



PRODUCT CARBON FOOTPRINT (PCF) STATEMENT OF VERIFICATION

Project number: 4791646554

Issue Date: March 31, 2025

UL has assessed the Carbon Footprint of Products (PCFs) for

SMART TECHNOLOGIES ULC

For the time period, January 1, 2024, to December 31, 2024, in accordance with ISO 14064 Part 3:2019. SMART TECHNOLOGIES ULC PCF Statement has been verified to meet the requirements of ISO 14067:2018, and there is **no evidence** that the PCF statement:

- Is not materially correct
- Is not a fair representation of PCF data and information.
- Is not prepared in accordance with the criteria

January 1, 2024, to December 31, 2024

GX SMART Board GX065

PCF Total Net GHG Emissions and Removals:

1040.3 kg of net CO₂e emissions/7.5-year lifespan
(138.7 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:

1036 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:

2.83 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:

0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:

1.89 kg of CO₂e emissions/7.5-year lifespan

GX SMART Board GX075

PCF Total Net GHG Emissions and Removals:

1310.6 kg of net CO₂e emissions/7.5-year lifespan
(174.7 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:

1305 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:

3.22 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:

0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

UL performs Product Carbon Footprint (PCF) Verification in accordance with ISO 14064 Part 3:2019. Greenhouse Gases: Specification with guidance for the verification and validation of greenhouse gas statements.

UL applies a risk-based approach to PCF Verification that incorporates an investigation of the inherent and control risks associated with PCF reporting.

UL's verification approach includes but is not limited to the collection and analysis of:

- Qualitative data through the engagement of management.
- Quantitative data through receipt of data files from information management systems.
- Quantitative data through the reference and knowledge of secondary life cycle inventory databases



Direct Land Use Change (dLUC) GHG emissions and removals:
1.90 kg of CO₂e emissions/7.5-year lifespan

GX SMART Board GX086

PCF Total Net GHG Emissions and Removals:
1621.4 kg of net CO₂e emissions/7.5-year lifespan
(216.2 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:
1615 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:
4.07 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:
0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:
2.38 kg of CO₂e emissions/7.5-year lifespan

GX Zero SMART Board GX Zero 065

PCF Total Net GHG Emissions and Removals:
1040.3 kg of net CO₂e emissions/7.5-year lifespan
(138.7 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:
1036 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:
2.83 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:
0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:
1.89 kg of CO₂e emissions/7.5-year lifespan

GX Zero SMART Board GX Zero 075

PCF Total Net GHG Emissions and Removals:
1310.6 kg of net CO₂e emissions/7.5-year lifespan
(174.7 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:
1305 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:
3.22 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:
0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:
1.90 kg of CO₂e emissions/7.5-year lifespan

GX Zero SMART Board GX Zero 086

PCF Total Net GHG Emissions and Removals:
1621.4 kg of net CO₂e emissions/7.5-year lifespan
(216.2 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:

1615 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:

4.07 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:

0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:

2.38 kg of CO₂e emissions/7.5-year lifespan

NX SMART Board NX065

PCF Total Net GHG Emissions and Removals:

958.0 kg of net CO₂e emissions/7.5-year lifespan
(127.7 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:

954 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:

2.72 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:

0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:

1.76 kg of CO₂e emissions/7.5-year lifespan

NX SMART Board NX075

PCF Total Net GHG Emissions and Removals:

1229.4 kg of net CO₂e emissions/7.5-year lifespan
(163.9 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:

1225 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:

3.10 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:

0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:

1.79 kg of CO₂e emissions/7.5-year lifespan

NX SMART Board NX086

PCF Total Net GHG Emissions and Removals:

1586.4 kg of net CO₂e emissions/7.5-year lifespan
(211.5 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:

1580 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:

3.96 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:

0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

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Direct Land Use Change (dLUC) GHG emissions and removals:
2.25 kg of CO₂e emissions/7.5-year lifespan

