

OPINION STATEMENT



碳足跡查證意見聲明書

查證標的產品

工業用寬溫嵌入式電腦TGS-1000 (含包裝)

產品製造單位

超恩股份有限公司

新北市土城區忠承路111號12樓

本公司查證確認依據ISO 14064-3:2019及生命週期評估數據並符合
ISO 14067 : 2018

產品之生命週期評估範疇
搖籃到大門

Opinion No.: ARES/TW/2504003P

Issue Date: 2025-04-10

Expiry Date: 2027-04-09

Version: 01

意見中須含完整的查證範圍、目標、標準和調查結果，否則意見無效。



批准:



ARES International Certification Co., Ltd.

No.12-2, Ln. 187, Wenping Rd., Anping Dist., Tainan City 708, Taiwan

TEL / 06-295 9696 (Rep. Line) FAX / 06-295 9667

www.ares-registration.com

OPINION STATEMENT



Product Carbon Footprint Verification Opinion

The Inventory of Product Carbon Footprint of
Industrial Embedded Computer TGS-1000

which is calculated by

Vecow Co., Ltd.

**12 F., No. 111, Zhongcheng Rd., Tucheng Dist., New Taipei City 236658,
Taiwan (R.O.C.)**

Based on life cycle assessment verified in accordance with
ISO 14064-3:2019 as meeting the requirement of
ISO 14067 : 2018

Basis of Assessment
Cradle-to-Gate

Opinion No.: ARES/TW/2504003P
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The complete verification scope, objectives, standards and findings
must be included in the opinion, otherwise the opinion is invalid.

批准:

A handwritten signature in black ink, appearing to read "Jillan".



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產品名稱 Product name	(中文) 工業用寬溫嵌入式電腦 TGS-1000 (含包裝)。 (英文) Industrial Embedded Computer TGS-1000						
宣告單位 Declaring units	(中文) 每一台。 (英文) PCS						
功能單位 Functional units	(中文) 每一台。 (英文) PCS						
產品碳足跡生命週期溫室氣體排放量 Product Carbon Footprint Life Cycle Greenhouse Gas Emissions							
生命週期階段 Life cycle phases	原料 Raw material	製造 Product ion	配銷 Transpo rtation	使用 Use	廢棄 End-of -Life	總和 Total	功能單位碳排放量 Functional unit Carbon Emission
搖籃到大門 Cradle to Gate	326.274	14.122	N/A	N/A	N/A	340.40	340.40
碳排當量單位 unit	kgCO ₂ e						

*N/A: Not applicable 不適用

亞瑞仕國際驗證股份有限公司(以下簡稱亞瑞仕)與超恩股份有限公司雙方簽訂合約，依據 ISO 14064-3:2019 執行產品生命週期溫室氣體排放量之查證，確認符合以下標準要求

ISO 14067:2018

ARES INTERNATIONAL CERTIFICATION CO., LTD. (referred to as ARES) and Vecow Co., Ltd. signed the agreement to verify the greenhouse gas emissions of product life cycle in accordance with the requirements of ISO 14064-3:2019 and confirm that the following standards are met

ISO 14067:2018

查證意見內容如下 The content of the verification opinion is as follows:

角色與責任 Roles and Responsibilities

超恩股份有限公司負責管理產品生命週期溫室氣體排放量記錄收集回覆及盤查報告訊息揭露，包括產品生命週期溫室氣體排放量資訊與計算整理報告。亞瑞仕負責本次查證標的產品之產品碳足跡生命週期溫室氣體排放量之查證意見。亞瑞仕秉持公正獨立第三方查證單位之準則，根據 ISO

意見中須含完整的查證範圍、目標、標準和調查結果，否則意見無效。The opinion must contain the complete scope of verification, objectives, criteria and findings, otherwise the opinion is invalid.

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14067:2018、ISO 14064-3:2019、ISO 14040:2006、ISO 14044:2006 等相關準則及亞瑞仕與超恩股份有限公司之合約說明適用範圍、目標及準則。亞瑞仕於 2025 年 03 月 24 日到 2025 年 03 月 26 日查證產品生命週期溫室氣體排放量，依據查證結果提出產品生命週期溫室氣體排放量查證意見。

Vecow Co., Ltd. is responsible for managing product life cycle greenhouse gas emission records, collecting, and responding and inventory report information disclosure, including product life cycle greenhouse gas emission information and calculation collation reports. ARES is responsible for the verification of the product carbon footprint and life cycle greenhouse gas emissions of the target product. ARES adheres to the guidelines of impartial and independent third-party verification units, and describes the scope, objectives, and criteria in accordance with ISO 14067:2018, ISO 14064-3:2019, ISO 14040:2006, ISO 14044:2006 and other relevant standards and the contract between ARES and Vecow Co., Ltd. From 2025/03/24 to 2025/03/26, the product life cycle greenhouse gas emissions were verified, and the product life cycle greenhouse gas emission verification opinions were put forward according to the verification results.

