

# **SINTRONES Technology Corp.**

**2023**

## **Greenhouse Gas Inventory Report**



Prepared by: QA Department

Release Date: April 8, 2024

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## One. Organizational Profile

The Global Risks Report 2023 published by the World Economic Forum (WEF) pointed out that “failure of climate change adaptation” and “failure to mitigate climate change” are the most important risks in the next decade. According to the report of the “United Nations Intergovernmental Panel on Climate Change (IPCC)”, it is necessary for the world to actively limit the temperature rise to 1.5°C, as this is the only way to minimize the impact of climate change on the Earth.

### I. Company Profile

Company name	SINTRONES Technology Corp.
Number of employees	Around 100 employees
Main products	Manufacturer of smart in-vehicle computer systems such as In-Vehicle Computing, Edge AI Computing, Embedded Computing, and Human Machine Interface Computing.
Responsible person	Kevin Hsu
Address	Office: 2F.-3 & 4, No. 738, Zhongzheng Rd., Zhonghe Dist., New Taipei City, Taiwan Warehouse: 2F.-2, No. 166, Jian 1st Rd., Zhonghe Dist., New Taipei City, Taiwan Assembly lines: 10F.-2, No. 166, Jian 1st Rd., Zhonghe Dist., New Taipei City, Taiwan

### II. Development Goals

SINTRONES is well aware that in the face of the increasing impact of extreme climates on the Earth, the responsibility for a sustainable environment has become the goal that all citizens of the Earth jointly strive for. Thus, we are committed to becoming a green enterprise that thoroughly implements energy conservation and carbon reduction internally and externally. To fulfill our corporate responsibility for environmental protection, the Company will make efforts to:

1. Actively conduct the Company's GHG inventory to properly stay on top of the Company's GHG emission status.
2. Further implement voluntary GHG reduction-related plans based on the inventory results.

### **III. Matters Related to the Report**

1. Reporting purpose: The Company conducted this GHG inventory in response to the international trends and to ensure the accuracy of the public disclosure of GHG emissions.
2. Intended users: Corporate Governance Evaluation, ESG sustainability reports, and disclosures in annual reports.

### **IV. Policy Statement**

As a citizen of the Earth, the Company shall fulfill the corporate responsibility for environmental protection by reducing the impact of global warming, which is caused by greenhouse gas emissions, on the environment and climate. We will be committed to the following matters:

1. Continuous implementation of energy saving and carbon reduction measures.
2. Compliance with GHG-related regulations, customer requirements, and other relevant rules.
3. Specific and reasonable disclosure of the Company's GHG inventory information on a regular basis.
4. Implementation of voluntary GHG reduction-related plans to reduce the GHG emissions.

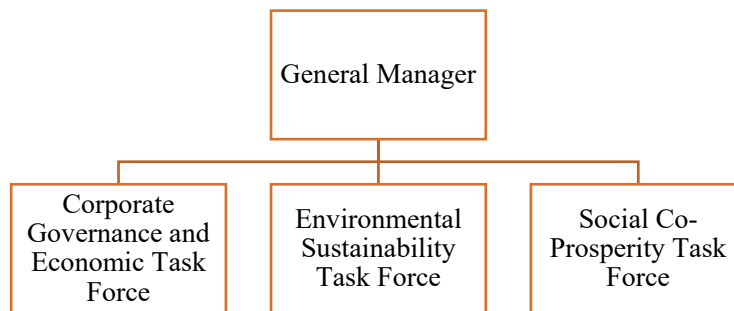
### **V. Organizational Boundary**

The organizational boundary for this inventory was based on the operational control approach, with SINTRONES Technology Corp. set as the scope of inventory.

