

Report no. : (TH22-182 / version 1)

## Greenhouse Gas Verification Report Opinion

### THGHG22182-00

**Verification** ASTRO TECH CO., LTD  
**Scope:** No. 6, Jingsi 8th Road, Nantun District, Taichung City, Taiwan.  
☒ The information of other sites are listed on the subsequent page. °

**Verification** ISO 14064-1 : 2018  
**Criteria:**

**Verification** According to ISO 14064-3:2019, AFNOR Asia Ltd. (AFNOR ASIA) confirms that the GHG  
**Objectives :** statement (GHG inventory report) of the above-mentioned organization(s) is reported in  
accordance with the verification criteria agreed by both parties. AFNOR performs the  
verification with an objective and fair position and principle (relevant, complete,  
consistent, accurate, and transparent).

**Data Period :** 2023/01/01 to 2023/12/31(The data is historical data.)

**Verification** Direct GHG emissions (category 1): 2,296.5838 tons CO<sub>2e</sub>  
**Data :** Energy indirect GHG emissions (category 2): 13,728.6210 tons CO<sub>2e</sub>  
Indirect GHG emissions (category 3~6): 3,476.7015 tons CO<sub>2e</sub>

**Global Warming Potential (GWP) :** refer to IPCC 2021 Year, the 6 assessment report

**Statement Basis :** This statement must be interpreted as a whole with the following.

GHG Inventory report (version :	first	; Date :	05 29, 2024	)
GHG Inventory (version :	first	; Date :	05 29, 2024	)

**Materiality :** 5% (category 1 and category 2 )

**Type of Opinion :** ☒ unqualified ☐ qualified (see the subsequent page ) ☐ disclaim the issuance

**Verification** Confirm that the organization submits a GHG statement in accordance with the  
**Conclusion:** requirements of the verification criteria agreed by both parties, and fairly presents  
the GHG data and related information, which is consistent with the verification  
scope, objectives and criteria agreed by both parties.  
Declares that the reasonable assurance level of the inventory data is category 1 and  
category 2.

**Date of Issuance:** 06 25, 2024

APPROVED BY



Patrick NI  
Director for Certification  
ON BEHALF OF  
AFNOR ASIA

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**The Geographical Location of Multiple Sites :**

Site	Address
Changhua factory	No. 26-9, Yide South Road, Changhua City, Changhua County, Taiwan.
Taichung factory	No. 6, Jingsi 8th Road, Nantun District, Taichung City, Taiwan.
Khanh Hoi factory	15th Street, Lot No. 1, Khanh Hoi Industrial Zone, Thanh Long Ward, Phuoc Long Town, Binh Duong Province, Vietnam.
Tong'an factory	Road No. 1, Tong'an Industrial Zone, Binh Duong Province, Vietnam. Road No. 3, Tong'an Industrial Zone, Binh Duong Province, Vietnam. Road No. 4, Tong'an Industrial Zone, Binh Duong Province, Vietnam. Road No. 5, Tong'an Industrial Zone, Binh Duong Province, Vietnam.

**Emissions Data for Each Category :**

Category	Description of content	GHG emissions (tons CO <sub>2</sub> e)	Note
(Category 1) Direct GHG emissions	Stationary emissions. Mobile emissions. Process emissions. Fugitive emissions.	2,296.5838	
(Category 2) Indirect GHG emissions from imported energy	Indirect emissions from purchased electricity. Indirect emissions from purchased steam.	13,728.6210	local standard
(Category 3) Indirect GHG emissions from transportation	Employee transport emissions Business travel	362.2923	
(Category 4) Indirect GHG emissions from products used by organization	Purchased goods Waste treatment	3,114.4092	

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(Category 5) Indirect GHG emissions associated with the use of products from the organization	NS	NS	
(Category 6) Indirect GHG emissions from other sources	NS	NS	

Biomass burning emission : 1,304.6567 tons CO<sub>2</sub>e

## Data for Multiple Sites :

Emission unit: tons CO <sub>2</sub> e			
Site	Direct GHG emissions (Category 1)	Indirect GHG emissions from energy (Category 2)	Indirect GHG emissions (Category 3~6)
Changhua factory	87.9903	664.5782	155.9877
Taichung factory	30.7831	106.8934	387.2868
Khanh Hoi factory	1,711.3436	7,931.4053	2040.6922
Tong'an factory	466.4668	5,025.7441	892.7348

## Other Related Verification Information

Organization boundaries: :	operational control
GHG type :	Carbon dioxide (CO <sub>2</sub> ), Methane (CH <sub>4</sub> ), Nitrous oxide (N <sub>2</sub> O), Hydrofluorocarbon (HFCs), Perfluorocarbon (PFCs), Sulfur hexafluoride (SF <sub>6</sub> ), Nitrogen trifluoride (NF <sub>3</sub> )
Purpose of intended use:	Understanding voluntarily the status of GHG emissions as a basis for developing reduction strategies. (This statement of responsibility applies only to the purpose of

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	intended use mentioned above and not to any other purpose.)
Criteria for significance of indirect emissions :	<ul style="list-style-type: none"> <li>- Identified stakeholder requirements: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</li> <li>- Identified regulation requirements : <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</li> <li>- Identified magnitude of emissions : <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</li> <li>- Others : level of influence, employee engagement, access to information and the level of accuracy of associated data.</li> </ul>
Purchased power factor:	<p>Changhua factory and Taichung factory refer to the 2023 annual power factor announced by the Bureau of Energy, Ministry of Economic Affairs on 04 26, 24</p> <p>Khanh Hoi factory and Tong'an factory refer to the Vietnam power grid emission coefficient 2022 by the Ministry of Natural Resources and Environment on 03 19, 24.</p>
Purchased steam factor :	Refer to steam supplier provided the steam coefficient 2023 on 05 28, 24.
Data sources :	<input checked="" type="checkbox"/> The primary data is collected from on-site operation activities. <input checked="" type="checkbox"/> Category 3~6 emissions are calculated with estimated data. The secondary data sources are: Carbon Footprint Information Platform, China Products Carbon Footprint Factors Database (2022), google map. <input type="checkbox"/> others :
Verification method:	<input checked="" type="checkbox"/> On-site
Qualified opinion :	NO
Others :	NO
Verification date :	05 20, 2024 05 27, 2024 05 28, 2024 05 29, 2024 05 30, 2024 06 12, 2024
Report date :	06 12, 2024



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## Verification team and technical review

Lead Verifier : Shih-Ting, Tseng

簽名 : Shih-Ting, Tseng.

Verifier : Chun Teng, Lin

簽名 : Chun Teng, Lin

Verifier : Micky Wang

簽名 : Micky Wang

Independent review :

Hsiao Kuang Ling

簽名 : C. Kuang Ling

## Verification processes

AFNOR is based on risk assessment methods and controls. Evidence collection procedures are including pre-trip assessment, on-site visits, interviews with site personnel, confirmation of documented evidence provided, sampling of emission data, evaluation of data management systems, confirming the collection and compilation of emission data, analysis between production and energy consumption, and confirmation of whether the terms of the agreement referred to are properly applied.

## Roles and Responsibilities

The verified organization is responsible for preparing and submitting a GHG statement in accordance with the verification criteria. This responsibility includes the planning, implementation and maintenance of data management systems related to GHG declarations, GHG inventory and GHG inventory reports.

AFNOR provides independent third-party verification of the reported GHG emissions and issues verification opinions for the organizational GHG emissions. The verification team is independent and impartial, and there is no conflict of interest.