Inventory Standard	ISO 14064-1:2018	
Certificate Registr. No.		
	CF 50573590 0001	
Report No.	70334617 001	
Certificate Holder:	AVARY HOLDING (SHENZHEN) CO., LTD. Building A1-A3, Peng Ding Park, Songluo Road, Yanchuan Community, Yanluo Street, Baoan District, Shenzhen City, Guangdong, P.F China	
Verification Site:	 AVARY HOLDING (SHENZHEN) CO., LTD. -Peng Ding Park, Songluo Road, Yan Chuan Community, Yanluo Street, Bao' anDistrict, Shenzhen City, Guangdong Province, China. -Building No. 1 to 4, No. 1, Yanshan Avenue, Yanchuan Community, Yanluo Street, Shenzhen, Guangdong, China. -27th Floor, Block A, Avary Times Building, No. 2038, Haixiu Road, Haibin Community, Xin'an Street, Bao'an District, Shenzhen Shenzhen City, Guangdong Province 518101, P.R. China Building SB02, 101~601, Building SB01, Shenzhen Second Park, No.5, Niujiao Road, Yanchuan Community, Yanluo Street, Bao'an District, 	
Verification Method:	 Shenzhen City, Guangdong Province 518105, P.R. China Verification Body: TÜV Rheinland (China) Ltd. Process: Document review, interview, site visit and recalculation Verification Standard: ISO 14064-3:2006 	
Verification Scope:	 Based on the information we have received and evaluated that: Programme: Voluntary GHG scheme Organizational Boundary: Operational Control Level of Assurance: Reasonable Materiality: 5% Global warming potential (GWP): IPCC 2021 Base year: 2021 (2021.01.01~2021.12.31) Inventory year: 2022 (2022.01.01~2022.12.31) The total carbon emission is 224,821.26 tonnes CO₂ equivalent (tCO₂e) Category 1 Direct emission is 21,788.41 tCO₂e Category 2 Indirect imported energy emission is 200,866.44 tCO₂e Category 3 Indirect transportation emission is 2,108.16 tCO₂e Category 4 Indirect products used by organization emission is 58.24 tCO₂e Category 5 Indirect associated with the use of products from the organization emission is not quantified 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:	Regional Average Grid Emission Factor for calculation. This certificate only reviewed the emissions data of inventory year, this certificate is not for the management systems certification 2023-03-30 TÜV Rheinland (China) Ltd. Room 301, 3F and Room 1203, 12F, Building 4, No.15, Ronghua South Road, Beijing Economic-Technological Development Area, Beijing (Yizhuang group in high-end industrial area of Beijing Pilot Free Trade Zone), 100176, P. R. China	

high-end industrial area of Beijing Pilot Free Trade Zone), 100176, P. R. China 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.



Inventory Standard	ISO 14064-1:2018	
Certificate Registr. No.	CF 50573666 0001	
Report No.	70334633 001	
Certificate Holder:	HongQiSheng Precision Electronics (Qinhuangdao) Co., Ltd. No.18, Tengfei Road, Qinhuangdao Economy and Technological Development Zone, Hebei, P.R.China	
Verification Site:	HongQiSheng Precision Electronics (Qinhuangdao) Co., Ltd. No.18, Tengfei Road, Qinhuangdao Economy and Technological Development Zone, Hebei, P.R.China	
Verification Method:	Verification Body: TÜV Rheinland (China) Ltd. - Process: Document review, interview, site visit and recalculation - Verification Standard: ISO 14064-3:2006	
Verification Scope:	 Based on the information we have received and evaluated that: Programme: Voluntary GHG scheme Organizational Boundary: Operational Control Level of Assurance: Reasonable Materiality: 5% Global warming potential (GWP): IPCC 2021 Base year: 2021 (2021.01.01~2022.12.31) Inventory year: 2022 (2022.01.01~2022.12.31) The total carbon emission is 338824.98 tonnes CO₂ equivalent (tCO₂e) Category 1 Direct emission is 32440.02 tCO₂e Category 2 Indirect imported energy emission is 300959.02 tCO₂e Category 3 Indirect transportation emission is 5074.12 tCO₂e Category 4 Indirect products used by organization emission is 351.81 tCO₂e Category 5 Indirect other sources emission is not quantified 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 Purchased: Renewable energy 36,226.00 Mwh The inventory uses North China Power Grid Emission Factor of 2012 Chinese Regional Average Grid Emission Factor for calculation. 	
Validity:	This certificate only reviewed the emissions data of inventory year, this certificate is not for the management systems certification.	
	2023-03-30	

