

Certificate CN25/00007995

The management system of

AVARY HOLDING (SHENZHEN) CO., LIMITED

Unified Social Credit Code: 9144030070855050X9

Business Registration Address: 27th Floor, Block A, AVARY Time Center, No. 2038 Haixiu Road,
Haibin Community Xin'an Street, Bao'an District, Shenzhen

Business Operation Address: Bldg 1-3, AVARY Park, Songlong Road, Yanchuan Community,
Yanluo Street, Bao'an District, Shenzhen, Guangdong, P.R. China

has been assessed and certified as meeting the requirements of

GB/T 23331-2020 / ISO 50001:2018

RB/T 101-2013

For the following activities

Design, manufacturing and assembly of PCB (Printed Circuit Board) involving management of energy procurement, receiving, storage, processing and conversion, transmission and distribution, use, waste heat and energy recycling and the utilization of energy-saving technologies.

This certificate is valid from 25 November 2025 until 24 November 2028 and remains valid subject to satisfactory surveillance audits.

Issue 1. Certified since 25 November 2025

Certified activities performed by additional sites are listed on subsequent pages.

For the detail information regarding boundaries and comprehensive energy consumption, please see the appendix with the same number of this certificate and it is the component of this certificate.



Authorised by

David Xin

Sr. Director - Business Assurance

SGS-CSTC Standards Technical Services Co., Ltd.

16F Century YuHui Mansion, No. 73 Fucheng Road, Beijing, P.R. CHINA 100142

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The certification information can be verified on the web site of Certification and Accreditation Administration of the People's Republic of China www.cnca.gov.cn



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Certificate CN25/00007995, continued

AVARY HOLDING (SHENZHEN) CO., LIMITED

GB/T 23331-2020 / ISO 50001:2018
RB/T 101-2013

Issue 1

Sites

AVARY HOLDING (SHENZHEN) CO., LIMITED

Unified Social Credit Code: 9144030070855050X9

Business Registration Address: 27th Floor, Block A, AVARY Time Center, No. 2038 Haixiu Road, Haibin Community Xin'an Street, Bao'an District, Shenzhen

Business Operation Address: Bldg 1-3, AVARY Park, Songlong Road, Yanchuan Community, Yanluo Street, Bao'an District, Shenzhen, Guangdong, P.R. China

Design, manufacturing and assembly of PCB (Printed Circuit Board) involving management of energy procurement, receiving, storage, processing and conversion, transmission and distribution, use, waste heat and energy recycling and the utilization of energy-saving technologies.

AVARY HOLDING (SHENZHEN) CO., LIMITED

Unified Social Credit Code: 9144030070855050X9

Business Registration Address: 27th Floor, Block A, AVARY Time Center, No. 2038 Haixiu Road, Haibin Community Xin'an Street, Bao'an District, Shenzhen

Business Operation Address: Shenzhen No. 2 Park, No. 5, Niujiiao Road, Yanchuan Community, Yanluo Street, Bao'an District, Shenzhen, Guangdong, P.R. China

Assembly of PCB (Printed Circuit Board) involving management of energy procurement, receiving, storage, processing and conversion, transmission and distribution, use, waste heat and energy recycling and the utilization of energy-saving technologies.



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AVARY HOLDING (SHENZHEN) CO., LIMITED

Unified Social Credit Code 9144030070855050X9
Bldg 1-3, AVARY Park, Songlong Road, Yanchuan Community, Yanluo Street,
Bao'an District, Shenzhen, Guangdong, P.R. China

