

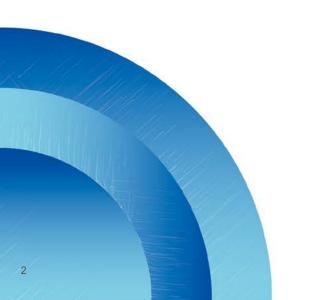
2023

RichWave **Technology** Corporation

Sustainability Report



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Chairman's Words

In 2023, we are in the post-COVID era, but the war between Russia and Ukraine, which has been ongoing since February 2022, has not yet ceased. Additionally, the Israel-Palestine conflict, the strong earthquakes in Turkey and Morocco, and various international economic sanctions have all contributed to a global economic downturn. Factors such as the slower-than-expected economic recovery in China have resulted in a negative impact on the global economy that, compared to 2022, has not reversed. Consequently, the challenges faced by our operations remain unchanged. However, we continue to adhere to our founding principles—'Persistence,' 'Integrity,' and 'Ethics'—and work together with unwavering spirit to face global changes and challenges, laying the foundation for future progress.

In the new year, we will further integrate corporate social responsibility into our daily operations, strengthen relevant indicators of corporate governance, and strive to build an effective corporate governance structure to protect shareholder rights, strengthen the effectiveness of board supervision, respect the rights and interests of stakeholders, and regard improving company information transparency as the highest principle. At the same time, we will strengthen the connection between sustainable performance and operational management, and promote sustainable development through integration with our profession to let this persistence become the driving force for innovation.

In terms of environmental sustainability, RichWave regards environmental protection as our responsibility and continues to emphasize the R&D of energy-saving, high-efficiency products, and consider it one of the Company's key R&D projects. In this regard, we are collaborating with suppliers to develop a green supply chain, ensuring that the supply chain meets goals such as improving energy efficiency, reducing carbon emissions, and manufacturing low-pollution products. Compared to the previous year, our efforts have paid dividends. Due to the crucial impact of "climate risk measurement" on the sustainable operation of modern businesses. To address the important topic of corporate sustainability, RichWave plans to implement the Task Force on Climate-related Financial Disclosures (TCFD) in 2024. By focusing on 4 core elements—governance, strategy, risk management, and setting metrics and targets—we aim to effectively manage climate change risks and opportunities, providing reliable basic financial metrics and information to investors, customers, and other stakeholders.

As far as a friendly workplace is concerned, RichWave has always perceived our employees as our partners, thus we have strived to provide them with a LOHAS, healthy, positive, and open work environment in a bid to inspire their creativities and proactive attitude. This is complemented by a comprehensive training mechanism and remuneration/welfare system to offer our employees a progressive career development platform and opportunities, thereby advancing the company's overall technological innovation and development, as well as attaining a win-win situation for the company and the employees.

Looking to the future, the mobile and wireless communications industry will continue to thrive. RichWave will not only continue to refine and improve its Wi-Fi 6E products but will also invest in research and development to advance Wi-Fi 7 products. We will continue to consolidate company resources, working together with customers, suppliers, and employees, focusing on our core business and adhering to the principles of green operations. We are committed to enhancing corporate governance, caring for the vulnerable, fulfilling corporate social responsibilities, and achieving a vision of sustainable, mutually beneficial development.

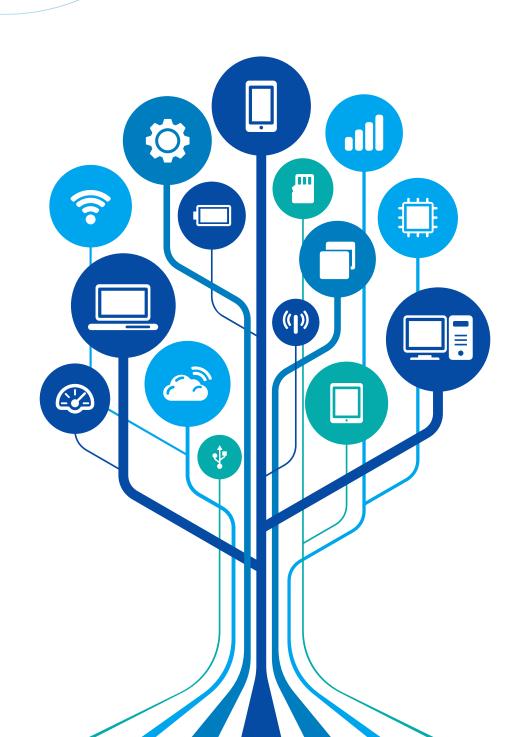
Vision and Philosophy

Innovation, Dedication, to Brilliance THE TRUSTED RF PROVIDER

RichWave is a company that specializes in the design of RF front-end components and transceivers for wireless systems.

Our mission is to differentiate our products with innovation, technology, unique marketing positions, and outstanding performance.

At RichWave, we respect the ideas and creativity of every team member, hoping to materialize a brighter future through dedication and teamwork.





About the Report

Introduction of the Report

RichWave Technology Corp. (hereinafter referred to as RichWave) voluntarily started publishing the 2021 corporate sustainability report in 2022 to demonstrate the company's commitments, actions, and accomplishments in ESG-related issues, as well as facilitate good communication and interaction with our stakeholders. The scope of disclosure focuses on RichWave's business operation in Taiwan. During the reporting period, the company's organizational scale, structure, ownership, and supply chain did not undergo significant changes.

© Reporting Time, Scope, and Publication Period

RichWave's third ESG report discloses data and content for 2023 (January 1 to December 31, 2023). Some of the performance data dates back to 2022 and 2021 to illustrate relevant trends and fluctuations. The report was discussed and approved by the Board of Directors on July 25, 2024.

- · Publication time of this report: July 2024
- Scheduled publication time of next report: July 2025

Report Preparation Guideline

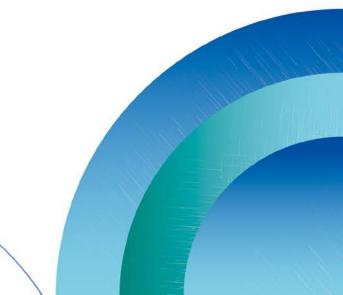
The report's information disclosure complies with the core option of GRI Universal Standards 2021 published by the Global Reporting Initiative (GRI). Furthermore, the GRI Standards Content Index is attached in the appendix of the report for the readers' reference. The report's relevant statistics and data are derived from RichWave's own investigation and statistics of the daily operations/management. Moreover, local regulations, internationally accepted indicators, industry standards, or industry customs are taken into consideration when performing the calculations.

© Feedback

If you have any questions or valuable opinions about the report, please do contact us.

RichWave RichWave Technology Corp

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RichWave

RichWave Accolades



2021.06

Awarded 7th place in the "2020 Top 100 High-Value Companies "in Taiwan" by "Business Next".



2022.10

Ranked among the top 500 outstanding import and export manufacturers for 2021 by the Bureau of Foreign Trade.



2022.12

Obtained the environmental management system (ISO14001:2015) certification and greenhouse gas (ISO14064-1:2018) certification from the French Standards Association "AFNOR".



2023.11

Honored with 2023 Taiwan Corporate Sustainability Awards (TCSA) for the Electronic Information Manufacturing Industry "Best Sustainability Report" Gold Award in the second category.



Awarded 9th place among the Top 200 Resilience Companies by CommonWealth Magazine.



2021.11

Received the "Promising Product of the Year" Award of 2021 EE Awards Asia hosted by ASPENCORE.



2022.12

The number of certified patents exceeded 500.



2023.08

President Wong Shyh-Chyi named on Harvard Business Review's list of "Taiwan Top 30 Best-Performing Female CEOs of TWSE/TPEx listed companies for 2023".

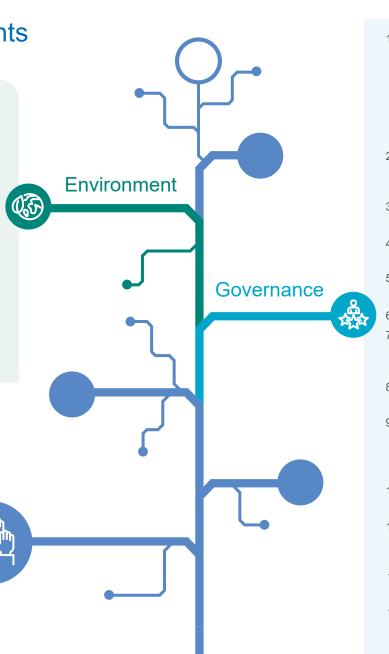




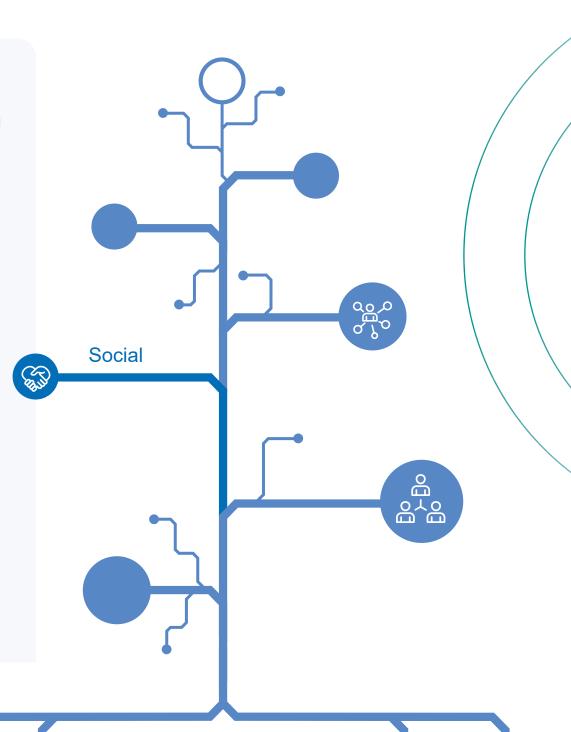
Sustainability Highlights

- In 2023, the Company's Energy Use Intensity (EUI) was 5% lower than the previous year, surpassing the original annual goal of decreasing by 0.6%.
- In 2023, numerous energy conservation and carbon reduction solutions reduced external electricity purchases by
 768kWh, equivalent to lowering
 5734 tCO₂e GHG emissions.
- 3. Waste emissions in 2023 decreased by 39.35% from that in 2022.
- 4. In 2023, Scope 2 GHG emissions were $554.7~\text{tCO}_2\text{e}$, 4.5% less than in 2022.

- 1. According to the outcomes of the 10th (2023) Corporate Governance Evaluation, RichWave's ranking among electronics manufacturers with a market value of over NTD10 billion improved by one tier compared to the previous year (2022), reaching the 41-60% bracket. This demonstrates that our proactive efforts in optimizing the corporate governance system and increasing sustainability performance have come to fruition.
- 2. In 2023, the board of directors held a total of 5 meetings, with an average attendance rate of 98%; the attendance rate of the Audit Committee and the Compensation Committee reached 100%.
- 3. There were no cases of violating ethical corporate management in 2023 or accusations of unethical corporate management behavior.
- 4. In 2023, a total of 299 people participated in ethical corporate management training, with a training coverage rate of 99.7%.
- There were no penalties for violating environmental regulations in 2023.
- 6. Over 600 patents accumulated worldwide in 2023.
- 7. The number of target patent proposals in 2023 was 51, and the cumulative number of proposals was 54, with an achieve rate of 105.8%.
- 8. In 2023, we invested NTD653,715,000 in R&D, accounting for 21.9% of the company's income.
- In 2023, the main supply chain has achieved 100% certification for ISO 9001 Quality Management System, ISO 14001 Environmental Management System, and IATF 16949 Automotive Quality Management System Standard.
- 10. In 2023, the execution rate of ESG-related audits reached 100%, and the pass rate reached 100%.
- The quality management system tracked that 100% of the materials in 2023 met the requirements of RoHS, halogen-free, and REACH.
- 12. The Wi-Fi 7 RFIC has progressively obtained platform verifications by major network chip manufacturers.
- 13. Participating for the first time, RichWave received the 2023 Taiwan Corporate Sustainability Awards (TCSA) for the Electronic Information Manufacturing Industry "Best Sustainability Report" Gold Award in the second category.



- In 2023, diverse professional and general education courses were offered to 2,089 people, accumulating 3,241.5 hours of training, an increase of 65% compared to 2022.
- 2. In 2023, 100% of RichWave's employees regularly received performance appraisals and career development reviews, regardless of their gender or rank within the company.
- 3. The Company values every talent. We have participated in talent training-related public welfare activities (such as the Be a Giver event held by the 104 Job Bank) to help newcomers in the workplace improve their resume and career counseling.
- 4. We value our employees' health by offering on-site health services with medical staff 3 times a month.
- 5. In 2023, all on-duty employees underwent health checkups at designated medical institutions for the first time, leading to an increased usage rate of 89%.
- 6. RichWave became a "CHR (Corporate Health Responsibility) "enterprise in 2023.
- 7. Industry-academia collaboration: Collaborated with schools such as the Institute of Electronics of National Taiwan University and the Institute of Telecommunications Engineering of National Yang Ming Chiao Tung University for industry-academia research, with a total of 13 students including doctoral, master's, and graduate students participating.
- 8. Afforestation Program: For the second year in a row, we participated as a co-organizer with the "Tse-Xin Organic Agriculture Foundation (TOAF)" to adopt and plant 80 trees. Furthermore, we sponsored NTD44,000, encouraging colleagues and the general public to care about tree planting and the environment, in turn lowering carbon emissions on Earth.
- 9. RichWave Family Day: RichWave organized the "Inaugural RichWave Family Day" at its Taipei and Hsinchu offices. The event invited employees' children and parents to experience a day at work together, aiming to create a family-friendly work environment through activities that combined parenting, education, and entertainment. Children from the Ren Ching Community Service Association's reading class were also invited to partake in the interesting activities of the family day.
- 10. Christmas Philanthropic Concert: RichWave hosted the "Music-Love-Life Seminar Social Sustainability Christmas Charity Concert", inviting NPOs, schools, and the public to attend for free. In addition to making small donations, on the event day, RichWave's employee volunteer team encouraged additional contributions to support social welfare organizations and underprivileged groups.



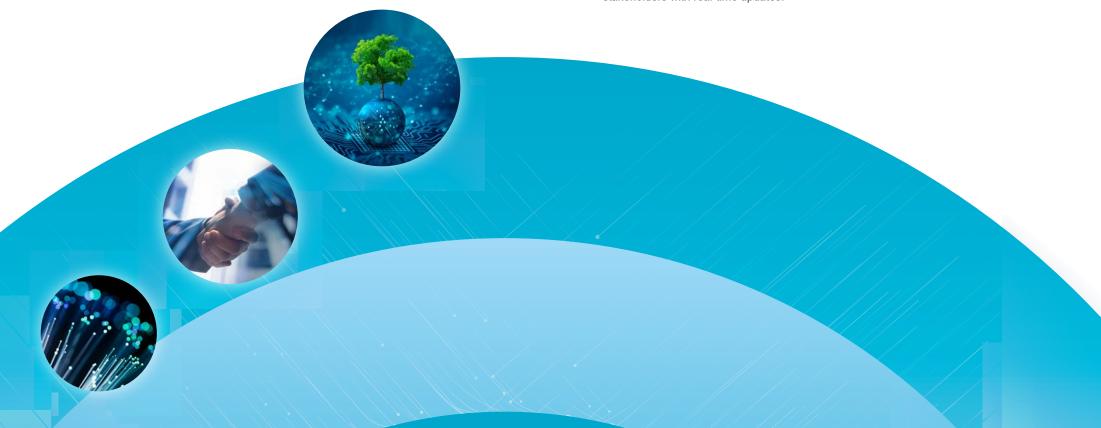
CHAPTER

Sustainable Management

- 1.1 About RichWave
- 1.2 Sustainable Practices
- 1.3 Stakeholder Communication and Materiality Analysis

* Chapter Highlight

- According to the outcomes of the 10th (2023) Corporate Governance Evaluation, RichWave's ranking among electronics manufacturers with a market value of over NTD10 billion improved by one tier compared to the previous year (2022), reaching 41-60%. This demonstrates that our proactive efforts in optimizing the corporate governance system and increasing sustainability performance have come to fruition.
- RichWave participated in the event for the first time and received the 2023 Taiwan Corporate Sustainability Awards (TCSA) for the Electronic Information Manufacturing Industry "Best Sustainability Report" Gold Award in the second category.
- Under the name RichWave, the company has established profiles on LinkedIn, YouTube, and Youku, and participates actively in the ESG community. Specialized personnel have been assigned to manage social media operations, and a new sustainable news page has been added to the sustainability section of the company's website to provide stakeholders with real-time updates.





1.1 About RichWave

Company Introduction

Founded in 2004, RichWave is devoted to radio-frequency integrated circuit (hereinafter referred to as RF IC) development and design. Our product lines include RF front-end components for IEEE 802.11n/ac/ax/be (Wi-Fi 4/5/6/6E/7) wireless networks, mobile communication, IoT, and automotive applications, as well as passive components, radar sensors, digital broadcast receiver SoCs, and RF transceivers for wireless audio and video transmission. RichWave provides complete RF front-end product solutions and applications for various wireless communication markets. The expertise of the company's team members encompasses system design, RF microwave IC, semiconductor engineering, and back-end technology development. RichWave focuses on the establishment and sharing of fundamental technology, where creative and advanced IC design, intricate and rigorous quality control, differentiated product marketing strategy, and comprehensive customer service have earned the recognition and support of our customers.

RichWave applies multiple process design technologies involving SiGe, GaAs, SOI/CMOS, and IPD. Focusing on the products' price/performance ratio, we have successfully tapped into the global market under RichWave, our private brand. Now, RichWave is one of the major global suppliers of WiFi RF front-end components. We continue to develop new technologies to provide our clients with more competitive solutions and strive to become a world-class leading manufacturer of RF IC.

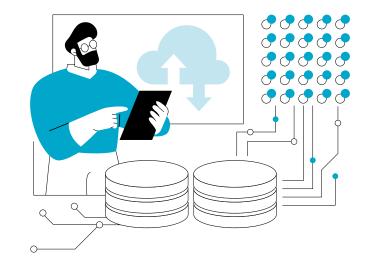
RichWave

Founded on	January 7, 2004			
HQ location	3F., No. 1, Alley 20, Lane 407, Sec.2, Tiding Blvd., Neihu District, Taipei City 11493			
Industry	emiconductor			
Main services	R&D and sales of RF IC front-end components R&D and sales of RF IC wireless video transmission technology			
The main products and services of the company and its affiliated businesses include wireless communication product IC design and sal The company's main businesses include the R&D and sales of RF fror end components for IEEE 802.11n/ac/ax/be (Wi-Fi 4/5/6/6E/7) wireless networks, mobile communication, IoT, and automotive applications, as as passive components, radar sensors, digital broadcast receiver SoC and RF transceivers for wireless audio and video transmission, and ge investment services.				
Number of employees	Total number of employees worldwide: 338 (Taiwan: 303; other regions: 35)			
Business location	Taiwan: Taipei, Hsinchu			
Capital (NT\$)	2,000,000,000			

RichWave's main products					
	R&D and sales of WiFi RF IC front-end chips including PA, LNA, SW, and FEM.		PA (Power Amplifier): The PA's main function is to amplify the signal of baseband processed signals so that they can be transmitted.		
			LNA (Low Noise Amplifier): The LNA's main function is to amplify the signals received and lower the noise so that they can be used by back-end systems.		
			SW (Switch): The SW's main function is to allow or prevent a signal from being transmitted along the transmission path through the phenomenon of charge accumulation or displacement driven by a voltage.		
			FEM (frond endmodule): The FEM's main function is to integrate the PA, LNA, and SW.		
£	video transmi	nd sales of RF IC and SoC (System on Chip) used for 2.4GHz wireless ansmissions, including 2.4Ghz RF transceiver and video compression/pression SoC.			
<u> </u>	R&D and sale	R&D and sales of RF IC FEM used for 4G LTE femtocell, including PA and SW.			
SW and RF FEM ւ			RF FEM used for BT/Zigbee/NB-IoT.		
(((p)))	ЮТ	R&D and sales of RF IC front-end chips for Bluetooth applications, wearable devices, and GPS-related applications, including frontend integrated modules and GNSS modules.			
%	· · · · · · · · · · · · · · · · · · ·	SAW filters, LTCC filters, and diplexers suitable for 3G/4G LTE frequency bands.			
	components	SAW filter frequency	ers and LTCC diplexers suitable for 2.4GHz/5GHz Wi-Fi cy bands.		
	R&D and sales of RF front-end chips and system on chip (SoCs) for 5.8GHz, 10GHz, and 60GHz microwave/millimeter-wave radar sensors, including the provision of DSP algorithm firmware IP for detection and recognition applications.				

Business Performance

Steady profits and continual growth are important prerequisites of sustainable corporate development. In 2023, multiple factors including shortages of Wi-Fi main chips, lower-thanexpected recovery demand in the post-pandemic Chinese market, the Russo-Ukrainian War, the Israeli-Palestinian conflict, and supply chain inventory adjustments in 2022 impacted consolidated operating revenue, which amounted to NTD2.98458 billion. The consolidated net loss after tax was NTD222.29 million. Looking ahead to next year, the overall mobile communication and wireless communication industries will continue to maintain robust growth. Increasing demand for Wi-Fi 6E and Wi-Fi 7, as well as the growth in RF IC front-end chip demand driven by multi-mode and multi-band smartphones, are expected to drive RichWave's growth in RF IC front-end chips and revenue performance. As the shortage of Wi-Fi main chips gradually eases and with the improvement of the COVID-19 situation in China, the company expects another round of development opportunities and also continues to maintain a steady export performance. In 2023, the economic values generated and distributed by the organization are as illustrated below:





For more management performance-related information, please refer to the company's Investors' Corner or the MOPS.

Economic Value Statistics

Unit: NT\$1.000

Year Item	2021	2022	2023	Percentage increase/decrease compared to the previous year
Operating income	5,316,267	3,429,371	2,984,581	-13.0%
Operating costs and expenses	4,782,659	3,446,576	3,282,060	-4.8%
Net operating profit	533,608	-17,205	-297,479	-1629.0%
Net profit before tax	526,906	61,289	-278,131	-553.8%
Income tax	61,389	6,230	-55,842	-996.3%
Net income	465,517	55,059	-222,289	-503.7%
Employee remuneration and benefits	519,786	562,847	592,864	5.3%
Cash dividend	3.5	0	0	0
Gross profit margin	29.00%	31.00%	27.00%	-12.9%
EPS (NT\$)	5.26	0.62	-2.46	-496.8%

2023 RichWave

Sustainability Repor

Participation in External Organizations

O Participation in International Industry Societies and Associations

RichWave is dedicated to developing the field of radio-frequency integrated circuits (RFIC). By partaking in international technology exchange activities, offering technical support in professional fields, and striving to develop more sound, reliable designs, and products in conjunction with industries, governments, and academia both in Taiwan and abroad, we aim to prolong our products' life cycle and minimize resource consumption, so as to assist the international industrial organizations to develop industry white books, guidelines, and standards. The ultimate objective is to facilitate the comprehensive development of the industry and society.

The main industry societies and associations RichWave is involved in include:

• IEEE RFIC Symposium

The premier international conference in the field of RF integrated circuits combines the latest RF/microwave tech conference with a trade show. RichWave has sponsored the event for several years in a row, facilitating exchanges with numerous experts from academia and industry in RF and microwave research and applications. The event offers access to the latest international advancements in electronic circuitry and wireless communication RF technology.

IEEE BiCMOS and Compound Semiconductor Integrated Circuits and Technology (BCICTS)

RichWave has participated in and sponsored association activities for many consecutive years, and VP Deng Wei-Kang serves as its technical committee member. The goal of the symposium is to bolster the design and R&D of high-energy efficiency products.

The Industry Council on ESD Target Levels

RichWave participates and assists in the group's discussions, questionnaire preparation and analysis, and technical document review in a bid to help formulate standards as well as develop more durable, reliable products and increase their lifespan.

Taiwan ESD Association

RichWave's VP Chao Chuan-Chen has served as the director of the Taiwan ESD Association since 2003 and its international convention's technical committee member. Since 2021, she has been appointed as the association's chairman.

• Ultra Wide Band Alliance (UWB Alliance)

RichWave has been an active participant in the Ultra Wide Band Alliance since 2021, engaging in numerous discussions and applications concerning UWB (Ultra-Wideband) technology. The company seeks to comprehend and influence the establishment of global UWB frequency regulations, as well as to encourage the adoption of UWB protocol in relevant applications.

RFIC Conference 2023

IEEE RFIC Symposium is one of the most representative international IC design conferences focusing on the exchange of radio frequency (RF), microwave, mmWave IC system, and circuit-related technologies.

The RFIC 2023 conference was co-hosed with other organizations such as IMS and ARFTG from June 11 to 13, 2023, in San Diego, USA to facilitate exchange activities. RichWave has continued to sponsor the RFIC technology symposium for many years. The organizers of the RFIC forum have invited RichWave to collaborate with industry experts and partners to exchange the latest products and technologies. RichWave President Wang Shih-Chi was invited to participate in the RFIC leadership and student forums, where he discussed basic wireless RF coursework and shared his extensive work experience, and leadership philosophy with young students.

List of Societies and Associations Participated by RichWave

Number	Name of organization	Applicable country or region	Members' qualification (such as director/supervisor)
1	TSIA	Taiwan	Member
2	WOB	Taiwan	Member
3	MIPI Alliance	Global	Member
4 IEEE		Global	Individual member
The Industry Council on ESD Target Levels		Global	Member
6	Taiwan ESD Association	Taiwan	Individual member
7	Ultra Wide Band Alliance (UWB Alliance)	Global	Member



1.2 Sustainable Practices

Sustainable Visions and Strategies

Sustainable Visions

"Striving for excellence with innovation and dedication to become an RF component supplier offering market differentiation and outstanding performance" is RichWave's corporate vision. Since the company was founded, we have always upheld the corporate philosophy of "persistence," focusing on sustainable corporate development and our six major core values of "innovation, products, problem solution, teamwork, customers, and talents" to promote sustainable development and ethical management, green manufacturing and environmental protection, innovation and quality, talent development and friendly workplace, hoping to shape a brighter future with every team member.



O Development Strategy

» Short-term development plan:

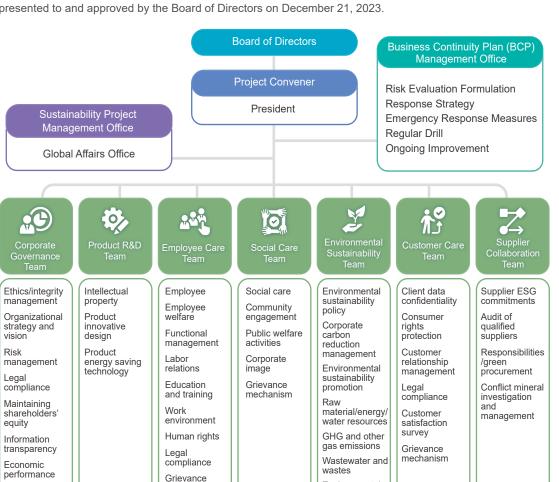
- 1. Develop various wireless products based on the market development trends of the information, communication, and consumer electronics products to accommodate our customers' needs, thereby expanding the market share of our products.
- 2. Utilize the company's accumulated technological know-how to create technical differentiation. Besides enhancing existing products, we also research cost reduction approaches and develop other products to be sold on the market to improve our product quality and strengthen product competitiveness.
- 3. Capitalize on Taiwan's vertical specialization in semiconductors and excellent manufacturing capability to offer the versatility of customization, as well as maintain close collaboration with domestic foundries and packaging and testing plants to uphold production capacity and accurate product delivery dates for the sake of catering to the needs of our clients and the market.
- 4. Reinforce partnership with our clients and trust to provide quick, excellent technical service, as well as use channel agents to reach every corner to increase profitability and product market share.
- 5. As part of implementing the Task Force on Climate-related Financial Disclosures (TCFD) initiative, climate change-related risks and opportunities will be qualitatively assessed and integrated into financial impact evaluations.
- 6. Value our employee welfare policy, implement a bonus and performance reward system to boost employee morale and increase workplace cohesion.

