證書

盤查標準

證書登記號碼

報告號碼

ISO 14064-1:2018

TG 50589415 2501

48280019 001

證書持有者:

確證與查證場址:

確證與查證機構:確證與查證標準:

基準年:

確證與查證年度:

方案:

查證保證等級:

彙總方法: 實質性:

溫室氣體種類:

確證與查證範圍:

台灣半導體股份有限公司

台灣 268 宜蘭縣五結鄉利工一路二段 31 號

所包括場址已列於證書附件上

台灣德國萊因技術監護顧問股份有限公司

ISO 14064-3:2019

- 2024 (2024.01.01~2024.12.31)

- 2024 (2024.01.01~2024.12.31)

- 自願性溫室氣體方案

- 合理保證

- 營運控制權法

- 5%

- CO2, CH4, N2O, HFCs, PFCs, SF6, NF3

基於取得的資訊進行評估之結論:

- 全球暖化潛勢(GWP): IPCC 2013, AR5

- 碳排放總量為 22,017.575 噸二氧化碳當量(tCO₂e)

- 類別一 直接排放為 7,036.2075 噸/二氧化碳當量(tCO2e)

- 類別二 間接 輸入能源排放為 10,011.4488 噸/二氧化碳當量 (tCO₂e)

- 類別三 間接 運輸排放為 2,851.4538 噸/二氧化碳當量

- 類別四 間接 組織使用產品排放為 2,118.4645 噸/二氧化碳當量 (tCO₂e)

- 類別五間接與使用組織產品有關排放為未量化

- 類別六 間接 其他排放為 未量化

- 數據與資訊:

- 歷史性資料: 類別一/類別二

- 歷史性資料及情境模型: 類別三 / 類別四

有效性:

本證書僅對年度盤查的排放數據進行審查, 非對管理系統進行驗證

2025-09-04

台灣德國萊因技術監護顧問股份有限公司 台灣 105 台北市八德路四段 758 號 11 樓

This verification and validation is based on the information made available to TÜV Rheinland and the engagement conditions detailed above. Therefore, TÜV Rheinland cannot guarantee the accuracy or correctness of this information. TÜV Rheinland cannot be held liable by any party relying or acting upon this verification and validation







證書附件

盤查標準

ISO 14064-1:2018

證書登記號碼

TG 50589415 2501

報告號碼

48280019 001

確證與查證場址:

- 利澤廠

台灣 268 宜蘭縣五結鄉利工一路二段 31 號

查證方法:

- 場址訪視、人員訪談、確認操作行為與程序、所有權評估、資料 與資訊積累過程、追蹤與取樣、管制與估計測試、生產與排放間 的分析程序、數據驗算與文件審查

查證意見:

合理保證

- 經修改的意見
 - 具充分且適當的證據支持實質性的排放量、移除量或儲存
 - 對實質的排放量或儲存採取適當的準則
 - 查證者欲依靠管制時, 其管制有效性已被評估
 - 經修改的程序, 計算方法, 數據, 係數或文件, 對實質性, 預期 使用者對溫室氣體宣告的理解影響不重要 (修改的詳細項目 請見查驗發現報告) 修改了:
 - 數據、係數、文件







TUEV and TUV are registered trademarks. Utilisation and application requires prior appr

Inventory Standard

ISO 14064-1:2018

Certificate Registr. No.

TG 50589415 2501

Report No.

48280019 001

Certificate Holder:

Taiwan Semiconductor Co., Ltd.

No.31, Sec. 2, Ligong 1st Rd., Wujie Town, I-Lan County 268, Taiwan R.O.C.

Validation & Verification Site:

Including the sites according to annex

Validation & Verification Body:

TÜV Rheinland Taiwan Ltd.

Validation & Verification

ISO 14064-3:2019

Standard:

100 14004-0.2010

Base year: Validation & Verification year: 2024 (2024.01.01~2024.12.31)2024 (2024.01.01~2024.12.31)

Validation a vermoation yes

- Voluntary GHG scheme

Programme:

- Reasonable

Consolidation methodology:

Level of Assurance:

- Operational Control

Materiality:

- 5%

Type of Greenhouse Gases:

- CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃

Validation & Verification Scope:

Based on the information we have received and evaluated that:

- Global warming potential (GWP): IPCC 2013, AR5
 - The total carbon emission is 22,017.575 tonnes CO₂ equivalent (tCO₂e)
 - Category 1 Direct emission is 7,036.2075 tCO2e
 - Category 2 Indirect Imported energy emission is 10,011.4488 tCO₂e
 - Category 3 Indirect Transportation emission is 2,851.4538 tCO₂e
 - Category 4 Indirect Products used by organization emission is 2,118.4645 tCO₂e
 - Category 5 Indirect Associated with the use of products from the organization emission is <u>not quantified</u>
 - Category 6 Indirect Other sources emission is not quantified
- Data and information
 - Historical in nature: Category 1 / 2
 - Historical in nature with scenario models: Category 3 / 4

Validity:

This certificate only reviewed the emissions data of inventory year, this certificate is not for the management systems certification.

2025-09-04

TÜV Rheinland Taiwan Ltd. 11F., No. 758, Sec. 4, Bade Rd., Taipei 105. Taiwan

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Annex to certificate

Inventory Standard

ISO 14064-1:2018

Certificate Registr. No.

TG 50589415 2501

Report No.

48280019 001

Validation & Verification Site:

Li Je Factory

No.31, Sec. 2, Ligong 1st Rd., Wujie Town, I-Lan County 268, Taiwan R.O.C.

Verification Method:

 Site visit, Interview, confirm operational behavior and procedures, Evaluation of ownership, Data and information aggregation process, trail, sampling, Control and estimate testing, Analytical procedures between production and emissions, Recalculation and document review

Verification opinions:

Reasonable Assurance

- Modified opinion
 - there is sufficient and appropriate evidence to support material emissions, removals or storage;
 - the criteria are applied appropriately for material emissions, removals or storage;
 - the effectiveness of controls has been evaluated when the verifier intends to rely on those controls.
 - modified procedures, calculation methods, data, factors or documents, there are have insignificant impact on materiality, intended users' understanding of GHG claims, modified (Please refer to the finding report for the detail revised items):
 - Data, Factors, Documents







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