

Product transport carbon footprint and goal

Summary of Calculation Result

Scope of Products	- Notebook computers (TOUGHBOOK series) and related accessories in North America - Coverage 100%		
Year	FY2025, from April 2025 to March 2026		
Methodology used	ISO14083:2023		
Identification of Transport Chain	- From Factory to Taiwan Airport (by truck transport) - From Taiwan Airport to U.S. Airport (by air freight) - From U.S. Airport to State Consolidation Points (by truck transport)		
WTW GHG Emissions		Absolute GHG emissions (ton-CO2eq)	Normalized GHG emissions (g-CO2eq/ton-km)
	Total	4740	614
	Air	4689	612
	Road	39	698
	Rail, Sea, and Inland Waterways	0	0
	Logistic hubs	13	-
Third party verification	Refer to the following pages		
GHG reduction goal	5% reduction by FY2030, compared with FY2024		

※For details on the calculation method, please refer to the next page.

Product transport carbon footprint and goal

Detailed Method for Calculating Transport GHG Emissions

1	Reference to ISO 14083	Reference to ISO 14083 : 2023
2	Data quality	• Transportation weight : Primary data provided by logistics service providers Gross weight recorded in the transportation data was used as the transportation weight • Transportation distance : Secondary data obtained using Google Maps and EcoTransIT World Factory to airport in Taiwan : Road route distance obtained from Google Maps Since EcoTransIT World does not allow the factory location to be specified as the starting point, Google Maps was used because it allows the factory and airport locations to be specified individually Airport in Taiwan to representative locations in each U.S. state : Transport mode-specific distances obtained from EcoTransIT World Model data from EcoTransIT World was used because its methodology is aligned with ISO 14083 and the GLEC Framework, enabling transport routes, including transport modes and transshipment points, to be set in a consistent manner Return transportation : Transport distances obtained using Google Maps and EcoTransIT World Representative return routes were divided into individual transport segments. For truck transport segments, road transport distances obtained from Google Maps or EcoTransIT World were used, and for air transport segments, air transport distances obtained from EcoTransIT World were used • Emission factors : WTW emission factors based on zoning, vehicle zoning, air transport zoning and HUB zoning as described in GLEC Framework v3.1
3	Transport activity distance	• Truck transport : SFD For transport from the factory to the airport in Taiwan, road route distances obtained from Google Maps were used. For truck segments within the U.S. transportation chain, road transport distances calculated by EcoTransIT World were used • Air transport : GCD Air transport distances calculated by EcoTransIT World were used
4	Calculation formula	• GHG emissions from transport segments GHG emissions [g-CO₂e] = Transportation weight [t] × Transport activity distance [km] × WTW emission factor [g-CO₂e/tkm] • GHG emissions from HUBs HUB emissions [g-CO₂e] = Handled weight [t] × HUB emission factor [g-CO₂e/t]
5	Specification of any deviation to standard processes	
	Cutoff and exceptions	• Transportation distances for each route were assumed to be constant, and exceptional transportation events such as detours caused by traffic conditions were not considered • Manufacturing and construction of vehicles, aircraft, roads, airport facilities, and related infrastructure were excluded from the scope • Offsets and credits were not deducted from the calculated emissions
	How to set representative cities	All shipment data from the Taiwan factory were aggregated by U.S. state, and the city with the largest transportation weight in each state was selected as the representative city. Furthermore, among the ZIP codes included in the representative city, the ZIP code location with the largest transportation weight was selected as the representative location
	Logistics hub setup scenarios	As actual data regarding the use of transportation HUBs were unavailable, the following assumptions were applied. • At every change of transport mode • One HUB was assumed as a default value within domestic truck transportation in the United States

※The calculation method has not changed from FY2024, but the description has been made more detailed to increase transparency.