» Long-term development plan:

- 1. Take into consideration the market's application needs, provide a comprehensive production collection, develop the breadth and depth of our product lines, and apply more advanced technologies to develop high-end products, to satisfy the needs of our clients and the market through a diverse product lineup.
- 2. Seek technical exchanges with domestic and overseas academic institutions and research organizations, as well as forge a long-term strategic partnership with systems companies to establish our exclusive technology brand.
- 3. Forge a long-term partnership with SoC manufacturers, and develop and deploy reference designs for the platform in advance to expand RichWave's market share.
- 4. Continue to maintain a long-term partnership with our upstream foundries, packaging, and testing plants, turning them into strategic partners to jointly develop processes with unique niches, lower production costs, and develop high-quality, competitive products.
- 5. By mastering key technologies and optimizing product utilization, the company strives to develop more advanced and precise product integrations in line with global energy-saving and carbon reduction goals, thereby becoming a world-class leader in the industry.
- 6. Promote the concept of internationalization and harness the management capabilities of international enterprises, vigorously cultivate international talents, and aim to become an international enterprise.
- 7. In supporting the growth of the company's long-term operational scale, we have applied to diverse financial management tools in the capital market to strengthen RichWave's financial structure. Meanwhile, we have also utilized sound, diverse funding channels to assemble the most suitable capital combinations that can support the company's operational development.

O Corporate Sustainability Organization

The company established the Business Continuity Planning (BCP) Management Office in June 2020 to align with the Sustainable Development Goals of the United Nations and promote ESG policies. In addition, the Sustainable Project Management Office was established in early April 2021, with the President serving as project coordinator and the Global Affairs Office concurrently operating. The Sustainable Project Management Office is responsible for ESG and risk assessment matters. It consists of 7 groups: Corporate Governance, Customer Care, Supplier Collaboration, Environmental Sustainability, Employee Well-being, Social Responsibility, and Product Development. These groups consist of representatives from various departments, each with a distinct set of abilities, experiences, and origins. The office provides periodic updates to the Board of Directors on the status of sustainability initiatives. The report on the company's sustainability initiatives was presented to and approved by the Board of Directors on December 21, 2023.



mechanism

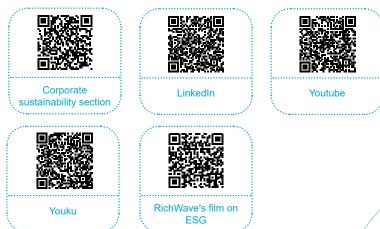
Environmental

investment

expenditure

Sustainability Performance

The year 2021 was RichWave's first year in implementing sustainable management, where the Sustainable Project Management Office Organization was officially launched under the leadership of the President. Consisting of department heads, the task force conducted an inventory of the company's ESG status based on 7 major dimensions, implementing important corporate governance systems such as the risk management policy and information security management policy approved by the Board of Directors. Project refinements are carried out focusing on key ESG issues recommended by the Corporate Governance Evaluation, while the inaugural issue of the company's e-newsletter was published, serving as a crucial platform for internal communication and establishing sustainable corporate values. In 2022, a Product R&D Team was included in the Sustainability Project Management Office to link the company's core products with sustainability performance from the development stage for management purposes. The integration of technical expertise promotes corporate sustainability and fosters a sustainability culture within the company, which continuously optimizes corporate governance and enhances sustainability performance. According to the 10th (2023) Corporate Governance Evaluation results, RichWave improved by one tier compared to the previous year (2022) in the electronic industry with a market value of over NTD10 billion, reaching the 41-60% bracket. The progress demonstrates that our efforts are yielding results. Under the name RichWave, the company has established profiles on LinkedIn, YouTube, and Youku, and participates actively in the ESG community. Specialized personnel have been assigned to manage social media operations, and a new sustainable news page has been added to the sustainability section of the company's website in order to provide stakeholders with real-time updates. Furthermore, participating for the first time, RichWave received the 2023 Taiwan Corporate Sustainability Awards (TCSA) for the Electronic Information Manufacturing Industry "Best Sustainability Report" Gold Award in the second category.



Information

security



1.3 Stakeholder Communication and Materiality Analysis

Stakeholder Engagement

RichWave has taken into consideration the "stakeholder inclusiveness" of the GRI standards to define the internal/external groups or individuals that have an impact on the company or are being impacted by the company's actions as RichWave's stakeholders. Furthermore, the definition is used to identify 7 major stakeholder groups that exert an influence on the company or are being influenced by the company in 3 dimensions such as governance, environment, and society. These groups include the government, RichWave's shareholders and investors, media, communities, our customers/consumers, suppliers/contractors/distributors, and employees.

The opinions of stakeholders are fundamental to the ESG development of the company. The primary goal of engaging with stakeholders is to establish effective communication and exchange channels, ensuring a clear comprehension of their concerns and suggestions, which in turn serve as directions for the company's continuous improvement and expansion. We compile the priorities and concerns of various stakeholders through a variety of communication channels. RichWave establishes distinct communication channels for each stakeholder group based on their influence and areas of focus. We are able to actively respond to and meet the needs of stakeholders by nurturing effective communication channels between relevant departments and stakeholders. In addition, we annually divulge relevant information via public platforms, demonstrating the company's commitment to addressing stakeholders' concerns.

Stakeholder	Topic of concern	Communication channel / Response method and communication frequency	Achievements in 2023	Contact person and method
Government agency	Legal compliance	Ensures the company's conducts are compliant with the law. Communicate with the competent authorities from time to time.	 In 2023, the company did not receive any letter from securities and taxation authorities requesting us to make corrections. In 2023, the company did not violate any Department of Labor laws and regulations In 2023, the company had no violations or incidents requiring improvements related to environmental and occupational safety and health regulations. 	For labor and environmental regulation-related topics, please send your questions to Mr. Chang of the HR Administration Department _dennischang@richwave.com.tw. For securities or taxation regulation-related topics, please send your questions to Ms. Chin of the Finance Department (gloriachin@richwave.com.tw) or call the service hotline at 02-87511358/03-6008999
Shareholders and investors	Business performance Ethical management Corporate governance	 Shareholders' meeting, annual report, meeting agenda handbook: annually. Investor conference quarterly. Monthly revenue announcement: monthly. Domestic and foreign brokerage investment forum: 3 sessions per quarter. Domestic and foreign investor interview meeting: 10 meetings per month. Material information disclosure/news release: from time to time. Investors calling or emailing to inquire about the company's conditions: daily. Information disclosure on the MOPS and the IR Platform. 	 Shareholders' meeting: Held on 5/25, the annual report and meeting agenda handbook are uploaded to the MOPS and IR Platform. Investor conference: On 2/23, 4/28, 7/28, and 10/27, online investor conferences were held, with a total of 519 individuals participating in the live broadcasts. Monthly revenue announcement: The revenue information is disclosed on the MOPS and the IR Platform. We attended 26 domestic and foreign investor interview meetings/visits to engage in a dialogue with 97 investors. Material information disclosure/news report: There were 19 major Chinese/English announcements and 30 news reports. Investors calling or emailing to inquire about the company's conditions: On average, the company receives about 20 calls or emails daily. Information disclosure on the MOPS and the IR Platform Annual reports, meeting agenda handbooks, investor conferences, domestic and foreign brokerage investment forums, and monthly revenue announcements. 	For investor-related topics, please send your questions to Ms. Juan of the PR Department wendyjuan@richwave.com.tw or call the service hotline at 02-87511358/03-6008999



Stakeholder	Topic of concern	Communication channel / Response method and communication frequency	Achievements in 2023	Contact person and method
Media	Market brand image Social welfare activities	 Phone interview: from time to time. Print media interview and reporting: from time to time. Shareholders' meeting: annually. Disclose social welfare activities on the company's official website. Receive interviews at the company's public functions. Material information disclosure/news release: from time to time. Information disclosure on the MOPS and the IR Platform. 	 Phone interview: from time to time. Print media interview and reporting: from time to time. Shareholders' meeting: Held on 5/25. Disclose social welfare activities on the company's official website: To mitigate coastal erosion, employees from several companies collaborated with the Tse-Xin Organic Agriculture Foundation to plant trees at New Moon Beach. Organized the 2023 Christmas Charity Concert. "RichWave Family Day" invited families to enjoy the company's open activities and participate in interviews: Shareholders' meeting: 5/25. Investors Conference: 2/23, 4/28, 7/28, 10/27. Material information disclosure/news report: There were 19 major Chinese/English announcements and 30 news reports. Information disclosure on the MOPS and the IR Platform: Annual reports, meeting agenda handbooks, investor conferences, domestic and foreign brokerage investment forums, and monthly revenue announcements. 	For relevant topics, please send your questions to Ms. Juan of the PR Department wendyjuan@richwave. com.twor call the service hotline at 02-87511358/03-6008999
Community	Market brand image Social welfare activities	1. Created the company's LinkedIn page. 2. Created the company's YouTube page. 3. Industry–academia collaboration. 4. Participate in talent cultivation-related public welfare activities. 5. Sponsorships and donations.	 Created the company's Linked In page: Uploaded 20 posts in 2023. Created the company's YouTube page: Uploaded 26 videos in 2023. Industry-academia collaboration: Assisting the NTU GIEE's radar algorithm research. Assisting the NTU GIEE's high-speed PLL research. Assisting the Institute of Communications Engineering at National Yang Ming Chiao Tung University in RF circuit design research. The Company values every talent. We have participated in talent training-related public welfare activities (such as the Be a Giver event held by the 104 Job Bank) to help newcomers in the workplace improve their resume and career counseling. Sponsorships and donations: Sponsored the 2023 IEEE RFIC Symposium: Gold Sponsorship (USD6,000/session). Sponsored the 2023 IEEE BiCMOS and Compound Semiconductor Integrated Circuits and Technology Symposium (BCICTS): Bronze Sponsorship (USD4,000/session). Donated NTD60,000 to the Department of Electronics and Electrical Engineering of NYCU. 	For relevant topics, please send your questions to Ms. Juan of the PR Department wendyjuan@richwave. com.twor call the service hotline at 02-87511358/03-6008999



Stakeholder	Topic of concern	Communication channel / Response method and communication frequency	Achievements in 2023	Contact person and method
Customer/consumer	Customer product development trend Customer relationship management Market brand image Customer satisfaction survey	1. Daily, routine communication. 2. Immediate handling. 3. Customer satisfaction survey is conducted once a year.	The 2023 customer satisfaction survey was completed in December, achieving an average score of 90 points. At least 4 sales review meetings are held with important clients including new product presentations.	For inquiries related to product sales, please send your questions to Ms. Chen in the Customer Service DepartmentSunnychen@richwave.com.tw or call the service hotline 02-87511358/03-6008999
Supplier/contractor/distributor	Supplier audit Grievance channel	Quality meeting: weekly/quarterly. Annual supplier audit. Supplier audit	1. Completed 100% audit in Q4. 2. The hazardous substance report has been updated to 688 items in 2023. complying with international and customer requirements. 3. Conducted conflict minerals survey on 137 smelters, achieving a 100% pass rate.	For product quality control and supplier-related topics, please send your questions to Mr. Chang of the Quality Control Department patrickchang@richwave.com.tw or call the service hotline at 02-87511358/03-6008999
Employee	Company policy and employee-related information	The labor–management meeting is convened quarterly. Welfare Committee meeting is convened quarterly.	 The labor-management meeting is convened quarterly. In 2023, 4 sessions were conducted on 3/21, 6/14, 9/27, and 12/28. The Welfare Committee convened 6 meetings on 1/31, 4/26, 6/6, 9/5, 12/1, and 12/5 in 2023. 	For employee relations and welfare-related topics, please send your questions to Mr. Chang of the HR Administration Department dennischang@richwave.com.tw. Sexual harassment complaint box: hr@richwave.com.tw or call 02-87511358, 03-6008999.

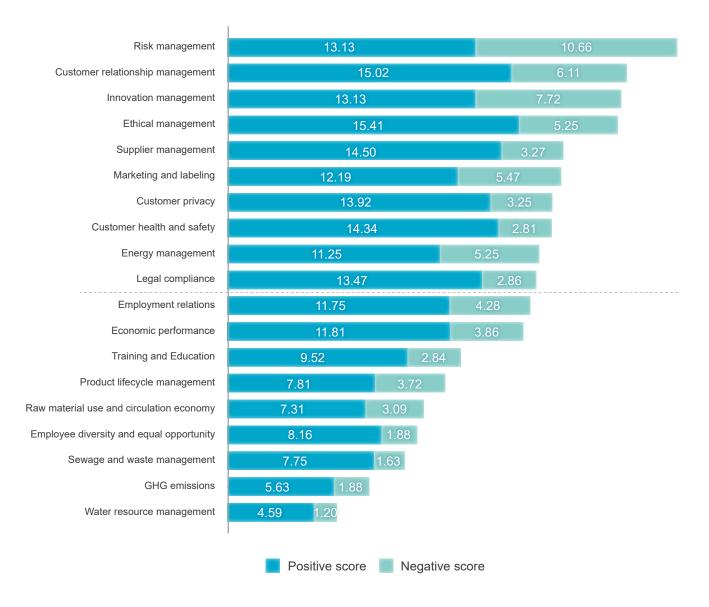


Material Topic Identification

To gain a deeper understanding of stakeholder concerns regarding sustainability issues and translate them into strategic directions for the company's sustainable development, we followed the 4-step GRI Guidelines 2021: context analysis, impact identification, significance assessment, and review and confirmation. This process involved analyzing global sustainability trends, domestic and international relevant industries, and high-priority sustainability issues for stakeholders. We conducted a questionnaire survey to analyze the probability and extent of the potential positive and negative effects of these issues on the company after evaluating their potential positive and negative effects. This process resulted in the identification of a list of annually significant topics, which were subsequently confirmed and decided upon by the Sustainable Project Management Office's members. In 2022, 19 sustainability issues were identified through the abovementioned process, from which 9 material topics were selected. The 2023 annual report builds upon the analysis from 2022, serving as the basis for writing and disclosing the sustainability report, which will carry out a comprehensive evaluation of the company's effectiveness in sustainable business governance.



Material Topic for 2023



		Within the organization		Outside the organization		ı						
Туре	Material topic	RichWave/ employees	Government agency	Shareholders and investors	Media	Community	Customer/ consumer	Supplier/ contractor/ distributor	Actual and potential positive and negative impacts	Policies/promises	Actions	Effectiveness assessment
Corporate governance	Ethical management	V	V	٧	٧	V	V	V	Positive: The organization provides ethics and compliance education and training, communicates anticorruption policies and procedures based on the Ethical Corporate Management Best Practice Principles, and ensures employee conduct adheres to business ethics and societal norms. This helps prevent corruption within the organization and enhance the reputation. Negative: Failing to establish an integrity management system can result in damage to the company's reputation and potential legal action, leading to market failure and substantial investor losses.	The company has established the "Procedures for Ethical Management and Guidelines for Conduct" based on principles of fairness, honesty, trustworthiness, and transparency to promote integrity in business activities.	In addition to the "Procedures for Ethical Management and Guidelines for Conduct", the company emphasizes the importance of ethical corporate management through annual educational training programs.	1. The company aims for zero cases of integrity violations in its reporting system, and in 2023, none were reported. 2. 299 individuals participated in integrity training in 2023 for a total of 299 hours of training.
overnance	Risk management	V		٧	٧		V	V	Positive: The company conducts pre-assessment and planning for potential risks, reducing operational risks and minimizing potential losses. This helps prevent business disruptions and ensures continuous operations. Negative: Failure to anticipate and prepare for potential risks can result in financial and reputational losses for the company, as well as missed business opportunities. In severe cases, it can lead to operational disruptions.	The company has established a "Risk Management Policy and Procedures" to ensure efficient business operations and improve corporate governance. The policy also ensures the Board of Directors' oversight function in risk management, with sustainable operations serving as the ultimate objective of the company's business activities.	RichWave has formed an interdepartmental BCP (Business Continuity Planning) Management Office with the President as the chairperson and team members consisting of representatives from various business units. To prevent potential major risks from harming the company, the BCP Management Office conducts rigorous risk evaluation to formulate response strategies, arrange for emergency response measures, as well as carrying out drills from time to time, and engage in ongoing improvement.	No significant business- threatening events occurred.



		Within the organization		Outsic	le the	organ	izatioı	1				
Туре	Material topic	RichWave/ employees	Government agency	Shareholders and investors	Media	Community	Customer/ consumer	Supplier/ contractor/ distributor	Actual and potential positive and negative impacts	Policies/promises	Actions	Effectiveness assessment
Corporate governance	Customer Privacy	V			V		V		Positive: Protecting customer's data effectively helps maintain their trust in the business. Negative: The disclosure of trade secrets and the violation of customer data privacy rights can erode customer confidence and result in legal repercussions.	1. Through comprehensive information security mechanisms, the company ensures that customer data is effectively protected. 2. The company's "Information Security Risk Management Policy and Procedures" encompass employees, customers, suppliers, shareholders, as well as operational information systems and hardware. This policy includes relevant regulations, technological applications, and data security standards to safeguard company information. It is integrated into the management operating system to safeguard the privacy and information security of employees, suppliers, and clients during business interactions.	1. A cross-departmental Information Security Management Team has been established, convened by the General Manager, with leadership and planning responsibilities shared between the Information Technology and Administrative Management departments. To assure the efficacy of information security management operations, business-related departments collaborate. 2. The team is responsible for establishing information security management policies and conducting at least annual evaluations and revisions. 3. The team conducts regular meetings to review the implementation status and provide at least one annual report to the Board of Directors with updates on the execution and reviews of information security management.	There have been no security breaches or incidents of consumer data leakage.
nance	Supplier Management	V	V				V	V	Positive: Implementing sustainable supply chain management not only ensures a secure supply of primary materials, but also improves the supply chain's overall sustainability performance in accordance with international standards. This demonstrates the positive external impact of the company and enhances its reputation. Negative: If ESG-related issues arise in the supply chain, it can contribute to environmental violations or violations of human rights, resulting in negative perceptions among customers, investors, and the general public. This may result in revenue loss and destabilize the supply chain as a whole.	1. Suppliers are required to comply with local laws and the company's Corporate Social Responsibility Code of Conduct. 2. Suppliers must comply with conflict mineral control requirements specified in the Environmental Substance Management Procedure.	1. Environmental substance management requirements have been outlined in the company's "Environmental Substance Management Procedure". The entire supply chain is informed of this requirement to ensure compliance. 2. Conflict mineral investigations are conducted quarterly, and compliance lists are reviewed. 3. For procurement activities, environmentally friendly products and services are prioritized. 4. Regular supplier evaluations and audits are conducted periodically. 5. Regular supplier meetings are held on a quarterly basis.	1. In 2023, we once again made sure that our main suppliers are 100% compliant with the ISO 9001 quality management system, the ISO 14001 environmental management system, and the IATF 16949 automotive quality management system, as well as continue to maintain 100% certification coverage rate. 2. The execution rate for ESG audits is 100%, with a 100% pass rate.



		Within the organization		Outsic	de the	organ	izatio	า				
Туре	Material topic	RichWave/ employees	Government agency	Shareholders and investors	Media	Community	Customer/ consumer	Supplier/ contractor/ distributor	Actual and potential positive and negative impacts	Policies/promises	Actions	Effectiveness assessment
Environment	Energy Management	V	V	V				V	Positive: Effective energy management and energy conservation reduce operating costs, produce carbon reduction effects, and decrease the likelihood of power disruptions at operational sites. Negative: Businesses with high energy consumption may fail to meet investors' and the general public's expectations regarding energy conservation and emissions reduction, resulting in a negative corporate image and funding difficulties. Failure to implement energy-saving measures can lead to an increase in electricity consumption, higher electricity costs, and negative environmental effects.	As part of its management policy objectives, the company intends to achieve a 3% annual reduction in electricity consumption, greenhouse gas emissions, and other waste management within 5 years beginning in 2023.	1. Office energy conservation and carbon reduction initiatives. 2. Review and adjustment of Taiwan Power Company contracts and capacities. 3. Internal promotion and continuation of office energy conservation and carbon reduction measures. 4. Continuation of ISO 14001 and ISO 14064 certifications and assessments.	 In 2023, the energy use intensity (EUI) was down by 5% compared to the previous year, surpassing our original target of a 0.6% reduction. We promoted energy conservation and carbon reduction solutions in 2023, reducing external electricity purchases by 51,768 kWh, equivalent to lowering 25.57341 tCO₂e GHG emissions. Waste emissions in 2024 decreased by 39.35% from that in 2022. In 2023, Scope 2 GHG emissions were 554.7 tCO₂e, 4.5% less than in 2022.
Product and customer relationship	Customer Health and Safety	V	V	V	V		V	V	Positive: Providing consumers with products that comply with national regulations increases customer confidence and ensures their safety. Negative: Product safety incidents can impact customer health and safety, resulting in business losses, reputational harm, and a loss of consumer confidence in the company's products and brands. In extreme circumstances, legal action and sanctions may be taken.	1. Providing products that satisfy the hazardous substance management needs of customers. 2. Observing the environmental management regulations and requirements of the local government. 3. Environmental Substance Management Procedure	1. Primary suppliers will be required to respond to inquiries twice per year regarding compliance with European REACH regulations. 2. Sending annually finished IC products for testing of hazardous substances to third-party notarization agencies. 3. Systematic management of third-party testing reports.	1. Obtaining 100% update and compliance rates for all raw material third-party testing reports. 2. 100% compliance of finished IC products with RoHS and halogen-free requirements. 3. The quality management system kept track of all materials to make sure they comply with RoHS, halogen-free, and REACH requirements.



		Within the organization		Outsic	de the	organ	izatio	n					
Туре	Material topic	RichWave/ employees	Government agency	Shareholders and investors	Media	Community	Customer/ consumer	Supplier/ contractor/ distributor	Actual and potential positive and negative impacts	Policies/promises	Actions	Effectiveness assessment	
Produ	Marketing and Labeling	V	V		V		V	V	Positive: Using truthful and non-exaggerated marketing strategies can aid in establishing a trustworthy corporate image and boosting consumer and public confidence in a company's products and brand. Negative: Negative marketing incidents can cause customers and consumers to lose faith in the company's brand, thereby affecting product sales. In extreme circumstances, legal action and sanctions may be taken.	Marketing and labeling adhere to regulations or customer requirements in the sales region, with pertinent specifications and material labeling prominently displayed.	Clear labeling of RoHS, Lead- Free, and Halogen-Free symbols on product packaging and specifications, as well as the provision of third-party ICP test reports for each material based on product models.	In 2023, RichWave has confirmed that 100% of our materials comply with RoHS, halogen-free, and REACH requirements through the management system, and there were no product and service-related health and safety violations.	
Product and customer relationship	Innovation Management	V		V			٧		Positive: Establishing product innovation advantages assists in maintaining market competitiveness and increasing revenue. Good secret protection prevents market fluctuations and investor losses. Consideration of ESG in research and development promotes sustainable market development and facilitates the emergence of sustainable business models. Negative: Failed product development or extended timelines can devour substantial company resources and time, impacting market position and competitiveness. Ineffective patent management may also result in financial losses and litigation for the business.	Bolster the company's innovation capability and product competitiveness to protect the company's achievements in cuttingedge technology. The company stipulates the number of additional patent certificates that must be obtained for the year from the annual operational target, encouraging colleagues from various R&D units to vigorously attain the target.	1. Actively engage in patent management with plans in the US, China, and Taiwan. Ensure that the expansion of product lines does not infringe upon competitors' patents and harm the company. 2. To attain ESG objectives, we actively expand the layout of RFIC peripheral circuit components, such as filters and duplexers, and develop smaller integrated RF front-end products. 3. Set patent targets for each department of research and development, not limited to IC patents alone, but also encouraging the generation and submission of patents relating to algorithms and antennas, among others.	1. As of December 31, 2023, the number of targeted and actual patent applications for 2023 was 51 and 54, respectively, achieving a completion rate of 105.8%. 2. As of December 31, 2023, the number of patent applications was 116, of which 101 patents were awarded. 3. RichWave was ranked among the top 100 in national patent applications and grants in 2023, maintaining a spot in the top 100 for 5 consecutive years. 4. Over 600 patents accumulated worldwide in 2023. 6. The Wi-Fi 7 RFIC has progressively obtained platform verifications by major network chip manufacturers.	



		Within the organization		Outsid	le the	organ	izatio	n				
Туре	Material topic	RichWave/ employees	Government agency	Shareholders and investors	Media	Community	Customer/ consumer	Supplier/ contractor/ distributor	Actual and potential positive and negative impacts	Policies/promises	Actions	Effectiveness assessment
Product and customer relationship	Customer Relationship Management	V					V		Positive: Developing a positive and trustworthy relationship with customers and effectively resolving their issues can increase consumer brand loyalty and trust in the company, bringing stable business opportunities and enhancing its reputation. Negative: Poor customer relationships can contribute to negative customer experiences and hinder the successful utilization of products, resulting in losing orders and potentially affecting the company's external perceptions and long-term growth.	The company has established customer complaint management procedures and customer return/exchange operation guidelines.	Product satisfaction surveys are conducted quarterly. At least 4 sales review meetings are held with important clients including new product presentations.	1. Average customer satisfaction score of 90 in 2023. 2. Defective parts per million (DPPM) in 2023 was 2.4.

^{*}In 2023, no significant topic-related activities or business relationships had negative effects.





Corporate Governance

- 2.1 Management Governance
- 2.2 Ethical Management
- 2.3 Risk Management
- 2.4 Information Security and Customer Privacy
- 2.5 Legal Compliance

* Chapter Highlight

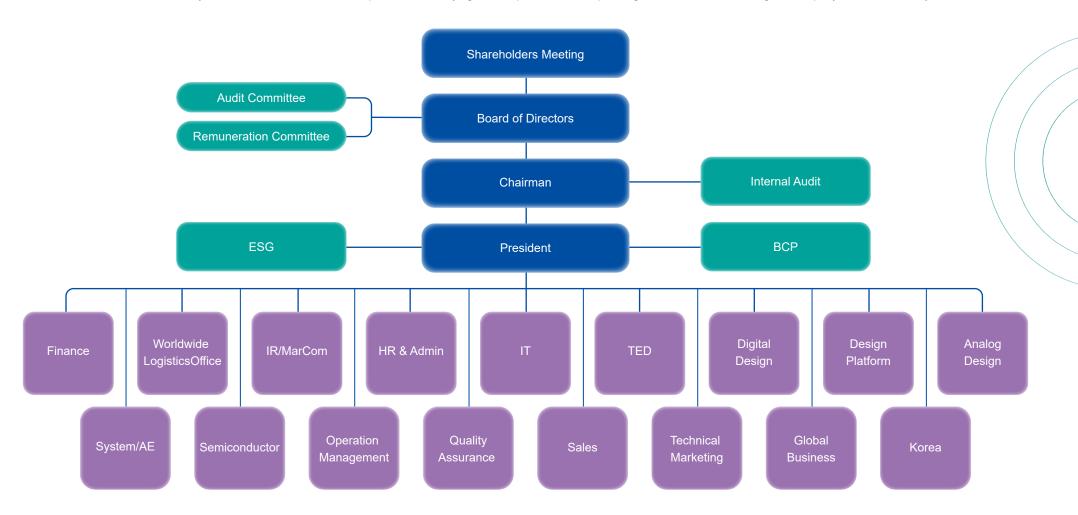
- In 2023, the board of directors held a total of 5 meetings, with an average attendance rate of 98%; the attendance rate of the Audit Committee and the Remuneration Committee reached 100 %.
- There were no cases of violating ethical corporate management in 2023 or accusations of unethical corporate management behavior.
- In 2023, the number of employees received training on Ethical Corporate Management,
 Trade Secrets Protection, and Insider Trading prevention was 299 people, achieving a coverage rate of 99.7%.
- In 2023, 599 employees were trained for a total of 599 hours on information security.
- · There were no penalties for violating environmental regulations in 2023.



2.1 Management Governance

Corporate Governance Structure

A sound corporate governance system is the key to sustainable corporate management, and a well-functioning Board of Directors is not only the cornerstone of outstanding corporate governance but also facilitates the company's sustainable development. RichWave has formulated the "Corporate Governance Best-Practice Principles" to reinforce the Board of Directors' functions, protect the shareholders' equity, and respect the stakeholders' rights. Furthermore, the "Articles of Incorporation" regulate the selection and formation of the Board of Directors. The Audit Committee and Remuneration Committee subsidiary to the Board of Directors are responsible for fortifying the independence of corporate governance and enhancing the company's remuneration system.



