

# Greenhouse Gas Verification Opinion

The inventory of Greenhouse Gas emissions in year 2023 of

## Unikorn Semiconductor Corporation

1~2F, No.5, Li-hsin 5th Rd., Hsinchu Science Park,  
Hsinchu City 300, Taiwan



has been verified in accordance with ISO 14064-3:2019 as  
meeting the requirements of

### ISO 14064-1:2018

Direct emissions

**2,075.1389** tonnes of CO<sub>2</sub>e

Indirect emissions

**10,681.4419** tonnes of CO<sub>2</sub>e

Direct emissions and indirect emissions

**12,756.581** tonnes of CO<sub>2</sub>e

Authorized by

Stephen Pao

Business Assurance Director

Date: 16 May 2024

Version 1

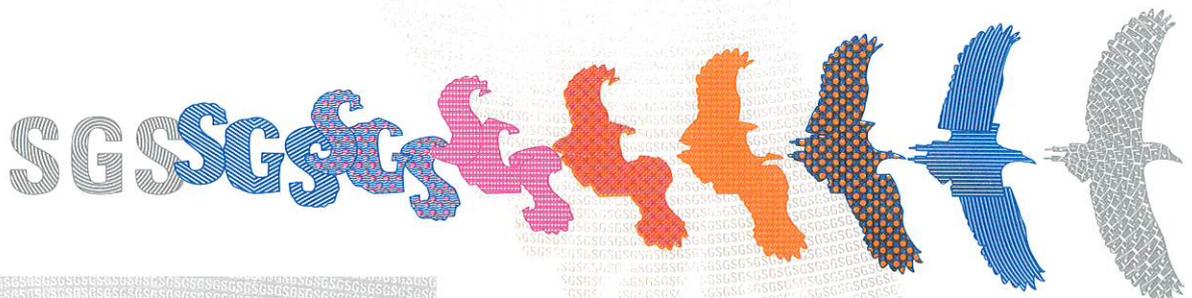
TGP56B-15-1 2401

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The emission of each category is described as below:

Unit: tonnes of CO<sub>2</sub>e

Reporting Boundaries		GHG Emissions	
Inventory categories	Description		
Direct emissions	Direct emissions from stationary combustion	84.8524	
	Direct emissions from mobile combustion	1.8144	
	Direct process emissions and removals from industrial processes	1,951.1843	
	Direct fugitive emissions arise from the release of GHGs in anthropogenic systems	37.2878	
	Direct emissions and removals from land use, land use change and forestry	0.0000	
Indirect emissions	Imported energy	5,110.9374	
	Transportation	Indirect emissions from upstream cargo transport and distribution	3.4816
		Indirect emissions from downstream cargo transport and distribution	6.4807
		Indirect emissions from employee commuting	181.3727
		Indirect emissions from business travel	10.3251
	Products used by an organization	Indirect emissions from purchased goods	2,078.9299
		Indirect emissions from capital goods	3,217.7981
		Indirect emissions from outsourced treatment of solid and liquid waste	72.1163
	Associated with the use of products from the organization	Not significant	--
	Other sources	Not significant	--
Direct emissions and indirect emissions		12,756.581	

SGS, No. 136-1, Wu Kung Road, New Taipei Industrial Park, Wu Ku District, New Taipei City 24803, Taiwan, has been contracted by Unikorn Semiconductor Corporation (hereinafter referred to as “USC” ), 1~2F, No.5, Li-hsin 5th Rd., Hsinchu Science Park, Hsinchu City 300, Taiwan for the verification of direct and indirect Greenhouse Gas emissions in accordance with

### ISO 14064-3:2019

as provided by Unikorn Semiconductor Corporation (hereinafter referred to as “USC” ), 1~2F, No.5, Li-hsin 5th Rd., Hsinchu Science Park, Hsinchu City 300, Taiwan, in the GHG Statement in the form of GHG report.

