

OPINION

Greenhouse Gases Verification Opinion ISO 14064-1: 2018

Gives to

CHIPMOS TECHNOLOGIES INC.

Office Address

No.1, Yanfa 1st Rd., Hsinchu Science Park, Hsinchu City, Taiwan, (R.O.C.)

The quantity of Greenhouse Gas of the above organization and found to be in accordance with ISO 14064-3:2019. (detailed information please refer to next page)

Report Year : 2023

Greenhouse Gases

Direct Emissions : 4,523.5159 CO2-e Tonnes/ year

Energy Indirect : 231,377.9859 CO2-e Tonnes/ year

Emissions(Category2)

Other Indirect Emissions (Category3-6) : 76,752.7798 CO2-e Tonnes/ year

Sum : 312,654.282 CO2-e Tonnes/ year

Materiality : 5%

Reasonable Assurance : Direct and Energy Indirect Emissions

Limited Assurance : Category 3-6

Opinion No.: GHG-243450081

Version:

Verify Date: 2024-05-21 Issue Date: 2024-07-08

Verification Body at TUV NORD Taiwan Co., Ltd. TUV NORD Taiwan Co., Ltd. Room A1, 9F, No.333, Sec.2, Tun Hua S. Rd. Taipei 10669 Taiwan, R.O.C.

Further clarifications regarding the scope of this opinion and the applicability of the standard may be obtained by consulting the organization



OPINION

Appendix to Opinion No. GHG-243450081

ISO 14064-1: 2018

TUV NORD Taiwan Co., Ltd (hereinafter referred to as "TUV NORD") has been contracted with CHIPMOS TECHNOLOGIES INC. (hereinafter referred to as CHIPMOS), No.1, Yanfa 1st Rd., Hsinchu Science Park, Hsinchu City, Taiwan, (R.O.C.) for the verification of direct and indirect greenhouse gas emissions in accordance with ISO 14064-3:2019. In the GHG Opinion in the form of GHG report covering GHG emissions of the period 01, Jan., 2023 to 31, Dec., 2023.

Roles and responsibilities

The management of CHIPMOS 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.

TUV NORD conducted a third party verification to express an independent GHG verification opinion on the GHG emissions as provided in the GHG Opinion for the period year 2023.

Level of Assurance

The level of assurance agreed are that of reasonable assurance for category 1 and 2; Limited level assurance from category 3 to 6.

Scope

Verification of GHG emissions within the organization's boundary and is based on ISO 14064-3:2019. Location/Boundary of the activities:

Company	Address	
CHIPMOS TECHNOLOGIES INC. (Hsinchu fab.)	No.1, Yanfa 1st Rd., Hsinchu Science Park, Hsinchu City, Taiwan, (R.O.C.)	
CHIPMOS TECHNOLOGIES INC. (Zhubei fab.)	No. 37, Xintai Rd., Zhubei City, Hsinchu County, Taiwan, (R.O.C.)	
CHIPMOS TECHNOLOGIES INC. (Hukou fab.)	No. 4, Rende Rd., Hukou Township, Hsinchu County, Taiwan, (R.O.C.)	
CHIPMOS TECHNOLOGIES INC. (Tainan fab.)	No. 5, Nanke 7th Rd., Sourthern Taiwan Science park, Tainan City, Taiwan, (R.O.C.)	
CHIPMOS TECHNOLOGIES INC. (Tainan fab. 2)	nan fab. 2) No. 3, Nanke 7th Rd., Sourthern Taiwan Science park, Tainan City, Taiwan, (R.O.C.)	
CHIPMOS TECHNOLOGIES INC. (Zhubei fab. 2)	No. 112, Zhonghe St., Zhubei City, Hsinchu County, Taiwan, (R.O.C.)	
CHIPMOS SEMICONDUCTORS (Shanghai) LTD.	Room 309-C, 6 Building, 990 Shenchang Road, Minhang District, Shanghai, China	
CHIPMOS U.S.A. INC.	2890 North First Street, San Jose, CA 95134, U.S.A.	

- Types of GHGs included: CO₂, CH₄, N₂O, HFC₅, PFC₅, SF₆, NF₃
- The IPCC 2021 AR6 GWP values are applied in the inventory.
- GHG information for the following period was verified on 06. Mar., 2024 to 21. May, 2024



The GHG emissions are described as below:

GHG emissions categorization		Description	GHG emission
			(tonnes of CO2e per year)
Direct Emissions/ Category 1		Occur from GHG sources inside organizational boundaries and that are owned or controlled by the organization.	4,523.5159
Energy Indirect Emissions	Category 2	Indirect GHG emissions from imported energy	231,377.9859
Indirect Emissions	Category 3	Indirect GHG emissions from transportation	2,654.0746
	Category 4	Indirect GHG emissions from products used by an organization	70,604.0468
	Category 5	Indirect GHG emissions associated with the use of products from the organization	3,494.6584
	Category 6	Other sources	Undisclosed
Direct Emissions and Indirect Emissions		312,654.282	

The GHG emissions categorization are based on Annex B of ISO14064-1:2018. Intended User of Verification Opinion: Organizations use for their own reference.

Confidentiality

The reports and appendix are not allowed to be edited, duplicated, or published without the clients' agreement.

Avoidance of Conflict of Interest

The reports was verified with fairness and honestly.

Verifiers Group

According as the above opinion were judgement by TUV NORD.

Verification Body at TUV NORD Taiwan Co., Ltd.

TUV NORD Taiwan Co., Ltd. Room A1, 9F, No.333, Sec. 2, Tun Hua S. Rd. Taipei 10669 Taiwan, R.O.C.

Further clarifications regarding the scope of this opinion and the applicability of the standard may be obtained by consulting the organization

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