GB/T 23331-2020/ISO 50001:2018 RB/T 101-2013

Issue 1

Organization's energy performance indicators and boundaries

Audit type and date	Energy consumption per unit product or unit output value during audit cycle	Boundaries
Initial 29-31 October 2025	From Jan. 2024 to Dec. 2024 0.0279 tce/ten thousand yuan FPC: 0.0068 Tce/m² HDI: 0.0136 Tce/m² Assemblies: 0.249 Tce/10K PCS From Jan. 2025 to Sept. 2025 0.0268 tce/ten thousand yuan FPC: 0.0064 Tce/m² HDI: 0.0118 Tce/m² Assemblies: 0.253 Tce/10K PCS	Avary Holding (Shenzhen) Co, Ltd. located in Bldg 1-3, AVARY Park, Songlong Road, Yanchuan Community, Yanluo Street, Bao'an District, Shenzhen, Guangdong, P.R. China. The main energy consumption processes include the main production systems such as cutting, drilling, copper plating, lamination / exposure, development / etching / stripping, inspection, laminating, press bonding / baking, surface treatment, printing / solder masking, slitting / blanking, mounting, assembly, the auxiliary production systems such as power supply, air conditioning, chiller, boiler, air compressor, wastewater Treatment, pure water equipment and the subsidiary production systems such as offices, staff dormitory and canteen. Avary Holding (Shenzhen) Co., Ltd. located in Shenzhen No. 2 Park, No. 5, Niujiao Road, Yanchuan Community, Yanluo Street, Bao'an District, Shenzhen, Guangdong, P.R. China. The main energy consumption processes include the main production systems such as SMT, reflow soldering, UV curing, press lamination, stamping and welding, the auxiliary production systems such as power supply, air conditioning, chiller, air compressor, nitrogen generator and the subsidiary production systems such as offices, staff dormitory and canteen. From Jan. 2024 to Dec. 2024, FPC: 1452981m²; HDI:1578028m²; Assemblies: 44409 10K PCS. From Jan. 2025 to Sept. 2025, FPC: 1241952m²; HDI: 1428711m²; Assemblies: 34978 10K PCS.
1 st Sur		
2 nd Sur		



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CERTIFICATE OF MANAGEMENT SYSTEM CERTIFICATION

Certificate No: 01123EN30023R3L

OID No: 1.2.156.1.2.01123EN30023R3L

This is to certify that the Energy Management System of

HONGHENGSHENG ELECTRONICAL TECHNOLOGY (HUAI'AN) CO., LTD.

(Certificate of Social Credit Code : 91320891795375374T)

(No.168, Fushikang Road, Huai'An Economic And Technological Development Zone,
Jiangsu Province, China (Inside Of Integrated Free Trade Zone), 223005)

has complied with the requirements of

GB/T 23331-2020/ISO 50001:2018

Energy management systems-Requirements

RB/T 101-2013

This certificate is valid for the following scope:

**THE ENERGY MANAGEMENT ACTIVITIES RELATED TO THE MANUFACTURING
PROCESS OF MULTI-LAYER AND HIGH-DENSITY PRINTED CIRCUIT BOARDS
OF HONGHENGSHENG ELECTRONIC TECHNOLOGY (HUAI'AN) CO., LTD.
LOCATED AT NO. 168, FOXCONN ROAD, HUAI'AN ECONOMIC AND
TECHNOLOGICAL DEVELOPMENT ZONE, JIANGSU PROVINCE
(IN THE COMPREHENSIVE BONDED AREA)**

THE VALIDITY OF THIS CERTIFICATE DEPENDS ON THE CONSEQUENCE OF
THE ANNUALLY SURVEILLANCE EXECUTED BY THE CERTIFICATION BODY
PLEASE ACCESS www.cc.cesi.cn OR www.cnca.gov.cn FOR CHECKING VALIDITY OF THE CERTIFICATE

Note: The scope of product services without the related administrative permits and qualifications is
not included in the scope of certification registration.

General Manager

Issue Date:2023-08-02

Valid Until:2026-08-01

CESI Certification Co., Ltd.



中国认可
管理体系

MANAGEMENT SYSTEM
CNAS C011-M





CERTIFICATE OF MANAGEMENT SYSTEM CERTIFICATION

Certificate No: 01123EN30029R2L

OID No: 1.2.156.1.2.01123EN30029R2L

This is to certify that the Energy Management System of

QINGDING PRECISION ELECTRONICS (HUI'AN) CO., LTD.

(Certificate of Social Credit Code : 91320891094404566T)

(No.8, Pengding Road, Huai'an Economic And Technological Development Zone,
Jiangsu Province, China, 223005)

has complied with the requirements of

GB/T 23331-2020/ISO 50001:2018

Energy management systems-Requirements

RB/T 101-2013

This certificate is valid for the following scope:

**THE ENERGY MANAGEMENT ACTIVITIES RELATED TO THE MANUFACTURING
AND ASSEMBLY PROCESS OF PRINTED CIRCUIT BOARDS PROVIDED BY
QINGDING PRECISION ELECTRONICS (HUI'AN) CO., LTD., WHICH IS LOCATED
AT NO. 8 PENGDING ROAD, HUIAN ECONOMIC AND TECHNOLOGICAL
DEVELOPMENT ZONE, JIANGSU PROVINCE, CHINA**

THE VALIDITY OF THIS CERTIFICATE DEPENDS ON THE CONSEQUENCE OF
THE ANNUALLY SURVEILLANCE EXECUTED BY THE CERTIFICATION BODY

PLEASE ACCESS www.cc.cesi.cn OR www.cnca.gov.cn FOR CHECKING VALIDITY OF THE CERTIFICATE

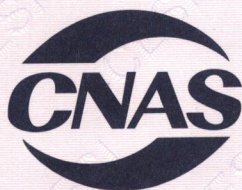
Note: The scope of product services without the related administrative permits and qualifications is
not included in the scope of certification registration.