1. Location of inventory
  - a. Office: 2F.-3 & 4, No. 738, Zhongzheng Rd., Zhonghe Dist., New Taipei City, Taiwan
  - b. Warehouse: 2F.-2, No. 166, Jian 1st Rd., Zhonghe Dist., New Taipei City, Taiwan

- c. Assembly lines: 10F.-2, No. 166, Jian 1st Rd., Zhonghe Dist., New Taipei City, Taiwan
- 2. Scope of exclusion
  - a. Public facilities (including generators, water dispensers, fire extinguishers, and air conditioners of buildings) under the control of the management committees of SINTRONES' office, warehouse, and assembly lines.
  - b. Sewage from septic tanks (included in New Taipei City's sewerage system)

**VI. GHG Inventory Organizational Chart**



## VII. GHG Categories in the Inventory

Category	Sources of GHG
CO <sub>2</sub>	Combustion of solid waste, fossil fuels, biofuels, cement manufacturing process (limestone), wafer cleaning process, CO <sub>2</sub> fire extinguishers, blast furnace/electric arc furnace processes in the iron and steel industry
CH <sub>4</sub>	Combustion of solid waste, fossil fuels, biofuels, septic tanks, animal enteric fermentation, rice cultivation, landfill waste degradation, fugitive emissions from coal storage sites
N <sub>2</sub> O	Combustion of solid waste, fossil fuels, biofuels, chemical fertilizer manufacturing process, wastewater denitrification, some ammonia nitrogen treatments
HFCS	Refrigeration equipment refrigerants (e.g. R134a & R410a), gases for semiconductor and optoelectronic processes, fire extinguishers
PFC <sub>s</sub>	Gases for semiconductor and optoelectronic processes (e.g. CF <sub>4</sub> /C <sub>2</sub> F <sub>6</sub> /C <sub>3</sub> F <sub>8</sub> )
SF <sub>6</sub>	Gases for semiconductor and optoelectronic processes, high voltage power equipment (GCB/GIS)
NF <sub>3</sub>	Gases for semiconductor and optoelectronic processes

## VIII. Covered Period, Frequency, and Responsibility of the Report

1. This Report covers the period from January 1, 2023 to December 31, 2023, with all the GHGs generated within the reporting boundary as the scope of inventory. Where there are any changes in the future, this Report will be revised accordingly and published again.
2. This Report is prepared annually and published in April.
3. Unit responsible for the Report: The QA Department is responsible for preparing the Report and providing the information related thereto, etc.
4. The Report is internally verified upon completion of the preparation, and later published after deficiencies (if any) are corrected. This Report is valid until being revised or revoked.
5. This Report is prepared in accordance with the ISO 14064-1:2018 standard.

## **Two. Reporting Boundary**

### **I. Base Year**

This is the first GHG inventory conducted by SINTRONES, so the base year is 2023.

### **II. Quantification Method for the Base Year**

The Company takes 2023 as the base year, quantifying the emissions and removals of the base year for the annual data.

### **III. Base Year Recalculation Mechanism**

1. Where there are any changes in the GHG quantification method or emission factors resulting in significant changes in the GHG emissions or removals up to a significance threshold of 5% or above.
2. Where there are any changes in the reporting boundary or organizational boundary (merger, acquisition, demerger, etc.), such as expansion, downsizing, or relocation.
3. Where any single or cumulative errors that cause a substantial accumulation of 5% or more for the base year are found.

## Three. Sources of GHG Emissions

### I. Sources and Amount of GHG Emissions of Category 1

These emissions are directly from the sources owned or controlled by SINTRONES. The Company vehicles are not included in the inventory, as they are equipped with mobile combustion engines and outsourced for maintenance. Septic tanks are not included in the inventory, as they are a source of fugitive emissions included in New Taipei City's sewerage system, and the emissions thereof cannot be estimated.

### II. Sources and Amount of GHG Emissions of Categories 2 to 6

The significant emissions assessment criteria of SINTRONES are based on the intended use, meeting the needs of intended users, and control rights, and are discussed in accordance with the ISO 14064-1:2018 standard. Regarding the selection of the criteria:

- An item with a score above 1000 is considered as significant (“V”).
- A “\*” means the Company has voluntarily selected the item as a significant one; significant indirect emissions are determined accordingly. The items assessed and identified are as follows:

#### 1. Indirect emissions of Category 2

The organization's GHG emissions resulting from the use of electricity supplied outside the organizational boundary; the GHG emissions from purchased electricity.

#### 2. Indirect emissions of Categories 3 to 6

Other indirect GHG emissions owned by other companies but resulting from the activities of SINTRONES. In consideration of the identification and description of the control rights, SINTRONES selected the GHG emissions resulting from business travels as the inventory item.