保證等級 Guaranteed Level

亞瑞仕依據查證準則執行查證程序，相關證據結果顯示超恩股份有限公司產品碳足跡生命週期溫室氣體排放量計算過程與數據展現，符合預期標準之規定，未違反實質性差異門檻，符合認可之合理保證等級。

ARES carried out the verification procedure in accordance with the verification criteria, and the relevant evidence results showed that the calculation process and data of the life cycle greenhouse gas emissions of the carbon footprint of the Vecow Co., Ltd. products met the requirements of the expected standards, did not violate the threshold of material differences, and met the reasonable assurance level.

查證範圍 Scope of Verification

亞瑞仕與超恩股份有限公司雙方協議並確認超恩股份有限公司提供產品之生命週期溫室氣體排放量計算及相關標準之符合性。根據 ISO 14067:2018、ISO 14064-3:2019、ISO 14040:2006、ISO 14044:2006 等相關準則，提出保證意見如下：

ARES and Vecow Co., Ltd. agree to confirm the compliance of the calculation of life cycle greenhouse gas emissions and related standards of Vecow Co., Ltd.'s product. In accordance with ISO 14067:2018, ISO 14064-3:2019, ISO 14040:2006, ISO 14044:2006 and other relevant guidelines, the following assurances are proposed:

- 產品名稱 Product Name:
(中文) 工業用寬溫嵌入式電腦 TGS-1000 (含包裝)。
(English) Industrial embedded computer TGS-1000.
- 宣告單位 Declared units:

意見中須含完整的查證範圍、目標、標準和調查結果，否則意見無效。The opinion must contain the complete scope of verification, objectives, criteria and findings, otherwise the opinion is invalid.

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- (中文) 每一台。
- (English) PCS
- 功能單位 Functional units:
 - (中文) 每一台。
 - (English) PCS
- 系統邊界 System boundaries:

包括由搖籃到大門之生命週期排放評估作業，依據 ISO 14040:2006 與 ISO 14067:2018 之規範。所有排放之溫室氣體以 ISO 14067:2018 所列項目。Includes Cradle-to-Gate life cycle emissions assessment operations according to ISO 14040:2006 and ISO 14067:2018. All emitted greenhouse gases are listed in ISO 14067:2018.
- 生命週期產品碳足跡計算資料庫 Life Cycle Product Carbon Footprint Calculation Database:

環境部碳足跡資訊網 MOENV Carbon Footprint Information Platform、SimaPro V 10.1.0.4, Ecoinvent 3.10
- 生命週期使用評估軟體(參考用) Life cycle use assessment software (reference):

N/A
- 二級數據之資料庫來源(參考用) Database source of secondary data (for reference):

環境部碳足跡資訊網 Carbon Footprint Information Platform、SimaPro V 10.1.0.4, Ecoinvent 3.10
- 生命週期評估計算工具與指標 Life Cycle Assessment Calculation Tools and Indicators:

使用 Excel 表計算、GWP 採用 IPCC AR6 Y2021
Use Excel table to calculate, GWP use IPCC AR6 Y2021
- 產品生命週期溫室氣體排放量資訊涵蓋區間: 2024 年 11 月 08 日~2025 年 01 月 06 日。

Product life cycle greenhouse gas emission information coverage period: 2024/11/08 ~ 2025/01/06
- 產品製造地點 Product production location :

超恩股份有限公司 / 新北市中和區中正路 700 號 11 樓
VECOW CO., LTD. / 11F, No. 700, Zhongzheng Rd., Zhonghe Dist., New Taipei City, Taiwan, R.O.C.
- 產品類別規則 Product Category Rules :

無 No relevant PCR

查證目標: Verification Objectives:

亞瑞仕獨立公正客觀取得支持產品碳足跡溫室氣體主張揭露資訊之佐證，確保報告資訊符合準確性、完整性、一致性及透明度之準則。

ARES independently and impartially obtains supporting the disclosure of the GHG claims on the carbon footprint of its products, ensuring that the reported information meets the criteria of accuracy, completeness,

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consistency, and transparency.

查證準則: Verification Criteria:

亞瑞仕遵守下列相關標準要求執行產品碳足跡溫室氣體主張之查證: ISO 14067:2018、ISO 14064-3:2019、ISO 14040:2006、ISO 14044:2006 等相關標準。

ARES complies with the following standards to verify the greenhouse gas claims of its products' carbon footprint: ISO 14067:2018, ISO 14064-3:2019, ISO 14040:2006, ISO 14044:2006 and other relevant standards.