General Manager

Issue Date:2023-09-06

Valid Until:2026-09-20

CESI Certification Co., Ltd.



中国认可
管理体系
MANAGEMENT SYSTEM
CNAS C011-M



Add: No.1Andingmen Dongdajie Dongchengqu,Beijing,China

Tel: 400-071-9000

[Http://www.cc.cesi.cn](http://www.cc.cesi.cn)



CERTIFICATE OF MANAGEMENT SYSTEM CERTIFICATION

Certificate No: 01123EN30059R0L

OID No: 1.2.156.1.2.01123EN30059R0L

This is to certify that the Energy Management System of

**HONG QI SHENG PRECISION ELECTRONICS
(QINHUANGDAO) CO., LTD.**

(Unified Social Credit Code: 91130300798413970U)

(No.18, Tengfei Road, Economic & Technological Development Zone,
Qinhuangdao City, Hebei Province, 066000)

has complied with the requirements of

GB/T 23331-2020/ISO 50001:2018

RB/T 101-2013

This certificate is valid for the following scope:

THE MANUFACTURING AND ASSEMBLY OF PRINTED CIRCUIT

The Location Covered By The Certification Is:

No.18, Tengfei Road, Economic & Technological Development Zone,
Qinhuangdao City, Hebei Province

THE VALIDITY OF THIS CERTIFICATE DEPENDS ON THE CONSEQUENCE OF THE ANNUALLY
SURVEILLANCE EXECUTED BY THE CERTIFICATION BODY

PLEASE ACCESS www.cc.cesi.cn OR www.cnca.gov.cn Note: The scope of product services without the related administrative permits and qualifications is not included in the scope of certification registration.

SIGNATURE:

CESI Certification Co., Ltd.

Issue Date:2023-12-29

Exchange Date:2024-12-27

Valid Until: 2026-12-28



中国认可
管理体系
MANAGEMENT SYSTEM
CNAS C011-M



Add: 2nd Floor, Building 1, No.1 Andingmen Dongdajie, Dongcheng District, Beijing, China

Tel:4000719000

<http://www.cc.cesi.cn>



证书附件

证书编号: 01123EN30059R0L

OID 编号: 1.2.156.1.2.01123EN30059R0L

发证日期: 2023 年 12 月 29 日

换证日期: 2024 年 12 月 27 日

有效期至: 2026 年 12 月 28 日

获证组织名称: 宏启胜精密电子(秦皇岛)有限公司

获证组织地址: 秦皇岛市经济技术开发区腾飞路 18 号, 066000

证书编号: 01123EN30059R0L

认证依据标准: GB/T 23331-2020/ISO 50001:2018

RB/T 101-2013

审核类型及时间	审核周期单位产品/产值能耗	能耗核算边界
初次认证 2023 年 12 月 25 日- 12 月 28 日	2023 年 1 月至 11 月 综合能耗: 53999 吨标准煤; 单位产品综合能耗: 4.30 千克标准煤/平方英尺; 单位产值综合能耗: 75.19 千克标准煤/万元;	位于河北省秦皇岛市经济技术开发区腾飞路 18 号的宏启胜精密电子(秦皇岛)有限公司范围内的与印刷电路板的制造和组装过程相关的能源管理活动, 涵盖: 裁切、钻孔、镀铜、显影、蚀刻、压合、镀化金、印刷、电测、冲型、空板板检、模组等主要生产系统用能, 及供配电系统、冰水系统、空调系统、空压系统、锅炉系统等辅助生产系统用能, 以及废气处理系统、污水处理系统、食堂、宿舍、办公等附属生产系统用能, 主要能源种类为电力、天然气、热力。