The GHG emissions from the transport of waste or from the final disposal of waste, for which the upstream/downstream companies and final disposal are not subject to SINTRONES' control, are not included in the inventory as the significant indirect GHG emissions are relatively less notable.



### 3. Criteria assessment table for significant indirect GHG emissions

Emission category	Emission item	Individual rating (1-3 points)									
		A. Range (quantity)	B. Level of influence	C. Risks and opportunities	D. Stakeholders' concerns	E. Participation of employees	F. Availability of activity data	G. Availability of emission factors	H. Frequency of occurrence	Total score	Significant or not
		Rating: Initial estimate of CO <sub>2</sub> emissions 1. Low Below 10% 2. Moderate 10%~35% 3. High Above 35%	Rating: Influence of the Company's operating cost 1. No opportunities at all 2. Cooperation with other units needed 3. Can be fully and directly influenced by the Company	Rating: 1. No disclosure required 2. Disclosure required by the industry 3. Disclosure required by government agencies	Rating: 1. No concerns or requirements 2. Demands and expectations once raised 3. Requirements by stakeholders or competent authorities	Rating: 1. Not open to employees 2. Only open to some employees 3. Open to all employees	Rating: 1. Data unavailable or hard to be compiled 2. Calculation based on estimates 3. Records of the Management Dept./ ERP/ measurement and monitoring	Rating: 1. Unavailable 2. International emission factors 3. National emission factor	Rating: 1. Less than 3 times per year 2. At least once a quarter 3. At least once a week	Total product	1. Significant as the score is above 1000 2. Voluntarily selected as significant by the Company
<b>Category 2: Indirect GHG emissions from imported energy</b>											
Imported electricity	Electricity	3	3	3	3	2	2	3	3	2916	V
<b>Category 3: Indirect GHG emissions from transportation</b>											
Upstream transportation	Raw material transportation	2	2	3	3	2	1	2	3	432	No
Downstream transportation	Product transportation	2	2	3	3	2	1	2	3	432	No
Downstream transportation	Transport of waste	2	2	3	3	2	1	1	2	144	No
Employee commuting	Cars	2	1	3	3	2	2	2	3	432	No
Employee commuting	Motorcycles	2	1	3	3	2	2	2	3	432	No
Business transportation	High speed rail	3	3	3	3	2	3	3	1	1458	V

	Plane	3	3	3	3	2	3	3	1	1458	V
	Taxi	2	3	3	3	2	3	3	2	1944	V
	Personal vehicle	2	3	3	3	2	3	3	2	1944	V

Category 4: Indirect GHG emissions from the use of products by the organization

Purchase of products	Purchase of paper	2	3	1	1	3	3	3	3	486	No
Waste disposal	Domestic waste generation	1	2	3	3	2	3	3	2	648	No

Category 5: Indirect GHG emissions associated with the use of products from the organization

Product Use	Process of product use	1	1	1	1	1	1	1	1	1	No
Product disposal	Product exhaust gas treatment	1	1	1	1	1	1	1	1	1	No

Category 6: Indirect GHG emissions from other sources

Others	None										No
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### III. Reporting Boundary of This Inventory

1. Types of GHG in the inventory

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>).

2. Identification of GHG emission sources

Emission sources within the organizational boundary are listed separately according to Categories 1, 2, 3, 4, 5, and 6.

3. The direct GHG emission sources and indirect GHG emission sources include the following:

Scope	Category		Emission source
I	I	Mobile combustion sources: Fuel combustion of transportation equipment, e.g., Company vehicles	Motor gasoline (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O)
		Fugitive emission sources: Intentional and unintentional emissions, such as leakage from equipment joints and seals, fugitive emissions of CO <sub>2</sub> from fire equipment, and fugitive emissions of HFCs from air conditioners and refrigerators	Fire extinguishers (CO <sub>2</sub> , HFC-227ea, HFC-236fa) Air conditioners and refrigerators (HFCs)
II	II	Purchased electricity	Electricity (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O)
III	III	Employee business travels (high speed rail, plane, taxi, personal vehicle)	Transportation (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O)
	IV	None	None
	V	None	None
	VI	None	None

### IV. Selection and Quality Management of GHG Emission or Removal Data

1. Principles for selection of emission factors

The GHG emission factors selected for this inventory are mainly based on the latest emission factor data published by the IPCC, the Environmental Protection Administration, Executive Yuan, or related competent authorities.