實質性 Materiality

定義產品碳足跡生命週期氣體排放量主張符合性之實質性差異門檻判定準則為 5%，亞瑞仕依據此準則確認產品生命週期溫室氣體排放量揭露資訊之正確性。

The threshold for determining the material difference in the materiality of product carbon footprint life cycle gas emission claims is 5%, according to which ARES confirms the correctness of product life cycle greenhouse gas emission disclosure information.

結論: Conclusion:

亞瑞仕依據產品碳足跡標準查證超恩股份有限公司提出產品生命週期溫室氣體主張，揭露產品生命週期溫室氣體排放量。亞瑞仕以獨立客觀公正之第三方查證產品生命週期溫室氣體資訊數據、監督方式其報告程序，採用風險評估方法為基礎，確保及控管產品生命週期溫室氣體排放資訊揭露風險、規劃及執行流程、文件審查、行前評估、取樣計畫、數據及證據收集及相關佐證，確保產品碳足跡揭露溫室氣體排放量準確性。本查證說明將視為超恩股份有限公司產品生命週期溫室氣體總排放量主張之查證結果，依據查證結果保障及適用範圍、目標及準則之一致性與適切性，亞瑞仕提供合理保證等級查證意見。

According to the product carbon footprint standard, ARES verifies the Vecow Co., Ltd., puts forward product life cycle greenhouse gas claims, and discloses product life cycle greenhouse gas emissions. Based on the independent and objective third-party verification of product life cycle greenhouse gas information data, supervision method and reporting procedures, and based on risk assessment methods, ARES ensures and controls the risk disclosure risk of product life cycle greenhouse gas emission information, planning and implementation process, document review, pre-departure assessment, sampling plan, data and evidence collection and related supporting evidence to ensure the accuracy of product carbon footprint disclosure of greenhouse gas emissions. This verification statement will be regarded as the result of the verification of the total greenhouse gas emission claims of the life cycle of Vecow Co., Ltd. product, and according to the verification results, the guarantee and the consistency and appropriateness of the scope of application, objectives and guidelines, ARES provides a reasonable assurance level verification opinion.

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保密性聲明 Statement of Confidentiality

此意見及附件可能包含超恩股份有限公司之機密資訊，未經超恩股份有限公司書面同意，禁止其他個人、團體或公司自行複印或發行。

This opinion and attachment may contain confidential information of Vecow Co., Ltd., and other individuals, groups or companies are prohibited from copying or distributing it without the written consent of Vecow Co., Ltd.

利益衝突迴避聲明 Statement of Conflict of Interest Avoidance

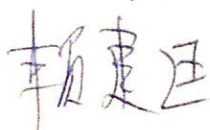
亞瑞仕與超恩股份有限公司並無財務投資之關係，此意見及附件內容完全依照主管機關之標準方法及程序等相關規定，秉持公正、同時進行查證絕無虛偽不實，且符合主管機關對利益衝突迴避之要求。

ARES has no financial investment relationship with Vecow Co., Ltd., and the content of this opinion and its attachment is in full accordance with the relevant provisions of the standard methods and procedures of the competent authority, upholding impartiality, and conducting verification at the same time, there is absolutely no hypocrisy, and it meets the requirements of the competent authority for avoiding conflicts of interest.

本查證意見書之有效期間為兩年，超恩股份有限公司應依據標準條文之規範於適當時機重新評估產品生命週期溫室氣體排放量。

This opinion is valid for two years by ARES, and Vecow Co., Ltd. should reassess the greenhouse gas emissions of the product life cycle at an appropriate time in accordance with the standard provisions.

ARES 主導查證員 Lead Verifier :



備註：本查證意見遵照 ARES 碳足跡查證服務條款要求，意見書內容由亞瑞仕國際驗證股份有限公司依據碳足跡主張之查證結果進行編製，業經客戶同意後發行。本意見書非用以解除客戶遵守組織章程、全國或者地方法令，以及任何被發佈國際指南章程之責任；客戶與 ARES 彼此為獨立之個體，客戶非受 ARES 約束，在此 ARES 除客戶之外毋須代表其面對其他組織團體。

Remarks: This verification opinion complies with the requirements of the ARES carbon footprint verification service terms. The content of the opinion is prepared by ARES International Certification Co., Ltd. based on the verification results of carbon footprint claims, and is issued after the customer's consent. This opinion is not used to relieve the client from the responsibility of complying with the articles of association, national or local laws, and any published international guidelines; the client and ARES are independent entities, and the client is not bound by ARES represent it against other organizations.

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