证书附件

证书编号: 01123EN30059R0L

OID 编号: 1.2.156.1.2.01123EN30059R0L

发证日期: 2023 年 12 月 29 日

换证日期: 2024 年 12 月 27 日

有效期至: 2026 年 12 月 28 日

获证组织名称: 宏启胜精密电子(秦皇岛)有限公司

获证组织地址: 秦皇岛市经济技术开发区腾飞路 18 号, 066000

证书编号: 01123EN30059R0L

认证依据标准: GB/T 23331-2020/ISO 50001:2018

RB/T 101-2013

审核类型及时间	审核周期单位产品/产值能耗	能耗核算边界
第一次监督 2024 年 12 月 22 日下午- 12 月 24 日	2023 年 12 月至 2024 年 11 月 综合能耗: 69349 吨标准煤; 单位产品综合能耗: 4.25 千克标准煤/平方英尺; 单位产值综合能耗: 69.52 千克标准煤/万元;	位于河北省秦皇岛市经济技术开发区腾飞路 18 号宏启胜精密电子(秦皇岛)有限公司范围内印刷电路板制造和组装过程用能, 涵盖裁切、钻孔、镀铜、显影、蚀刻、压合、镀化金、印刷、电测、冲型、空板板检、模组等主要生产系统用能, 以及供配电系统、冰水系统、空调系统、空压系统、锅炉系统等辅助生产系统用能, 和废气处理系统、污水处理系统、食堂、宿舍、办公等附属生产系统用能, 主要能源种类为电力、天然气、热力。
第 次监督		

Certificate CN24/00002392

The management system of



Leading Interconnect Semiconductor Technology (Shenzhen) Co., Ltd.

Unified Social Credit Code 91440300MA5FRFF461

Business Registration Address: SL11, No. 8, Langdong Road, Yanchuan Community,
Yanluo Street, Bao'an District, Shenzhen City, Guangdong Province, China

Business Operation Address: SL01, No. 8, Langdong Road, Yanchuan Community,
Yanluo Street, Bao'an District, Shenzhen City, Guangdong Province, P.R. China

has been assessed and certified as meeting the requirements of

**GB/T 23331-2020/
ISO 50001:2018
RB/T 101-2013**

For the following activities

**Manufacture of integrated circuit (IC) substrates involving management of energy
procurement, receiving, storage, processing and conversion, transmission and
distribution, use, waste heat and waste energy recycling and the utilization of
energy-saving technologies.**

For the detail information regarding boundaries and comprehensive energy consumption, please see the
appendix with the same number of this certificate and it is the component of this certificate.

This certificate is valid from 19 April 2024 until 18 April 2027
and remains valid subject to satisfactory surveillance audits.

Re certification audit due a minimum of 60 days before the expiration date
Issue 1. Certified since 19 April 2024.



Authorized by

David Xin
Sr. Director - Business Assurance

SGS-CSTC Standards Technical Services Co., Ltd.
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People's Republic of China www.cnca.gov.cn

Page 1 of 1



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of this document is unlawful.

Leading Interconnect Semiconductor Technology (Shenzhen) Co., Ltd.

Unified Social Credit Code 91440300MA5FRFF461
SL01, No. 8, Langdong Road, Yanchuan Community, Yanluo Street, Bao'an District,
Shenzhen City, Guangdong Province, P.R. China

**GB/T 23331-2020/
ISO 50001:2018
RB/T 101-2013**

Issue 1



Organization's energy performance indicators and boundaries

Audit type and date	Energy consumption per unit product or unit output value during audit cycle	Boundaries
Initial 28-29 Mar 2024	From Jan 2023 to July 2023 0.3815 tce/ten thousand yuan integrated circuit (IC) substrates: 3.7959 tce/m² From Aug 2023 to Jan 2024 0.2716 tce/ten thousand yuan integrated circuit (IC) substrates: 2.3564 tce/m²	Leading Interconnect Semiconductor Technology (Shenzhen) Co., Ltd. located at SL01, No. 8, Langdong Road, Yanchuan Community, Yanluo Street, Bao'an District, Shenzhen City, Guangdong Province, P.R. China. The main energy consumption processes include production systems such as release, mechanical drilling, core plating, core plug, core lithography, ABF lamination, laser, SAP desmear, SAP E'less Cu, BU lithography, SAP patten plating, BU stripping/etching, AOI, solder mask, surface finish, μ-ball, SAW, e-test and visual inspection, the auxiliary production systems such as power supply and distribution, boiler, air compressors, central air conditioning, pure water preparation, waste gas treatment and wastewater treatment, and the subsidiary production systems such as administrative offices. From Jan 2023 to July 2023, the production quantity of integrated circuit (IC) substrates is 1439.46 m² From Aug 2023 to Jan 2024, the production quantity of integrated circuit (IC) substrates is 1778.5374 m²
1 st Sur		
2 nd Sur		