Room 301, 3F and Room 1203, 12F, Building 4, No.15, Ronghua South Road, Beijing Economic-Technological Development Area, Beijing (Yizhuang group in high-end industrial area of Beijing Pilot Free Trade Zone), 100176, P. R. China

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Inventory Standard	ISO 14064-1:2018	
Certificate Registr. No.	CF 50573665 0001	
Report No.	70334629 001	
Certificate Holder:	QiDing Technology Qinhuangdao Co., Ltd. No.18-2, Tengfei Road, Qinhuangdao Economy and Technology Zone, Qinhuangdao City, Hebei, P.R.China	
Verification Site:	QiDing Technology Qinhuangdao Co., Ltd. No.18-2, Tengfei Road, Qinhuangdao Economy and Technology Zone, Qinhuangdao City, Hebei, P.R.China	
Verification Method:	Verification Body: TÜV Rheinland (China) Ltd. - Process: Document review, interview, site visit and recalculation - Verification Standard: ISO 14064-3:2006	
Verification Scope:	 Based on the information we have received and evaluated that: Programme: Voluntary GHG scheme Organizational Boundary: Operational Control Level of Assurance: Reasonable Materiality: 5% Global warming potential (GWP): IPCC 2021 Base year: 2021 (2021.01.01~2021.12.31) Inventory year: 2022 (2022.01.01~2022.12.31) The total carbon emission is 91,836.07 tonnes CO₂ equivalent (tCO₂e) Category 1 Direct emission is 8,468.06 tCO₂e Category 2 Indirect imported energy emission is 82,577.40 tCO₂e Category 3 Indirect transportation emission is 703.38 tCO₂e Category 5 Indirect associated with the use of products from the organization emission is not quantified Data and information Historical in nature: Category 1 / 2 Historical in nature with scenario models: Category 3 / 4 The inventory uses North China Power Grid Emission Factor of 2012 Chinese Regional Average Grid Emission Factor for calculation. 	
Validity:	This certificate only reviewed the emissions data of inventory year, this certificate is not for the management systems certification.	
	2023-03-30 Zhutrang	

TÜV Rheinland (China) Ltd. Room 301, 3F and Room 1203, 12F, Building 4, No.15, Ronghua South Road, Beijing Economic-Technological Development Area, Beijing (Yizhuang group in high-end industrial area of Beijing Pilot Free Trade Zone), 100176, P. R. China

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.



Inventory Standard	ISO 14064-1:2018
Certificate Registr. No.	CF 50573636 0001
Report No.	70334619 001
Certificate Holder:	HongHengSheng Electronical Technology (Huai'an) Co., Ltd. No.168, Fushikang Road, Economic and Technological Development Zone,Huai'an, Jiangsu, P.R. China
Verification Site:	HongHengSheng Electronical Technology (Huai'an) Co., Ltd. No.168, Fushikang Road, Economic and Technological Development Zone,Huai'an, Jiangsu, P.R. China
Verification Method:	Verification Body: TÜV Rheinland (China) Ltd. - Process: Document review, interview, site visit and recalculation - Verification Standard: ISO 14064-3:2006
Verification Scope:	 Based on the information we have received and evaluated that: Programme: Voluntary GHG scheme Organizational Boundary: Operational Control Level of Assurance: Reasonable Materiality: 5% Global warming potential (GWP): IPCC 2021 Base year: 2021 (2021.01.01~2021.12.31) Inventory year: 2022 (2022.01.01~2022.12.31) The total carbon emission is 158503.32 tonnes CO₂ equivalent (tCO₂e) Category 1 Direct emission is 6607.29 tCO₂e Category 2 Indirect imported energy emission is 119556.20 tCO₂e Category 3 Indirect transportation emission is 32192.81 tCO₂e Category 4 Indirect products used by organization emission is 147.02 tCO₂e Category 5 Indirect associated with the use of products from the organization emission is not quantified Data and information Historical in nature: Category 1/2 Historical in nature with scenario models: Category 3 / 4 The inventory uses East China Power Grid Emission Factor of 2012 Chinese Regional Average Grid Emission Factor for calculation.
Validity:	This certificate only reviewed the emissions data of inventory year, this certificate is not for the management systems certification.
	2023-03-30 Zhutrang

TÜV Rheinland (China) Ltd. Room 301, 3F and Room 1203, 12F, Building 4, No.15, Ronghua South Road, Beijing Economic-Technological Development Area, Beijing (Yizhuang group in high-end industrial area of Beijing Pilot Free Trade Zone), 100176, P. R. China

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.



