CHAPTER 3

Supply Chain and Products

Yearly Performance Highlights

- In 2024, 100% of all outsourced processing suppliers obtained ISO 9001 certification, and 100% completed the investigation, confirming no use of conflict minerals.
- In 2024, 100% of suppliers complied with RoHS and REACH regulations.
- The supplier audit completion rate in 2024 reached 100% , and the supplier audit pass rate was 100% .
- In 2024, ITH did not experience any major quality management anomalies.
- Customer satisfaction in the five key aspects all scored above 80 points.

3.1 Supply Chain Management

Material Topics

Management Approach for Sustainable Supply Chain

Policy and Commitment

Through the selection, training, auditing, and guidance of suppliers, we establish a more resilient operating model that aligns with ESG criteria, and share resources with suppliers to enhance sustainability performance and amplify sustainable impact.

Adjustment Measures

Formulate corresponding management policies and ensure that supplier selection and audits are strictly enforced. These adjustment measures will help establish a stable and sustainable supply chain, ensuring that suppliers meet our sustainable development goals.

Positive Opportunities

Stabilize the supply chain, improve product quality, and enhance customer trust. This will help establish a sustainable value chain and create a positive cycle of supply chain sustainability.

Negative Risks

Supply chain anomalies can negatively impact customer trust and, in severe cases, lead to the loss of orders.

Short-term goals

Understand sustainable supply chain management and environment management-related information, and sign relevant policies and commitments with suppliers. Simultaneously ensure that supplier audit results and improvement conditions reach 100%, enhance suppliers' awareness and capability for sustainable development, and promote the establishment of a sustainable supply chain.

Medium- to long-term goals

Continually maintain close collaborative relationships among customers, suppliers, and us to establish a complete sustainable supply chain, become a supplier of green products, and further promote the sustainable development of the value chain.

◇ Responsible Supply Chain

When selecting suppliers, ITH considers engineering capability, quality, delivery, cost, capacity, and customer expectations. Suppliers are required to have relevant international certifications such as ISO 9001, ISO 14001, or IATF 16949, and are requested to provide information on key raw materials and conflict minerals to facilitate sustainable supply chain management. In 2024, 100% of all outsourced processing suppliers obtained ISO 9001 certification, and 100% completed the investigation, confirming no use of conflict minerals.

Supply Chain Risks	Impact of Risks on ITH	Risk Management Mechanisms
Production concentration	A single supplier can easily result in capacity limitations leading to the loss of orders.	Establish a Second Source mechanism to increase alternative processors and suppliers.
Delivery schedule	If suppliers do not stock up quickly enough, it may lead to delayed deliveries by the Company.	Raw materials are usually ordered by outsourced processing suppliers, but the Company will assist in speeding up suppliers' delivery of raw materials.