CERTIFICATE OF MANAGEMENT SYSTEM CERTIFICATION

Certificate No: 01124EN30002R0L

OID No: 1.2.156.1.2.01124EN30002R0L

This is to certify that the Energy Management System of

**LEADING INTERCONNECT SEMICONDUCTOR
TECHNOLOGY QINHUANGDAO CO., LTD.**

(Unified Social Credit Code: 91130301MA0G5HET10)

(No.18-8, Tengfei Road, Economy And Technology Development Zone,
Qinhuangdao City, Hebei Province, China, 066000)

has complied with the requirements of

GB/T 23331-2020/ISO 50001:2018

RB/T 101-2013

This certificate is valid for the following scope:

**THE MANUFACTURING OF
INTEGRATED CIRCUIT (IC) PACKAGING**

The Location Covered By The Certification Is:

No.18-8, Tengfei Road, Economy and Technology Development Zone,
Qinhuangdao City, Hebei Province, China

THE VALIDITY OF THIS CERTIFICATE DEPENDS ON THE CONSEQUENCE OF THE ANNUALLY
SURVEILLANCE EXECUTED BY THE CERTIFICATION BODY

PLEASE ACCESS www.cc.cesi.cn OR www.cnca.gov.cn FOR CHECKING VALIDITY OF THE CERTIFICATE

Note: The scope of product services without the related administrative permits and qualifications is not
included in the scope of certification registration.

SIGNATURE:

CESI Certification Co., Ltd.

Issue Date:2024-01-22

Exchange Date:2025-02-14

Valid Until: 2027-01-21



中国认可
管理体系
MANAGEMENT SYSTEM
CNAS C011-M



Add: 2nd Floor, Building 1, No.1 Andingmen Dongdajie, Dongcheng District, Beijing, China

Tel:4000719000

<http://www.cc.cesi.cn>



证书附件

证书编号: 01124EN30002R0L

OID 编号: 1.2.156.1.2.01124EN30002R0L

发证日期: 2024 年 1 月 22 日

换证日期: 2025 年 2 月 14 日

有效期至: 2027 年 1 月 21 日

获证组织名称: 礼鼎半导体科技秦皇岛有限公司

获证组织地址: 河北省秦皇岛经济技术开发区腾飞路 18-8 号, 066000

证书编号: 01124EN30002R0L

认证依据标准: GB/T 23331-2020/ISO 50001:2018

RB/T 101-2013

审核类型及时间	审核周期单位产品/产值能耗	能耗核算边界
初次认证 2024 年 01 月 08 日- 1 月 09 日	2023 年 1 月 1 日- 2023 年 11 月 30 日 综合能耗: 17118 吨标准煤 单位产品综合能耗: 8.30 千克标准煤/平方英尺 单位产值综合能耗: 0.17 吨标准煤/万元	位于中国河北省秦皇岛市 经济技术开发区腾飞路 18-2 号的范围内的与集成电路(IC) 封装载板的制造过程相关, 涵 盖压合、镀铜、线路制作、镀 金等主要生产系统用能及供配 电系统、中央空调与通风系统、 锅炉系统、制取纯水系统、废 气处理系统、废水处理系统的 辅助生产系统用能和办公附属 生产系统用能, 主要能源种类 为电力、天然气、热力。



证书附件

证书编号: 01124EN30002R0L

OID 编号: 1.2.156.1.2.01124EN30002R0L

发证日期: 2024 年 1 月 22 日

换证日期: 2025 年 2 月 14 日

有效期至: 2027 年 1 月 21 日

获证组织名称: 礼鼎半导体科技秦皇岛有限公司

获证组织地址: 河北省秦皇岛经济技术开发区腾飞路 18-8 号, 066000

证书编号: 01124EN30002R0L

认证依据标准: GB/T 23331-2020/ISO 50001:2018

RB/T 101-2013

审核类型及时间	审核周期单位产品/产值能耗	能耗核算边界
第一次监督 2025 年 1 月 14 日- 1 月 15 日	2023 年 12 月至 2024 年 11 月 综合能耗: 19014 吨标准煤; 单位产品综合能耗: 6.53 千克标准煤/平方英尺; 单位产值综合能耗: 137.1 千克标准煤/万元;	位于河北省秦皇岛市经济技术开发区腾飞路 18-8 号礼鼎半导体科技秦皇岛有限公司范围内集成电路 (IC) 封装载板的制造过程用能, 涵盖压合、镀铜、线路制作、镀金等主要生产系统用能, 以及供配电系统、中央空调与通风系统、锅炉系统、纯水系统等辅助生产系统用能和废气处理系统、废水处理系统、办公等附属生产系统用能, 主要能源种类为电力、天然气。
第 次监督		