

Greenhouse Gas Verification Statement

The inventory of Greenhouse Gas emissions in year 2022 of
Unimicron Technology Corporation

No.177, Shanying Rd., Guishan Township,
Taoyuan County 333, Taiwan (R.O.C.)



has been verified in accordance with ISO 14064-3:2006 as
meeting the requirements of

ISO 14064-1:2018

Direct emissions

23,444.3097 tonnes of CO₂e

Indirect emissions

734,822.5871 tonnes of CO₂e

Direct emissions and indirect emissions

758,266.897 tonnes of CO₂e

Authorized by

Stephen Pao

Knowledge Deputy General Manager

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Version 1

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SGS Taiwan Ltd.

No. 136-1, Wu Kung Road, New Taipei Industrial Park, Wu Ku District,

New Taipei City 24803, Taiwan

t (02) 22993279 f (02)22999453 www.sgs.com



Statement TW23/00110GG, continued

The emission of each category is described as below:

Unit: tonnes of CO₂e

Reporting Boundaries			GHG Emissions
Inventory categories	Description		
Direct emissions	This direct GHG emissions are the sum of owned or controlled by the organization within the organization.		23,444.3097
Indirect emissions	Imported energy	Input power	547,449.8427
	Transportation	waste transportation	783.8310
	Products used by an organization	input power Fuel auxiliary raw materials (chemicals)	186,588.9134
	Associated with the use of products from the organization	Unquantified	—
	Other sources	Unquantified	—
Direct emissions and indirect emissions			758,266.897

The emission of each site is described as below:

Unit: tonnes of CO₂e

Site	Direct emissions	Indirect emissions	Total GHG emissions
Shanying I Plant	2,983.5138	79,347.5879	82,331.102
Shanying II Plant	752.2014	40,736.0819	41,488.283
Jingtai 1st Plan	1,895.7359	47,896.9064	49,792.642
Jingtai 2nd Plan	2,864.1783	86,096.8457	88,961.024
Jingtai 3rd Plan	1,762.7601	87,967.8521	89,730.612
Luchu II Plant	1,039.5773	45,641.1135	46,680.691
Dayuan Plant	1,223.1168	39,979.1150	41,202.232
Hsinfeng I Plant	7,975.3044	181,236.6373	189,211.942
Yangmei Plant	2,635.5410	72,361.8714	74,997.412
Hejiang Plant	120.0602	30,016.0285	30,136.089
Hejiang II Plant	64.9594	16,308.9391	16,373.898
Shanying Wenhua Plant	127.3611	7,233.6084	7,360.970

SGS has been contracted by Unimicron Technology Corporation (hereinafter referred to as “UTC”), No.177, Shanying Rd., Guishan Township, Taoyuan County 333, Taiwan (R.O.C.) for the verification of direct and indirect Greenhouse Gas emissions in accordance with

ISO 14064-3:2006

as provided by Unimicron Technology Corporation (hereinafter referred to as “UTC”), No. No.177, Shanying Rd., Guishan Township, Taoyuan County 333, Taiwan (R.O.C.), in the GHG Assertion in the form of GHG report covering GHG emissions of the period 01 January 2022 to 31 December 2022.

Roles and responsibilities

The management of UTC is responsible for the organization’s GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of GHG emissions information and the reported GHG emissions.

It is SGS’s responsibility to express an independent GHG verification opinion on the GHG emissions as provided in the GHG Assertion for the period 01 January 2022 to 31 December 2022.

SGS conducted a third-party verification of the provided GHG assertion against the principles of ISO 14064-1:2018, ISO 14064-3:2006 in the period 02 March 2023 to 24 March 2023. The verification was based on the verification scope, objectives and criteria as agreed between UTC and SGS on 29 June 2022.

Level of Assurance

The level of assurance for category 1 and category 2 agreed is that of reasonable assurance. Category 3 till category 6 agreed is that of limited assurance.

Scope

UTC has commissioned an independent verification by SGS Taiwan of reported GHG emissions of UTC arising from manufacturing, processing, and sales of PCB, HDI, FPC, Rigid-flex boards, Carriers, IC burn-in and testing service activities, to establish conformance with ISO 14064:2018 principles within the scope of the verification as outlined below.

This engagement covers verification of emission from anthropogenic sources of greenhouse gases included within the organization’s boundary and is based on ISO 14064-3:2006.

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- Title or description activities: GHG verification for UTC in year 2022.
- Location/boundary of the activities:
 - Shanying I Plant (include dormitory)
 - No. 177, 179, Shanying Rd., Guishan Ind. Park, Taoyuan City 333, Taiwan (R.O.C.)
 - Shanying II Plant
 - No. 169, 169-2, Shanying Rd., Guishan Ind. Park, Taoyuan City 333, Taiwan (R.O.C.)
 - Jingtzei 1st Plan (include dormitory)
 - No. 175, 175-1, Shanying Rd., Guishan Ind. Park, Taoyuan City 333, Taiwan (R.O.C.)
 - Jingtzei 2nd Plan (include dormitory)
 - No. 173, 173-9 Shanying Rd., Guishan Ind. Park, Taoyuan City 333, Taiwan (R.O.C.)
 - Jingtzei 3rd Plan (include dormitory)
 - No. 171-1, 173-2, 173-2, 173-8, Shanying Rd., Guishan Ind. Park, Taoyuan City 333, Taiwan (R.O.C.)
 - Luchu II Plant
 - No.21, Ln. 470, Sec. 2, Nanshan Rd., Luzhu Dist., Taoyuan City 338, Taiwan (R.O.C.)
 - Dayuan Plant (include dormitory)
 - No.5, Minquan Rd., Dayuan Dist., Taoyuan City 337, Taiwan (R.O.C.)
 - Hsinfeng I Plant (include dormitory)
 - No. 289, 290, 290-5 Zhonglun, Xinfeng Township, Hsinchu County 304, Taiwan (R.O.C.)
 - No.2, 6, Aly.2, Ln.29, Qianxi Rd., Hukou Township, Hsinchu County 303, Taiwan (R.O.C.)
 - Yangmei Plant
 - No. 66, 68, 70 Ln. 426, Sec. 1, Meishi Rd., Yangmei Dist., Taoyuan City 326, Taiwan (R.O.C.)
 - Hejiang Plant
 - No.12, Hejiang Rd., Zhongli Ind. Park, Taoyuan City 320, Taiwan (R.O.C.)
 - Hejiang II Plant
 - No.2, Hezun S. Rd., Zhongli Dist., Taoyuan City 320, Taiwan (R.O.C.)