MX SMART Board MX055

PCF Total Net GHG Emissions and Removals:
952.2 kg of net CO₂e emissions/7.5-year lifespan
(127.0 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:
948 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:
2.27 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:
0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:
1.46 kg of CO₂e emissions/7.5-year lifespan

MX SMART Board MX065

PCF Total Net GHG Emissions and Removals:
1150.5 kg of net CO₂e emissions/7.5-year lifespan
(153.4 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:
1146 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:
2.71 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:
0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:
1.74 kg of CO₂e emissions/7.5-year lifespan

MX SMART Board MX075

PCF Total Net GHG Emissions and Removals:
1392.1 kg of net CO₂e emissions/7.5-year lifespan
(185.6 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:
1387 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:
3.31 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:
0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:
2.00 kg of CO₂e emissions/7.5-year lifespan

MX SMART Board MX086

PCF Total Net GHG Emissions and Removals:
1681.5 kg of net CO₂e emissions/7.5-year lifespan
(224.2 kg of net CO₂e emissions/removals per year)

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Net Fossil GHG emissions and removals:

1675 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:

4.24 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:

0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:

2.52 kg of CO₂e emissions/7.5-year lifespan

M Series SMART Board M055

PCF Total Net GHG Emissions and Removals:

1008.1 kg of net CO₂e emissions/7.5-year lifespan
(134.4 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:

1005 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:

2.12 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:

0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:

1.31 kg of CO₂e emissions/7.5-year lifespan

M Series SMART Board M065

PCF Total Net GHG Emissions and Removals:

1232.1 kg of net CO₂e emissions/7.5-year lifespan
(164.3 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:

1228 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:

2.48 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:

0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:

1.51 kg of CO₂e emissions/7.5-year lifespan

M Series SMART Board M075

PCF Total Net GHG Emissions and Removals:

1484.3 kg of net CO₂e emissions/7.5-year lifespan
(197.9 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:

1480 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:

3.07 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:

0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:
1.76 kg of CO₂e emissions/7.5-year lifespan

M Series SMART Board M086

PCF Total Net GHG Emissions and Removals:
1853.5 kg of net CO₂e emissions/7.5-year lifespan
(247.1 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:
1848 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:
3.74 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:
0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:
2.03 kg of CO₂e emissions/7.5-year lifespan

Quattro Series SMART Board Quattro 55

PCF Total Net GHG Emissions and Removals:
1011.3 kg of net CO₂e emissions/7.5-year lifespan
(134.8 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:
1008 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:
2.13 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:
0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:
1.32 kg of CO₂e emissions/7.5-year lifespan

Quattro Series SMART Board Quattro 65

PCF Total Net GHG Emissions and Removals:
1235.4 kg of net CO₂e emissions/7.5-year lifespan
(163.7 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:
1231 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:
2.49 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:
0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:
1.52 kg of CO₂e emissions/7.5-year lifespan

Quattro Series SMART Board Quattro 75

PCF Total Net GHG Emissions and Removals:
1487.7 kg of net CO₂e emissions/7.5-year lifespan
(198.4 kg of net CO₂e emissions/removals per year)

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Net Fossil GHG emissions and removals:

1483 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:

3.07 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:

0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:

1.76 kg of CO₂e emissions/7.5-year lifespan

Quattro Series SMART Board Quattro 86

PCF Total Net GHG Emissions and Removals:

1856.9 kg of net CO₂e emissions/7.5-year lifespan
(247.6 kg of net CO₂e emissions/removals per year)

Net Fossil GHG emissions and removals:

1851 kg of net fossil CO₂e emissions/7.5-year lifespan

Net Biogenic GHG emissions and removals:

3.74 kg of net biogenic CO₂e emissions/7.5-year lifespan

Aircraft emissions:

0.0 kg of aircraft CO₂e emissions/7.5-year lifespan

Direct Land Use Change (dLUC) GHG emissions and removals:

2.04 kg of CO₂e emissions/7.5-year lifespan

Authorized by:



Thomas Gloria
Lead Verifier
UL Verification Services Inc.
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Marietta, GA 30067 USA

SMART Technologies ULC

Level of assurance: LIMITED

Project number: 4791646554

Report issue date: March 31, 2025

Introduction

SMART Technologies ULC. (hereafter referred to as “SMART”) contracted UL to verify their Product Carbon Footprint (PCF) Statement to ensure the carbon footprint of their GX and MX SMART Board products are complete and accurate for the purposes of external communication. SMART has provided a PCF statement to UL covering the period of **January 1, 2024, to December 31, 2024** in accordance with ISO 14067:2018.

