breakdown (kg CO ₂ e)	
Storage	5.7
Mainboard	34.4
Display (incl. camera)	22.5
Chassis	3.9
Battery	3.1
Power supply unit	5.2
Other	4.5
Packaging	1.1
Dongles	0.0
Memory	17.8
Assembly	1.9
Manufacturing Total	100.0

Total Carbon Footprint – USA use location (kg CO₂e)

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Lenovo is committed to environmental sustainability. As part of this commitment, we conduct Product Carbon Footprint (PCF) analyses in accordance with ISO 14067 standard. The PCF provides a reasonable estimate of greenhouse gas (GHG) emissions generated across the product's entire lifecycle, including: Manufacturing (from raw material extraction to production and packaging), Transport (from the manufacturing site to the location of use,) Use (typical energy consumption over the product's operational life) and End-of-life (disposal, recycling, or reuse). While these estimates offer valuable insight, they inherently involve a degree of uncertainty. This uncertainty arises primarily from data availability, modeling assumptions, and the use of varying characterization factors that convert environmental emissions into impact metrics. As a result, PCF values should not be used to compare products across manufacturers or even between different Lenovo products.

These analyses enable customers to estimate the carbon footprint of their products by calculating the greenhouse gas emissions generated throughout the product's life cycle. The results are expressed as Global Warming Potential over a 100-year time horizon (GWP-100), measured in units of carbon dioxide equivalents (CO₂e).

Lenovo uses Makersite© to calculate the PCF. The Lenovo Makersite LCA platform v.10 has been reviewed by Anthesis Group and Anthesis Group confirm the methodology follows ISO 14040-44 and 14067 and the PCFs for each product stemming from this version adhere to the ISO 14067 standard. A copy of the Anthesis review statement and comments is available on request. For more information, please visit: <https://www.lenovo.com/us/en/about/sustainability/>

This product was assessed using **Lenovo Makersite v1.0** and **Ecolnvent 3.11**