2023 RichWave Sustainability Repor

Operation of the Board of Directors

RichWave has appointed 7–9 directors according to the Articles of Incorporation. Adopting the candidate nomination system, the directors are selected from the roster of director candidates by the shareholders' meeting, and they may be reelected. In particular, there must be more than 3 independent directors who account for no less than 1/5 of the total number of directors, each serving a term of 3 years. The Board of Directors will exercise its powers according to the law, the Articles of Incorporation, and decisions made by the shareholders' meeting. The company's Board of Directors is composed of members with diverse backgrounds in management, science and technology, accounting and finance, and law. They are technology industry executives, professors specializing in science and technology and accounting, as well as attorneys. The Board of Directors comprises members with diverse backgrounds in industry, academia, and knowledge. They provide professional opinions and guidance from diverse perspectives to guide company strategy and oversee management, ensuring the company's sustainable performance and protecting the interests of stakeholders. RichWave's Board of Directors has nine directors, consisting of five directors and four independent directors.

To effectively implement corporate governance and improve the efficacy of the board of directors, the company enrolls directors in external training programs annually. In 2023, reappointed directors received at least 54 hours of training, which satisfies the requirements for director training hours. The training covers topics about the economy, the environment, and society, such as corporate governance, legal compliance and internal controls, impact investing, supply chain information security management, sustainability and carbon neutrality, climate change, and TCFD-related climate financial disclosure. Additionally, the board of directors is evaluated annually by the company. An internal questionnaire is used to assess the overall operations of the board of directors and functional committees, board participation, understanding of the company, awareness of responsibility, and continuing education. The evaluation functions as a guide for board members' ongoing development. The performance evaluation for 2023 was concluded on February 29, 2024, demonstrating outstanding results.

Board of Directors performance evaluation

- 1. Level of engagement in the company's operations.
- 2. Improve the Board of Directors' decision-making quality.
- 3. Board of Directors formation and structure.
- 4. Director selection, appointment, and further education.
- 5. Internal control.

Board member performance evaluation

- 1. In control of the company's goals and missions.
- 2. Awareness of the directors' responsibilities.
- 3. Level of engagement in the company's operations.
- 4. Internal relationship management and communication.
- 5. Directors' professional and further education.
- 6. Internal control.

Functional committee performance evaluation

- Level of engagement in the company's operations.
- 2. Awareness of the functional committees' responsibilities.
- 3. Improve the functional committees' decision-making quality.
- Formation of the functional committees, election, and appointment of committee members.
- 5. Internal control.

The Board of Directors convenes regularly every year to discuss the company's material issues. In 2023, the Board of Directors convened 5 meetings, achieving an attendance rate of 98%.





2023 RichWave Sustainability Repor

Functional Committees

The company has established an Audit Committee and a Remuneration Committee under the Board of Directors to assist the board in fulfilling its responsibilities of strategic leadership and carrying out its supervisory function. The Audit Committee consists of independent directors who are in charge of supervising the hiring (dismissal) of the company's CPA, internal control effectiveness, legal compliance status, and performing potential risk control. In addition, RichWave has formulated the Audit Committee organizational regulations, stipulating that Audit Committee meetings must be conducted at least once every quarter, and the meeting may be convened at any time if necessary. In 2023, the Audit Committee convened five meetings, achieving an average attendance rate of 100%.

The company's Remuneration Committee is also made up of 4 independent directors who propose recommendations concerning the remuneration of directors and managers to the Board of Directors from an independent, objective point of view. The recommendations serve as a reference for the Board of Directors during its decision-making process. According to the company's Remuneration Committee organization regulations, at least 2 Remuneration Committee meetings should be convened annually, and the meeting can be convened at any time if necessary. In 2023, the Remuneration Committee convened 3 meetings, achieving an attendance rate of 100%.



Audit Committee

- 1. Fair presentation of the company's financial statements.
- 2. The appointment and dismissal of, as well as the independence and performance of CPAs.
- 3. The effective implementation of the company's internal control.
- 4. The company's compliance with laws and regulations.
- 5. The control of existing and potential risks within the company.



Remuneration Committee

- 1. Formulate and regularly review the performance evaluation of directors and managers, as well as the remuneration policy, system, standards, and structure
- 2. Regularly evaluate and formulate the remuneration of the directors and managers.

2023 Audit Committee Convened 5 meetings. Average attendance of 100% 2023 Remuneration Committee Convened 3 meetings.

Average attendance of 100%

The company's remuneration policy for directors and senior management is established based on industry standards and practices regarding remuneration. This includes considering the practices, standards, composition, and procedures for determining remuneration. The process involves referencing the salary levels of peer companies and receiving recommendations from the Remuneration Committee before presenting them to the Board of Directors for approval. The following mechanisms are in place:

Directors: The remuneration of directors is derived from the distribution of profits, with the allocation of profits for their remuneration not exceeding 1%. The remuneration is assessed according to the level of involvement and contributions made by the directors to the company's operations. When the company achieves net income in its annual financial statements, after accounting for losses, allocating statutory surplus reserves or special surplus reserves, and distributing dividends to special stockholders and employee remuneration, the Board of Directors shall assess the industry environment and the company's capital requirements. The company will propose a profit distribution plan that includes remuneration for the directors. This plan will be distributed after receiving approval from the shareholders' meeting.

The remuneration for the President and Vice President comprises salary, bonuses, and employee dividends. The determination is based on the positions held, responsibilities undertaken, performance evaluation, contributions to the company, and the achievement of sustainability (ESG) indicators such as ISO14001 and ISO14064-1 certification. The remuneration also considers industry benchmarks.

2.2 Ethical Management

Ethical Management and Anti-corruption Regulations

© Ethical Management Regulations and Responsible Unit

Ethical management is the root of corporate management, hence RichWave conducts business activities based on the principle of fairness, honesty, integrity, and transparency. The Board of Directors has approved the "Procedures for Ethical Management and Guidelines for Conduct"that applies to the group's parent company and subsidiaries. The guideline outlines the precautions RichWave employees should observe while implementing services, so as to materialize the company's ethical management policy, vigorously prevent unethical conduct, and prevent the company employees from, in the course of their duties, directly or indirectly providing, accepting, promising or requesting improper benefits, or committing a breach of ethics, unlawful act, or breach of fiduciary duty to acquire or maintain benefits. The guideline stipulates that the company's colleagues should avoid unethical conduct including corruption, bribery, political donation, conflict of interest, and anti-competitive practices. The guideline also states the possible disciplinary actions against unethical conduct and proposes a clear reporting procedure.

The President's Office of RichWave is responsible for promoting and implementing ethical management, and it must report to the Board of Directors regularly (at least once a year). It is also obligated to report to the Board of Directors at any time about the following:

- Help to incorporate ethical and moral values into the corporate management strategy, as well as cooperate with the law to formulate ethical management-related fraud prevention measures.
- Regularly analyze and evaluate the risks of unethical conduct within the business scope to formulate solutions to prevent unethical conduct, as well as to define work-related SOPs and guidelines within various solutions.
- 3. Plan the internal organization, structure, and allocation of responsibilities and set up checkand-balance mechanisms for mutual supervision of the business activities within the business scope which are possibly at a higher risk for unethical conduct.
- 4. Promote and coordinate awareness and educational activities concerning ethics policy.
- 5. Develop a whistleblowing system and ensure its operating effectiveness.
- Assist the Board of Directors and management in auditing and assessing whether the prevention measures taken to implement ethical management are operating effectively, and prepare reports on the regular assessment of compliance with ethical management in operating procedures.
- 7. Prepare and maintain the ethical management policy as well as the compliance statement and documented information such as the materialization of commitments and implementation status. The ethical management promotion status was reported to the Board of Directors on 12/21, 2023, and received the board's approval.

The company must review the risk of potential unethical conduct at all times based on the principle of "Procedures for Ethical Management and Guidelines for Conduct" and bolster education and promotion. The company has established and announced an internal independent whistleblowing email and hotline on the company's website and intranet or commissioned other external independent organizations to provide a whistleblowing email and hotline for the company's internal and external person. To encourage internal and external personnel to report unethical conduct or misconduct, a reward of less than NT\$500,000 will be provided depending on the severity of the offense to increase the company's ethical management performance and foster an ethical culture with our colleagues in the company. In 2023, the company did not experience any violations of ethical business practices and had no reported cases of unethical conduct.

	2021	2022	2023	
Number of unethical conducts reported	0	0	0	



O Codes of Ethical Conduct

RichWave believes that ethical conduct should begin at the top, leading by example to guide the company's colleagues, thus the "Codes of Ethical Conduct"has been stipulated, describing the eight good conducts expected of the company's directors and managers in regard to ethical standards including the prevention of conflict of interest and the pursuit of personal gains, confidentiality responsibility, fair transactions, protection and the appropriate use of the company's properties, legal compliance, encouraging the reporting of any illegal or unethical conducts, as well as disciplinary measures. The guideline defines the conflict of interest that occurs involving personal interests or the company's overall interests, stipulates conflict of interest prevention policies, and provides adequate channels for the directors or managers to voluntarily explain whether a potential conflict of interest with the company exists; when the company is given an opportunity to gain profits, the directors and managers are reminded of their duties to increase the company's legitimate profits; it also stipulates that the directors or managers are bound by the duty of confidentiality for information about the company, suppliers or customers, unless otherwise authorized or disclosure is required by the law; the directors or managers should treat the company's suppliers, customers, competitors, and employees fairly. The company is now allowed to manipulate, conceal, and misuse the information they received at work, and it is not permitted to obtain improper profits through false statements or other unfair transactions; it regulates that the directors or managers have the responsibility to safeguard the company assets and to ensure that they can be effectively and lawfully used for official business purposes; the company should reinforce the internal promotion of ethical awareness and encourage employees to report suspected or confirmed violations of law or unethical conduct to the managers, internal audit supervisors, or other appropriate staff. The company has stipulated a clear whistleblowing system that allows for anonymous whistleblowing; when the directors or managers violate the Codes of Ethical Conduct, the company should deal with the problem per the disciplinary measures in place and immediately publish information such as the date of violation, reasons for violation, the code violated, and the actions adopted to remedy the situation on the MOPS. Through the regulatory document, we can forge an ethical consensus among our directors and managers, as well as allow the company's stakeholders to further understand the company's ethics regulations.

The company incorporates the codes of conduct for its employees into the standard employment contracts. All employees are required to sign and adhere to the code of conduct. The content of the code encompasses principles of ethics. equal employment, and ethical conduct, the prohibition of harassment and violence, respect for privacy, respect for the intellectual property rights of others, the prevention of conflicts of interest, fair dealings, and the prevention of anti-corruption and bribery. The code also explicitly states the disciplinary measures that will be taken in the event of violations. The policy ensures that all employees possess a comprehensive understanding of and adhere to the ethical standards and moral principles of the company.

Employee Work Regulations



Procedures for Ethical Management and Guidelines for Conduct



Codes of Ethical Conduct

Training for Ethical Corporate Management, the Protection of Trade Secrets, and the Prevention of Insider Trading

The company stipulates that the responsible unit should conduct at least one internal promotion of ethical management every year, where the Chairman, President, or senior management communicate the importance of ethics to the directors, management, and company colleagues. To ensure that employees are well-informed about the company's regulations and to maintain a fair competitive environment, the company conducts orientation lectures for new employees. The lectures provide comprehensive explanations of the Codes of Ethical Conduct. Furthermore, the company arranges an annual training program that specifically emphasizes the safeguarding of trade secrets and the prohibition of insider trading. The program emphasizes the importance of ethical behavior and compliance with relevant laws and regulations. The company extends invitations to external lawyers who are assigned the responsibility of delivering lectures to the managers and employees. The lectures aim to provide a comprehensive understanding of trade secrets and insider trading. thereby enhancing participants' knowledge in this area. By engaging in the analysis of practical case studies and participating in discussions, employees can acquire a heightened understanding of the potential adverse consequences on both themselves and the company. Furthermore, individuals gain awareness of the civil and criminal liabilities associated with violations in this specific domain. The company has scheduled its annual training on ethics, trade secret protection, and prevention of insider trading for December 26, 2023. The training had a total of 299 participants and lasted for 299 hours. With the exception of three employees who were on assignment abroad, all the remaining employees attended the training session, resulting in a training coverage rate of 99.7% and successfully meeting the company's annual training objective.

Training for Ethical Corporate Management, the Protection of Trade Secrets, and the Prevention of Insider Trading

	2023 attendance	2023 number of trainees	Training coverage	2023 training goals	2024 goals
Total number of people trained	299	300	99.7%	98%	000/
Total training hours (1hr/person)	299	300	(Note)	(Target achieved)	98%

Note: One employee did not attend the training due to sick leave, but the company has provided online training materials so that colleagues can access and read them at any time.

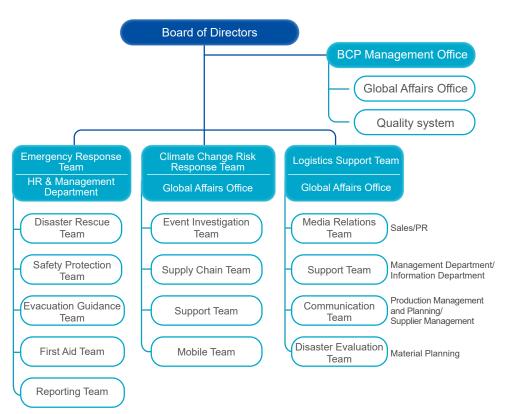
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2.3 Risk Management

Risk Policy

Risk Management Organization

RichWave has established a cross-functional Business Continuity Planning (BCP) Management Office comprising an Emergency Response Team, Logistics Support Team, and Climate Change Risk Response Team. The General Manager functions as the coordinator of the Management Office, and individuals from different business units are designated to take part in the coordination process. To prevent potential major risks from harming the company, the BCP Management Office conducts rigorous risk evaluation to formulate response strategies, arrange for emergency response measures, as well as carrying out drills from time to time, and engage in ongoing improvement.



O Risk Policy and Management Process

To ensure that the company operates in a proactive and cost-effective manner, it integrates and manages a variety of strategic, operational, financial, and hazard-related risks that may affect its operations and profitability. The company enhances the oversight function of its board of directors in the area of risk management. RichWave has established a "Risk Management Policy and Procedures" which has been approved by the board of directors. The company conducts a comprehensive evaluation and management of existing risk factors through the processes of risk identification, risk analysis, risk assessment, risk response and control, and risk monitoring. The company maintains regular monitoring of emerging risks that may potentially have an impact, and endeavors to acquire a comprehensive understanding of the extent of each risk. The company implements appropriate measures and allocates resources to ensure the effective management of relevant risks.

Risk Item Identification and Management

By analyzing the global conditions, industry trends, and regulatory trends, RichWave can identify risks related to five dimensions including strategy, operation, finance, hazardous events, and legal compliance:

- 1. Industry changes and technological innovation
- 2. Technical R&D and competitive situation
- 3. Policy or regulation changes
- 4. Developments in global politics and economy
- 1. Interest rate, exchange rate, inflation
- 2. Liquidity
- 3. High-risk/high-leverage financial investment. derivative transactions
- 1. Company Act, Securities, and Exchange Act. Business Entity Accounting Act, insider trading
- 2. Financial reporting procedure
- 3. Personal Data Protection Act



- 1. Market demand
- 2. Business continuity risk (Risk of interruption of service including supply chain interruptions and production interruptions)
- 3. Information security
- 4. Supplier management

- 5. Intellectual property
- 6. Credit risk (Including clients and suppliers)
- 7. Corporate image
- 8. Loaning of funds to others and endorsements or quarantees for others
- 9. Strategic investment
- 2. Occupational safety and health 3. Fire and other manmade
- (Including the use of hazardous substances in products and processes)
- 4. Influence of an epidemic
- 5. Water and power supply

In regard to the risk items that may be encountered during the company's day-to-day operations, RichWave has developed a risk and opportunity management protocol to conduct a SWOT analysis based on the company's background. Furthermore, the stakeholders' concerns and appeals are included in the stakeholder risk analysis and controlled by the risk analysis team. In 2023, the three major high-risk items identified include product competitiveness, price competitiveness, and supplier management. Response measures planned and implemented include strengthening product audit, establishing BCP, fortifying supplier management protocol, and the resident management of key suppliers.

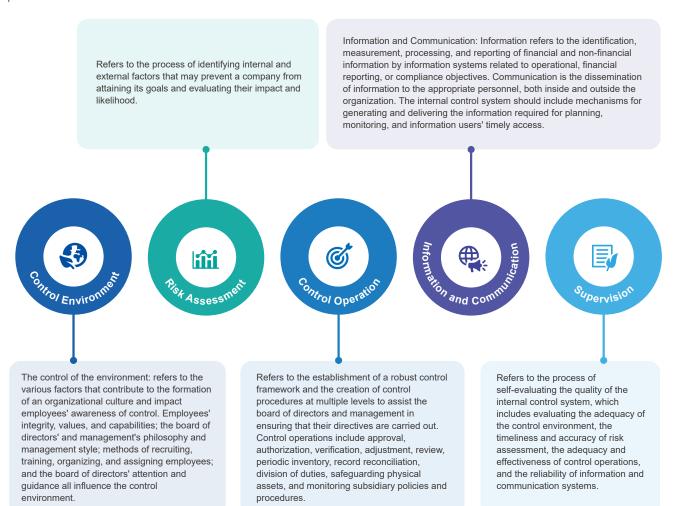
To effectively respond to and manage major operational risks, the company's Board of Directors proposed in 2022 that the company should regularly review business interactions with the distributors, their financial and credit conditions, and follow contractual compliance procedures. The BCP Management Office should determine actual risks and implement improvements through the BCP system. The projects carried out in 2023 are:

- 1. Review the list of all distributors/agents and terminate those who have not had any business interactions within the last 2 years.
- 2. The Global Affairs Office and Customer Service Department jointly reorganized the status of distributors and completed a review of distribution contracts for valid distributors/ agents. The Finance Department confirmed credit guarantee standards for distributors/agents, and the President approved the commission percentages for various distributors/agents. Furthermore, business units complied with relevant operational procedures, requiring approved distributors/agents to provide credit guarantees.

Reported the current status of the company's risk management and identification efforts and relevant response measures on December 21, 2023, and approval was obtained from the Board of Directors.

Audit and Internal Control

RichWave has established the "Internal Control System Self-Assessment Procedures," which apply to the company and its subsidiaries and cover all operational activities. The internal control system comprises five primary components: the control of the environment, risk assessment, control of operations, information and communication, and monitoring operations. Each component possesses a distinct set of detailed items.



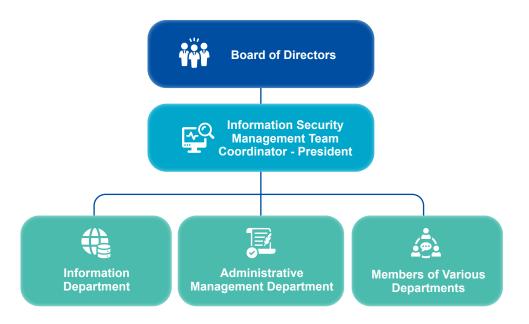
The effectiveness of the organization's internal control system is evaluated using the above evaluation criteria. We concluded the internal control operations for 2023 on February 29, 2024, confirming the effectiveness of the company's operations, the achievement of efficiency objectives, and compliance with laws and regulations, and releasing an internal control system statement approved by the board.

2.4 Information Security and Customer Privacy

Information Security Measures

O Information Security Organization

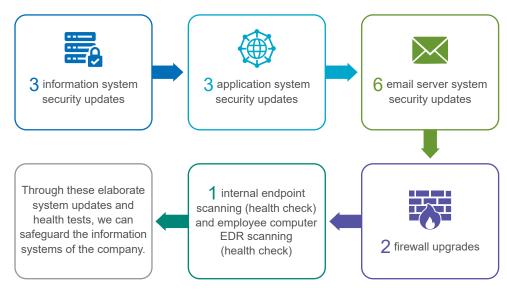
Amid the digital trend, the importance of the network, IT system, and data security is becoming increasingly important, while the demand and expectations of the competent authorities and stakeholders for the company's information security are also on the rise. If the quality of the company's system is not up to standard, information leaks or service interruptions will result in expensive costs and damage the company's reputation. In light of this, RichWave has formed an interdepartmental information security management team with the President as the convener, while the Information Department and Administrative Management Department are in charge of offering directions and planning, with support and cooperation from various business units. The information security management team convenes regular meetings to review the company's information security system operations, and it must report information security-related implementation status to the Board of Directors at least once a year to obtain advice and guidance from the highest level of the company. This is to ensure the operational effectiveness of RichWave's information security management. On December 21, 2023, the information security team briefed the Board of Directors on the company's information security operational status, receiving guidance and confirmation from the Board of Directors.



Information Security Policy

Board-approved "Information Security Risk Management Policy and Procedures" have been established by RichWave in order to protect the confidentiality, integrity, and availability of information assets related to employees, suppliers, and customers and to ensure the stable use of the company's information services. This policy governs the company's actions regarding information asset inventory, information security awareness, company data confidentiality, information equipment maintenance and backup, personal computer security system maintenance, and the reporting of information security incidents. With these measures, we hope to ensure the continued viability of the company's information business.

By implementing information security management procedures, the company ensures the security and veracity of electronic data in various systems and meets the policy objectives of sustaining the company's normal business operations. The policy applies to all of RichWave's system data and information equipment, regulating the company's information security control operation (including authorization control, file management, and anti-virus measures), data processing operation, information equipment management and maintenance, form filling operation and form storage period, thereby guaranteeing that the company's system can engage in effective hierarchical control, important data can be kept, reviewed adequately, and the information system can be comprehensively protected and backed up. Additionally, the company regularly establishes a data backup system to conduct disaster recovery drills and engender an effective data security protection environment in conjunction with the information security system for the sake of ensuring the company's sustainable operation. A total of 3 information system security updates, six application system security updates, six mail server system security updates, one firewall upgrade, one internal endpoint scanning (health check), and employee computer EDR scanning (health check) were conducted in 2023. Through these multi-layered system updates and health tests, we safeguard the information systems of the company.



2023 RichWave

♦ RichWave's Information Security Management Measures

W	ork item	Work details
	Information equipment management	 Establish an annual inventory and list of information assets, conduct risk management according to the information security risk evaluation, and implement various control measures.
	Information security promotion and implementation	 The company regularly carries out information promotion operations by organizing one information security education and training session annually. All new employees must sign the information confidentiality agreement. All personnel must comply with legal regulations and the information security policy requirements. Executives should supervise the implementation status of the information security system, and bolster our colleagues' information security and legal awareness.
	Software management	 Anti-virus software should be installed on personal computers and the virus database should be regularly updated. The use of unauthorized software is strictly forbidden.
(A)	Account protection	The colleagues' accounts, passwords, and authorization should be kept and stored responsibly, and they should be changed regularly.
<u>©=</u>	Information security incident management	 Stipulate the SOP for information security incident response and reporting, to resolve information security issues immediately and prevent the damage from escalating.
	Supplier information security control	 All of the company's employees, contractors, and third parties must sign the confidentiality agreement to make sure that those using the company's information to provide information services or carry out related information services have the responsibility and obligation to protect the information asset of RichWave, thereby preventing unauthorized access, tampering, destruction, or improper disclosure.
	Data backup	Important information systems or equipment should be equipped with adequate backup or surveillance mechanisms, and a drill must be performed once a year to maintain its availability.

2023 Information Security Management Plan

- 1. Arrange for an external information security firm to conduct an information security inspection/drill once a year (including email social engineering drill/weak spot detection).
- 2. Arrange for an annual data recovery drill focusing on the recovery and verification of backed-up data to ensure the correctness of the recovered data..
- 3. Arrange for a system security update at least once a year, focusing on the patch updates of major system loopholes..
- 4. Establish an information security reporting mechanism and an Information Security Team to conduct comprehensive information security management.

Information Security Training and Education

2023 Information Security Training and Education Plan

- Organized 2 information security education and training sessions, with each session lasting at least one hour (including information security awareness/social engineering).
- 2. Issue relevant information security reports as needed (provide analysis report for special information security incidents).

To instill information security awareness in our colleagues and make every employee an integral part of the company's information security protection network, RichWave has conducted information security education and training for all new employees, and we have promoted information security to them from time to time through email. The new employees' information security training includes an introduction to the company's information system, document management system, electronic form operations, computer and network regulations, and USB regulations. RichWave's information security supervisor will brief the new employees to make sure they can comply with the company's information security system and regulations. Furthermore, the company maintains a constant vigilance over the prevailing state of information security in society and endeavors to create educational materials aimed at enhancing awareness regarding highly significant matters about information security. The distribution of these materials to all employees is done to prevent dangerous incidents. Multiple information security awareness campaigns were conducted in 2023 through the internal announcement system. These campaigns covered various topics including account security management and phishing emails. The purpose of this initiative was to enhance employees' understanding of information security and promote vigilance in email usage. Additionally, it served as a reminder for employees to regularly change their system login passwords. In July and December, all employees participated in a physical + online information security education training session. The training sessions focused on discussing domestic and international information security incidents, as well as the associated losses, reminding colleagues of common information security risks, hacker attack techniques, social engineering, and best practices for password management. A total of 300 and 299 participants attended the training sessions, respectively, accumulating 599 training hours. The recorded sessions were uploaded to the company's document management system, allowing employees to access them at their convenience.











Information security education and training were conducted in July and December for 300 and 299 people, accumulating 599 hours





Customer Privacy

RichWave values our customers' personal data and privacy, hence we uphold the most stringent approach to collecting and managing our customer's information. When signing a contract with our customers, we have included the confidentiality agreement as part of the official contract to ensure that RichWave's colleagues and partners comply with confidentiality through formal document regulations. After obtaining our clients' information, it will be stored in a digital format and maintained by the company's information security management system in conjunction with the account authorization management mechanism to ensure that RichWave can effectively control the use of our customer's confidential information. Furthermore, RichWave has established a hotline and email to process the company's consumer rights-related complaints and problems to make sure consumer complaints are responded to in a fair and timely manner. In 2023, RichWave did not receive any customer privacy violation-related complaints.

2.5 Legal Compliance

Legal compliance is the fundamental duty of corporate citizens, while the proactive understanding of regulatory changes in a bid to make the necessary adjustments is the embodiment of corporate social responsibility. RichWave upholds a rigorous attitude of honesty and integrity to interact with our stakeholders; to ensure legal compliance, the company has established a legal affairs unit responsible for reviewing the legality of our contacts, and various units have also appointed colleagues to monitor and follow domestic/foreign policies and regulations that have a potential impact on the company's business and finance, such as the Company Act, Patent Act, Occupational Safety and Health Act, and Labor Standards Act. Moreover, changes to the laws and regulations are reported to the supervisor followed by internal regulation adjustments to ensure the company's operations are in compliance with the law. In addition, RichWave holds a long-term partnership with professional teams from law firms to study high-risk topics, and an external legal education and training course is held annually to strengthen the legal competency of the company's management team. In 2023, there were no violations of the Labor Standards Act at RichWave. No penalties were imposed for violations of environmental regulations, health and safety regulations related to products and services, information and labeling of products and services, marketing communications (including advertising, promotions, and sponsorships), or litigations related to anti-competitive behavior.



CHAPTER

Product Management

- 3.1 Innovation Management
- 3.2 Sustainable Supply Chain
- 3.3 Customer Care

* Chapter Highlight

- Over 600 patents accumulated worldwide in 2023.
- The number of target patent proposals in 2023 was 51, and the cumulative number of proposals was 54, with an achieve rate of 105.8%.
- RichWave was ranked among the top 100 in national patent applications and grants in 2023, maintaining a spot in the top 100 for 5 consecutive years.
- In 2023, we invested NTD 653,715,000 in R&D, accounting for 21.9% of the company's revenue.
- The Wi-Fi 7 RFIC has progressively obtained platform verifications by major network chip manufacturers.
- RichWave's microwave radar sensor has been included in the Intel Integrated Sensor Hub (ISH) third-party supplier list.
- 100% of our main suppliers received ISO 14001 environmental management system, ISO 9001 quality management system, and IATF 16949 automotive quality management system certifications in 2023.
- In 2023, the execution rate of ESG-related audits reached 100%, and the pass rate reached 100%.
- In 2023, the proportion of local production procurement amount reached 70.3%.
- The quality management system tracked that 100% of the materials in 2023 met the requirements of RoHS, halogen-free, and REACH.