- a. Internal measurement data
- b. Factors obtained from mass balance calculation
- c. National emission factor
- d. Emission factors outside the country
- e. Applicable international factors when no applicable emission factors are available

## 2. GHG emission factor management table

Facility/activity	Emission source	Types of GHG	Emission factor		Data source
			Value	Unit	
Company vehicles	Gasoline	CO <sub>2</sub>	2.2631328720	Tons of CO <sub>2</sub> /kl	EPA Greenhouse Gas Emission Factor Management Table 6.0.4
		CH <sub>4</sub>	0.0008164260	Tons of CH <sub>4</sub> /kl	
		N <sub>2</sub> O	0.0002612563	Tons of N <sub>2</sub> O/kl	
Refrigerants of refrigerators	R134a/HFC-134a refrigerants	HFCs	1.0000000000	Tons of HFCs/ton	EPA Greenhouse Gas Emission Factor Management Table 6.0.4
Fire extinguishers	Carbon dioxide	CO <sub>2</sub>	1.0000000000	Tons of CO <sub>2</sub> /ton	Calculated based on filled amount
	HFC-227ea	HFCs	1.0000000000	Tons of HFCs/ton	Calculated based on filled amount
	HFC-236fa	HFCs	1.0000000000	Tons of HFCs/ton	Calculated based on filled amount
Purchased electricity	Taipower's electricity	CO <sub>2</sub>	0.4950000000	Tons of CO <sub>2</sub> e/MWh	2022 electricity emission factors announced by the MOEA Bureau of Energy in 2023
Business travels - High speed rail	Carbon dioxide	CO <sub>2</sub>	Official website of Taiwan High Speed Rail - Carbon Footprint of Passenger Transportation Between Stations		
Business travels - Plane	Carbon dioxide	CO <sub>2</sub>	ICAO carbon emission data prioritized; airline carbon footprint calculators as the second option		

Business travels - Taxi	Gasoline	CO <sub>2</sub>	0.0001330000	Tons of CO <sub>2</sub> e/passenger-km	Carbon Footprint Information Platform - Passenger cars for business (gasoline)
Business travels - Personal vehicle	Gasoline	CO <sub>2</sub>	0.0001150000	Tons of CO <sub>2</sub> e/passenger-km	Carbon Footprint Information Platform - Passenger cars for business (gasoline)

## V. Quantification Method

1. The GHG emissions were calculated mainly based on the emission factors as follows:

Activity data x emission factor x global warming potential (GWP) = CO<sub>2</sub> equivalent, or using the mass balance approach, which refers to calculating GHG emissions based on the mass balance of the amount of direct filling materials in and out and consumed.

2. After selecting the emission factors based on the “EPA Greenhouse Gas Emission Factor Management Table 6.0.4”, the calculated values were then converted into CO<sub>2</sub>e (carbon dioxide equivalent) according to the global warming potentials (GWPs) of different GHGs announced by the IPCC, with the unit being tons/year.
3. The GWP values were selected based on the global warming potentials (GWPs) of different GHGs announced in the IPCC Sixth Assessment Report (2021).

GWP values of substances announced by IPCC	
Substance	Default GWP value
	IPCC Sixth Assessment Report (2021)
CO <sub>2</sub>	1
CH <sub>4</sub>	27.9
N <sub>2</sub> O	273
HFC-32/R-32	771
HFC-134a/R-134a	1530
R-410A	2256
R-600A	No GWP value announced
HFC-236fa	8690

4. Brief description of calculation methods for different emissions

a. Category 1. Direct emissions

Emission source	Calculation formula	Description
Gasoline/diesel for company vehicles	Annual consumption x emission factor x GWP	The annual consumption of gasoline and diesel is based on the refueling receipts reported by the Finance Department.
Fire extinguishers/refrigerants	<p>I. CO<sub>2</sub> emissions = fire extinguisher filling volume x emission factor x GWP The activity data is the source of filling volume Description: Based on the filling records of the manufacturers</p> <p>II. HFCs emissions = procurement volume x emission factor x GWP The activity data is obtained from the equipment nameplates, technical manuals, etc.</p>	The annual replenishment amount is based on the fire safety inspection reports or the procurement records.

