

# Independent Verification Opinion

Verification Opinion No.: C755856-2024-AG-TWN-DNV

**Issued Place and Date** Taipei, 18 April, 2025

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This is to verify initiate reporting of Greenhouse Gas Inventory Management Report (2024) of

# **Nuvoton Technology Corporation Subsidiary**

#### **Scope of Verification**

DNV Business Assurance (DNV) has been commissioned by Nuvoton Technology Corporation Subsidiary (hereafter "the Organization") to perform a verification of the greenhouse gas statements of Greenhouse Gas Inventory Management Report (2024) (hereafter the "Inventory Report") in Taiwan, R.O.C. with respect to the sites listed as below.

Site	Address			
芯唐電子科技(深圳)有限公司	深圳市南山區高新南六道 6 號邁科龍大廈 8 樓 801 室			
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芯唐電子科技(上海)有限公司 	江蘇省南京市珠江路 67 號 4605 室			
芯唐電子科技(南京)有限公司	江苏省南京市建邺区双闸街道江东中路 258 号 3 幢华新城 T1 办公楼 10 层 1001、1005、1006 室			
Nuvoton Technology Singapore Pte. Ltd.	3 Bedok South Road, Singapore, 469269			
Nuvoton Technology Israel Ltd.	8 Hasadnaot Street, Herzliya B, 4672835 Israel			
Nuvoton Technology Korea Ltd.	2507 Room, Trade Tower, Yeongdong-daero 511, Gangnam-Gu, Seoul, Korea, 06164			
Nuvoton Technology Corporation America	251 Little Falls Drive, Wilmington, DE 19808, Delaware, United States			
Nuvoton Electronics Technology (HK) Limited	Unit 9-11, 22F, Millennium City 2, No 378 Kwun Tong Road, Kowloon, Hong Kong			
Nuvoton Technology India Private Limited	PS22-23, Bridge+, Unit No. 02-02 to 15, 2nd Floor, Ascendas Park Square Mall, Whitefield Road, ITPB, Bengaluru, 560066			
Nuvoton Technology Germany GmbH	Konrad-Zuse-Platz 8, 81829 München			
Nuvoton Technology Corporation Japan	1 Kotari-yakemachi, Nagaokakyo City, Kyoto 617-8520, Japan			
Marketplace Management Limited	Vistra Corporate Services Centre, Wickhams Cay II, Road Town, Tortola, VG1110, British Virgin Islands			
松勇投資股份有限公司	台北市中山區敬業一路 192 號 3 樓			
Nuvoton Technology Holdings Japan	1 Kotari-yakemachi, Nagaokakyo City, Kyoto 617-8520, Japan			
Nuvoton Investment Holding Ltd.	3rd Floor,Omar Hodge Building,Wickhams Cay I,P.O. Box 362, Road Town,Tortola,British Virgin Islands			
Goldbond LLC	1912 Capitol Ave, Cheyenne, WY 82001, United States			

The Reporting Boundary for the verification including direct GHG emissions and removals, indirect GHG emissions from imported energy, indirect GHG emissions from transportation, indirect GHG emissions from products used by the Organization and indirect GHG emissions associated with the use of products from the Organization. The further descriptions for the Reporting Boundary listed in Appendix A.

# **Verification Criteria and GHG Programme**

The verification was performed on the basis of Financial Supervisory Commission Sustainable Development Roadmap Scheme in Taiwan and ISO 14064-1:2018 as well as criteria given to provide for consistent GHG emission identification, calculation, monitoring and reporting. The verification was conducted in accordance with ISO 14066:2023, ISO 14065:2020, ISO14064-3:2019.

## **Verification Opinion**

It is DNV's opinion that the Inventory Report (2024), which was published on March 31, 2025, is free from material discrepancies in accordance with the verification criteria identified as stated above. The opinion is decided based on the following approaches,

 For the Direct (Category 1) GHG emissions and Indirect GHG emissions from imported energy (Category 2), the involved information was verified with limited level of assurance.

GHG Verifier: Celine Wang

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For the issuing office:
DNV Business Assurance Co., Ltd.

Management Representative

The Appendix forms an integral part of this Certificate, which shall be invalid when used without the Appendix.

Lack of fulfilment of conditions as set out in the Verification Agreement may render this Verification invalid. This Verification Opinion is based on the information made available to us and the engagement conditions detailed above. Hence, DNV cannot guarantee the accuracy or correctness of the information. DNV cannot be held liable by any party relying or acting upon this Verification Opinion.

The issuing office: 29FL, No. 293, Sec. 2, Wenhua Rd., Banqiao District, New Taipei City 220, Taiwan Tel.: +886-2-82537800. https://www.dnv.com/tw/DNV ZNATW-OP-F50, Rev.14, 2025-03



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## **Supplement to Verification Opinion**

#### **Process and Methodology**

The reviews of the Inventory Report and relevant documents, and the subsequent follow-up interviews have provided DNV with sufficient evidence to determine the fulfilment of stated criteria.

#### **Quantification of Greenhouse Gas Emission**

The Inventory Report covering the period 1st January, 2024 to 31st December, 2024, it is DNV's opinion that GHG emissions and removals identified within the Reporting Boundary has been included in the Inventory Report as claimed in accordance with the verification criteria identified as stated above, and results in quantification of GHG emissions that are real, transparent and measurable.

#### **Organizational Boundary of Verification**

☐ Financial Management Control; ☐ Operational Management Control; ☐ Equity Share

#### **GHGs Verified**

 $\boxtimes CO_2 \boxtimes CH_4 \boxtimes N_2O \boxtimes HFC_S \boxtimes PFC_S \boxtimes SF_6 \boxtimes NF_3$ 

#### **Quantification of Emissions (in tonnes CO2e)**

The Global Warming Potential (GWP) defined in IPCC AR6(2021)/AR5(2013) has been chosen and correctly referred by the Organization.

