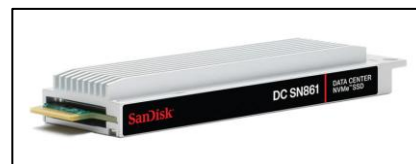


Life Cycle Assessment: Sandisk Ultrastar DC SN861 (Carrera) Solid State Drive (SSD)

Product Description:

Model	OTS2500
Product Type	Enterprise SSD
Product Weight	99.97gm
Packaging Weight	68.44gm
Storage Capacity	7.68 Terabyte ¹
Technology	BiCS6
Application	Datacenters



LCA Calculation Basis:

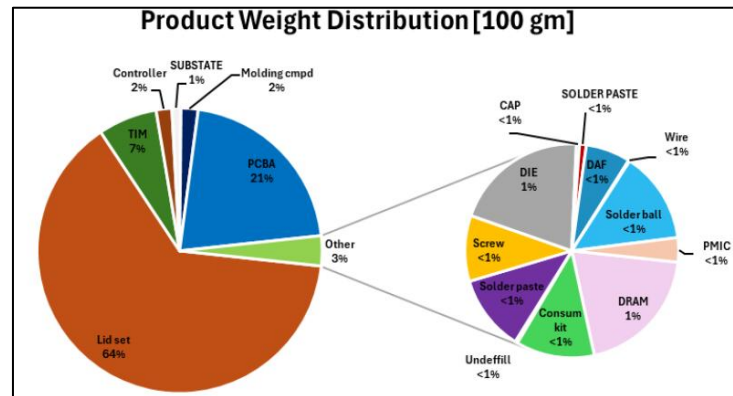
Standard	ISO 14040:2006 and 14044:2006
LCA Software	LCA for Experts (previously Gabi ts) [Version 10.9]
Impact Assessment Method	Life cycle impact assessment classification and characterization factors according to the Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report for Global Warming Potential (GWP), with 100 years of time horizon for kg CO ₂ equivalent (carbon footprint)
Database	LCA for Experts 2025 LCI and ecoinvent 3.11
System Boundary	The system boundaries include: • Manufacturing (extraction of raw materials, upstream material preparation, electronic component manufacturing, subassembly manufacturing and final assembly of product) • Distribution to customer located in USA • Five years of product use • End-of-life treatment according to waste management statistics in the customer country
Validation of Study	Validated through 3rd party critical review (EarthShift Global)

i One terabyte (TB) is equal to one trillion bytes. Actual user capacity may be less due to operating environment.

ii *Absolute climate change impact values & contribution details for each phase will be available upon request

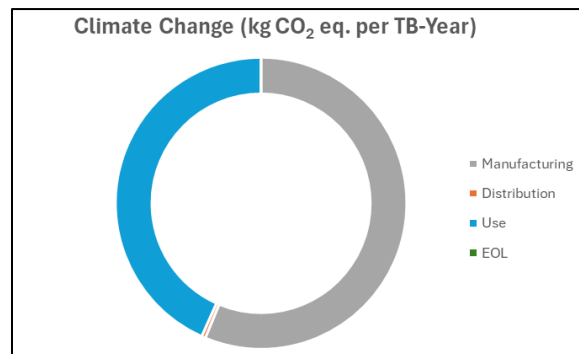
Components Used:

The pie chart shows weight contribution of various components of the SN861 SSD. The lid set contributes 64% of weight of SSD, followed by the PCBA assembly [21%], thermal material [7%], and memory assembly [4%]. The remaining [4%] of the weight is attributed to other components used in the SSD such as consumable kit, DRAM, screw, controller assembly and PMIC.



Breakdown of Carbon Footprint by Life Cycle Stagesⁱⁱ:

The Manufacturing phase has the highest contribution [56%], driven by product assembly and sub-assembly processes. The Use phase has the second highest impacts [43%], which is mainly attributed to energy consumed by the product during usage. The Distribution phase & End-of-Life phase of the products constitutes <1% of the total impact.



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