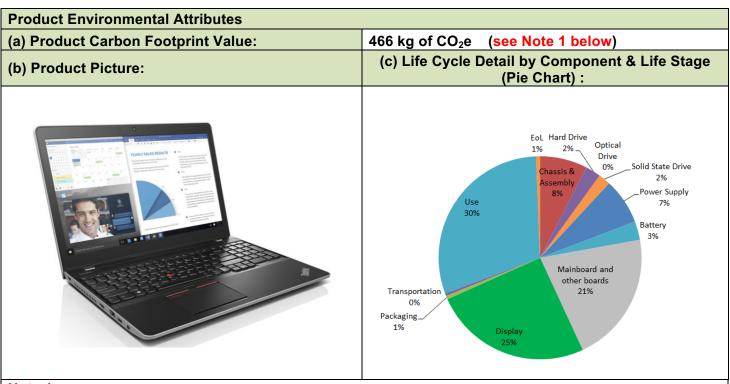
Lenovo Product Carbon Footprint (PCF) Information Sheet PC/Notebook/Monitor/Tablet

| Commercial Name | ThinkPad E560p,ThinkPad S5 | |
|-----------------|----------------------------|---------|
| Model Number | 20G5,20G4 | Lenovo. |
| Issue Date | 2016-04-18 | |



Note 1:

All estimates of carbon footprint are uncertain. Lenovo reports the 95^{th} percentile of the carbon footprint estimate to reflect that uncertainty. For this product, that estimate has a mean of 379 kg of CO_2e and standard deviation of 53 kg of CO_2e . Other organizations might report this value as 379 +/- 53 kg of CO_2e .

This PCF was generated using the Product Attribute to Impact Algorithm model, Version 12, Date: October,2015 (Product Type: Notebook), © Massachusetts Institute of Technology's Materials Systems Laboratory, August 2012. Please refer to the Intended Uses and Limitations of the PAIA Model, © Massachusetts Institute of Technology's Materials Systems Laboratory, August 2012 for further details. Link to Document

This calculation was based upon a Lenovo ThinkPad E560p, ThinkPad S5 with the assumptions and configuration described in the calculation assumptions in the next page.

This pie chart provides the percent contribution of the mean value for each element of the analysis for the full life cycle CO_2 e impacts of the product. Individual elements displaying 0% are less than 0.5%.

| Assumption Table | | | | | | | | |
|---|---|----------|-------|------|---------------|--|--|--|
| Category | Element | Unit | Input | Mean | cov | | | |
| | Product Weight | kg | Input | 2.36 | Primary Data | | | |
| Product | Form Factor | no unit | | | | | | |
| Specifics | Screen Size | inches | 15.6 | | | | | |
| | Product Lifetime | years | | | | | | |
| Location | Assembly Location | no unit | CN | | | | | |
| | Use Location | no unit | US | | | | | |
| Transportation from Assembly to Customer | To country of use: by air | fraction | Input | 0.5 | Medium COV | | | |
| | To country of use: by ship | fraction | Input | 0.5 | Medium | | | |
| | To country of use: by rail | fraction | | | | | | |
| | To country of use: by truck | fraction | | | | | | |
| | In country of use: by air | fraction | | | | | | |
| Odotomor | In country of use: by ship | fraction | | | | | | |
| | In country of use: by rail | fraction | | | | | | |
| | In country of use: by truck | fraction | Input | 1 | Medium | | | |
| | Fraction Recycled (remainder to landfill) | fraction | 0.981 | | | | | |
| End of Life | Fraction Shredded Recycling (remainder to manual) | fraction | 0.019 | | | | | |

The PCF value is calculated using the specific attributes above for assembly, use and transportation mode. If you need any other country specific information, please contact environment@lenovo.com.

Notes:

Life cycle phases included in the streamlined Product Attribute to Impact Algorithm (PAIA) Life Cycle Analysis (LCA) can be grouped into four categories which include Manufacture, Transport, Use, and End of Life. Below is a brief description of each phase.

<u>Manufacture:</u> This life cycle phase captures emissions generated during the extraction, production, and transport of raw materials, the manufacture of components and subassemblies (including the product packaging) and product assembly.

<u>Transport:</u> Emissions included in the transport phase include all those generated during the air, ocean or land transport of finished or semi-finished Lenovo products between Lenovo facilities and from Lenovo facilities to customers.

<u>Use:</u> In use energy consumption is calculated in accordance with the U.S. Environmental Protection Agency's Energy Star® Typical Energy Consumption (TEC) methodology. Calculated energy consumption is then used in combination with average emissions factors for the designated country of use to calculate emissions.

End of Life: It is assumed that a designated portion of the product (see table above) is recycled at the end of the use period determined in the TEC methodology. It is also assumed that the balance of the product waste materials is disposed of by landfill. Emissions generated during the mechanical destruction, separation and transport of end of life materials are included in the calculation.

Products scope of this sheet includes desktop computer, integrated desktop computer, notebook computer, monitor and tablet. This document is only valid in connection with "THE ECO DECLARATION" of the specific product.