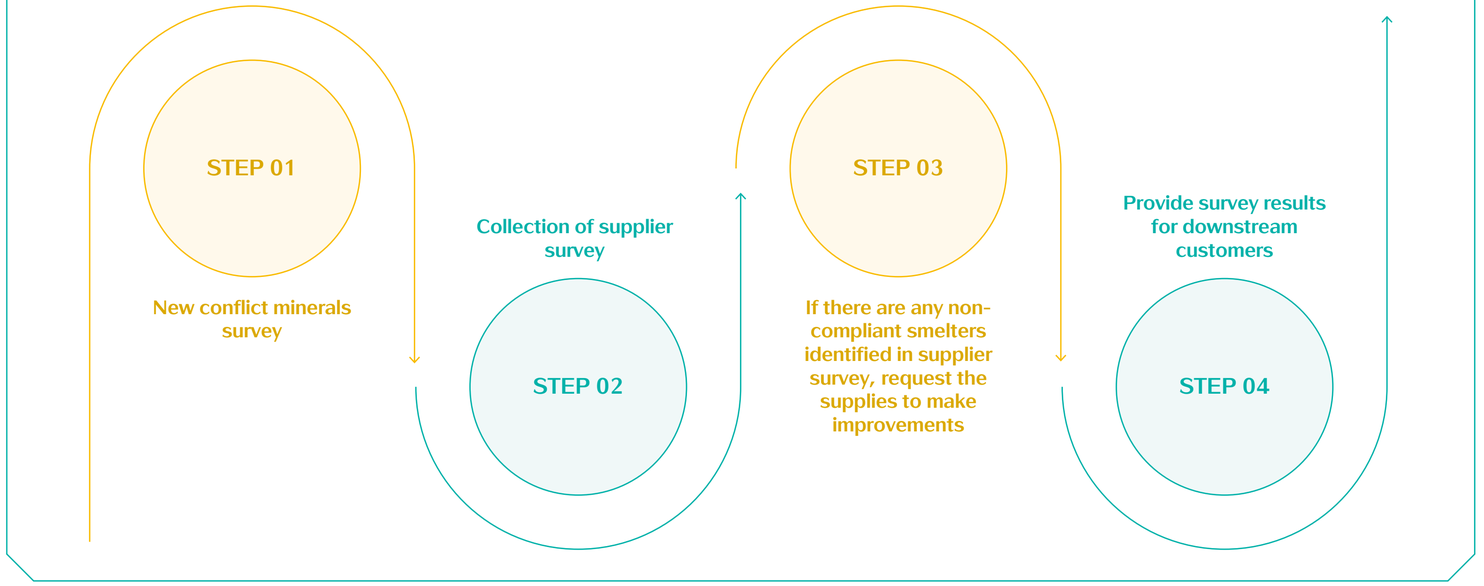
Key Raw Material Risk Management

In Key Raw Material Risk Management, suppliers are required to provide RoHS test reports regularly. Additionally, if regulations or international guidelines are adjusted, suppliers will be asked to investigate whether the materials used comply with standards such as REACH, the EU Registration, Evaluation, Authorisation and Restriction of Chemicals. ITH's suppliers are currently 100% compliant with RoHS and REACH regulations.

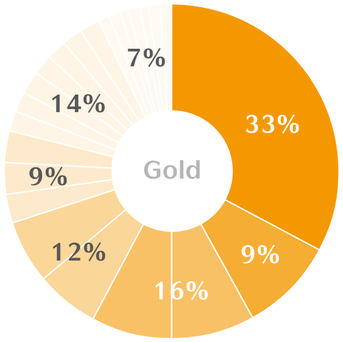
Conflict Minerals Management

In recent years, non-governmental military groups in the Democratic Republic of the Congo and its surrounding regions have armed control over metals such as cobalt, gold, palladium, tantalum, tungsten, tin, and mica, leading to the deterioration of society, the environment, human rights. The Company will continue to adopt a conflict-free minerals procurement policy, support EICC and GeSI's strategies and practices on conflict minerals, and has adopted the conflict minerals reporting template jointly published by the EICC-GeSI working group to investigate whether our suppliers have implemented the aforementioned policy.

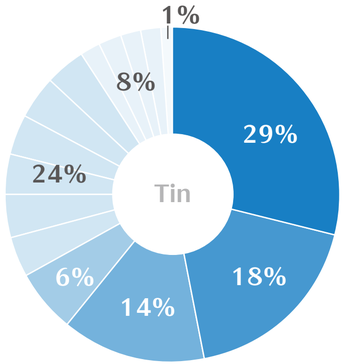
∵ Conflict Minerals Investigation Process ∵



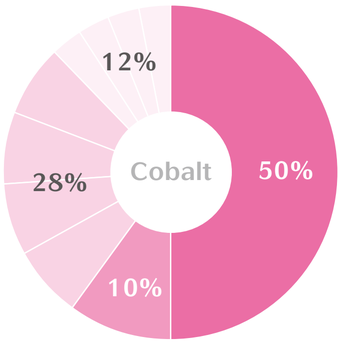
Distribution Status of Conflict Minerals Sources in 2024：



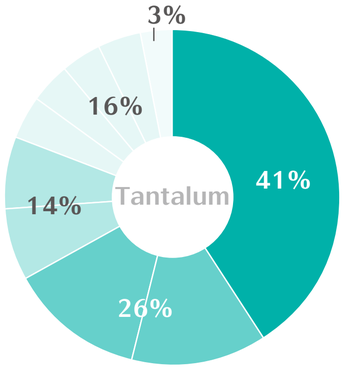
33% Japan
9% United States
8% Switzerland, Korea
6% Germany, China
3% Uzbekistan, Italy, Canada
2% Turkey, Taiwan, Sweden, Spain, South Africa, Netherlands, France
1% Kazakhstan, Czech Republic, Colombia, Chile, Brazil, Austria, Australia



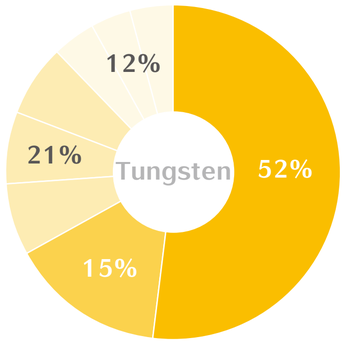
29% Indonesia
18% China
14% Brazil
6% United States
4% Thailand, Spain, Malaysia, Japan, Bolivia, Belgium
2% Taiwan, Rwanda, Poland, Philippines
1% Peru



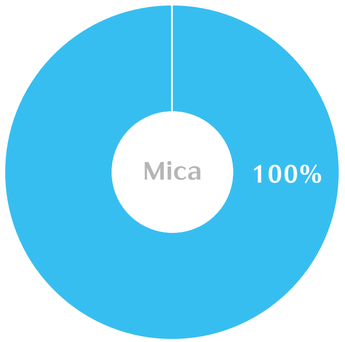
50% China
10% Democratic Republic of the Congo
7% Taiwan, Japan, Finland, Canada
3% Morocco, Madagascar, Korea, Belgium



41% China
13% Japan, United States
7% Brazil, Germany
4% India, Kazakhstan, Mexico, Thailand
3% Estonia

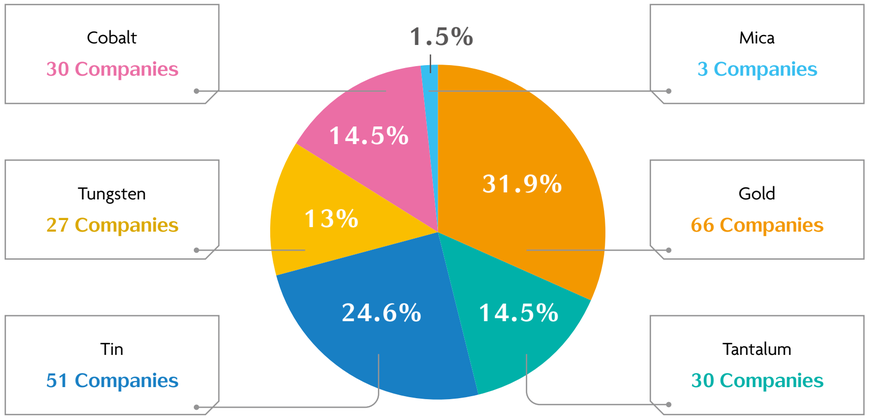


52% China
15% United States
7% Vietnam, Japan, Germany
4% Taiwan, Brazil, Austria



100% Japan

A total of 207 smelters were recognized by RMI:



Local Procurement

The Company procures from local suppliers in Taiwan, aiming not only to reduce carbon emissions during the transportation of raw materials, but also contribute to Taiwan's economic growth, focusing on both financial and non-financial development aspects.

Raw material procurement, testing

Procurement Items

Wafer, IC chip assembly, testing, COF

Source Region

Taiwan, Mainland China, Singapore, Malaysia, Japan

General procurement

Procurement Items

Suppliers provide instruments and equipment, testing equipment, hardware facilities and maintenance, parts and consumables, application software, and testing services.

Source Region

Taiwan, Mainland China, the United States, Europe, Japan (single supplier procurement)

Note: Due to the technical specialization of certain equipment, procurement can currently only be made from specific suppliers, resulting in a single vendor procurement situation.

◇ Supply Chain Management

ITH hopes to drive the supply chain in jointly implementing sustainable development strategies. Currently, we primarily manufacture finished products through outsourced wafer foundries and processing plants. Therefore, we aim to reduce the waste of Earth's resources and ensure a sustainable future for the next generation through green procurement and management.

ITH conducts a green management evaluation of suppliers, requiring them to provide audited proof of quality management, including ISO 14001 certification, carbon emission reduction actions, and data. Suppliers unable to provide the relevant proof will have their partnerships with ITH terminated. Currently, our main suppliers are located in Taiwan and China. We conduct regular on-site visits to assess whether Taiwanese suppliers actively implement environmental health management. For suppliers in China, we employ rigorous document audits to ensure their active efforts towards sustainable development.

Supplier Evaluation

Supplier evaluation is conducted quarterly, with the system sending questionnaires to relevant departments for assessing related matters. Evaluation items include quality, delivery schedule, continuous improvement of production yield, data accuracy, technical capability, service cooperation and other aspects. Finally, the system lists the supplier's quarterly evaluation ranking. If improvement is needed, suppliers are asked to undertake subsequent actions.

∵ Quarterly Evaluation Process ∵

STEP 01

Distribution of questionnaires

STEP 02

Completion of questionnaires

STEP 03

Survey scoring and review of survey results

STEP 04

Determine increase or decrease in input, implement improvement requirements, or suspend input based on evaluation results

2024 Supplier evaluation results:

Scoring	<60%	60%-79%	80%-89%	≥90%
	D	C	B	A
	Classification Management: Suspend the line and issue a written follow-up notice with a deadline for improvement	Classification Management: Request improvement or reduction in input ratio	Classification Management: Maintain the normal input ratio	Classification Management: The input ratio can be increased
Number of Companies				
Q1	0	2	9	23
Q2	0	0	11	24
Q3	0	0	14	20
Q4	0	0	12	22

Note 1: Among the suppliers listed in the table, some suppliers are evaluated separately due to offering different service items, resulting in a slight discrepancy with the actual total number of companies audited in the year.

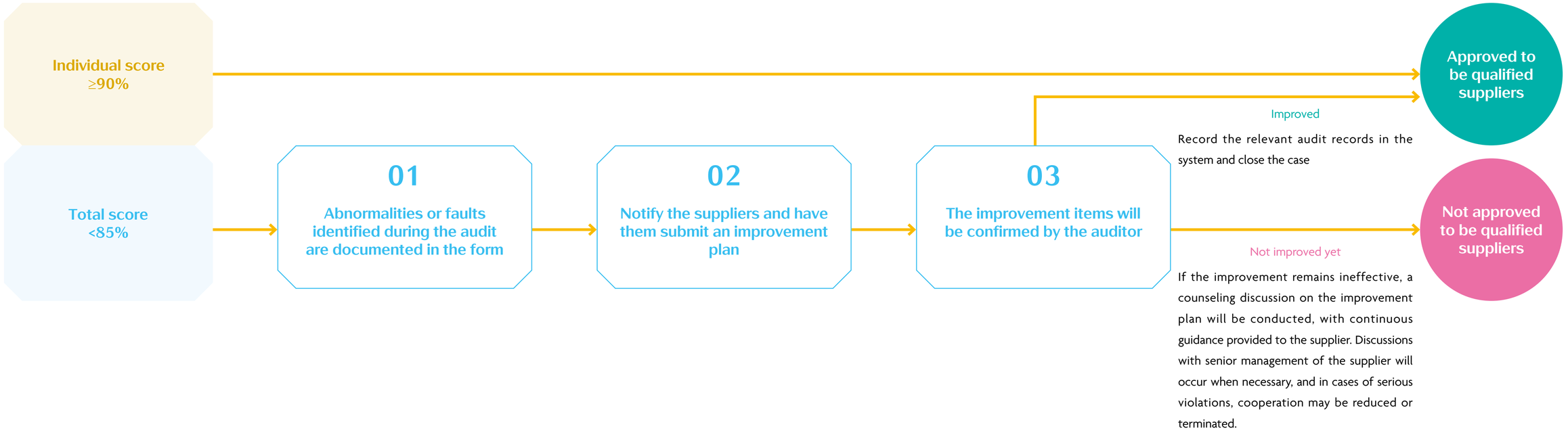
Supplier Audits

In addition to quarterly supplier evaluation, an annual supplier audit plan is conducted each year, involving on-site visits to suppliers. The audits are based on seven major aspects: operational processes, customer grievances, document control, maintenance management, quality system management, raw material warehouse management, and hazardous substances management. If any abnormalities or fault items are identified, the auditors will record them in a fault form, and then request suppliers to submit improvement plans or measures for subsequent follow-up or guidance. 27 suppliers were audited in 2024, with a supplier audit completion rate of 100% and a supplier audit pass rate of 100%.

∵ Annual supplier audit process ∵

Scoring is conducted based on the contractor Quality System Audit Form. If a contractor's total audit score falls below 90 points or any individual item scores below 85 points, the contractor cannot qualify as an approved supplier. After the contractor has effectively completed improvements, a re-audit of the contractor product quality system will be conducted.

Scoring Results of Outsourced Product Quality System Audit Form



27 suppliers were audited in 2024, with a supplier audit completion rate of **100%** and a supplier audit pass rate of **100%**

3.2 Product Quality Management

Material Topics

Management Approach for Product Quality and Safety Management

Policy and Commitment

ITH ensures that all products undergo a strict quality management process inspection and resolves supplier issues promptly through a supplier exception handling process, establishing a high-quality product supply chain.

Adjustment Measures

Continuously ensure product quality and safety by implementing quality assurance processes to ensure products meet customer requirements and relevant regulations. Utilize quality assurance methods and technologies to reduce defect rates and establish a comprehensive tracking system to enforce the monitoring of product quality and safety.

Positive Opportunities

Ensure product quality and safety to enhance customer satisfaction with products

Negative Risks

Due to defective products, claims from downstream customers arose, leading to a loss of downstream customer confidence and subsequent loss of orders.

Short-term Goals

- Customer product information feedback, promptly respond to customer needs and opinions.
- Execute rigorous quality control processes to ensure product quality and safety.
- Work closely with suppliers to establish an exception handling mechanism and effectively control quality risks.

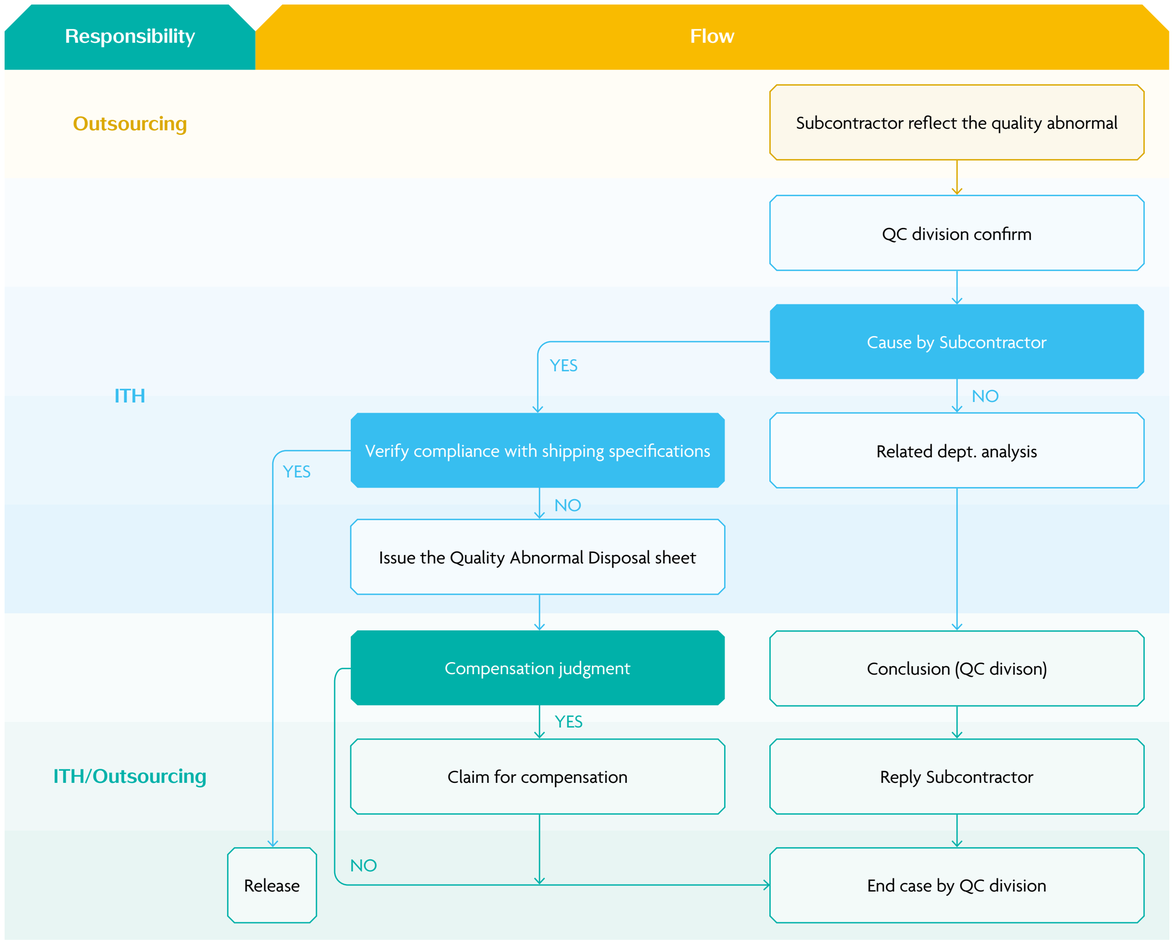
Medium- to Long-term Goals

- Continuously enhance product quality, strengthen product safety and stability.
- Establish a comprehensive quality management system and promote full employee participation in quality management.