Approach

UL performs PCF verification in accordance with the requirements of ISO 14067:2018 Greenhouse Gases — Carbon footprint of products – Requirements and guidelines for quantification and the procedures as presented by ISO 14064-3:2019 Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements.

UL applies a risk-based approach to PCF verification that incorporates a detailed understanding of risks associated with PCF reporting and the controls required to mitigate such risks. To mitigate such risks, our verification approach includes the analysis and review of the:

- Qualitative scope and data sources through the direct engagement with SMART management,
- Methodological approach through receipt of a project reports for the GX and MX products dated March 27, 2025, from SMART per ISO 14067:2018,
- Life cycle inventory of primary quantitative data representative of core processes through receipt of project reports and CFP calculator spreadsheets dated March 27, 2025, from SMART per ISO 14067:2018,
- Life cycle inventory of secondary and tertiary quantitative data contained in the ecoinvent v.3.10.1 database modeled in EXCEL and representative of SMART 's upstream value chain processes.
- Life cycle inventory data related to the geographical locations where the processes took place, e.g. electricity and transportation data from the KTC manufacturing facility in China.

Responsibilities

SMART Technologies ULC designated themselves as the responsible party for the preparation and fair presentation of their PCF Statement and other supporting information required for evaluation of the statement in accordance to the criteria laid out in ISO 14067:2018. UL is responsible for expressing an opinion of the PCF Statement based on findings from verification activities designed to assess whether the PCF statement was materially accurate given quantitative and qualitative thresholds. The data assessed is historical in nature and this report is only valid for the PCF Statement of this defined period.

Level of assurance

SMART Technologies ULC requested that UL provide a LIMITED level of assurance for their PCF statement.

Objectives

To verify to LIMITED assurance that SMART Technologies ULC's PCF statement is materially accurate for the purposes of internal reporting in terms of:

- The PCF emissions are as declared by the responsible party.
- The data reported are accurate, complete, consistent, transparent, and free of material error or omission.
- The PCF statement is prepared consistent with the criteria laid out in ISO 14067:2018.

Scope

Customer name	SMART TECHNOLOGIES ULC
Customer address	3636 Research Road NW, Calgary AB T2L 1Y1, Canada
Product System	GX Series SMART Board models GX065, GX076, GX086 GX Zero Series SMART Board models GX Zero 065, GX Zero 076, GX Zero 086 NX Series SMART Board models NX065, NX076, NX086 MX Series SMART Board models MX055, MX065, MX076, MX086 M Series SMART Board models M055, M065, M076, M086 Quattro Series SMART Board models Quattro 055, Quattro 065, Quattro 076, Quattro 086
Scope	Limited
Activity/Methodology	January 1, 2024, to December 31, 2024
GWP values applied	IPCC AR6 GWP 100 (IPCC 2021)
Intended use	External

Table 1 - Sources in Scope

Life Cycle Stage	Source	Activity
A1: Material and components supply	Material and component production.	Production activities.
A2: Transport to Mfg.	Material and component shipping to mfg. to KTC Huizhou City, Guangdong Province, P.R.China.	Transport by truck
A3: Manufacturing of the product	Energy and wastes generated during manufacturing in China.	Mfg. assembly and processing.
A4: Transport from Mfg. gate to site	Transport energy use.	End product shipping to logistics centers and then to customers in North America, Europe, and Asia-Pacific.
B3: Repair/B4: Reuse/ B5: Refurbishment.	Materials and components	Replacement of failed components.
B6: Operational Energy Use	Energy in the form of electricity	Operational energy required.
C2: Transport to EOL	Transport energy use.	Transport by truck
C4: Disposal	Recycling processing	Emissions from recycling equipment.