b. Category 2. Indirect emissions

Emission source	Calculation formula	Description
Purchased electricity	Annual electricity consumption x emission factor x GWP	<p>1 Annual electricity consumption = kWh of electricity consumption for private use + kWh of electricity consumption for utilities</p> <p>2 For the kWh of electricity consumption for private use, the total consumption is based on Taipower's electricity bills. If only the amount of electricity bills can be collected during the inventory while the actual electricity consumption cannot be obtained, the average electricity price announced by Taipower in the year of the inventory</p>

		<p>shall be used for estimation.</p> <p>3 kWh of electricity consumption for utilities = total kWh of electricity used by the building's utilities x the Company's share of electricity consumption</p>
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c. Category 3. Indirect emissions

Emission source	Calculation formula	Description
Business travels - High speed rail	"Carbon Footprint of Passenger Transportation Between Stations" comparison table	<p>1 The transportation data is based on the boarding details of Taiwan High Speed Rail; only the ticket purchase records provided by Taiwan High Speed Rail are included in the statistics.</p> <p>2 The data on carbon emissions from the journeys is extracted from "Environmental Sustainability - High Speed Rail Transportation Service Carbon Footprint", the publicly available data of Taiwan High Speed Rail.</p>
Business travels - Plane	ICAO voyage carbon emissions calculator	<p>1 The transportation carbon emissions from international air travels for business purposes are provided by the aviation carbon emissions calculator system of the International Civil Aviation Organization (ICAO). <a href="https://www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx">https://www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx</a></p> <p>2 For the ICAO aviation carbon emissions calculator methodology, the International Civil Aviation Organization Carbon Emissions Calculator Methodology Version 10 is used.</p> <p>3 The flight data is based on the ticket purchase certificates.</p> <p>4 Assumptions of the scenario of transfers: When there is no direct flight from the departure airport to the landing airport in the original data, the calculation for transfers</p>

		are made by selecting the transfer routes with the fewest connecting points or the shortest time from the Google search results.
Business travels - Taxi	Transportation distance x carbon footprint factor	<ol style="list-style-type: none"> <li>1. The transportation distance is based on the domestic business travel expense report or the fleet receipt.</li> <li>2. The emission factor is based on the Carbon Footprint Information Platform.</li> </ol>
Business travels - Personal vehicle	Transportation distance x carbon footprint factor	<ol style="list-style-type: none"> <li>1. The transportation distance is based on the kilometers of the domestic business travel expense report.</li> <li>2. The emission factor is based on the Carbon Footprint Information Platform.</li> </ol>

- d. Description of changes in the quantification method and emission factors
- i. Changes in the quantification method: Since the current year is the base year, there are no changes in the quantification method.
  - ii. Changes in the emission factors: Since the current year is the base year, there are no changes in the emission factors.

## VI. Data Quality Management

The inventory data from January 1 to December 31, 2023 were determined to be in compliance with the principles of the “Greenhouse Gas Protocol - A Corporate Accounting and Reporting Standard” and ISO 14064-1:2018, including relevance, completeness, consistency, accuracy, and transparency. To ensure the accuracy of data throughout the inventory process, each responsible unit was required to clearly state the sources of data, such as relevant requisitions, computer database records or various reports, etc. A source of data serving as a proof or evidence of the data reliability was required to be investigated, with the data retained for subsequent audits and follow-ups.

Strict and appropriate quality management was required for the inventory items such as relevant data processing, documentation, and emission calculations (including ensuring the use of correct unit conversion). The approaches include the following:

1. Formulation of the GHG Inventory Task Force

The task force is responsible for the internal verification.

2. Implementation of quality inspection

For the general errors resulting from negligence during the data collection, input and processing, data filing, and emission measurement, strict and appropriate quality



inspections were carried out in accordance with the “Greenhouse Gas Regulations”. Inspections at a stricter level were conducted in specific areas, such as the appropriateness of inventory boundary, recalculation process, quality of specific emission source inputs, and qualitative descriptions for the main causes of data uncertainties.