Inventory Standard	ISO 14064-1:2018
Certificate Registr. No.	CF 50573661 0001
Report No.	70334624 001
Certificate Holder:	QingDing Precision Electronics (Huai'an) Co., Ltd. No. 8 Pengding Road,Huai'an Economic and Technological Development Zone, Jiangsu, P.R. China
Verification Site:	QingDing Precision Electronics (Huai'an) Co., Ltd. No. 8 Pengding Road,Huai'an Economic and Technological Development Zone, Jiangsu, P.R. China
Verification Method:	Verification Body: TÜV Rheinland (China) Ltd. - Process: Document review, interview, site visit and recalculation - Verification Standard: ISO 14064-3:2006
Verification Scope:	 Based on the information we have received and evaluated that: Programme: Voluntary GHG scheme Organizational Boundary: Operational Control Level of Assurance: Reasonable Materiality: 5% Global warming potential (GWP): IPCC 2021 Base year: 2021 (2021.01.01~2021.12.31) Inventory year: 2022 (2022.01.01~2022.12.31) The total carbon emission is 179708.66 tonnes CO₂ equivalent (tCO₂e) Category 1 Direct emission is 4767.11 tCO₂e Category 2 Indirect imported energy emission is 173178.73 tCO₂e Category 3 Indirect transportation emission is 1660.36 tCO₂e Category 5 Indirect products used by organization emission is 102.46 tCO₂e 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 The inventory uses East China Power Grid Emission Factor of 2012 Chinese Regional Average Grid Emission Factor for calculation.
Validity:	This certificate only reviewed the emissions data of inventory year, this certificate is not for the management systems certification.
	2023-03-30

Room 301, 3F and Room 1203, 12F, Building 4, No.15, Ronghua South Road, Beijing Economic-Technological Development Area, Beijing (Yizhuang group in high-end industrial area of Beijing Pilot Free Trade Zone), 100176, P. R. China

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.



Inventory Standard	ISO 14064-1:2018
Certificate Registr. No.	CF 50573663 0001
Report No.	70334626 001
Certificate Holder:	YuDing Precision Electronics (Huai'an) Co., Ltd. No. 18 Pengding Road, Huaian Economic and Technological Development Zone, Jiangsu, P.R. China
Verification Site:	QingDing Precision Electronics (Huai'an) Co., Ltd. No. 18 Pengding Road, Huaian Economic and Technological Development Zone, Jiangsu, P.R. China
Verification Method:	Verification Body: TÜV Rheinland (China) Ltd. - Process: Document review, interview, site visit and recalculation - Verification Standard: ISO 14064-3:2006
Verification Scope:	 Based on the information we have received and evaluated that: Programme: Voluntary GHG scheme Organizational Boundary: Operational Control Level of Assurance: Reasonable Materiality: 5% Global warming potential (GWP): IPCC 2021 Base year: 2021 (2021.01.01~2022.12.31) Inventory year: 2022 (2022.01.01~2022.12.31) The total carbon emission is 77878.67 tonnes CO₂ equivalent (tCO₂e) Category 1 Direct emission is 318.53 tCO₂e Category 2 Indirect imported energy emission is 76793.47 tCO₂e Category 3 Indirect transportation emission is 764.47 tCO₂e Category 4 Indirect products used by organization emission is 2.20 tCO₂e Category 5 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 The inventory uses East China Power Grid Emission Factor of 2012 Chinese Regional Average Grid Emission Factor for calculation.
Validity:	This certificate only reviewed the emissions data of inventory year, this certificate is not for the management systems certification.
	2023-03-30

Room 301, 3F and Room 1203, 12F, Building 4, No.15, Ronghua South Road, Beijing Economic-Technological Development Area, Beijing (Yizhuang group in high-end industrial area of Beijing Pilot Free Trade Zone), 100176, P. R. China

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.