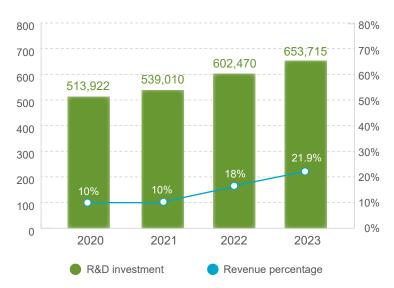
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3.1 Innovation Management

Innovative Measures

Innovation is one of RichWave's 6 major core values and an essential element of corporate growth. We adhere to the quality policy of "Ongoing quality refinement - Customer satisfaction comes first"to achieve market differentiation and develop products with outstanding performance through innovation, technology, and unique market positioning. In the field of WiFi wireless communication and IC, we have constantly unveiled new products to accommodate the market's needs. RichWave monitors technological changes and developments in the industry closely to maintain a high level of understanding of industrial dynamics while constantly elevating the company's R&D capabilities. At the same time, we have hired external professional consultants to introduce new technologies and engage in industry-academia collaborations, where the patent mechanism is applied to protect RichWave's innovative ideas and R&D outcome, thereby maintaining the company's technological leadership position, allowing us to strive to become the leader in the global RFIC market through innovative technology. We will vigorously invest resources to perform innovative R&D: in 2023, RichWave's R&D totaled NT\$653,715,000, accounting for 21.9% of the company's revenue.

Unit: NTD thousands



Energy-saving Performance of Green Products

The primary business of RichWave is chip design. Chips designed by the company are sold worldwide and used in a diverse array of wireless communication products. Through chip design, the company is dedicated to the R&D of more energy-efficient and carbon-reducing products that have minimal impact on the environment. Moreover, the company strives to increase its product competitiveness by improving product performance. This is achieved via lowering power consumption, minimum usable design, and changing production processes, thereby realizing the goal of energy conservation, carbon reduction, and eco-friendliness.

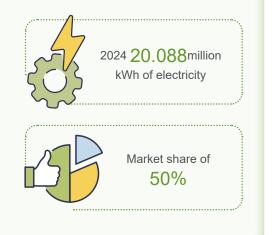
Saving GHGs through Manufacturing Materials

Design and process innovation is one of the company's main R&D directions. This not only demonstrates our commitment to product quality but also contributes to environmental protection. Through chip emphasizing area control and process innovation, we can significantly increase the die yield per wafer and lower the greenhouse gas (GHG) emissions associated with each die by nearly 60%. Based on annual shipment volumes, we reduced CO_2 emissions by approximately 4 tonnes in 2022 and 6.8 tonnes in 2023.



New Energy-saving Product -Nonlinear Power Amplifier

The current consumption or efficiency indicators of RF front-end module chips are closely related to investments in system-level thermal management. High-efficiency, energy-saving RF front-end chips have become key indicators for RF front-end chip design firms. Combining nonlinear RF front-end module chips with the main chip's digital predistortion (DPD) algorithm represents a low-power, high-efficiency product solution. It also serves as a product blueprint for domestic and international Wi-Fi 7 brand manufacturers aiming to enhance ESG quality. Based on product shipments in 2024, the market share of products using nonlinear power amplifiers is expected to reach 50%, saving 20.088 million kWh of electricity.

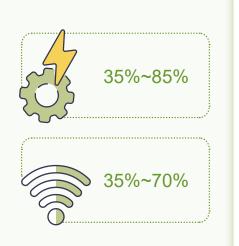


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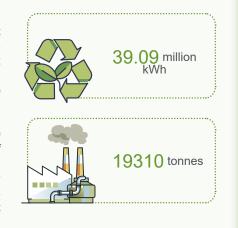
Mobile Communication Products

Mobile communication products boast extremely low power consumption when in special standby mode, which only consumes roughly 35%~85% power compared to the normal mode. In transmission mode, the efficiency mode of the mobile communication product offers a transmission power comparable to that of the normal mode but only consumes 35%~70% of power compared to the normal mode, hence it can extend battery life and minimize battery pollution.



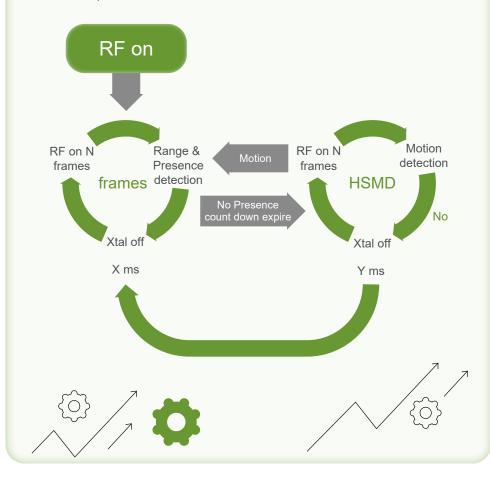
Tablet and Smartphone Products

Under the special standby mode coupled with the efficient transmission mode, tablet and smartphone products can achieve lower power consumption benefits. Relevant technologies were applied to tablet and smartphone products that were shipped to customers in 2023. If calculated based on 12 hours of standby mode and transmission mode, respectively in a day, roughly 39.09 million kWh of electricity can be saved. If calculated based on the electricity carbon emission factor announced by the Energy Administration, MOEA in 2023, the products can decrease CO_2 emissions by about 19,310 tonnes.



Microwave Radars with Integrated Signal Processing Sensor Products

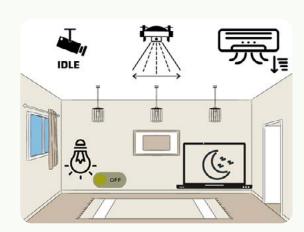
Continue to reduce current consumption of our radar sensor products. The motion sensing of our 10GHz ultra-wideband (UWB) microwave radar with integrated signal processor was originally designed to operate with 150mA in 2021, but was reduced to 110mA in 2022. It was further decreased to 5mA in 2023, achieving a 95.5% reduction. The product's energy-saving benefits are widely applied to smart homes, smart lighting, surveillance systems, and dashcam products.





© Energy Conservation and Carbon Reduction Applications of Microwave Radar with Integrated Signal Processing Sensor

- Lighting fixtures or lightbulbs equipped with the automatic sensing function of the radar sensor can turn off the lights automatically when the room is unoccupied.
- Air conditioners equipped with radar sensors can detect the room from different angles for human presence. If no human
 presence is detected, it will turn the fan speed to the minimum or automatically enter sleep mode, and the fan angle will be
 adjusted to ensure optimal comfort and cooling efficiency.
- Televisions equipped with the automatic sensing function of the radar sensor will turn off or enter sleep mode automatically to minimize energy consumption.
- Desktop or notebook computers equipped with radar sensors can turn off the screen and enter sleep mode when the user is away from the screen.
- Surveillance systems equipped with radar sensors can activate cameras to take photos/videos only when someone is detected to lower overall system energy consumption.
- Dashcams equipped with radar sensors can be used for anti-theft functions, which can detect abnormal movement before turning on the recording system to reduce battery consumption.
- · RichWave's microwave radar sensor has been included in the Intel Integrated Sensor Hub (ISH) third-party supplier list.



© RichWave Masters Key Technologies, Increases Market Share and Garners International Recognition

RichWave is the only domestic RF front-end device supplier in the country that has successfully commercialized process technologies such as GaAs, SiGe, SOI, CMOS, and IPD. With the dedicated efforts of its professional R&D team, RichWave has steadily developed advanced RF device technologies and design capabilities, putting the company in a favorable position to embrace the challenges of the upcoming Wi-Fi 7 generation and aims to advance Taiwan's RF front-end device technology, aspiring to surpass major foreign manufacturers to become a leading global supplier. In terms of RFIC FEM products used for Wi-Fi applications, RichWave has shipped over 90 million chips on average every month in 2023, totaling more than 1.079 billion chips for the entire year, hence the global market share of RichWave WiFi products in 2023 is estimated to be about 20%.

Proactive Participate in Academic Seminars to Establish RichWave's Industry-leading Position

RichWave has been sponsoring the IEEE RFIC Symposium for 4 consecutive years since 2019, actively gaining publicity for the RichWave brand. Additionally, we also participate in TSIA's quarterly report presentations and the content production of NTU SoC Center's R&D quarterly report to disseminate RichWave's technological know-how through academic institution journals.

2023 RichWave Sustainability Report

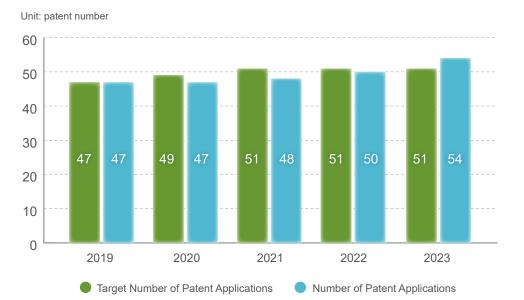
Patent Management

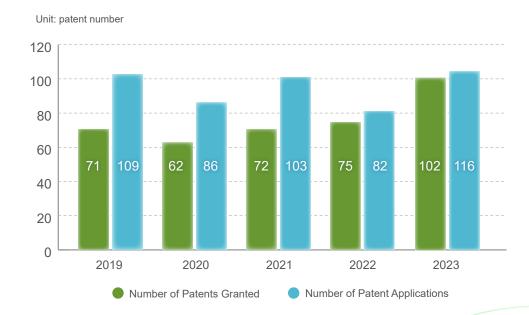
RichWave is eagerly promoting the smart intellectual property management project to reinforce the company's innovative ability and product competitiveness, as well as to protect our cutting-edge technological accomplishments. The company focuses on the strategic goals of "becoming the leader in the global RFIC market through the application of technology"and "market differentiation" to determine the number of patent applications and grants for the year, encouraging our R&D colleagues to achieve the target. RichWave has formulated the "patent management regulation" document to help our colleagues apply for patents systematically and keep the R&D outcome in the form of patents to safeguard the company's R&D achievements and patent rights. RichWave has established a Patent Review Committee headed by the President, in charge of reviewing patent applications' economic benefits, application countries, patent maintenance, as well as offering technical consultations and patent management policies, etc. To incentivize our colleagues to submit patent applications RichWave has set aside invention patent application bonus, invention patent grants bonus, utility model patent application bonus, design patent application bonus, and patent infringement reporting bonus to increase the company's patent quality and competitiveness.

O Patent Target Achievement:

The company reports the number of patents and intellectual properties to the Board of Directors annually in Q4. The company reported to the board on February 29, 2024, that the number of target patent proposals for 2023 was 51, with a cumulative total of 54 proposals, achieving a completion rate of 105.8%. As of December 31, 2023, the company had filed 116 patent applications and was granted 102 patents, reaching a major milestone with a cumulative total of over 600 (622) global patents. RichWave was ranked among the top 100 in national patent applications and grants in 2023, maintaining a spot in the top 100 for 5 consecutive years.





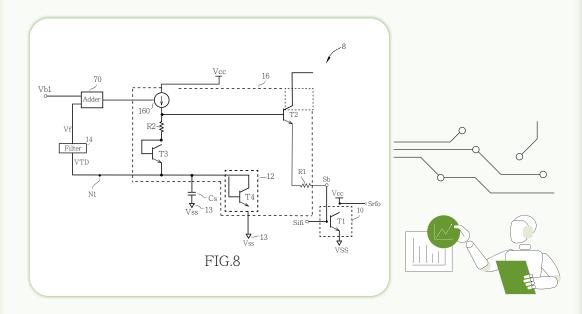


Note: As of 2023/12/31

Representative patents in 2023: Power amplifier capable of maintaining constant gain regardless of temperature variations [US11569784B2]

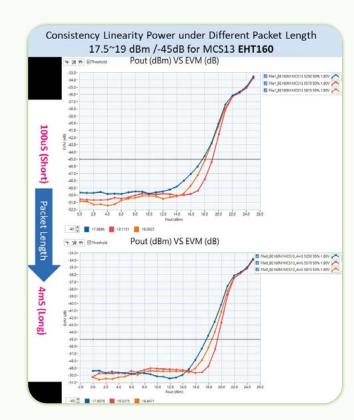
The power amplifier includes a transistor, a temperature sensor, and a filter. The transistor is used to receive a bias signal and amplify the radio frequency (RF) signal. The temperature sensor is located near the transistor to detect its temperature and provide a voltage signal at the control node accordingly. The filter is coupled with the temperature sensor and is used to filter the voltage signal to generate a filtered voltage. The bias signal is adjusted according to the filtered voltage.

Since the Wi-Fi 7 communication standard demands greater transmission throughput (at least 30Gbps), the frequency of using long packets will be higher than in previous Wi-Fi technologies. If the thermal effects caused by long packets cannot be addressed, it will result in wasted energy consumption by the power amplifier and adversely affect transmission throughput. The thermal effects produced at high power levels may cause performance degradation of the power amplifier, leading to limited transmission distance.



RichWave has developed adaptive bias circuits featuring an innovative circuit architecture to achieve various operating voltage settings and high-efficiency performance.

These circuits maintain stable high-speed transmission rates and throughput during MIMO operation, meeting EVM (<-45dB) requirements under high dynamic variations in packet length (100us to 4ms) and modulation waveforms such as MCS13 EHT160/EHT320. The company's Wi-Fi 7 RFIC has progressively obtained platform verifications by major network chip manufacturers.



2023 RichWave

Sustainability Report

Representative new products in 2023: Next-generation Wi-Fi 7 nonlinear RF front-end module chip



[Product introduction]

RichWave's next-generation Wi-Fi 7 (IEEE 802.11be) nonlinear RF front-end module chip series includes a comprehensive range of high-power RF front-end modules, medium/high-power RF modules, and high-efficiency RF front-end modules to meet the diverse platform requirements of main chips in Taiwan and abroad.

In particular, the RTC66284 (2.4 GHz), RTC66583 (5 GHz), and RTC66937 (6 GHz) nonlinear RF front-end module series feature a QFN 3mmx3mm package design. They integrate high-efficiency power amplifiers, power detectors, low noise amplifiers with bypass mode, and single-pole double-throw (SPDT) transmit/receive (T/R) switches for comprehensive functionality. Currently, we are undergoing digital pre-distortion (DPD) algorithm verification with various main chipset platforms.

RichWave's next-generation Wi-Fi 7 non-linear RF front-end module series utilizes nonlinear technology to achieve optimal power amplifier conversion efficiency. Coupled with DPD algorithms on various main chipset platforms, it maintains linearity while reducing power consumption by 20~30%. For WiFi 7, achieving high throughput and simultaneous tri-band transmission while keeping system power consumption and heat generation comparable to or lower than WiFi 6 is important for materializing green energy and carbon reduction benefits.

RichWave's Wi-Fi 7 nonlinear RF front-end module not only decreases power consumption but also features a low EVM noise floor design for both long and short packets. It achieves an extremely low MCS13 EVM noise floor of less than -50dB and less than 0.1dB AM-AM distortion. When coupled with 4096QAM signal modulation and DPD algorithm, it can provide the high throughput performance required of Wi-Fi 7. The exceptional performance with a noise figure (NF) of less than 2dB enhances sensitivity requirements for end customers, supporting high-speed MCS13 at close range and low-speed MCS0 at long distances.

[Product applications]

Wi-Fi 7 system: Achieve the greatest energy-saving benefits for wireless APs, router, and gateways.

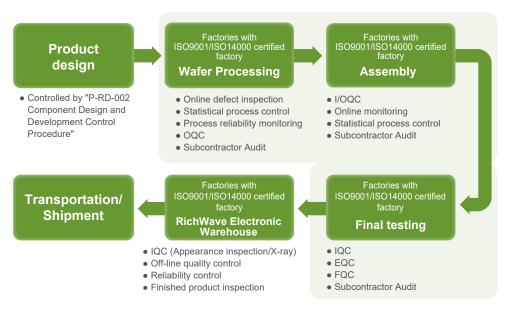
3.2 Sustainable Supply Chain

Supply Chain Management

RichWave is a professional chip R&D company that does not engage in large-scale production. All product raw material procurement, wafer fabrication, packaging, and testing are carried out by our suppliers and partners. Since the raw material sourcing, design and manufacturing, and transportation stages of the product life cycle are all closely related to the supply chain, in order to avoid negative impacts on society and the environment, we are committed to cooperating with our suppliers. Through new supplier selection, existing supplier evaluation and auditing, we strictly require suppliers to comply with the local economic, environmental, and labor laws and regulations, fulfill their social and environmental responsibilities, and prohibit the use of conflict minerals, as well as to implement energy-saving, emission reduction, and pollution prevention to form a sustainable supply chain for RichWave products.

O Upstream, Midstream, and Downstream Industrial Chain Relationship

RichWave products and services comply with the ISO9001 / ISO14001 guality/environmental quality management system standards from order taking, design and development, purchasing, manufacturing, quality control, packaging and delivery of finished products to after-sales services. Our operations are centered on the manufacturing and sale of established or customized products, and we control all the main processes and sub-processes related to the manufacturing and sale of products. From the communication of customer requirements, production, delivery of finished products, to the continuous improvement of processes and products, we follow international standards and regulations, and we continuously monitor and review the information of the above internal and external factors.



Responsible Supply Chain



To mitigate the product value chain's negative impact on the local environment and society, as well as to effectively manage potential risks, RichWave has created a QA Department to supervise suppliers' legal compliance in aspects such as environment, occupational safety, and health or labor rights, as well as to ensure the fulfillment of corporate social responsibilities. We have established a comprehensive supplier management process, where the screening stage of new suppliers involves a detailed review of their corporate social responsibility performance: apart from reviewing their engineering capabilities, we also demand our suppliers provide international quality certification, request a declaration that they do not use any hazardous substance, and complete the conflict minerals investigation before they can be registered as RichWave's suppliers.

In terms of existing suppliers, we carry out regular supplier evaluations and supplier audits every year. In addition to evaluating the quality and reliability of suppliers, we also incorporate ESG-related scores into our supplier audits. For suppliers with scores below the required level, we will provide counseling to improve the situation, and if the results of the re-evaluation and tracking results still fail to meet the standards, we will stop purchasing or cancel the qualification of the suppliers. In 2023, we conducted audits on 20 of our main suppliers across three major categories (wafer, packaging, and testing), achieving an audit coverage rate of 100%, and no suppliers exhibited negative ESG impacts.

Furthermore, we convene quarterly supplier meetings to exchange quality, construction, delivery, and production capacity-related opinions with our suppliers, as well as share experiences and reach a consensus in the field of sustainability for the sake of forging a long-term, stable partnership and bolstering the sustainability of the supply chain.

2023 RichWave

Sustainability Report

RichWave's Supplier Management Process



Establish Basic Supplier Information

· Understand the operation and production conditions of the suppliers.





Quality and Environmental Management **System Evaluation** · Quality management The suppliers must provide international quality certificates such as ISO 9001/ISO 14001/ISO 45001/QC

080000/IATF 16949/safety certification.

compliance declarations.

- · Environmental management Suppliers are required to complete a Hazardous Substance Free (HSF) declaration and provide material hazardous substance test reports, Material Composition Declarations (MCD), Safety Data Sheets (SDS), and HSF
- · Conflict mineral management The suppliers need to complete a conflict mineral investigation (CMRT/EMRT).



• The suppliers need to provide quality and reliability report.





Management

- · Regular assessments
- The suppliers' manufacturing quality is assessed based on the 3 major dimensions of quality, engineering technology, and production.
- · Regular audits Assess the suppliers' quality, reliability, and BCP, as well as their performance in corporate social responsibilities and environmental policies.

RichWave's Supplier ESG Audit Plan





G (Governance)

Evaluation Indicator

Demand our suppliers devise and implement comprehensive environmental policies and environmental management systems; ensure that their production raw materials are halogen-free and comply with RoHS, REACH regulations, as well as environmental regulations. Furthermore. they must not cause harm to the environment and people.

We believe the suppliers should provide a fair, safe, and healthy workplace for their workers, hence we continue to monitor their labor rights and occupational safety performance to ensure that RichWave's supply chain does not violate labor rights.

To ensure the products' quality and steady supply, we value our suppliers' production technology, quality yield, and equipment production capacity. We collaborate with our supply chain partners to improve our products' competitiveness and promote technical upgrades in the supply chain.

- · Suppliers' environmental policy and management framework
- Environmental management system.
- Environmental substance certification and management (including internal audit).
- Condition of Environmental law compliance.
- Test reports for packaging materials: SDS, HSF declaration of compliance.
- Materials' hazardous substance risk evaluation and control.

- · Human rights commitment.
- · No child labors.
- · No compulsory labor.
- · Anti-discrimination.
- · No discrimination based on religion, race, social status, nationality, and disability.
- · No corporal punishment. coercion, and language abuse on the employees
- · Labor rights.
- · Work hours and remuneration comply with regulations and industry standards.

- Performance of manufacturing system.
- · Quality system.
- · Reliability control.
- **Business Contingency** Plan (BCP).

© Certification Statistics of Suppliers

Compared to 2022, one Assembly House and one FAB House received the RBA/SA 8000 Social Responsibility Management System certification in 2023. In addition, all 13 major suppliers of RichWave obtained ISO 9001 Quality Management System, IATF 16949 Automotive Quality Management System, and ISO 14001 Environmental Management System certifications. Other certification projects are being acquired based on the individual suppliers' schedules.

Dimension		FAI	В	Assembly Testing Total		al			
	Management Standards	Total	5	Total	5	Total	3	Total	13
		Number of certified houses	Percentage	Number of certified houses	Percentage	Number of certified houses	Percentage	Total 13 Number of certified houses 29 13 100% 13 100% 11 85% 12 92%	Percentage
Ecor	ISO 9001 Quality management system	5	100%	5	100%	3	100%	13	100%
Economy	IATF 16949 Automotive quality management system	5	100%	5	100%	3	100%	13	100%
Envir	ISO 14001 Environmental management system	5	100%	5	100%	3	100%	13	100%
Environment	QC080000/SONY GP Hazardous Substance Management/Hazardous Substance Compliance	3	60%	5	100%	3	100%	11	85%
Soo	ISO 45001 Occupational safety and health management	4	80%	5	100%	3	100%	12	92%
Society	RBA/SA 8000 Social responsibility management	3	60%	3	60%	2	67%	8	62%



Cocal Procurement

RichWave understands that transportation of raw materials is an important aspect of greenhouse gas emissions during the product life cycle, hence we have vigorously advocated the local procurement policy, which involves prioritizing local suppliers when making purchases. In 2023, RichWave's procurements from domestic suppliers account for 70.3% of our total procurement amount. In the future, we will continue to implement local procurement on the premise of prompt delivery and lowering supply risks; besides decreasing transport-related carbon emissions and costs, we can also foster developments in the domestic industry and reduce our reliance on foreign manufacturers.

RichWave's Local Procurement Ration in 2023



© Green Procurement

Green consumption has become an international trend; thus, consumers and enterprises are leaning toward green products and services. At RichWave, we have internalized the concept of environmental sustainability into our procurement policy by choosing products that comply with green and environmental regulations including domestic/overseas environmental labels, energy-saving labels, carbon footprint labels, carbon reduction labels, Energy Star, FSC, and PEFC sustainable forest labels. While mitigating the environmental impact of our operations, the company also benefits from decreased energy expenditures, thus we will continue to materialize green procurement to support the development of green products and industries through tangible actions.

RichWave Technology's 2023 Purchases of Products with the Green International Labels

Name of label	Product	Amount (NTD)
PEFC (Forest Certification) / Indonesian LEGAL Wood (Legal Wood Certification)	Photocopy paper	\$12,853
Forest Stewardship Council (FSC) Certification	Toilet paper	\$3,900
Green building material label (GBM0102708)	Decoration works (Painting)	\$43,200
ROC Energy Efficiency Label	Installation of ductless air conditioning systems	\$425,303
Total	•	\$485,256

Raw Material Management

O Chemical Substance Management

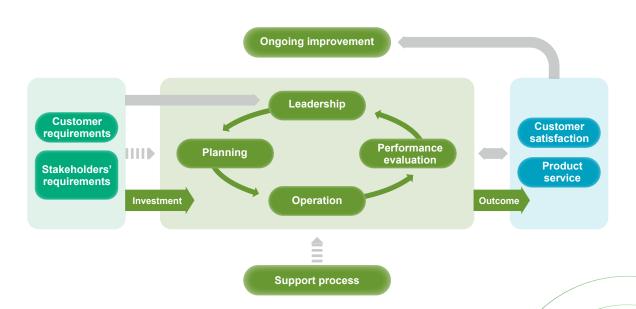
RichWave sees maintaining customers' health and safety and protecting the natural environment as our responsibility. We have not only obtained ISO 9001:2015 certification and maintained IECQ QC080000 compliance but also the SONY GP (Green Partner) and Samsung Eco-Partner certification by rigorously controlling the chemical substances of our raw materials. To ensure the safety and eco-friendliness of our products, we have



The quality management system kept track of all materials, and 100% of them comply with RoHS, halogen-free, and **REACH** requirements

stipulated the environmental substance control protocol, demanding our primary suppliers to respond to the survey results after the biannual EU REACH dossier updates are published, and all the suppliers must provide a REACH certificate of non-use, Safety Data Sheet (SDS), and Hazardous Substance Free (HSF) declaration of compliance. The finished ICs will be sent to a third-party certification organization for hazardous substance testing every year, and 100% of the finished ICs were RoHS compliant and halogen-free in 2023. In addition, all suppliers are required to provide third-party testing ICP reports within one year to RichWave for systematic management, and the reports must contain at least 10 items of RoHS and halogen (for organic substances) test results. In 2023, the third-party test reports of all raw materials were all updated and the compliance rate was 100%. For other special requirements from our customers including SONY GP, POP 65, and REACH Annex XVII, we will conduct individual reviews and include them in the list of HSF customer rules and legal regulations for management purposes.

RichWave's Quality Management Process





In 2023, RichWave has confirmed that 100% of our materials comply with RoHS, halogen-free, and REACH requirements through the quality management system, and there were no product and service-related health and safety violations. Furthermore, we have included the RoHS, Lead-Free, and Halogen-Free labels on the products' external packaging and product specifications, and third-party ICP test reports for various materials are provided based on the product model number so that consumers can prevent hazardous substances from endangering people's health and the surrounding environment while enjoying convenience made possible by modern technology.

RichWave's Chemical Substance Management Framework

REACH investigation outcome

REACH non-use certificate

Material Safety Data Sheet (SDS)
the quality
management system

Hazardous Substance Free (HSF)
declaration of compliance

ICP test results for RoHS regulated substances

ICP test results for halogen
review request (Such as SONY GP,
POP 65, and REACH
Annex XVII)

Included in the list of HSF customer rules and legal regulations for management purposes

Overview of Green Product Certifications and Labels Obtained by RichWave

RichWave







RichWave's products have obtained RoHS, Lead-Free, and Halogen-Free labels

Key Raw Material Management

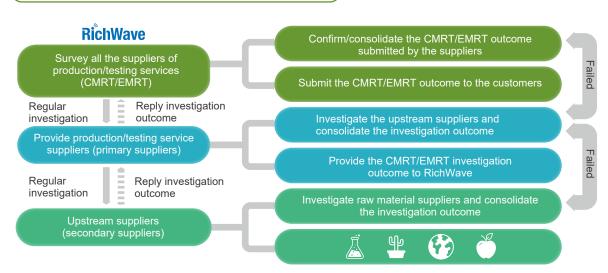
RichWave defines raw materials with high procurement amounts as critical raw materials. In 2023, wafers accounted for 51% of the total raw material procurement amount, which is regarded as RichWave's critical raw materials. To ensure a stable and continuous supply of critical raw materials, 2 or more foundries are engaged for the same type of wafer manufacturing process (e.g., GaAs/SOI, etc.) so that production risk is minimized by avoiding the impact of sudden climate accidents, material shortages, transportation delays, and other factors on the production of products.