3. Calibration of measuring instruments

The fuel volume used by the Company vehicles and the imported electricity within the inventory boundary were measured with the instruments of external manufacturers. As for business travels, estimation was made by the Finance Department itself without any instruments. Therefore, no calibration was performed.

4. Uncertainty analysis: Categories 1 to 6 were assessed based on qualitative and quantitative assessment levels.

a. Qualitative and quantitative assessment rating scale

Qualitative and quantitative assessment rating scale			
Level	With activity data uncertainty or not	With CO <sub>2</sub> emission factor uncertainty or not	Qualitative/quantitative
A	Yes	Yes	Quantitative
B	No	Yes	Qualitative
	Yes	No	
C	No	No	Qualitative

b. Qualitative analysis assessment table

Qualitative analysis assessment table						
Activity data (A1)	Level 1	Level 2	Level 3		Level 4	
		Automatic continuous measurement	Periodic measurement (meter reading)	Financial and accounting data		Estimated value
Emission factor (A2)	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	Factors obtained from measurement/material and energy balance	Equipment experience-based factor	Factor provided by the manufacturer	Regional emission factor	National emission factor	International emission factor

c. Qualitative data quality determination table

Qualitative data quality determination table	
Level of uncertainty	Determination of data quality
$U \leq 6$	High
$6 < U \leq 15$	Good
$16 < U \leq 19$	Normal
$19 < U$	Bad

Activity data uncertainty of emission source A  
 Emission factor uncertainty of emission source A  
 Emissions from emission source A x Uncertainty of emission source A  
 Emissions from emission source B x Uncertainty of emission source B  
 Emissions from emission source A + Emissions from emission source B

Uncertainty of a single emission source

=

$$\pm \sqrt{(\text{Activity data uncertainty of emission source A})^2 + (\text{Emission factor uncertainty of emission source A})^2}$$

$$\text{Total uncertainty} = \frac{\sqrt{(\text{Emissions from emission source A} \times \text{Uncertainty of emission source A})^2 + (\text{Emissions from emission source B} \times \text{Uncertainty of emission source B})^2}}{\text{Emissions from emission source A} + \text{Emissions from emission source B}}$$

d. Qualitative and quantitative assessment table for Categories 1 to 6

Qualitative and quantitative assessment table for Categories 1 to 6							
Emission source	With activity data uncertainty or not	With CO <sub>2</sub> emission factor uncertainty or not	Level	Qualitative/quantitative	Activity data	Emission factor	Qualitative data quality
Category 1							
Mobile equipment	Yes	Yes	A	Quantitative	2	5	Good
Fire equipment	Yes	Yes	A	Quantitative	2	5	Good
Category 2							
Purchased electricity	Yes	Yes	A	Quantitative	2	5	Good
Category 3							
Business travels - High speed rail	No	No	C	Qualitative	3	5	Good
Business travels - Plane	No	No	C	Qualitative	3	5	Good
Business travels - Taxi	No	No	C	Qualitative	3	5	Good
Category 4							
Category 5							
Category 6							

## 5. Qualitative uncertainty

In light of the difficulty in obtaining relevant uncertainty data, e.g., the data proving the accuracy of instruments for the activity data of emission sources, the Company took three steps for the qualitative uncertainty assessment (except for the sources of direct GHG emissions other than purchased electricity and sources of significant indirect GHG emissions for which the assessment was already made in a qualitative manner):

### a. Establishing uncertainty models

Four models of qualitative uncertainty were defined with reference to the accuracy and precision matrix.