LRQA Independent Assurance Statement Relating to Boardtek Electronics Corporation GHG Report for the calendar year 2022

Boardtek Electronics Corporation, 16 and 27, Ching Chien 1st Rd. Kuan-Yin Industrial Park, Taoyuan, Taiwan

服務條件

本保證聲明書乃為先豐通訊股份有限公司所準備。

英商勞盛股份有限公司台灣分公司(以下簡稱 LRQA)受先豐通訊股份有限公司(以下簡稱 BOARDTEK)之 委託以查證其 2022 年日曆年度(2022 年 1 月 1 日~12 月 31 日)期間溫室氣體盤查報告(發行日期:2023 年 03 月 21 日,第二版),以下簡稱為"溫室氣體盤查報告"。

此溫室氣體盤查報告包含直接、能源間接以及其其他間接(由運輸產生之間接溫室氣體排放)之溫室氣體 排放,先豐通訊股份有限公司包含下列的地址範圍內的印刷電路板製造相關活動,與其他相關設施設備 活動,如溫室氣體盤查報告中所描述。

溫室氣體報告:先豐通訊 2022 年度溫室氣體盤查報告書_Rev2.0 先豐通訊股份有限公司:桃園市觀音工業區經建一路 16、27 號

Terms of Engagement

This Assurance Statement has been prepared for Boardtek Electronics Corporation.

LRQA Limited (LRQA) was commissioned by Boardtek Electronics Corporation. (hereafter referred to as the "BOARDTEK") to assure its GHG Report¹ for the calendar year 2022 (01 January 2022 ~31 December 2022) (hereafter referred to as "the Report").

The Report relates to direct GHG emissions, energy indirect GHG emissions and other indirect GHG emissions (Indirect emissions from transportation). Boardtek Electronics Corporation includes the operations and activities relevant to the Manufacture of printed circuit board, and the associated facilities and equipment as set out in the GHG Report.

管理責任

先豐通訊股份有限公司的管理階層對本溫室氣體盤查報告之準備及維持有效的內部控管包含溫室氣體盤 查報告中揭露之資料負責,LRQA的責任為依據我們與先豐通訊股份有限公司的合約執行查證。

最終的,溫室氣體盤查報告由先豐通訊股份有限公司所核准並負有責任。

Management Responsibility

BOARDTEK's management was responsible for preparing the Report and for maintaining effective internal controls over the data and information disclosed. LRQA's responsibility was to carry out an assurance engagement on the Report in accordance with our contract with the BOARDTEK.

Ultimately, the Report has been approved by, and remains the responsibility of BOARDTEK.

¹ Final_GHG report_ISO14064-1-2018_Clendar year (2022)_BOARDTEK, dated <u>21 March, 2nd</u> Edition.



LRQA 的方法

LRQA 查證已依循 ISO 14064-3:2019 (溫室氣體主張之確証與查証附指引之規範),以提供對先豐通訊股份有限公司符合 ISO 14064-1:2018 (組織層級溫室氣體溫室氣體排放與移除之量化及報告附指引之規範)規定所準備的溫室氣體盤查報告之類別一與二之合理保證查證以及<u>類別三</u>有限保證等級查證。

為作成結論,本保證以抽樣方式執行並涵蓋下列的活動:

- 依溫室氣體盤查報告中所界定的設施設備,進行現場查訪;同時審查與溫室氣體排放數據及資料 管理相關的過程;
- 訪談組織中對於相關溫室氣體排放數據與紀錄管理與維持之權責人員;
- 查核來自於環保署之相關係數與 IPCC 2022 年第六次評估報告之 GWP 值;
- 查證類別一與類別二的歷史數據及資料來源;
- 查證類別三之上游原料與下游產品海運與空運運輸之活動數據彙整;以及
- 查證報告排放類別之重大性原則
- •

LRQA's Approach

Our verification has been conducted in accordance with ISO 14064–3:2019, 'Specification with guidance for verification and validation of greenhouse gas statements' to provide reasonable assurance for Categories 1 and 2 and limited assurance for <u>Category 3</u>, that GHG data as presented in the Report have been prepared in conformance with ISO 14064–1:2018, 'Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals'.

To form our conclusions the assurance engagement was undertaken as a sampling exercise and covered the following activities:

- Conducted site tour of the facilities and reviewed processes related to the control of GHG emissions data and records;
- Interviewed relevant staff of the organization responsible for managing GHG emissions data and records; and
- Verified emission factors sourced from EPA and the Global Warming Potentials (GWPs) from the Sixth Assessment Report of the Intergovernmental Panel on Climate Change 2022 (AR6).
- Verified historical GHG emissions data and records for Categories 1 and 2 emissions back to source.
- Verified historical GHG emissions data and records at an aggregated level for <u>Category 3</u> emissions from upstream raw material and downstream final product transport through air and sea .
- Confirmed significance criteria on reporting of emission categories

查證等級及實質性

本查證聲明書的查證意見基於合理保證等級(類別一與二),有限保證等級(類別三)及5%的實質性等級。

Level of Assurance & Materiality

In accordance with our contract agreement, the assurance was conducted at a reasonable level of assurance at a materiality of 5% for Categories 1 and 2 and at a limited level of assurance at a materiality of 5% for <u>Category 3</u>. The opinion expressed in this Assurance Statement has been accordingly formed.