Conflict Mineral Management

Conflict minerals such as tantalum, tin, gold, and tungsten are obtained from the DRC that are often associated with armed conflicts, endangerment of the local environment, and human rights. Since tantalum, tin, gold, and tungsten are important raw materials in the manufacturing of electronic products, how to prevent human rights violations and environmental damages resulting from the purchase of conflict minerals has become a key challenge for the management of the electronic product supply chain.

RichWave has specified in its Environmental Substance Management procedures the conflict minerals control requirements that suppliers need to follow. We have prohibited our suppliers from using conflict minerals (including tantalum, tin, gold, tungsten, and other minerals or derivatives from the DRC and surrounding countries/regions that are deemed to have been associated with sponsoring armed conflicts in the said countries/regions. In addition, we have also established a comprehensive conflict mineral management process to conduct conflict mineral investigations on our primary and secondary suppliers. The system is used to identify and adequately control conflict mineral-related risks.

RichWave's Conflict Mineral Management Process



2023 RichWave Sustainability Report

Conflict Mineral Investigation Method

Regular investigation

Irregular investigation

Implementation Outcome

When the Responsible Minerals Initiative (RMI) publishes a new version of the Conflict Minerals Report Template (CMRT) and Extended Mineral Reporting Template (EMRT), suppliers that did not cover the due diligence of minerals (Pilot Reporting Template, PRT) are required to update the results of the investigation of conflict minerals.

Download the latest approved smelter list from RMI's website about every 6 months and compare it to the details provided by our suppliers. Any unapproved smelters should be confirmed with the suppliers and an update should be conducted.

In 2023, CMRT investigations and EMRT investigations were carried out for 16 tier-1 suppliers and smelters.

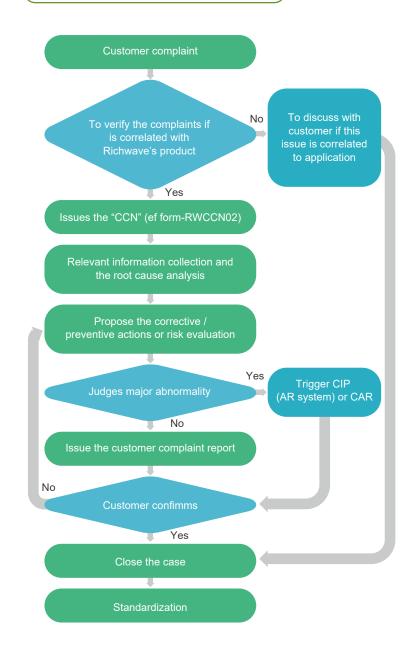
- · Conflict mineral investigation response rate: 100%
- · Conflict mineral investigation pass rate: 100%

3.3 Customer Care

Customer Relationship Management

Customers are one of RichWave's six major core values. We emphasize that customer satisfaction always comes first and continue to refine our product quality to meet the customers' needs. In terms of execution, we have engaged in multidimensional system communication through the global customer support system and think from our customer's perspectives to resolve their problems proactively. Moreover, we collaborate closely with the R&D team to convey the customers' needs and develop diverse products that cater to the customers' requirements. RichWave has created our market image and brand value through such an approach and in turn, engendered a high level of customer satisfaction and stickiness. We value the opinion of every customer, hence we have formulated the "customer complaint management protocol"to process customer complaints efficiently and actively review the potential cause of the complaint to prevent the problem from reoccurring. As for our customers' opinions, we will categorize and archive them and prepare the "customer complaint notice" to make sure that relevant data is processed and managed effectively. Next, we will strive to clarify the problem, collect relevant information, and coordinate various departments to implement improvements and offer responses; the customers' satisfaction with the improvement solutions is determined before the case is brought to a conclusion. Additionally, we have devised the "customer product return/ exchange SOP"for product return/exchange operations that are closely associated with customer satisfaction to ensure that our customers can enjoy a good product return/exchange experience, thereby maintaining a high level of customer satisfaction towards the company's services.

Customer Complaint Handling Process

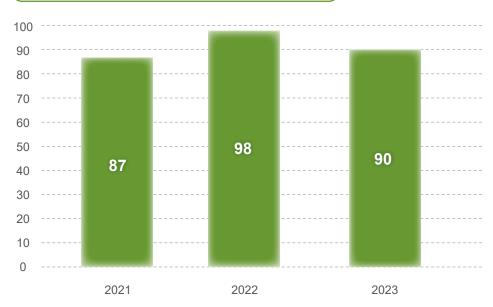


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To ensure the customers' needs are documented, analyzed, and responded to effectively, RichWave has established an annual customer satisfaction survey mechanism using the 5-point Likert scale, while the customer satisfaction survey questionnaires are retrieved via email and fax. In 2023, RichWave conducted a satisfaction survey for its major customers in Taiwan, China, Japan, and Korea. The contents encompass dimensions such as product quality and package labeling, technical expertise and problem-solving efficiency, sales professionalism and service attitude/efficiency, product delivery, and return policy. Various business units of the company will propose improvement plans based on the outcome of different evaluation indicators to maintain customer relations and optimize RichWave's service capacity. Generally speaking, factors such as a turbulent global political economy, a downturn with reduced demand in the semiconductor industry, sluggish demand in consumer electronics, and inflation continue to disrupt and persist longer than expected. RichWave is vigorously trying to lower the inventory level, and inventory pressure is gradually being mitigated every quarter. Although there was a brief period of shortages in Q3, RichWave's customers have expressed high levels of satisfaction with the company's services, achieving an average satisfaction of 90%. The company has also optimized various aspects based on customer suggestions such as product packaging consolidation and increasing the diversity of 5G product models in an effort to continue accumulating and elevating customer satisfaction and loyalty towards the RichWave brand. In addition, the number of defective products of the Company has been decreasing year after year, and the target set for the number of defective products each year has been achieved.

Average Customer Satisfaction in the Last 3 Years



Note: 1. Satisfaction level calculation = Total score of the item/full score of the item

The 2021 survey covered the top 5 end customers in each sales region; the 2022 survey covered
the 5 major end customers; the 2023 survey covered major customers in Taiwan, China, Japan, and
Korea

RichWave's Product Defect Rate:
DPPM (number of defective units / total units shipped)

	2021	2022	2023
Defective Parts per Million (DPPM)	Average ≦ 100	Average ≦ 50	Average ≦ 50
Defective Parts per Million (DPPM)	3.1	2.4	2.4



CHAPTER

Employee Care

- 4.1 Human Resources
 Management
- 4.2 Labor Relations
- 4.3 Occupational Safety and Health

* Chapter Highlight

- In 2023, diverse professional and general education courses were offered , educating and training 2,089 people with 3,241.5 hours of training, an increase of $65\,\%$ compared to 2022.
- In 2023, the percentage of RichWave's employees who regularly received performance appraisals and career development reviews, regardless of their gender or rank within the company, was 100%.
- We value our employees' health by offering 3 on-site health services with medical staff a month.
- 2023, all on-duty employees underwent health checkups at designated medical institutions for the first time, leading to wan increased usage rate of 89%.
- In 2023, RichWave became a "CHR (Corporate Health Responsibility)"enterprise.



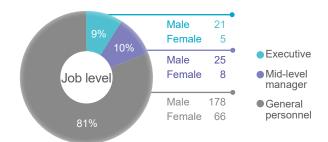
4.1 Human Resources Management

Talents are the core asset of the IC industry, thus RichWave actively invests resources in recruiting outstanding talents and establishing diverse talent recruitment channels, offering competitive remuneration to attract and retain suitable talents. Furthermore, we have established a comprehensive training system that caters to our employees' needs in a bid to enhance the company's competitive edge.

Talent Structure and Talent Recruitment

In 2023, RichWave had 303 employees, consisting of 73.9% male and 26.1% female workers, with women accounting for 22% of the company's executive positions. During recruitment, RichWave offers everyone a fair employment opportunity based on their advantages and work experiences, regardless of their race, religion, nationality, and gender. However, since the industry requires more engineering and science-related talents, the ratio of male employees tends to be higher. RichWave continues to support workplace diversity and inclusiveness. In 2023, we have hired a total of 3 employees with disabilities, which is comparable to the ratio stipulated by the government.

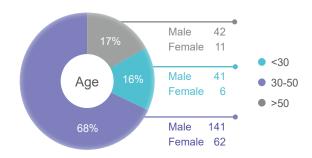
Total Number of Employees at RichWave: by Job Level



2023	Male	Female
Executive	21	5
Mid-level manager	25	8
General personnel	178	66
Total	224	79

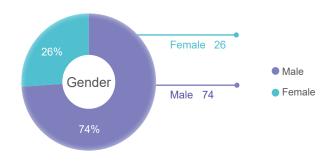
Note: Executive-level positions include officers at or above the division level; middle-level managers include leaders at or above the departmental level; and general personnel include engineers, general supervisors, and other personnel.

Total Number of Employees at RichWave: by Age

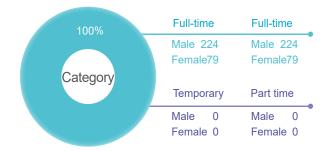


2023	Male	Female
>50	42	11
30-50	141	62
<30	41	6
Total	224	79

Total Number of Employees at RichWave: by Gender



Total Number of Employees at RichWave: by Category



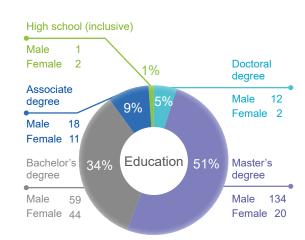
2023 ^(Note 1)	Male	Female
Full-time	224	79
Temporary	0	0
Total ^(Note 2)	224	79
Full-time	224	79
Part time	0	0
Total	224	79

Note: 1. The total number of employees was calculated based on the number of employees as of the end of the year (2023/12/31).

In 2023, RichWave had no employees with "no guaranteed hours of work".

Total Number of Employees at RichWave: by Education Level

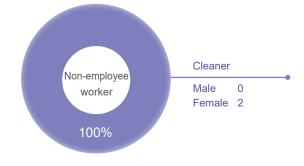
2023	Male	Female
Doctoral degree	12	2
Master's degree	134	20
Bachelor's degree	59	44
Associate degree	18	11
Senior high school (Inclusive) or lower	1	2
Total	224	79



Total Number of Non-employee Workers at RichWave

2023 ^(Note)	Male	Female
Cleaner	0	2
Total	0	2

Note: The total number of non-employee workers was calculated based on the number of workers as of the end of the year (2023/12/31). There were only 2 cleaners (one each in Taipei and Hsinchu) from outside labor dispatch companies, and no security guards or other dispatched workers.



RichWave's Employee Structure in 2023

To generate momentum for growth, RichWave vigorously recruits and retains key talents, searching for outstanding employees through 104 Job Bank and LinkedIn. Since the company values the cultivation of professional talents, we have forged a long-term and close partnership with schools to engage in industry-academe collaboration in higher technical education. We have developed a wide range of cutting-edge technologies in different technological fields with various schools for the sake of keeping abreast of the latest international trends and recruiting key talents.





In 2023, RichWave hired 39 new full-time employees (36 men and 3 women), accounting for 12.9% of the workforce. In the same year, 41 full-time employees (29 men and 12 women) resigned from RichWave, accounting for 13.5% of the workforce. The company strives to create a positive work environment for its employees by conducting exit interviews with employees before they leave the company. Through these interviews, the company understands the reasons why employees choose to leave the company so that it can find ways to retain them by transferring them to other roles or improving the work environment, thereby eliminating their motivation to leave the company.

The Number of New Employees and Resignations of Full-time Employees in Taiwan in 2023



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Employee Remuneration and Appraisal

Performance Appraisal

RichWave's performance management system and development system helps our employees to attain optimum work performance and showcase their core values through ongoing target focus, two-way dialogue, real-time feedback and performance evaluation, thereby realizing the best organizational and individual performance.

RichWave's employee performance evaluation takes place over different stages, assessing our employees' annual work performance and setting their future career development goals through target setting, mid-term appraisal and year-end appraisal. The performance appraisal outcome is used as a reference for making human resources-related decisions such as employee performance bonuses, promotion, as well as talent development. In 2023, 100% of RichWave's employees regularly received performance appraisals and career development reviews, regardless of their gender or rank within the company.





Target setting

Target setting must conform to the SMART principle (Specific, Measurable, Achievable, Relevant and Time-Bound)



Continuous tracking

Target and standards revision, daily performance feedback, regular review



Year-end appraisal

Performance review, performance appraisal, ongoing improvement and development

Remuneration Policy

RichWave sees employees as important assets of the company and values their benefits and welfare. We provide a competitive remuneration system that adjusts our employees' salaries based on the overall performance of the company and personal performance. If the company has earned a profit for the year, we will set aside at least 8% of the profit as employee remuneration, which will be awarded to our employees in the form of stocks or cash dividends (to be decided by the Board of Directors) based on their performance.

Per information from the MOPS, the "average salary" of RichWave's full-time, non-management employees (Note 1) in 2023 was NTD1,465,000, and the "median salary" was NTD1,206,000. If broken down according to industry category, RichWave's average salary is considerably higher than employees (Note 2) in other similar companies in the "Electronics Components Manufacturing Industry" based on the information from the Earnings Exploration and Information System by the Director-General of Budget, Accounting, and Statistics, Executive Yuan.

Remuneration of Full-time, Non-Management Employees

Item	2021	2022	2023
Number of full-time employees	276	278	296
Total salary (NTD thousand)	408,426	403,824	433,615
Average salary (NTD thousand)	1,480	1,453	1,465
Median salary (NTD thousand)	1,205	1,202	1,206

- Note: 1. full-time, non-management employees refer to employees who have satisfied the company's regulations in terms of normal work hours and who are not managers as defined by Tai-Cai-Zheng-San-ZI No. 920001301.
 - According to information from the Earnings Exploration and Information System
 by the Director-General of Budget, Accounting, and Statistics, Executive Yuan,
 the monthly average salary of employees in the Electronics Components
 Manufacturing Industry in 2023 was NTD 67,270 (average annual salary of
 approximately NTD 807,260)

Training and Education

RichWave continues to provide a comprehensive training structure including new employee orientation training, management skill training, professional skill training and general education. Diverse learning and development opportunities are provided to our employees during various stages of their careers to ensure that the talent training program meets the expectations of the company, the environment, and employees. In 2023, RichWave organized a wide range of professional and general education courses including technical courses such as the Devices/Semiconductor Physics of MOS, HBT and Diode series, Power Management IC Design series, TLT for Silicon-Based Integrated Power Amplifiers, Class-J PA Operation, High-Performance Talent Management, 2019 Business Continuity Management System TCFD Climate-Related Financial Disclosures, and "One Spine - 7 Original Points" course. Furthermore, internal lecturers continued to offer professional courses such as Lectures of Power Amplifer Design, Theories/Practices of Machine Learning and Deep Neural Networks, and Basic Knowledge of Patents. The company places great emphasis on employee training, accumulating a total of 2,089 participants and 3,241.5 training hours, marking a 65% increase in total training hours compared to 2022. For the new employee training in 2023, 32 trainees accumulated 384 hours of training and education.

Over the last 3 years, the number of employee education and training hours has continued to rise. In the future, more diverse courses will be planned to help employees unleash their potential and skills, as well as bolster the competitiveness of the company's human resources.

Enhance and strengthen management capabilities of staff (including executives and mid-level managers).

Design different courses according to the specific technical skill requirements of different job positions to train various professional talents.

Professional skill training

General education course

Organized based on the annual education and training program, the course format includes diverse lectures and seminars, offering diverse course contents such as computer skills, language courses, interpersonal communication, problem resolution and analysis, physical and spiritual well-being, etc.

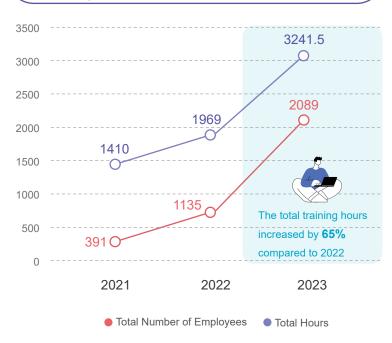
New employees must complete the necessary professional training provided by various department supervisors within 3 months of reporting for duty and the annual companywide new employee orientation training.

New employee orientation training

		2021	2	2022	2023		
Туре	Number of trainees	Number of training (hours)	Number of trainees	Number of training (hours)	Number of trainees	Number of training (hours)	
Management skills training	0	0	78	234	34	68	
Professional skill training	333	1,294	336	930	874	1,909.5	
General education course	58	116	721	805	1,181	1,264	
Total	391	1,410	1,135	1,969	2,089	3,241.5	

	2021		2	2022	2023	
Туре	Number of trainees	Number of training (hours)	Number of trainees	Number of training (hours)	Number of trainees	Number of training (hours)
New employee orientation training (including safety and health education and training)	85	806	140	1,680	32	384
Total	85	806	140	1,680	32	384

Trend of Total Training Hours and Attendance of Education and Training in the Last 3 Years (Excluding Newcomer Orientation)



Professional Knowledge Enhancement Course







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Work-life balance engenders better performance and quality of life. Since 2021, RichWave has devised a series of physical and spiritual well-being lectures to let our employees take charge of their physical and spiritual conditions. By learning positive thinking techniques, they can alleviate their stress and emotions to overcome difficulties at the workplace and discover happiness. After launching a series of courses, the company received enthusiastic responses from employees. In 2023, RichWave continued to offer courses such as "One Spine 7 Original Points", "6 Secrets to a Happy Life: Work-life Balance Course Series", "Understanding the 9 Major Joints of the Human Body", and "The Power of I Ching: Generating Infinite Possibilities". We will continue to plan health courses in the future in a bid to shape an excellent work environment.















4.2 Labor Relations

RichWave strives to create a harmonious, equal, and safe workplace by offering diverse employee benefits, establishing diverse employee communication channels, maintaining the employees' human rights, and valuing workplace safety to minimize potential dangerous events.

Employee Health and Well-being Measures

Insurance Benefits

On top of basic labor and health insurance, RichWave has also planned comprehensive group insurance that encompasses life insurance, major illness insurance, accidental injury insurance medical insurance, and cancer insurance, where all the insurance expenses are paid for by the company. Apart from caring about our colleagues, we also look after their families' health protection and life, where full-time employees may purchase RichWave's group insurance for their spouses, children and parents, thereby providing their families with the same level of protection from the company. For colleagues going on overseas business trips, we will provide them with travel insurance to offer them more adequate protection.

Maternity Policy

RichWave's "Workplace Maternal Health Protection Plan"is devised based on the "Occupational Safety and Health Act,"adopting the necessary safety and health measures to ensure the physical and spiritual health of our pregnant, postpartum, and breastfeeding female employees. Additionally, RichWave offers on-site nurses and physicians to provide them with health services including employee interviews and health risk identification during the maternal health protection period, as well as offering them pregnancy and breastfeeding health guidance and consultation. When there are health-related concerns, they will engage in health protection interviews and relevant medical health instructions.

To offer our employees peace of mind when starting a family and to allow them to strike a balance between work and life, RichWave offers parental leave regardless of gender and it will not affect the employees' full attendance bonus, performance appraisal or result in other unfavorable disciplinary actions. In 2023, 4 people qualified for parental leave (including 1 women and 3 men), of which 100% of female workers applied for Parental Leave without pay and all of their applications were approved.



ltem	20	021	20)22	20	023
	Male	Female	Male	Female	Male	Female
Number of qualified unpaid parental leave applicants (A)	9	3	3	3	3	1
Number of unpaid parental leave applications (B)		2	0	1	0	1
Number of employees who were supposed to be reinstated after parental leave (C)		2	0	1		
Number of employees who were reinstated after parental leave (D)		1	0	0	<u></u>	<u></u>
Number of employees who were reinstated after parental leave the year before last (E)				1		<u></u>
Number of employees who have worked for one year after reinstatement (F)				1		
Parental leave without pay application rate (B/A)		67%		33%		100%
Reinstatement rate (D/C)		50%		0%		
Retention rate (F/E)				100%		

Note: In 2023, the colleagues who actually applied for parental leave have not yet reached the end of their leave period (which is scheduled for mid-August 2024).

Retirement System

RichWave has formulated retirement regulations for our full-time employees and we have established a Labor Pension Oversight Committee according to the Labor Standards Act, where a specific ratio of the employees' monthly salary is set aside as a retirement pension. The fund is handed over to the Labor Pension Fund Oversight Committee and deposited into the special account of the Bank of Taiwan.

The Labor Pension Act was promulgated on July 1, 2005, adopting the contribution system. The employees can choose the pension provisions from the "Labor Standards Act"or the Labor Pension Act and retain their service duration accrued from before. For employees applicable to the Labor Pension Act, the company will contribute no less than 6% of their salary to their personal pension account every month.

The retirement system of the company's employees is designed according to the regulations of the Labor Standards Act and the Labor Pension Act, where monthly contributions are made to the pension fund and handed over to the Labor Pension Oversight Committee's dedicated account for savings and expenditure purposes. Since the Labor Pension Act was promulgated on July 1, 2005, employees may choose between the pension provisions from the "Labor Standards Act" (old system) or the Labor Pension Act and retain their service duration accrued from before (new system). For employees applicable to the Labor Pension Act, the company will contribute no less than 6% of their salary to their personal pension account every month. Furthermore, the company has contributed pension on account and acknowledged pension as liability according to the pension actuarial report by a qualified actuary as stipulated by the International Accounting Standards (IAS) 19 "Employee Benefits."

Other Employee Benefits

Item	Description
Bonus and Allowance	Gift money for 3 major festivals and birthday vouchers, marriage, childbirth and funeral allowance, travel allowance, and other bonuses. Full-time employees are entitled to this benefit while other bonuses are given based on the company's business conditions.
	Taipei office healthcare service: 3 times a month. Hsinchu office healthcare service: 3 times a month. The following health management services are performed:
	 Analysis and evaluation of the results of labor physical (H=health) examinations, health management.
	Assisting in the selection of workers for appropriate tasks
On-site Healthcare	 Providing follow-up management and health counseling for those with abnormal health examination results.
Service	Assessment and case management of occupation- related high-risk workers.
	Coordination of health education, hygiene instruction, physical and mental health protection, and health promotion measures for workers.
	Prevention of work-related injuries and illnesses, and health counseling.
	Assisting in the consultation and recommendation on the evaluation of the competence, job redesign or adjustment of restored workers.
Employee Health Examination	The company provides our employees with employee health examinations to bolster employee healthcare.
7-day Flexible Leave	In appreciation of colleagues' hard work, the company offers an additional 7-day flexible leave, which is better than the Labor Standards Act's requirements.

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© Employee Welfare Committee

RichWave's Employee Welfare Committee consists of representatives from various departments and it is in charge of coordinating and planning diverse company activities. These include the annual outdoor employee day and employee birthday celebration, allowing them to unwind and alleviate their stress, thereby achieving work-life balance. Furthermore, to enhance our colleagues' physical and spiritual well-being, we have promoted proper entertainment and recreational activities to improve their work efficiency and foster camaraderie and bonding. RichWave encourages our colleagues to form clubs in the workplace.







Diverse Clubs in the Workplace

















2024 RichWave Year-end Banquet







Employee Communication

Various department supervisors at RichWave will convene meetings from time to time to establish a communication channel between management and the employees. The employees' attendance is closely monitored to offer them timely assistance and care in case of an emergency. To help our employees achieve various objectives including "understanding the company's operations", "understanding the executives", "improving the workplace", and "fostering rapport", RichWave has created a communication platform and organized communication meetings to efficiently assist our employees to understand the company, implement the company's policies, as well as resolving colleague and workplace-related problems. We strive to listen to the opinions and voices of our coworkers and provide an ongoing two-way communication platform to let our employees propose questions and receive speedy responses.

Taking the regularly hosted employee communication meetings and labor meetings as examples, RichWave invites employee representatives and senior executive representatives to engage in a face-to-face dialogue to discuss relevant issues. This is beneficial for fostering mutual understanding and rapport between the company and the employees.

Moreover, for matters pertaining to Articles 11 and 13 of the Labor Standards Act, collective bargaining will be conducted according to the following advanced notification period:

- 1. For employees who have worked for more than 3 months but less than a year, a 10-day advanced notification is needed.
- 2. For employees who have worked for more than a year but less than 3 years, a 20-day advanced notification is needed.
- 3. For employees who have worked for more than 3 years, a 30-day advanced notification is needed.

To strengthen internal communication, RichWave published the inaugural issue of "RichWave News" in December 2021. We have published 9 electronic news messages to date and expect to continue to publish at least one electronic newsletter per quarter in the future to let our employees understand the company's status and operational strategies; the newsletter also includes application columns and industry status, offering insights into the latest patent information and technological trends, thereby improving our employees' thinking and endowing them with an international business perspective. At the same time, it also serves to convey information about the Welfare Committee's activities to effectively achieve horizontal and vertical communication.









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Human Rights Assessment

O Human Rights Policy and Measures

RichWave sees our employees as the most important asses, hence we strive to provide them with meaningful work and a safe and healthy workplace with outstanding remuneration and benefits. Furthermore, we also encourage our colleagues to strike a balance between work and life by looking after their family, making friends and developing personal hobbies. In the future, RichWave will continue to implement the company's human rights policy based on the "UN Guiding Principles on Business and Human Rights"and "Responsible Business Alliance (RBA) Code of Conduct."



Diversity and Equity

RichWave provides equal employment opportunities according to personal strengths and work experience. We will not discriminate based on race, rank, ancestry, language, ideology, religion, political affiliation, nationality, place of birth, gender, sexual orientation, age, marital status, appearance, facial features, disability, star sign, blood type, or union membership.



Nondiscrimination RichWave has formulated procedures to supervise and cooperate with the country's applicable affirmative action policies to address verifiable discrimination complaints. Any verifiable discrimination complaints will be investigated and dealt with in a comprehensive and impartial manner. Let us work together in a fair, happy workplace.



Banning of Child Labor RichWave has complied with government regulations and only accepts candidates over 18 years old to apply for the company's position. When reporting for duty, new employees' identity will be verified to ensure that the company abides by the regulation banning child labor. Strictly prohibit human trafficking and the recruitment of personnel through human trafficking channels.

Specific Goals and Mitigation Measures

Applicable Scope	Employees working shifts, nighttime hours, and long hours	All employees
Policy	"Abnormal Workload-induced Disease Prevention Program"	"Prevention Plan for Workplace Violation" "Statement on the Prevention of Workplace Violence"
Goals and Conducts	Prevent abnormal workload-induced illnesses including cerebrovascular and cardiovascular diseases among our employees by offering them protection measures.	Prevent employees from physical or mental harm at the workplace as a result of other people's behaviors. The annual goal is to achieve 0 incidents.
Mitigation Measures	1. Use the blood test items in the employees' physical or health exam reports to estimate the risk level of cardiovascular disease before further evaluating the workload risk level. 2. On-site doctors conduct interviews with relevant employees and the follow-up is carried out by on-site nurses. 3. If the employees' health is not developing as expected or there are concerns about their health, it is important to contact the unit supervisor, the employee in question and the physician to discuss the situation.	1. Regularly organizes unit supervisor and employee training to let them understand and identify workplace abuse. 2. Provide an open workplace violence consultation and complaint channel: • Complaint hotline: 03-6008999 #529 • Complaint email: hr@richwave.com.tw 3. Public announce the zero-tolerance principle towards workplace abuse during internal meetings and on the system bulletin board. 4. The HR and Administration Department has recalled a task force responsible for officiating task force meetings, guiding the investigation operation, implementing risk prevention and making resolutions.
Remedies	Classify the employees' risk factors into low, medium, and high according to the evaluation outcome and implement remedies based on these 3 conditions.	4. If employees experience workplace abuse, they may file a complaint through the relevant channels. After the complaint is received, the company will appoint a case officer to coordinate the subsequent process. 5. A risk evaluation is conducted annually to ascertain the residual risk after the control measures have been applied and the new risks, as well as to review their suitability and effectiveness.