### Roles and responsibilities

- The management of USC 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.
- The verification was based on the verification scope, objectives and criteria as agreed between USC and SGS on 07 August 2023 and 28 March 2024.
- Verification Criteria: ISO 14064-1:2018, ISO 14064-3:2019
- Verification Period: 19 February 2024 to 03 April 2024.

### Scope

- GHG information for the following period was verified: 01 January 2023 to 31 December 2023
- Location/boundary of the activities:
  - 1~2F, No.5, Li-hsin 5th Rd., Hsinchu Science Park, Hsinchu City 300, Taiwan
- Types of GHGs included: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>, NF<sub>3</sub>
- The IPCC 2021 AR6 GWP values are applied in this inventory.
- Emission factor:
  - Direct emissions: Greenhouse Gas Emission Inventory Operation Guideline (2022.05).
  - Indirect emissions:
    - Electricity emission factor is 0.495 kgCO<sub>2</sub>e/kwh (Announced by Energy Administration, Ministry of Economic Affairs in 2023).
    - The secondary database has Carbon Footprint Information Platform, Ecoinvent 3.8、ICAO、USEEIO.

- 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.
- Materiality : 5%
- The version of inventory sheet: 2024/04/02
- The version of GHG statement: 2024/04/02
- Intended user of the verification opinion: 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 statement
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

### Conclusion

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 the GHG emissions are free from material misstatement.

- The greenhouse gas emissions are 12,756.581 metric tonnes of CO<sub>2</sub> equivalent.
- The emissions from the combustion of biomass are 0.0000 metric tonnes of CO<sub>2</sub> equivalent.

The emission of each category is described as below:

Unit: tonnes of CO<sub>2</sub>e

Reporting Boundaries		GHG Emissions
Inventory categories	Description	
Direct emissions	Direct emissions from stationary combustion	84.8524
	Direct emissions from mobile combustion	1.8144
	Direct process emissions and removals from industrial processes	1,951.1843
	Direct fugitive emissions arise from the release of GHGs in anthropogenic systems	37.2878
	Direct emissions and removals from land use, land use change and forestry	0.0000

Reporting Boundaries			GHG Emissions	
Inventory categories	Description			
Indirect emissions	Imported energy	Indirect emissions from imported electricity	5,110.9374	
	Transportation	Indirect emissions from upstream cargo transport and distribution		3.4816
		Indirect emissions from downstream cargo transport and distribution		6.4807
		Indirect emissions from employee commuting		181.3727
		Indirect emissions from business travel		10.3251
	Products used by an organization	Indirect emissions from purchased goods		2,078.9299
		Indirect emissions from capital goods		3,217.7981
		Indirect emissions from outsourced treatment of solid and liquid waste		72.1163
	Associated with the use of products from the organization	Not significant		--
	Other sources	Not significant		--
Direct emissions and indirect emissions			12,756.581	

- The opinion of SGS is modified in accordance with the following described circumstances.
  - The verifier has sufficient and appropriate evidence to support the material emissions, removals, or storage.
  - The verifier applies appropriate criteria for the material emissions, removals, or storage.
  - When the verifier intends to rely on relevant controls, the effectiveness of those controls has been assessed.
  - The verifier, applying the ISO 14064-1:2018 standard, presents the following findings. After adjustments and corrections, no material errors were identified.
    - The reference source for the specialty gases calculation formula should be carefully chosen to ensure appropriateness.
    - The emission factors used for Category Four purchased goods should be selected appropriately based on actual circumstances.
- Retention Limitation: N/A

**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 opinion shall be interpreted with the GHG statement of USC as a whole.

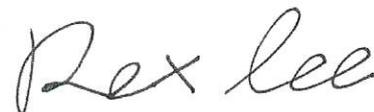
**Verifier Group**

Above opinions coincide with auditing process with fairness and impartiality and aim at the emission of year 2023 of clients.

Lead Verifier:



Verifier:

Note: This opinion 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](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 opinion, the findings and the supporting GHG Assertion may be consulted at Unikorn Semiconductor Corporation, 1~2F, No.5, Li-hsin 5th Rd., Hsinchu Science Park, Hsinchu City 300, Taiwan, This opinion 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.