Statement TW23/00110GG, continued

- Shanying Wenhua Plant (include dormitory)
 - No.1, Wenhua Ln., Shanying Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
- Physical infrastructure, activities, technologies and processes of the organization: Manufacturing, processing, and sales of PCB, HDI, FPC, Rigid-lex boards, Carriers, IC burn-in and testing service.
- GHG sources, sinks and/or reservoirs included: Sources as presented in the inventory spreadsheet provided by UTC
- Types of GHGs included: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃
- The IPCC 2013 AR5 GWP values are applied in this inventory.
- Emission factor:
 - Direct emissions: Greenhouse Gas Emission Factor Table (6.0.4), EPA.
 - Indirect emissions:
 - Electricity emission factor is 0.509 kgCO₂e/kwh (Announced by Bureau of Energy, Ministry of Economic Affairs in 2022).
 - The secondary database has Carbon Footprint Information Platform, Ecoinvent 3.7.
- Directed actions: NA
- GHG information for the following period was verified: 01 January 2022 to 31 December 2022.
- The version of inventory sheet:

Shanying I Plant	20230321
Shanying II Plant	20230321
Jingtai 1st Plan	20230321
Jingtai 2nd Plan	20230321
Jingtai 3rd Plan	20230321
Luchu II Plant	20230321
Dayuan Plant	20230321
Hsinfeng I Plant	20230321
Yangmei Plant	20230321
Hejiang Plant	20230321
Hejiang II Plant	20230321
Shanying Wenhua Plant	20230321

- The version of GHG assertion: 20230331
- Intended user of the verification statement: Private

Objective

The purposes of this verification exercise are, by review of objective evidence, to independently review:

- Whether the GHG emissions are as declared by the organization’s GHG assertion
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

Criteria

Criteria against which the verification assessment is undertaken are the principles of ISO 14064-1:2018.

Materiality

The materiality required of the verification was considered by SGS to 5%, based on the needs of the intended user of the GHG Assertion.

Conclusion

UTC provided the GHG assertion based on the requirements of ISO 14064-1: 2018. The GHG information for the period 01 January 2022 to 31 December 2022 disclosing emissions of 758,266.897 metric tonnes of CO₂ equivalent and 0.0000 metric tonnes of direct CO₂ emissions from the combustion of biomass are verified by SGS to a reasonable level of assurance, consistent with the agreed verification scope, objectives and criteria.

The emission of each category is described as below:

Unit: tonnes of CO₂e

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SGS's approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions information and the controls in place to mitigate these. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the organization's reported GHG emissions.

We planned and performed our work to obtain the information, explanations, and evidence that we considered necessary to provide a reasonable level of assurance that the GHG emissions of category 1 and category 2, and limited level of assurance of category 3 till category 6 for the period 01 January 2022 to 31 December 2022 are fairly stated.

We conducted our verification with regard to the GHG assertion of UTC which included assessment of GHG information system, monitoring and reporting plan/protocol. This assessment included the collection of evidence supporting the reported data, and checking whether the provisions of the protocol reference, were consistently and appropriately applied.

In SGS's opinion the presented GHG assertion

- is materially correct and is a fair representation of the GHG data and information, and
- is prepared in accordance with ISO14064-1:2018 on GHG quantification, monitoring and reporting.

Confidentiality

The reports and attachments may contain relevantly confidential information of the clients. In addition to being submitted as governmental application or certification documents, the reports and attachments are not allowed to be edited, duplicated, or published without the clients' agreement in written form.

Avoidance of Conflict of Interest

The reports and attachments are completely complied with the standards and procedures that related authorities established. The reports and attachments of auditing process are conduct with fairness and honesty. If not, the auditing institution not only has to bear the relevant compensation duties, but also to receive legal charge and punishment.

This statement shall be interpreted with the GHG assertion of UTC as a whole.

Verifier Group

Above statements coincide with auditing process with fairness and impartiality and aim at the emission of year 2022 of clients.

Lead Verifier: *Kevin Hsieh*

Verifier: *William Wu*

Note: This Statement is issued, on behalf of Client, by SGS Taiwan Ltd. ("SGS") under its General Conditions for Greenhouse Gas Verification Services available at http://www.sgs.com/terms_and_conditions.htm. The findings recorded hereon are based upon an audit performed by SGS. A full copy of this statement, the findings and the supporting GHG Assertion may be consulted at Unimicron Technology Corporation, No.177, Shanying Rd., Guishan Township, Taoyuan County 333, Taiwan (R.O.C.), This Statement does not relieve Client from compliance with any bylaws, federal, national or regional acts and regulations or with any guidelines issued pursuant to such regulations. Stipulations to the contrary are not binding on SGS and SGS shall have no responsibility vis-à-vis parties other than its Client.