LRQA意見

基於 LRQA 的方法,依溫室氣體盤查報告中揭露年西元 2022 年度之全部直接及能源間接的溫室氣體(類別一與類別二)排放總量實質正確,其他間接溫室氣體排放(類別三)沒有任何情形引起我們注意到計算沒 有實質正確;溫室氣體盤查報告之準備也符合 ISO 14064-1:2018 (組織層級溫室氣體溫室氣體排放與移 除之量化及報告附指引之規範)相關要求。



LRQA's Opinion

Based on LRQA's approach,

- The GHG emissions for Categories 1 and 2 disclosed in the Report as summarized in Table 1 below are materially correct.
- Nothing has come to our attention that would cause us to believe that the GHG emissions for <u>Category</u> <u>3</u> disclosed in the Report as summarized in Table 1 below is not materially correct;

and that the Report has been prepared in conformance with ISO 14064-1:2018.

LRQA's 建議

先豐通訊股份有限公司需考量:

- 對於設備冷媒排放量之溫室氣體計算,應考量使用實際補充量替代「設備冷媒逸散率」方式進行。
- 改進關於生產線上,四氟化碳的氣體鋼瓶消耗的數據收集,以提高數據準確性。
- 強化人員對於活動數據蒐集之知識與技巧。

LRQA's Recommendations

BOARDTEK should:

- For the GHG calculation of the greenhouse gas emissions of equipment refrigerants, it should be considered to use the actual replenishment amount instead of the "equipment refrigerant emission rate" method.
- Improved data collection on production line consumption of carbon tetrafluoride gas cylinders to improve data accuracy.
- Strengthen staff's knowledge and skills in activity data collection.

Signed

Sean Chiang JI & JK

Sean Chiang Lead Verifier 主導查驗員

On behalf of LRQA Group Limted Taiwan CIT, Unit B, No. 1, Yumen St., Zhongshan Dist., Taipei City, Taiwan. 台北市中山區玉門街 1 號 台北創新中心(CIT) B 室 日期 Dated: 22 Mar 2023

Chiang-shan Chen General Manager 總經理

LRQA reference number: TWN00000317/O_2022/Date Issued: 07 April 2023



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Table 1. Summary of Boardtek Electronics Corporation, GHG Report for the calendar year 2022 (01 January ~31 December 2022)

Scope of GHG emissions	Tonnes CO₂e
Direct GHG emissions (Category 1) 直接溫室氣體排放	8,862.6478
Direct GHG emissions from the combustion of biomass (生質燃燒溫室氣體排放)	None
Indirect GHG emissions from imported energy (purchased electricity) 輸入能源產生之間接溫室氣體排放(電力採購) (Category 2, Location-based 地區基礎)	48,843.2328
Indirect GHG emissions from imported energy (Category 2, Market-based 市場基礎)	None
Indirect GHG emissions from transportation (Category 3) 由運輸產生之間接溫室氣體排放	4,357.3665
Indirect GHG emissions from products used by the organization (Category 4) 由組織使用的產品所產生之間接溫室氣體排放	No data See note 3
Indirect GHG emissions associated with the use of products from the organization (Category 5) 與組織的產品使用相關連之間接溫室氣體排放	No data See note 3
Indirect GHG emissions from other sources (Category 6) 由其他來源產生的間接溫室氣體排放	Not identified See note 3

Note 1: The year 2022 national electricity emission factor was taken had from Taiwan BOE (Bureau of Energy) as published on 22 July 2022.

Note 2: GHG emission figures above are being reported with four decimal places as required by Taiwan EPA.

Note 3: Owing to low significance, data related to GHG emissions from Category 4, 5 and 6 was not presented and therefore was not reviewed.

備註 1:2022 年度國家電力溫室氣體排放係數引用能源局在 2022 年 7 月 22 日公佈電力係數作為外購電力之排放係數。

備註 2:溫室氣體盤放數據相關小數點規定依據環保署規定執行。

備註 3: 由於重要性較低,未提供與類別四、五和六之溫室氣體排放相關的數據,因此未進行審查。

This Assurance Statement is subject to the provisions of this legal section:

LRQA Group Limited, its affiliates and subsidiaries, and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'LRQA'. LRQA assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant LRQA entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

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