	AR6					
Site	Category 1: Direct emissions	Category 2: Imported energy indirect emissions*	Total	Category 1: Direct emissions	Category 2: Imported energy indirect emissions*	Total
芯唐電子科技(深圳) 有限公司	9.2410	538.7171	547.9581	9.4243	538.7171	548.1414
芯唐電子科技(上海) 有限公司	9.8163	41.1372	50.9535	9.9274	41.1372	51.0646
芯唐電子科技(南京) 有限公司	0.5184	0.0000	0.5184	0.5376	0.0000	0.5376
Nuvoton Technology Singapore Pte. Ltd.	8.3522	134.2993	142.6515	8.6615	134.2993	142.9608
Nuvoton Technology Israel Ltd.	13.3259	822.3994	835.7253	13.8195	822.3994	836.2189
Nuvoton Technology Korea Ltd.	3.3823	30.3689	33.7512	3.4383	30.3689	33.8072
Nuvoton Technology Corporation America	4.8123	197.2444	202.0567	4.9905	197.2426	202.2331
Nuvoton Electronics Technology (HK) Limited	1.1488	6.9135	8.0623	1.1913	6.9135	8.1048
Nuvoton Technology India Private Limited	0.3725	1.3377	1.7102	0.3863	1.3377	1.7240

The Appendix forms an integral part of this Certificate, which shall be invalid when used without the Appendix.

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		AR6			AR5	
Site	Category 1: Direct emissions	Category 2: Imported energy indirect emissions*	Total	Category 1: Direct emissions	Category 2: Imported energy indirect emissions*	Total
Nuvoton						
Technology Germany GmbH	0.1886	0.5244	0.7130	0.1956	0.5244	0.7200
Nuvoton Technology Corporation Japan*	17,920.0000	49,465.0000	67,385.0000	15,656.0000	49,465.0000	65,121.0000
Marketplace Management Limited	0	0	0	0	0	0
松勇投資股份有限公 司	0	0	0	0	0	0
Nuvoton Technology Holdings Japan	0	0	0	0	0	0
Nuvoton Investment Holding Ltd.	0	0	0	0	0	0
Goldbond LLC	0	0	0	0	0	0
Total	17,971.1583	51,237.9419	69,209.1002	15,708.5723	51,237.9401	66,946.5124

- \* In China, the Imported Energy Indirect Emissions was calculated based on the year 2022 national grid's average carbon emission factor of 0.5366 kg CO2/kWh announced by the Ministry of Ecology and Environment of the PRC in 2024.
- In USA, the Imported Energy Indirect Emissions was calculated based on 2023 electricity emission factor of CO2=771.5 lb/MWh, CH4=0.057 lb/MWh, N2O= 0.008 lb/MWh, 1 lb = 0.454 Kg (US EPA database average grid, last modified: 15 January 2025) announced by the EPA Center for Corporate Climate Leadership.
- In Singapore, the Imported Energy Indirect Emissions was calculated based on 2023 electricity emission factor of 0.412 kg CO2/kwh (Singapore's average OM GEF, Energy Market Authority).
- In Israel, the Imported Energy Indirect Emissions was calculated based on 2023 electricity emission factor of 0.5673 kgCO2/kwh according to the public website : <a href="https://ember-energy.org/data/yearly-electricity-data/">https://ember-energy.org/data/yearly-electricity-data/</a>
- In Korea, the Imported Energy Indirect Emissions was calculated based on 2022 electricity emission factor of 0.4781 kgCO2e/kWh according to the public website : <a href="https://tips.energy.or.kr/carbon/Ggas\_tatistics03.do">https://tips.energy.or.kr/carbon/Ggas\_tatistics03.do</a>
- \* In Germany, he Imported Energy Indirect Emissions was calculated based on electricity emission factor o.38 kgCO2/kWh according to the public website: https://www.statista.com/statistics/1386327/co2-emissions-factor-electricity-mix-germany/
- In Hong Kong, the Imported Energy Indirect Emissions was calculated based on 2023 electricity emission factor of 0.39 kgCO2e/kwh according to the 2023 ESG report of CLP POWER.
- In India, the Imported Energy Indirect Emissions was calculated based on FY 2023-24 electricity emission factor of 0.727 kgCO2/kwh announced by Government of India Ministry of Power Central Electricity Authority in 2024.
- Nuvoton Technology Corporation Japan's data was quoted from JQA's 2024 draft Greenhous Gas Emissions Verification Report (No. 1811005017). Category 2 emissions refer to location-based values.

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#### **APENDIX A**

The Reporting Boundary of Nuvoton Technology Corporation Subsidiary Greenhouse Gas Inventory Management Report (2024)

Category	Subcategory	Verification Procedures
Category 2	2.1 Imported electricity	Bill and invoice from suppliers
Category 3*	Indirect GHG emissions from transportation	Not Significant Emissions
Category 4*	Indirect GHG emissions from products used by an organization	Not Significant Emissions
Category 5*  Indirect GHG emissions associated with the use of products from the organization		Not Significant Emissions
Category 6* Indirect GHG emissions from other sources		Not Significant Emissions

NOTE: Category 3, Category 4, Category 5 & Category 6 were evaluated as Not Significant Emissions base on NUVOTON TECHNOLOGY CORPORATION SUBSIDIARY's significant emission identification process reported in GHG inventory report.