Annual Implementation Status

Item	Content	Annual Goal for 2023
Company's internal communicatio regulations	Provide relevant legal compliance promotion during the new employee n orientation training.	Quarterly
Regular anti- bullying campaign	Public announce the zero-tolerance principle towards workplace abuse during internal meetings and on the system bulletin board.	Annually
Risk assessment	Conduct an annual risk assessment to identify residual and new risks after control measures have been implemented, and review their applicability and effectiveness. In 2023, no illegal infringement incidents occurred.	No violations of human rights took place

4.3 Occupational Safety and Health

RichWave sees employees as the company's most valuable asset, hence the Employee Manual was formulated in accordance with the Occupational Safety and Health Act and relevant bylaws. Besides regularly conducting workplace safety inspections and monitoring, training and promotions are also carried out to bolster the employees' emergency response capabilities. RichWave is a Type II business entity. Currently, its number of employees has not reached the threshold required by the Occupational Safety and Health Act to establish an occupational safety and health management system, and in the future, it plans to establish an occupational safety and health management system in accordance with the national standard CNS 45001 and above.

Creating a Healthy and Safe Working Environment

Thanks to comprehensive management policies, crisis and risk management, health promotion activities, and educational training, RichWave experienced no major occupational accidents in 2023. There was one case of general occupational injury, resulting in 2 lost workdays and an occupational injury rate of 0.33. In 2023, the primary cause of general occupational injury was an incident where an employee fell while walking in the stairwell due to sudden personal health conditions. Following the incident, we reinforced safety education on stairwell usage and promoted the use of handrails. Moreover, the company implemented a special health management program and monitored the employee's conditions until no abnormalities were detected.

RichWave became a "CHR (Corporate Health Responsibility)" enterprise in 2023, committing to continue planning diverse mental and physical health courses and providing annual health examinations that are better than regulatory requirements. The company also promotes diverse clubs in the workplace and organizes group health competitions to create a high-quality work environment.



Category (Note 1)	Scope of coverage (Note 2)	Total number of working hours (Note 3)	Percentage of recordable occupational injuries (Note 4)	Percentage of serious occupational injuries (Note 5)	Percentage of fatal occupational injuries (Note 6)
Employee	Full-time employee, part time employee	604,072.00	0.33	0.00	0.00
Non-employee worker	Cleaner, Guard	2,420.00	0.00	0.00	0.00

Notes: 1&2. Direct employees include employees on RichWave's payroll, with reference to "Employed Workers" of the Occupational Safety and Health Administration of the Ministry of Labor's Occupational Safety and Health Statistical Reporting Operations on Occupational Accidents; contract employees are those who are not on the company's payroll but are under the company's day-to-day supervision, with reference to other workers not classified as employed workers by the Occupational Safety and Health Administration of the Ministry of Labor.

- 3. The calculation of the total number of working hours also makes reference to the requirements of the Occupational Safety and Health Administration of the Ministry of Labor's reporting requirements for occupational accident statistics.
- 4. The number of recordable occupational injuries includes the number of deaths caused by occupational injuries; the percentage of recordable occupational injuries = (number of recordable occupational injuries total working hours) x 200,000. The occupational injuries recorded in this table follow the definition of occupational accidents under the Labor Standards Act, which is consistent with the reporting of occupational accidents and does not include commuting accidents; in 2023, there were a total of 4 commuting accidents (with 175 lost days of incapacitating injuries). The company continues to strengthen employee awareness and cite the relevant information of the Road User Safety Manual of the Ministry of the Interior's National Police Agency in the education and training materials to enhance employees' awareness of commuting safety.
- 5. Serious occupational accidents refer to injuries that make it difficult for workers to return to their pre-injury state of health within 180 days, excluding fatalities. Percentage of serious occupational accidents = (Number of serious occupational accidents/Total working hours) x 200,000.
- 6. Percentage of occupational Injury fatalities = (Number of occupational injury fatalities/Total working hours) x 200,000.

Occupational Risk Management Training

Per the regulations of the "Occupational Safety and Health Act", RichWave reports relevant occupational accidents to labor inspection agencies within 8 hours. If danger is imminent in the workplace, the operations will be stopped immediately and all the workers will be evacuated to safety. When workers are faced with immediate danger at the workplace, they may stop their operations and retreat to a safe place without endangering other workers and report the incident to their direct supervisor immediately. RichWave rigorously adheres to the regulations of the "Occupational Safety and Health Act"; we do not dismiss or reassign the abovementioned employees, and we do not deduct their salaries during work suspension or enforce other disciplinary measures on them.

RichWave's operating locations consist of mainly offices. To protect our employees' occupational safety, workplace protection measures implemented annually include public area fire safety inspection, labor work environment monitoring, new employee safety and health education and training, and access control system. Further details and implementation status are elaborated below:

	Item	Frequency	The year of 2021	The year of 2022	The year of 2023	Annual Goal for 2024		
*	Public area fire safety inspection	Annually	A public area fire safety inspection was carried out on September 06, 2021	A public area fire safety inspection was carried out on April 25, 2022	A public area fire safety inspection was carried out on May 24, 2023	In accordance with the regulations of the Science Park		
	Conduct labor work environment monitoring	Semi- annually	Labor work environment monitoring was carried out in Hsinchu and Taipei on August 23, 2021 and September 10, 2021 and the results comply with legal standards.	Labor work environment monitoring was carried out in Hsinchu and Taipei on July, 2022 and January, 2023 and the results comply with legal standards.	Labor work environment monitoring was carried out in Hsinchu and Taipei on July, 2023 and January, 2024 and the results comply with legal standards.	Semi-annually		
A	New employee				Reinforce new employee education response capabilities and safety av caused by unsafe behaviors. The e		wareness and reduce accidents	
T â	health education and training	As needed	Number of sessions: 3 Education and training: 85 persons Education and training hours: 380 hours	Number of sessions: 4 Education and training: 140 persons Education and training hours: 840 hours	Number of sessions: 4 Education and training: 32 persons Education and training hours: 192 hours	Quarterly		
5	First aider training	As needed		A total of 6 employees were sent for training, all passing and obtaining licenses	A total of 1 employee were sent for training, all passing and obtaining licenses	Employees are sent for training and refresher training in accordance with the requirements.		
Â	Occupational safety personnel training	As needed		A total of 1 employee was sent for training, passing and obtaining licenses	A total of 1 employee was sent for training, passing and obtaining licenses	Employees are sent for training and refresher training in accordance with the requirements.		
MR	Fire safety and CPR promotion	Semi- annually	Conducted on December 20, 2021	Self-defense and firefighting training were already organized in June and October 2022	Self-defense and firefighting training were already organized in May and October 2023	In accordance with the regulations of the Science Park		
· Č -	Access control system	Ongoing	Integrated security systems in various areas provide access control and protect the company's properties.		ol and protect the safety of the	Ongoing		

2023 Annual Selfdefense Fire Drills





Comprehensive Health Management

RichWave offers comprehensive health management measures including employee physical and health examinations, health services, health risk management, as well as occupational injury and disease prevention. The company manages the work environment and personnel health risks to promote employees' physical and mental well-being. We continue to launch diverse health promotion activities, with the annual goal of achieving an 85% participation rate in employee health examinations and issuing quarterly health information announcements.

Health Management Implementation Performance

Category	Item	2021	2022	2023
\(\rangle \rangle \rangle	Physical Examination for New Employees	75 people, 100% completion rate	73 people, 100% completion rate	41 people, 100% completion rate
Health Examination	Annual Health Examination	306 people, 100% completion rate	263 people, 87% completion rate	268 people, 89% completion rate
Health Services	Health Promotion Activities (Note 1)	5 times	13 times	9 times
(+)	Health Risk Management (Note 2)	19 people	258 people	351 people
Health Management	Occupational Injury and Disease Prevention (Note 3)	3 people	11 people	31 people
Health Promotion	Health Information News	December 2021	April, July, October 2022 and January 2023	April, July, October 2023 and January 2024

Note: 1. Health promotion activities include health promotion and lectures on preventing physical and mental illnesses.

- Health risk management includes tracking abnormalities in physical and health examination reports, cardiovascular disease prevention, maternal health protection, prevention of diseases triggered by abnormal workloads, as well as return to work evaluations following injuries and diseases.
- 3. Occupational injury and disease prevention includes prevention of psychological or musculoskeletal disorders, fitness assessments for middle-aged and elderly employees, as well as personal health education and care.
- Promoted health information and education through internal company newsletters. let our employees understand health and hygiene-related information.



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RichWave's Annual Employee Health Examination in 2023





Provide substantial subsidies for pre-employment physical examinations for new employees, and conduct annual health examinations that are better than regulatory requirements for all employees. In 2023, the company organized the first comprehensive health examination for all employees at contracted healthcare facilities, offering half-day health examination leave to optimize the quality and service of annual health examinations. In 2023, 41 new employees participated in the physical examinations (100% participation rate), and 268 employees participated in the annual health examinations (89% participation rate), which is 2% increase compared to the previous year. If the physician determines that the health examination results require further health management, professional on-site nursing staff will provide health monitoring and arrange one-on-one consultations with physicians. Furthermore, we offer regular health services with medical staff stationed at various locations in Taiwan 3 times a month to ensure employee health.

Health Survey

 Conduct a survey of the employees' subjective symptoms through the "Nordic Musculoskeletal Questionnaire (NMQ)".



Confirm Improvement Target

- Classify the injury survey results into 4 levels including confirmed diseases, hazardous, potentially hazardous, and non-hazardous.
- Conduct control and consultation based on the hazard level.



Implement Improvement

- Ergonomic improvements (including improvements on the environment, facilities, and equipment)
- On-site health service personnel offers advice on prevention and improvement, and conducts follow-up management.
- Organize musculoskeletal-related education and training to improve the employees' awareness of various hazards.



Analysis

 The on-site health service personnel further analyzes the impact of the risk on the work of employees with confirmed or potential hazards, as well as he possible cause of soreness.

On-site Healthcare Service





To prevent employees from suffering occupational injuries and illnesses (such as muscle/bone injuries, ergonomic hazards) due to prolonged exposure to an ill-designed work environment, repetitive actions and incorrect postures, RichWave has stipulated the "Ergonomic Risk Prevention Plan"and implemented relevant

measures to prevent work-induced muscle/bone injuries or diseases. Based on employee health surveys and analysis by medical staff, 3 colleagues were identified for risk case management in 2023. Besides receiving professional medical education and management, onsite visits were conducted in collaboration with occupational safety personnel to ensure a 100% achievement rate in tracking and management.

Regular Internal Safety and Health Promotions









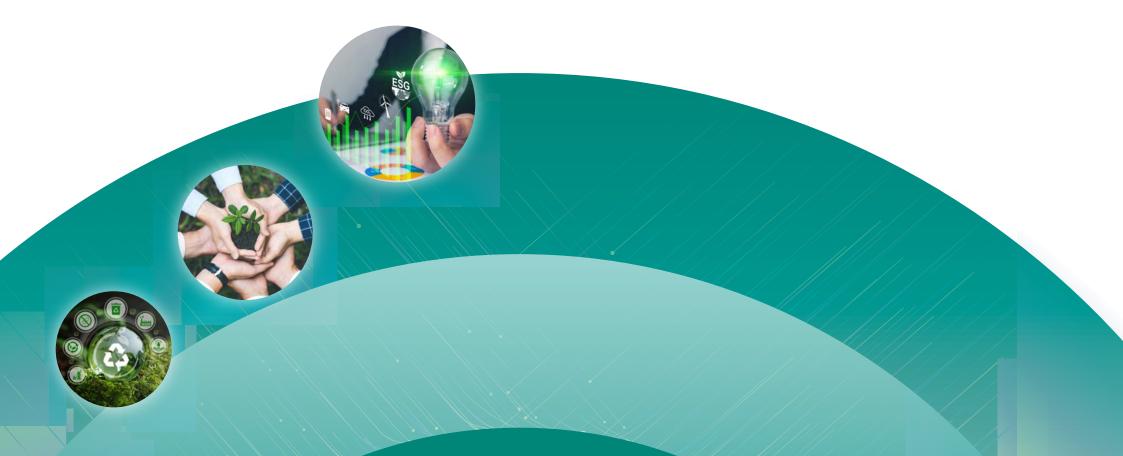


Environmental Management

- 5.1 Climate Change Responses and GHG Management
- 5.2 Energy Management
- 5.3 Water Consumption
- 5.4 Waste Management

* Chapter Highlight

- In 2023, the Company's Energy Use Intensity (EUI) was lowered by 5% compared to the previous year, surpassing the original annual goal of decreasing by 0.6%.
- In 2023, numerous energy conservation and carbon reduction solutions reduced external electricity purchases by 51,768 kWh, equivalent to lowering 25.5734 tCO₂e GHG emissions.
- Waste emissions in 2023 decreased by 39.35% from that in 2022.
- In 2023, Scope 2 GHG emissions were $554.7 \text{tCO}_2\text{e}$, a decrease of 4.5% compared to 2022.



RichWave has always paid attention to environmental protection, striving to reach a balance between corporate operations and co-prosperity/coexistence with the environment by launching electronic products featuring exceptional performance and green concepts. Consequently, while materializing the environmental management policy and controlling the environmental impact of our operations, we also pro-actively engage in supply chain and environmental management, supervising and guiding our supply chain partners to fulfill their environmental responsibilities in a bid to create a green semiconductor value chain.

Environmental management goal

Beginning in 2023, RichWave will implement planned electricity use. GHG reduction, and other waste management over the next 5 years to achieve the management policy goal of reduction



Lower water use intensity (WUI) by 2% before 2030 compared to 2023.

RichWave's Environmental Management Policy

1. Compliance with International Laws – Support Green **Environmental Protection**

We will continue to monitor changes in domestic and foreign environmental policies and regulations to ensure that the company's operations comply with the law. Launch green products that comply with the international environmental regulations and development trends, as well as satisfy the customers' sustainable requirements.

2. Implement Environmental Management - Resource Recycling and Reuse

Apply ISO 9001:2015, ISO 14001:2015 and ISO 14064-1:2018 management system to realize total environmental management; electronic wastes are recycled by qualified disposal contractors and reused as resources to unleash the benefits of a circular economy.

3. Encourage Total Participation - Promote Ongoing **Improvement**

Continue to promote environmental concepts and education to RichWave's colleagues and support relevant activities by the government and environmental groups; regularly review our environmental performance to examine and improve inadequacies.

5.1 Climate Change Responses and GHG Management

Climate Change

With increasing global warming, RichWave is aware that climate change is an urgent issue that must be addressed. According to the World Economic Forum (WEF)'s Global Risks Report in 2023, which identifies 6 climate and environmental risks among the top 10 long-term risks (over the next decade), "inability to mitigate climate change" is considered the most serious risk. The latest 2024 Global Risks Report lists "extreme weather events", "critical change to Earth systems", "biological loss and ecosystem collapse", and "natural resource shortages" as the top 4 global risks over the next 10 years. These risks are all climate-related environmental risks. To cope with the increasingly severe climate crisis, governments worldwide are gradually implementing compulsory regulations that demand businesses to conduct financial impact analysis based on the Task Force on Climate-related Financial Disclosures (TCFD) to evaluate climate risks and opportunities faced by the companies. The Financial Supervisory Commission (FSC) of Taiwan is actively responding to this trend by requiring listed companies to disclose 9 key pieces of information on the impact of climate change in their annual reports starting in 2024, based on the TCFD framework. These requirements include 4 mandatory disclosures, 4 climate scenario analyses, and GHG inventory information.

To keep up with global trends and meet regulatory requirements, RichWave has adopted an ESG strategy focused on green innovation, circular economy, responsible value chain, corporate social responsibility, environmental protection, and sound governance. In early 2022, we implemented the TCFD framework, disclosing our climate governance structure from 4 perspectives: governance, strategy, risk management, and metrics and targets. We established plans and phased targets for lowering GHG emissions, identifying climate-related risks and opportunities that could have a financial impact on the company. Furthermore, we developed response strategies and actions to bolster the company's resilience to climate challenges. In 2023, we expanded our assessment methods by involving more departments in identifying the company's risks and opportunities. We also thoroughly evaluated the financial impacts of material risks and opportunities on the company, both historically and potentially in the future, and devised appropriate strategies and management objectives accordingly. These measures not only enhance RichWave's climate governance capabilities and resilience, minimize the financial impact of climate change on the company, but also hope to contribute to mitigating global climate change.



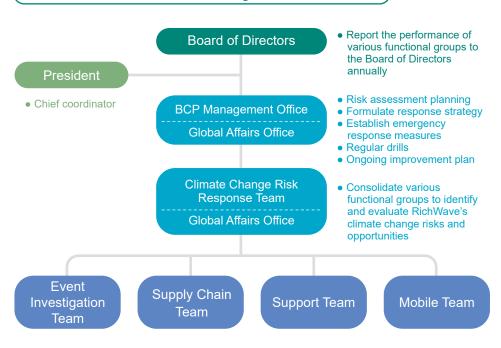
© The 4 Core Elements of TCFD

1. Governance

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RichWave introduced the Business Continuity Planning (BCP) management model and established the cross-unit "BCP Management Office"as the lead unit responsible for managing the company's climate-related risks and opportunities, as well as formulating and implementing risk management strategies and action plans, and conducting the annual risk and opportunity identification. The BCP Management Office is overseen and supervised by the Board of Directors, with the President serving as the convener and members consisting of representatives from various business units. The BCP Management Office includes a "Climate Change Risk Response Team", which is subdivided into the Event Investigation Squad, Supply Chain Squad, Support Squad, and Task Force Squad. The President serves as the chief convener of the BCP Management Office, while the Global Affairs Office is in charge of policy, planning, and promotion, with each team coordinating and communicating across departments to ensure oversight and execution. To carry out effective risk evaluation and management, the BCP Management Office will complete the risk identification, formulate management goals, implement response plans, and present the outcome to the Board of Directors for supervision and guidance.

RichWave's Climate Governance Organizational Structure:



2. Risk Management

RichWave has established a comprehensive BCP model to evaluate the company's potential risks through relevant risk identification procedures, including policy, regulatory, and technology-related dimensions, as well as propose corresponding responses to address material risks. Our climate risk management is based on the RichWave's BCP model. After each business unit identifies significant climate risks and opportunities, the Climate Change Response Team formulates corresponding strategies and measures to address material risk and opportunity issues, which are managed through the company's BCP risk organizational structure. Using the abovementioned mechanism, RichWave progressively incorporates climate risk management into the company's general risk management system, where climate topics are integrated into routine management to make sure that climate risks are effectively supervised and responded to.

1. RichWave's key climate risk and opportunity evaluation procedure

- Convene departments to discuss climate-related issues, inventory climate risks and opportunities definitions, and analyze related regulations, market trends, and technological developments associated with these risks and opportunities
- To further analyze each issue, consider factors such as likelihood of impact, degree of influence, and timing of occurrence, to understand the impact and effects of climate issues on RichWave
- Assess key climate risks and opportunities, review current management practices related to corresponding issues, and develop relevant response strategies to effectively manage or mitigate the impact of risks on the company

Collect information on climate risks and opportunities In the electronics industry Climate risks and opportunities

Inventory and evaluate RichWave's climate risks and opportunities

Identify RichWave's climate risks and opportunities Management of material climate risks and opportunities topics

- RichWave collects public disclosure information from leading domestic and international benchmark companies, third-party research reports, and regulatory trends in operational locations based on industry characteristics, to identify climate risk and opportunity issues relevant to its operations
- Based on the discussion content and an evaluation of risk values according to impact likelihood and severity, establish a risk matrix to summarize the company's overall material climate risks and opportunities.
- Inventory climate-related risks and opportunities, along with relevant information and management strategies
- Prioritize material climate risks and opportunities.

3. Strategy

1. Identification of Material Climate Risks and Opportunities

In 2023, we evaluated the industry characteristics and trends of RichWave based on the current operations of each department. We also explored various development strategies and taken into consideration local regulatory trends and geographical characteristics of our business locations. We preliminarily identified 12 risks and opportunities relevant to RichWave, including 5 transition risks, 2 physical risks, and 5 opportunity topics.

RichWave's Material Risks and Opportunities

CI	Climate risks and opportunities		Risk/opportunity description	Impact duration	Scope of impact on the value chain
Climate risks	Transition risks	Total/carbon tax/carbon fee regulation	The existing carbon pricing mechanisms are becoming increasingly popular. For instance, the EU has expanded the scope of the Carbon Border Adjustment Mechanism (CBAM) to include downstream steel products such as screws and bolts, and it has started imposing carbon taxes. This will increase RichWave's hardware material procurement costs. As Taiwan continues to roll out regulations related to GHG emissions and carbon trading, more detailed regulations will be formulated in response. Consequently, in the future, the company will implement relevant measures as per the FSC's request, which will likely lead to an increase in the company's operating costs.	Medium-term (3-10 years)	Upstream supply chain, own operations
	Transition risks	Mandatory regulations for products and services	The products and services provided by the company must comply with environmental or climate regulations relevant to the sales region and those specific to the products and services, such as the Toxic Substances Control Act (TSCA) in the US, Restriction of Hazardous Substances (RoHS) Directive in the EU for electrical and electronic equipment, and Taiwan's Climate Change Response Act. Compliance with regulations relevant to the company's sales regions and the products and services entails additional operating costs. Non-compliance could lead to penalties and impact sales, potentially harming the company's reputation.	Medium-term (3-10 years)	Own operations
	Transition risks	The cost of transitioning to low-carbon technologies	To accommodate customers' low-carbon product needs, the company must increase R&D personnel and product costs to upgrade the specifications of its main products. For example, invest in the R&D of nonlinear power amplifier products to meet the market's demand for 25-30% energy savings.	Medium-term (3-10 years)	Downstream customers, own operations
	Transition risks	Shifts in customer behavior	Respond to customers' concerns about energy conservation, carbon reduction, and renewable energy. European customers, in response to climate change and green energy requirements, have imposed stricter power consumption standards for Wi-Fi RF front-end products, forcing RF front-end manufacturers to accelerate the development of nonlinear power amplifier products. Furthermore, countries such as the USA and Japan are also becoming more demanding in terms of product energy efficiency in response to the current trend. This means that RichWave must invest in new technologies to develop products that cater to customers' needs, leading to an increase in the company's R&D costs.	Medium-term (3-10 years)	Downstream customers
	Transition risks	Increase in the cost of raw materials	In response to climate change and sustainability considerations, raw materials and energy resources needed by the company may experience problems such as supply shortages or price hikes. As climate change intensifies, the main raw materials and energy resources needed by the IC design industry will also be affected. For instance, electricity bills will increase due to the impact of the carbon fee mechanism or additional use of green electricity, or logistics expenses may be affected by delayed raw material shipment due to extreme weather. These extra costs will also result in increased costs of production for the company and its OEM partners.	Short-term (1-3 years)	Upstream supply chain, own operations
	Physical Risk	Climate events caused by extreme weather (including floods and typhoons)	Extreme weather events like floods or typhoons may cause direct or indirect operational disruptions or financial losses. For instance, employee absenteeism could lead to production downtime, damage to machinery and flooded facilities at OEM factories could interrupt production lines, and imported raw materials might face delivery delays or increased shipping costs due to typhoons and floods.	Short-term (1-3 years)	Upstream supply chain, own operations



Climate risks and opportunities		d opportunities	Risk/opportunity description	Impact duration	Scope of impact on the value chain
Climate Risks	Physical Risk	Rising average temperature	Persistent high temperatures may lead to increased electricity consumption, potentially causing higher operating costs and carbon emissions. For example, maintaining optimal performance of production lines may require keeping data centers at specific temperatures, lowering the air conditioning temperature settings in offices, and increasing usage hours, all of which could result in higher electricity bills and, consequently, higher operating expenses.	Short-term (1-3 years)	Own operations
	Market	Develop new market	In response to the market demand for energy-efficient and green products in the smart home, smart lighting, and security sectors, RichWave has continued to develop the radar sensor market. The company supplies its products to manufacturers of lighting fixtures, lighting control modules, televisions, air conditioners, and surveillance cameras. RichWave strives to increase its market share and revenue by expanding the application of radar sensors in related end products such as smart sensing lights and smart bathtubs.	Medium-term (3-10 years)	Own operations, downstream customers
Climate opportunities	Innovative products and services	Development of low- carbon products and innovative services	The global Wi-Fi industry and customer base are expanding, driven by growing energy-saving regulations and demands, particularly from European customers. Influenced by climate change, energy-saving requirements, and increasing energy prices, European customers have implemented more stringent power consumption standards for Wi-Fi RF front-end products. This has prompted the RF front-end industry to develop more energy-efficient products to satisfy market demands. RichWave continues to provide diverse green products in a bid to increase competitiveness and market share.	Medium-term (3-10 years)	Own operations, downstream customers
	Innovative products and services	Shifts in consumer preferences	 As consumers' environmental awareness increases, general consumers' attention to eco-friendly products will also increase. RichWave proactively inventories and develops diverse high-energy-efficient products in response to the expectations of customers and consumers for energy-saving and efficient products. As the carbon reduction requirements increase in the supply chains of major customers, along with their growing expectations for sustainable operations from their suppliers, it is essential for RichWave to actively demonstrate its performance in GHG inventory and reduction. We have completed the GHG inventory and inspection of the parent company in 2022, and the baseline year for the GHG inventory of subsidiaries is expected to be 2025. We will proactively respond to and satisfy the expectations of customers and general consumers toward green products, which is conducive for elevating the company's market share and maintaining long-term competitiveness. 	Medium-term (3-10 years)	Downstream customers
	Resource use efficiency	Energy-efficient production and transportation	Reducing energy resource consumption and increasing recycling and reuse rates can lower operating costs. To manage the environment effectively, the company continues to apply the ISO 14001 Environmental Management System and actively implements annual energy-saving and carbon reduction plans. These measures are designed to lower the carbon footprint and reduce energy costs during operations. They include efforts to decrease carbon emissions from our operations and logistics (such as office energy conservation and equipment replacement, collaborating with logistics partners to explore the feasibility of electric or low-emission vehicles, and optimizing logistics routes and transportation modes). Furthermore, the company is vigorously considering to introduce renewable energy to minimize its overall carbon emissions.	Medium-term (3-10 years)	Own operations, logistics
	Supply chain resilience management	Supply chain resilience management	RichWave has collaborated with suppliers to implement the BCP management plan, formulating response protocols and measures for emergencies, enabling the supply chain to respond swiftly in the face of different emergencies, thereby mitigating the impact of disruptions on the company's business as much as possible. Effectively enhance the reliability and operational capability of the supply chain through relevant management mechanisms in order to improve market competitiveness and supply chain resilience.	Medium-term (3-10 years)	Upstream supply chain

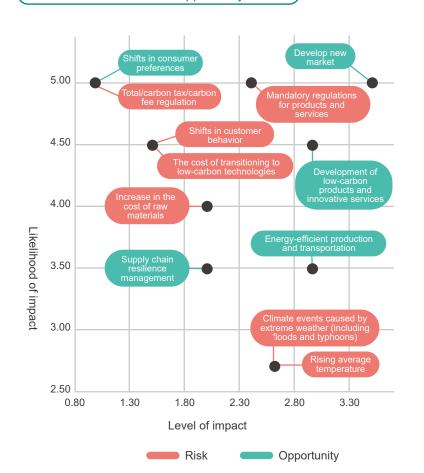
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2. RichWave's Material Cimate Risks and Opportunities

The 3 material climate risks and opportunities identified by RichWave this vear are developing new markets, low-carbon products and innovative services, and mandatory regulations for products and services. We explore the material impact of various risks and opportunities based on the current market conditions, international trends, and other external research reports, to analyze past and future potential material impacts, as well as review our resources and future business development conditions, and propose corresponding response strategies.

Please see the following table for the financial impact evaluation and adaptation measures of RichWave's material climate risks and opportunities:

RichWave's TCFD Risk-Opportunity Matrix



Material climate risks and opportunities

Mandatory

regulations for

products and

services

Climate risks

Climate-related financial impact evaluation (note)

- In response to ongoing climate change regulations developments at both domestic and international levels, such as the EU's energy Labeling and Ecodesign Directives, Taiwan's "Climate Change Response Act", and the "Sustainable Development Guidemap for TWSE- and TPEx-Listed Companies", we have implemented plans to meet customer expectations and uphold our corporate image. The potential financial impact items evaluated are shown below:
- · Increase and maintain various ISO certifications to avoid regulatory violations. Take RoHS as an example, if the levels of hazardous substances in electronic and electrical equipment exceed the limits, it could result in fines ranging from 400,000 to 4,000,000 EUR (approximately NTD 14-140 million). This would severely impact our reputation and potentially lead to operational shutdowns.
- The company continues to implement energy conservation and carbon reduction measures in response to domestic and international regulatory restrictions, resulting in increasing costs.
- Strategies and policies for achieving net zero, such as keeping up with domestic and international regulations and implementing energy conservation and carbon reduction projects, all require the allocation of human resources and working hours, leading to increased labor costs.