### b. Determining assessment levels

Level assessment	High	Low
Precision	<p>The following types of activity data were used:</p> <ol style="list-style-type: none"> <li>1 Data with external calibration made or data supported by multiple sets of data</li> <li>2 Data with internal calibration made or data certified by CPA, etc.</li> </ol>	<p>The following types of activity data were used:</p> <ol style="list-style-type: none"> <li>1 Data without instrument calibration or record compilation</li> </ol>
Accuracy	<p>The following types of factors were used:</p> <ol style="list-style-type: none"> <li>1 Plant-specific factor/factor obtained from mass balance</li> <li>2 Experience-based factor from same process/equipment</li> </ol>	<p>The following types of factors were used:</p> <ol style="list-style-type: none"> <li>1 Factor provided by the manufacturer</li> <li>2 Regional emission factor</li> <li>3 National emission factor</li> <li>4 International emission factor</li> </ol>

- c. Classifying the models of different emission sources according to the qualitative uncertainty assessment table

Category	Type of activity data	Type of emission factor	Assessment level of precision	Assessment level of accuracy	Type of model
Direct emissions from mobile combustion	Data with internal calibration made or data certified by CPA, etc.	National emission factor	High	Low	B
Emissions from business travels	Data with internal calibration made or data certified by CPA, etc.	International emission factor	High	Low	B

- d. Most of the uncertainty models of the Company's emission sources are Model B, indicating that there is a higher chance of boosting the precision of data used. More self-inventory factors may be added as additional options of factors to provide a direction of quality improvement in the future.

6. Data uncertainty assessment sources

- a. The imported electricity was subject to Section 8.1.4 of the Bureau of Standards' Technical Specification for Verification and Inspection of Electricity Meters (CNMV 46, 6th Edition); with the mechanical and static electricity meters (in watt-hour) marked with "0.5" and the maximum permissible error being  $\pm 0.5\%$ , the maximum permissible error of 1% was adopted as the uncertainty of the data based on the statistical concept of two standard deviations.
- b. The business travel data were all estimated by the financial and accounting personnel instead of being measured by monitoring equipment, so there are no uncertainties in such data.
- c. Permissible error (verification/inspection error)% x coverage factor (k=2) = uncertainty within the 95% confidence interval.
- d. Regarding the total certainty of the emission sources for this time, the analysis results are presented in the table below:

Category of emission source	Upper and lower bounds of the 95% confidence interval	Comparison with IPCC data precision	
Category 2	-7.07% ~ +7.07%	±15%	Good
Data precision	Percentage interval of average value		
High	±5%		
Good	±15%		
Normal	±30%		
Bad	>30%		

## Four. Total GHG Emissions within the Organizational Boundary of this Inventory

### 1. Table of total GHG emissions in 2023

Category of emission source (1 to 6)	Emission equivalent (tCO <sub>2</sub> e/year)	Total	Category of activity data	Data level	Category of factor
Category 1					
Fugitive emissions	0.3630	0.3630	Financial and accounting statistics	Level 1	National emission factor
Category 2					
Purchased electricity	85.4523	85.4523	Periodic (intermittent) measurement	Level 1	National emission factor
Category 3					
Business travels - High speed rail	0.2101	18.4758	Financial and accounting statistics	Level 2	National emission factor
Business travels - Plane	18.1280		Financial and accounting statistics	Level 2	International emission factor
Business travels - Taxi	0.1377		Financial and accounting statistics	Level 2	National emission factor
Category 4	No significant indirect GHG emissions				
Category 5	No significant indirect GHG emissions				
Category 6	No significant indirect GHG emissions				

### 2. Statistics on seven major direct GHG emissions

	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs	PFCs	SF <sub>6</sub>	NF <sub>3</sub>	Total
Emission equivalent (tCO <sub>2</sub> e/year)	104.2911	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	104.2911
Share of individual gas (%)	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%

## **Five. GHG Reduction Measures**

The Company mainly communicates the importance of energy conservation, cost savings and effective reduction in GHG emissions to employees through the Management Department as the specific measures.

## **Six. GHG Information Management and Inventory**

The Company conducts relevant inventory checks in accordance with the document and record-keeping requirements of ISO 16064-1:2018 and the Company's GHG management requirements.



## **Seven. GHG Internal Verification and Periodic Review**

The inventory checks are conducted in compliance with the ISO 14064-1:2018 standard. The Management Department serves as the internal verifier, and may, if necessary, commission an external unit to perform sampling for the internal verification of the inventory scope of any items that change or account for a large percentage of the inventory volume in the year of inventory. The GHG periodic review is carried out to assess the GHG emission reduction and the improvement measures.