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Completeness

The PCF was verified to the following cut-off rules to ensure material completeness:

— All inputs and outputs to processes were included in the calculation for which data were available. Upstream data was provided by EXCEL spreadsheet LCA modeling software and ecoinvent v3.10.1 database. Life cycle inventory data related to the geographical locations where the processes took place were used, e.g. electricity and transportation data from China. Data gaps were filled by conservative assumptions with average, generic or proxy data. Any assumptions for such choices were documented.

— Particular care was taken to include material and energy flows that were known or suspected to release substances into the air, water or soil in quantities that contribute significantly. In cases of insufficient input data or data gaps for a unit process, the total of neglected input flows per module were a maximum of 2% of energy usage, mass and GWP environmental impact. When assumptions were used in combination with plausibility considerations and expert judgement to demonstrate compliance with these criteria, the assumptions were conservative.

Issuance of Opinion

In UL's opinion, based on the evaluation activities conducted in accordance to ISO 14067:2018 and ISO 14064 Part 3:2019, for Smart Technologies ULC's GX and MX SMART Board products, a LIMITED level of assurance has been determined that there is no evidence that the Product Carbon Footprint of statement:

- Is not materially correct;
- Is not a fair representation of PCF data and information;
- Is not prepared in accordance with PCF quantification, monitoring and reporting to the required criteria.

Activities performed to limited level of assurance are less extensive in nature, timing and extent than activities performed for reasonable level of assurance.

Place and date: 2211 Newmarket Parkway, Suite 106, Marietta, GA 30067, USA. 04/21/2023

Verifier Signature:



Tom Gloria, Lead Verifier

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Appendix A

Introduction

Appendix A describes how UL executed the verification of SMART Technologies ULC (hereafter referred to as “SMART”) GHG Statement issued for the period January 1, 2024 to December 31, 2024 in accordance with ISO 14067:2018 and the Product Category Rules (PCRs):

International EPD® System. (2024, December 9). *Electronic and electric equipment, and electronic components (non-construction), Product Category Rules*.

Execution summary

The scope of the verification activities were defined during the verification planning stage and were informed the strategic analysis and risk assessment based on submitted data and industry research. The verification activities involved, but were not limited to the items below:

- Background research
- Assessment of PCF management system and controls
- Review of PCF data and information
- Testing of data aggregation and calculation process

The verification was executed by the team shown below:

Lead verifier	Thomas Gloria is the Lead Verifier on the engagement. He has over 40 years of experience in carbon management and carbon accounting and is a qualified PCF Verifier.
Certification officer	Cooper McCollum is the Certification Officer on your engagement. He oversees a wide range of UL’s certification programs and is a qualified GHG Verifier. cooper.mccollum@ul.com

Background Research

The background to the SMART GX and MX SMART Board products involved research based on the PCF management system was based on the provided PCF project report and previously submitted LCA to support environmental product declarations for the same products:

- 2024 Carbon Footprints of GX SMART Boards, prepared by Delphi March 27, 2025
- 2024 Carbon Footprints of MX SMART Boards, prepared by Delphi March 27, 2025
- SMART_2024 GX CFP Calculator_20250327.xlsx
- SMART_2024 MX CFP Calculator_20250327.xlsx

PCF management system and controls

The PCF management system and controls were checked through the analysis and review of the supporting information presented in the PCF Reports, prepared for SMART by Delphi, and the PCF calculation environment through the use of Delphi’s proprietary EXCEL spreadsheet model.

PCF data and information

The PCF data and information were reviewed and checked through the submission of the PCF Reports, prepared for SMART by Delphi. In addition the EXCEL spreadsheet life cycle assessment software modelling environment and the tertiary life cycle inventory database, ecoinvent v3.10.1

<https://ecoinvent.org/>

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Data aggregation and calculation processes

The data aggregation and calculation processes were checked both independently assessing energy consumption data, referenced life cycle inventory data, and the characterization factors used to support the final GHG calculations.