Statement TW22/00038GG

Greenhouse Gas Verification Statement

The inventory of Greenhouse Gas emissions in year 2021of

Global Unichip Corp.

No.10, Li-Hsin 6th Road, Hsinchu Science Park,
Hsinchu City 300096, 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
101.8538 tonnes of CO_2e
Indirect emissions
4,550.1761 tonnes of CO_2e
Direct emissions and indirect emissions
4,652.030 tonnes of CO_2e

Authorized by

David Huang
Senior Director
Date: 15 March 2022
Version 1

TGP56A-15-6 2103
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The emission of each category is described as below: Unit: tonnes of CO_2e

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.	101.8538
Indirect emissions	Imported energy	GHG emissions from imported electricity.	3,784.2614
	Transportation	GHG emissions from downstream (waste IC) transportation, business travel, flights	3.3478
	Products used by an organization	GHG emissions from purchased goods (papers), energy-related activities, General waste generated disposal	762.5669
	Associated with the use of products from the organization	NA	0.0000
	Other sources	NA	0.0000
Direct emissions and indirect emissions			4,652.030

SGS has been contracted by Global Unichip Corp. (hereinafter referred to as “GUC”), No.10, Li-Hsin 6th Road, Hsinchu Science Park, Hsinchu City 300096, Taiwan (R.O.C.) for the verification of direct and indirect Greenhouse Gas emissions in accordance with

ISO 14064-3:2006

as provided by Global Unichip Corp. (hereinafter referred to as “GUC”), No.10, Li-Hsin 6th Road, Hsinchu Science Park, Hsinchu City 300096, Taiwan (R.O.C.), in the GHG Assertion in the form of GHG report covering GHG emissions of the period 01 January 2021 to 31 December 2021.

Roles and responsibilities

The management of GUC 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 2021 to 31 December 2021.

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 07 February 2022 to 22 February 2022. The verification was based on the verification scope, objectives and criteria as agreed between GUC and SGS on 09 November 2021.

Level of Assurance

The level of assurance for category 1 and category 2 agreed is that of reasonable assurance.

Scope

GUC has commissioned an independent verification by SGS Taiwan of reported GHG emissions of GUC arising from (a) RTL-to-GDSII, Netlist-to-GDSII, Spec-to-GDSII. (b) JTAG, Scan, ATPG, Memory ECC, Memory BIST, Memory Repair. (c) IP test circuit/test pattern integration. (d) Design porting, FPGA to ASIC / Cross Processes. (e) ARM Processors / MIPS /Tensilica CPU Configuration/Hardening. (f) Digital IP hardening. (g) Hard IP (GDSII) merge. (h) Foundation cell power/timing characterization for custom PVT sign-off. (i) Foundation cell customization for low power and performance 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.

- Title or description activities: GHG verification for GUC in year 2021
- Location/boundary of the activities:
  - No.10, Li-Hsin 6th Road, Hsinchu Science Park, Hsinchu City 300096, Taiwan (R.O.C.)
- Physical infrastructure, activities, technologies and processes of the organization:
  (a) RTL-to-GDSII, Netlist-to-GDSII, Spec-to-GDSII
  (b) JTAG, Scan, ATPG, Memory ECC, Memory BIST, Memory Repair
  (c) IP test circuit/test pattern integration
  (d) Design porting, FPGA to ASIC / Cross Processes
  (e) ARM Processors / MIPS /Tensilica CPU Configuration/Hardening
  (f) Digital IP hardening
  (g) Hard IP (GDSII) merge
  (h) Foundation cell power/timing characterization for custom PVT sign-off
  (i) Foundation cell customization for low power and performance
- GHG sources, sinks and/or reservoirs included: Sources as presented in the inventory spreadsheet provided by GUC
- Types of GHGs included: CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3
- 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 0.502 $kgCO_2e$/kwh (Announced by Bureau of Energy, Ministry of Economic Affairs in 2021).
    - The secondary database has Carbon Footprint Information Platform.
- Directed actions: NA
- GHG information for the following period was verified: 01 January 2021 to 31 December 2021
- The version of inventory sheet: Ver4, 11 March 2022
- The version of GHG assertion: Ver4, 11 March 2022
- 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

GUC provided the GHG assertion based on the requirements of ISO 14064-1: 2018. The GHG information for the period 01 January 2021 to 31 December 2021 disclosing emissions of 4,652.030 metric tonnes of CO_2 equivalent and 0.0000 metric tonnes of direct CO_2 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 CO_2e

Reporting Boundaries			GHG Emissions
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	Other sources	NA	0.0000
Direct emissions and indirect emissions			4,652.030

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 for the period 01 January 2021 to 31 December 2021 are fairly stated.

We conducted our verification with regard to the GHG assertion of GUC 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 GUC as a whole.

Verifier Group

Above statements coincide with auditing process with fairness and impartiality, and aim at the emission of year 2021 of clients.

Lead Verifier: