



2022

Realtek

ESG Report



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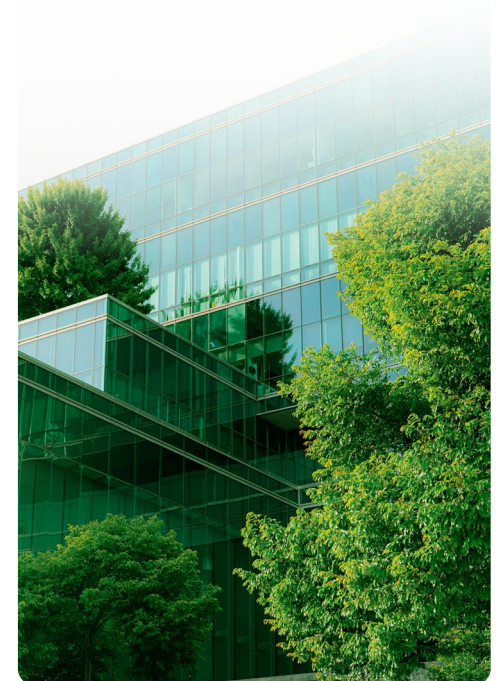
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Foreword

About this Report

This report is the 7th ESG Report (CSR Report) issued by Realtek Semiconductor Corp. (hereinafter referred to as Realtek Semiconductor or Realtek), which discloses the implementation results of Realtek in terms of economy, environment and people (including their human rights), provides appropriate, true and sufficient information to the stakeholders of Realtek through the report, and understands the actions and achievements of Realtek in corporate sustainable development.

■ Reporting Period

The report covers the period from January 1, 2022 to December 31, 2022. This report is issued in June 2023, and the content of the report is fully published in the corporate sustainability section on the official website of Realtek. In the future, the company will continue to issue ESG report regularly every year to present our actions and achievements in implementing corporate sustainable development.

■ Editorial Policy

This report was prepared in accordance with the 2021 GRI Standards issued by the Global Reporting Initiative (GRI). It also referred to the Taiwan Stock Exchange Corporation's 'Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies', the Sustainability Accounting Standards Board's (SASB) disclosure standards for the semiconductor industry, the Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosures (TCFD), and the United Nation's (UN) Sustainable Development Goals (SDGs).

■ Scope of Disclosure

The scope of the information disclosure is based on the individual information of Realtek Semiconductor Corp., some of which cover the global subsidiaries (please refer to the 2022 Annual Report for the list of subsidiaries). This report focuses on the three major issues of economy, environment and people. The information on some corporate governance issues covers Realtek Group. The environmental aspects are based on the Company's operation in Taiwan. The financial data are all in line with the historical financial reports. The 2022 financial report has been audited by PwC Taiwan. Please refer to the notes to the report for detailed disclosures. In the future, disclosure of important information of Realtek's global locations will be gradually included. Materiality analysis procedures are applied to this report to identify the issue of concern to the stakeholders as well as the opportunities and risks associated with Realtek's operation in terms of economic, environmental and people issues, which then become key disclosure points for presenting Realtek's sustainable operational performance and corporate sustainability results.

Note : For group-wide organization, please refer to the [2022 Annual Report](#).

■ Management Methods

The information in this report is compiled by Realtek's Sustainability Committee based on the content planned or implemented by the business unit in the field of sustainable development, and then reviewed and confirmed by the Sustainability Committee, ESG Center and senior management, and finally the report is submitted to the President for approval before being issued.

■ Report Audits and External Assurance

This report was verified by TUV NORD Taiwan, an independent third-party verification organization, to ensure the report is in accordance with the four AA1000 principles: inclusivity, materiality, responsiveness, and impact. This report was confirmed compliance with AA1000 AS Assurance Standard Type 1 moderate level of assurance. An assurance statement is shown in Appendix – **Assurance Statement**.

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■ Conforming to International Indicators and Initiatives

In order to align with international sustainability trends, Realtek considered a wide range of international sustainability indicators and external initiatives as reference for promoting sustainable development and advancing related practices. In 2023, Realtek will utilize corporate social standards such as the Social Accountability 8000: 2014 Standard and Responsible Business Alliance (RBA) code of conduct to assess our progress and management effectiveness in areas such as labor, health and safety, ethics and the environment. The company will further conduct professional external verification to practice sustainable development of Realtek.

- The Sustainable Development Goals (SDGs) of the United Nations
- Task Force on Climate-related Financial Disclosures (TCFD)
- Sustainability Accounting Standards Board (SASB)
- Carbon Disclosure Project (CDP)
- Dow Jones Sustainability Index (DJSI)
- MSCI ESG Index
- FTSE Russell Index
- Responsible Business Alliance, RBA Code of Conduct
- ISO 26000 Social Responsibility Guidance
- ISO 22301 Business Continuity Management
- SA8000:2014 Social Accountability Standard
- ISO 27001 Information Security Management System
- Conference of the Parties, COP
- The Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC AR6)
- Bloomberg Environmental, Social, and Governance Survey (Bloomberg ESG Survey)
- Sustainalytics ESG Ratings
- Responsible Minerals Initiative (RMI)

From the President

To all partners and friends with an interest in the sustainable development of Realtek:

2022 marked the 36th anniversary of Realtek Semiconductor Corporation, and another year of achieving record-breaking results! We would like to express our sincere gratitude to our partners and friends from various sectors for their continuous attention, support and care, as well as for their long-lasting contribution to the development and growth of the company.

Realtek recognizes that the sustainable operation of an enterprise is inseparable from the steady and diverse development of the world. Therefore, we have established and continued to develop various sustainable operation management policies that are in line with the international initiative, practicing ethical management, implementing environmental sustainability, developing and cultivating talents, promoting social inclusion and responding to the global common good philosophy. The 2022 Realtek ESG Report presents sustainable development issues we focus on, aligning the global sustainable development and responding to the expectations of internal and external stakeholders. Through systematic and in-depth review of material sustainable issues, we have developed sustainable operation actions and short-, medium- and long-term goals; Realtek have faithfully presented the sustainable strategies and significant progress we have implemented, and incorporated them into the Realtek's ESG Report for all stakeholders and partners to read and understand.

In 2022, Realtek paid close attention to the changes in the pandemic, actively put forward the comprehensive operational response plan, and promoted internal pandemic prevention measures and risk management. Additionally, we place great emphasis on the issues of global climate change, and proactively responded to the international net zero initiative. In order to achieve the goal of sustainable operation and jointly mitigate the climate change crisis caused by the greenhouse gas emission, Realtek has committed to achieving the major goal of net zero carbon emission by 2050. It plans to gradually reduce total carbon emissions and achieve net zero emissions by continuously developing low-carbon products, improving energy efficiency of equipment, construction and certification of office buildings in accordance with green building standards, increasing the use of renewable energy, and implementing supply chain carbon reduction target management. In concerted efforts with global supply chain partners, we attach importance to climate change issues, jointly seek innovation and breakthroughs, contribute to the improvement of human well-being, and work together to move forward for global sustainable development.

Sound Management, R&D and Innovation, and Corporate Governance

Ethical management, innovation, and R&D form the core foundations of sustainable development of Realtek. We adhere to the belief of self-confidence, trusting in people, teamwork, innovation and vitality to implement stable operations through sound management. Realtek has continued to deliver technology breakthroughs and develop innovative products to provide customers with the best integrated solutions. We have developed market-leading products and continued to create greater value for customers and end users in various fields. In terms of economic performance, in 2022, Realtek's annual revenue reached TWD111.79 billion, up 6.0% from the previous year, and again reaching a record high in annual revenue. In terms of product innovation and R&D achievements, the Company has continuously won a number of domestic and foreign awards, including the "Best Choice Award – Best Product of the Year Award", "Best Choice Award – Gold Award", "Best Choice Award – IC and Component Category Award" and 31st "Taiwan Excellence

Award" at COMPUTEX Taipei. In addition, we continued to invest in innovation and R&D resources to enhance our intellectual property patent portfolio, resulting in a steady growth of the number of pending and approved domestic and foreign patents, as well as the recognition of the "2022 Top 100 Global Innovators" by Clarivate, demonstrating the Company's excellent capabilities in continuous innovation and our contribution to promoting industrial progress with technological innovation.

For the past 36 years, based on the principle of sound and ethical management, Realtek has continuously strengthened the functions of the Board of Directors. Further, through a careful and prudent corporate management strategic planning, combined with the implementation of corporate governance by various responsible departments within the organization, we ensure the operation process of the organization to be in line with the sustainable development direction, implement legal compliance and risk management, improve the transparency of information disclosure, safeguard the interests of shareholders, respect and protect human rights. Meanwhile, we openly communicate ESG-related issues with stakeholders. Corporate governance and ethical management are key tasks and responsibilities in our fulfillment of corporate sustainable development. We will continue our efforts and share results in the future.

Talent Development Strategy and Corporate Culture

Realtek is a knowledge and technology intensive semiconductor IC design industry, where talent and intellectual property are the most important resources. These are the driving force behind the advancement and cornerstone of deepening the company's sustainable competitiveness. Over the years, Realtek has continuously pursued talent development strategies to enhance innovation and optimize the organizational competitiveness, in order to respond to short-, medium-, and long-term operational and strategic development needs. Our human resource policy is based on valuing and respecting talent. Safety and happiness are as important as work quality, and values "learning and development to strengthen organizational effectiveness," and promote "Innovation and service to achieve the full participation and value creation for all." In terms of knowledge and innovation development, the Realtek Corporate University offers six academies with various training programs for the continued development and reinforcement of organizational learning and competitiveness. In 2022, we continued to expand campus collaboration capacity and industry-academic exchanges, established the "Enterprise Internship Creative Academy" to carry out diversified talent deployment strategies and cultivate future science and technology professional talents for the country. Realtek attaches great importance to the work-life balance of employees to combine diverse employee welfare benefits and create a friendly work environment while advancing the spirit of teamwork and energy. We also implement employee health care services and environmental testing projects to provide employees with a safe and reliable working environment.

Realtek's corporate culture is defined by self-confidence and trust in people, teamwork, innovation, and vitality. Self-confidence comes from professionalism, while trust in people derives from sharing, belief in the team, and helping others. Teamwork comes from members coordinating with and supporting the team spontaneously of their own volition. Innovation arises from leadership and breakthroughs that actively create new value, new fields, and new opportunities. Vitality is about proactivity and passion. We believe that our organizational culture provides consensus on direction of development and successful collaboration within the organization. Its practice by every Realtek employee is behind our unique and sustained competitive advantages.

Product Responsibility and Environmental Protection– Implementing Green Pledges

Realtek deeply recognizes the impact of global climate change and the substantive impact and changes brought to the world by issues such as natural resource depletion. Over the years, we have been paying close attention to environmental issues such as climate change and greenhouse gas emissions, formulating environmental sustainability policies, and making every effort to implement green commitments. From innovation to R&D of green products, reducing carbon emissions, saving water resources, improving energy efficiency and implementing waste management, we incorporate various environmental management measures into the overall operation process of the organization; we continuously implement improvement plans and have obtained the SONY Green Partner Certification and the ISO 14001 international standard certification to demonstrate responsibilities of environmental sustainability and achieve Realtek's excellent green commitment and environmental management performance.

In terms of green products, Realtek incorporates the concept of green energy in the R&D and design stage. Our commitment to environmental protection is reflected in our innovative R&D process of IC circuit design and throughout the supply chain. In the course of product innovation and pursuing stable growth and profitability, we also simultaneously pursue and implement the improvement of product durability and the reduction of energy use during the product life cycle, making practical contributions to the global energy saving and carbon reduction initiatives and goals. To this end, in 2022, Realtek officially implemented the Task Force on Climate-Related Financial Disclosures (TCFD) project to improve the mechanism of the climate change management. Through a comprehensive process of identifying risks and opportunities of climate change, the Company quantifies the financial impact of climate change issues, gain a clear understanding of the overall picture of climate change risks and opportunities, and actively address potential challenges and opportunities related to climate change, so that the impact of each climate change can be effectively monitored, controlled and responded in advance to grasp the opportunities for operational development and innovation. At the same time, we continue to advocate environmental protection issues and promote education and training, and reach a consensus on environmental protection responsibility among all employees through systematic management to implement environmental sustainability goals in practice.

Social Care and Sustainability Outlook – Common Prosperity with the Global Society

Fulfilling corporate citizenship is one of Realtek's operational goals. We plan to carry out social care projects, taking into account diversity and inclusion, and specific needs, and continue to integrate resources such as funds, manpower and supplies to practice corporate social citizenship participation. The program encompasses six major areas: youth growth and safety care for women and children, rural community care and educational assistance, social mutual aid actions, academic research and social institution sponsorship, charity projects, and individual cases, to practice social participation and create social prosperity.

In 2022, Realtek cooperated with the "Trees for Humanity" project of OldTree to jointly promote the education of knowledge on protecting trees, and brought natural environmental knowledge

to children and root in the concept of environment friendliness through learning and interactive inspiring activities. In addition, Realtek invested resources to support the "Accomdemey" community, and invited employees and their children to participate in the "IoT Robotic Arm Hackathon" parent-child educational course, so as to transform the technological expertise of Realtek itself and its community partners into simple and understandable knowledge sharing and transmission, and enhance parent-child relationship through entertainment. With its own technological innovation, application and service advantages, Realtek continued to invest in social participation issues, collaborating with various professionals and stakeholders to stimulate and create positive influence of new corporate social citizens.

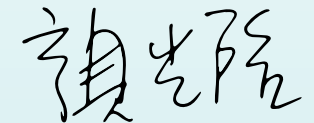
Last but not least, Realtek understands the expectations and needs of various stakeholders and deploy the blueprint for sustainable development. We will adhere to the positive, rigorous and prudent approach, continue to promote sustainable development, and achieve sustainable operation through practical actions. We would like to express our gratitude to our partners for their continuous interest to Realtek Semiconductor, and to work with us to support global sustainable development initiatives.

Realtek's Corporate Sustainable Development Goals and Commitments are as follows:

- Commitment to sustainability goals, honesty, and integrity
- Implementation of green energy policies and environmental responsibility
- Sustainable talent development and a safe environment
- Active cooperation on service and quality requirements
- Innovation and R&D to enrich the world and improve convenience
- Continued progress to warm the hearts of more people

We are dedicated to ensuring the sustainable development and putting our utmost effort into our organization. We integrate the principles of sustainability into our operational policies and goals, makes sustainability part of the mindset of every Realtek employee. We strive together to implement and fulfill Realtek's sustainable development goals and commitments!

Realtek Semiconductor Corp.
President



Yen, Kuang-Yu

External Recognition and Awards

Realtek Award Record

Top 100 Global Innovator



In 2022, Realtek was selected as one of the “Top 100 Global Innovators” by Clarivate for the first time. We have become a facilitator of smart connection to the world. In consideration of innovation in the global and sustainable development of the enterprise, we have created greater value for customers and end users in various sectors. We constantly strive to overcome technological bottlenecks, optimize product design, and develop comprehensive solutions with higher speed, higher integration and lower power consumption, jointly promote industrial progress with continuous excellent innovation capabilities and breakthrough technology.

Named “All-Asia Executive Team” by Institutional Investor

In 2022, Realtek was honored with several awards in the Asia Technology/Semiconductor sector of the Institutional Investor rankings, including the Best CEO, Best Investor Relations Manager and Best Investor Relations Program and other awards in the Small/Mid-Cap category.

BC Award – Best Choice of the Year Award and Golden Award



Realtek's AI super resolution fidelity recovery IC (RTD2892NND) won the BC Award – Best Choice of the Year Award and Golden Award at “2022 COMPUTEX Taipei”.

Taiwan Excellence Award



Realtek's 2.5 Gigabit Ethernet controller won the 31st Taiwan Excellence Award.

BC Award – IC and Component Category Award



Realtek's Bluetooth dual mode audio watch solution (RTL8763E) won the BC Award – IC and Component Category Award at “2022 COMPUTEX Taipei”.

2022 Innovation Product Award from Hsinchu Science Park Administration



Realtek's first Edge AI USB controller (RTS5863) with edge computing power was awarded the 2022 Outstanding Factory Innovation Product Award from Hsinchu Science Park Administration.

■ Outstanding Performances by Realtek Employees

2022 Outstanding Employee Award of Hsinchu Science Park



R&D Center
Lin, Chien-Ju (Senior Director)



Intelligent Decision Research Center
Kuo, Patricia (Manager)



Corporate Technology Center
Lu, Yen-Ju (Director)



Computer Peripheral Business Group
Tu, I-Chang (Deputy Director)



Communications Network Business Group
Huang, Chung-Jung (Deputy Director)

2022 Hsinchu District Outstanding Manager Award



Supplier Management Center
Wang, Wen-Cheng (Director)



Realtek 2022 Sustainability Performance Highlights



Environment

- In 2022, energy intensity decreased by **0.6%** from previous year
- 2022 overall energy saving rate of **5.3%**
- Expand ISO 14064-1: 2018 scope of inventory and verification in 2022
- In 2022, the recycling rate of discarded IC products surpassed **90%**
- 2022 water saving rate of **8.5%**
- Realtek's biomedical park office recognized as a Taiwan Green Building **gold** candidate



Corporate Governance

- 2022 consolidated revenue of NT\$**111.79** billion, hit a new record high
- 2022 consolidated revenue increased by **6.0%** from the previous year
- 2022 cash dividend of NT\$**26**
- Number of patents granted and applied by the Group increased by **1,144** in 2022
- Ranked **4th** among Taiwanese enterprises for the number of domestic patents granted in 2022
- The Board of Directors' performance evaluation results are **excellent**
- **100%** attendance rate of all functional committees in 2022
- **100%** of suppliers signed the Supplier Code of Conduct
- **100%** of suppliers provided required information to the management system of supplier conflict mineral reporting
- In 2022, **no** complaints were filed against the Company
- In 2022, **no** complaints were filed against the Company for bribery or corruption
- In 2022, the Company did **not** receive any significant fines
- In 2022, the Company did **not** have any cases reported involving confidential information leakage
- Ranked in the top **6% to 20%** amongst the listed companies in the 9th Corporate Governance Evaluation Results
- Listed as **a constituent stock in the 'TWSE Corporate Governance 100 Index'**
- Named "All-Asia Executive Team" by Institutional Investors
- In 2022, selected as **Top 100 Global Innovator by Clarivate**
- Realtek's AI super resolution fidelity recovery IC (RTD2892NND) won the **2022 BC Award – Best Choice of the Year Award and Gold Award**
- Realtek's Bluetooth dual mode audio watch solution (RTL8763E) won the **2022 BC Award – IC and Component Category Award**
- Realtek's 2.5 Gigabit Ethernet controller won the **31st Taiwan Excellence Award**



Social

- In 2022, the Company's investment on industry-academic cooperative research plans increased by **150%** compared with the previous year
- Realtek group's employee benefit expenses **continued to exceed NT\$100** million in 2022
- In 2022, the Company ranked **4th** in the Taiwan Stock Exchange's average employee salary ranking
- Average education and training hours per employee in 2022 were 16.9 hours, **18.5%** higher than the previous year
- Named as a constituent stock in the 2022 Taiwan **'High Compensation 100 Index'**
- Named as a constituent stock in the 2022 Taiwan **'Employment Creation 99 Index'**
- In 2022, the Company did **not** receive any complaints related to the handling of confidential information of customers, suppliers, or employees
- **30** classes were added for the 2022 Charitable Project to Promote Reading for Rural Children

Stakeholders Integration and Engagement

Stakeholder Identification

Realtek Semiconductor referred to the AA1000 Stakeholder Engagement Standard (AA1000 SES) drawn up by the global non-profit organization 'AccountAbility'. A comprehensive inventory of all types of stakeholders related to the Company operations was taken with reference to the key points related to stakeholders in the GRI standards. Then, Realtek's ESG Center conducted an AA1000 SES survey to identify the major stakeholders of its sustainable development based on five key principles (dependency, responsibility, influence, diverse perspectives, and tension), including customers, employees, suppliers, governments, external rating agencies, and investors. Following the stakeholder identification, the Company formulated effective communication strategies and channels suited for each stakeholder.



Customers

In the pursuit of outstanding product service quality, Realtek provides comprehensive system solutions for better customer satisfaction. As part of a commitment to foster long-term relationships with customers, the Company offers a wide range of win-win products and services.

An average of over 100 customer survey of green products/environmental protection requirements were conducted monthly

Communications Channels	Communications Frequency	Related Documents	Most Concerned Issues	Realtek's Response
CSR, RBA related survey	Annually	Customer audit records	<ul style="list-style-type: none"> Innovative R&D and product due diligence Customer relationship management Economic performance Supplier sustainability management Information security 	CH1 Sustainable Governance CH2 Innovative Value CH4 Sustainable Value Chain
Customer quality control audit	Ad hoc	Customer audit records		
Business meetings	Weekly	Meeting minutes		
Customer GP/ environmental protection requests	Ad hoc	Customer specification records		
Customer satisfaction survey	Annually	Customer response records		
Customer & supplier meetings	Annually	Meeting content		
Distributor meetings	Monthly	Meeting minutes		
Customer complaint RMA	Ad hoc	RMA records		
Face-to-face interviews	Ad hoc	Interview records		

Stakeholder Communication

Realtek's website contains a stakeholder section with a dedicated e-mail address for communications: Any questions or suggestions can be sent to the mailbox: RT_ESG@realtek.com.

For the six key stakeholders, the Company adopts different methods of engagement and communications: one-way, two-way, one-to-many, or many-to-one. Based on the survey results, we analyze responses provided by various shareholders to rank the level of interest in each sustainability issue. More information is contained below.





Employees

The Company firmly believes that talents in each field are the most important core assets for the company's sustainable operations. By strengthening employee training, enhancing employee welfare policies, promoting employee relations, and implementing corporate social responsibility practices, Realtek builds an organization capable of nurturing talent development, thereby expanding innovation growth and service momentum, effectively exerting professional knowledge and skills as well as leading the sustainable development of Realtek.

4 Organizational Communication Meetings and 4 Employee Welfare Committee Meetings in 2022

Communications Channels	Communications Frequency	Related Documents	Most Concerned Issues	Realtek's Response
Organizational communication meetings (Labor Conference)	Quarterly	Organizational communication meeting minutes	<ul style="list-style-type: none"> Talent attraction and development Economic performance Labor Relations Innovative R&D and product due diligence Occupational health and safety 	CH1 Sustainable Governance CH2 Innovative Value CH5 Inclusive and Happy Workplace
Employee performance interviews	Biannually	Employee performance review records		
Employee Welfare Committee meetings	Quarterly	Meeting minutes		
Internal communication channels	Ad hoc	E-mails, posters, photos, notices and announcements, etc.		
Realtek forums	Ad hoc	Realtek forums system platform		
Realtek's new employee training camps	Ad hoc	New employee training camp teaching materials		
Realtek's seminars for management and professionals	Ad hoc	Meeting manual		



Suppliers

Realtek's suppliers in various fields are critical partners contributing towards the Company's sustainable operations. By continuously strengthening cooperation in product quality, technical capabilities and overall competitiveness, Realtek has built a sustainable supply chain for mutual benefit and win-win situation.

468 Regular Supplier Meetings in 2022

Communication Channels	Communication Frequency	Related Documents	Most Concerned Issues	Realtek's Response
Document review	Upon adding new supplier	Supplier evaluation forms	<ul style="list-style-type: none"> Economic performance Risk management Innovative R&D and product due diligence Supplier sustainability management Information security 	CH1 Sustainable Governance CH2 Innovative Value CH4 Sustainable Value Chain
On-site audits	Annually	Supplier audit records		
Regular supplier meetings	Weekly or monthly	Meeting manual		



Government Agencies

Policies and guidelines issued by government agencies are important references when determining Realtek's business operations and strategic planning. Realtek has always maintained effective communication channels with government agencies. The Company complies with regulations, follows government guidelines, and fulfills corporate governance responsibilities.

11 Government Agency Meetings in 2022

Communication Channels	Communication Frequency	Related Documents	Most Concerned Issues	Realtek's Response
Market Observation Post System	Ad hoc	Announcements	<ul style="list-style-type: none"> Information security Corporate governance and regulatory compliance Innovative R&D and product due diligence Supplier sustainability management Talent attraction and development 	CH1 Sustainable Governance CH2 Innovative Value CH4 Sustainable Value Chain CH5 Inclusive and Happy Workplace
Relevant policies	Regular and ad hoc	Announcements, press releases from government agencies, letters		
Government official website	Monthly	Reporting system		
Government Public Policy Code	Biannually	Regulatory checklists		
Anti-epidemic related returns	Monthly	Letters		



External Rating Agencies

The key successful factors behind a company's sustainable operations can be evaluated from economic, environmental, and people perspectives. Realtek analyzes rating reports issued by international rating agencies to determine key areas for improvement and to strengthen ESG performance. The objective is to reduce the environmental impact of the Company's operations, grasp material issues of social concerns, and strengthen corporate governance. Through fair and transparent disclosures, we share the results of Realtek's efforts in corporate sustainable management.

4 External Rating Agencies and 25 Interviews in 2022

Communication Channels	Communication Frequency	Related Documents	Most Concerned Issues	Realtek's Response
Telephone interviews	Ad hoc	Telephone interview records	<ul style="list-style-type: none"> Corporate governance and compliance Risk management Innovative R&D and product due diligence Environment sustainability and climate change response Supplier sustainability management 	CH1 Sustainable Governance CH2 Innovative Value CH3 Green Operations CH4 Sustainable Value Chain
Mail	Ad hoc	Mailing records		
Disclosure of ESG reports	Ad hoc	Website downloads		
Websites of external rating agencies	Ad hoc	Issue communication records		



Investors

Creating value for shareholders and investors is one of the core goals of a company's sustainable operation. To grasp the first opportunities in the highly changing industry, Realtek continues to pay attention to the international political development, gains insight into the development trend of the global semiconductor industry, and through two-way communication with stakeholders and external rating agencies, analyzes the issues that investors and shareholders are concerned about, and formulates corresponding improvement plans within the company to strengthen various ESG sustainability indicators of the company, so as to achieve the goal of the company's sustainable business growth, eventually reflecting the enterprise value and stabilizing the confidence of investors and shareholders.

Over 300 Domestic Meetings and 30 Foreign And Domestic Investor Forums

Communication Channels	Communication Frequency	Related Documents	Most Concerned Issues	Realtek's Response
Annual general shareholders' meeting	Annually	Shareholders' meeting agenda and meeting minutes	<ul style="list-style-type: none"> Risk management Corporate governance and compliance Economic performance Information security Customer relationship management Environmental sustainability and climate change response 	CH1 Sustainable Governance CH3 Green Operations CH4 Sustainable Value Chain
Quarterly earnings calls (investor conference)	Quarterly	Financial information from earnings calls published on the Market Observation Post System		
Monthly revenue reports	Monthly	Market Observation Post System and the Realtek website		
Domestic conferences	Ad hoc	Investors visiting the company in person or joining conference calls		
Foreign and domestic investor forums	Ad hoc	Financial information from investor conferences published on the Market Observation Post System		

Corporate Spokesperson

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External
 Stakeholder
 Communication
 Channels



Material Issue Analysis

Identification Procedures

Realtek values the issues relevant to the Company and concerns of various stakeholders. In order to make the content presented in the ESG Report align with the expectations of stakeholders, Realtek follows the 2021 edition of Global Reporting Initiative (GRI) Standards, distributed questionnaires to investigate the sustainability issues concerned by internal and external stakeholders, then the company determined the material issues of 2022 through identification, analysis and internal and external ranking, and create a matrix of material issues, which clearly present the distribution of issues that stakeholders attach importance to, and assisting Realtek effectively grasp the inter-relationship and intensity among material issues. It also enable the company to continuously monitor the trends of various important issues and develop the responses accordingly. Detailed steps are taken as follows:

Step 1. Summarize Sustainability Issues

Sustainability issues were collected and considered the Corporation Rules Governing the Preparation and Filing of Sustainability Reports issued by the Taiwan Stock Exchange Corporation (TWSE), the Global Reporting Initiative (GRI) Standards and international mainstream sustainability indicators, such as the United Nations Sustainable Development Goals (SDGs), Sustainability Accounting Standards Board (SASB) standards, Task Force on Climate-related Financial Disclosures (TCFD), MSCI ESG Ratings, etc., industry-specific issues, domestic and international sustainability rating concerns, and references the perspectives of leading sustainable companies. Additionally, the communication records with stakeholders on regular basis, a total of 15 sustainability issues were summarized, including corporate governance, economy, environment, climate change response, people, public welfare, customer relationships, employee care, etc., as the subject of material issues investigation.

Step 2. Investigate Sustainability Issues

Through the questionnaire surveys, the Company determined the degree of interest that shareholders held towards the material issues. The Sustainability Development Committee assessed the impact of each sustainability issue on the three main aspects (economy, environment and people), the importance of affecting the operation of the company, the possibility and reversibility^(Note) of negative impact. For this year, we collected a total of 115 valid questionnaires, including 98 focused on the degree of interest, and 17 focused on the impact.

Note : Reversibility refers to the extent to which a negative impact event can be reversed by investing resources after it occurs.

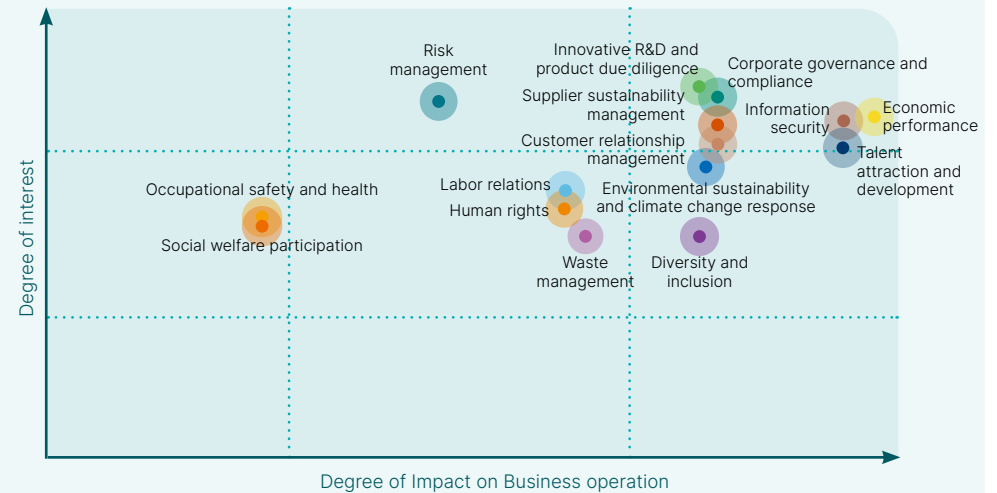
Step 3. Sorting Material Issues

Based on the degree of stakeholder concerns and operational importance in the Step 2 survey, a matrix analysis was conducted to select 10 sustainable issues with high operational impact and importance. These included innovative R&D and product due diligence, corporate governance and compliance, information security, economic performance, talent attraction and development, supplier sustainability management, customer relationship management, environmental sustainability and climate change response, risk management, diversity and inclusion.

In response to these 10 sustainable issues, through the ranking of positive impacts and negative impacts on the economy, environment and people, and the ESG Committee and senior management of Realtek hold discussion to select 8 material sustainability issues for Realtek in 2022. Compared with the material sustainability issues identified in 2021, we added the “customer relationship management” issue, further revealing Realtek’s investment and achievements in customer relationship.

Material Sustainability Issues	Basic Sustainability Issues
Innovative R&D and product due diligence	Risk management
Environmental sustainability and climate change response	Diversity and inclusion
Corporate governance and compliance	Labor relations
Information security	Waste management
Economic performance	Occupational safety and health
Talent attraction and development	Human rights
Supplier sustainability management	Social welfare participation
Customer relationship management	

Realtek's 2022 Materiality Matrix

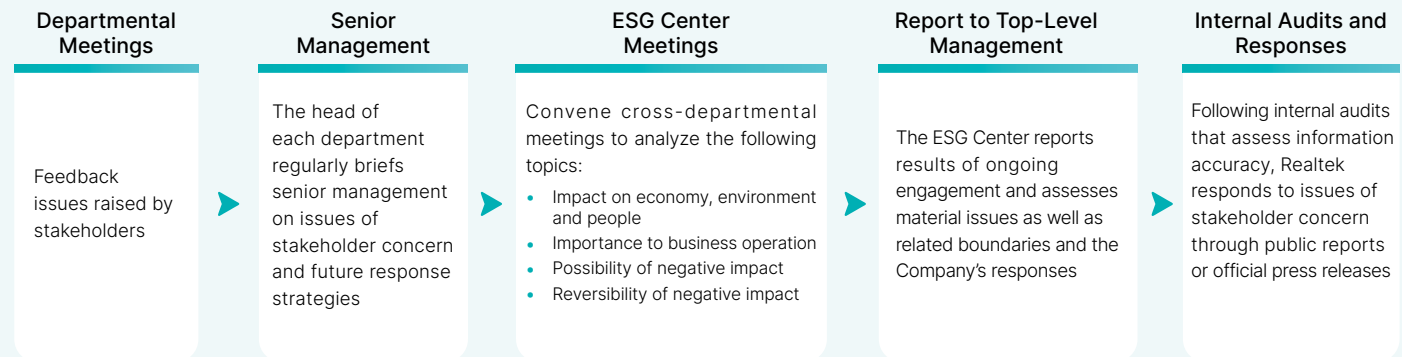


Note : The size of the dots represents the negative impact reversibility of the issue, and the high to low negative impact reversibility is presented by the small to large dots.

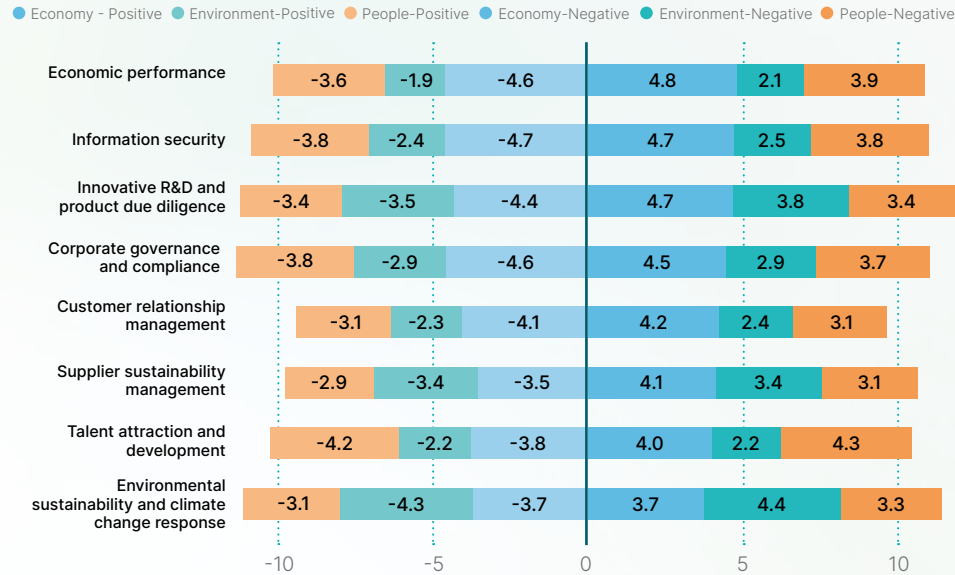
Step 4. Defining the Boundaries of Material Issues

Procedures for Handling Issues of Stakeholder Concern

The impact boundaries of each material issue within the value chain are defined to ensure that they fully reflect Realtek’s strategic positioning and effectively connect with the scope of its impacts in the three dimension of economic, environmental and people, as well as the intensity of potential impacts. Please refer to the paragraphs of Realtek’s 2022 Management Guidelines for Material Issues.



Degree of Impact of Material Issues on the Economy, Environment and People



Note : A positive number indicates positive impact, with the most significant impact being 5; a negative number indicates negative impact, with the most significant impact being -5.



Realtek 2022 Material Issues Management Guidelines

By setting up goals and management strategies, Realtek has effectively controlled and reduced the probability of negative impacts. Through strategic planning of short (within three years)/mid-to-long (more than three years) goals, the Company ensures positive growth in various material issues. The following information is ranked based on a comprehensive assessment of reversibility and probability, from high (low reversibility, high probability of occurrence) to low (high reversibility, low probability of occurrence).

● Direct impact ▲ Indirect impact (covering business enablement)

Information Security	
Indicator	GRI 418: Customer Privacy
Corresponding Chapter	CH1 Sustainable Governance
Topics	<ul style="list-style-type: none"> Information Security Policy and Organization Information security risk management and continuous improvement framework Customer information protection system Enhance emergency handling capabilities for information security incidents Enhance the Company's information security protection capabilities
Goals and Management Strategies	<p>Short term goals/management strategies:</p> <ul style="list-style-type: none"> In order to protect the information security of employees, customers, investors and partners of the Company, and to support the vision of business continuity and sustainable development of the Company, Realtek is committed to developing information security strategies and continues to improve, preventing the risk of stealing, misuse, leakage or destruction of information assets due to human error, intent or natural disaster. The Realtek Information Security Steering Committee is composed of the highest-level management within the company. It participates in the strategic direction planning for information security and is led by the Chief Information Security Officer (CISO) responsible for information security risk management. The committee also coordinates and oversees the allocation of resources required for information security operations. Realtek has established the corporate security Center (CSC) as a dedicated unit responsible for corporate information security. The CSC is tasked with formulating and promoting information security policies, planning and reviewing the effectiveness of information security measures, and coordinating cross-departmental information security tasks. It oversees various departments, including Product Development Information Security, Network and Infrastructure Information Security, IT/OT Information Security, and an Information Security Education and Training. The CSC is responsible for overall information security policy formulation and the implementation of information security protective measures to ensure the secure management of various information assets, with the goal of achieving confidentiality, integrity, and availability. To actively manage organizational information security risks and support business development, Realtek assesses the importance, risk impact, and improvement benefits, and constructs a multi-layered defense mechanism. It adopts the PDCA (Plan-Do-Check-Action) method to continuously strengthen the organization's information security risk management mechanisms. In 2023, Realtek implemented the international information security management standard ISO 27001.

2022 Results	<ul style="list-style-type: none"> Established the Corporate Security Center to enhance and implement information security. 8 training courses on information security were conducted, with a total duration of approximately 20 hours and 1,090 participants. The courses were included in the mandatory training courses for new employees and information security officers in various units to enhance the information security awareness of employees of the Company. A total of 10,827 phishing emails were sent during the information security drill, with an overall passing rate of 87%, meeting the annual target for 2022, and strengthening education and training for those who open or click to read. In 2022, the Company's information security personnel obtained the Information Security Certification issued by the EC-Council. In 2022, there was no major information security event that caused impact on operations and goodwill or resulted in losses. 			
Communication Mechanism	Product Network Security Notification Window: security@realtek.com			
Impact Boundary	Operations	Suppliers	Customers	Employees
	●	●	●	●

Customer Relationship Management	
Indicator	GRI 418: Customer Privacy
Corresponding Chapter	CH4 Sustainable Value Chain
Topics	<ul style="list-style-type: none"> Keep track of product market changes and trends Customer relationship maintenance and expansion of cooperation opportunities with customers Customers privacy Consolidate and analyze customers' expectations on the ESG issues of Realtek to strengthen sustainable operation strategies
Goals and Management Strategies	<p>Short-term goals/management strategies:</p> <ul style="list-style-type: none"> Establish an ESG questionnaire response performance management system to promptly and accurately respond to customer survey, and to analyze the sustainable issues that stakeholders value and continuously improve the management measures for various issues. We maintain and improve the customer relationship management system by unimpeded customer feedback channels. Regular customer satisfaction surveys are conducted to propose specific improvements based on customers' responses. We will proactively provide customers with relevant information on sustainable development, innovative R&D, and expand our global business.

2022 Results	<p>Mid-to-long term goals/management strategies:</p> <ul style="list-style-type: none"> Set target of achieving over 80% response rate in the customer satisfaction survey, and maintain a high level of customer satisfaction. Ensure long-term and stable provision of high-quality and sufficient supply to downstream customers. Actively provide various customers with cross-field and diversified solutions, enhance the core technical competitiveness of products, and deepen customer mutual trust and partnership. Regularly hold product launch event and technical seminars to meet the needs of regional markets, or directly build relationships with brand owners and discuss their future product requirement to strengthen customer relationships. 			
2022 Results	<ul style="list-style-type: none"> In 2022, the customer satisfaction rate reached 90%, meeting the annual target. The response rate of customer satisfaction survey reached 80% in 2022. Approximately 45,000 pieces of customer feedback were collected in 2022, and the improvement items were analyzed and tracked continuously to meet customer expectations. Passed 3 physical audits by customers without any significant deficiencies in 2022. In 2022, customer complaints of defective products in product lines were below the target of 100ppm (parts per million). 			
Communication Mechanism	Contact channel of product by business group on Realtek's official website: https://www.realtek.com/zh-tw/cu-1-tw/cu-1-taiwan-tw			
Impact Boundary	Operations	Suppliers	Customers	Employees
	●	▲	●	▲

Environment Sustainability and Climate Change Response	
Indicator	<ul style="list-style-type: none"> GRI 2: General Disclosure — Sustainable Development Strategy Statement GRI 2: General Disclosure — Procedures for Remediating Negative Impact GRI 201: Economic performance GRI 302: Energy GRI 303: Water and retention of water GRI 305: Emissions SASB Greenhouse gas emissions SASB Energy management in the manufacturing process SASB Water management SASB Waste management
Corresponding Chapter	CH3 Green Operations
Topics	<ul style="list-style-type: none"> Compliance with the TCFD framework Formulating other relevant policies to enhance the Company's capabilities to respond to extreme weather conditions Greenhouse gas inventory and management Formulating emission reduction targets

	<ul style="list-style-type: none"> Reducing energy consumption of products Management and promotion of power-saving measures Formulation and Implementation of water-saving policies Wastewater discharge management Use of renewable energy 			
Goals and Management Strategies	<p>Short-term goals/management strategies:</p> <ul style="list-style-type: none"> In 2022, the power-saving rate across the plant area was raised to 5.3%. Water withdrawal per capita in 2022 was 1% lower than the previous year. In 2022, ISO 14064-1 third-party verification was completed, and a certificate was obtained. IC waste recycling rate was above 90%. General industrial wastes shall not exceed 27 kg per NT\$100 million of revenue Fully introduce the ISO 50001 energy management system and pass third-party verification. Through the TCFD framework, we regularly review and assess risks and opportunities associated with climate change and develop corresponding strategies. <p>Mid-to-long term goals/management strategies:</p> <ul style="list-style-type: none"> In 2025, the renewable energy capacity of the No.1 plant of the Hsinchu Operations Headquarters will reach above 10% of contract capacity. More than 1,300 self-developed and self-used renewable energy certificates (RECs) will be obtained by 2025. By 2030, Scopes 1 and 2 carbon emissions of greenhouse gases will be reduced by 50% compared with the base year of 2021. By 2030, renewable energy usage will reach 25%. By 2050, achieve net zero emissions. Introduce the ISO 14067 standard for product carbon footprint to grasp the carbon reduction benefits of the product life cycle. 			
2022 Results	<ul style="list-style-type: none"> In 2022, we fully introduced the TCFD framework and the financial impact of potential climate risks and opportunities for quantification. We completed the introduction of ISO 14064-1 greenhouse gas inventory system and obtained a certificate after verification by a third party. Energy intensity was 0.26% lower than the previous year. Water saving rate in the factory area reached 8.49%. The energy conservation measures have pushed the overall electricity saving rate to 5.3%, better than the 2022 target. 			
Communication Mechanism	ESG Center: RT_ESG@realtek.com			
Impact Boundary	Operations	Suppliers	Customers	Employees
	●	▲	●	▲

Economic Performance				
Indicator	<ul style="list-style-type: none"> GRI 201: Economic performance GRI 203: Indirect economic impacts 			
Corresponding Chapter	CH1 Sustainable Governance			
Topics	<ul style="list-style-type: none"> Financial performance and results Operational base and business presence 			
Goals and Management Strategies	<p>Short-term goals/management strategies:</p> <ul style="list-style-type: none"> Year-on-year revenue and profit growth. Technology innovation, lower chip costs, and ensure overall competitiveness of products. Regularly convene investor conferences (quarterly earning call) to release financial reports and operation results and deliver corporate values to investors, shareholders, and stakeholders. <p>Mid-to-long term goals/management strategies:</p> <ul style="list-style-type: none"> Diversify customer base and market regions, and establish a forward-looking, fast and flexible production and sales response mechanism. Seek new business and new technological innovation opportunities. Actively participate in domestic and foreign professional and technical organizations to jointly lead the international industry trend and improve market share and technology leading advantages. Continue to develop new customers, expand new markets and marketing channels, deepen long-term cooperative relationships, and expand market share through new product layout. 			
2022 Results	<ul style="list-style-type: none"> In 2022, the Group's consolidated revenue was NT\$111.79 billion, an increase of 6.0% from 2021. In 2022, the Group's consolidated net profit after tax was NT\$16.20 billion, meeting the target of year-on-year growth. Cash dividend of NT\$26 per share for 2022. Earnings per share (EPS) of NT\$31.62 for 2022. In 2022, Institutional Investor named the Company as the small and medium-sized Best CEO, Best IR Manager and Best IR Program in the technology/semiconductor Industry in Asia. Market capitalization remained among the top 50 of publicly listed companies in Taiwan. Listed in the MSCI Taiwan Select ESG Sustainability High Yield Top 30 Index in 2022. Listed as a constituent stock in Cathay Sustainability High Dividend ETF in 2022. 			
Communication Mechanism	Investor Contact: Ms. Ivy Chen TEL: +886-3-578-0211 Ext: 11316 FAX: +886-3-577-6047 E-mail: investors@realtek.com			
Impact Boundary	Operations	Suppliers	Customers	Employees
	●	▲	▲	●

Corporate Governance and Compliance	
Indicator	<ul style="list-style-type: none"> GRI 2: General Disclosure — Governance GRI 2: General Disclosure — Inclusion in Policy Commitments GRI 2: General Disclosure — Regulatory Compliance GRI 205: Anti-Corruption GRI 206: Anti-competitive Practices GRI 419: Socioeconomic regulatory compliance SASB Intellectual property protection and competitive behavior
Corresponding Chapter	CH1 Sustainable Governance
Topics	<ul style="list-style-type: none"> Improve the operation of the Board of Directors Establish effective communication channels for stakeholders Focus on transparency Enhance corporate image Establish code of ethical conduct Follow the integrity spirit of anti-corruption and anti-competition Comply with business location regulations Focus on international regulations and initiatives Enhance information security management
Goals and Management Strategies	<p>Short-term goals/management strategies:</p> <ul style="list-style-type: none"> Maintain a record of no significant fines (over NT\$1 million) due to violation of laws or regulations. Conduct corporate governance and regulation-related training courses (including E-learning) for new employees, with an implementation rate of 100%. Implement the Board's performance evaluation methods. Establish an annual audit plan by independent internal audit unit and implements the "Compliance with laws and regulation" audit according to the plan. The audit supervisor reports the audit results to the Board annually. Maintain effective communication channels for stakeholders, and conduct regular questionnaire surveys for stakeholders. <p>Mid-to-long term goals/management strategies:</p> <ul style="list-style-type: none"> Prevent, detect and ensure the legality of business execution through various internal control mechanisms. With reference to the relevant recommendations on corporate governance made by the competent authorities, continue to refine the operation of the Board, and actively improve the evaluation results and the disclosure of information on corporate governance. Improve the evaluation results of corporate governance to be top 5% of listed companies. Implement the operation policy of ethical management and adhere to the highest guiding principles of sustainable development.
2022 Results	<ul style="list-style-type: none"> Internal performance evaluation resultsof the Board of Directors, Board members, Nomination Committee, Audit Committee and Remuneration Committee were all "excellent". Ranked in the top 6% to 20% amongst the listed companies in the Corporate Governance Evaluation Results released by TWSE. Average attendance by members of the Board was 100% in 2022, and average attendance by functional committee members was 100%. Listed as a constituent stock in the 'TWSE Corporate Governance 100 Index' in 2022 (Source: Taiwan Stock Exchange).

2022 Results	<ul style="list-style-type: none"> Listed as a constituent stock in the Taiwan Employment Creation 99 Index' in 2022 (Source: Taiwan Stock Exchange). Listed as top 10 constituent stocks by weighting in the 2022 "TIP Customized Taiwan IC Design Representatives Total Return Index" (Source: Taiwan Stock Exchange). In 2022, Realtek did not receive any major fines (over NT\$1 million) due to violation of law, regulations, anti-competitor environmental regulations. In 2022, internal audits found that no complaints were filed against the Company or the Company's employees for ethical violations, anti-corruption, anti-bribery, or conducting any illegal activities. Disclosed the Company's identified stakeholders, issue of concerns, communication channels, and response methods on the Company's website and in the sustainability reports. Reported communication results with stakeholders in 2022 to the Board of Directors. 			
Communication Mechanism	Realtek's official website, shareholders' meetings, notification mailbox with confidential mechanism for auditing units: audit@realtek.com			
Impact Boundary	Operations	Suppliers	Customers	Employees
	●	▲	▲	●

Talent Attraction and Development	
Indicator	<ul style="list-style-type: none"> GRI 202: Market position GRI 401: Employment GRI 404: Training and education GRI 405: Employee diversity and equal opportunity SASB Employee health and safety SASB Recruiting & managing a global & skilled workforce
Corresponding Chapter	CH5 Inclusive and Happy Workplace
Topics	<ul style="list-style-type: none"> Establish and improve employee education and training plans Encourage employees to learn and develop independently Establish talent development program Attach importance to talents and establish diverse welfare measures and an inclusive workplace environment Competitive salary and welfare
Goals and Management Strategies	<p>Short-term goals/management strategies:</p> <ul style="list-style-type: none"> Maintain a smooth communication channel structure for employees, including the President's Mailbox, internal (external) department personnel's reporting illegal and unethical behavior to the auditing unit's notificationbox, and channels for reporting violations of integrity and ethics. Expand the opportunities of industry-academic exchange and inter-school research collaboration, and promote the cultivation of science and technology professional talents in campus. Obtain market information and review the competitiveness of the overall incentive remuneration structure, vacation policy and benefit system. Provide diversified and timely professional education and training through channels such as Realtek Corporate University and external training courses. <p>Mid-to-long term goals/management strategies:</p> <ul style="list-style-type: none"> Through different positions and technical fields, formulate specific career development plans, enhance the professional functions and management functions of employees, and actively cultivate internal succession talents.

Goals and Management Strategies	<ul style="list-style-type: none"> Continue to comprehensively strengthen organizational competitiveness, formulate development strategies for employee relations, create a win-win and moderate distribution between organizations and talents, and strengthen the influence of organizations and talents contribution. Expand the cooperation momentum between Realtek and the campuses, enhance industry-academic exchange and cooperation, and provide a foundation for technological research, innovation and talent development in the semiconductor industry. 			
2022 Results	<ul style="list-style-type: none"> The average training hours of all employees reached 16.90 hours/person, representing an increase of 18.5% over the previous year. The overall satisfaction rate towards Employee Assistance Program (EAP) on-site psychological consultations by professional counselors was 96.85 points, meeting the 2022 target. Realtek and the Employee Welfare Committee allocated more than NT\$123 million to support employee benefits and related activities. The number of people seeking health consultation with resident physician reached 384. Reinstatement rate after using unpaid parental leave was 91.7%; retention rate reached 100%. 			
Communication Mechanism	<ul style="list-style-type: none"> Internal communication forum E-mail Organizational communication meetings (Labor management meeting) Seminar session for Realtek's supervisors President's Mailbox 			
Impact Boundary	Operations	Suppliers	Customers	Employees
	●	▲	▲	●

Innovation, R&D and Product Due Diligence	
Indicator	<ul style="list-style-type: none"> GRI 416: Customer health and safety GRI 302: Energy SASB product lifecycle management
Corresponding Chapter	CH2 Innovative Value
Topics	<ul style="list-style-type: none"> Product/new technology development, future development plan Potential market and emerging market development strategies and achievements Using low-carbon processes Developing low-carbon products Improving product safety

Goals and Management Strategies	<p>Short-term goals/management strategies:</p> <ul style="list-style-type: none"> Continue to follow ISO 9001 quality management process to ensure product quality. Continue to invest in technology R&D to lower chip costs with an innovative framework to create sustainable product competitiveness. Strengthen technology penetration and patent layout, expand R&D innovation and lead in innovative patents. In response to regional market demand, hold regular product conferences and technical seminars, launch high-quality professional and customized products, and expand the product market. Continue to support technology knowledge-sharing communities and invest resources to develop innovative technologies with expert partners. Regularly launch products with energy-saving efficiency of 5% or higher. Established an internal innovation incentive mechanism to stimulate internal innovation momentum with a substantial bonus design. <p>Mid-to-long term goals/management strategies:</p> <ul style="list-style-type: none"> Expand domestic and foreign industry-academic cooperation and grow together with academic partners. Participate in and propose international standards recommendations, obtain relevant product market and technical information in advance, and continue to grasp the opportunities of innovative technologies. 			
2022 Results	<ul style="list-style-type: none"> In 2022, the number of patents of Realtek Group increased by 1,144. Ranked 4th among Taiwanese enterprises for the number of domestic patents granted, achieving the 2022 target. Power consumption of Realtek products are on average 30% lower than that of other comparable products in the markets. R&D expenses in 2022 amounted to NT\$30.08 billion, accounting for approximately 26.9% of the revenue in 2022. 			
Communication Mechanism	The official website of Realtek provides communication channels for intellectual property rights and patents: https://www.realtek.com/zh-tw/cu-4-tw			
Impact Boundary	Operations	Suppliers	Customers	Employees
	●	▲	▲	●

Supplier Sustainability Management

Indicator	<ul style="list-style-type: none"> GRI 204: Procurement practices GRI 308: Supplier environmental assessment GRI 407: Freedom of association and group negotiation GRI 408: Child labor GRI 409: Forced or compulsory labor GRI 414: Supplier social assessment SASB Material sourcing
Corresponding Chapter	CH4 Sustainable Value Chain
Topics	<ul style="list-style-type: none"> Local procurement, responsible procurement Enhance supplier management, screening and evaluation mechanism Implementation of due diligence Conflict-free minerals policy statement Investigation and management of suppliers' use of conflict minerals Improving internal and external management mechanisms in accordance with the Responsible Business Alliance (RBA) Code of Conduct
Goals and Management Strategies	<p>Short-term goals/management strategies:</p> <ul style="list-style-type: none"> 100% of suppliers sign the Supplier Code of Conduct. Continuously conduct due diligence and management of conflict minerals to ensure that fully implement a 100% non-conflict minerals policy. Deepening regional strategic cooperation and continue to increase local procurement to reduce the environmental impact of carbon emissions during material transportation. Following the RBA Code of Conduct to implement supplier ESG assessments and supplier audits, and continuously track the sustainability performance of the supply chain. <p>Mid-to-long term goals/management strategies:</p> <ul style="list-style-type: none"> Establish the supplier sustainability management policy, and incorporate sustainability performance into supplier evaluation and audit projects. Conduct regular supplier evaluation and periodic meetings. Request new suppliers to sign the Supplier Code of Conduct and complete hazardous substances reporting survey. Collaborate with the supply chain to jointly formulate energy saving and carbon reduction targets, and promote key suppliers to complete greenhouse gas inventory and carbon footprint management projects.
2022 Results	<ul style="list-style-type: none"> 100% of the mineral raw materials that Realtek procure are from smelters with Responsible Minerals Initiative (RMI) certification, achieving the goal of 100% free of conflict minerals. Adopted RMI's Conflict Minerals Reporting Template for due diligence surveys for gold, tantalum, tungsten and tin.

2022 Results	<ul style="list-style-type: none"> Adopted the Extended Minerals Reporting Template for due diligence surveys for cobalt and mica. 92% of suppliers obtained green light (above 80 points) in the ESG assessment. 100% of suppliers signed the Supplier Code of Conduct. Local procurement by value: 93% for general procurement and 93% for contract manufacturing. 			
Communication Mechanism	Supply Management Center: https://www.realtek.com/zh-tw/cu-6-tw			
Impact Boundary	Operations	Suppliers	Customers	Employees
	●	●	▲	



CH1

Sustainable Governance

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Achievement Highlights

Corresponding SDGs



Suggested Stakeholders for Reading

Customers, employees, suppliers, government agencies, external rating agencies, investors

Material Issues

- Corporate governance and compliance
- Economic performance
- Information security

Section Highlights and Investments

- Group-wide consolidated revenue grew by 6.0% in 2022.
- In the “2022 All-Asia Executive Team” announced by Institutional Investor, Realtek was awarded the Most Honored Company, Best CEO, Best IR Professional and Best IR Program.
- Listed as a constituent stock in the ‘TWSE Corporate Governance 100 Index’.
- Listed in MSCI Taiwan Select ESG Sustainability High Yield Top 30 Index.
- 100% of new employees completed the training courses on ethical management and code of ethical conduct as well as regulations governing the prevention of insider trading.
- A total of 10,827 phishing emails were sent during information security drill, with an overall pass rate of 87%.
- In 2022, we provided ethical management training classes totaling 61.8 hours, with a total attendance of 1,390 people.

Policy Commitment

Realtek formulates corporate governance best practice principles with reference to the guidelines of the competent authorities, and upholds the awareness of legal compliance in all business activities and interactions with business partners. These steps are necessary to fulfill corporate governance responsibilities and build a solid corporate governance system. The Company shall maintain effective communication channels with stakeholders to respect and protect their legitimate rights and interests.



Sustainable Governance

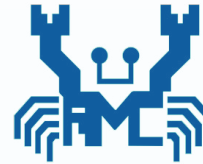
About Realtek

Realtek Semiconductor Corporation was founded on October 21, 1987 and is a world-leading Integrated Circuit (IC) design house with headquarters in the Hsinchu Science Park in Taiwan. With the R&D and design of ICs as its corporate positioning, the Company adheres to the principles of business excellence, innovation and services throughout product R&D, testing, production and sales, thereby achieving the goal of “new technologies, new products, new applications, new values and new markets”. The product segment covers the application fields of connected media, communications network, PC peripherals, multimedia, smart interconnect and other electronic products, including Ethernet controller ICs, Ethernet Switch controller ICs, automotive Ethernet solutions, wireless LAN controller ICs, and AP/router SoCs, PON, IoT solutions, high-definition audio codec solutions for PC and consumer applications, card reader controller ICs, network/IP camera controller ICs, USB Type-C controller ICs, LCD monitor controller ICs, video interface translator ICs, TV SoCs, and digital home center system solutions.

Realtek has a professional, all-round and technical IC R&D and design expert team. In addition to advanced R&D and innovative technologies, Realtek also has excellent manufacturing system knowledge, which can grasp market trends and provide customers with efficient, high-quality and competitive full-range products and solutions.

Realtek became the first IC design house in Taiwan to achieve ISO 9001 certification in 1995. The Company was publicly listed on the Taiwan Stock Exchange in 1998 and further achieved ISO 14001 International Quality Certification in 2006. Realtek has maintained stable annual growth through since its establishment through a sound, long-term comprehensive product roadmaps, effective business strategies, and the teamwork of all employees. After achieving a milestone of surpassing the hundred billion New Taiwan Dollar in revenue for the first time in 2021, it continued to make breakthroughs in 2022. The consolidated revenue of the Realtek Group reached NT\$111.79 billion, an increase of 6.0% from the previous year, reaching a record high for the annual revenue, and the consolidated net income after tax reached NT\$16.20 billion.

In 2022, Realtek did not experience any significant changes in the industry, value chain and other business relationships due to major mergers and acquisitions or other reasons.



Realtek's corporate logo is a crab. This distinct symbol represents the Company's resilient adaptability and fearlessness; traits that support outstanding, lasting contributions to technological innovation.

About Realtek Semiconductor

- Chairman: Sun-Chien Chiu
- President: Kuang-Yu Yen
- Company Type: Publicly Listed Company
- TSE Code: 2379
- Date Established: October 21st, 1987
- Industry: Semiconductors, IC design
- Major Products: Communications network IC, Connected Media IC, Computer Peripheral IC, Multimedia IC, Smart Interconnect IC
- Headquarters: No.2, Innovation Road II, Hsinchu Science Park
- Workforce: 6,828 employees
- Paid-in Capital: NT\$5.13 billion (2022)
- Consolidated Revenue: NT\$111.79 billion (2022)

Products and Services

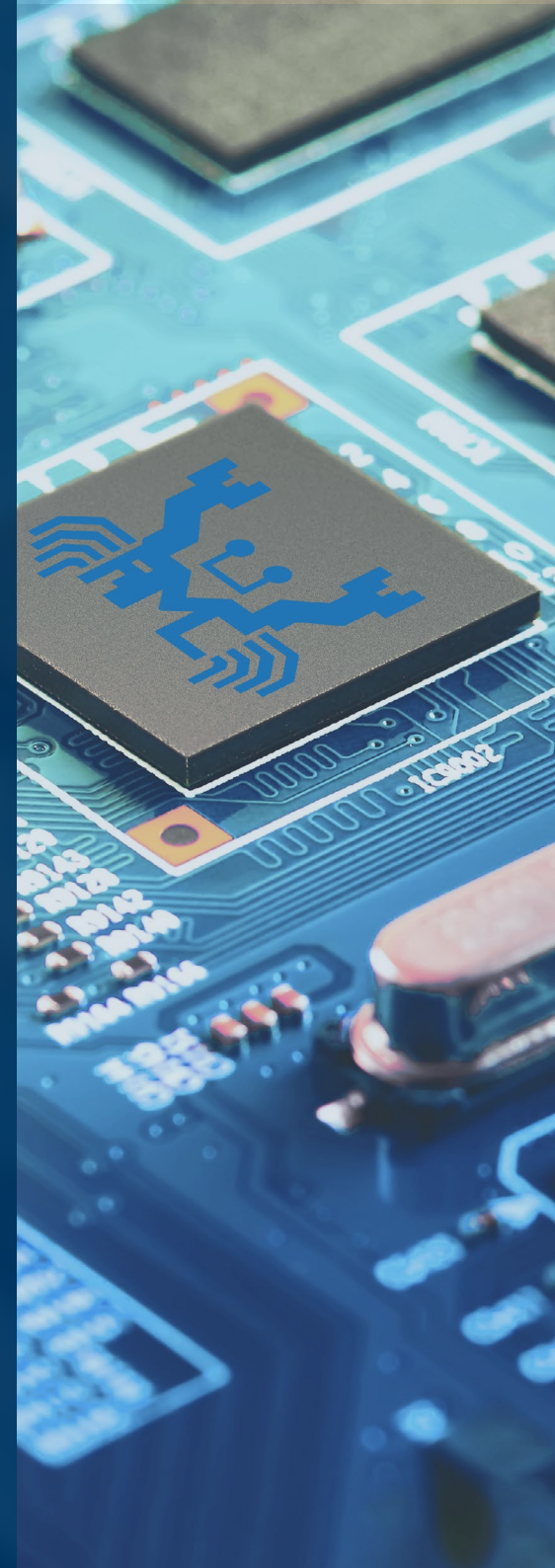
Services and Application Sectors

Products

Communications Network and Connected Media	Ethernet controller IC, Ethernet Switch controller IC, broadband network controller IC, wireless LAN controller IC, Bluetooth controller IC, IoT controller IC, automotive Ethernet solutions, Set-Top-Box controller IC, and SSD bridge controller IC
Computer Peripherals and Smart Interconnect	PC audio codec controller IC, webcam controller IC, USB Type-C controller IC, card reader controller IC, embedded controller IC, USB 3.2 / USB 4.0 hub controller IC
Multimedia	LCD monitor controller IC, video interface translator IC, LCD TV SoC

■ Global Positioning

Realtek provides professional IC design services to worldwide customers. Besides the home base in Taiwan, it has overseas subsidiaries in 11 key locations around the globe to provide customers comprehensive products, services, and solutions with timely and professional supports. Most of the direct sales targets are agents, and the main factories are located in Asia. Through close cooperation with supply chain partners, Realtek serves customers around the world from its base in Taiwan and grows together with internationally renowned brands.



Governance Structure

■ Board of Directors Governance Structure

The Board of Directors of Realtek is elected by all shareholders through a voting process. Evaluation of directors are based on background diversity, professional ability and experience, and the criteria consist of operation judgement, operation management, accounting and financial analysis, crisis management, industry knowledge, international marketing, leadership, decision-making capability and risk management. The current Board of Directors consists of 10 directors, including 3 independent directors, 4 executive directors and 1 female director, with an average age of 62.5 years old. Over half of the members are shareholders. The tenure of Realtek's director is three years (currently from August 9, 2021 to August 8, 2024). The Board has set up various functional committees to strengthen its operating efficiency, thereby protecting the interests of the shareholders while enhancing benefits for stakeholders. For more information on Board members, please refer to [Realtek 2022 Annual Report](#) or [the Market Observation Post System](#).

■ Board of Directors Functions

The Board of Directors diligently carries out corporate governance responsibilities by overseeing operational strategies of the Company's management and evaluating business performance. At the same time, the Board listens to the operation strategies of the Company at the operating level and considers the viewpoints of stakeholders, providing professional and objective opinions with a high degree of self-discipline and prudence to ensure the implementation of sustainable development of the Company. The 2022 Board meetings were chaired by Chairman Sun-Chien Chiu to advance corporate governance. The Board convened at least once a quarter, with 5 meetings being held with 100% average attendance rate of Board members; proposals made by each unit to the Board covered important economic, environmental, social and risk management issues.

Board members of Realtek attended external continuing education courses in accordance with the "Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE Listed and TPEX Listed Companies". By enhancing learning and strengthening professional competence of the directors, Realtek keeps pace with the latest corporate governance practices, thus achieving sound and effective corporate governance. In 2022, the Board's studied topics including "The future of Metaverse and Cryptocurrency blockchain", "Introduction to corporate management disputes and the commercial court adjudication act", "The value of information security in the post-COVID-19 era amid US-China trade war", "Virtual World Explosion: the future development of Metaverse and Cryptocurrency blockchain", "Response to international order variances and corporate governance", "The 18th (2022) Corporate Governance Summit Forum enhancing director competence for sustainable corporate governance" and "Analysis of

business ownership disputes and prevention strategies", and other professional continuing education courses. The directors attended a total of 21 hours of classes.

■ Key Functional Committees of the Board of Directors

Audit Committee

5 Audit Committee meetings with **100%** attendance rate by all members

The Audit Committee consists of three independent directors. The committee assists the Board of Directors with performing its supervisory duties and other responsibilities as specified by the 'Securities and Exchange Act', the 'Company Act', and other relevant regulations. Responsibilities include reviewing possible director conflicts of interest, material asset or derivative product transactions, annual financial reports and semi-annual financial reports, and other important matters as specified by the Company or competent authorities. The committee meets regularly with the Company's CPA and reviews the CPA's appointment, independence, and performance.

Remuneration Committee

2 Remuneration Committee meetings with **100%** attendance by all members

The Remuneration Committee consists of three independent directors and is appointed through a resolution of the Board. Responsibilities include assisting the Board in evaluating link between the Company's business performance and the remuneration for directors and managers, defining and regularly evaluating the achievement of performance goals for the directors and the managers, as well as the policies, systems, standards, and structures of remuneration. The function of Remuneration committee is to perform duties diligently with focus on sound management then propose related recommendations to the Board for consideration.

Nominating Committee

2 Nominating Committee meeting with **100%** attendance by all members

The Nominating Committee consists of three independent members and is determined through a resolution of the Board. The committee defines the criteria for diversity and independence of Board members, such as professional knowledge, skills, experience, and gender, then applies the criteria to find, review, and nominate candidate directors. The committee shall construct and define the organizational structure of the Board and each committee; evaluate the performance of the Board, directors, and committees; and define and regularly review the succession plan for directors and executives.

Board Performance Evaluation

The Board of Realtek conducts regular internal performance evaluation for the year in December every year. The scope of evaluation covers the entire Board, individual Board members and functional committees, and is completed through internal self-evaluation of the Board and self-evaluation of Board members. The Nominating Committee acts as the executive unit in the evaluation process, collects relevant information and implements a scoring questionnaire. The evaluation results along with specific explanations are compiled and reported to the Board of Directors in order to improve corporate governance and achieve the goal of sustainable business operation.

Six Aspects of Performance Evaluation of Board Members

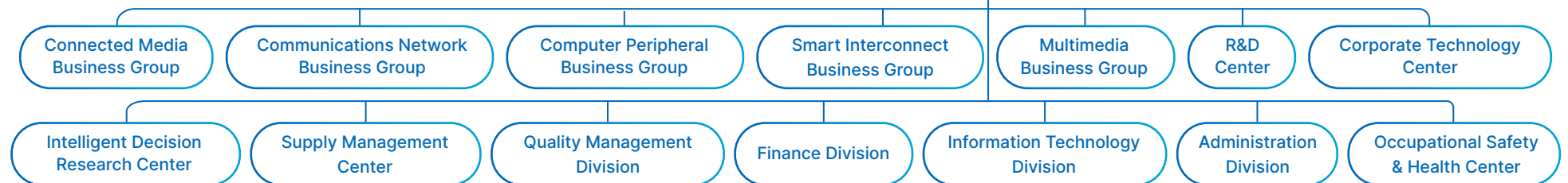
- ① Knowledge of the Company's objectives and tasks
- ② Awareness of director's duties
- ③ Level of involvement in the Company's operations
- ④ Internal relationships maintenance and communication of internal relations
- ⑤ Professional and continuing education of directors
- ⑥ Internal control

Evaluation Results for 2022

The results of the Directors' performance evaluation are all **excellent**.

Business Organization

Realtek business units are composed of the Connected Media Business Group, Communications Network Business Group, Computer Peripheral Business Group, Multimedia Business Group, Smart Interconnect Business Group, R&D Center, and Corporate Technology Center. Other units include the Intelligent Decision Research Center, Supply Management Center, Quality Management Division, Finance Division, Information Technology Division, Administration Division, and Occupational Safety & Health Center.



Remuneration Policies for Directors and Managers

The remuneration of directors and managers is conducted in accordance with the Articles of Incorporation. The remuneration of directors is determined based on the performance evaluation results of the Board in terms of the participation in operation, the quality of the Board's decision-making, the knowledge of the Company's objectives and tasks, the awareness of directors' duties, the maintenance and communication of internal relations, the professional and continuing education of directors, internal control, etc. The performance of evaluation also encompasses the entire Board, individual Board members and functional committees, considering factors such as time invested and responsibilities assumed to assess the correlation between individual performance and the Company's operating performance and future risks. Additionally, the remuneration of the managers is determined based on performance assessment indicators such as their years of work and responsibilities, performance, contribution to the Company's operation, industry standards and profitability of the Company.

The remuneration of directors and managers is determined by the Remuneration Committee with reference to the results of performance evaluation, Company's operating performance and future risks. After the resolution is passed, the remuneration is proposed to the Board of Directors, and is determined after its approval. The remuneration of directors and employees is reported to the shareholders' meeting. The Remuneration Committee and the Board of Realtek will review the remuneration policy for directors and managers in a timely manner based on the actual operating conditions and relevant laws and regulations, to seek a balance between the sustainable operation and risk management of the Company. The details of the remuneration of the directors and supervisors can be referred to the Realtek 2022 Annual Report.

■ Sustainability Organization Framework

Realtek adheres to the core spirit and philosophy of sustainable development and continues to promote sustainable operation. In Realtek's sustainability organizational structure, the Board of Directors is the top oversight body and the President's Office is the highest management body. They supervise the progress of sustainable development on key issues (economy, environment, people and corporate governance). In addition, the ESG Center under the President's Office organizes cross-departmental liaison meetings for tracking progress of various sustainable development issues such as corporate governance, R&D innovation, talent cultivation and development, environmental sustainability, and social inclusion.

In order to integrate sustainability development policies and goals with operations, Realtek regularly holds cross-departmental meetings on corporate sustainability to ensure sustainable development of the Company. Realtek also adopts domestic and international initiatives such as the GRI Standards, the Task Force on Climate-related Financial Disclosures (TCFD), the Sustainability Accounting Standards Board (SASB), the Social Accountability 8000: 2014 Standard, the Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies, and the Responsible Business Alliance (RBA), as well as international standards and guidelines. The ESG Center is required to report to the president regularly in the fourth quarter, which cover issues on the implementation results of sustainable development, work plans and key issues of concern to stakeholders and corresponding measures. The President effectively supervise the progress of the sustainable development strategy and urge the team to make timely adjustments according to the needs. The results are report to the Board of Directors by president. In 2022, the proposals reported to the Board of Directors included: corporate social responsibility performance, the communication with stakeholders, the revision of the Sustainable Development Best Practice Principles, the implementation of TCFD report, the promotion and operation of risk management, and the promotion and operation of ethical management. In 2022, the Board of Directors approved and issued an updated version of the Sustainable Development Best Practice Principles to incorporate the awareness of sustainable development into the work planning and execution process of all employees of Realtek and jointly practise the Company's sustainable commitment.

As a supervisory and guidance body, the Board assesses the likelihood of success of the strategy, regularly reviews the progress of the strategy. In 2022, there is no material issues affecting business related operations.

Realtek's Commitment to Corporate Sustainability Development

- Commitment to sustainability goals, ethics, and integrity
- Implementation of green energy policies and environmental responsibility
- Sustainable talent development and a safe workplace
- Proactive cooperation on service and quality requirements
- Innovation and R&D to enrich the world and improve convenience
- Warming the hearts of more people through continued progress

Important Reporting Matters in 2022

- Corporate social responsibility performance
- Stakeholders' meetings and situation, results and corresponding measures
- Amendments to the Sustainable Development Best Practice Principles
- Implementation of TCFD
- Promotion and operation of risk management
- Promotion and operation of ethical management



Operational Performance

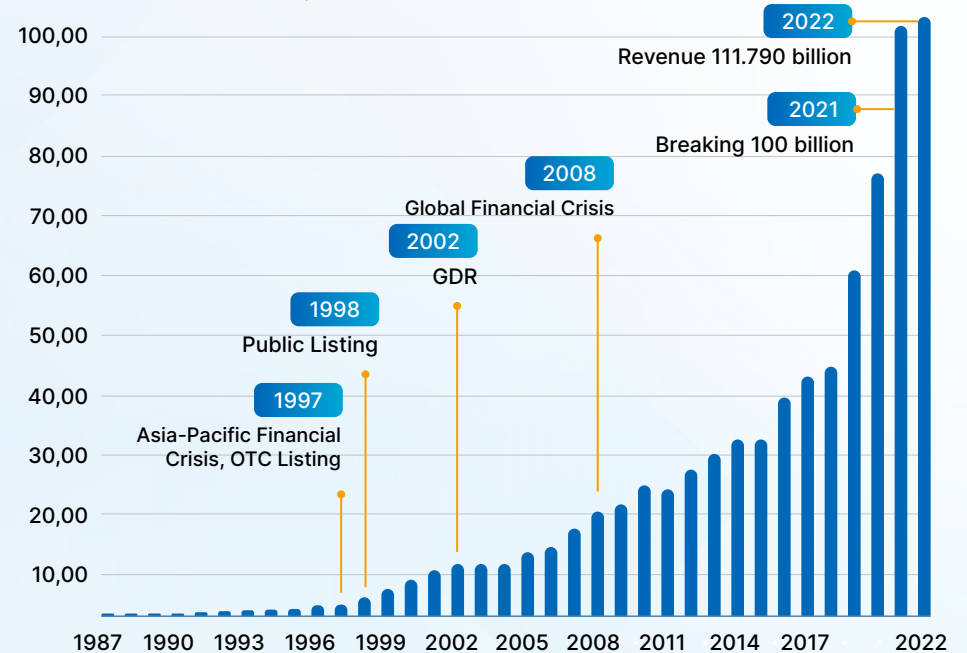
Since its establishment, Realtek has maintained steady growth and profitability. Even the Asia Financial Crisis in 1997, the Global Financial Crisis in 2008, and the ongoing COVID-19 pandemic since 2020 did not stop Realtek from carrying out innovative chip design and R&D while focusing on enhancing customers' product value as well as optimal solutions and services. Realtek's objective of sustainable operations is backed by the mission to provide the best services to global partners, while continuing to achieve steady annual growth and generate strong business results.

For the semiconductor industry, the overall economic environment in 2022 has affected the end demand; the global pandemic was still filled with many uncertainties; the issues of climate change were more emphasized; and international organizations released new sustainable development guidelines, new requirements of government regulations, etc., driving the global semiconductor supply chain turning to a new R&D design, collaboration of production and sales and sustainable business model. Through continuous collaboration with the supply chain, Realtek has enhanced production management and flexibility in dispatching, and continued to develop and innovate in core business, with the unremitting efforts of all colleagues of the Company. Realtek achieved consolidated revenue growth for the year, and continued to surpass the new milestone of hundred billions in revenue.

Realtek Group's 2022 Economic Performance

- Consolidated revenue of NT\$111.79 billion, an increase of 6.0% compared to 2021
- Consolidated gross profit of NT\$54.64 billion
- Consolidated net profit of NT\$16.20 billion
- EPS of NT\$31.62

Unit: in hundred millions of NT\$



Note: The information in this table is consistent with the historical financial statements.

Economic Value of Realtek Group's Production and Distribution in the Past Five Years

Unit: in hundred millions of NT\$

Item/Year	2018	2019	2020	2021	2022
Operating Revenue	458.06	607.44	777.59	1,055.04	1,117.90
Operating Costs	253.45	341.61	445.11	523.16	571.55
Gross Profit	204.61	265.83	332.49	531.88	546.35
Operating Income	37.64	63.31	86.40	173.25	157.24
Net Income Before Tax	46.57	72.36	93.56	175.75	169.22
Income Tax Expenses	3.06	4.45	5.63	7.22	7.18
Net Income (Loss) for the Year	43.51	67.90	87.94	168.53	162.04
Total Comprehensive Income (Loss) for the Year	50.54	61.30	74.25	166.33	206.66
Cash Dividend	30.49	45.96	61.28	128.22	133.34
EPS (NT\$)	8.57	13.36	17.24	33.00	31.62

Note: The dividend for the current year is issued in the following year. For example, the 2021 dividend is issued in 2022.

Ethical Management

Realtek believes that strict adherence and enforcement of business integrity and ethics are necessary ingredients for sustainable operations and for building winning relationships with customers. The Company adheres to the 'Corporate Governance Best Practice Principles for TWSE/TPEX Listed Companies' and the 'Corporate Governance Evaluation Indicators' issued by the TWSE Corporate Governance Center. It formulates the 'Ethical Corporate Management Policy', the 'Ethical Corporate Management Best Practice Principles', the 'Procedures for Ethical Management and Guidelines for Conduct', the 'Employee Code of Conduct', the 'Code of Ethical Conduct', and other important internal regulations. The Board and management proactively implement ethical corporate management policies during internal management and business activities, and request that all employees participate and comply. Related information on ethical management is available on the Realtek company official website to inform board directors, employees, and stakeholders to ensure ethical corporate management principles are followed, prevent conflicts of interest, avoid improper benefits, prevent rights infringements and confidential information leakage, and uphold fair competition and trade. Operational audits are performed by an internal audit unit and results are reported to the Board regularly. In 2022, Realtek did not have any legal proceedings arising from anti-competitive behavior.

To implement Realtek's Code of Ethical Conduct and ethical management, and encourage stakeholders to report incidents that violate business integrity or ethics, we established the 'Regulations Governing Realtek Internal (External) Personnel Whistleblowing on Illegal or Immoral Behaviors'. The procedure ensures that reporting channels remain open and protects the privacy and safety of whistleblowers. In 2022, there were no complaints of illegal activities or unethical conduct filed against the Company or employees, and there were no reports of corruption or bribery at any of the Company's operational locations.

Realtek advocates the policies of business integrity, anti-corruption, and anti-bribery to employees through training camps for newcomers and seminars for executives to enhance their awareness of ethical management. Employees (including contract employees) can submit application for learning through digitalized materials at any time. In 2022, we provided educational and training classes on ethical management totaling 61.8 hours, with a total attendance of 1,390 people.

Internal Audit Unit Reporting Mailbox  | audit@realtek.com

Important Realtek Internal Regulations

- Articles of Incorporation
- Procedures for Acquisition or Disposal of Assets
- Procedures for Financial Derivatives Transactions
- Rules for Election of Directors
- Procedures for Lending Funds to Other Parties
- Procedures for Endorsement & Guarantee
- Rules and Procedures of Shareholders' Meeting
- Realtek Semiconductor Corp. Code of Ethical Conduct
- Realtek Semiconductor Employee Code of Conduct
- Rules of Procedure for Board of Directors Meetings
- Rules Governing the Scope of Powers of Independent Directors
- Organizational Charter of the Audit Committee
- Corporate Governance Best Practice Principles
- Regulations Governing the Board Performance Evaluation
- Sustainable Development Best Practice Principles
- Regulations Governing Realtek Internal (External) Personnel Whistleblowing on Illegal or Immoral Behaviors
- Charter of Nominating Committee
- Charter Remuneration Committee
- Regulation of Insider Trading
- Ethical Corporate Management Policy
- Ethical Corporate Management Best Practice Principles
- Procedures for Ethical Corporate Management and Guidelines for Conduct
- Risk Management Policy
- Risk Management Methods and Procedures

Internal Audits

The audit unit of Realtek is an independent department under the Board of Directors. Internal audit officers shall regularly compile audit results and report regularly in Board meetings, and make ad hoc reports when needed to the chairman and president. Realtek's internal audit unit appoints full-time auditors who undergo continuing education and training to ensure suitability. Annual audits, which are carried out based on plans approved by the Board, shall ensure the effectiveness of self-reviews and internal controls executed by internal units and subsidiaries. Based on the self-evaluation reports, the audit unit issues a statement on internal control mechanisms to the Board and the Company president. In 2022, this internal control statement did not find any abnormalities.

Risk Management Identification and Response

A sustainable business organization often faces many opportunities and risks from internal and external sources. Enterprises must have a sense of prevention and control to identify and understand the internal and external risks such as the economy, environment, and people that the Company may face in its operations. Company has also formulated real-time resilient risk management measures and management strategies, initiate contingency action plans, and improved the overall risk management mechanism to ensure the long-term stable development of the Company. In addition, all departments follow the Company's standardised business continuity management plan, clarify relevant risks that may impact the operation or sustainable development of the Company based on their competencies and responsibilities, monitor potential risks and implement preventive measures to strengthen risk management, enhance the systematic resilience, and achieve the objectives of risk management. This will in turn safeguard the interests of shareholders, enhance competitiveness and lay the foundation for the sustainable business operation and development of the Company.

The scope of risk management of Realtek covers strategic planning, operational management, financial operation, hazard events and other risks. We refer to the enterprise risk management (ERM) procedures, and ensure the stability of sustainable operation and reduce the risk impact through risk identification, measurement, monitoring, response, reporting and disclosure and other management procedures.

Risk Topics		Policies or Strategies
Strategic Planning Risks	<ol style="list-style-type: none"> 1. Technology innovation and industry trends 2. Market needs and changes 3. Technical R&D process and competition landscape changes 4. Policy or regulatory changes 5. Global political and economic circumstances and developments 	<ul style="list-style-type: none"> • Realtek closely monitors technology and industry changes while regularly analyzing industrial conditions, product development, and competition. Based on the information, the company formulates short-term, medium-term, and long-term business development plans. • Facing market changes and competition, Realtek solidifies core technologies by committing ourselves to developing new product R&D and optimizing existing products, launching new products in a timely manner, and improving both yields and performance. • Realtek accommodates customer needs while providing the best products and services. This strengthens our competitiveness and supports business continuity.
Operational Management Risks	<ol style="list-style-type: none"> 1. Management of talent recruitment and development 2. Information security 3. Corporate image 4. Upholding of agreements by customers or suppliers 5. Protection and application of intellectual property rights 	<ul style="list-style-type: none"> • Talented people are Realtek's most important assets. The Company therefore established labor policies and human rights policies that uphold the rights of each employee. Competitive remuneration, fair appointment practices, professional education and training plans, and generous employee benefit packages further support talent recruitment, retention, and development. • Realtek places great importance on information security and the privacy of personal information and customers. The Company therefore established the Information Security Steering Committee and Information Security Centre, and formulated an information security risk management framework, which identifies information security risks, proposes countermeasures, and reviews implementation progress. • Integrity and honesty are core aspects of the culture at Realtek and fundamental to the business. The Company therefore established the 'Employee Code of Conduct', which applies to all employees. The code of conduct requires prudent management of confidential information, compliance with intellectual property laws, and adherence to relevant regulations.
Financial Operations Risks	<ol style="list-style-type: none"> 1. Exchange rates, interest rates, taxes, inflation 2. Strategic investing 3. Banking and financial management 	<ul style="list-style-type: none"> • As a multinational company, Realtek must manage exchange rate fluctuations among different currencies, and their potential impact on the company. Realtek's finance team is responsible for hedging currency-related risks for the company and its subsidiaries. Natural hedge is the primary strategy we adopt. • In terms of strategic investing, Realtek adopts a steady and conservative approach. The Company formulates the 'Procedures for Lending Funds to Other Parties', 'Procedures for Endorsement and Guarantee', and 'Procedures for Financial Derivatives Transactions' to enhance corporate operational performance and reduce financial risks.
Climate Change-Related Risks	<ol style="list-style-type: none"> 1. Product efficiency regulations and standards 2. Green R&D 3. Green products 4. Policies, regulations and agreements related to low-carbon migration 5. Increased supply chain costs due to climate factors 6. Risks due to climate change-related factors 7. Renewable energy policies 	<ul style="list-style-type: none"> • Continue to develop ICs with low power consumption. Consider product lifecycle in the design stage to reduce energy consumption during product use and cut down waste volume when the product is ultimately disposed of. • Continue to monitor international climate change trends and requirements. Disclose information related to the responses to climate change. • Continue to plan and implement water saving, energy saving, and carbon reduction measures. Increase resource efficiency. • Actively carry out sustainable supply chain management. • Commence the construction project of solar photovoltaic system.
Other Risks	Risks which are not any of the above, but which may result in a material loss to the Company	

■ Realtek Risk Management Organization Framework and Responsibilities

Board of Directors

The Board is the Company's highest supervisory unit for risk management. Its objectives include ensuring compliance with laws and regulations, as well as implementing and enforcing the Company's overall operations. The Board must have a clear understanding of risks to sustainable operations, and ensure the effectiveness of sustainable risk management.

Audit Unit

As an independent department under the Board of Directors, the audit unit is responsible for assisting the Board and management to review and inspect internal control deficiencies in the company's operations, as well as evaluate the effectiveness and efficiency of the operations for the company. The Audit unit provides timely improvement recommendations to ensure that internal control mechanisms continue to operate effectively.

Operations Management Meeting

Convened by the president or the top managers of relevant operational units. Responsible for reviewing and managing risk assessments of plans and projects launched by each responsible department, and for directing responses.

Responsible Departments

When conducting daily operations, each responsible department shall carry out front-line risk management duties, including analyzing, monitoring, and preventing risks that could affect their department, in order to ensure effective implementation of risk control mechanisms and management procedures.

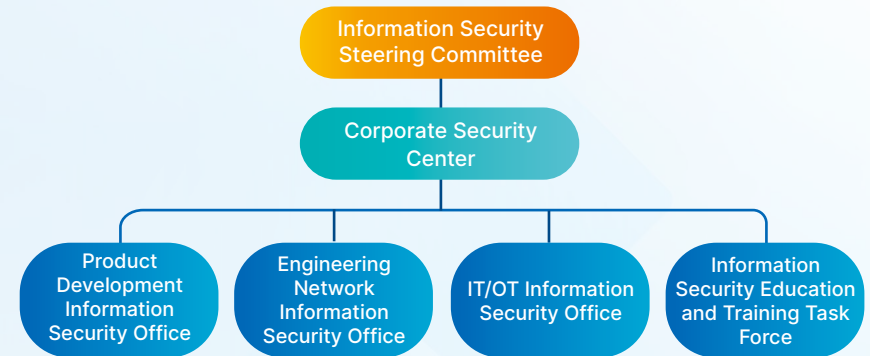
Information Security Management

'Information security is everyone's responsibility.' In order to protect the security of information assets, including personnel, equipment, systems, information, data, and networks, and to prevent external threats or internal manipulation, which can lead to the risk of information leaks, damages, or losses, Realtek formulated an 'Information Security Risk Management Framework'. Through continuous enhancement of risk management while strengthening governance strategies and personnel training, as well as evaluations and supplementary measures, we build a robust, safe, and reliable digital environment of the company. It serves as a cornerstone of Realtek's sustainable operations. In 2022, there were no complaints against Realtek for violations of employee, customer, or supplier privacy.

Information Security Policy and Organization

To implement and improve information security, Realtek established the Information Security Steering Committee to provide cross-departmental information security reports, review information security policies, and promote information security management mechanisms. The Committee is chaired by the Realtek Chief Information Security Officer (CISO) with the first-level supervisors from each internal unit being the ex officio members. The committee convenes annually and reports to the Board of Directors on a regular basis. To further improve the implementation of information security policies, the Company established a Corporate Security Center (CSC) and set up an Information Security Officer to assist the Company in planning and reviewing the effectiveness of information security objectives, coordinate cross-departmental information security task, information security certification project management, response to major information security incidents, audits of supply chain information security and internal audit of information security. The CSC consists of specialized units such as Product Development Information Security Office, Engineering Network Information Security Office, IT/OT Information Security Office, and an Information Security Education and Training Task Force. It references international security standards to coordinate the formulation and implementation of information security policies and various protective measures to ensure that information security management achieves the objectives of confidentiality, integrity, and availability.

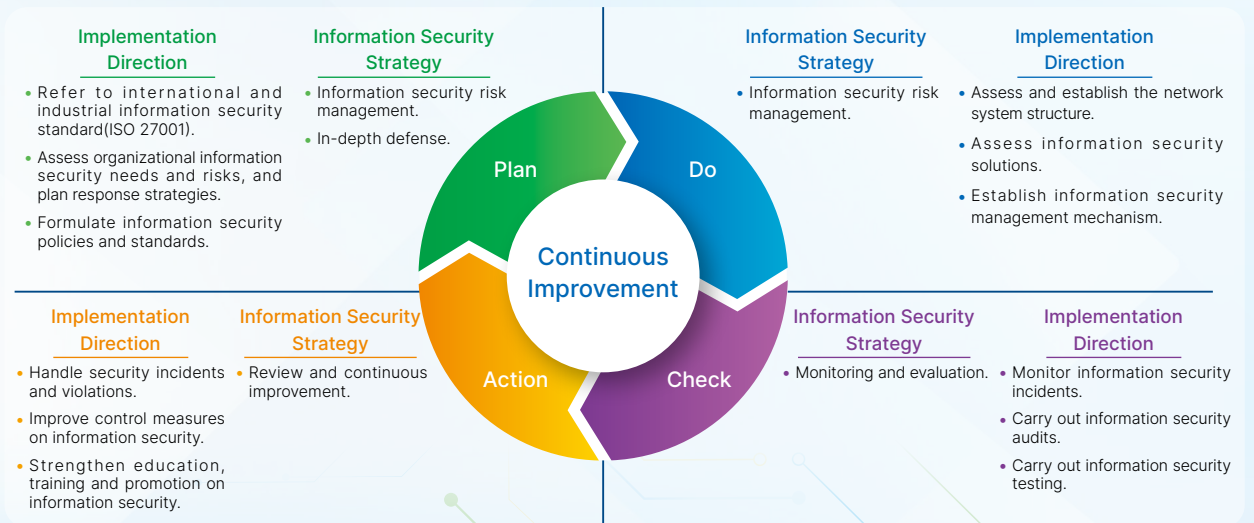
Structure Chart of the Information Security Steering Committee



Information Security Risk Management and Continuous Improvement Structure

Since Realtek is an IC design semiconductor company, its business involves IC R&D, manufacturing and sales as well as provision of software and hardware applications and IP development of IC products. Through various information technology such as communication, equipment and information systems, Realtek works closely with the upstream and downstream of the industry chain and customers for product R&D and delivery. It maintains organizational information security by establishing and implementing an information security management mechanism.

However, with the expansion and complexity of the scope of operations, as well as the ever-changing information security threats and continuously evolving hacker technologies, information security protection measures still cannot guarantee that serious cyber attacks can completely prevent the impact on organizational operations. Realtek actively manages and controls information security risks, constructs a defense-in-depth mechanism by assessing the importance and impact of risks, and corresponding improvement benefits, and adopts the PDCA (Plan-Do-Check-Action) method to continuously strengthen the organizational information security risk management mechanism.



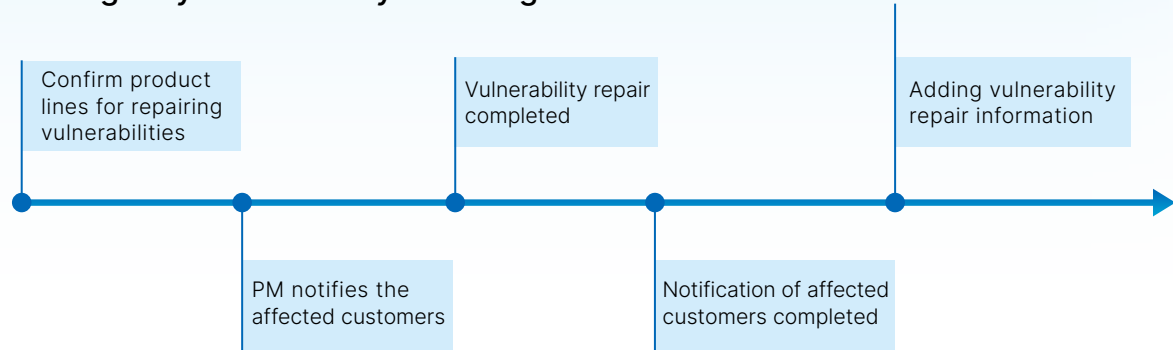
■ Specific Management Solutions and Investments

Identifying Information Security Risks	Explanation of Impact Assessment	Response Measures	Performance Management
Network Management Security	In the face of new and diverse external network attacks and threats, if the protection measures are not complete, the Company's important cyber systems and services may be interrupted. Sensitive information could be leaked or stolen, leading to operational losses.	Firewall Management and Control: Use firewalls to manage and control data storage and retrieval. Update firewall firmware and backups.	Strengthen storage and retrieval security for internal and external networks, in order to prevent malicious site traffic.
		Defense Against Malicious Threats: Proactively identify threats, phishing, and prevent commands-and-control server attacks initiated by zombie computers.	Use active detection defenses to reduce malware attacks.
Product Security	Guard against leakages and misuse of product R&D and IP.	Hold regular meetings to respond to known problems and prevent them from further development, and propose improvement measures for risks with high probability of occurrence, enhancing the information security management of the product development environment and comply with the requirements of intellectual property rights.	Partitioning of product R&D network domains and monitoring proper use of core technologies to achieve the following goals: information protection, access control, contract compliance, activity logging, software quality, and software security.
	Preventing product information security vulnerabilities from causing damage to customers and company reputation.	Trigger the information security reporting procedures to initiate a correction and response and report the incident to management.	Improve the management and processing efficiency of product vulnerabilities.
	Protect customers' confidential information.	Adoption of contract compliance systems. <ul style="list-style-type: none"> • Legal authorization procedures • Security communication transmission • Management of account authority • Network segregation • Special storage area • Backup support mechanism for important information systems 	Implement a customer-confidential information protection mechanism.
Personal Computer Account Management	Computer viruses are constantly evolving. As more ransomware emerges, if computers are not fully protected, security threats are to be expected. Data could easily leak, be damaged, or be wrongly encrypted.	Password Management for Personal Accounts: Require password changes at regular intervals, and require relatively complex passwords.	Strengthen personal account passwords and ensure that personal computers are not infiltrated.
		Anti-Virus Software: Virus definitions are centrally managed by an anti-virus server and automatically updated for the user computers.	Strengthen information service security through effective blocking and prevention of computer viruses.
		Endpoint Detection and Response: EDR is used for real-time monitoring of endpoint computers. Hazard detection takes place when abnormal threats are detected.	Increase understanding of information security threats. Identify and respond to incidents instantly, in order to support prevention and remedy.
Information Security Management	Prevent the leakage of customer information or business information.	<ul style="list-style-type: none"> • Legal authorization procedures • Two-factor authentication for important systems • Secure data transmission • Management of account authority • Backup support mechanism for important information systems 	Ensuring authorization principles and usability, preventing the leakage of information.
File Management	Prevent the leakage of confidential information or business information.	Introduce a document management system (DMS) and digital right management (DRM).	Ensuring minimum authorization principles, preventing the leakage of information.
Personnel Information Security Awareness and Capabilities	Insufficient information security awareness is vulnerable to deception, misleading, and malicious infringement, resulting in losses for the company.	<ul style="list-style-type: none"> • Implement social engineering drills • Implement information security education training and assessing learning outcomes • Implement information security promotion 	Strengthen personnel information security vigilance and awareness, and comply with the information security regulations.
	Information security personnel need to continue to improve their professionalism to grasp threat trends, protect enterprises and reduce information security risks.	<ul style="list-style-type: none"> • Encourage participation in expert seminars and information security certification exams. 	Continue to improve the professionalism of information security personnel and contribute to the organization's information security work.

In addition, when there is the potential incident of information security leakage, the Information Security Task Force triggers internal reporting procedures to initiate a correction and response and reports the incident to management.

- When a product vulnerability notification is received, the Company seeks to complete the fix and notify affected customers which in line with standards issued by the international information security organization (MITRE).
- Through the “Emergency Vulnerability Reporting and Handling Procedures”, emergency handling procedures for disclosed vulnerabilities are carried out, and the time limit for vulnerability handling is continuously improved.
- The returns of product-related vulnerabilities received in 2022 have been properly handled and closed.

■ Emergency Vulnerability Handling Procedures



■ Customer Privacy Protection Mechanisms

Information security, personal data, and customer and supplier privacy are important to Realtek. Realtek takes full responsibility for the safe collection and handling of customer and supplier data as well as employees’ personal information. During the design and development of IC products, we pay close attention to every step of the process and carefully analyze data flow to prevent the unauthorized acquisition, use, destruction, modification, or disclosure of customer information. Realtek’s customer privacy protection mechanisms include the following:

Information Security and Privacy Control	
Information Properties	Control Methods
Document Management System	<ul style="list-style-type: none"> • Formal authorization procedures must be completed to obtain customer information. • Use SSL encryption or DRM to control the use of customer data.
Digital Rights Management	Customer files are linked to accounts with DRM authorization to strengthen information security control mechanisms.
Independent Network Domains and Dedicated Storage Areas	Development source code can only be transmitted between controlled domains and storage areas.
Digital Data Protection	Comprehensive backup and recovery mechanisms.
Contract Compliance System	Handle the content and schedule of ‘required duties’ and ‘precautions’ into contracts. The content and schedule of contractual terms are only shown to departments with product IP authorization.

■ Information Security Education and Training

Realtek regularly conducts information security education and training. Through courses during information security month and information security drills, Realtek strengthens employee responsiveness and processing capabilities of information security issues. As such, we can enhance the awareness of all employees on information security, establish a concept of internal information security, and prevent malicious online attacks while lowering the incident occurrence rate and mitigating associated risks and losses.

Items	Content
Information Security Education Month Courses	<ul style="list-style-type: none"> • In the first half of 2022, the Company arranged activities for Information Security Education Month, introducing international information security trends and case sharing; in the second half of the year, we held four lectures on the safety issues faced in software design. • A total of 8 lectures were held and hands-on courses were introduced for the first time, improving the interactivity and attractiveness of the courses with 1,090 participants in total. • The Information Security Education Month Courses were included in the mandated training for information security officers in each department to enhance their awareness on information security.
Information Security Drills	The Company randomly sends phishing emails to employees as a test to record the number of people who click on the links. Employees who click on the links are required to take a review course on cybersecurity. In 2022, a total of 10,827 phishing emails were sent and the pass rate for this type of drill was 87%.



CH2

Innovative Value

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Achievement Highlights

Corresponding SDGs



Suggested Stakeholders for Reading

Customers, suppliers, government agencies, external rating agencies

Material Issues

Innovative R&D and product due diligence

Section Highlights and Investments

- Number of patents granted and pending by the Group increased by 1,144 in 2022.
- Selected for the first time by Clarivate as one of the "Top 100 Global Innovators 2022".
- Product Highlights: IoT Development Kit "RTL8722DM MINI"
- Ranked 4th among Taiwanese enterprises for the number of domestic patents granted.
- Realtek Group spent NT\$30.081 billion on R&D expenses in 2022.
- R&D staff accounted for approximately 88.2% of total employees in 2022.
- Continue to invest resources to make products comply with international environmental protection standards, and implement the procurement of green materials and obtain green product certification.

Policy Commitment

Realtek will continue to focus on the core competencies, grasp market trends, and plan product deployment strategies. The aim is to provide customers with products and solutions with better performance, higher degree of integration, and lower power consumption.

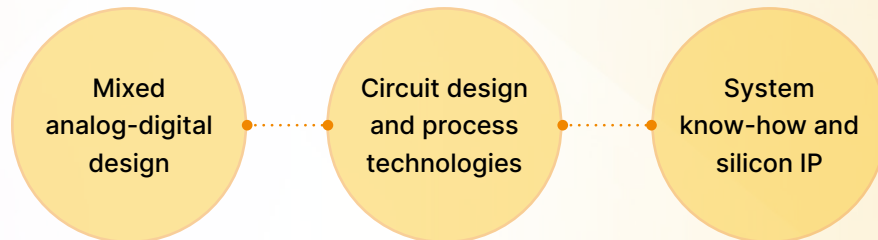


Innovative Value

Core Competencies

Realtek has the innovative capability to achieve continuous breakthroughs in existing technologies, making it a leading in industrial and technological trends. For the past 36 years since its establishment, Realtek has developed highly innovative ICs suitable for various applications. Our product portfolio covers a wide range of sectors, including connected media, communications network, computer peripherals, multimedia, and smart interconnected. Realtek has the technology strengths to integrate different types of products and services, and offers global partners the high-quality and fastest solutions. We possess advanced core technologies, solid and professional client base for years, cost-effective and customer oriented products, and experienced design and management teams. Realtek not only has strong core competencies, but also continues to refine and innovate to makes it stand out in the highly competitive semiconductor industry.

The core technologies of Realtek are mixed analog-digital design, circuit design and process technologies, as well as system know-how and silicon IP. Our long-term focus on development of innovative technologies and our spirit of providing steady, reliable and positive customer service are critical factors for Realtek's success. We will continue to actively create new competitiveness.



Realtek's innovative technology expertise comes from extensive system know-how and system integration capability. During product development, we leverage our knowledge of mixed signal circuit design, and integrate critical components (such as MCU, DSP, RISC, PLL and memory) from a system-level perspective. Realtek aims to provide customers with the best solutions in the form of a System-on-Chip (SoC). As well as our system development and IC design expertise, Realtek also possesses specialized expertise in process applications to ensure high product quality and reliability.

R&D Direction and Vision

When planning R&D, technology development, product manufacturing, or customer services, Realtek remains committed to providing customers with total solutions from a system perspective. Using end applications as a starting point, the Company seeks to be an enabler in connecting the world. Realtek's innovative thinking breaks through technical bottlenecks and constantly optimizes product designs. This approach enables us to develop comprehensive total solutions with higher speed and higher degree of integration, while adapting to 5G, AIoT, digital transformation, intelligence upgrades, and other mega trends. In addition, Realtek also combines advanced manufacturing processes and collaborates with innovative organizations to use neural networks to minimize circuit power consumption in a decentralized manner, achieving power-saving effects and first-class power consumption standards, and successfully extending product lifecycles that create greater value for customers and end users in various fields.

Vision

- Adhere to system concepts to provide customers with total solutions, including software, hardware, and design services.
- Strengthen the cultivation of core technologies, including embedded processors, embedded memories, analog/digital mixed-mode IC design, radio-frequency IC design, system design, and advanced process technologies.
- Starting from the application side, Realtek delivers SoCs that integrate video, audio, and communication elements.
- Develop high-speed, wired, wireless, and broadband network products. Use this as a platform to develop higher speed, higher resolution multimedia products.



Intellectual Property Strategy

Realtek continues to make breakthroughs in specialized, innovative technologies, earning the company many patents in multiple countries and building a strong portfolio of technologies. These advances enable Realtek to keep pace with global leading and mainstream technology trends. Realtek has been founded for 36 years and continues to maintain the spirit of continuous innovation in the R&D, reaching emerging technologies and applications, and has acquired and applied for a total of 9,413 domestic and international patents. According to the "Top 100 Patent Applicants in 2022" released by the Intellectual Property Office, Ministry of Economic Affairs, Realtek ranked 7th overall among Taiwanese enterprises for the number of domestic patents applied and 4th for the number of domestic patents granted. Realtek has invested in research and development for a long time, establishing a strong technological advantage in the international IC design market. With excellent technology, innovative strength and abundant research and development capacity. In 2022, it was the first time to be selected as one of the "Top 100 Global Innovators" by Clarivate. The Company's R&D investments demonstrate a commitment to building innovative technologies, bringing infinite prospects and opportunities for success to its core business, product customers, and technology partners.

Realtek Group's R&D Patent Portfolio, by Year

	2020	2021	2022
Patents Granted ^(Note 1.)	5,010	5,813	6,723
Patents Submitted ^(Note 2.)	1,225	2,456	2,690
Total	6,235	8,269	9,413

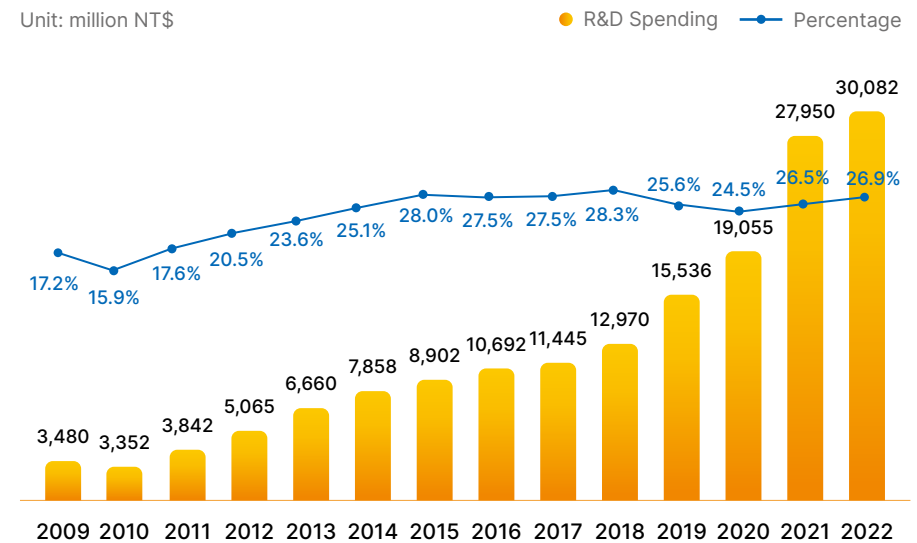
Note 1 : Patents granted, based on the date of announcement.

Note 2 : Patents submitted, based on December 31, 2022.



Realtek Group's R&D Spending as a Percentage of Revenue by Year

Unit: million NT\$



- 2022 Realtek group's R&D Spending: NT\$30.08 billion
- Ranked 4th among Taiwanese enterprises for the number of domestic patents granted in 2022 ^(Note.)
- Total number of granted and pending patents accumulated by Realtek group since establishment: 9,413

Note : Data sourced from the Intellectual Property Office, Ministry of Economic Affairs, ROC.

Innovative Achievements

Innovative Products and Applications

Innovation Products	Product Applications
Ameba D: Ultra-low-power-consumption Multi-functional IoT Solution (RTL8722DM)	Realtek's RTL8722DM is a leading global high-integration, multi-functional IoT single chip with the highest security level architecture and the lowest power consumption design. It connects various wireless device through dual-band Wi-Fi and Bluetooth 5 Mesh for anti-interference and long distance transmission. It also support LCD panels and a patented ultra-low audio latency features. The integrated power make RTL8722DM the perfect solution for smart home as well as the best IoT solution for smart door lock and wireless audio entertainment equipment for households. Realtek provides solutions that integrate the global IoT ecosystem, enabling customers to quickly develop advanced IoT application products with the highest security level.
AI Super Resolution Chips (RTD2892NND)	Realtek's RTD2892NND is currently the only computing power available on the market with strong AI hardware, and features with super resolution chips that enable real-time image quality restoration and detail enhancement, which can be integrated with the existing display controller to achieve optimal display quality. RTD2892NND can also analyze on different scenarios and objects, using various neural network models for image processing, automatically removing noise and enhancing image quality, and solving the problem of compression and details destruction of films caused by content transmission bandwidth restrictions.
Bluetooth + 2.4G Dual-Mode Gaming Headphone Solution with Audio-mixing (RTL8773D)	Realtek's RTL8773D is the world's first dual-mode audio-mixing SoC with AI noise reduction that support Bluetooth + 2.4GHz. When used in connection with Realtek's dongle solution, it can achieve 2.4GHz low latency (20 ms), and enable 2.4GHz + Bluetooth music/call audio-mixing. In addition, RTL8773D supports high-performance neural network noise reduction, which perfectly eliminates the keystroke noise and provides the best in-game experience for game players.
VR Air Bridge: PC VR Games & Application Wireless Experience (RTL8832AU / RTL8832CU)	Realtek launched the the first Wi-Fi 6/6E wireless USB adapter to support VR games and applications, which can be easily deployed in PCs and build the dedicated wireless network of VR head-mounted devices to enjoy the high quality gaming experience with high throughputs and low latency streaming, and immerse oneself in the full 360° unrestricted movement in smooth frame rates games.
Wireless Next Generation Wi-Fi 7 (RTL8952A / RTL8922A)	Realtek's Wi-Fi 7 is backward compatible and coexist with traditional devices in 2.4G/5G/6GHz frequency band. Additionally, the enhanced functions of Realtek's Wi-Fi 7 will support new generation technologies such as 4096 QAM, MLO, MRU, and provide lower latency for time-sensitive network applications such as AR/VR, 4K and 8K video streaming, automotive, gaming and video applications. Realtek's Wi-Fi 7 is set to enter mass production in 2024, including AP routers, PC/NB, Wi-Fi dongle, AR/VR, video streaming and gaming devices, etc.
Automotive Solutions (RTL9010B / RTL9000C series)	One of the first automotive Ethernet PHYs with built-in MACsec encryption and decryption, bringing superior information security to the next generation of software-defined vehicles.

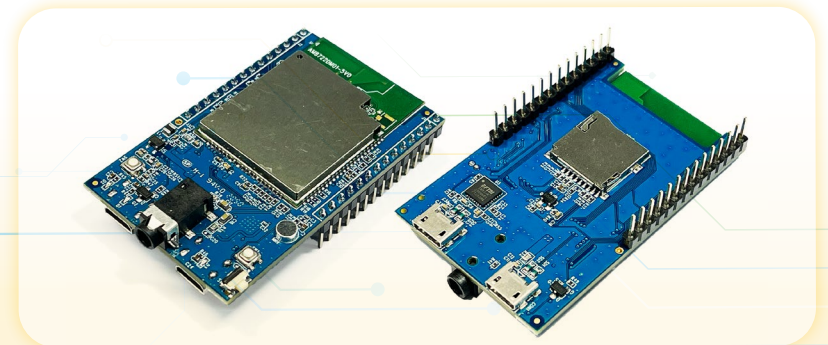
2022 Product Highlights: IoT Development Kit

"RTL8722DM MINI", also known as Ameba 23 (AMB 23), is a programmed micro-controller platform designed to assist in the development of various IoT applications. The data collected by the platform can be upload wirelessly via Wi-Fi, enabling the application of IoT on smart devices.

AMB23 is a highly integrated single chip designed for IoT. Its appearance is precisely designed to reduce the size, and it is designed as a row of PIN type that makes it convenient for makers to plug into the solderless universal circuit board during the development stage. The AMB23 features the integration of Realtek's diverse and extreme technology, which is equipped with dual-band (2.4GHz/5GHz) Wi-Fi, Bluetooth 5.0 and audio control chip, etc., while combining 32-bit dual-core MCU to further enhance its operational performance.

Through EETimes solderless universal circuit board, Realtek extended the development of RTL8722DM and launched AMB 23, which has a rich periphery interface to connect various sensors especially for users in the development environment of Arduino, MicroPython(MP) and GCC. AMB 23 has a variety of peripheral interfaces, including WiFi, GPIO INT, I2C, UART, SPI, PWM, ADC, etc. Through these interfaces, users can link up electronic components such as LEDs, switches, pressure meter, humidity meter, PM2.5 dust sensors, etc., and create with a diversified application model.

In addition, the AMB 23 has a wide range of applications, such as ultrasonic distance measurement, infrared detection, integration with AWS cloud platform, cloud voice recognition, baby care assistant, and smart fish tank, and its diverse development possibilities bring unlimited opportunities for makers to explore and innovate.



Professional Exchanges between Industries

Engagement with External Organizations

Realtek actively participates in domestic and foreign professional organizations. Through mutual learning and exchanges, we expand multilateral relationships, exchange professional experience and market information to enhance corporate competitiveness and industrial visibility. Realtek also collaborates with international organizations to jointly establish relevant technical standards and regulations, leveraging its outstanding research and development capabilities to strengthen global influence, Realtek is a member of the following external professional organizations:

Domestic Organizations

Name of Organization
National Taiwan University SoC Center
Tze-Chiang Foundation of Science & Technology
Taipei Computer Association
National Yang Ming Chiao Tung University Electrical Engineering Industry-Academy Resource Alliance
National Yang Ming Chiao Tung University Electrical Engineering Industry-Academy Resource Alliance
Automotive Electronics SIG, Industrial Development Bureau, Ministry of Economic Affairs
Taiwan IC Industry & Academia Research Alliance (TIARA)
Taiwan Semiconductor Industry Association (TSIA)
Institute for Biotechnology and Medicine Industry

International Organizations

Name of Organization	
Avnu Alliance – Adopter	OPEN Alliance SIG
Bluetooth SIG	PC/SC Work Group
Citrix	Peripheral Component Interconnect Special Interest Group, PCI SIG
Distributed Management Task Force, DMTF	SD Association
Embedded Microprocessor Benchmark Consortium, EEMBC	Serial ATA International Organization, SATA-IO
HDMI Forum	Sony Memory Stick License
Institute of Electrical and Electronics Engineers, IEEE	International Society for Optics and Photonics, SPIE
JEDEC Solid State Technology Association, JEDEC	Trusted Computing Group
MHL, LLC (Mobile High-Definition Link, MHL Alliance)	UHD Alliance Contributor
Microsoft Developer Network, MSDN	USB Implementers Forum, USB-IF
Mobile Industry Processor Interface Alliance	Video Electronics Standards Association, VESA
NSM Initiatives LLC	Wi-Fi Alliance Contributor
NVM express, NVMe	University of New Hampshire InterOperability Laboratory, UNH-IOL

■ Meetings of International Standard Setting Organizations

Realtek constantly participates in and promotes setting of international standards, which enables the Company to gain knowledge on the product market and technical trends in advance. Joint collaboration, communication and achieving early consensus on standards helps products adhere to international standards and continuously raise our R&D capabilities.

Meeting Name	Purpose and Result
IEEE 802.11 Working Group	Participating in discussions on formulating communication protocol standards and providing suggestions and perspectives.
IEEE 802.3 Working Group	Participating in discussions on formulating communication protocol standards and providing suggestions and perspectives.
WFA (Wi-Fi Alliance)	Defining Wi-Fi specifications and testing protocols, provide certification standards for Wi-Fi products.
BT-SIG (Bluetooth Special Interest Group)	Defining Bluetooth specifications and testing guidelines, provide Bluetooth product BQB certification standards.
Automotive Ethernet Congress	Collaborating with internationally renowned software, hardware and IC design companies in introducing the application of 10Base-T1S based automotive network to provide multi-point connected devices, demonstrating the advantages of the interconnected Ethernet and related series of products.
MIPI FTF Meeting	Participating in discussions and jointly establish recording interface standards for computers, mobile devices, and accessories.
IEEE Automotive Ethernet TechDay	Participating in the annual IEEE Automotive Ethernet TechDay to display a series of automotive Ethernet products.
Auto IC Master Establishment Meeting	The SEMI and industry leaders (including Realtek) cooperated to build the "SEMI Auto IC Master Platform", which will provide relevant guidance and connect with the upstream and downstream supply manufacturers of automotive semiconductor chips industry in Taiwan. By utilising the unique technological advantages of their products, domestic and international automotive manufacturers can easily find out the target products when building energy-saving vehicles in the future, and promote the sustainable development of automotive electronics industry in Taiwan.
USB-IF Certification	Participate in the optimisation of the test method of Ellipsis Compliance analytical instruments (USB-IF certification) to enhance the accuracy of USB specification test.
USB-IF Ethernet Cable Speed Interrupt Transfer Data Expansion Definition	Participate in the NCM specifications formulation in CDC (Communication Device Class) as defined by USB-IF to enhance the transmission performance of the Ethernet between Host and USB Device.

2022 Auto IC Master Establishment Meeting



■ Industrial-Academic Collaborative Research Project

In 2022, Realtek collaborated with the top academic research institutions at home and abroad, including professors and students, to launch 28 industrial-academic collaborative research plans, investing approximately NT\$24 million on topics such as analog and digital IC design, radio frequency, machine learning, accelerators, and other advanced manufacturing techniques. Over the years, Realtek has selected different cooperation approaches through continuous industrial-academic collaborative research plans, focusing on development difficulties, technological risks, technological elasticity, technological types and urgency of needs. The types of cooperation include cooperation in R&D, entrusted research, engagement of technical consultants, holding technical seminars, etc. We have built up our core technologies in various aspects and continue to pursue innovation and breakthroughs, collaborate with various parties to cultivate more specialised and excellent talents, and strengthen the professional technology and practical capabilities of young students. At the same time, Realtek enhances its technological capability in various application fields and continuously provide customers with higher quality and more comprehensive solutions.

9 Academic / Research Institutions	Investment in Research	Joint R&D of 28 Projects
<ul style="list-style-type: none"> National Taiwan University National Yang Ming ChiaoTung University National Tsing Hua University National Cheng Kung University National Sun Yat-sen University National Taipei University Chung Yuan Christian University Singapore University of Technology and Design Interuniversity Microelectronics Centre (IMEC) 	24 million	<ul style="list-style-type: none"> Machine learning Analog integrated circuits design Digital integrated circuits design Deep learning accelerator architecture and design platform development Advanced process test technology Application of deep learning in audio and image signal processing, application of physical layer design flow, and network traffic research Energy harvesting and efficient power management, high-frequency low-power circuit, high-speed high-resolution analog-to-digital conversion, high-speed serial communication transmission Radio frequency desensitization model acquisition technology Development of laptop fan noise reduction technology

Sustainable Products

Product Quality and Environmental Mission

Realtek has a set of strict standards for the raw materials used during production, and complies with relevant environmental and quality standards established by international initiatives. We ensure that our products do not contain substances that are harmful to human health or have adverse impacts on the environment.

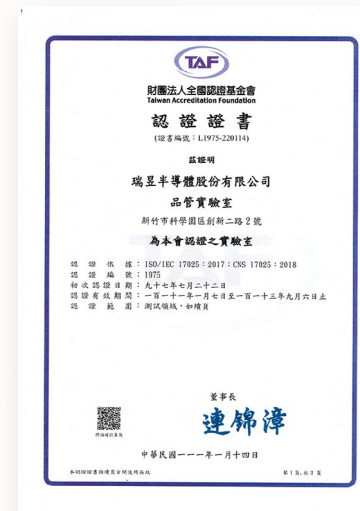
Realtek continuously implements ISO 17025 Laboratory Quality Management Systems certification to help the Company strengthen quality management and ensure the durability of IC products, thus extending product lifecycles and reducing resource usage during production. In addition, Realtek uses a variety of reliability testing processes to rigorously test product functionality before shipping. Potential customer usage scenarios are simulated with strict testing methodologies to analyze the tolerance of each device under various conditions, and repeatedly experiment and propose solutions to ensure the goal of product durability and lifetime extension is achieved. Realtek also designs specific testing plans based on feedback from customers and end-users to further enhance the product quality.

In terms of environmental aspects, in 2020, Realtek completed the new version of ISO 14001: 2015 Environmental Management System certification. Advances include optimization of green design in the product life cycle, which reduces negative environmental impact and raises Realtek's environmental performance. In addition, Realtek strives to comply with international environmental protection standards and enforce green raw material and product certifications. Green IC products meet lead-free and halogen-free standards as well as EU and Japanese restrictions on hazardous substances in the electronics industry. Realtek also complies with the EU RoHS (Restriction of Hazardous Substances Directive). Besides, Realtek took the lead in the industry in obtaining SONY Green Partner (GP) certification in 2003, then obtained Fujitsu Green Partner certification in 2005, and CANON Green Partner certification in 2009. We believe that our continuous efforts to develop green products will enhance the user experience and lead to environmentally sustainable development.

In 2022, Realtek did not violate any product and service related health and safety regulations.



ISO 14001 Environmental Management Systems
Validity period: 2020.10.12 ~ 2023.10.12



ISO 17025 Laboratory Quality Management Systems
Validity period: 2022.01.07 ~ 2024.09.06



■ Development of Energy-Saving Products

As a large number of ICs are used in electronics products, Realtek firmly believes that by continuing to develop innovative ICs with better energy efficiency, we can help reduce global carbon emissions significantly worldwide. Therefore, Realtek incorporates environmental and energy-saving concepts into the product design process at the early stages of IC product development. We focus on enhancing low-power product design according to various use scenario cases to effectively reduce power consumption of new generations energy-saving products. It is the core spirit of Realtek to design products that are innovative, high-performance and meet environmental protection solutions for customers around the world!

In 2022, Realtek successfully developed several new generations of products, which reduced power consumption and were smaller in area compared to the previous generations. When used for long periods of time and high-volume transmission, the significant power savings make the environmental benefits clear. They also provide end users with an enhanced user experience.

Design effectiveness of energy-saving products launched in 2022

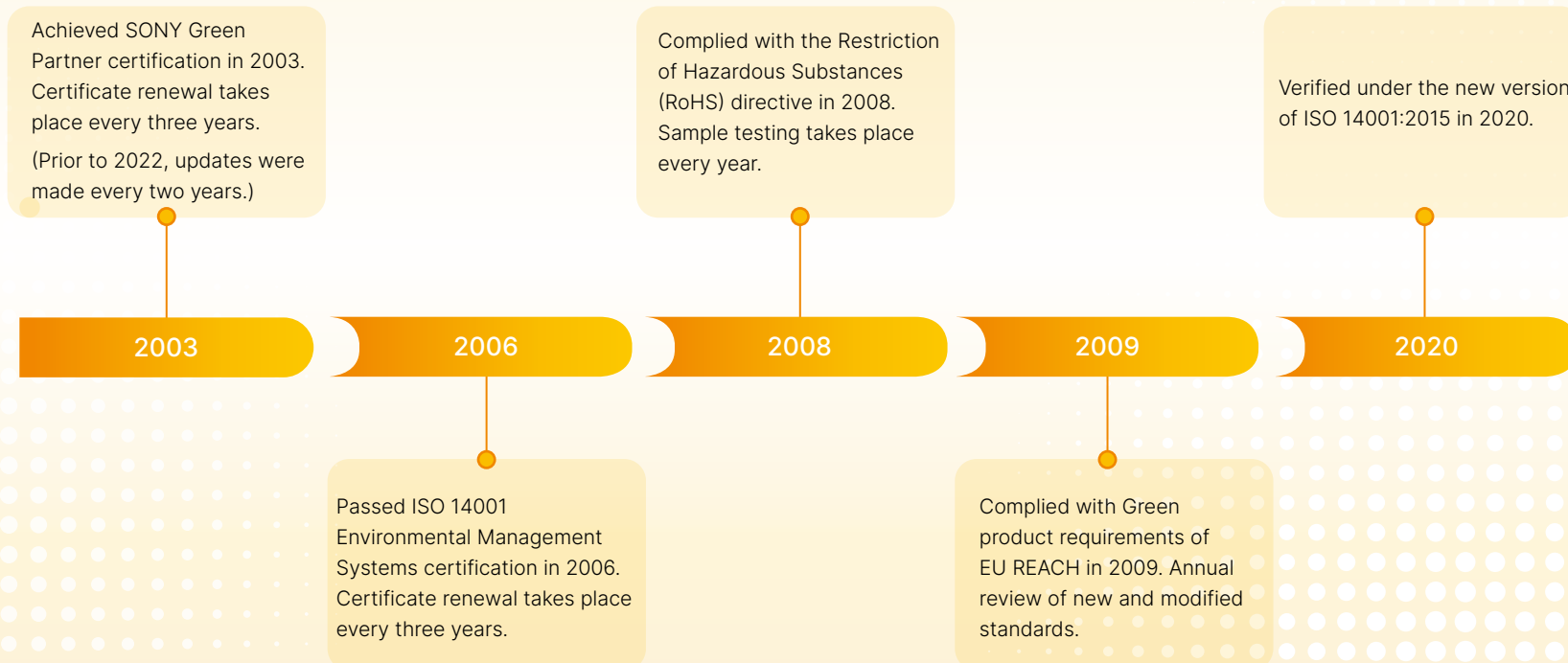
Product power consumption reduction by 47% ^(Note 1.)

Product area reduction by 12% to 46% ^(Note 2.)

Note 1 : Method for calculating the product power consumption reduction ratio: (New product IC power consumption volume – previous generation product IC power consumption volume) / Previous generation product IC power consumption volume.

Note 2 : Method for calculating the product area reduction ratio: (New product IC area – previous generation product IC area) / Previous generation product IC area.

Green Product Milestones





CH3

Green Operations

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Achievement Highlights

Corresponding SDGs



Suggested Stakeholders for Reading

Customers, suppliers, government agencies, external rating agencies, investors

Material Issues

Response to environmental sustainability and climate change

Section Highlights and Investments

- Announced to achieve the major goal of net zero carbon emission by 2050.
- Continued to invest in energy-saving measures. With the continuous growth of revenue, the overall energy intensity was 1.62 GJ/million of revenue, maintaining a downward trend.
- Implemented ISO 14064 GHG inventory system and obtained third-party certification.
- Completed quantitative analysis of climate-related financial impacts in accordance with the TCFD framework.
- Commenced installation of solar power generation systems with an installed capacity of 176 kW.
- Continuously reviewed and implemented various measures to control carbon emissions through the six energy-saving directions.
- Planned to introduce the ISO 50001 energy management system and obtain certification in 2023, effectively monitor energy consumption and achieve energy saving and carbon reduction goals.

Policy Commitment

- Realtek establishes and implements environmental and sustainable policies. Operating on the principle of 'giving back to the environment what we take,' we prudently use all energies and resources. By saving energy and conducting environmental protection measures in daily operations, the Company continues to protect the global environment and fulfill sustainability duties.



Green Operations

Climate Strategy

Realtek adopted the “Task Force on Climate-related Financial Disclosures (TCFD)” framework, evaluating opportunities and risks in times of climate change with four core elements, namely governance, strategies, risk management as well as goals and objectives, since 2020. In 2022, the Company further held a TCFD workshop to identify climate-related risks and opportunities. During the meeting, senior executives and the Sustainability Committee members evaluated and discussed the possibilities and degree of impact of climate issues, to identify the major risks and potential opportunities of climate change for Realtek in recent years, and further formulated the corresponding goals and strategies.

Governance

- Establish the ESG committee, overseen by the president, to review and track the international trend of climate change actions, implement sustainable actions on climate change issues. The ESG committee regularly report to the top management and president on the implementation results of risk and opportunity management strategies. The president reports to the board of directors on a regular basis.

Goals and Objectives

- 50 % reduction of Scopes 1 and 2 greenhouse gas emissions by 2030, compared with the base year of 2021.
- Net zero carbon emissions by 2050.

Strategies

- Use Renewable Energy
- Improve Energy Efficiency
- Extend Green Product Design
- Sustainable Supply Chain Management

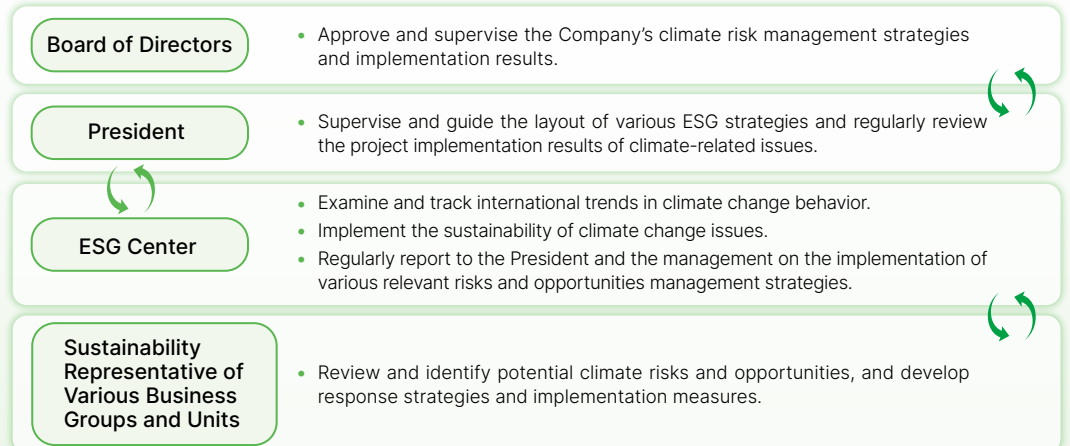
Risk Management

- Implement Management Procedures for Climate Change Risks and Opportunities.
- Identify risks and opportunities of climate change through interdepartmental meetings. Assess the financial impact of risks and opportunities and formulate countermeasures.

Governance

Realtek continues to track international trends, customers and government concerns, and climate change-related information such as the impact on sustainable supply chain. It holds inter-departmental meetings to discuss climate change issues that may impact the Company, and regularly reviews, evaluates and improves its climate sustainability governance policies. Realtek follows the global warming scenarios issued by the UN's Intergovernmental Panel on Climate Change (IPCC) to identify the factors contributing to extreme weather event, quantify financial impact information, and formulates a strategy for adaptation and mitigation. The climate change vision, strategies, and sustainable development goals are approved by the Board of Directors. The president provides regular reports to the Board of Directors on the achievements of climate-related risk and opportunity management strategies, ensuring the implementation of a sustainable governance approach for climate change.

Climate Change Governance Structure



■ Strategies

Realtek discusses and evaluates climate-related issues in the ESG Committee's meetings. With reference to the "Shared Socio-Economic Pathways (SSP)" methodology proposed in the Sixth Assessment report (AR6) by the UN's Intergovernmental Panel on Climate Change (IPCC), we conduct analysis under three climate scenarios, including SSP1-1.9^(Note 1), SSP2-4.5^(Note 2), and SSP5-8.5. Based on the results of the climate scenario analysis, we select SSP1-1.9 to evaluate the impact of climate change on the overall operation of Realtek under the ideal scenario where temperature rise is controlled at 1.5°C. We clarify the existing measures, response options, the form, feasibility and sources of obtaining quantified financial impact data, and compile the risks and opportunities of climate change that may affect Realtek; we follow the TCFD framework to identify climate-related transition risks, physical risks and opportunities, and analyze the issues related to Realtek's operations. The potential impact, opportunities, financial impact and response strategies for climate change transition risks (regulatory requirements, changes in market preferences) and physical risks (supply disruptions, increased severity of extreme climate events, rising average temperatures, changes in rainfall patterns and climate patterns, rising sea levels) are shown in the table below. The main operational locations covered by the relevant response measures include Hsinchu Science Park, and offices in Taipei and Tainan.

Note 1 : This represents a scenario where temperature rise is limited to less than 1.5°C.

Note 2 : This represents a scenario where temperature rise is limited to less than 2°C.

Climate Risks and Opportunities		Climate Impact Events	Potential Financial Impacts	Responding Strategies
Transition Risk	Policy and Legal Requirement	Government regulations or agreement requirements	<ul style="list-style-type: none"> Terms and regulations on renewable energy usage for major electricity consumers Impact of ESG investment, restrictions on investors' willingness Corporate governance 3.0 regulatory requirements that increase information disclosure cost Addition of carbon cost 	<ul style="list-style-type: none"> Implementation of ISO 50001 energy management system. Install solar power generation system: commissioned our own rooftop solar power generation system since 2023. Based on the medium to long-term carbon reduction goal, considering the electricity demand for future facility expansion and develop the purchase plan of green power. Follow the information disclosure guidelines of "Corporate Governance 3.0" and introduce the TCFD framework. Actively cooperate with the Financial Supervisory Commission to strengthen the promotion of corporate governance standards. ESG Report discloses relevant information in accordance with the SASB indicators.
	Goodwill	Changing market preferences	<ul style="list-style-type: none"> Rising costs due to changing market preferences and increased customer demand for green product designs 	<ul style="list-style-type: none"> Implement green product design (lower power consumption and smaller area). Improve product efficiency.
Physical Risk	Immediately/Long-term	Supply chain disruption	<ul style="list-style-type: none"> Disruption in raw material supply Increased cost for supply chain sustainability energy transition 	<ul style="list-style-type: none"> Actively carry out sustainable supply chain management. Implement Business Continuity Management (BCM).
		Increased severity of extreme weather events such as typhoons and floods	<ul style="list-style-type: none"> Disruption or interruption of operations leading to increased operating costs 	<ul style="list-style-type: none"> Purchase relevant disaster insurance. Establish emergency response procedures and installs disaster prevention equipment to reduce operation interruption and potential losses.
		Rising average temperature	<ul style="list-style-type: none"> Increase in power consumption due to higher air-conditioning operation demand as a result of high temperature 	<ul style="list-style-type: none"> Implement energy management system and energy monitoring system to effectively track the energy consumption in various situations.
		Changing rainfall (water) patterns and climate patterns	<ul style="list-style-type: none"> Droughts caused by extreme weather 	<ul style="list-style-type: none"> Adjust operational water consumption and strengthen relevant water-saving measures based on water tracking and water usage monitoring in the plant area. Promote the awareness of water conservation among all employees through water-saving announcements.
		Rising sea level	<ul style="list-style-type: none"> Floods caused by rising sea level 	<ul style="list-style-type: none"> Securing relevant natural disaster insurance coverage.

Climate Risks and Opportunities		Climate Impact Events	Potential Financial Impacts	Responding Strategies
Climate Opportunities	Market	Attractive ESG investment	<ul style="list-style-type: none"> Attracting ESG investment to enhance corporate goodwill and market value Increasing customer trust to enhance competitiveness and goodwill 	<ul style="list-style-type: none"> Install solar power generation system: commissioned our own rooftop solar power generation system since 2023. Based on the medium to long-term carbon reduction goal, consider the power demand of future plant expansion and develop the purchase plan of green power. Implement the information disclosure guidelines of "Corporate Governance 3.0" and introduce the TCFD framework. Actively cooperate with the Financial Supervisory Commission to strengthen the promotion of corporate governance standards.
	Market and Services	Changing market preferences, improved market share	<ul style="list-style-type: none"> Increasing customer trust to enhance competitiveness and goodwill 	<ul style="list-style-type: none"> Introduce green product design (lower power consumption and smaller area).
	Resilience	Uninterrupted operation, enhancing customer confidence	<ul style="list-style-type: none"> Improving supply chain reliability and resilience 	<ul style="list-style-type: none"> Actively carry out sustainable supply chain management. Implement Business Continuity Management (BCM).

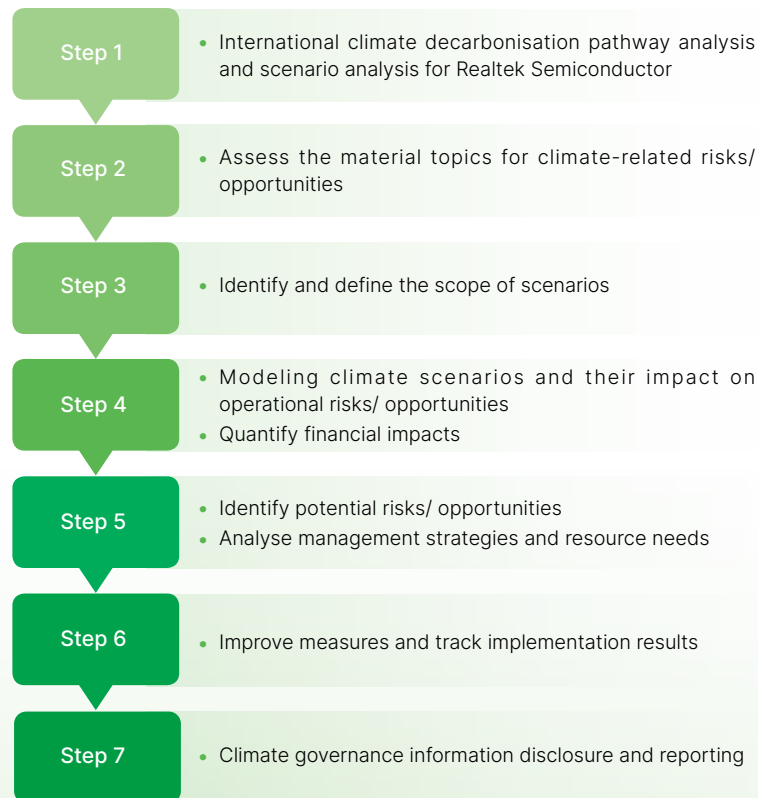
Financial Impact Assessment on Climate Change

In order to promote and achieve the goal of limiting the temperature rise within 1.5°C, we have developed and implemented various corresponding strategies such as energy-saving measures, installation of solar power generation facilities, implementation of sustainable supply chain management and energy management system based on the results of our scenario analysis on climate-related risks and opportunities. We assessed the potential financial impact of the key strategies, including the increase in air-conditioning costs, the costs of upstream supplier transition, the costs of setting up new solar power generation facilities, and the management and communication costs on sustainability issues. Although the short-, medium- and long-term financial impact caused by various climate issues may lead to an increase in expenses and management costs, the financial impact is less than 1% of net revenue after quantitative assessment.

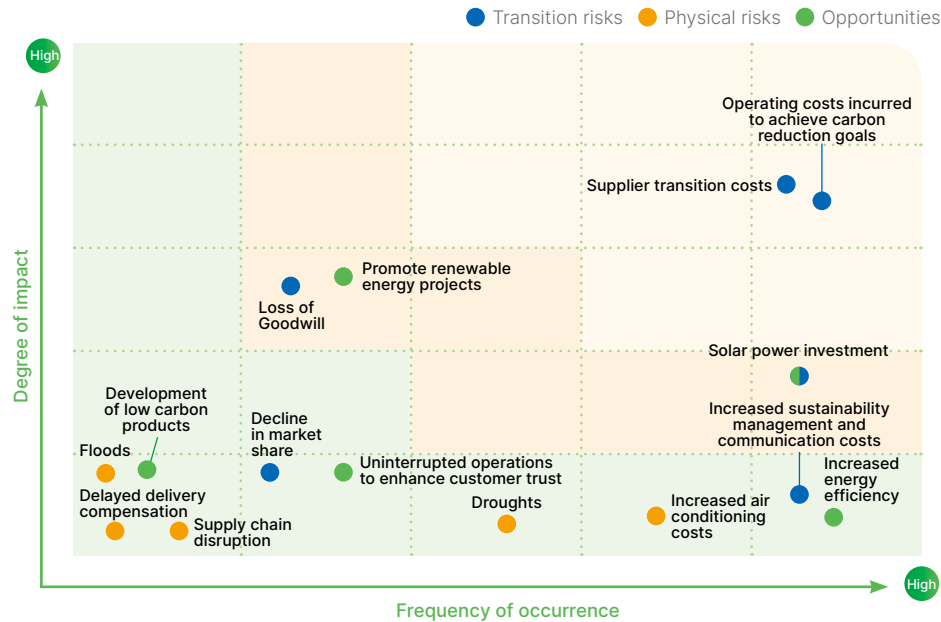
Climate Change Risk Management

Realtek's climate-related risks and opportunities assessment in 2022 set a short-term timeframe for 2023, mid-term timeframe for 2024 to 2026 and long-term timeframe for 2027 to 2035. In accordance with the global temperature control target of limiting the temperature rise to 1.5°C proposed by IPCC AR6, we evaluated the degree of relevance between the various development strategies of each business operation and climate-related issues. It identified the potential impact of climate-related risks and opportunities on operations and the probability of occurrence, further developed the climate-related risks and opportunities matrix of Realtek, formulating the climate-related risks and opportunities response strategies.

Identification and Management Procedures for Climate Change Risks



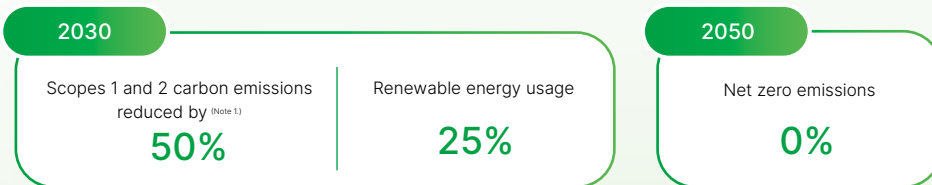
Climate Change Related Risks and Opportunities Matrix



Climate Risks and Opportunities Analysis Results			
	High	Moderate	Low
Risks	<ul style="list-style-type: none"> Operating costs incurred to achieve carbon reduction goals Supplier transition costs 	<ul style="list-style-type: none"> Loss of Goodwill Solar power investment 	<ul style="list-style-type: none"> Decline in market share Increased air conditioning costs Increased sustainability management and communication costs Delayed delivery compensation Floods Droughts
Opportunities	Moderate		Low
	<ul style="list-style-type: none"> Solar power investment Promote renewable energy projects 		<ul style="list-style-type: none"> Uninterrupted operations to enhance customer trust Development of low carbon products Increased energy efficiency

Objectives and Targets

In terms of corporate sustainable development, climate change is an important issue that cannot be ignored. Realtek continues to pay attention to and identify the potential impact of climate change, and formulates relevant management policies and plans. To mitigate the climate transition crisis caused by the greenhouse gas emissions. Realtek actively respond to the international net-zero emission initiative, Realtek announced to achieve the major goal of net-zero carbon emission by 2050. The plan is to gradually reduce the total carbon emissions and achieve net zero emissions by continuously developing low-carbon products, improving energy efficiency of equipment, constructing office buildings according to green building standards and obtaining certification, increasing the proportion of renewable energy usage, and implementing supply chain carbon reduction target management.



Note 1 : GHG emissions from Scope 1 and Scope 2 are reduced by 50% compared with the base year of 2021.



Green Operation Performance Compilation

✔ Achieved ✖ Not Achieved

Item	2022 Goals	2022 Achievements and Improvement Plans		Short, Medium- to Long-Term Goals
Energy Saving and Carbon Reduction	Energy-saving rate reached 3.8%.	✔	Energy-saving rate was 5.3%.	<ul style="list-style-type: none"> Energy-saving rate reaches 6%. In 2030, scopes 1 and 2 carbon emissions will be reduced to 50% of the 2021 base year. Achieve net zero emissions by 2050.
	Completed ISO 14064-1:2018 third party verification and obtained the certificate.	✔	Obtained the ISO 14064-1:2018 third party certification report in August 2022.	Complete carbon inventory of Realtek Group's locations in 2024.
	Renewable energy: install solar panels with an installed capacity of at least 176 kW.	✖	Due to the impact of covid-19 pandemic and material shortages, the overall operation and review process has been delayed. The first phase is expected to be completed in the first quarter of 2023, with grid-connected power generation in April.	<ul style="list-style-type: none"> In 2023, the installed capacity in Hsinchu Headquarters reaches 469 kW. In 2024, the installed capacity in Hsinchu Headquarters reaches 999 kW. In 2025, the installed capacity in Hsinchu Headquarters reaches 1,149 kW.
Water Management	Water consumption per capita decreased by 1% compared to the previous year	✖	<ul style="list-style-type: none"> Water consumption per capita increased by 3% compared to the previous year. Continue to implement water-saving measures and strengthen employees' concept of cherishing water resources. 	Water withdrawal per capita decreased by 1% compared to the previous year.
	Campus water saving rate reached 5%	✔	Water saving rate of 8.5%.	Campus water saving rate ≥5%
Waste Management	IC waste recycling rate: at least 90%	✔	IC waste recycling rate > 90%.	Waste IC recycling rate: at least 90%.
	General industrial wastes shall not exceed 27 kg per NT\$100 million of revenue.	✔	General industrial wastes of 18.18 kg per NT\$100 million of revenue.	General industrial wastes shall not exceed 27 kg per NT\$100 million of revenue.

GHG Management

GHG emission is the most directly related factor to climate change. Realtek has independently conducted GHG emission inventory and management at the Hsinchu Headquarters since 2019; we implemented a comprehensive ISO 14064-1:2018 GHG inventory and passed the third-party verification in 2022. Realtek's current inventory operation covers major operating locations (Realtek No. 1 Campus, Realtek No. 2 Campus, Taipei office and Tainan office), and the Company has begun planning for GHG emissions management of Realtek No. 3 Campus, Suzhou, Hefei, Shenzhen, Singapore and other subsidiaries. It is expected to complete the GHG emission inventory and verification for all sites of Realtek Group by 2024.

In 2022, Realtek's total GHG emissions amounted to 26,462.8729 tCO₂e, of which direct emissions (Scope 1) amounted to 808.4856 tCO₂e, which included emissions from stationary sources (diesel used in emergency generators), mobile sources (petrol used in company cars) and fugitive sources (refrigerants, septic tanks, and fire extinguishers), respectively. Realtek produces no process emissions as we do not engage in production processes. Indirect emissions (Scope 2) of 25,654.3873 tCO₂e primarily came from purchased electricity, accounting for 96.94% of total emissions.

With reference to the results of the GHG inventory, Realtek has formulated a carbon reduction strategy, set the direction of energy conservation at the energy saving improvement kick-off meeting in October 2022, promoting the establishment of an energy data monitoring system. Through regular internal meetings, the Company monitors the implementation progress of energy-saving measures of each responsible unit, and determines the path of carbon reduction with reference to the Science Based Targets Initiative (SBTI).

GHG Emissions

Unit: tCO₂e

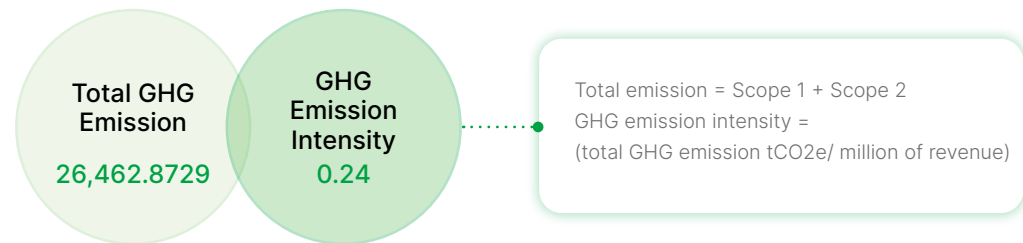
Scope		Venue	2021	2022
Direct GHG Emission	Scope 1	Hsinchu No.1 Campus	503.6568	562.1255
		Hsinchu No.2 Campus	158.4161	229.3630
		Taipei Office	-	10.8288
		Tainan Office	-	6.1683
Indirect GHG Emission	Scope 2	Hsinchu No.1 Campus	19,426.2904	19,992.9092
		Hsinchu No.2 Campus	4,832.8532	5,479.8940
		Taipei Office	-	121.0044
		Tainan Office	-	60.5797
Total			24,921.2165	26,462.8729

Note 1 : The GHG emissions data for 2021 covers Realtek No. 1 Campus and Realtek No. 2 Campus. The data has been adjusted according to the inventory results of ISO14064-1:2018 approved by the third-party verification. The revised data is higher than the data disclosed in previous year's ESG Report (Scope 1 increased by 629.60 tCO₂e), which is due to the revision and complete inventory of all emission sources after third-party verification.

Note 2 : Global Warming Potential (GWP) is based on IPCC Report AR6th in 2021.

Note 3 : Conversion factors are based on the GHG Emission Coefficient Management Table V.6.0.4 issued by the Environmental Protection Administration (EPA), Executive Yuan.

Note 4 : The Bureau of Energy, Ministry of Economic Affairs announced the electricity emissions factors.



Taiwan's 'Climate Change Response Act' requires that GHG inventories include seven types of GHGs. Realtek's major emissions were from CO₂, which accounted for 95.53% of total emissions. Other emissions such as CH₄, N₂O, and HFCs amounted to less than 5% of the total.

Emissions Type	CO ₂	CH ₄	N ₂ O	HFCs	PFCs	SF ₆	NF ₃	Total
Emissions (CO ₂ e)	25,765.05	410.16	0.90	356.76	0.00	0.00	0.00	26,462.87
Ratio	97.36%	1.55%	0.00%	1.35%	0.00%	0.00%	0.00%	100%

Note 1 : Realtek has no emission of NO_x, SO_x, or other heavily polluting gases.



Realtek is fully introduced and certified with ISO 14064-1:2018 in 2022

Note : The data stated in the certificate includes some overseas locations, and this report only disclosed the Company's main operational locations in Taiwan.

Energy Management

Energy Efficiency

Realtek is a professional IC design house. The Company's energy consumption mainly from grid electricity, diesel for emergency generators, and petrol for company vehicles. Realtek has no heating equipment that uses coal, gas, or boilers, and its production does not involve high energy consumption processes such as smelting or polymerization. In 2022, Realtek's total energy consumption was 181,599.16 GJ and energy intensity was 1.62 GJ. As the Company's revenues increased significantly, its energy intensity continued to fall, demonstrating the effectiveness of its energy-saving management measures. In the future, Realtek will continue to implement energy-saving measures and regularly assess energy-saving goals as well as effectiveness.

Energy Consumption for the Past Two Years

Item	2021	2022
Petrol (GJ)	58.62	68.26
Diesel (GJ)	206.94	175.48
Electricity (GJ)	171,577.44	181,355.42
Total (GJ)	171,843.01	181,599.16
Revenues (NT\$ Millions)	105,504.00	111,789.79
Energy Intensity (GJ)	1.63	1.62

Note 1 : Power consumption data of grid electricity is from Realtek's electricity bills. Petrol and diesel data gathered from the Company's internal records.

Note 2 : The coefficients for conversion of heating value came from the 2021 Energy Statistical Handbook – Heat Content of Energy Products published by the MOEA Bureau of Energy. The value for electricity was 3,598.24 kJ, for petrol was 32,635.20 kJ/L, and for diesel was 35,145.60 kJ/L.

Note 3 : Realtek's energy consumption data include those from Hsinchu Headquarters' No.1 Campus, No.2 Campus, Taipei Office and Tainan Office.

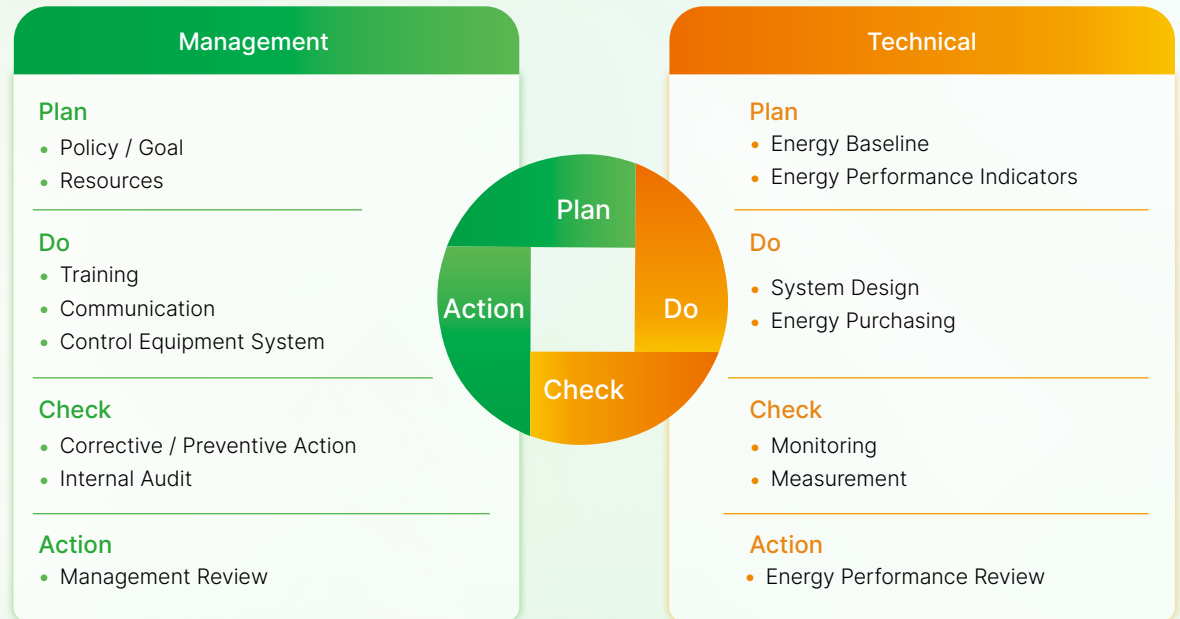
Year	2021	2022
Energy Consumption (GJ)	171,843.01	181,599.16
Energy Intensity (GJ/ million of revenue)	1.63	1.62

Multi-Pronged Approach to Energy Savings and Better Energy Efficiency

Realtek is an IC design company that operates in a typical commercial office buildings. However, it continues to review the systems from six major directions, such as power systems, IT server rooms, lighting systems, air-conditioning systems, gas systems and testing equipment to improve energy conservation. Realtek conduct self-assessments and implements various projects to control carbon emissions and ensure the implementation effectiveness of various energy-saving measures.

In order to implement energy-saving and carbon reduction policies and improve the Company's energy efficiency, we will complete the implementation of the ISO 50001 energy management system standard in 2023. Through energy reviews, establishing energy baselines, setting energy performance metrics, goals, targets, and action plans, we incorporate methodologies and the International Performance Measurement and Verification Protocol (IPMVP) for verifying energy performance, and build big data analytics energy management system software.

The senior management of Realtek can monitor, analyze, estimate and adjust energy management through the PDCA (Plan-Do-Check-Act) cycle, and can effectively predict energy consumption, strengthen energy management, verification of energy usage performance, ultimately achieving the goal of informatization and rationalization of energy management.



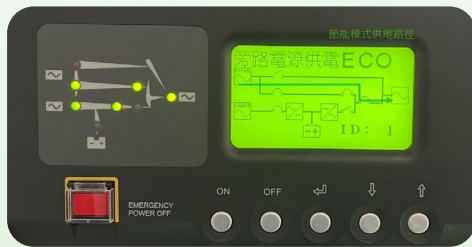
In 2022, the Facility Engineering Department and Information Technology Department as well as the Supply Management Center jointly studied, discussed and proposed a total of 29 energy-saving measures. These included replacing old air conditioning, lighting, compressors, and other equipment. In total, Realtek saved 2,812,230.37 kWh, or 10,119.08 GJ of energy, which was equivalent to reducing emissions by 1,431.43 tCO₂e. The overall energy saving rate in 2022 was 5.3%.

Category	Item	Energy Saving	Energy Saving	Carbon Reduction
		(kWh)	(GJ)	(tCO ₂ e)
IT Server Room	PUE value reduction	1,879,546.00	6,763.07	956.69
Testing Equipment	Optimal configuration	496,946.00	1,788.13	252.95
Air-conditioning	Replacement of old Chiller motor with new models and variable-frequency control	136,548.60	491.33	69.50
Compressor	Replacement of old compressors, vacuum, and dehydrators with new energy-saving models	75,493.83	271.64	38.43
Lighting	Improvement of lighting in the campus and parking areas, smart lighting energy-saving	33,758.99	121.47	17.18
Power Equipment	Power factor improvement, UPS efficiency improvement, harmonic improvements, and elevator upgrades	189,936.95	683.44	96.68
Total		2,812,230.37	10,119.08	1,431.43

Note : Carbon reduction calculations are based on the 2021 CO₂ emissions factor of 0.509 kg of CO₂e per kWh, as announced by the Bureau of Energy, Ministry of Economic Affairs.

UPS electricity system efficiency analysis and improvement projects

To reduce the energy consumption of system in 2022, Realtek launched the UPS (Uninterruptible Power Supply) energy-saving operation system. Unlike conventional UPS system that required 24-hour charging and energy storage before supplying power through the inverter, causing additional energy consumption. The UPS energy-saving mode allows the daily power to pass through the energy-saving path without going through the rectifier and inverter. When an abnormal condition occurs, the circuit is protected by the rapid switching function of the static switch, which can save 5% of energy consumption and increase the overall energy efficiency from 92% to 97%, and ensure uninterrupted of operation.



Harmonic improvements of power equipment

In view of the massive use of electronic equipment in recent years, the harmonic waves of power equipment are becoming a serious problem. Capacitive harmonic incidents are often caused by series resonance in the power system, intensifying harmonic contamination and resulting in excessive harmonic voltage problems. Realtek has installed series reactors to reduce circuit harmonics and suppress capacitor surge currents after an evaluation conducted by external professional team. After the improvement, the total harmonic current effective value has decreased by 9%, while the harmonic wave voltage is also reduced by 7%. At the same time, the Company complies with the IEEE Std 519™-2014 standards to extend the lifespan of capacitors and electromagnetic contacts and achieve the benefits of energy saving and carbon reduction.



Improvement of air-conditioning and cooling technologies in IT server rooms

Realtek Semiconductor has been effectively implementing its energy policies, to improve energy efficiency. Since 2009, the cooling technology in the IT server rooms has been upgraded gradually, which has improved from the traditional air-conditioning box cooling method to hot and cold channel design, effectively enhancing the cooling efficiency of air-conditioning.

In order to further improve the cooling efficiency in the IT server room, in 2021, the Company introduced the next-generation liquid-cooled backdoor solution, which was planned and built towards a high-density computing data center, using the principle of heat transmission and short circulation to transfer the waste heat generated by the server to the Cooling Distribution Unit (CDU) and the main building primary-side chilled water circuit for the purpose of efficient heat exchange, thereby reducing the energy consumption of air conditioners.

Cooling Energy Efficiency

- Through liquid-cooled solution, centralized refrigeration can solve the problem of high server heat density.

Effective Use of Space

- Effective use of space and increase in cabinet load capacity.
- Reduce server room footprint and increase the scalability in response to growing demand for high-density computing hosts.

Effective Use of Space

- Increase cooling energy efficiency with the expected PUE below 1.5 to enhance ESG carbon reduction effectiveness.
- Reduce electricity consumption and carbon emissions, and significantly reduce the cost of procuring green power.



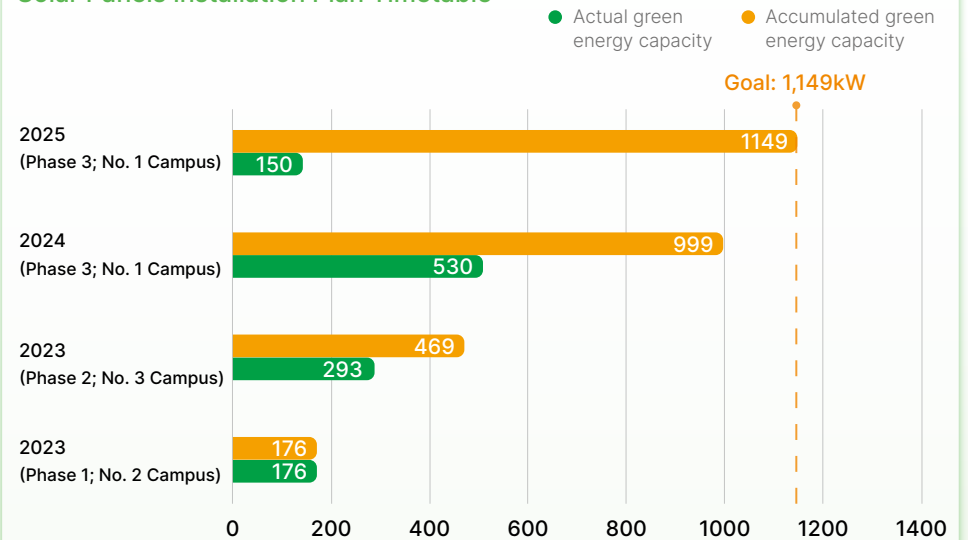
Sustainable, Green Energy Enterprise

Development of renewable energy is an important issue for global energy transition. With reference to the 'Renewable Energy Development Act,' which was promulgated by the Ministry of Economic Affairs, Realtek actively formulates the construction plan to install green energy power generation equipment to cover 10% of chartered capacity of. We will adopt an electricity self-generation and self-consumption mechanism and install solar panels on the rooftops of the factories in Hsinchu Headquarters. The electricity generated from the solar energy conversion will be used in the daily operations of office building. The construction plan is divided into four phases and is expected to reach an installed capacity of 1,149 kW by 2025, generating about 1.32 million kWh of green energy annually, which is equivalent to reduce carbon emissions by 673.74 tCO₂e^(Note.).

Note : Based on electricity generation of 3.2 hours per day and 360 days per year, using the 2021 CO₂e emissions factor of 0.509 kg of CO₂e per kWh, as announced by the Bureau of Energy, Ministry of Economic Affairs.

Starting from 2022, Realtek's No. 2 Campus started the installation project of solar power generation systems with 446 solar panels, each panel generating approximately 395 watts of electricity per year, with an installed capacity of 176 kW. The project was completed in the first quarter of 2023 and will be in operation in the second quarter in 2023, aiming to increase the proportion of renewable energy usage by building green energy equipment to contribute towards reducing global warming.

Solar Panels Installation Plan Timetable



Realtek's Green Buildings

Realtek is actively striving to create green factories by incorporating, In the planning and construction of new buildings, we incorporated green concepts and adopted Taiwan's EEWH green building design standards. Our No. 3 Campus has already been certified as a Taiwan EEWH Green Building "copper" candidate in April 2023, and is expected to obtain a LEED (US) green building "silver" certification in July 2023. Realtek's biomedical park campus has been nominated as a Taiwan EEWH Green Building "gold" candidate at the end of 2022 and plans to formally obtain a "gold" level as well as "LEED (US) gold" certification in 2024.

Strategies for Raising the Efficiency of Building Energy Consumption:

- Simulate and analyze building energy consumption and energy saving methods.
- Maintain comprehensive control over lighting and air conditioning systems.
- Adopt natural lighting and energy-saving lighting design.
- Use of energy saving and monitoring systems with air conditioning equipment.
- Use of renewable energy.
- Reuse of recycled cooling water and rainwater.

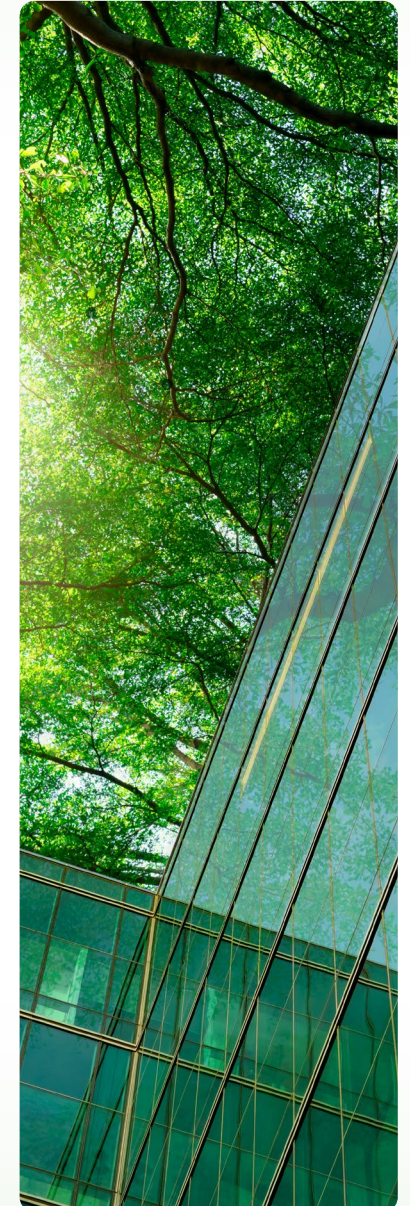
Realtek Green Building Sustainability Goals

- Adopt the EEWH (Taiwan) and LEED (US) green building design standards.
- Find a balance between environmental protection and cost effectiveness to efficiently reduce GHG emissions from its building.
- Raise energy and water efficiency.
- Reduce wastes generated during building construction.
- Build a healthy and comfortable work environment.



Realtek's biomedical park campus was named a Taiwan Green Building "gold" candidate

(As confirmed, the candidacy on the certificate is because of incomplete construction)

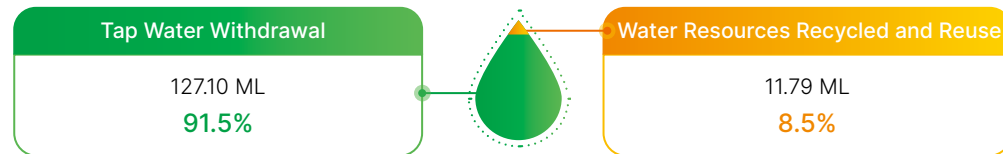


Water Management

Most water resources in the operation of Realtek are used by employees for general purposes. The water resources data are collected from the operational headquarters of Realtek (i.e. No. 1 Campus and No. 2 Campus). Realtek's operational headquarters is in Hsinchu Science Park. The water comes from Hsinchu's Baoshan Reservoir. To evaluate water risk levels, Realtek adopts the World Resources Institute's 'Aqueduct Water Risk Atlas,' which shows the total water intake and water consumption percentage from areas with high or extremely high baseline water stress are both zero. Additionally, Realtek does not extract groundwater or use seawater, indicating a low potential impact on the local water resources. Moreover, all industrial wastewater and general wastewater produced within the Hsinchu Science Park are collected by the sewage system and piped to the Science Park's wastewater treatment plant for processing before being discharged into the Keya River through a dedicated pipeline. The treated water exceeds the national discharge standards and discharged into the Keya River without causing any adverse effects on the ecological environment and water quality. In 2022, Realtek reported 96.03 ML of general wastewater discharge to the Hsinchu Science Park Administration. The Company did not have any discharge from process wastewater and did not pose any risk of environmental impact from wastewater or effluent spills.

In 2022, Realtek's total water consumption was 138.89 ML. Most of this was tap water (91.51%) with the remaining (8.49%) reclaimed from rainwater and recycled water from air conditioners.

Water Withdrawn



Water Consumption, by Year

Unit: ML ^(Note)

Year		2020	2021	2022	Change Between 2021 to 2022
Water Withdrawn					
Surface Water	Rainwater	0.96	2.06	2.48	20.4%
Third-party Supplied	Tap Water ^(Note 2.)	122.34	115.59	127.10	10.0%
	Other (central air/ filtered)	9.55	8.45	9.32	10.3%
Total Water Withdrawal		132.85	126.10	138.89	10.1%
Water Discharge					
Third Party ^(Note 3.)		97.87	75.46	96.03	27.3%
Total Water Discharge		97.87	75.46	96.03	27.3%
Amount Consumed					
Total Water Consumed		34.98	50.64	42.86	-15.4%

Note 1 : 1,000 m³ = 1 ML

Note 2 : Realtek's third-party water supplier is Taiwan Water Corporation.

Note 3 : Realtek's third-party water discharge partner is the Hsinchu Science Park Wastewater Treatment Plant.

Water Conservation Measures

Realtek pays close attention to water resources and environmental protection. We continuously optimize the recycling and reuse of water resources to improve overall water efficiency. Through reclaiming and reuse of rainwater, AC condensate, cooling water, and optimizing available resources, we lowered water consumption by 11.79 ML in 2022. The water savings rate reached 8.49%, achieving the goal of 5% annual reduction in factories.

Unit: ML	2020	2021	2022
Total Water Withdrawn	132.85	126.10	138.89
Average Water Withdrawn (Note 1.)	0.031	0.028	0.029
Reduced Water Consumption	9.55	10.51	11.79
Water Saving Rate (Note 2.)	7.19%	8.33%	8.49%

Note 1 : Average water withdrawn = Total water withdrawn / Total number of employees in Realtek's No. 1 Campus and No. 2 Campus. The total number of employees in Realtek's No. 1 Campus and No. 2 Campus as at December 31, 2022 was 4,758. Average water withdrawn increased compared with last year, mainly due to the cancellation of remote offices as the stabilization of pandemic.

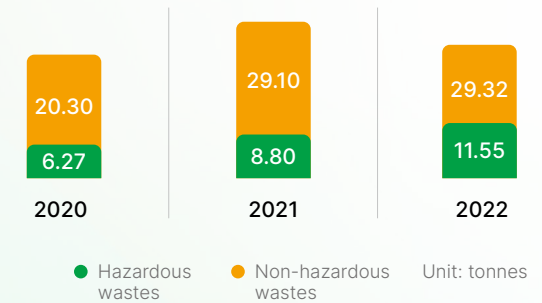
Note 2 : Water saving rate = Reduced water consumption/ Total water withdrawn.

Waste Management

Realtek is a fabless IC design house that focuses on the design and sale of ICs with all manufacturing outsourced to professional foundries. The hazardous industrial wastes are defective outsourced IC products that are returned to the company for inspection. General industrial wastes are handled by external agencies, who contract with licensed operators to regularly collect and dispose of the wastes at government-approved incinerators. Realtek tracks waste generation and disposal records. Hazardous industrial wastes are sent to overseas recycling plants through legal disposal agencies with the recycling rate of more than 90% to fulfill waste management responsibilities and adhere to government regulations.

Realtek complies with waste management in accordance with the 'Waste Disposal Act' of the EPA, Executive Yuan and the management regulations of the Hsinchu Science Park. Monthly tracking of waste statistics and reporting are implemented, including disposal methods, types of industrial wastes, any presence of hazardous wastes, and total weight. In 2022, the Company produced 31.87 tonnes of industrial wastes, including 11.55 tonnes of hazardous industrial wastes and 20.32 tonnes of general industrial wastes.

Waste Production, by Year



2022 Waste Production

Hazardous Industrial Wastes				
Item	On-Site Handling		Off-Site Handling	
	Weight (tonnes)	Processing Methods	Weight (tonnes)	Disposal Method
Waste Electronic Parts, Scraps, and Defective Products	-	-	11.55	Recycling and reuse (processed overseas)

General Industrial Wastes				
Item	On-Site Handling		Off-Site Handling	
	Weight (tonnes)	Processing Methods	Weight (tonnes)	Disposal Method
General Wastes from Business Activities	-	Temporarily stored on-site	10.85	Incineration (including waste-to-energy)
Mixed Paper Wastes	-	Temporarily stored on-site	4.84	Incineration (including waste-to-energy)
Mixed Plastics Wastes	-	Temporarily stored on-site	4.63	Incineration (including waste-to-energy)

Reducing Waste Impact

Realtek reduces product wastes by developing products with smaller footprints, by striving to reduce the wastes after each product life cycle, as well as making an effort to enhance our own waste reduction and recycling management.

Waste Management and Reduction Methods:

- In 2022, we formulated unit intensity targets for general industrial wastes generation, setting the goal of keeping the general industrial wastes shall not exceed 27 kg per NT\$100 million of revenue (2022 actuals: 18.18 kg per NT\$100 million of revenue). We also monitored the recycling rate of hazardous industrial wastes. Annual recycling rates of discarded IC products should be at least 90%.
- In order to monitor the recycling rate of general wastes, we record monthly quantities of recycled general wastes and strengthen the classification as well as recycling plan; in addition, we have improved the screening of domestic waste to correctly sort the recyclable materials; we continue to incorporate energy-saving and environmental protection principles into our procurement practices and reduce the use of disposable items.
- The goal for 2023: general industrial wastes shall not exceed 27 kg per NT\$100 million of revenue.

Weight (tonnes)

General Wastes Recycling	
Paper Food Containers	9.41
Aluminum Cans	1.99
Bottles	1.31
Paper	12.19
Total	24.90

Realtek promotes the environmental awareness among all employees by making environmental protection practices, such as recycling and waste reduction, a routine part of work and life. Initiatives include using recycled paper for product packaging and padding. New employees attend training on saving water resources. Everyone is encouraged to think about all the ways to protect the Earth and use resources wisely in everyday life, striving to create a green environment together.



CH4

Sustainable Value Chain

Responsible Supply Chain	59
Promoting Green Supply Chains Sustainable Products	64
Customer Relationship Management	65

Achievement Highlights

Corresponding SDGs



Suggested Stakeholders for Reading

Customers, suppliers, government agencies, investors

Material Issues

- Supplier sustainable management
- Customer relationship management

Section Highlights and Investments

- 100% ESG risk evaluation compliance by suppliers.
- 100% conflict-free minerals.
- 100% signing rate of Supplier Code of Conduct.
- 93% of local procurements by value, an increase of 17% compared to previous year.
- Holding supplier meetings periodically, keeping abreast of developments in various international initiatives, reasonably requiring suppliers to meet management objectives.
- Establishing an “ESG Questionnaire Response Performance Management System” in response to the sustainable development expectations of stakeholders.

Policy Commitment

Realtek's supplier sustainability management approach focuses on three main areas: quality management, environmental protection, and CSR. ESG performance is also included in supplier evaluations and audits. In accordance with supply chain sustainability management procedures, we regularly evaluate supplier, hold supplier meetings on related topics, and provide timely recommendations and assistance.



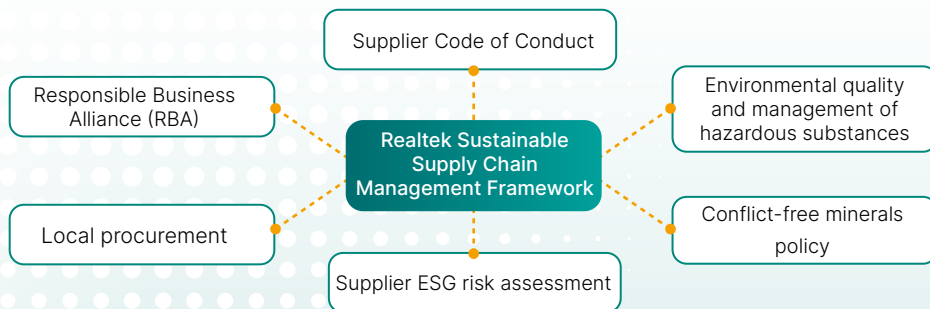
Sustainable Value Chain

Guided by a vision of sustainability, Realtek incorporates three management-oriented objectives, such as, quality management, environmental protection, and CSR, into sustainable supply chain management. In addition, we establish comprehensive supplier ESG risk evaluation mechanisms. Through these measures, we require suppliers not to use raw materials that originate from conflict-affected and high-risk areas (CAHRAs), uphold quality and prohibit the use of hazardous substances, adhere to the spirit of local procurement, and create a sustainable supply chain with reduced impact on the natural environment. Realtek also aligns with Responsible Business Alliance (RBA) Code of Conduct, conducts regular evaluations on suppliers and provides counseling and assistance for the those who fail to meet the requirements, thereby fostering long-term partnerships with suppliers on the foundation of work specialization and mutual support.

In joint efforts with our supply chain partners, Realtek is committed to sustainable development in the spirit of corporate sustainability, echoing the United Nations Sustainable Development Goals (SDGs) 17 to build a diverse global partnership.

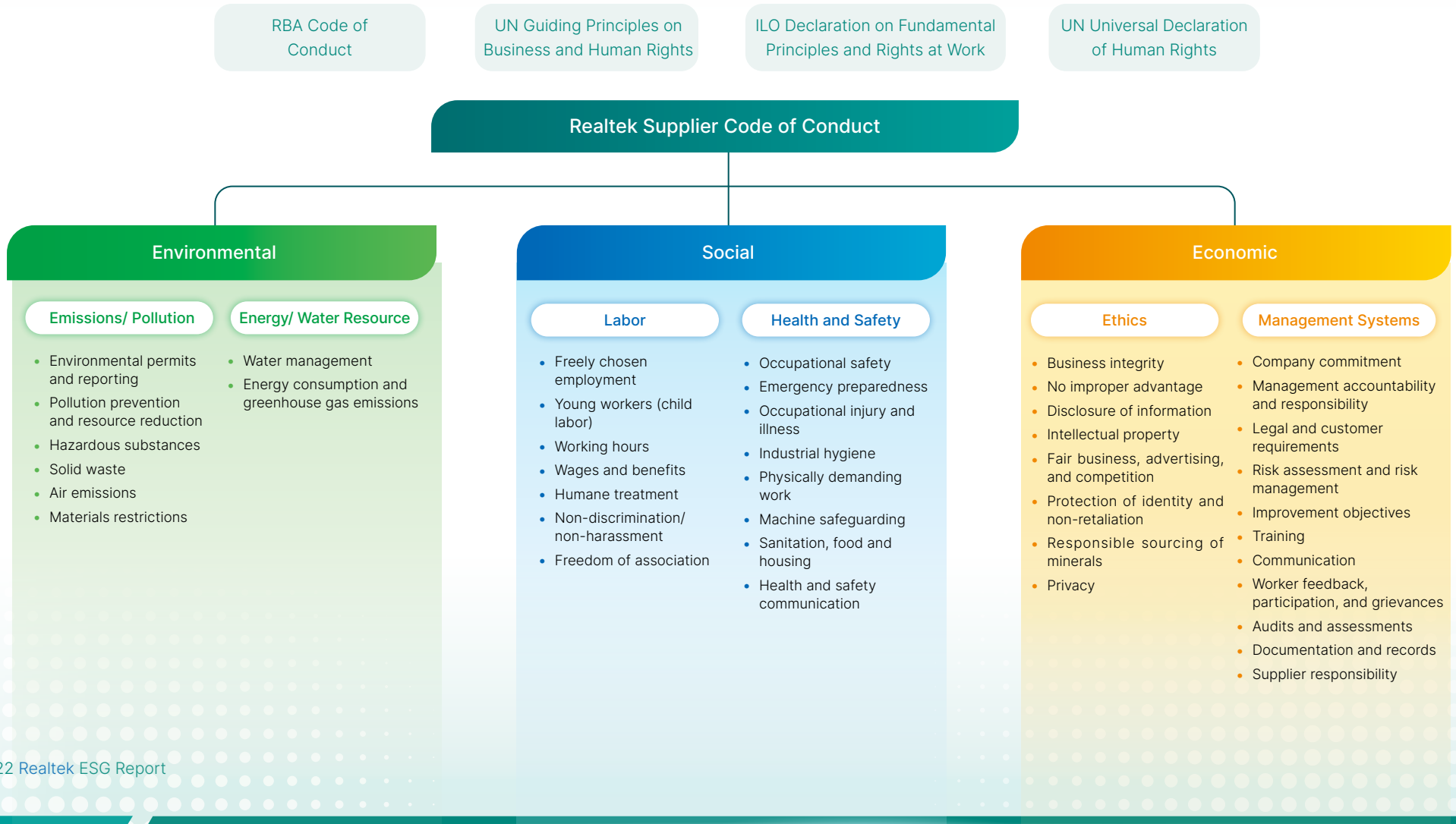
Business Continuity Management

According to the overall global market supply and demand situation, Realtek prevents and assesses the risk of material shortages, and strategically adjusts the proportion of operational supplies in response to the changes of the global development situation to ensure company's normal operations and the sustainable development of the entire supply chain. Realtek also carries out systematic supplier management to prevent shortages of any raw materials and avoid losses caused by delays in delivery for customers. The Company seeks to lower the impact of any electricity or water restrictions in order to ensure that operations remain stable. In 2022, the overall operation and shipment remained stable, including supply of water and electricity in the factory area, there were no disruptions occurred in daily routines or any production operations.



Responsible Supply Chain

Realtek fulfils responsibilities towards the supply chain management in order to promote a safe working environment for its supply chain partners, ensure that employees are respected and treated with dignity, implement environmental protection and comply with ethical standards. We established the Supplier Code of Conduct in line with the RBA Code of Conduct, the UN's Guiding Principles on Business and Human Rights, the International Labor Office's Declaration of Fundamental Principles and Rights at Work, and the UN's Universal Declaration of Human Rights. Suppliers are required to adhere to five aspects: labor, health and safety, environment, business ethics, and management systems. Suppliers shall fully comply with the laws and regulations of the countries or regions in which they operate. Besides strengthening sustainability management of existing suppliers, Realtek requires that all new suppliers sign the Supplier Code of Conduct or provide their own corporate code of conduct, the RBA Code of Conduct, and a declaration of conflict-free minerals statement, to ensure responsible supply chain management.



■ Signing the Supplier Code of Conduct

Realtek has four major categories of suppliers: foundries, packaging companies, testing companies, and memory manufacturers. To ensure sustainable operations, across each of these categories, Realtek requires that suppliers sign the Supplier Code of Conduct, in order to continue to strengthen responsible supply chain management. In 2022, Realtek had 37 main suppliers, 100% ^(Note.) of which had signed the Supplier Code of Conduct. Goals include continuing to strengthen management and for the signing rate to reach 100%. Please refer to the [official website](#) for details of the Supplier Code of Conduct.

Supplier/Type	Foundries	Packaging Companies	Testing Companies	Memory Manufacturers	Total
Quantity	6	8	14	9	37
Sign Back Number	6	8	14	9	37
Signing Rate	100%	100%	100%	100%	100%

Note : Suppliers that completed RBA certification are recognized as having signed the Supplier Code of Conduct.

■ Supplier Management Mechanisms

Realtek is one of the leading suppliers in the global semiconductor industry. Working with our supply chain partners to build a responsible supply chain is a key indicator of sustainable management. Each quarter, Realtek evaluates the quality reliability, delivery accuracy, degree of cooperation, processing fees, and technical performance of suppliers, then gives each supplier a score of A, B, C, or D. For suppliers that score a C or D, we actively provide counseling and assistance for improvement. Realtek temporarily suspends partnerships with suppliers that score a D on three consecutive evaluations or that fail to achieve at least a B on five consecutive evaluations.

Besides the above quality requirements, Realtek uses a sustainability management approach to establish supplier management methods that include assessments, audits, and evaluations. Suppliers are asked to sign a quality assessment questionnaire, environmental quality and management of hazardous substances questionnaire, the Conflict Minerals Reporting Survey, and the Supplier Code of Conduct. Suppliers that pass a series of reviews, meet Realtek's environmental protection and product substance requirements, and provide product substance statements are qualified for Green Partner. Realtek rigorously evaluates the sustainability qualifications of each supply chain partner, and grows with suppliers by improving corporate governance, valuing our employees, and raising environmental protection awareness. Together, we aim to build a business model focused on sustainable development.

■ Supply Chain Sustainable Management Procedures

Objective	Explanation
01 New Supplier Evaluations	Evaluate suppliers based on product quality, quality systems, environmental management systems, social responsibility management, and related areas to ensure that new suppliers satisfy the strict quality requirements of Realtek and fulfill our sustainability management approach. In 2022, two new suppliers were evaluated; all passed the evaluation.
	<pre> graph LR S1[Step 01 New Supplier Evaluations] --> S2[Step 02 Evaluations of samples / test products] S2 --> S3[Step 03 On-site evaluations Second evaluations] S3 --> S4[Step 04 Qualified suppliers] </pre>
02 Supplier Audits	Conduct annual factory audits to ensure the quality of qualified suppliers as well as the degree of implementation of their management systems. If a defect is found, then the supplier is required to promptly propose a suitable improvement plan. Explicit methods and improvement deadlines and projects shall also be set.
03 Supplier Evaluations	Conduct group evaluations on suppliers, giving quarterly scores on delivery quality, cost, environmental management, delivery time, and technical performance. Provide counseling and assistance to under-performing suppliers in accordance with the strategic objectives for supplier sustainability management.
04 Regular Supplier Conferences	Regular supplier meetings are held to maintain long-term cooperative relationships. Major suppliers are convened monthly and secondary suppliers are gathered every two months to report on their quality, environmental management, delivery time, and product development progress. Suggestions and assistance are provided timely to support the suppliers, ensuring effective communication and collaboration.

■ Supplier ESG Risks

Realtek evaluate supplier’s ESG risks based on three major dimensions: governance, environmental, and social. A broad scope of management criteria aims to ensure that suppliers embrace sustainable operations concepts and take concrete actions, Realtek envisions collaborating with supplier partners to build a sustainable business models. The relevent standard are as follows:



34%

Governance

- Quality, cost, lead time, service, and technology
- Business integrity and ethics
- Management systems and methods



33%

Environmental

- Environmental management systems and compliance with environmental rules and regulations
- Management of hazardous substances



33%

Social

- Labor rights
- Conflict minerals management
- Health and safety

Supplier Certifications											
Dimension	Management Standards	Foundries		Packaging Companies		Testing Companies		Memory Manufacturers		Total	
		Companies	6	Companies	8	Companies	14	Companies	9	Companies	37
		Certified	Percentage	Certified	Percentage	Certified	Percentage	Certified	Percentage	Certified	Percentage
Governance	ISO 9001 Quality Management Systems Certification	6	100%	8	100%	14	100%	9	100%	37	100%
	IATF 16949 Automotive Quality Management System	6	100%	8	100%	14	100%	6 ^{Note}	100%	34 ^{Note}	100%
Environmental	ISO 14001 Environmental Management Systems	6	100%	8	100%	14	100%	9	100%	37	100%
	QC 080000/ SONY GP Hazardous Substances Management	6	100%	8	100%	14	100%	9	100%	37	100%
Social	ISO 45001 Occupational Health and Safety Management	6	100%	8	100%	14	100%	6	67%	34	92%
	RBA/ SA 8000 Social Responsibility Management	3	50%	4	50%	8	57%	4	44%	19	51%

Note : Excludes three design companies where IATF16949 is not applicable.

Realtek assigned a weighted score to the three dimensions of ESG categories and evaluate suppliers based on ESG certification obtained. Suppliers were classified into three levels: green light (80-100 points), yellow light (60-79 points, and red light (59 or fewer points). Among our 37 suppliers, 34 scored a green light, 3 scored a yellow light, and none scored a red light.

ESG Certification Evaluation Results	Foundries	Packaging Companies	Testing Companies	Memory Manufacturers	Total	
Green Light (80-100 points)	6	8	14	6	34	92%
Yellow Light (60-79 points)	0	0	0	3	3	8%
Red Light (59 or fewer points)	None					

■ Non-Conflict Minerals Policy

In order to strengthen the human rights management in supply chain, Realtek has required suppliers to sign a “Non-Conflict Minerals Policy Statement” since 2010, Realtek also follows the due diligence procedures outlined by the Organization for Economic Cooperation and Development (OECD) to ensure that the materials used in the products provided by suppliers do not come from conflict-affected and high risk areas (CAHRAs).

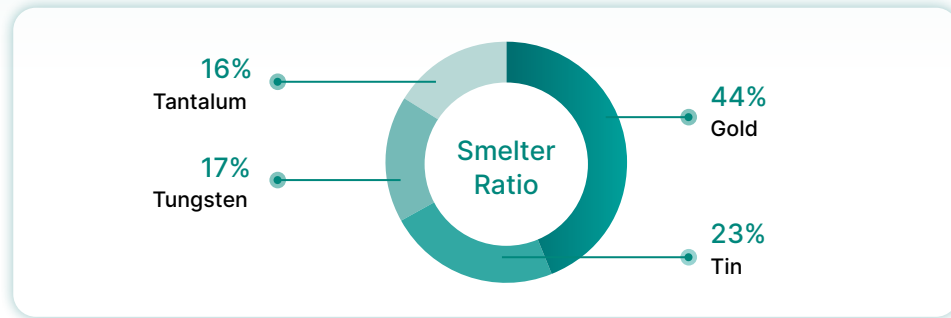
Realtek utilizes the Conflict Minerals Reporting Template (CMRT) issued by the Responsible Minerals Initiative (RMI) for conducting due diligence on conflict minerals including tin, tungsten, tantalum, and gold. Additionally, the Extended Minerals Reporting Template (EMRT) is used for cobalt and mica sourcing investigation, aiming to ensure that the minerals sources all come from RMI-certified smelters, refineries or nations. Realtek has established an automated supplier conflict minerals reporting system, requiring suppliers to regularly update their information. The system assist responsible units effectively access comprehensive information. In 2022, 100% of suppliers submitted conflict minerals-related information through the management system and all met with RMI requirements.



Supplier Conflict Mineral Reporting System:

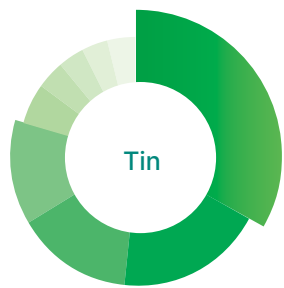


Realtek uses tin, tantalum, tungsten, and gold from 227 smelters in 40 countries. 100% of our suppliers use smelters with RMI certification. We prohibit minerals from non-government, or illegal military factions in areas or neighboring countries controlled by the Democratic Republic of the Congo. Since 2022, Realtek has initiated due diligence investigations into the sources of cobalt and mica raw materials used by suppliers, in response to the Extended Minerals Reporting Template (EMRT) released by RMI. Once officially identified as conflict minerals, detailed disclosure of relevant information is ensured. In the future, Realtek will continue to refrain our suppliers from procuring any conflict minerals as part of our commitment to supporting human rights and sustainable operations. This will prevent the use of conflict minerals that come from areas associated with serious human rights abuse, illegal trade, or the financing of violence.



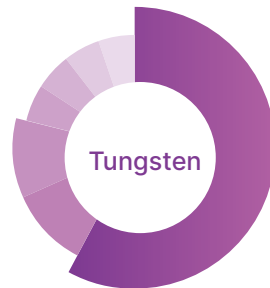
Reporting Item	RMI Certified			
	Tin	Tungsten	Tantalum	Gold
Mineral Type				
Number of Smelters by Type	54	38	36	99
Total Smelters	227			
Number of RMI Certified Smelters	227			
Certified Rate	100%			
Smelter Countries, by Type	16	10	11	32

■ Distribution of the Four Main Sources of Minerals for Realtek Products



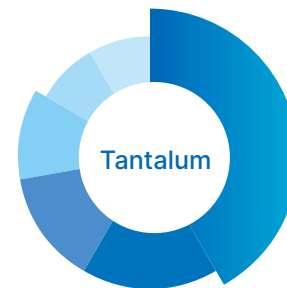
Number of Smelters by Type

- Indonesia 18
- China 10
- Brazil 7
- United States 3
- Japan 2
- Bolivia 2
- Thailand 2
- Spain 2
- other 8



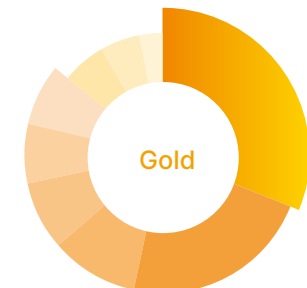
Number of Smelters by Type

- China 22
- United States 4
- Japan 2
- Vietnam 2
- Germany 2
- Brazil 2
- other 4



Number of Smelters by Type

- China 15
- United States 5
- Japan 4
- Brazil 3
- Germany 3
- other 6



Number of Smelters by Type

- Japan 22
- China 10
- Korea 8
- United States 7
- Germany 7
- Switzerland 6
- Italy 5
- Canada 3
- other 31

Note : CMRT v6.22 (Conflict Minerals Reporting Template) is issued by the Responsible Minerals Initiative (RMI).

Promoting Green Supply Chains

Carbon Reduction Management of Key Suppliers

Realtek is committed to mitigating the impact of climate change and working with our supply chain partners to continuously improve their capabilities in terms of low-carbon operation. In order to reduce the Scope 3 greenhouse gas emissions, Realtek promotes a joint commitment among key supplier partners to achieve a minimum annual reduction of 2% in carbon intensity. Realtek is tracking and auditing the relevant carbon reduction measures of key suppliers as follows, and will continue to work with its supply chain partners to promote the carbon reduction process.

- Suppliers achieve an annual carbon intensity reduction of 2% (inclusive) or above.
- Suppliers continue to obtain ISO 14001 environmental management system certification.
- Suppliers continue to obtain ISO 14064-1:2018 management system for GHG emissions inventories certification.
- Suppliers use of renewable energy.
- Suppliers incorporate climate risks into their Business Continuity Plan (BCP).

Local Procurement

Realtek adhere to the principle of local procurement for both general purchasing and contract manufacturing to boost the local economy stability and create local job opportunities. Local procurement also reduces carbon emissions from transportation and minimize energy consumption. In 2022, Realtek had a total of 530 general local suppliers and 71 non-local suppliers that accounted for 93% of all procurements by value, representing a 17% increase compared to the previous year; and 17 local contract manufacturers that accounted for 93% of contract outsourcing, marking a 4% increase from the previous year. Realtek continues to build a sustainable supply chain, ensuring long-term partnerships with suppliers based on professional specialization and mutual cooperation.

General Purchasing Procedures



Contract Manufacturing Procedures



Number of Suppliers and Percentage by Value, Over the Past Three Years

Procurement Type	General Procurement						Contract Manufacturing					
	2020		2021		2022		2020		2021		2022	
	Companies	Percentage by Value	Companies	Percentage by Value	Companies	Percentage by Value	Companies	Percentage by Value	Companies	Percentage by Value	Companies	Percentage by Value
Local Suppliers	513	85%	528	76%	530	93%	12	77%	16	89%	17	93%
Non-Local Suppliers	65	15%	81	24%	71	7%	9	23%	7	11%	8	7%

Note : General procurement consists of all external procurement other than wafer fabrication, packaging, and outsourced testing.

Customer Relationship Management

Realtek places great importance to customer relationships, and its belief in customer relations is to constantly build a competitive quality management system to provide customers with the highest quality products and services. At the same time, in order to meet customer needs, we follow the requirements of the ISO 9001 Quality Management Systems in all aspects, including innovation development, design, product promotion and sales. Through a process-oriented self-monitoring and evaluation, we continue to deepen the solid quality and trust relations with customers. Leading the industry since 1995, Realtek became the first IC design company in Taiwan to achieve the ISO 9001 Quality Management Systems certification.

In response to the rise of digital communication models in the post-epidemic era, we have maintained professional communication with customers through online and in-person meetings and in-person visits to promote product line solutions and new product planning. Additionally, we regularly collect customer feedback and suggestions through our business departments, while staying updated with market research report to systematically keep up-to-date with customer needs. Through a complete and comprehensive customer communication management mechanism, Realtek ensures that customer and market needs are aligned with its R&D innovation goals. By actively understanding customer needs, we keep launching products and services that meet or even exceed customer expectations, working together to create greater values.

Quality Policy and Commitment

Product Planning

- In product planning, particular attention should be placed on seizing innovation opportunities to create business opportunities for customers
- In product design, particular attention should be placed on enhancing technological capabilities to provide high-value-added products
- In production control, particular attention is paid to continuous, systematic improvement to enhance product quality

Product Design

Production Control

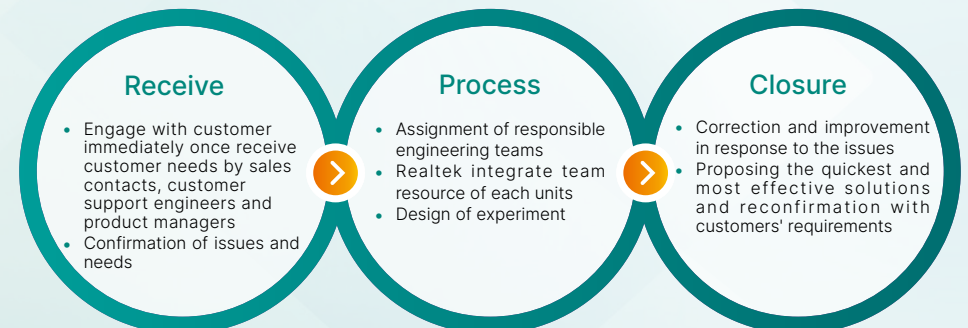
Account Service

Training and Development

- In account services, particular attention is paid to timely service to ensure customer satisfaction
- In training and development, particular attention is paid to quality systems that emphasize our concept-based approach to quality systems

Customer satisfaction is a crucial fundamental for enhancing customer relationships development. Realtek listens to customers feedback through online and face-to-face interactions in to implement a comprehensive and effective customer relationship management process. An annual customer satisfaction surveys is conducted to understand customer feedback and requirements for Realtek's products and services. Customer suggestions for product optimization are carefully reviewed and relevant improvement plans are developed. In 2022, Realtek collected a total of 54 customer satisfaction questionnaires, achieving an overall satisfaction rate of 89.8%. Realtek proactively engage with customers upon receiving the feedback and demands put forward by customers through the satisfaction survey system or other channel, and comprehensively understands the issues raised. For technical issues, Realtek assists customers in connecting with global distributors and FAE (Field Application Engineer) resource team immediately to confirm the problem and carry out experimental design. Through the multi-departmental cooperation mechanism, the abnormal situation of the product can be discovered in real time, and Realtek's professional software and hardware engineering team can provide quick support, gather customer feedback, propose the most effective solutions for corrections and improvements. Furthermore,, Realtek has planned to establish an "ESG Questionnaire Response Performance Management System" in 2023. Through an electronic platform and a system management database that are coordinated by the Sustainable Development Center, we can respond to the ESG survey and questionnaire requests from customers and other external stakeholders, identify important issues and grasp the direction of sustainable development. We actively respond to stakeholders' expectations towards Realtek's sustainable operation, and continuously improving Realtek's sustainable development goal.

Customer Relationship Management Processes:



ISO 9001 Quality Management Systems
Effective date: 2023.01.16~2025.12.29



CH5

Inclusive and Happy Workplace

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Achievement Highlights

Corresponding SDGs



Suggested Stakeholders for Reading

Customers, employees, suppliers

Material Issues

Talent attraction and development

Section Highlights and Investments

- In 2022, the Group's employee benefit expenses exceed NT\$102.25 million.
- Named as a constituent stock in the 2022 Taiwan "High Compensation 100 Index".
- In 2022, ranked 4th in the Taiwan Stock Exchange's average employee salary ranking.
- The per capita hours of education and training was 16.90 hours, an increase of 18.5% compared to 2021.
- A total of 4,080 employees have been inspected under the innovative health screening project in 2022, representing a completion rate of 92%.
- The turnover rate of employees in the past five years was below 7%.
- Conducted two performance reviews each year that include feedback mechanisms and two-way communications.
- Provided dual-track career promotion and development planning.
- Realtek Corporate University provides diversified, flexible and professional education training courses.
- Established the Enterprise Internship Creativity Academy at Realtek Corporate University to continuously expand the opportunity of industrial-academic cooperation and cultivate professional science and technology talents.

Policy Commitment

We regularly review and monitor human resource policies, strategies and goals to drive the continued re-engineering of human resources and strategic service management while building a workplace that is equal, diverse, and inclusive. By establishing comprehensive education, training, and development systems with strong fringe benefits policies, we create an excellent work environment and nurture good employee relations. Promoting breakthroughs and developments that make human resources more sustainable enables partners to foster knowledge cooperation, service interaction, and growth.



Focus on Talent Attraction and Development

Focus on Talent Attraction and Development

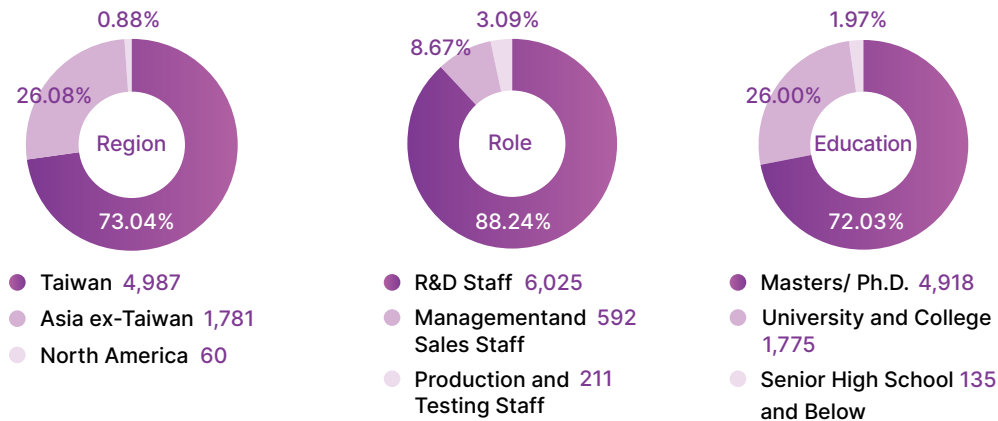
As a company focused on knowledge innovation and technological R&D, professional talents are most important and core assets of Realtek's sustainable operations. Realtek closely heeds changes in the employment market and continues to welcome outstanding talents to join the Big Crab Family through a fair and just selection and appointment mechanism. We respect the distinct work traits and capabilities associated with various fields, assign talent to suitable positions while providing continuing learning environment for professional knowledge and technical cultivation, enabling all employees to apply their professional knowledge effectively and jointly promote and enhance Realtek's sustainable operational development. Realtek firmly believes that its comprehensive talent development framework cultivates an organization with full participation by all employees. Expanding the innovative growth and service dynamism of the Big Crab Family turns Realtek into a leading member of the IC design industry that is known for innovation, R&D, outstanding quality, and comprehensive service.

Talent Structure

In 2022, the Realtek Group had 6,828 employees worldwide, with 15 operating locations around the world. The number of overseas employees^(Note) accounted for about 36.9% of the total employees, and more than 72% of them have master's and doctoral degrees. The Company mainly operates in Taiwan and has 4,943 employees in Taiwan, including 4,826 full-time employees, 117 contract employees. 80.46% of the workforce were male and 19.54% were female. More than 77% of the employees have master's and doctoral degrees. Among the new hires in 2022, we saw strong growth in the number of full-time employees, both male and female. In the past three years, there has not been a significant change in the proportion of employees due to major mergers or layoffs.

Note : Overseas employees are defined as employees whose duty stations are in a non-Taiwanese region, regardless of their nationality.

Realtek Group Labor Structure, 2022



Note 1 : Headcount reference date is December 31st, 2022.

Note 2 : Realtek does not have temporary or part-time workers.

Note 3 : Percentage of people in each group = Number of people of the designated gender in the group/ total number of people in the group.

Realtek Labor Structure in Taiwan, 2022:

Category	Group	Male		Female	
		No. of People	Percentage	No. of People	Percentage
		3,977	80.5%	966	19.5%
Age	30 and Under	1,117	22.6%	302	6.1%
	31 ~ 40	1,475	29.8%	376	7.6%
	41 ~ 50	1,181	23.9%	250	5.1%
	51 and Over	204	4.1%	38	0.8%
Education	Senior High School and Below	47	1.0%	78	1.6%
	University and College	595	12.0%	379	7.7%
	Masters	3,206	64.9%	497	10.1%
	Ph.D.	129	2.6%	12	0.2%
Role	R&D Staff	3,656	74.0%	675	13.7%
	Management and Sales Staff	240	4.9%	189	3.9%
	Production Staff	81	1.6%	102	2.1%
Position	Managers	698	14.1%	74	1.5%
	Non-Managers	3,279	66.3%	892	18.1%
Employment Type	Full-Time	3,923	79.4%	903	18.3%
	Contract	54	1.1%	63	1.3%
Nationality	Domestic	3,954	80.0%	961	19.4%
	Foreign	23	0.5%	5	0.1%
Total		4,943			

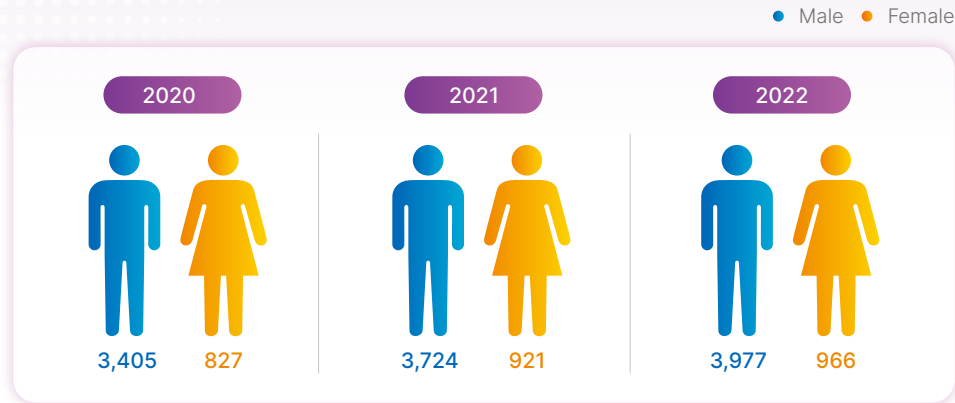
Note 1 : Headcount reference date is December 31st, 2022.

Note 2 : Realtek does not have temporary or part-time workers.

Note 3 : In the position category, "Managers" are people in the rank of deputy manager or above (excluding project managers). In 2022, female managers made up about 9.59% of all managers. About 10.77% female of senior executives (director and above); about 7.81% female of middle-line manager (manager and above); about 16.79% female of first-line manager.

Note 4 : Percentage of people in each group = Number of people of the designated gender in the group/ total number of people in the group.

Number of Employees During the Past Three Years



Long-term Partners of Non-employed Workers

Realtek had a total of 136 non-employed workers in Taiwan in 2022, accounting for approximately 2.75% of the total number of employees (including employed and non-employed workers) of Realtek, who were mainly engaged in supporting services, including cleaning work, security tasks, troubleshooting computer problems, EDA tool debugging support, providing high-quality group catering and other non-business activities. All of them were indirectly employed through contractors. In accordance with the management measures for contractors of Realtek, the management responsibilities were jointly implemented by Realtek and contractors. There was no significant fluctuation in the composition and number of relevant personnel in 2022.

Category	Duties	No. of People
Cleaning Personnel	• Responsible for the environmental cleaning of the production factories and office areas of Realtek	40
Security Personnel	• Maintaining the security of the production factories and office areas of Realtek	12
IT Personnel	• Assisting Realtek's employees in troubleshooting computer problems and other information support services	7
Catering Service Personnel	• Providing Realtek's main operational locations with catering supplies and sales of daily necessities	28
EDA Room Personnel	• Assisting in EDA tool debugging support services	49

Note : Headcount reference date is December 31st, 2022.

Talent Attraction and Development

Professionals at all fields and levels are Realtek's most important assets. Good remuneration packages and comprehensive employee benefits are critical to the organization's innovation, energy, and competitive advantages. Realtek sets up fair performance evaluations and incentive programs to promote employee advancement, career development, and employee retention. The current practices are as follows:

Performance Evaluation

We conduct two performance reviews each year that include feedback mechanisms and two-way communications. The review serves as a basis for salary raises, promotions, incentives and bonuses. We also provide highly competitive salary levels and a comprehensive welfare system to let employees share the operational results with the Company.

Incentive Mechanism

- We have established an incentive system of "Inspiring Employee to Brainstorm and Share Program" to encourage our employees to innovate and share selflessly.
- We provide domestic and foreign famous journals, papers, books for checkout, as well as patent research and development guidance and patent publication bonus to stimulate comprehensive technological innovation.

Career Development

We provide a dual-track career development system that includes the options for promotion to specialized R&D engineering or R&D management roles based on capability and interest.

Talent Cultivation

Realtek pays attention to and cares about talent cultivation and training. The Company has built the Realtek Education and Training System flexibly and systematically, and actively cultivated professionals, future successors, R&D talents, and management talents with comprehensive functions such as R&D innovation, technology management, macro vision and organizational management, thereby constantly solidifying the talent capital of Realtek.

In 2022, the Realtek Group's employee benefit expenses exceed NT\$102.25 million

Named as a constituent stock in the 2022 Taiwan "High Compensation 100 Index" ^(Note)

In 2022, ranked 4th in the Taiwan Stock Exchange's average employee salary ranking

Note : Data source is from the Taiwan Stock Exchange.

Fair Compensation and Promotion Mechanisms

Realtek adopts uniform baseline indicators to achieve professional management goals. Using fair remuneration mechanisms and standardized evaluation formulas, the Company establishes 'Rules Governing Promotions, Salary Adjustments, and Annual Performance Reviews'. Rigorous mechanisms are in place to maintain fair remuneration and promotion mechanisms that foster an equitable work environment. A performance feedback mechanism provides two-way communications channels and procedures for management and employees, enable both parties understand performance results and organization expectations clearly. Consistent salary standards, salary adjustment review indicators, as well as performance review and promotion guidelines are applied to all Realtek employees of both genders in every position to ensure gender equality. During the hiring process, we ensure there is no discrimination based on employee gender, race, or age in the standard of remuneration offered. Everything is implemented to ensure a fair remuneration system. In 2022, 100% of employees, both male and female, were subject to performance reviews (including contracted employees but not new employees with less than three months of service). There were no incidents of discrimination or complaints received during the year.

Retention Plan

Realtek provides comprehensive education and training courses, employee care programs and competitive salary and welfare. Newly hired employees can quickly integrate into the Big Crab Family through new employee orientation, an introduction to the Company environment, meetings with new employees, and daily discussions with departmental supervisors and employees. In addition, considering that work and family are central to most people's lives, the Company pays attention to the comprehensive development of employees' work and life. In order to enhance employees' work-life balance and health awareness planning, the Company continues to strive and invest resources to organize various exciting activities, including health promotion lectures, corporate events, community activities and incentive measures, to promote the physical, mental, and spiritual health of employees, enhance morale, strengthen work efficiency. These measures nurture healthy employees who become part of a healthy corporate structure. At the same time, Realtek also closely monitors employee turnover trends and continues to pursue talent development and retention goals. The turnover rate of employees in the past five years was below 7% (2021: below 8%).

Realtek continues to maintain stable operations by keeping a high-quality team in place. During the past five years, the employee turnover rate remained below 7%

High-Coverage Company Group Insurance for Employees and Dependents

Besides basic labor and health insurance, Realtek provides group insurance paid by the Company as an employee benefit. The insurance covers life insurance, casualty insurance, accidental health insurance, hospitalization medicare, and cancer insurance. Health insurance for notifiable diseases was added to provide employees with better coverage. Full-time employees' spouses and children can also enroll in the group insurance, with all expenses paid by the Company. Employees can choose to purchase hospitalization and cancer insurance for their parents at preferential rates as well. Realtek not only looks after employees but also cares about the health and life of employees' families. We hope to generate team cohesion with the support of all employees.

Retirement Plans

Realtek drafted retirement regulations and established the Labor Pension Preparation Fund Supervision Committee to support retirement planning for permanent employees in accordance with the relevant regulations of the "Labor Standards Act" and "Labor Pension Act" in Taiwan. Since 1995, the Company has made monthly contributions to the preparation fund to protect employees' right to claim pensions. Every month, the Company deposits at least 6% of their monthly salary into their personal account with the Bureau of Labor Insurance as required by the "Labor Pension Act". Employee pensions are paid as a monthly payment or a lump sum from the employee's personal pension account.

Unit: in Thousands of NT\$

Year	2020	2021	2022
Number of Full-time Employees in Non-management Positions (people)	3,984	4,446	4,780
Total Salary Amount Paid to Full-time Employees in Non-management Positions	9,401,166	18,152,017	18,349,602
Average Salary Amount Paid to Full-time Employees in Non-management Positions	2,360	4,083	3,839
Median Salary Amount Paid to Full-time Employees in Non-management Positions	1,946	3,270	3,069

Focus on Talent Cultivation

Realtek Corporate University

In order to strengthen the cultivation and development of talents and ensure sustainable innovation and organizational development, Realtek has established the "Realtek Corporate University" to continuously develop and improve the education and training system, develop professional, abundant, diversified and quality courses, and fully integrate organizational competitiveness and sustainable development goals, so as to fully and effectively link the functional development of employees.

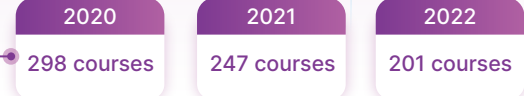
The "Realtek Corporate University" has set up "Speedy Induction Academy", "R&D Innovation Academy", "Management Leadership Academy", "Experiential Cognition Academy" and "Learning Organization Academy". In 2022, the "Enterprise Internship Creativity Academy" was newly established for the continuous expansion of inter-school cooperation, with a total of six academies. Realtek Corporate University is responsible for the development of Realtek's planned training. Some academies also discuss and plan the courses through special functional committee members, fully respond to the development needs of the organization and employees, complete professional education and training to meet the needs of corporate competitiveness, and assist employees in systematically carrying out professional learning that balances breadth and depth. At the same time, we implements knowledge management, effectively sets up learning networks, and practices the goal of self-learning needs. Meanwhile, in order to make the learning channels and methods more flexible, Realtek has established a digital learning system platform. Our employees can formulate a learning plan based on their job assignments, personal needs, and preferences, independently schedule their study time and plan the progress of reviewing materials, thus creating the most customized learning environment.

The six academies of Realtek Corporate University each have different competitive targets, leading the planning and design of the Realtek's annual education training programs that features both breadth and professionalism, with the goal of achieving the integration of talent knowledge streaming and strengthening the sustainable competitiveness of organizational knowledge. In terms of efficiency, the objective is to provide real-time and in-depth professional knowledge and technical needs for all employees in a timely manner, allow employees to receive systematic professional, diversified and integrated functional learning courses upon their arrival. In the profession, we aim to take a dynamic inventory of the organization's professional needs and continue to shift knowledge innovation and learning. In terms of knowledge influence, we strengthen the planning and implementation of diversified, detailed and experiential programs to develop organizational professional identity and organizational cultural co-benefits. In terms of overall planning, arrangement and implementation of courses, the Company attaches great importance to the creation of overall knowledge value and the alignment, continuity and sustainability of medium- and long-term systems by methodology and processes.

Realtek Corporate University

- Speedy Induction Academy
- R&D Innovation Academy
- Management Leadership Academy
- Experiential Cognition Academy
- Learning Organization Academy
- Enterprise Internship Creativity Academy

Number of New Courses Added to the e-Learning Platform, by Year



Training Category

2022 Course Content and Results

R&D Capabilities

- Held a total of 501 training courses for R&D personnel.
- Invited experts and academics from home and abroad to hold 19 lectures on the latest technological R&D courses.

Language Capabilities

- Provide different levels of English and Japanese language courses to meet the diverse learning needs of employees.

Realtek recognizes the critical need to cultivate new employees. In the "Speedy Induction Academy", Realtek has comprehensively planned and developed a number of courses to help new employees, including professional courses, organizational communication, self-development awareness and inspiring courses. It integrates a number of reflections and facilitations to develop a focused curriculum with a core purpose to strengthen professional development and organizational integration, and to promote organizational development dynamics and goals. Therefore, the new employee training camp from the Speedy Induction Academy sets professional integration and diverse development as core objectives behind its course design. Combining digital and physical courses, the camp covers material from each Academy of Realtek Corporate University, thus new employees can explore all the necessary topics in a single course. The content of the courses included functional courses in the comprehensive fields such as getting to know Realtek, specific professional courses, information security, energy conservation and environmental protection, fire drill and safety for all employees, sustainable development of Realtek, integrity and ethics, prevention of insider trading and patent standards, as well as experience-based courses designed specifically by Realtek's "Experiential Cognition Academy", with the goal of assisting new employees to develop organizational and strong competitiveness in their individual professional fields and career planning. In 2022, a total of 526 employees from the Realtek's new employee training camp participated in the courses with a total of 224 training hours.

The strategy for training at Realtek Corporate University is both complete and organic. The approach of consideration is dynamic and combined with the short-, medium- and long-term goals of the organization, with the aim of talent and organizational development

and competitiveness. In addition to the above-mentioned course content, Realtek Corporate University has played a role in the synergy of professional forces in different fields in its academies, expanded the field of knowledge and integrated contemporary contexts, and kept pace with the new competition trend! For example, the “Management Leadership Academy” is beneficial to employees in developing and strengthening managerial leadership for supervisors. The content includes courses related to management leadership functions for executives and courses in the category of organizational development management. We also provided an immediate and two-way platform for learning and discussion between the Company’s managers and general employees through seminars and forums held by managers, aiming to enhance the development and management efficiency of various key businesses in the organization.

With independent planning and integrated execution of major academies, Realtek Corporate University aims to achieve effective and complete strategic planning goals of Realtek’s education and training, provide substantive assistance and contribution to talent development and organizational competitiveness; at the same time, the Company also integrates the corporate culture in the planning and execution of education and training. While expanding the functions of education and training, the Company also participates in organizational innovation, teamwork and sustainability. Realtek’s corporate culture emphasizes “self-confidence and trust in people”, “teamwork”, “innovation” and “vitality”. We believe that by combining education and training planning and practice with organizational culture, we will continue to develop education and development with Realtek’s unique competitiveness!

- Self-confidence comes from professionalism
- Trust in people comes from sharing, focus on the team, and helping others to grow
- Teamwork comes from voluntarily coordinating with and supporting the team
- Innovation is about leadership continuity, breakthroughs, and creating new value, new fields, and new opportunities
- Vitality is about service and passion

**Realtek Corporate University
2022
Accomplishment**

- Total number of courses: 560
- Total number of external courses: 50
- Total class hours: 1,802.12
- Total attendance: 33,055
- Total training hours attended: 83,518
- Average training hours per attendee: 2.53
- Average training hours per employee: 16.90, a YoY increase of 18.5%

Realtek Corporate University Course Framework



■ Campus R&D and Education Cooperation

In 2022, Realtek Corporate University set up a new “Enterprise Internship Creativity Academy”. The “Enterprise Internship Creativity Academy” is a forward-looking concept plan to provide Realtek’s enterprise internship partners with dedicated cross-field courses related to accelerating the learning of professional fields, industry awareness and organizational interaction. In addition, Realtek also provides ESG-related courses and physical participation for trainees, hoping to expand the cooperation with all employees in various fields to strengthen and implement the goal of professional social responsibility and corporate social responsibility through the participation and exchange of young students!

Education collaboration is one of the key topics to sustainable contribution to the society and is one of the targets for the long-term resources of Realtek. The “Enterprise Internship Creativity Academy” is to continuously give back to the society, cultivate potential talents in the campus, expand the scope of ESG in R&D and education cooperation in the campus. The goal is to cultivate specific majors and integrated functions of student development, and comprehensively manage and innovate the development of Realtek’s internship program, internship study, career professional consultation assistance, evaluation, etc. In 2022, a total of 41 interns were recruited. Through the design of curriculum courses for comprehensive functional development and the adherence to the compulsory training system, the trainees were promoted to combine academic knowledge with practical R&D expertise to achieve the goal of professional comprehensive efficiency. Furthermore, through the proprietary specialist counsellor system, we help trainees to understand the R&D process and practical operation of the semiconductor industry, so as to achieve the goal of effective learning and cultivating semiconductor talents. In addition, we also provide dedicated team guides for trainees, offer life consultation and assistance, as well as special counselling for career development discussion and problem solving. Realtek Semiconductor hopes to make inter-school technology R&D talents better understand the professional knowledge of the semiconductor industry through the internship program, and also hopes to stimulate their learning interest and research momentum, so as to cultivate comprehensive functions such as R&D innovation, technology management and positive ideas, and contribute to the cultivation and development of future science and technology talents of the country.

Internship Programme Professions

- Digital IC Design
- Analog IC Design
- RF IC Design
- Digital IC Verification
- Design for Testability
- AI Design and Development
- System Design
- Software design
- Physical IC Design
- Algorithm Development
- Memory Design



■ Education and Training Accomplishments

2022 Education and Training Hour Statistics

Category	Item	Male	Female	Subtotal
Training for New Hires	Attendees	1,029	244	1,273
	Hours	11,782.64	2,719.31	14,501.95
	Average Hours per Attendee	11.45	11.14	11.39
R&D Development	Attendees	19,972	3,613	23,585
	Hours	69,675	11,983	81,658
	Average Hours per Attendee	3.49	3.32	3.46
	Average Hours per Employee	19.06	17.75	18.85
Management and Sales	Attendees	165	108	273
	Hours	933	782	1,715
	Average Hours per Attendee	5.65	7.24	6.28
	Average Hours per Employee	3.89	4.14	4.00
Production	Attendees	12	4	16
	Hours	114	31	145
	Average Hours per Attendee	9.5	7.75	9.06
	Average Hours per Employee	1.41	0.30	0.79
All Employees (excluding training for new hire)	Attendees	20,149	3,725	23,874
	Hours	70,722	12,796	83,518
	Average Hours per Attendee	3.51	3.44	3.50
	Average Hours per Employee	17.78	13.25	16.90

Note : Average training hours per employee = Total training hours in the category/ Total number of employees in the category.

Human Rights Management

To protect the legal rights of employees, Realtek complies with the local labor regulations at each of our operating locations around the world. It adheres to the spirit and basic principles of human rights protection set out in international human rights conventions, such as the “International Bill of Human Rights”, the “UN Global Compact”, and the “International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work”. We adhere to the standards and spirit of the “RBA Code of Conduct” when formulating the “Human Rights Policy of Realtek Semiconductor” and “Realtek Semiconductor Labor Policy” to disclose policies and commitments, goals, mitigation measures and complaint channels on human rights-related issues, fully expressing our commitment to protecting human rights as well as the dignified treatment and respect of all employees and contractors.

We strictly prohibit unreasonable labor constraints on employees. We do not employ forced or bonded labor (including debt bondage), nor do we engage in the employment of involuntary or exploited labor, or individuals subjected to slavery or trafficking. Measures are taken to ensure that human resources policies do not contain discrimination based on gender, race, socioeconomic status, age, and marital and family status. We uphold equal and fair treatment in employment, including hiring conditions, remuneration, benefits, training, evaluation, and promotion opportunities. Additionally, we strictly adhere to the policy of not employing employees under the age of 18 (inclusive).

To strengthen human rights awareness among employees, in Realtek’s management seminars and training camps for new employees, everyone learns about the Company’s internal policies, guidelines, and sustainable development achievements. The activities enable all participants to fully understand the content of Realtek’s human rights policy. In 2022, human rights-related education and training totaled 84.16 hours, and enrollment in these classes totaled 698. There were no instances of non-compliance with human rights regulations at Realtek in 2022.

Human Rights Due Diligence

Realtek firmly believes that talents are the most important asset of the Company. In order to fulfil corporate social responsibility and protect the legitimate rights and interests of employees, the Company creates an environment that values and respects human rights, and ensures the implementation of human rights management in the process of operation. The Company has treated and respects all employees and contractors with dignity. We have conducted a labor risk and regulatory compliance assessment since 2017. In 2022, we further aligned with the requirements of the UN Guiding Principles on Business Human Rights in respect of human rights due diligence and the guidelines of the GRI Standards in respect of due diligence to identify major issues related to human rights, compiled mitigation and remediation measures to comprehensively protected the human rights of our employees. The ESG committee members also took advice of the recommendations from external professional consultant during a special meeting on human rights due diligence and identified the material issues related to human rights.

Based on the laws and regulations, international human rights initiatives, past customer surveys, and key human rights issues of benchmark companies, Realtek gathered the sustainability members (representatives of relevant departments), led by external professionals, and discussed the risk categories and characteristics, past experience of relevant incidents, as well as the extent of subsequent remediation and mitigation measures through designated meetings, to identify the material topics related to human rights in 2022 and put forward seven basic human rights issues. All seven human rights issue risks are potential risks with low possibility of occurrence, as the management of human rights issue is vital. In order to actively strengthen the management of human rights issues, the Company listed the four issues with relatively high possibility of occurrence as major human rights issues. In addition, the Company analyzed the mitigation and remedial measures, continued to track the management, improved the actual management of human rights issues, and promoted the workplace environment of all employees.

The Human Rights Policy of Realtek Semiconductor is Implemented through the Following Guidelines:

- Protection of free labor rights
- Prohibition of child labor
- Provision of a safe work environment
- Attaching significance to employee’s physical and mental health
- Promoting responsibility of equality and security
- Supporting freedom of association



Human Rights
Policy of Realtek
Semiconductor

Realtek Semiconductor Labor Policy

- Protect the rights and interests of employees
- Provide a healthy work environment
- Comply with national labor laws
- Advocate equality, safety, and accountability
- Value employee training and development
- Promote corporate engagement and responsibility



Realtek's Human Rights Due Diligence Process and Identification Results:

Step 01 Formulate Realtek Human Rights Policies and Commitments

We have the following human rights-related policies and commitments, which are disclosed on the official website of Realtek for all stakeholders to download and understand:

- Human Rights Policy of Realtek Semiconductor
- Realtek Semiconductor Employee Code of Conduct
- Sustainable Development Practices
- Regulations Governing Realtek Internal (External) Personnel Whistleblowing on Illegal or Immoral Behaviors
- Realtek Supplier Code of Conduct

Step 02 Screen the List of Human Rights Risk Issues

With reference to laws and regulatory requirements, international initiatives and standards, human rights risk issues in the industry value chain, the UN's list of human rights, recommendation from consultants and experts, the Company compiled seven basic human rights issues, including:

- | | |
|---|--|
| 1 Privacy protection | 5 Prohibition of child labor |
| 2 Anti-discrimination, anti-harassment and equality | 6 Safe and healthy working environment |
| 3 Forced labor and working hour management | 7 Health and wellness |
| 4 Freedom of association | |

Step 03 Identify Human Rights Issues

Although the 7 human rights issues identified by Realtek are potential risks with low possibility of occurrence, 4 of them are classified as material human rights issues in order to implement the international human rights convention, enhance the awareness of human rights and create an environment that respects human rights, which have included the following implications:

Material Human Rights Issues	
Issue	Implication
Privacy Protection	Reasonable protection of information and privacy of stakeholders, and compliance with legal and regulatory requirements on privacy and data security in the collecting, using, storing, processing, transmitting and sharing of personal information
Anti-discrimination, Anti-harassment and Equality	<ul style="list-style-type: none"> • Provide a work environment free of harassment and illegal discrimination • Prohibit any discrimination or harassment against any condition during recruitment and employment • Employees are not subjected to any discriminatory examinations • Employees are not subjected to unequal treatment based on age, gender, sexual orientation, nationality, race, religion, pregnancy, marital status, political stance, etc
Forced Labor and Working Hour Management	<ul style="list-style-type: none"> • No forced or compulsory labor and no forced, involuntary, enslaved, or human trafficking or smuggled people as labor • The working hours should not exceed the maximum level under local labor laws and the working hours should not exceed 60 hours per week • Any overtime work must be voluntary
Freedom of Association	We respect the rights of all employees in organizing and participating in trade unions, collective bargaining and peaceful assembly selected by them, and should respect employees' rights to avoid such activities and establish harmonious labor-management interaction

Note : In 2022, the number of employees with disabilities was 32.

Fundamental Human Rights Issues	
Issue	Implication
Prohibition of Child Labor	Comply strictly with the various labor laws and regulations issued by the government, the Company strictly implements the policy of preventing child labor, and only employs employees who are over the age of 18 (inclusive). Ensure full compliance with international standards of social responsibility and the relevant government regulations
Safe and Healthy Working Environment	<ul style="list-style-type: none"> Protection of employee welfare, health and hygienic working and living environment, and safeguard reasonable related rights and interests Prohibition of unreasonable labor restrictions on employees
Health and Wellness	<ul style="list-style-type: none"> Identify, assess and control hazards to employees who are engaged in heavy physical duties, and develop procedures to prevent, manage, track and report work-related injuries and occupational diseases Promote environmental safety policies and related regulations to enhance safety awareness of all employees

Step 04 Carry out Mitigation and Adjustment Measures on Human Rights Issues 

Material Human Rights Issues	Potential/Physical	Target of Impact	Direct/Indirect/Commercial	Precautionary Measures	Mitigation and Enhancement Measures
Privacy Protection	Potential	All employees & suppliers	Direct	<ul style="list-style-type: none"> Strengthen the security protection measures for the collecting, processing and management of personal information of relevant employees, such as watermark and access rights restrictions, to prevent unauthorized access, theft and leakage A safety protection detection and reporting mechanism for front-end users Conduct regular educational courses and security drills on information security Announcement and regular promotion of information security policies Set up access control and encryption protection for personal information database system Dedicated printers are set up in restricted areas to strengthen and protect personal information Implement encryption protection setting for biographical files 	<ul style="list-style-type: none"> Analyze and review the implementation of security for privacy protection incidents, and continue to improve the PDCA process
Anti-discrimination, Anti-harassment and Equality	Potential	All employees	Direct	<ul style="list-style-type: none"> Require all employees to comply with human rights regulations such as the "Human Rights Policy of Realtek Semiconductor", "Employee Code of Conduct" and "Sustainable Development Practices", and disclose relevant standards on the official website for all employees to understand and access Each new employee is required to complete human rights related training courses Regular labor risk assessment and identification are carried out to keep abreast of and manage the current situation, and to study and refine measures for necessary issues In order to maintain labor-management relations, promote cooperation and improve work efficiency, Realtek has formulated the "Realtek Semiconductor's Corporate Organization Communication Meeting Implementation Method", which calls for business supervisor representatives and staff representatives to participate in regular and ad hoc communication meetings (labor-management meetings) 	<ul style="list-style-type: none"> An EAP assistance plan for employee care is in place to provide employees with psychological counselling-related services. Effective communication and complaint channels are implemented for all employees to maintain diversified communication channels and ensure employees can fully reflect their opinions in a timely manner and receive effective feedback, while protecting whistleblowers from retaliation
		Suppliers	Commercial	<ul style="list-style-type: none"> Require all suppliers to sign and comply with the Supplier Code of Conduct Conduct an ESG risk assessment mechanism for suppliers, regularly conduct audits on existing suppliers, and incorporate the sustainability performance of suppliers into our order configuration and long-term cooperation considerations 	<ul style="list-style-type: none"> In the event of a major human rights issue occur with suppliers, the Company may downgrade or temporarily cancel the cooperation with the supplier, and provide advice and assistance in a timely manner

Material Human Rights Issues	Potential/ Physical	Target of Impact	Direct/ Indirect/ Commercial	Precautionary Measures	Mitigation and Enhancement Measures
Forced Labor and Working Hour Management	Potential	All employees	Direct	<ul style="list-style-type: none"> Set up the Realtek Semiconductor Labor Policies to protect the labor rights of employees Clearly state that no involuntary, exploitative and under-18 years of age can be hired, and forced labor and any form of humiliating or inhumane treatment of employees is prohibited Set up appointment and check-in procedures for new employees, and fully explain the rights, obligations and benefits of the employees through the employment notice to maintain an equal and transparent employment relationship Formulate working hours management measures, set up attendance and overtime declaration systems, stipulate that employees' consent is required for overtime work, and provide overtime pay or compensation leave mechanism to maintain the normal working hours and rights of employees A standard employment contract is signed, and employees have the right to terminate the labor contract freely, subject to the regulation of the law 	<ul style="list-style-type: none"> An EAP assistance program is in place to provide employees with psychological counselling-related services Provide effective and smooth communication and complaint channels for employees, ensure that our employees can reflect their opinions in a timely manner and receive effective feedback Monitor the status of employees' overtime work timely according to the overtime backup system, and inform department heads to assist employees with longer working hours in a timely and appropriate manner
		Suppliers		<ul style="list-style-type: none"> Require all suppliers to sign and comply with the Supplier Code of Conduct and the Declaration of Conflict-free Minerals. Establish an ESG risk assessment mechanism for suppliers, regularly carry out audits on existing suppliers, and incorporate suppliers' sustainable performance into the projects of order configuration and long-term cooperation consideration. Regular supplier communication meetings are held to provide timely suggestions and assistance 	<ul style="list-style-type: none"> Regularly carry out supplier audits in accordance with the Supplier Code of Conduct, strengthen the conflict mining management system, and require suppliers to certify that the raw materials used in their products do not come from conflict-affected and high-risk areas In the event of a major human rights issue occur in suppliers, the Company may downgrade or temporarily cancel the cooperation with the supplier, and provide advice and assistance in a timely manner
Freedom of Association	Potential	All employees	Direct	<ul style="list-style-type: none"> Set up the Realtek Human Rights Policies to support and emphasize the freedom of association Emphasize that talents are the Company's important assets, care about all employee organizations, promote labor-management cooperation, and establish harmonious labor-management interaction 	<ul style="list-style-type: none"> Hold organization communication meetings (labor-management meetings) and Employee Welfare Committee meetings on a quarterly basis, while representatives of the Company and representatives of employees will participate and hold ad hoc communication meetings
		Suppliers		<ul style="list-style-type: none"> Require all suppliers to sign and comply with the Supplier Code of Conduct Established an ESG risk assessment mechanism for suppliers, regularly carry out audits on existing suppliers, and incorporate suppliers' sustainable performance into the projects of order configuration and long-term cooperation consideration Regular supplier communication meetings are held to provide timely suggestions and assistance 	<ul style="list-style-type: none"> In the event of a major human rights issue occur in suppliers, the Company may downgrade or temporarily cancel the cooperation with the supplier, and provide advice and assistance in a timely manner

Step 05 Continuous Management and Implementation of Training and Promotion on Human Rights Issues



2022 human rights-related education and training

Total Number of Course Hours

84.16 hours

Participants

698

Employee Care and Benefits

Diverse Channels for Communication

Realtek respects the characteristics, perspective, and voice of each employee while encouraging a culture of open and sincere communication throughout the Big Crab Family. To support these goals, we build a timely, two-way “employee communication” channels and hold both quarterly organizational communications meetings (labor-management meetings) and Employee Welfare Committee meetings. Realtek adheres to the principle of equal in speech, listen to and value diverse thoughts and opinions within the team. Employees can express their professional or constructive feedbacks and freely through various effective communication channels. Based on the situation, the Company responds to or provides support according to different needs. Realtek values the opinions expressed by employees and heeds constructive communications mechanisms as part of a commitment to building and maintaining a sustainable workplace that is friendly, thus promoting positive and harmonious relationships.

Comprehensive Communications and Service Channels

Realtek attaches great importance to the opinions and rights of all employees, maintains a smooth and complete channel for employees to express their opinions, and ensures unhindered two-way communication.

Diverse Employee Communication Channels

Direct communication methods

- Realtek's new employee training camp: supervisor Q&A time
- Discussions and seminars for Realtek's managers
- Discussion sessions for new employees
- Direct unit supervisor, managers at all levels
- Realtek's organizational communications meetings
- Realtek's Employee Welfare Committee
- Designated contacts and supervisors

Feedback channels

- The President's Mailbox
- Intranet Discussion Forum
- Internal whistle-blowing procedures (whistle-blower protection mechanism)

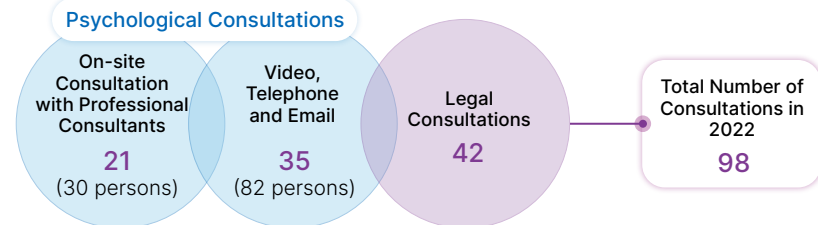
Realtek's Employee Relations Development Center actively implements an employee counselling and assistance mechanism. In addition to conducting onboarding discussion to assist new employees in adapting to the workplace, the Company also provides individual counseling and team support, such as the “Employee Assistance Programs (EAP)” established by the Company and the “free legal advice helpline” commissioned to Cheng Kuan Attorneys-at-Law; at the same time, we also cooperates with professional psychological consulting agencies to offer employees with free “psychological counseling services” and other mechanisms, hoping to provide high-quality communication, interaction, assistance and service channels for all of Realtek's employees through comprehensive

and various assistance plans. Meanwhile, the Realtek's Occupational Safety and Health Center also implements various programs and communication assistance service mechanisms to promote environmental safety, occupational safety, and health promoting services, while in turn preventing illegal encroachments throughout the organization, providing workplace communication assistance services and optimizing the workplace welfare environment of Realtek.

Employee Assistance Program (EAP)

The Employee Assistance Program provides comprehensive, professional support relating to career, work and life, family and children, personal relationships, mental health, management advice, and legal consultations.

Employee Assistance Program



The employee satisfaction rate towards EAP on-site psychological consultations by professional counselors was 96.85 points.

Work-Life Balance

Most people seek to achieve a balance between work, health, and family life. Realtek therefore attaches great importance to improving the work-life balance and health awareness of employees. It has been focusing on the implementation of related promotion plans for long years. For example, we provide health promotion and disease prevention information, lectures on diverse topics, various activities, a reading room, clubs, and incentive programs. To support employee lifestyle benefits, we organize annual programs to look after employee health, build morale, and create a workplace culture of health and vitality. The aim is to build the healthy constitution and long-range competitiveness needed for sustainable corporate development.

We have established and completed specific facilities that provide large sports and leisure entertainment space, reading and relaxation massage service space, as well as free and sufficient car parking spaces in the two parking towers in the Hsinchu office area. In terms of catering for employees, we continued to plan and introduce restaurants and meal options with different attributes, and significantly increased the amount of meal subsidies in July 2022. The one-day meal subsidies increased by 100%. The Company will continue to pay attention to and assist employees in their comprehensive development in work and life, boosting their efficiency to create a work-life balance organization environment.

Employee Welfare Committee

To raise the vitality of the organization and the quality of employee benefits, Realtek established the Employee Welfare Committee. Realtek's Employee Welfare Committee holds regular and ad hoc meetings every year to formulate the overall employee welfare policies, including annual intellectual and lifestyle seminars, annual diversified activities, and parent-child-related activities planning. We hope to enrich the content and positive feelings of employees' work and life through the event planning and implementation of the Employee Welfare Committee, and make them experience the power of the organization's full support!

In 2022, as the world was still under the pandemic, the Realtek Employee Welfare Committee, with the purpose of "protecting health and safety while providing benefits to all employees", with the efforts of all the members in the Employee Welfare Committee. The physical activities and measures held in the past were adjusted and transformed into a number of activities designed for the goal of sharing the welfare of the Big Crab Family during the pandemic prevention period. For example, during the severe period of the pandemic, we launched a practical and beautiful "Realtek's exclusive Big Crab Family New Spring cherry-style medical masks", giving each employee a warm gift ahead of the spring festival, reminding all employees to join efforts in pandemic prevention and to take care of the health of their families and friends when they return to their hometown!

Over the years, the parent-child activities of the "Little Crab Story House" were held during the summer holiday. During the pandemic, considering that it was not easy to organize indoor activities while pandemic prevention, we also adjusted to organize "Little Crab Talent Show" art and literature creation and parent-child reading activities, so that children and their families could enjoy excellent publication for families of children to learn together at home through 3D oil painting and parent-child creation, stimulating the creativity of children and enhancing parent-child interaction, creating a sense of happiness among the Big Crab Family.

During the annual Realtek family day, the Employee Welfare Committee also planned to distribute "Big Crab Family Fun Voucher e-Gift" and the Company gave away a "Realtek 36 Super Team Family Fun Box" to each of its employees to celebrate the 36th anniversary of Realtek with all the friends and family, and shared a wealth of exclusive Realtek gifts! In the face of the pandemic, the vitality of the driving force of Realtek remained unchanged. Through innovation and breakthroughs in activities, Realtek and the Big Crab Family and friends joined hands to experience the virtues of Realtek and to create the unique cohesion of the Big Crab Family!

Employee Welfare Measures and Investment

In 2022, Realtek Semiconductor and Realtek Employee Welfare Committee provided more than NT\$102.25 million to support the operation of the employee welfare and related activities. During the course of the Company's continuous expansion of innovation competitiveness and constant growth in operating results, all employees can continue to feel and enjoy the Company's well-intentioned welfare policies and environment.

Benefit Category	Benefit Item	Content
Financial Benefits	Compensation and welfare policies	Distributed in accordance with the Company's compensation and welfare policies. Includes year-end bonuses, performance bonuses, Dragon Boat Festival and Mid-Autumn Festival bonuses, wedding gift, childbirth subsidies, funeral subsidies, department funds, business travel allowances, business travel fuel allowances, etc
	Festival vouchers	E-vouchers are issued for festivals (Labor Day, Dragon Boat Festival, Mid-Autumn Festival) and birthday celebrants, and the e-vouchers can be used through a variety of channels
	Cafeteria benefit plan	The Employee Welfare Committee decides the amount of welfare benefits that each employee can apply for each year
	Employee purchase vouchers	Discounted vouchers are available for employee purchase
	Meal allowances	Realtek has significantly increased its meal subsidies, offering a variety of meal types for lunch and dinner daily
Facility Benefits	Parking spaces	The Company offers sufficient parking spaces for cars and scooters and charging facilities for electric vehicles
	Living facility services	A Family Mart convenience store and a Xiao-Yu store operate on Company premises
	Childcare services	The Company has a professional breastfeeding room and provides nursery-schooling services
	Sporting facilities and environment	The Realtek Recreation Hall offers fitness facilities, pool tables, table tennis, and arcade basketball games. There are also showers with toiletries supplied
	Magazine reading room	Contains a diverse selection of technology, management, finance, family, and health magazines for employees to read
Activity Benefits	Reading Room	The Reading Room is a comfortable space with books and multimedia content updated every month and available to employees to use for free
	Prize drawings at Family Day and the end-of-year banquet	The Company and the Employee Welfare Committee organize money and prize drawings
Other Health and Project Benefits	Leave type	Includes annual leave, flexible leave, maternity leave, paternity leave (including for maternity tests), sick leave, marriage leave, and pandemic prevention leave
	Employee Assistance Program	Includes psychological counseling, legal advice, stress-relieving massages, and one annual Employee Assistance Program seminar
	Group insurance	Realtek provides free group insurance to employees. Each employee's spouse and children can also enroll in the group insurance at the Company's cost
	Business insurance	Realtek provides domestic and international business insurance
	Health checks	<ul style="list-style-type: none"> The Company commissions a high-quality medical team to provide an annual health check for all employees. Besides general items such as blood tests and urine tests, the examination goes beyond legal requirements to include more advanced tests such as abdominal ultrasounds and electrocardiograms Employees' family members can also have a health check at a discounted cost, and both employees and their families are welcome to request additional self-paid tests
	Health consultations with resident physician	Approximately nine sessions are held monthly, with a professional physician stationed on-site to provide three-hours of consultant service per session. In 2022, a total of 384 consultations were served
Airport VIP lounge	Negotiate with airlines for special offers and provide a wide range of VIP services	

List of Employee Welfare Activities in 2022

Golden Tiger New Year Gift – Chinese New Year Lucky Draw Event

The Big Crab Family welcomed the Year of the Golden Tiger, and the Company and the Employee Welfare Committee jointly held a lucky draw event for Chinese New Year, drawing 100 family food sharing gift boxes and 66 iPad Pro sets, enabling employees and their families to get together, share fresh food, and celebrate the New Year.



Realtek's Powerful Team - Revenue Exceeding NT\$10 Billion in January 2022, Reaching a New High, All Employees Sharing the Glory

Good news for 2022 Spring Festival!

The Company's revenue exceeded NT\$100 billion in 2021 and NT\$10 billion in January 2022, and its results hit a new record high. In order to thank all the employee for working together to create strong results and share the glory, we have planned to give sumptuous afternoon snack to thank each employee for their hard work and efforts!



Realtek 36 Senior Employee Awarding Event

We cordially invited senior employees (representatives) to attend the 36th Anniversary Ceremony of Realtek to recognize and thank all senior partners for their continued efforts and contributions over the years.



Realtek 36th Anniversary Big Crab Family Gift Box

During the pandemic period, members of the Big Crab Family still shared the joy of the family day of the 36th anniversary of Realtek! In particular, the Company joined hands with the Employee Welfare Committee to plan for the "Realtek 36th Anniversary Family Fun Box" to give away a number of gifts to employees, hoping that all employees of Realtek can celebrate the 36th Anniversary and share the joy and happiness with their families.



The gift box can be used as a multifunctional storage box, and the box of the thermos bottle can be reused as a tissue box, incorporating sustainable ideas into the event planning!

Realtek "Little Crab Talent Show"

Realtek held the "Little Crab Talent Show", which included a pair of home-based creative activities: "Little Crab storytelling – shared reading" and "Little Crab Artist – painting and graffiti." The two activities sparked creative interest among the Little Crabs, advanced their reading abilities, and increased family interaction.



Unpaid Parental Leave System

Realtek deeply cares about every employee and is happy to see all members of this Big Crab Family smoothly and safely complete every important phase of their lives. As part of this commitment, we implemented an unpaid parental leave system based on the "Gender Equality in Employment Act". All male and female employees can apply for leave to look after their family members. We also offer childbirth gifts to share the joy of the birth of new crab family members.

Number of People Who Used Unpaid Parental Leave	Reinstatement Rate	Retention Rate
14	97.7%	100%

Items	2021			2022		
	Males	Females	Total	Males	Females	Total
Number of Employees Eligible for Unpaid Parental Leave in 2022: A	174	40	214	358	60	418
Number of Employees that Used Unpaid Parental Leave in 2022: B	0	11	11	7	7	14
Total Number of Employees Expected to Be Reinstated in 2022 after Using Unpaid Parental Leave in 2022: C	0	5	5	4	8	12
Total Number of Employees Reinstated after Using Unpaid Parental Leave in 2022: D	0	4	4	4	7	11
Total Number of Employees Reinstated after Using Unpaid Parental Leave in 2021: E	2	13	15	0	4	4
Total Number of Employees Still with the Company 12 Months after Returning from Unpaid Parental Leave in 2021: F	2	12	14	0	4	4
Reinstatement Rate after Using Unpaid Parental Leave in 2022(D/C)	N/A	80.0%	80.0%	100%	87.5%	91.7%
Retention Rate after Using Unpaid Parental Leave in 2022(F/E)	100%	92.3%	93.3%	- (Note)	100%	100%

Note : As no male employees used unpaid parental leave in 2021, there were no applicable data for male retention rates in 2022.

In addition to unpaid parental leave, the Occupational Safety and Health Center provides maternal support for female employees from notification of pregnancy to one year after childbirth. Standard prenatal care is supplemented by consultations with on-site resident physicians, and health education and guidance are offered to new mothers during pregnancy. After giving birth, the mother receives personal and baby health advice. At the same time, Realtek also offers a clean, safe, comfortable, and private breastfeeding room. In 2022, Realtek had a reinstatement rate after unpaid parental leave of 91.7%.

Build a Safe and Healthy Workplace

■ Preemptive Implementation of the Government’s Pandemic Prevention Policies

Since the outbreak of the COVID-19 pandemic, Realtek has closely monitored the pandemic and the government’s pandemic prevention policies. By quickly establishing cross-department response teams, we kept abreast of changes in the pandemic, preemptively launched safety and health defense mechanisms, ensured the development of various pandemic prevention measures and control actions, enhanced risk prevention management, and implementing emergency response measures. We simultaneously formulated various pandemic prevention measures and organized all employees to participate. The Company effectively ensured the environmental safety and operational safety and efficiency of the Realtek factory areas to protect the health of all employees.



Disease Prevention Plans and Key Measures were as follows:

Item	Explanation	
Establish a Pandemic Prevention Command Team	<ul style="list-style-type: none"> Establish functional teams to quickly formulate pandemic response and prevention policies and carry out related technical initiatives. Establish a pandemic prevention center. The Occupational Safety and Health Center shall plan and command the Company’s global pandemic prevention policies and measures. Monitor and report on the Covid-19 pandemic situation, supplies dispatch, and support at each operational unit. Compile a pandemic prevention measure handbook. Monitor and act in accordance with the pandemic prevention policies of each local government where we operate. Develop response plans. 	
Pandemic Prevention Policies	Establish countermeasure policies promptly in response to the COVID-19 situation changes.	
Pandemic Prevention Promotion	Add a Covid-19 pandemic prevention section to our intranet to provide updates on pandemic prevention efforts and status for all employees to use as a reference.	
Substitute Measures to Reduce Overseas Business Trips	<ul style="list-style-type: none"> Recommend that all business units avoid business trips and use videoconferencing, phone calls, voice messaging, and other communication tools instead. For unavoidable business travel, we provide comprehensive pandemic prevention notices for the travel location and related precautions. Additional measures include a pandemic prevention care package, a reservation at a quarantine hotel upon returning to Taiwan, and health tracking and care. 	
Entry Control and Services	<ul style="list-style-type: none"> Carry out drills for controlling the flow of people at all office access points and install infrared temperature sensors. Compile information on all visitors and report on guest visits in advance. Visitors shall (1) fill out health declaration statements that are available via QR code, (2) have their temperatures taken, and (3) provide accurate name and contact info. Install a tented meeting area outdoors for private visits or for visitors who did not book their visit in advance. Dedicated personnel perform and monitor access control and temperature measurements, including temperature taking and recording of outsourced laborers. 	
Environmental Controls and Management	<ul style="list-style-type: none"> Supply alcohol hand sanitizer bottles in all walkways, public areas, and meeting rooms. Disinfect spaces with alcohol every day. Add UV disinfection equipment inside elevators. Upon entering the office, all persons shall wear a mask at all times. The Company advocates frequent handwashing. Cafeteria control measures: Social-distancing seating arrangement. Employees are encouraged to eat at their desks and to wear a mask while visiting the cafeteria. Online meal ordering services. Each employee is given a specific location to pick up their order, and there are several designated locations per floor, thus reducing the risk of cross-transmission between colleagues. Progressive Crowd Control in Exercise Spaces: As the pandemic abated, we opened exercise spaces in line with government policy to use improved physical conditioning as a way of raising immunity. Alcohol sanitizer is provided for users to maintain a safe exercise environment by disinfecting their hands and equipment. 	
Employee Daily Temperature Report	<ul style="list-style-type: none"> Establish a Realtek daily health reporting system. Before arriving at work, employees must use the daily health reporting system to report their temperature. This serves as a self-check before entering the workplace. The Occupational Safety and Health Center carries out immediate control measures and provides professional support based on reported data. 	
Employee Health Care	Pandemic prevention packages	Provide pandemic prevention packages to employees leaving for business trips. Distributed 447 packages in 2022.
	Quarantine hotel arrangement	Helped arrange 14-day stays in approved quarantine hotels for employees who needed quarantine. Arranged 188 total stays in 2022.
	Raise vaccination acceptance among employees	Encourage employees to get the Covid-19 vaccine. Besides offering vaccination leave in line with government policy, we went beyond legal requirements to offer one paid day of vaccination leave.
	Health management offices	<ul style="list-style-type: none"> Health management offices are spaces for employees who require self-health-management. Employees can use an office to conduct work-related tasks and join video meetings. Health management offices are independent seating areas with negative pressure air conditioning, UV light sterilization, a complete set of disinfectant tools, a separate bathroom, and a separate break room. Designated staff clean and disinfect the offices. Provide personal meal service for employees to eat in the health management offices.
	Distribution of fast screening reagents	From June to December 2022, 2 rapid screening reagent was distributed to employees every month.
Pandemic Prevention in Community	Donated 350 doses of rapid screening reagents to Hsinchu Science Park Police Squadron.	

■ A Safe, Healthy Workplace

Occupational Safety and Health Management Committee

Realtek established the Occupational Safety and Health Management Committee in accordance with Article 23 of the 'Occupational Safety and Health Act.' The President serves as the Chairman and the committee has 14 members, including six labor representatives (42.9%), and convenes quarterly review of occupational safety and health issues. Realtek is in the IC design industry, and no employees engaged in high-risk work or roles that have a high risk of certain diseases. We continue to make improvements in occupational safety topics and procedures based on domestic and foreign legislation, we actively and attentively create a safe and reliable working environment for all employees. In 2022, the Company did not face any lawsuits resulting from employee health or safety hazards.

Realtek Occupational Safety and Health Policy:

- Emphasis on occupational safety and health is one of the company's management priorities.
- Eliminate hazards and reduce occupational safety and health risks with the goal of achieving zero accidents.
- Based on decrees and other requirements, we will continue to improve occupational safety standards.
- It is the basic responsibility of the company to provide a safe and healthy working environment with the participation and consultation of workers related to the company.

Comprehensive Occupational Health and Safety Management Systems

Realtek's Hsinchu Headquarters complies with the 'Occupational Safety and Health Act,' the 'Labor Standards Act,' and other industry-related regulations. The Company identifies the physical and mental harm that certain types of work or working environments may inflict, then adopts measures to assess, control, eliminate, avoid, or prevent potential risks, thus building a safe and healthy workplace. In 2021, we were certified with the documentary review for ISO 45001 Occupational Health and Safety Management Systems. The Company passed an external audit and has been actively building a healthy and safe working environment through standardized and systematic management.



International Standards ISO 45001 Occupational health and safety management systems
Effective date: 2021.12.15~2024.12.15

Occupational Safety Performance

The Occupational Safety and Health Center defined supervision and measurement methods for operations and activities that may pose an unacceptable level of safety and health risk. At the end of each quarter, management performance is calculated using the factors listed in the performance evaluation standards to realize the goal of improving safety and health. These measures ensure safe practices and effective risk control among all members of the Company. In the past three years, no cases of occupational hazard or disease occurred among employees, and no violation of any laws or regulations related to employee health or safety.



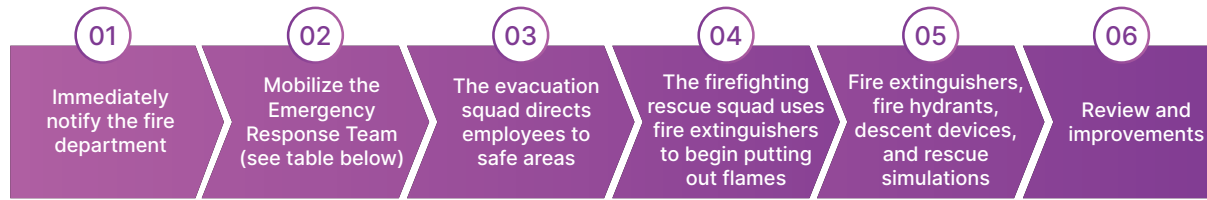
Emergency Response Plan

Realtek is required by national firefighting legislation to form an emergency response team and conduct realistic fire drills (exercise with simulated smoke) once every six months on a regular basis. Routine preventive internal inspections also provide early warning and timely fire suppression while training firefighting teams to direct the evacuation of employees and use escape equipment during the early stages of an emergency. Improving the firefighting team's expertise with rescue, evacuation, and first aid ensures proper readiness.

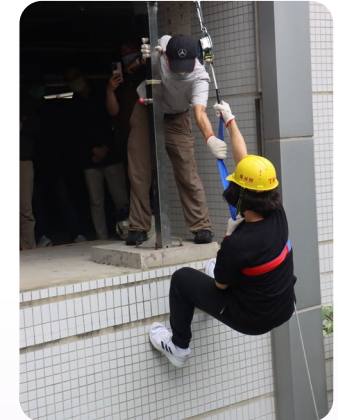
In 2022, Realtek held 2 emergency response drills, with an attendance of 106 in the first half of the year and 112 in the second half of the year, totaling 218. Emergency response demonstrations include extinguishing fire sources, using fire extinguishers, operating descent devices, and responding to a smoke alarm in the first floor warehouse baking area. Following completion, a review was promptly conducted to discuss the problems found during the drill. The aim of these drills was to familiarize employees with emergency response operations, so that in the event of an emergency, relevant SOPs can be followed immediately to minimize hazards or even eliminate damages.

To raise health and safety awareness and practice among all members, Realtek installed Automated External Defibrillator (AED) devices in each office (there are a total of 15 AEDs, with 14 at the Hsinchu Headquarters and one at the Taipei office). We also hold emergency response classes for employees to learn basic rescue knowledge and join demonstrations and drills. During an emergency, employees have sufficient knowledge to save themselves and rescue others in need. These measures fulfill Realtek's safety and defense goals while providing employees with a safer place to work.

Emergency Response Team Drill Procedures



Emergency Response Team Organization and Tasks	
Response Team	Tasks
Reporting Squad	<ul style="list-style-type: none"> Responsible for notifying the relevant units. Report disaster dispatch, damage, and casualties to command headquarters.
Rescue Squad	<ul style="list-style-type: none"> Launch response missions based on incident type. Determine the cause of the incident and carry out emergency rescue.
Guidance Squad	<ul style="list-style-type: none"> Loudly direct people to evacuation points. Operate evacuation equipment and lead the evacuation. Monitor radio broadcasts to determine the evacuation route.
Auditor	<ul style="list-style-type: none"> Count the number of people in the evacuation zone.
Traffic Management, Safety and Protection Squad	<ul style="list-style-type: none"> Direct traffic around the affected area. Guide ambulances to the correct locations. Designation of safe zones as well as management of traffic and personnel evacuation at the scene of the event.
First Aid Squad	<ul style="list-style-type: none"> Administer first aid to patients at first aid stations. Determine the type of incident when the alarm is triggered. Use appropriate medical devices and administer drugs as required.



Electric Vehicle Fire Rescue Drill

In order to fully implement the emergency response plan, taking into consideration the environment, sites, and equipment at each of our factories, as well as the special nature of the electric vehicle charging piles in our parking lots, in 2022, we invited external experts to provide training on fire rescue for electric vehicles at our factories. At the same time, we purchased professional fire blankets that can effectively control the impact of electric vehicle fires and limit external oxygen fuels. We also enhanced emergency rescue response experience through practical exercises to build a comprehensive and secure working environment.



Practical drill simulated the situation where the electric vehicle caught fire for no reason, and use the fire blanket to cover the vehicle to effectively extinguish the fire by full asphyxiation



Exercises for emergency handling of injuries



Emergency response class for electric vehicle disaster relief

Health Promotion and Employee Care

Monthly Health Promotion Activity

The Occupational Safety and Health Center issues monthly health promotions that are designed and published based on seasonal characteristics, important health and medical topics, and recent public health issues (such as novel coronavirus disease, healthy diet, prevention of epidemic diseases). The purpose is for all Realtek employees to absorb more knowledge and practices that are beneficial to themselves, their teams and their families, bringing greater health and joy to their work and family lives.

Realtek continues to advocate health protection information through printed materials and remind employees to look after their physical and mental well-being with a proper diet, regular exercise, and stress relief while they are busy at work. During the past two years, as attention around the world focused on COVID-19, Realtek continued to adhere to all domestic pandemic prevention policies. Realtek promotes COVID-19 vaccination health and education information while encouraging employees to take steps to prevent an outbreak and adhere to the new lifestyle campaign on pandemic control.



Selecting Quality Medical Teams to Conduct Annual On-Site Health Checks

Realtek has always deeply cared about the physical and mental health of our employees. We go beyond legal requirements and organize annual health checks free of charge to help employees and their families carefully monitor their health, continuing to search and add new self-health examinations for employees to receive more comprehensive health care. We strictly select high-quality health diagnosis and medical teams to carry out professional health checks on-site, from preliminary planning, briefing, and appointment, to contact, health check consultation during the inspection process, and professional communication on the examination day. Employees and their family members effortlessly and efficiently complete the examinations and receive timely responses on related issues and questions. They can also receive subsequent health seminars and statistical analysis.

When an employee's health examination results with major abnormalities, we arrange for the resident physician to provide consultations and provide tailored advice based on the individual's health history and situation before and after re-examination. The health office regularly conducts follow-up tracking and care while reminding employees to go for follow-up clinical visits and report tracking data. The tracking support helps keep employees physically and mentally healthy. Realtek expanded its resident physician program with NTUH Hsinchu Branch to held nine on-site session monthly and provided three-hours of consultant service per session. In 2022, a total of 384 employees joined the consultations.

New Plans for Employee Health Checks in 2022

- First time arrangement for employees' families to visit hospital for health checkup.
- The Company commissioned NTU BioMedical Park Hospital (Chupei campus) to offer additional self-paid options at the clinic, which are also available at Chu-Tung hospital to facilitate the need for advanced health examination for employees.

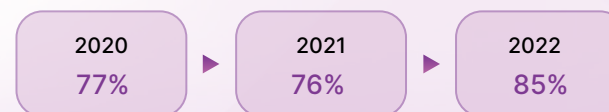
Number of Health Check Administered

	2020	2021	2022
Health Check Administered	3,511	3,849	4,080
Health Check Rate	91%	93%	92%

Flu Vaccination

During the flu peak season in autumn and winter, the best protection is through vaccination. From November to December 2022, the Company planned and organized influenza vaccination at hospitals for employees. A total of 251 employees signed up for registration, and 214 employees received self-paid influenza vaccination, with a coverage rate of 85%. At the same time, the Occupational Safety and Health Center urges employees to maintain good habits by developing a regular exercise routine, and improve their self-immunity.

Influenza vaccination coverage rate



Injury and Illness Follow-Up Care

In 2022, injury and illness follow-up care cases included traffic accidents, and medical care. Realtek commissions professional resident physicians to provide on-site consultations or telephone consultations. Each office has nurses to check on the well-being and recovery of patients and provide suitable care and advice.

In addition to providing employees with professional recommendations and mental support during the treatment process, Realtek also offers comprehensive assistance, including insurance and social resources. We hope to reduce our employees' trauma while recovering from injuries and reduce the overall impact of accidents on employees.

2022 Cases (People): 16

• Traffic Accidents: 4

• Medical Care: 1

• Patient Care: 11



CH6

Social Inclusion & Shared Prosperity

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Achievement Highlights

Corresponding SDGs



Suggested Stakeholders for Reading

Customers, employees, suppliers

Section Highlights and Investments

- Investment in social participation reached NT\$29,477,926 in 2022.
- Donated a total of 350 rapid screening reagents for the Security Police Squadron in Hsinchu Science Park.
- Sponsored the construction of “Children-friendly Medical Space” at Hsinchu MacKay Children’s Hospital.
- Constantly supported and sponsored the technology-based knowledge sharing platforms – Accomdemy, organized the parent-child learning program, “Parent-Child Learning with IoT Robotic Arm Hackathon”, in 2022.
- Charitable Project to Promote Reading for Rural Children, with an increase in number of schools to 33 totaling 238 classes.
- R&D in innovative specialty with self-owned technologies, donation of a Smart Ward Solution to NTU Hospital.
- Sponsored OldTree Environmental Protection Foundation, a cooperative partner, in organizing the “Old Tree Story House” and “Happy Storyteller” activities to accompany children in their learning and acquiring of natural environment knowledge.



Social Inclusion & Shared Prosperity



The goal of “Shared Prosperity” is the consensus in respect of all Realtek employees’ concerns and actions, and we have long been supporting and participating in various social care and charitable activities. Since 2008, Realtek has been promoting social welfare affairs through a special social welfare program called “Realtek supports charity with a smile”, actively planning and engaging in various social welfare activities. Realtek’s employees work hand-in-hand and spare no efforts for social prosperity, bringing along social welfare and care actions that are of educational importance and substantial help to the society. The “Realtek supports charity with a smile” social welfare program encompasses diverse areas, covering six categories: youth growth and women’s and children’s safety care, rural community care and educational assistance, social mutual aid actions, academic research and social institution sponsorship, charity projects, and individual cases, which unfold a series of social welfare activities in full swing.

In 2010, we established the “Realtek CSR Planning Center” (now renamed as ESG Center) to invest more resources and energy into expanding social care and fulfilling CSR through systematic planning. Besides providing care to external recipients, we design internal activities to reinforce employees’ awareness of the importance of social care. Realtek also continues to learn from the society to strengthen and activate strategic CSR planning, thereby providing feedback to demonstrate engagement momentum and action effectiveness.

Care for Rural Education

In adherence to the philosophy that a good education program takes a long time to develop, Realtek promotes its education missions and remains steadfast in its belief that education has profound influence to the sustainable development of students, society and country. Education has therefore always been one of the social welfare projects that Realtek has long attached importance to. To support education for indigenous children in Hsinchu County, Realtek provides scholarships, and assistance to four rural schools (Shih Lei Elementary School, Yu Feng Elementary School, Xin Guang Elementary School, and Hsiu Luan Elementary School) to enrich their educational resources. Long-term investment and enrichment of educational resources in remote campuses will enable children to thrive in a secure learning environment. We also hope that our students will continue to give back to the community and work together to promote mutual aid and love, which will lead to a positive social cycle in our country.

Each year, Realtek invites all students and teachers from four schools to participate in Realtek Family Day. Due to the impact of the COVID-19 pandemic in the past two years, Realtek’s 36th Anniversary Family Day events was suspended terms of organizing physical activities. We, nevertheless, managed to prepare and share the snack boxes made by Children Are Us Foundation, sharing the joy and warmth to the teachers and students of the four rural schools. We also continued to provide scholarships to the four rural schools in order to help fund special programs, create more learning opportunities, and encourage children to study diligently.

Realtek was honored to receive a video recorded blessing from students and teachers at each of the four schools (Shih Lei Elementary School, Yu Feng Elementary School, Xin Guang Elementary School, and Hsiu Luan Elementary School) to celebrate Realtek’s 36th anniversary. We appreciate the innocence, joy, and happiness that each student brings. Realtek Family Day is a shared event between the four schools and the Big Crab Family, in which everyone joins to experience the warmth and joy of learning.

Realtek Supports Charity with a Smile

In 2022, the total investment of “Realtek supports charity with a smile” reached **NT\$29,477,926**

Program Orientation

- Youth growth and women’s and children’s safety care
- Rural community care and educational assistance
- Social mutual aid actions
- Academic research and social institution sponsorship
- Charity projects
- Individual cases



● Charitable Project to Promote Reading for Rural Children – Stage 5

Realtek has been paying attention to education related issues for many years. Since 2018, we have been actively participating in a reading charity project for rural children. By supplying quality monthly publications to rural elementary schools, the Company encouraged students to read more, develop and good learning and expand their reading habits, and further promote their comprehensive learning development. From 2019 to 2021, Realtek cooperated with the Global Views Educational Foundation on a program that used reading as a seed to give children a better future. Annual donations of educational magazine subscriptions to rural schools throughout Hsinchu, Miaoli, and Pingtung benefited students in 208 classes. We received feedback from teachers and students that the educational materials are conducive to breeding the habit of reading among schoolchildren and can be used as an extension teaching material for teachers to enrich and expand the course content! In response to this, in 2022, Realtek further expanded the capacity of rural care planning by extending the donation of educational magazines to rural schools in Nantou and Yunlin counties, increasing the educational magazine subscriptions from 30 to 33 rural schools, reaching a total of 238 classes. Company employees continue to maintain contact with each school. By tracking children's use of the educational magazines, we could arrange the resources and budget more precisely for future planning.

In 2023, Realtek will continue to keep a close watch on reading and educational resource issues for rural schools according to its annual plan. Promoting sustainable knowledge learning and guiding children to develop a reading habit, we aim to broaden their field of vision, stimulate intelligence, and brings joyful learning and growth.

Realtek cares about the educational environment of rural children. 2022 investments in educational development:

- Scholarships and grants for rural elementary schools (Yu Feng Elementary School, Hsiu Luan Elementary School, Xin Guang Elementary School, and Shih Lei Elementary School).
- Sponsorship for the "Hsiu Luan Elementary School Library and Community Reading Station Construction Project".
- Donation of monthly educational publications to expand the reading horizons of schoolchildren.
- Sponsorship for the Shuang Si Elementary School (Baoshan Township, Hsinchu County) basketball team.
- Donation for the Little Gift of Love Charity Event at Children's Day for rural elementary schools.
- Family Day events and snack box sharing with the four rural schools.



■ Sponsorship of Academic Research and Development Activities

The progress of a country depends on dedicated research institutions leading and inspiring innovations, breakthroughs, and development. Realtek sponsors academic R&D activities to contribute towards creating a sustainable and prosperous future together.

In 2022, Realtek sponsored the following academic and research development plans:

- Sponsorship for the technology-based knowledge sharing platforms-Accomdemy
- Sponsorship for Industrial Technology Research Institute: 2022 International Symposium on VLSI
- Sponsorship for 33rd VLSI Design/ CAD Symposium, 2022
- Sponsorship for 2022 IEEE BioCAS 2022 International Symposium
- Sponsorship for 2022 IEEE Asian Solid-State Circuits Conference
- Sponsorship for Taiwan Semiconductor Industry Association (TSIA) IC Design Committee
- Sponsorship for Tsinghua Rising Sun Cup Charity Basketball Tournament
- Donation of a Smart Ward Solution to National Taiwan University Hospital, NTUH Hsinchu Branch, and NTU BioMedical Park Hospital: 152 sets of Dome IP Cameras video surveillance monitoring systems for 27 wards
- Donation of 2,000 rapid screening reagents for NTU Hospital
- Donation to NTU BioMedical Park Hospital: mobile video conferencing systems
- Donation to NTUH Hsinchu Branch: Funding for infectious disease prevention and control research
- Donation to the Taiwan IC Industry & Academia Research Alliance 4th YST Forum
- Donation to the National Taiwan University Academic Development Foundation – NTU SoC Center
- Donation to the Cultural Foundation of National Taiwan University

■ ACCOMDEMY – Technology-Based Knowledge Shating Platforms

In support of education, Realtek has always cared deeply about promoting knowledge effectively while increasing ingenuity and resource sharing. It has always been one of our goals to use new methods and entering new technological fields in order to accelerate broad-based knowledge and shared innovation gains around the world. Realtek searched for a solution, pouring resources into building technology-based knowledge sharing platforms. These efforts were carried out jointly by the technology, start-up, and education sectors, leading to the establishment of the self-learning organization 'Accomdemmy'. The objective is for makers from around the world to be able to join this social group to freely initiate the topics they want to learn or jointly build technology R&D projects that interest them. The exchanging of ideas with partners in this social group leads to joint innovation and inspiration, as well as the sharing of knowledge and creative achievements.

Based on the foundation built by makers through the power of passion and spontaneity, we hope to attract more partners from a wide range of industries to join. As these new participants contribute more resources, more impactful synergies will emerge, leading even more makers from all over the world to join. This will give rise to the introduction of more learning topics and R&D projects, further facilitating the development of this technology-based knowledge sharing platform. People who are passionate about technological R&D and who want to learn about innovation and the creation of new things, will now be able to find the professional resources and R&D project partners they have always wished for on 'Accomdemmy'.

In 2022, Realtek and Accomdemmy jointly offered a parent-child learning program, "Parent-Child Learning with IoT Robotic Arm Hackathon", which allowed employees and their children to work together to learn and explore knowledge. Realtek's Ameba BW16 development board was connected to the development tools to control the robot arm. The interactive and participatory activities were designed to share technology knowledge with employees' children while enhancing their parent-child relationships. The hands-on experience for adults and children would provide enriching learning results and unforgettable memories. In addition, Accomdemmy also completed various technology innovation and knowledge sharing projects in 2022, such as how to make an own CPU within the ten-week challenge, making a self-propelled car using Realtek's Ameba BW16 development board that was successfully exhibited at the "Makers' Carnival" in Hsinchu, making a MeArm robotic arm using Realtek's Ameba BW16 development board, and other innovative and creative inventions. During the process, we exchanged with international makers and manufacturers to derive offline learning activities.

We allocate resources to encourage inventors from all over the world to bravely present their own ideas and questions. Through the collaboration of experts on the platform, we can brainstorm together, combining technology and creativity to achieve our own innovative inventions. In the future, Realtek will invest resources to turn Accomdemmy into a Decentralized Autonomous Organization (DAO) managed and operated social enterprise. It is expected that more than 60 influential co-creation projects will be produced in 2023, which would likely to attract even more people to join and promote the development of makers' communities around the world. Realtek will continue to actively promote development and co-creation of projects for maker communities around the world, making the sharing of knowledge and learning opportunities borderless. With popularized educational learning and technological knowledge, we drive energy from joint participation, ensuring everyone with a desire to learn can feel the warmth of knowledge sharing.



Mutual Social Assistance Project

Realtek places great importance to social care, mutual assistance, and active participation. Realtek's employees cooperate with social welfare organizations and other groups to support charity activities and underprivileged groups. In 2022, social care projects included the following:

- Held the "Realtek 36th Anniversary Gift of Love" event, which provided care and assistance to 15 social welfare organizations
- Children Are Us Foundation: Community-based Employment and Diversity Workplace Observation Program
- Taiwan Indigenous Peoples Cultural Promotion Association: Seeing Taiwan's Love and Care for the Epidemic Aid Project
- Saint Joseph Social Welfare Foundation: 111th Anniversary "Good Health & Bone Power Challenge Activity for Christmas"
- Saint Joseph Social Welfare Foundation: "Animal Rhapsody – Grassland Concert and Art Exhibition for the Physically and Mentally Challenged"
- Taiwan Fund for Children and Families (Hsinchu Center): 111th Anniversary "55th Summer Camp" activity
- Taiwan Fund for Children and Families (Hsinchu Center): 111th Anniversary Winter warmth charitable activity
- Catholic Church of the Angelus Foundation: "Happy Reunion"
- Eden Foundation: Service plan to support disadvantaged children in 2022
- Agricultural Technology Research Institute: Corporate group buying activity for pomelos to support local agricultural products through actions
- Agricultural Technology Research Institute: Corporate group buying activity for atemoya fruit and donation to social welfare organizations
- Fr. Louis Dowd Social Welfare Foundation: 111th Anniversary "Hold the Years; Trek the Memory" walking activity
- Charitable cookies: Bought snack boxes from Children Are Us Foundation and donated to 5 local social welfare organizations and 33 rural schools in the country
- Donation to Taiwan Health Foundation



Realtek 36th Anniversary Gift of Love Event

Every year, Realtek contacted social welfare organizations to inquire about their operations status, and organizes the Realtek 36th Anniversary Gift of Love Event in conjunction with Realtek's Family Day events. During the Realtek 36th Anniversary Family Day events in 2022, we designed a public welfare platform again. The goal is to introduce social welfare organizations and public welfare groups to all employees, we aimed to lead them to know more disadvantaged units and background story of each welfare organization. We encourage employees to pay continued attention and support the disadvantaged with their actions. The event was funded by the Company and a donation quota was given to each employee to encourage everyone to take part in our charitable activities. By showing compassion towards underprivileged groups, Realtek spreads love, warmth, and support to people in need.

Donatee of Realtek 36th Anniversary Gift of Love Event:

- ♥ Sunshine Social Welfare Foundation
- ♥ Hondao Senior Citizen's Welfare Foundation
- ♥ Taiwan Foundation for the Blind
- ♥ Down Syndrome Foundation R.O.C.
- ♥ Chung Yi Social Welfare Foundation
- ♥ Zenan Homeless Social Welfare Foundation
- ♥ Taiwan Motor Neuron Disease Association
- ♥ Hsinchu Bright Sound Association
- ♥ Saint Joseph Social Welfare Foundation
- ♥ Hsinchu Renai Children's Home
- ♥ Hsinchu Association of Autism
- ♥ Hsinchu City Spinal Cord Disability Association
- ♥ Hsinchu Intellectual Disability Welfare Association
- ♥ Hsinchu Diocese Blue Sky Home
- ♥ Hsinchu Ai-Heng Training Center

Donation of Love Gifts and Charitable Cookies at Children's Day to Social Welfare Organizations and Rural Schools

Realtek has always focused on the development of social welfare organizations as well as the education and care for children, believing that the exertion of positive influence can bring along warmth and strength to society. Therefore, we organized gift of love charitable activities before Children's Day to give away small gift boxes of fine cookies, celebrating the festival with social welfare organizations and students in rural schools. Besides, on Realtek Family Day, we especially ordered snack boxes from Children Are Us Foundation, and donated them to 5 local social welfare organizations and 33 rural schools in the country participating in Realtek's reading promotion charity project. We hope students will learn happily and grow healthily, feeling the blessings and warmth to learn, enjoy and share the prosperity together!



Children's Day Charitable Cookies



Shih Lei Elementary School



Hsiu Luan Elementary School



Yu Feng Elementary School



Hsinchu Diocese Blue Sky Home



Donation snack boxes

Local Social Care

■ Donation of Rapid Screening Reagents for the Security Police Squadron in Hsinchu Science Park

Since the end of 2019, COVID-19 raged through the whole world. To sustain normal operation of society, the police have maintained their fearlessness to serve the public constantly in the face of virus, demonstrating their fortitude and touching service spirit to stand at the frontline. On March 9th and May 24th, 2022, Realtek donated two batches of rapid screening reagents for the Security Police Squadron in Hsinchu Science Park, totaling 350 doses, to show gratitude to the Security Police Squadron in Hsinchu Science Park for their hard work!



■ Cooperation with OldTree to Promote Love Tree Education and Inheritance of Old Tree Value

With long-term commitments to promoting love tree education and value inheritance, OldTree constantly shares the beauty of nature and the historical value of precious old trees with the students through campus promotion. Such concept is in line with the orientations of social participation, environmental protection, provision of quality education, and fulfilment of Realtek's practice of ESG sustainable development. In 2022, we sponsored the "Old Tree Story House" and "Happy Storyteller" activities. With eco-education and old tree stories as the core of co-learning, we bring scientific knowledge of trees to students through accompanying learning and environmental interaction activities, rooting the concept of friendly environment in the heart of children and accompany them in their learning of happy nature knowledge. In 2022, we sponsored a total of 9 nature education courses on tree protection for more than 200 students to promote the transmission and sharing of nature knowledge, realizing the actions of Realtek in education and social participation!



■ Sponsoring the Construction Project of Friendly Medical Space at Hsinchu MacKay Children's Hospital

In response to the invitation of Raising Children Medical Foundation, Realtek sponsored Hsinchu MacKay Children's Hospital for its construction of "Children-friendly Medical Space". As the first specialized hospital for children in the Greater Hsinchu area with the introduction of arts and education, Hsinchu MacKay Children's Hospital creates a childlike, warm, aesthetic, and imaginative medical space to reduce the discomfort and anxiety of children when seeking medical treatment or hospitalization, and thus stimulating positive energy.



GRI Standards Index

GRI 2: General Disclosures 2021

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Governance			
2-9	Governance structure and composition	CH1 Sustainable Governance – Board of Directors Governance Structure	24
2-10	Nomination and selection of the highest governance body	CH1 Sustainable Governance – Board of Directors Governance Structure	24
2-11	Chair of the highest governance body	CH1 Sustainable Governance – Board of Directors Governance Structure	24
		CH1 Sustainable Governance – Ethical Management	28
2-12	Role of the highest governance body in overseeing the management of impacts	CH1 Sustainable Governance – Board of Directors Governance Structure	24
		CH1 Sustainable Governance – Sustainability Organization Framework	26
2-13	Delegation of responsibility for managing impacts	CH1 Sustainable Governance – Sustainability Organization Framework	26
2-14	Role of the highest governance body in sustainability reporting	CH1 Sustainable Governance – Sustainability Organization Framework	26
2-15	Conflicts of interest	CH1 Sustainable Governance – Board of Directors Governance Structure	24
		CH1 Sustainable Governance – Ethical Management	28
2-16	Communications of critical concerns	CH1 Sustainable Governance – Sustainability Organization Framework	26

GRI Standards Indicator		Corresponding Chapter / Explanation	Page No.
Governance			
2-17	Collective knowledge of the highest governance body	CH1 Sustainable Governance – Sustainability Organization Framework	26
2-18	Evaluation of the performance of the highest governance body	CH1 Sustainable Governance – Sustainability Organization Framework	26
2-19	Remuneration policies	CH1 Sustainable Governance – Sustainability Organization Framework	26
2-20	Process to determine remuneration	CH1 Sustainable Governance – Sustainability Organization Framework	26
2-21	Annual total compensation ratio	Salary information is confidential to Realtek and therefore not disclosed	-
Strategy, Policies and Practices			
2-22	Statement on sustainable development strategy	Foreword – About this Report	4
		Foreword – From the President	5
		CH1 Sustainable Governance – Sustainability Organization Framework	26
		CH3 Green Operations – Climate Strategy	44
2-23	Policy Commitments	CH1 Sustainable Governance – Ethical Management	28
		CH5 Inclusive and Happy Workplace – Human Rights Management	74
2-24	Embedding policy commitments	CH1 Sustainable Governance – Ethical Management	28
		CH4 Sustainable Value Chain: Signing the Supplier Code of Conduct	60
2-25	Processes to remediate negative impacts	Foreword – Stakeholders Integration and Engagement	10
		CH1 Sustainable Governance – Ethical Management	28
2-26	Mechanisms for seeking advice and raising concerns	CH1 Sustainable Governance – Ethical Management	28
2-27	Compliance with laws and regulations	CH1 Sustainable Governance – Sustainability Organization Framework	26
		CH1 Sustainable Governance – Ethical Management	28
		CH3 Green Operations	54
		CH5 Inclusive and Happy Workplace	70
2-28	Membership associations	CH2 Innovation Value – Professional Exchanges between Industries	38
Stakeholder Engagement			
2-29	Approach to stakeholder engagement	Foreword – Stakeholders Integration and Engagement	10
2-30	Collective bargaining agreements	Realtek does not have a labor union	-

■ GRI 3 Material Topics 2021

GRI Standards Indicator		Corresponding Chapter / Explanation	Page No.
Organization and Reporting Practices			
3-1	Process to determine material topics	Foreword – Material Issue Analysis : Identification procedures	12
3-2	List of material topics	Foreword – Material Issue Analysis : Identification procedures	13
3-3	Manage of material topics	Foreword – Material Issue Analysis : Realtek 2022 Material Issues Management Policies	14

■ GRI Standard Disclosure: Material Topics

Material Topic	GRI Standards Indicator		Corresponding Chapter / Explanation	Page No.
Innovative R&D and product due diligence	302-5	Reductions in energy requirements of products and services	CH2 Innovation Value – Professional Exchanges between Industries – Development of Energy-Saving Products	41
	416-1	Assessment of the health and safety impacts of product and service categories	Not applicable as Realtek is an IC design company	-
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	CH2 Innovation Value – Product Quality and Environmental Mission	40
Environmental sustainability and climate change response	201-2	Financial implications and other risks and opportunities due to climate change	CH3 Green Operations – Climate Strategy	44
	302-1	Energy consumption within the organization	CH3 Green Operations – Energy Management: Energy Efficiency	50
	302-3	Energy intensity	CH3 Green Operations – Energy Management: Energy Efficiency	50
	302-4	Reduction of energy consumption	CH3 Green Operations – Energy Management: Energy Efficiency	50
	303-3	Water withdrawal	CH3 Green Operations – Water Management	54
	303-4	Water discharge	CH3 Green Operations – Water Management	54
	303-5	Water consumption	CH3 Green Operations – Water Management	54
	305-1	Direct (Scope 1) GHG emissions	CH3 Green Operations – Energy Management: GHG Management	49
	305-2	Energy indirect (Scope 2) GHG emissions	CH3 Green Operations – Energy Management: GHG Management	49
	305-4	GHG emissions intensity	CH3 Green Operations – Energy Management: GHG Management	49
	305-5	Reduction of GHG emissions	CH3 Green Operations – Energy Management: GHG Management	49
	305-6	Emissions of ozone-depleting substances (ODS)	CH3 Green Operations – Energy Management: GHG Management	49
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	No such gas emission as Realtek is an IC design company	-

Material Topic	GRI Standards Indicator		Corresponding Chapter / Explanation	Page No.
Corporate governance and compliance	205-1	Operations assessed for risks related to corruption	CH1 Sustainable Governance – Ethical Management	28
	205-2	Communication and training about anti-corruption policies and procedures	CH1 Sustainable Governance – Ethical Management	28
	205-3	Confirmed incidents of corruption and actions taken	CH1 Sustainable Governance – Ethical Management	28
	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	CH1 Sustainable Governance – Ethical Management	28
Information security	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	CH1 Sustainable Governance – Information Security	30
			CH4 Sustainable Value Chain – Customer Relationship Management	65
Economic performance	201-1	Direct economic value generated and distributed	CH1 Sustainable Governance – Operational Performance	27
	201-2	Financial implications and other risks and opportunities due to climate change	CH3 Green Operations – Climate Strategy	44
	203-1	Infrastructure investments and services supported	CH6 Social Inclusion & Shared Prosperity	92
Talent attraction and development	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Employees' salary is confidential to Realtek, so the relevant values are not disclosed. The Company's salary policy complies with the "Labor Standards Act" in Taiwan, and is not biased by gender. The Company continues to be named a constituent stock in the Taiwan "High Compensation 100 Index", and the salary is better than the minimum salary standard in Taiwan.	-
	202-2	Proportion of senior management hired from the local community	The number of managers with the position of vice president or above (inclusive) is 24, and 100% of them are local nationals.	-
	401-1	New employee hires and employee turnover	CH5 Inclusive and Happy Workplace – Focus on Talent Attraction and Development: Talent Structure	68
			CH5 Inclusive and Happy Workplace – Focus on Talent Attraction and Development : Talent Attraction and Development Note: The turnover rate of Realtek in the past five years is lower than 7%. The turnover rate data are the internal information of Realtek and therefore not disclosed.	69
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	CH5 Inclusive and Happy Workplace – Focus on Talent Attraction and Development	69
			CH5 Inclusive and Happy Workplace – Employee Care and Benefits	78
	401-3	Parental leave	CH5 Inclusive and Happy Workplace – Employee Care and Benefits	80
	404-1	Average hours of training per year per employee	CH5 Inclusive and Happy Workplace – Focus on Talent Cultivation	73
	404-2	Programs for upgrading employee skills and transition assistance programs	CH5 Inclusive and Happy Workplace – Focus on Talent Cultivation	71
404-3	Percentage of employees receiving regular performance and career development reviews	CH5 Inclusive and Happy Workplace – Focus on Talent Attraction and Development	69	

Material Topic	GRI Standards Indicator		Corresponding Chapter / Explanation	Page No.
Talent attraction and development	405-1	Diversity of governance bodies and employees	CH1 Sustainable Governance – Board of Directors Governance Structure	24
			CH5 Inclusive and Happy Workplace – Focus on Talent Attraction and Development : Talent Attraction and Development	69
	405-2	Ratio of basic salary and remuneration of women to men	CH5 Inclusive and Happy Workplace – Focus on Talent Attraction and Development : Talent Attraction and Development	69
Supply chain sustainability management	204-1	Proportion of spending on local suppliers	CH4 Sustainable Value Chain – Local Procurement	64
	308-1	New suppliers that were screened using environmental criteria	CH4 Sustainable Value Chain – Responsible Supply Chain	59
	308-2	Negative environmental impacts in the supply chain and actions taken	CH4 Sustainable Value Chain – Responsible Supply Chain	59
	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	CH4 Sustainable Value Chain – Responsible Supply Chain	59
	408-1	Operations and suppliers at significant risk for incidents of child labor	CH4 Sustainable Value Chain – Responsible Supply Chain	59
				74
	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	CH4 Sustainable Value Chain – Responsible Supply Chain	59
				74
414-1	New suppliers that were screened using social criteria	CH4 Sustainable Value Chain – Responsible Supply Chain	59	
414-2	Negative social impacts in the supply chain and actions taken	CH4 Sustainable Value Chain – Responsible Supply Chain	59	
Customer relationship management	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	CH1 Sustainable Governance – Information Security Management	30
			CH4 Sustainable Value Chain – Customer Relationship Management	65

■ GRI Standard Disclosure : Voluntary Disclosure Topics

GRI Standards Indicator		Corresponding Chapter / Explanation	Page No.
306-1	Waste generation and significant waste-related impacts	CH3 Green Operations – Waste Management: Reducing Waste Impact	55
306-2	Management of significant waste-related impacts	CH3 Green Operations – Waste Management: Reducing Waste Impact	55
306-3	Waste generated	CH3 Green Operations – Waste Management	55
306-4	Waste diverted from disposal	CH3 Green Operations – Waste Management	55
306-5	Waste directed to disposal	CH3 Green Operations – Waste Management	55
403-1	Occupational health and safety management system	CH5 Inclusive and Happy Workplace – Build a Safe and Healthy Workplace	82
403-2	Hazard identification, risk assessment, and incident investigation	CH5 Inclusive and Happy Workplace – Build a Safe and Healthy Workplace: Preemptive Implementation of the Government's Pandemic Prevention Policies	81
403-4	Worker participation, consultation, and communication on occupational health and safety	CH5 Inclusive and Happy Workplace – Build a Safe and Healthy Workplace : A Safe, Healthy Workplace	82
403-5	Worker training on occupational health and safety	CH5 Inclusive and Happy Workplace – Build a Safe and Healthy Workplace : A Safe, Healthy Workplace	82

403-6	Promotion of worker health	CH5 Inclusive and Happy Workplace – Build a Safe and Healthy Workplace : Health Promotion and Employee Care	84
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	CH5 Inclusive and Happy Workplace – Build a Safe and Healthy Workplace : A Safe, Healthy Workplace	82
403-8	Workers covered by an occupational health and safety management system	CH5 Inclusive and Happy Workplace – Build a Safe and Healthy Workplace : A Safe, Healthy Workplace	82
403-9	Work-related injuries	CH5 Inclusive and Happy Workplace – Build a Safe and Healthy Workplace : A Safe, Healthy Workplace	82
403-10	Work-related ill health	CH5 Inclusive and Happy Workplace – Build a Safe and Healthy Workplace : A Safe, Healthy Workplace	82
406-1	Incidents of discrimination and corrective actions taken	CH5 Inclusive and Happy Workplace – Build a Safe and Healthy Workplace : Talent Attraction and Development	69

SASB Alignment Index

Topic	SASB Code	Accounting Metric	Corresponding Chapter / Explanation	Page No.
Greenhouse Gas Emissions	TC-SC-110a.1	(1) Gross global Scope 1 emissions (2) Amount of total emissions from perfluorinated compounds	See CH3 Green Operations – GHG Management	49
	TC-SC-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	See CH3 Green Operations	44
Energy Management in Manufacturing	TC-SC-130a.1	(1) Total energy consumed (2) Percentage grid electricity (3) Percentage renewable	See CH3 Green Operations – Energy Management	50
Water Management	TC-SC-140a.1	(1) Total water withdrawn, percentage of each in regions with high or extremely high baseline water stress (2) Total water consumed, percentage of each in regions with high or extremely high baseline water stress	See CH3 Green Operations – Water Management	54
Waste Management	TC-SC-150a.1	Amount of hazardous waste from manufacturing and percentage of waste that is recycled	See CH3 Green Operations – Waste Management	55
Employee Health & Safety	TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	No violations of relevant laws, see CH5 Inclusive and Happy Workplace	82
Recruiting & Managing a Global & Skilled Workforce	TC-SC-330a.1	(1) Percentage of employees that are foreign nationals (2) Percentage of employees that are located offshore	Percentage of Foreign Workers: 0.56% Percentage of Employees Stationed Overseas: 0.04%	68
Product Lifecycle Management	TC-SC-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	The core business of Realtek is the design of chip circuitry, and the chips are manufactured by professional semiconductor fabs. Realtek therefore does not directly make products that contain IEC 62474 declarable substances	-
	TC-SC-410a.2	Processor energy efficiency at a system-level for: (1) servers, (2) desktops, and (3) laptops	See CH2 Innovation Value – Professional Exchanges between Industries – Development of Energy-Saving Products	41
Intellectual Property Protection & Competitive Behaviour	TC-SC-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations	No violations of relevant laws, see CH1 Sustainable Governance	28

Comparison Table of the Sustainability Disclosure Indicators for “Semiconductor Industry” in the “Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies”

No.	Indicator	Annual disclosure		
		Total energy consumption	Percentage of purchased electricity	Renewable energy utilization rate
I	Total energy consumption, percentage of purchased electricity and renewable energy utilization rate	181,599.16 GJ	100%	0%
II	Total water withdrawal and total water consumption	Total water withdrawal		Total water consumption
		138,890 m ³		42,860 m ³
III	Weight and recycling percentage of hazardous waste produced	Weight		Recycling percentage
		11.55 tons		100% overseas recycling
IV	Description of the category, number of people and ratio in respect of occupational disasters	Realtek did not have this situation in 2022, see CH5 Inclusive and Happy Workplace P.82		
V	Disclosure of product life cycle management: including the weight of scrapped products and electronic waste and the percentage of recirculation ^(Note.)	See CH3 Green Operations		
VI	Description of risk management relating to the use of key materials	See CH4 Sustainable Value Chain		
VII	Total monetary losses arising from legal proceedings relating to the Anti-Competitive Behavior Ordinance	Realtek did not have this situation in 2022, see CH1 Sustainable Governance P.28		
VIII	Production volume of main products by product category	See P.85 of the 2022 Annual Report		

Note : Relevant instructions shall be provided, including the sale of scraps or other recycling treatment.

Assurance Statement



Assurance Statement

Realtek Semiconductor Corp. Sustainability Report

TUV NORD Taiwan Co., Ltd. (hereinafter referred to as TUV NORD) was commissioned by Realtek Semiconductor Corp. (hereinafter referred to as Realtek Semiconductor) to perform the 2022 Sustainability Report Verification (hereinafter referred to as Sustainability Report) in accordance with the AA1000 Assurance Standard Version 3 and the GRI Sustainability Reporting Standards (GRI Standards) and related assurance standards.

The Scope of Statement and Assurance Standards

- 1) The scope of assurance is consistent with the scope of disclosure in Realtek Semiconductor 2022 Sustainability Report, which covers the period from 1 January 2022 to 31 December 2022.
- 2) Verification of Realtek Semiconductor compliance with the AA1000 Principles of Accountability in accordance with the AA1000 Assurance Standard, Third Edition, Application Type 1. This does not include verification of the reliability of the information/data disclosed in the report.
- 3) The Taiwan Stock Exchange's "Act on the Preparation and Filing of Periodical Reports by Listed Companies" semiconductor sector disclosure sustainability metrics.

Intended Users
The intended users of this statement are the stakeholders of Realtek Semiconductor.

Assurance Type and Level
In accordance with the requirements of the AA1000 Assurance Standard Version 3, Type 1, Moderate of Assurance Level.

Opinion Statement
Realtek Semiconductor complies with the GRI sustainability reporting and AA1000 accountability principles of inclusivity, materiality, responsiveness and impact. The sustainability report presents the commitment of top management, the needs and expectations of stakeholders "to achieve sustainability performance indicators by stakeholders' engagement".
We assure that Realtek Semiconductor complies with the "Act on the Preparation and Submission of Sustainability Reports by Listed Companies" of the Taiwan Stock Exchange and the semiconductor industry sustainability metrics has disclosed.

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Methodology
Our verification services are planned and performed in accordance with the above mentioned assurance standards and the TUV NORD Sustainability Report Verification Agreement for verification of sustainability reports.
Our verification includes the following activities:

- * Collect objective evidence of relevant performance metrics, as mentioned in the report.
- * Assurance of expectations of fiscal or national regulators, international standards as set forth in public opinion and/or expert opinion are relevant to such general considerations.
- * Document review records and report content assessment in the context of GRI criteria application requirements.
- * Interviews with managers and related staff on issues of concern to the company's stakeholders.
- * Interviews with personnel involved in sustainability management, information gathering and report preparation.
- * Review significant organizational developments and review internal and external audit findings.
- * Review AA1000 (2018) Principles of Accountability and other compliance requirements.

Conclusion
The results of the AA1000 accountability standard for inclusivity, materiality, responsiveness and impact in the report are set out below.

Inclusivity
Realtek Semiconductor identifies stakeholders and their concerns through the questionnaire and risk-similar method, and discloses materiality through stakeholder discussion, sustainability committee and experts. To select and decide the 8 material topics from 15 topics is conducted by considering stakeholder concern and company operation impact and importance related.

Materiality
Realtek Semiconductor complies with the GRI Guidelines and the Taiwan Stock Exchange's "Guidelines for the Preparation and Filing of Continuing Report by Listed Companies" semiconductor sector disclosure sustainability indicators to fully disclose the company's material risks and opportunities, taking into account the degree of impact on the company and prioritize the materiality of the report.

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Responsiveness
Realtek Semiconductor Sustainability Report clearly describes the relationship between sustainability and organizational strategy and the performance metrics corresponding to the materiality and their achievement status, and adequately addresses the main issues of concern to stakeholders.

Impact
Realtek Semiconductor sustainability report fully identifies materiality that reflect the significant economic, environmental, and social impacts on the organization. The company has established a robust process to monitor and measure the impact and establish short-, medium-, and long-term strategic planning through corporate governance.

GRI Sustainability Reporting Standards
Realtek Semiconductor sustainability report complies with the GRI 1 to GRI 3 universal Standards and the GRI 200 Sector, GRI 300 Sector and GRI 400 Sector topic standards, and meet the requirements for disclosure.

Limitations
The financial report of Realtek Semiconductor were certified by PwC, the accounting firm appointed by the company.
The boundary of carbon emission verification report includes the Taipei office, Taiwan office and plant T & T.
The data of carbon emission verification is ongoing to be verified by third party.

Independent Statements and Competence
TUV NORD Group is a leader in the supervision, testing and certification. It operates businesses and provides services in more than 70 countries around the world. The services include management systems and product certification, quality, environmental safety, social and moral audits and training, corporate sustainability report assurance.
TUV NORD and Realtek Semiconductor are mutually independent organizations, and there is no conflict of interest with Realtek Semiconductor or any of its affiliates or interested parties when performing the verification of the sustainability report. Regarding the sustainability report of Realtek Semiconductor, TUV NORD is based on the Realtek Semiconductor verification agreement, and does not assume any legal or other responsibilities. Realtek Semiconductor is responsible for responding to any questions that intended users concerned.

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The verification team is composed of experienced chief reviewers such as ISO 9001, ISO 14001, ISO 14064-1, ISO 45001, SA 8000, ISO 50001, etc., and has received the C2AP verification practice qualification certification of AA1000 AS v3 accountability training. The verification team is based on his qualifications, extensive knowledge and experience in the industry provide professional advice in this assignment.

Jack Yeh
General Manager



Date of Issuance: 2023/06/05
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