Although the company reported a negative profit in 2023, it dedicated a total expenditure of NTD 780,000 towards sustainability measures, representing about 0.03% of the company's annual revenue, to support relevant response initiatives

Adaptation measures

- Continue to increase and maintain various ISO certifications in a bid to elevate customer expectations and corporate image.
- In 2023 RichWave committed 70 people to participate in the ISO 14064-1system's PDCA cycle.
- Verify hazardous substances in the selection of raw materials during the product development phase to comply with international environmental regulations.
- Continue to implement energy conservation-related solutions and measures, and renewable energy is expected to be introduced in 2024. The goal is to make sure renewable energy constitutes 3% of the parent company's total electricity consumption by 2030.
- Comply and keep up with regulatory requirements by appointing fulltime staff to continuously monitor domestic and international regulatory requirements and trend shifts. Continue to invest in R&D resources to develop energy-saving products.





Material climate risks and opportunities

Develop new

market

Development

of low-carbon

products and

innovative

services

Climate opportunities

Climate-related financial impact evaluation (note)

Adaptation measures

- The market for products is trending towards the development of high-energy-efficient products. RichWave continues to carry out research on RF front-end technology and incorporate new radar sensors into diverse household appliances. These include smart home devices such as lighting fixtures, lighting control modules, TVs, air conditioners, surveillance cameras, and more, to accommodate emerging market demands and expand RichWave's market share. The item may have the following financial impact on RichWave:
- Expand business scope in response to the needs of new markets. For example, RichWave has applied microwave radars with integrated signal processing sensors to home appliances, allowing them to be switched on and off automatically through smart detection in order to lower energy consumption. Supply the market with energy-efficient new products to increase
- operating income. · Investing in the R&D of emerging technologies leads to increased R&D costs. Exceeded 600 global patents in RF frontend technology development and application by 2023.
- · Invest in additional labor costs to develop new products.

Even though the company reported a negative profit in 2023, it actively invested resources in the R&D of new products. The total R&D expenditure for 2023 amounted to NTD 65.3715 million, which is roughly 22% of the company's annual revenue.

In response to climate change, countries worldwide have enforced various environmental regulations and restrictions. As a result. customers' need for low-energy consumption and low-carbon products has risen, in turn generating continual growth in the Wi-Fi business. In response to the trend, RichWave has vigorously developed and provided diverse green products in an effort to increase industry competitiveness and market share. The item may have the following financial impact on RichWave:

- Develop and launch low-carbon new products to expand market share and increase operating income.
- 1) By 2023, the Wi-Fi 7 non-linear RF front-end module series, when combined with various platform DPD algorithms of the main chip, can achieve a 20-30% reduction in power consumption while still maintaining linearity. It is estimated that by 2024, half of the market share of products will be using nonlinear power amplifiers.
- 2) Continue to expand the IC front-end RF chip products for Wi-Fi, it is estimated that in 2023, the market share of Wi-Fi product shipments will reach approximately 20%.

Even though the company reported a negative profit in 2023, it actively invested resources in the R&D of new products. The total R&D expenditure for 2023 amounted to NTD 65.3715 million. which is roughly 22% of the company's annual revenue.

- Develop new products that decrease energy consumption: The pulse wave motion sensing mode current of the 10 GHz ultra-wideband (UWB) microwave radar with integrated signal processing sensor was initially designed at 150mA in 2021. This was reduced to 110mA in 2022 and further decreased to 5mA in 2023, representing a reduction of 95.5%. The product's energy-saving benefits are widely applied to smart homes, smart lighting, surveillance systems, and dashcam products.
- Expand the multifaceted application of products: We are expanding the use of 5.8 GHz and 10 GHz radar sensors in applications such as smart lighting, electronic locks, security systems, and various other smart home appliances. In addition, we are constantly developing millimeter-wave radars to design products with diverse applications.
- Develop new clients and vigorously pitch radar sensors to customers in the home appliance sector.
- Continue to develop nonlinear power amplifiers: Coordinate R&D resources, develop and optimize product performance in conjunction with Wi-Fi main chip manufacturers and measuring instrument suppliers to ensure that the products perform as expected.
- Improving the power efficiency of flagship products: Continue to research and develop low-power, high-efficiency product combinations to meet or exceed domestic and international manufacturer requirements, thereby increasing market share.

4. Metrics and Targets

In response to climate change-related opportunities and risks, RichWave has formulated corresponding management metrics and targets, and regularly reviews the development conditions of material climate risks and opportunities. We have stipulated carbon reduction, electricity-saving, and waste reduction targets based on important climate-related environmental metrics. Furthermore, we plan to use renewable energy to minimize climate risks within our operations. We aim to further expand the climate management topic to the supply chain in a bid to strive for environmental sustainability with our suppliers. We will monitor the achievement of various metrics and report it to the Board of Directors, which will guide the company to engage in continual optimization and improvement to foster its climate resilience amid the global trend of climate change.

Overall metrics and targets

- 1. RichWave is committed to formulating watersaving and electricity-saving policies every year. We have set a target to decrease electricity consumption, GHG emissions, and waste by 3% within 5 years and lower WUI by 2% compared to 2023 before 2030, as well as conduct regular performance monitoring and target adjustments to ensure alignment with environmental changes and risk management needs.
- 2. Vigorously encourages the supply chain to obtain ISO certifications for carbon emissions and energy management, enabling suppliers to strive for environmental sustainability with RichWave and ensuring that the green development of the overall supply chain conforms to international standards.
- 3. We plan to gradually increase the use of renewable energy within the next 5 years by participating in the renewable energy power trading market and establishing a renewable energy utilization strategy to materialize the long-term objective of environmental sustainability. We expect to increase renewable energy utilization to 3% by 2030 and use up to 18,000 kWh of renewable energy by 2025.

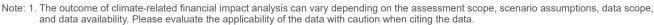












2. Euro exchange rate is estimated at 1:35.

2023 RichWave



Climate r	isks and opportunities	Metrics and targets
Climate risks	Mandatory regulations for products and services	 Regularly maintain various ISO certifications. Maintain zero violations of international or domestic environmental laws. Ensure that all products are 100% compliant with regulations regarding hazardous substances and meet customer specifications.
Climate opportunities	Develop new market	 Increase the number of global patents on RF front-end technology R&D and application to over 700 by 2028. Continue the R&D of millimeter radars.
	Development of low- carbon products and innovative services	 Increased overall local procurement to 71%. Local procurement of key raw materials reached 52%. Products with nonlinear power amplifiers should reach 15% market share by 2025 and save 6.02 million kWh of electricity. By 2025, Wi-Fi product shipments should reach 20% global market share.

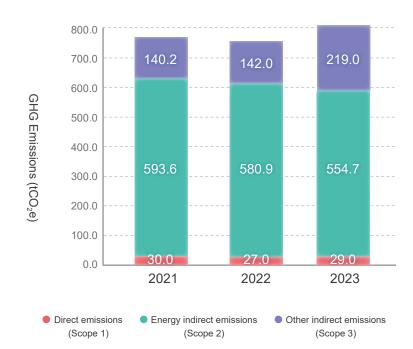
GHG Management

Operational GHG Management

Faced with global climate change, RichWave has not only vigorously adopted a wide range of response measures but also strives to mitigate GHG emissions. RichWave belongs to the IC R&D and design industry, and the significant source of emissions is the use of purchased electricity. In this regard, RichWave has adopted the ISO 14064-1:2018 greenhouse gas management system since June 2022, and has passed the international certification in November of the same year, and will adopt the operation control right method to conduct a greenhouse gas inventory with 2021 as the base year and actively promote various greenhouse gas emission reduction measures based on the results of the inventory. Through continuous improvement plans and measures, we will reduce greenhouse gas emissions within the scope of our operations and fulfill our corporate social responsibility. Starting in 2023, we plan to set a 3% reduction target over the next 5 years as the goal for our GHG emissions management policy.

In 2023, RichWave's Scope 2 GHG emissions amounted to $554.6735 \text{ tCO}_2\text{e}$, representing a 4.5% decrease from 2022. The emission intensity for Scope 1 and Scope 2 combined was 0.1956 tCO_2 per NTD million revenue, primarily due to implementing diverse energy-saving initiatives and incentive policies. Collaborative efforts across departments including laboratories, data centers, product storage facilities, environmental safety, and administration led to the implementation of 4 energy-saving projects and 6 improvement measures in 2023. For further details, please refer to 5.2 Energy Management. To decrease GHG emissions during our business operation, RichWave has proactively implemented various energy-saving solutions (for details of specific measures, please refer to the "Green Operations" chapter) to gradually achieve the greenhouse gas reduction target.

RichWave's GHG Emissions over the Last 3 Years



Note: 1.The greenhouse gas inventory was conducted in accordance with ISO 140641:2018 using the operational control method, and the global warming potential
(GWP) of various greenhouse gases was calculated based on the IPCC AR6
announcement after selecting the emission factors in accordance with the
"EPA Greenhouse Gas Emission Factor Management Table 6.0.4".

- 2. Scope 3 emission categories include Category 3 and Category 4. Emission activities encompass downstream product transportation, employee commuting, raw material extraction, manufacturing, and processing, as well as the disposal of solid and liquid waste. As of 2022, upstream product transportation has been included.
- 3. In 2022, the GHG emissions were revised based on the third-party verification results on 2023/10/27. The Scope 2 emissions were adjusted from 597.1313 tCO₂e to 580.9381 tCO₂e, and the Scope 3 emissions were revised from 142.9742 tCO₂e to 141.9830 tCO₂e. The verification opinion was issued without any reservations.
- The 2023 GHG emissions statistics in the report will be adjusted according to the third-party verified data in Q3 of 2024.



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Other Indirect Ghg Emissions Management

RichWave's business operations include IC R&D, design and sales, where product manufacturing is completely reliant on the processing of our supply chain partners. The supply chain is an important link in mitigating product life cycle carbon emissions, hence we stress scope 3 GHG management and vigorously promote the reduction of GHGs outside of the organization's business scope. Through continuous refinement, increasing the performance of our high-power, energy-efficient products, and implementing supply chain energy management, we can minimize the carbon footprint of various terminal electronic products. In doing so, the company will be able to attain the sustainability of energy resources on the planet while offering consumers high-performance, high-quality products.

1) Green Product Design

We have taken the environmental impact of the products' life cycle during the IC design stage and continue to facilitate innovations in energy-saving designs. Besides effectively reducing energy consumption during the production process and lowering production costs, RichWave can also decrease energy consumption while using the products, thereby mitigating production/consumption costs with our suppliers and consumers, as well as cherishing the Earth and engendering a green, sustainable future.

2) Supply Chain Carbon Management

To promote supply chain carbon reduction, we have demanded our suppliers obtain international quality certifications such as ISO 9001/ISO 14001/ISO 45001/QC 080000/IATF 16949 to prevent the production process's negative impact on the environment. In addition, we have conducted an audit of our 20 primary suppliers across the 3 categories of wafer, packaging and testing to make sure that they comply with the local environmental laws, as well as to engage in ongoing improvements in terms of energy conservation and GHG emissions reduction. Also, the zero-carbon objective and action plan guidelines for 2030 and 2050 have been formulated.

3) Green Transportation

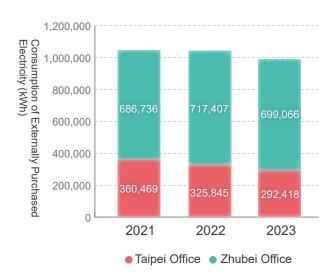
In terms of the daily commute, we encourage our colleagues to make use of public transport or carpool; in terms of business travel, besides asking our colleagues to utilize public transport, they are encouraged to conduct meetings using the video conferencing system to minimize carbon emissions from transportation.

5.2 Energy Management Energy Utilization

RichWave is a member of the IC R&D industry. We do not have any high energy-consuming heating equipment or production process and consume mainly externally purchased electricity To realize energy management, we regularly calculate our electricity consumption to monitor RichWave's energy utilization and continue to formulate improvement strategies based on these statistics to achieve the goal of reducing electricity consumption on a programmatic basis. Starting in 2023, we plan to set a 3% reduction target over the next 5 years as the goal for our energy management policy.

In 2023, RichWave's purchased electricity consumption was 991,484 kWh and 3,569.3 GJ, representing a reduction of 5% compared to the previous year, exceeding the target of a 0.6% decrease. The main reasons for this achievement include the company's energy-saving policies, implementation of diverse energy-saving measures, and incentives for energy conservation activities. In 2023, our EUI was 189.4kWh/m2, down 5% compared to the previous year, indicating that RichWave's past energy-saving measures were well carried through, and we will continue to carry out more energy-use programs in the future to enhance the use efficiency and practice green sustainability.

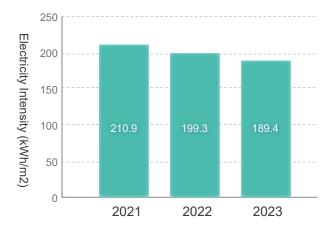
RichWave's Energy Consumption Over the Last 3 Years



Note: 1. Beginning in 2022, RichWave adjusted the calculation of purchased electricity use by using the building's independent meter, deducted the electricity consumption across different months. The method was applied to recalculate the purchased electricity usage for the year 2021.

Please refer to the latest 2023 per-unit calorific value table of energy products from the Bureau of Energy, MOEA for the conversion factor for the calorific value conversion factor of externally purchased electricity.

RichWave's EUI in the Past 3 Years



Note: Starting in 2022, RichWave adjusted the calculation method of EUI to be the ratio of electricity consumption (kWh) to floor area (m2) of all operating sites in Taiwan and recalculated the electricity intensity for 2021 based on this method.

Green Operations

RichWave is committed to environmental sustainability and integrates green principles into its operations. The Management Department regularly reviews energy consumption, coordinates energy management policies, and collaborates with the BCP Management Office to plan and implement energy-saving and carbon-reduction initiatives. This includes annual energy improvement plans, office energy-saving measures, improvements in air conditioning systems, and the adoption of energy-efficient equipment and technologies. Product R&D focuses on high power efficiency and low energy consumption to enhance energy use efficiency. RichWave has obtained ISO 9001:2015 certification and maintains compliance with IECQ QC080000. The company has also been certified as a SONY GP (Green Partner) and Samsung Eco-Partner. Additionally, in 2022, the company achieved dual international certifications for ISO 14001 Environmental Management System and ISO 14064-1 GHG Inventory. In 2023, RichWave will continue to operate under the ISO 14001 Environmental Management System and conduct ISO 14064-1 GHG Inventory. Third-party verification for both certifications was completed in November and December of the same year, and relevant certificates were obtained.

By establishing a comprehensive environmental management system, we aim to minimize resource consumption during operations, strive towards sustainable business goals, as well as meet customer and public expectations towards green operations.

RichWave's Energy-Saving and Carbon Reduction Plan

- 1. Continue to operate ISO 14001 and conduct ISO 14064-1 GHG inventories with third-party verification, as well as effectively plan and implement annual energy-saving and carbon reduction initiatives
- 2. Office energy conservation measures Encourage employees to change their habits by adjusting air conditioning temperature settings and operating times, switching off lights when not in use, ensuring computers are powered down, and turning off conference systems after meetings, along with implementing energy-saving incentives and conducting air conditioning equipment inspections to lower energy consumption.
- 3. Continuously introduce energy-saving equipment and technology Continue to evaluate the feasibility of introducing new energy-saving technologies such as: Adopt LED energy-saving lamps and replace traditional lighting fixtures, explore the possibility of implementing energysaving devices for air conditioning, participate in energy-saving initiatives led by the MOEA's Energy Administration, and review the reasonable capacity of electricity contracts.
- 4. Continuously develop and design low-carbon products: Use low energy consumption, high efficiency, energy saving and carbon reduction as one of the important design indicators.
- 5. Reduce paper consumption and waste minimization. Enhance the digitalization of daily operations, such as replacing paper documents with electronic documents, encouraging employees to bring their own thermos when purchasing beverages, and bringing their own chopsticks and spoons when eating out, in order to reduce the amount of paper used and the amount of waste generated in their daily lives.
- 6. Since 2023, we have entered into green deposit agreements with banks.
- 7. Introduce the renewable energy utilization program in 2024.



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© RichWave's Energy-saving and Carbon Reduction Goals and Performance for 2023

Ad	ction Plan	Description	Annual Performance
	Energy conservation and carbon reduction solutions	 Lower the electricity contract capacity with Taipower to minimize unnecessary energy consumption. The Hsinchu office participated in the government's energy diagnosis and promotion campaign, focusing on improving key energy-consuming equipment. Organized employee energy-saving incentive activities to encourage them to save electricity voluntarily. 	 Lower Taipower's electricity contract capacity by 35% as of April 2023. By optimizing high-energy-consuming air conditioning equipment, the Hsinchu office has successfully decreased its total consumption by 18,341 kWh. Since July 2023, the company has given away 158 cups of coffee to reward colleagues who voluntarily saves energy consumption by air conditioners and lights. The company converted 35% of the electricity saved into cash bonuses for the entire staff. A total of NTD 45,297 was handed out in 2023.
	Office energy conservation measures	 Air conditioners in the office are inspected daily to maintain the set temperature values. 	 Electricity consumption in various offices was reduced by 602kWh on average every month in 2023.
Improve energy efficiency	Datacenter energy- saving measures	 Optimized the performance of existing servers to minimize unnecessary equipment power consumption. Replaced high-power air conditioners to lower equipment energy consumption during operation. The 3S of the datacenter environment; minimize the escape of cold air and enhance cold circulation. 	 6 servers were decommissioned as backup serves, saving approximately 3,000w/24hrs. The cooling capacity has been increased from 6 kW to 14 kW, leading to a 6.1% decrease in air conditioning equipment power consumption.
	Laboratory energy- saving measures	 Added window films to sun-exposed glass surfaces to lower indoor temperatures. Installed a timer to the ventilation fans. Optimized the efficiency of ventilation fans, adding fans in hot spots to regulate overall temperature, thereby lowering energy consumption caused by frequent operation of air conditioners. 	The area's average monthly electricity consumption was reduced from 13,626 kWh in 2022 to 12,806 kWh, equivalent to a reduction of 6%.
	Product warehouse energy-saving measures	Keep entrance and exit doors closed but unlocked to minimize air conditioner air loss	• The 2022 average electricity consumption of the product warehouse decreased from 13,743 kWh to 13,174 kWh, a reduction of 4.1%.

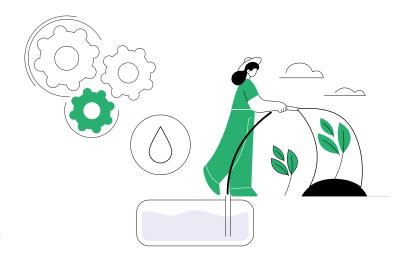
Besides actively planning and implementing energy-saving and carbon reduction initiatives in our operations, RichWave is also committed to the sustainable development of Earth's resources. Since 2023, the company has partnered with KGI Bank to carry out green deposits. As of December 31, 2023, the deposit amounted to NTD 50 million, and it will be used for green financing projects and initiatives such as renewable energy, energy conservation, air pollution prevention, wastewater treatment, and green buildings. RichWave is dedicated to promoting environmental sustainability with the bank.

5.3 Water Consumption

As the concentration of GHGs in the atmosphere rises, global climate change also intensifies every year, triggering changes in the rainfall patterns that in turn exacerbate the problem of uneven rainfall distribution in Taiwan. In recent years, water shortages occurred frequently in Taiwan, compelling the government and enterprises to pay attention to the scarcity of water resources and their impact on production and operations. In light of this, RichWave has already completed the water risk evaluation in our operating locations in Taiwan. Our Taipei head office and Zhubei office are classified as low risk by the World Resources Institute (WRI)'s Aqueduct Water Risk Atlas.

Water consumption at RichWave's operating locations mainly consists of tap water for office use and we do not extract water from water shortage zones and waste water is discharged centrally from the Science Park to the water processing plan;, therefore total water consumption cannot be calculated. In 2023, RichWave's tap water consumption was 4 million liters, an increase of 3.1% compared to 2022. The WUI in 2023 was 13.2million liters perthous and people, an increase of 3.9% compared to 2022. We will continue to enforce water resource management for the sake of elevating water efficiency and making sure water resources are utilized most efficiently.

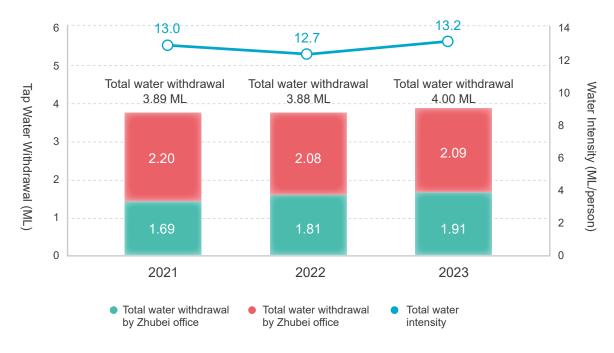
We believe that water is an extremely valuable shared resource, so we regularly control our water consumption in our daily operations and continue to conduct water-saving campaigns, hoping to instill water conservation awareness in our colleagues' everyday life. Additionally, the office building's management unit utilizes recycled water to irrigate flowers and plants and water-saving toilets are installed to minimize water waste.



Water Resource Management Target

Category	Management policy	Reduction target	Measures implemented	Achievement status
Water consumption	Lower WUI by 2% before 2030	Conduct 4 water-saving campaigns annually To obtain annual external certification	Conduct electronic campaigns internally Monitor water consumption and obtain external certification	Starting from 2024, it is expected

RichWave's Water Consumption over the Last 3 Years



Note: 1. Starting in 2022, RichWave Technology's office water withdrawal is changed to a percentage of total building water use based on the floor area of RichWave's leased space, and this calculation is used to recalculate the total water withdrawals for 2020

2. The overall water intensity of RichWave's operating locations in Taiwan is the proportion between tap water withdrawal (ML) and the number of employees (1,000s).

5.4 Waste Management

RichWave's operating locations do not engage in production so the waste generated consists of mainly office waste. Electronic wastes mainly come from laboratory tests and product samples preserved for QA purposes; these include hazardous wastes such as electronic scraps and defective products. RichWave has established a dedicated waste management unit in charge of hazardous waste declaration and disposal. It is also responsible for monitoring waste disposal to make sure that the process complies with the government's environmental policies and regulations to carry through proper disposal and reduction of waste. Starting in 2023, we plan to set a 3% reduction target over the next 5 years as the goal for our waste management policy.

To materialize responsible production and mitigate our operating wastes' potential environmental impact, RichWave has implemented the following waste management strategies in various stages.



Source reduction

- Promote a paperless office.
- Encourage employees to bring or use reusable tableware.
- We do not provide disposable tableware.
- Internal environmental education and promotion.
- Products are made from recyclable materials.



Implement Garbage classification

- Implement garbage classification.
- Centralized waste management helps to maintain a clean and tidy workplace.
- Recycling waste is our primary concern in a bid to mitigate environmental pollution and burden.



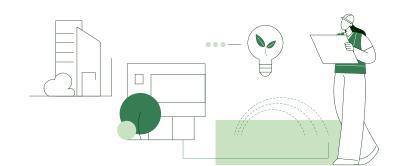
Proper disposal

- General household wastes are collected and recycled by the management center.
- Electronic wastes are disposed of by qualified contractors.
- Qualified waste disposal contractors are selected and audited from time to time.



Resource Reutilization

 Precious metals from electronic wastes are separated and extracted by qualified contractors.
 Bottom ash or worthless products are incinerated. Currently, these wastes are disposed of in landfills or reused.



2023 RichWave Sustainability Report

In 2023, RichWave's waste emissions were12.4667 tonnes, with a waste intensity of 0.0042 tonnes per NTD million revenue, of which general business waste is the main source, accounting for 95.8% of the total waste, and incineration is the main method of processing; the rest is hazardous business waste, which mainly consists of scrapped products and electronic waste, weighing 0.5290 tonnes in 2023, accounting for about 4.2% of the total waste, about 95% of which was recycled, of which 9.36% was recycled into the various stages of the product life cycle to achieve resource recycling and reuse. Waste emissions in 2023 decreased by 39.35% compared to 2022, mainly due to the change in the general business waste statistics Note 1 and the continuous promotion of waste processing as a resource. In terms of policy or future planning for recycled materials, RichWave's current recycled materials are mainly packaging materials related to products and IC scraps and defective products, with a total recycling volume of 2.89 metric tons in 2023, which was delivered to qualified and professional waste processing vendors for recycling and reuse, and in the future, RichWave will proactively plan and expand the diversification of the use of recycled materials in order to achieve the goal of a circular economy and to enhance the efficiency of resource utilization.

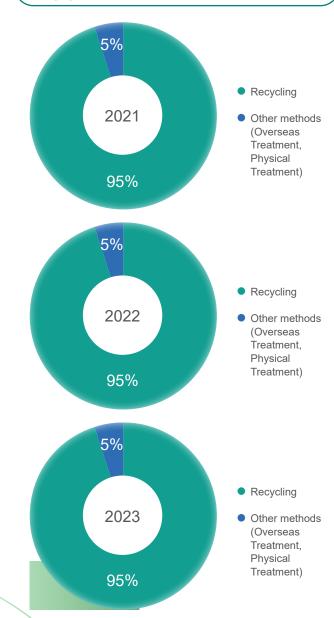
RichWave's Electronic Wastes Generated over the Last 3 Years

Waste Category	Key Processing Methods	2021	2022	2023
General business waste (metric tons)	Incineration	29.1792	20.3468	11.9377
Hazardous business waste (tonnes) ^{Note2}	Recycling	0.6243	0.2087	0.5290
Total (metric tons)		29.8035	20.5554	12.4667

Note: 1. The estimation method for general waste in 2023 at the Hsinchu branch involves measuring the daily general waste production per person, extrapolated to estimate the company-wide daily general waste production per person.

2. The hazardous business waste consists of electronic scraps and defective products.

Hazardous Waste Processing Methods from 2021 to 2023



CHAPTER

Social Care

6.1 Industry–academia and Public Welfare Activities



* Chapter Highlight

- Industry-academia collaboration: In 2023, the company collaborated with schools such as the Institute of Electronics of National Taiwan University and the Institute of Telecommunications Engineering of National Yang Ming Chiao Tung University for industry-academia research, which was launched in 2022, with a total of 13 students including doctoral, master's, and graduate students participating.
- Tree planting activity: For the second year in a row, we participated as a co-organizer with the "Tse-Xin Organic Agriculture Foundation (TOAF)" to adopt and plant 80 trees and sponsored NTD 44,000, encouraging colleagues and the general public to care about tree planting and the environment, in turn lowering carbon emissions on Earth.
- Career counseling social welfare activity: Joined the 104 "Be a Giver" social welfare
 activity, assisting job seekers with resume check-ups, career counseling, and job-seeking
 advice. The initiative aims to foster cross-disciplinary knowledge sharing and contribution,
 promoting the propagation and circulation of goodwill.
- RichWave Family Day: RichWave organized the "Inaugural RichWave Family Day" at
 its Taipei and Hsinchu offices. The event invited employees' children and parents to
 experience a day at work together, aiming to create a family-friendly work environment
 through activities that combined parenting, education, and entertainment. Children from
 the Ren Ching Community Service Association's reading class were also invited to
 partake in the interesting activities of the family day.
- Christmas Philanthropic Concert: RichWave supports culture and art activities and
 philanthropy, inviting Rose Tomb to stage the "Music-Love-Life Seminar Social
 Sustainability Christmas Charity Concert", which was co-organized by the Public Health
 Bureau of Hsinchu County Government. The event was sponsored through donations
 from 12 companies, one individual, and RichWave's employees. Invited public welfare
 organizations, schools, and the general public to listen for free in support of social
 welfare institutions and disadvantaged groups. The activity generated revenue of

NTD 329,658, after deducting an expenditure of NTD 111,233, we donated NTD 130,425 to Bluesky Home, and NTD 88,000 to Rose Tomb.