## **Eight. GHG Inventory Information Management and Record Keeping**

In order to make the GHG inventory results within the organizational boundary of this inventory available for relevant departments for announcement or use, the Company will maintain the GHG management based on the “EPA Greenhouse Gas Emission Factor Management Table 6.0.4” to meet the requirements of the international ISO 16064-1:2018 standard. The results will also be provided as a reference for the management to make decisions to cut the Company’s GHG emissions.

1. Information management for the Report
  - a. The Report is published upon the General Manager’s approval.
  - b. The Report may be used for internal GHG management, ESG sustainability reporting, and for verification by stakeholders and third parties.
  - c. The Report is recorded and retained in accordance with the “Document Management Procedures”.

## Nine. Verification

In order to ensure the reliability of the Company's GHG inventory information and reports, enhance the quality of the Company's GHG inventory, and comply with the requirements of the government and customers, the Company intends to perform the internal verification in 2024.

1. Principles that the verification is subject to:

ISO 16064-1 : 2018

2. Scope of verification:

SINTRONES Technology Corp.

a. Office: 2F.-3 & 4, No. 738, Zhongzheng Rd., Zhonghe Dist., New Taipei City, Taiwan

b. Warehouse: 2F.-2, No. 166, Jian 1st Rd., Zhonghe Dist., New Taipei City, Taiwan

c. Assembly lines: 10F.-2, No. 166, Jian 1st Rd., Zhonghe Dist., New Taipei City, Taiwan

3. Level of assurance of verification:

Verified category	Level of assurance
Category 1: Direct GHG emissions	Reasonable level of assurance
Category 2: Indirect GHG emissions from imported energy	Reasonable level of assurance
Category 3: Indirect GHG emissions from transportation	Limited level of assurance

4. Material issues:

The materiality threshold is set at 5%.

## **Ten. Reporting Responsibility, Purpose, and Format**

This Report is prepared in accordance with ISO 14064-1:2018. It is internally verified upon completion of the preparation, and later published and disclosed on the Company's website after deficiencies (if any) are corrected. Part of the content will be disclosed in the ESG Report to provide more details on the Company's GHG information and further promote the Company's corporate social image.

### **1. Reporting format**

The format in which the Report is presented is subject to the content requirements of ISO 14064-1:2018 for GHG reports.

### **2. Access to and dissemination of the Report**

If you need the Report or want to know more about its content, please contact the following unit:

Contact unit: SINTRONES Technology Corp.

Contact Person: Chia-Chen Lee

Tel: 02-8228-0101

Address: 2F.-3, No. 738, Zhongzheng Rd., Zhonghe Dist., New Taipei City

## Eleven. References

1. ISO 14061-1:2018 Greenhouse gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
2. International Organization for Standardization, “ISO 14064-3”, March, 2019
3. 2013 IPCC Guidelines for National Greenhouse Gas Inventories, IPCC
4. The Greenhouse Gas Protocol-A Corporate Accounting and Reporting Standards, Revised Edition 2005, WBCSD
5. IPCC good practice guidance and uncertainty management in nation greenhouse gas inventories, 2000
6. 2006 IPCC Guidelines for National Greenhouse gas Inventories
7. United Nations Framework Convention on Climate Change (UNFCCC)
8. Bureau of Energy, Ministry of Economic Affairs - Taiwan’s Electricity Carbon Emission Factors in 2022
9. Regulations Governing the Registration and Management of Greenhouse Gas Emission Inventory (Jan. 2016)
10. Technical Specification for Verification and Inspection of Electricity Meters (CNMV 46, 6th Edition)
11. Taiwan Power Company - Electricity Consumption Statistics
12. Environmental Protection Administration, Executive Yuan - EPA Statement of Carbon Factors
13. Guidance for Greenhouse Gas Emission Inventory of the Environmental Protection Administration, Executive Yuan
14. Environmental Protection Administration, Executive Yuan - Guidance on Uncertainty Assessment
15. EPA Greenhouse Gas Emission Factor Management Table 6.0.4
16. Official website of Taiwan High Speed Rail - Carbon Footprint of Passenger Transportation Between Stations
17. International Civil Aviation Organization (ICAO) Aviation Carbon Emissions Calculator System