6.1 Industry-academia and Public Welfare Activities

RichWave strives to achieve outstanding general performance in the industry while meeting our stakeholders' expectations and fulfilling our corporate social responsibilities by giving back to society as corporate citizens. RichWave realizes public welfare through the 3 major themes of "industryacademia collaborations", "sponsorships and donations", and "social care", thereby developing our business and caring about local developments at the same time.



To discover and develop key talents, RichWave has outsourced some of our research projects to government agencies, colleges, universities, or private organizations to attain a win-win situation in the research and development of educational products and the recruitment of high-quality employees.





By participating in and assisting in social welfare, education and arts activities, we strengthen the solidarity of employees internally, give back to the community and expand our positive influence, care for the underprivileged and create a friendlier environment for the next generation.

2023 Public Welfare Theme Performance

Public Welfare Theme	Basic Information of Target Subjects	Investment (time/manpower/ materials)	Outcome (number of beneficiaries and requirements)	Benefits and Impact
	Graduate Institute of Electronics Engineering, National Taiwan University: Radar algorithm-related	• 2022/3–2023/8 • 8 engineers	1 faculty professor2 graduate students2 doctorate students	Realized product application technologies through investment in basic research to enhance product
	Graduate Institute of Electronics Engineering, National Taiwan University: High speed PLL research	• 2022/2–2024/1 • 3 engineers	1 advising professor 2 graduate students	performance and increase brand competitiveness. Through academic and practical exchanges, stimulated technological innovation and breakthroughs in
Industry-ac	Graduate Institute of Electronics Engineering, National Taiwan University: Millimeter-wave Circuit Research	• 2022/2–2023/11 • 5 engineers	1 advising professor3 graduate students	the semiconductor industry and solidified the influence of Taiwan's semiconductor industry in the international stage. Provided students with basic
Industry-academia Collaborations	Institute of Communications Engineering, National Yang Ming Chiao Tung University: RF circuit research	• 2022/8–2023/7 • 4 engineers	1 faculty professor 4 graduate students	knowledge for career advancement, understanding of industry trends and actual needs, and nurturing future world-class talents.
llaborations	Career counseling public welfare activity	2023.06Colleagues from the HR Department	 1 events Provided resume check-up services, career counseling, and exploration services for job seekers 	 Proactively train talent by sharing workplace knowledge and current trends. Implement industry-academia collaboration, establish the corporate brand on campus, fulfill social responsibility, contribute professional skills, and expand the propagation and circulation of goodwill.
S. S.	Department of Electronics and Electrical Engineering, National Yang Ming Chiao Tung University	• 2023.06	Sponsored the Department of Electronics and Electrical Engineering, National Yang Ming Chiao Tung University Donated NTD 60,000.	Continue to support educational development by making tangible donations to enhance teaching resources and nurture future corporate elites with international competitiveness.
Sponsorships and Donations	Taiwan Sera Jey Yonten Monastery	• 2023.12	Donated 3 mobile TV stands	 Support the development of non- profit associations, continue to give attention, and expand the implementation of corporate social responsibility initiatives to enhance positive social impact and garner positive support and feedback from the community.



Public Welfare Theme	Basic Information of Target Subjects	Investment (time/manpower/materials)	Outcome (number of beneficiaries and requirements)	Benefits and Impact
	Afforestation Program	2023.0310 volunteers	 Adopted and planted 80 trees Sponsored NTD 44,000 	 Through hands-on experience activities, enhanced employees' concern for tree planting and the environment. Shared the results of our employees' activities through our internal newsletter (RichWave eNewsletter), in order to strengthen our corporate culture of sustainability.
	104 "Be a Giver" Social Welfare Activity	 2023.06 Organizer: 104 Job Bank Co-organizer: 200 enterprises including RichWave, Delta Electronics, MSI, Coach, Dell, Ogilvy, Muji, and Taiwan Mobile 1 volunteers 	 1 events Helped 25 job seekers with resume check-ups and interview simulation training. 	 Demonstrate RichWave's corporate influence Foster the heritage and contribution of knowledge Elevate the brand image and visibility in talent recruitment
Social Care	RichWave Family Day	• 2023.08 • 11 volunteers	 2 events Invited children from the community companion reading class of the Ren Ching Community Service Association to partake in interesting activities 	 Through experiential activities, we can enhance family interaction, making employees more engaged in their jobs, and thereby improving their work efficiency. Continue to invest in public welfare initiatives, inviting children from the community companion reading class of the Ren Ching Community Service Association to partake in interesting activities.
	Christmas Philanthropic Concert	 2023.12 Organizer: RichWave Co-organizer: Public Health Bureau of Hsinchu County Government Sponsor: Kueiyen Enterprise, Yunhe Machinery, ACS, AWSC, Sigurd, SinMat, Lingsen Precision Industries, Albrite Advertising, Panther Technology, Chant World Technology, Giga Solution, Carsem (Suzhou) 20 volunteers 	 Over 300 people participated in one activity Donated NTD 88,000 to Rose Tombband to support its music and art creation Donated NTD 130,425 to Bluesky Home to help improve the quality of child care in the facility 	 Support domestic social welfare organizations through free music concert events and fundraising, donating to help youth halfway homes and Rose Tomb. Colleagues participated in volunteer groups and engaged in charity activities to enhance corporate identity and cohesion. Link to the concert video: https://www.youtube.com/watch?v=qxFKkpLTaqg



Career Counseling Public Welfare Activity:

Helped job seekers clarify career uncertainties, passing on knowledge, and fostering a cycle of benevolence.

RichWave values every talent and is committed to long-term talent cultivation activities. This year, the company proactively participated in the 104 "Be a Giver" social welfare activity organized by the 104 Job Bank. Colleagues from the HR Department participated in the offline "My Infinite Future" event on June 2, 2023, offering free resume check-ups, career counseling, and sharing of corporate job requirements as employers and career volunteers, providing diverse assistance to job seekers or career changers. Participation in this activity also showcases RichWave's corporate influence, assisting job seekers with career, resume, and interview-related issues, and promoting knowledge transmission and contribution. This in turn highlights corporate brand philosophy, enhances brand image, and increases visibility in talent recruitment.













Afforestation Program:

RichWave plants trees to foster ecologically sustainable development

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To fulfill our commitment to green sustainability and support the global goal of achieving net-zero carbon emissions by 2050, RichWave formed a volunteer team of 10 colleagues on March 26, 2023. The Company sponsored NT\$44,000 and collaborated with the organizing body, "Tse-Xin Organic Agriculture Foundation" (TOAF) to adopt and plant 80 trees.

From the explanation and demonstration by TOAF staff to the hands-on planting, participants learned that each tree can not only reduce carbon emissions by 10 to 15 kg CO₂e a year but also profoundly realized that it is not easy to plant and maintain a tree and that it requires physical effort and time to complete. In particular, Taiwan is an island nation surrounded by the sea on all sides, and the coastline is heavily affected by artificial development and erosion, resulting in severe coastal retreat and the disappearance of coastal forests. Through this event, we aim to raise awareness of and importance of tree planting and environmental conservation among our colleagues and the general public. By taking part in these efforts, we contribute to carbon reduction and make meaningful investments in creating a sustainable green environment for our planet.



立積電子股份有限公司 大德 揭助 新臺幣肆萬肆仟元整

謹此銘謝



西元 2023 年 03 月 15

















RichWave Family Day:

Family bonding to create a family-friendly workplace

For the inaugural RichWave Family Day, the company invited colleagues from Hsinchu and Taipei to bring their families to have a great time. RichWave also collaborated with "Ren Ching Community Service Association", inviting children from the community companion reading class to join in the fun!

For the inaugural "RichWave Family Day", the company organized a series of exciting activities, including introducing the history of RichWave, revealing the daily work of engineers, and visiting laboratories to experience the charisma of science. Through interactive learning activities, fun games, pop quizzes with prizes, and delicious feasts, we aim to help colleagues' children understand their parents' daily work, enhance family bonds, foster family harmony, ensure employees' peace of mind at home and allow them to enjoy their work, thereby improving their work efficiency.

























2023 RichWave Sustainability Report

Christmas Philanthropic Concert:

Spread love and care through music

Under the guidance of the Public Health Bureau of Hsinchu County Government, RichWave's "Music-Love-Life Seminar - Social Sustainability Christmas Charity Concert"featured performances by "Rose Tomb", a band long engaged in public welfare concerts. With support from the industry, schools at all levels, RichWave colleagues, and social welfare organizations were invited to participate in outstanding arts and cultural activities free of charge. We aim to utilize "music and love" to raise awareness about drug prevention, suicide prevention, and to offer a fresh perspective on life and adaptation during the post-pandemic period for teenagers, school teachers, students, and the general public. RichWave employees also responded by initiating small donation campaigns to support the sustainability of social welfare organizations. On the event day, the Catholic Hsinchu Diocese's Bluesky Home was invited to join the concert, bringing more positive energy to our society. By organizing the music concert, RichWave actively promotes sharing love to soothe the public's hearts and continues to assist disadvantaged groups and care for society. The activity generated revenue of NTD 329,658, after deducting an expenditure of NTD 111,233, NTD 130,425 and NT88,000 were donated to Bluesky Home and Rose Tomb, respectively.

RichWave's 2023 Christmas Philanthropic Concert video link: https://www.youtube.com/watch?v=qxFKkpLTagg





















Appendix:

GRI Standards Content Index

TCFD Standards Content Index

Sustainability Disclosure Index

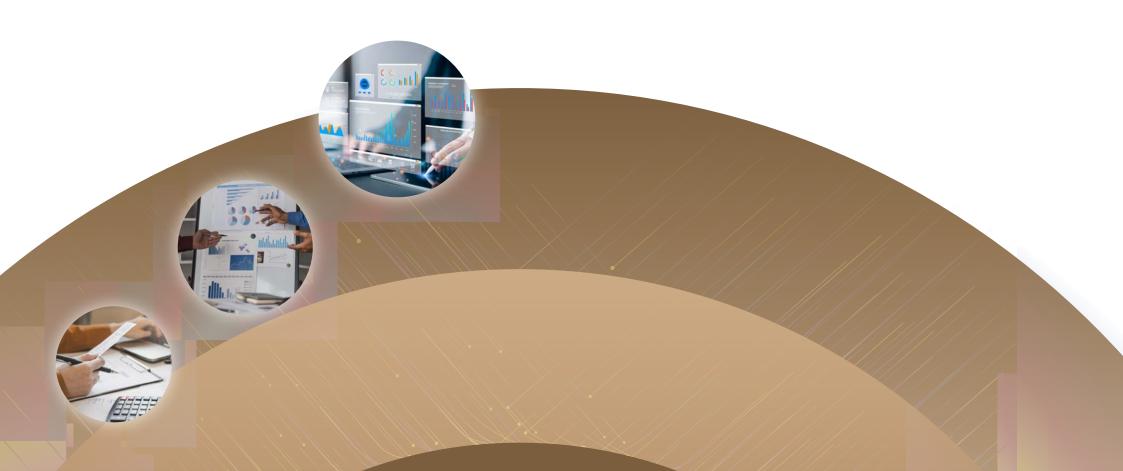
Summary of Assurance Items

Certified Public Accountant Limited Assurance Report

CHAPTER

* Chapter Highlight

- In 2023, the board of directors held a total of 5 meetings, with an average attendance rate of 98%; the attendance rate of the Audit Committee and the Remuneration Committee reached 100%.
- There were no cases of violating ethical corporate management in 2023 or. accusations of unethical corporate management behavior.
- In 2023, the number of employees received training on Ethical Corporate Management,
 Trade Secrets Protection, and Insider Trading prevention was 299 people, achieving a coverage rate of 99.7%.
- In 2023, 599 employees were trained for a total of 599 hours on information security.
- There were no penalties for violating environmental regulations in 2023.



GRI Standards Content Index

	GRI Standards Content Index
Terms of Use	RichWave has reported in accordance with GRI Standards for the period from 2023/1/1 to 2023/12/31
Applied GRI 1	GRI 1 Foundation 2021
Applicable industry GRI standards	None

GRI standards disclosure items					
GRI Standards	Disclosure items	Page	Supplementary description		
		General	disclosures		
	2-1 Organizational details	10			
	2-2 Entities included in the organization's sustainability reporting	5			
	2-3 Reporting period, frequency, and contact point	5			
	2-4 Restatements of information	-	Some of the environmental information is subject to change due to the inspection method, please refer to Chapter 5 Environmental Management.		
	2-5 External assurance	92			
GRI 2 General	2-6 Activities, value chain, and other business relationships	10. 42			
isclosures (2021)	2-7 Employees	50-51			
	2-8 Workers who are not employees	51			
	2-9 Governance structure and composition	25-27			
	2-10 Nomination and selection of the highest governance body	26			
	2-11 Chair of the highest governance body	25			
	2-12 Role of the highest governance body in overseeing the management of impacts	14			
	2-13 Delegation of responsibility for managing impacts	14			



	GRI standards disclosure items						
GRI Standards	Disclosure items	Page	Supplementary description				
	2-14 Role of the highest governance body in sustainability reporting	14					
	2-15 Conflicts of interest	28-29					
	2-16 Communication of critical concerns	30	No critical concerns in 2023.				
	2-17 Collective knowledge of the highest governance body	26					
	2-18 Evaluation of the performance of the highest governance body	26					
	2-19 Remuneration policies	52					
	2-20 Process to determine remuneration	52					
GRI 2 General disclosures (2021)	2-21 Annual total compensation ratio	-	The annual total compensation of the highest-paid individual due to job content, annual performance, profitability with the company, etc. To avoid misleading disclosure of information, only the salary-related information of nonsupervisory full-time employees who have been verified by the CPA is disclosed.				
	2-22 Statement on sustainable development strategy	3					
	2-23 Policy commitments	28-29					
	2-24 Embedding policy commitments	28-29					
	2-25 Processes to remediate negative impacts	28					
	2-26 Mechanisms for seeking advice and raising concerns	28					
	2-27 Compliance with laws and regulations	34					
	2-28 Membership associations	12					
	2-29 Approach to stakeholder engagement	15-18					
	2-30 Collective bargaining agreements	-	No collective bargaining agreements in 2023.				



GRI standards disclosure items							
GRI Standards	Disclosure items	Page	Supplementary description				
Material Topic							
GRI 3 Material Topics (2021)	3-1 Process to determine material topics	18					
GRT 3 Material Topics (2021)	3-2 List of material topics	18					
	Ethical ma	anageme	nt				
	3-3 Process to determine material topics	19					
GRI 205 Anticorruption (2016)	205-2 Communication and training about anti-corruption policies and procedures	29					
	205-3 Confirmed incidents of corruption and action taken	28	No corruption-related incidents in 2023.				
	Risk mar	nagemen					
GRI 3 Material Topics (2021)	3-3 Process to determine material topics	19					
	Supplier ma	anage m	ent				
GRI 3 Material Topics (2021)	3-3 Process to determine material topics	20					
GRI 308 Supplier Environmental Assessment (2016)	308-2 Negative environmental impacts in the supply chain and actions taken	42-44					
GRI 414 Supplier Social Assessment (2016)	414-2 Negative social impacts in the supply chain and actions taken	42-44					
	Energy ma	anageme	nt				
	3-3 Process to determine material topics	21					
	302-1 Energy consumption within the organization						
GRI 302 Energy (2016)	302-3 Energy intensity	70-72	The intensity calculation method is the ratio of total electricity consumption (kWh) at all business locations across Taiwan to floor area (m2).				
	302-4 Reduction of energy consumption	71-72					



GRI standards disclosure items						
GRI Standards	Disclosure items	Page	Supplementary description			
Customer health and safety						
GRI 416 Customer Health and Safety	3-3 Process to determine material topics	21				
(2016)	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	34, 45-46	No violations of health and safety regulations for products and services in 2023.			
	Marketing a	ınd labelir	ng			
	3-3 Process to determine material topics	22				
GRI 417 Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	46				
	417-2 Incidents of non-compliance concerning product and service information and labeling	34	No violation of product and service information and labeling laws and regulations in 2023.			
	Custome	r Privacy				
	3-3 Process to determine material topics	20				
GRI 418 Customer Privacy (2016)	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	34	No complaints about customer privacy violations in 2023.			
	Innovation n	nanageme	ent			
GRI 3 Material Topics (2021)	3-3 Process to determine material topics	22				
	Customer Relation	nship Man	agement			
GRI 3 Material Topics (2021)	3-3 Process to determine material topics	23				



GRI standards disclosure items								
GRI Standards	Disclosure items	Page	Supplementary description					
Other topics								
	GRI 200: Economy							
GRI 201 Economic Performance (2016)	201-1 Direct economic value generated and distributed	11						
GRI 204 Procurement Practices (2016)	204-1 Proportion of spending on local suppliers	44						
	GRI 300: Environment							
GRI 303 Water and Effluents (2018)	303-3 Water withdrawal	73						
	305-1 Direct (Scope 1) GHG emissions	69						
	305-2 Energy indirect (Scope 2) GHG emissions	69						
GRI 305 Emissions (2016)	305-3 Other indirect (Scope 3) GHG emissions	69						
	305-4 GHG emissions intensity	69						
	305-5 Reduction of GHG emissions	69-71						
	GRI 400: Society							
	401-1 New employee hires and employee turnover	51						
GRI 401 Employment (2016)	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	54-56						
	401-3 Parental leave	55						
	403-2 Hazard identification, risk assessment, and incident investigation	59						
	403-3 Occupational health services	61						
GRI 403 Occupational Health and Safety (2018)	403-5 Worker training on occupational health and safety	59						
ouisty (2010)	403-6 Promotion of worker health	60						
	403-9 Work-related injuries	58						

2023 RichWave

TCFD Standards Content Index

Risks and opportunities for the company arising from climate change and related measures taken by the company

Item	Disclosure	Chapter	Page
1	Describe the Board of Directors and management's oversight and governance of climate-related risks and opportunities	5.1 Climate change responses and GHG management – Governance	64
2	How do the identified climate risks and opportunities affect the company's business, strategy, and finance (short-, medium-, and long-term)	5.1 Climate change responses and GHG management - Strategy	65-68
3	The financial impact of extreme weather events and transformative actions	5.1 Climate change responses and GHG management - Strategy	65-68
4	How climate risk identification, assessment, and management processes are integrated into the overall risk management system	5.1 Climate change responses and GHG management - Governance and risk management	64
5	If scenario analysis is used to assess resilience to climate change risks, the scenarios, parameters, assumptions, analysis factors and major financial impacts used should be described	The company has not yet used scenario analysis to assess climate change risks	_
6	If there is a transition plan for managing climate-related risks, describe the content of the plan, and the metrics and targets used to identify and manage physical risks and transition risks	5.1 Climate change responses and GHG management - Metrics and targets	68
7	If internal carbon pricing is used as a planning tool, the basis for setting the price should be stated	The company does not use internal carbon pricing tools	-
8	If climate-related targets have been set, the activities covered, the scope of GHG emissions, the planning horizon, and the progress achieved each year should be specified. If carbon credits or renewable energy certificates (RECs) are used to achieve relevant targets, the source and quantity of carbon credits or RECs to be offset should be specified.	5.1 Climate change responses and GHG management - Metrics and targets	68

9

Item Disclosure

GHG inventory and assurance status, along with reduction targets, strategies, and specific action plans 1-1 The company's GHG inventory and assurance status over the last 2 years

1-1-1 GHG inventory information
Data scope: Parent company entity

GHG emissions (tonnes Co₂e)	2022	2023	Remarks
Direct emissions (Scope 1)	26.9953	29.0359	Category 1
Energy indirect emissions (Scope 2)	580.9381	554.6735	Category 2
Other indirect emissions (Scope 3)	141.9830	218.9705	Category 3+4
Intensity (tonnes CO₂e/NTD million)	0.1773	0.1956	Scope 1+2

For details, please refer to Chapter 5 (p.69)

- Note: 1. The company disclosed the total GHG emissions for 2022, with total Scope 1 and Scope 2 emissions of 607.9334 tonnes of CO₂e (accounting for 81% of the total emissions). The data is verified by a certifying body according to ISO 14064-1:2018 standards, with the assurance opinion being reasonable assurance.
 - 2. According to the third-party verification results on 2023/10/27, the 2022 GHG emissions have been adjusted as follows: Scope 2 emissions were revised from 597.1313 tCO₂e to 580.9381 tCO₂e, and Scope 3 emissions were revised from 142.9742 tCO₂e to 141.9830 tCO₂e.
 - 3. The company discloses the complete assurance information for 2023 on the corporate website (https://www.richwave.com.tw/zh/page.aspx?ld=5).
 - 4. The 2023 GHG emissions statistics in the report will be adjusted according to the third-party verified data in Q3 of 2024.

1-1-2 GHG assurance information

ltem	2022	2023
Assurance scope	Parent company entity	Parent company entity
Assurance institution	AFNOR	AFNOR
Assurance standards	ISO 14064-3	ISO 14064-3
Assurance opinion	Excluding qualified opinion	Excluding qualified opinion

Note: The company discloses the complete assurance information for 2023 on the corporate website (https://www.richwave.com.tw/zh/page.aspx?Id=5).

1-2 GHG reduction targets, strategies, and specific action plans

Please refer to 5.1 Climate Change Responses and GHG Management - Metrics and targets (p.68)

Sustainability Disclosure Index

Other Electronics Industry

Number	Sustainability Disclosure Index	Annual Disclosure Description	Unit	SASB number	Page
1	Total energy consumption	3569.3 GJ, please refer to "5.2 Energy Management" for details	Gigajoules (GJ)	TC-SC-130a.1	70
	Percentage of purchased electricity and utilization of renewable energy	The Company does not use renewable energy	Percentage (%)		
2	Total water withdrawal	Total water withdrawals 4,000m3, please refer to "5.3 Water Consumption"	m3	TC-SC-140a.1	73
	Total Water Consumption	RichWave does not operate a production plan, and water consumed consist only of domestic water for office use. Therefore, there are no statistics on water consumption.	m3		
3	Amount of hazardous waste from manufacturing	0.5290 metric tons, please refer to "5.4 Waste Management" for details	Metric tons (t)	TC-SC-150a.1	75
J	Percentage of hazardous waste recycled	95%, please refer to "5.4 Waste Management" for details	Percentage (%)		
4	Type, number, and rate of occupational hazards	There were no records of occupational hazards in 2023, please refer to "4.3 Occupational Safety and Health" for details	Percentage (%), Quantity	TC-SC-320a.1 TC-SC-320a.2	58
5	Product Lifecycle Management Disclosure: including the weight of scrapped products and electronic waste, as well as the percentage of recycling.	The Company's main business is the development and design of radio-frequency front-end chip devices, which are then manufactured by OEMs. The Company does not engage in direct production processes.	Ton (t), Percentage(%)	TC-SC-410a.1	-
6	Description of risk management associated with the use of critical materials	Please refer to "3.2 Sustainable Supply Chain - Raw Material Management" for details	Not applicable	TC-SC-440a.1	45
7	Total pecuniary losses incurred due to legal proceedings related to anti-competitive behavior regulations	No such incident occurred in 2023	NTD	TC-SC-520a.1	34
8	Production volume of major products by product category	The Company's main business is the development and design of radio-frequency front-end chip devices, which are then manufactured by OEMs. The Company does not engage in direct production processes.	By Product Type	TC-SC-000.A	-

Summary of Assurance Items

Item	Subject Information	Applicable Criteria	Page
1	In 2023, the execution rate of ESG related audits reached 100%, and the pass rate reached 100%.	The execution rate is obtained by dividing the number of audited cases in 2023 by the total number of cases to be audited. The pass rate is obtained by dividing the number of cases that have passed the audit by the total number of audited cases.	42
2	Customer Satisfaction Rating of 90% in 2023	To calculate the average customer satisfaction for 2023, the scores of each item in the Customer Satisfaction Questionnaire that were actually distributed and returned with valid responses were simply averaged and converted into a percentile to obtain the average customer satisfaction score.	48
3	In 2023, RichWave organized numerous professional and general knowledge courses across different disciplines, training a total of 2,089 persons and accumulating 3,241.5 hours of training.	Total number of attendances and total number of hours of education and training for all regular employees (including those who separated from the Company in 2023) in 2023.	53
4	Local procurement accounted for 70.3% of total procurement in 2023.	Percentage of accepted Taiwan procurement amount in 2023 to total accepted procurement amount in 2023.	44
5	The Board of Directors' meeting was convened 5 times in 2023, achieving an average attendance rate of 98%.	The average attendance rate for the Board of Directors' meetings in 2023 is obtained by dividing the total number of actual attendees by the total number of scheduled attendees for all Board meetings held during the year.	26

Certified Public Accountant Limited Assurance Report

Independent Limited Assurance Report

To RichWave Technology Corporation

We have been engaged by RichWave Technology Corporation ("Company") to perform assurance procedures in respect of the key performance indicators identified by the Company and reported in the 2023 Sustainability Report (hereinafter referred to as the "Identified Key Performance Indicators") and have issued a limited assurance report based on the result of our work performed.

Subject Matter Information and Applicable Criteria

The subject matter information is the identified Key Performance Indicators of the Company. The Identified Key Performance Indicators and the respective applicable criteria are stated in the "Summary of Subject Matter Assured" on page 92 of the Sustainability Report. The scope of the aforementioned Identified Key Performance Indicators is set out in the "About the Report" on page 5 of the Sustainability Report.

Management's Responsibility

The Management of the Company is responsible for the preparation of the Identified Key Performance Indicators disclosed in the Sustainability Report in accordance with the respective applicable criteria. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of the Identified Key Performance Indicators that are free from material misstatement, whether due to fraud or error.

Inherent Limitations

Certain subject matter information assured involves non-financial data which is subject to more inherent limitations than financial data. Qualitative interpretations of the relevance, materiality and the accuracy of data are more dependent on individual assumptions and judgments.

Compliance of Independence and Quality Management Requirement

We are independent of the Company in accordance with the Norm of Professional Ethics for Certified Public Accountant of the Republic of China, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies the Standard on Quality Management 1, "Quality Management for Public Accounting Firms" of the Republic of China, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Identified Key Performance Indicators based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with the Standard on Assurance Engagements 3000, "Assurance Engagements other than Audits or Reviews of Historical Financial Information" of the Republic of China. This standard requires that we plan and perform this engagement to obtain limited assurance about whether the Identified Key Performance Indicators are free from

Under the requirements of the aforementioned standards, our limited assurance engagement involves assessing the suitability in the circumstances of the Company's use of the criteria as the basis for the preparation of the identified Key Performance Indicators, assessing the risks of material misstatement of the Identified Key Performance Indicators whether due to fraud or error, responding to the assessed risks as necessary in the circumstances and evaluating the overall presentation of the Identified Key Performance Indicators. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

The procedures we performed were based on our professional judgment and included inquiries, observation of processes performed, inspection of documents, and agreeing or reconciling with

Given the circumstances of the engagement, in performing the procedures listed above, we:

- Made inquiries of the persons responsible for the Identified Key Performance Indicators to obtain an understanding of the processes, and the relevant internal controls relating to the preparation of the aforementioned information to identify the areas where there may be risks of material misstatement;
- . Based on the above understanding and the areas identified, performed analytical procedures on the Identified Key Performance Indicators and performed substantive testing on a selective basis, including inquiries, observation, inspection, and reperformance to obtain evidence for limited assurance.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance opinion about whether the Company's Identified Key Performance Indicators have been prepared, in all material respects, in accordance with the respective applicable criteria.

We also do not provide any assurance on the Sustainability Report as a whole or on the design or operating effectiveness of the relevant internal controls.

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Identified Key Performance Indicators in the Sustainability Report are not prepared, in all material respects, in accordance with the applicable criteria.

The Management of the Company is responsible for maintaining the Company's website. We have no responsibility to re-perform any procedures regarding the Identified Key Performance Indicators after the date of our assurance report, even if the Identified Key Performance Indicators or the applicable criteria have been subsequently modified.

Li, Tien-Yi

For and on behalf of PricewaterhouseCoopers, Taiwan July 17, 2024