Quality Management

The Company is an IC design company. After designing ICs, we outsource production and manufacturing to contractors before shipping. If an contractor discovers product quality deficiencies, the contractor's quality assurance unit will conduct an initial inspection. If it is determined to be the contractor's responsibility, the Company will issue a quality abnormality report to the contractor and seek compensation. If it is not the contractor's responsibility, our relevant units will conduct an analysis, and the quality assurance unit will summarize the findings, reply to the contractor, and then close the case. In 2024, ITH did not experience any major quality management anomalies.

Quality Management Process



Quality Certification

ITH, through an efficient management system and strong research and development capabilities, is committed to providing customers with safe and reliable products and services.

We maintain ISO 9001 management system certification, established by the International Organization for Standardization (ISO), based on several management principles including a focus on customer needs, management governance objectives, process approaches, and continuous improvement, ensuring that ITH can deliver stable product and service quality that meets customer requirements.

Additionally, the automotive chips developed by ITH are industry-leading in terms of both technology and safety, having obtained dual certification for ISO26262 ASIL D process and ASIL B product. This certification is an international standard for functional safety in the automotive industry and applies to automotive electronic and electrical systems, including hardware and software components. It defines safety-related functions, processes, methods, and tool requirements that must be met during development, enabling our products to meet the stringent safety requirements for autonomous vehicles and smart cockpits. Furthermore, our products feature ambient light adaptive display adjustment, excellent temperature control capabilities, waterproof performance, and thick cover plate support, all of which comprehensively enhance product competitiveness.


bsi.
Certificate of Registration
QUALITY MANAGEMENT SYSTEM - ISO 9001:2015
This is to certify that: ILI Technology Corp. 10F-1, No.1, Taiyuan 2nd St. Zhubei City Hsinchu County 30288 Taiwan
Holds Certificate No: FM 507395
and operates a Quality Management System which complies with the requirements of ISO 9001:2015 for the following scope:
The provision of design, development and sale for specific analog integrated circuit for multi-media and internet application.
For and on behalf of BSI:
Michael Lam - Managing Director Assurance, APAC
Original Registration Date: 2006-06-23
Effective Date: 2024-06-01
Latest Revision Date: 2024-05-20
Expiry Date: 2027-05-31
Page: 1 of 2
...making excellence a habit.

ITH obtained ISO 9001 Management System certification


SGS TÜV SAAR
CERTIFICATE NO.: FS/71/220/22/1009
PAGE 1/1
LICENCE HOLDER
ILI TECHNOLOGY CORP.
10F.-1, NO. 1, TAIYUAN 2ND ST., ZHUBEI CITY, HSINCHU COUNTY 30288, TAIWAN, R.O.C.
Project-No/-ID
LICENSED TEST MARK
Report No.
S2C3
S2C90005
Tested according to
ISO 26262:2018 (Parts 2, 4, 5, 6, 7, 8, 9)
Certified Process
Development Processes of Company ILITEK for Functional Safety related components up to ASIL D Version 1.0/2021/202
Technical Data/Parameter
The audited development process complies with the ISO 26262 standard part requirements
ISO 26262-2:2018
ISO 26262-5:2018
ISO 26262-7:2018
ISO 26262-9:2018
ISO 26262-4:2018
ISO 26262-6:2018
ISO 26262-8:2018
(for tailoring see report)
Specific Requirements
The certificate is created for the purpose of proving conformity of the development and support process in accordance with ISO 26262. The certificate report is an integral part of this certificate. Changes which are not covered in the audit report have to be reconsidered.
Certification Body for Functional Safety SGS-TÜV Saar GmbH
Munich, May 19th, 2023
Marcus Rau
The validation status is documented via SGS Certification Database.
The test mark regulations is an integral part of this certificate.
CERTIFICATE

ITH maintains the SGS-TÜV Saar ISO 26262 ASIL D Process Certificate


SGS TÜV SAAR
CERTIFICATE NO.: FS/71/220/23/1143
PAGE 1/1
LICENCE HOLDER
ILI TECHNOLOGY CORP.
10F.-1, NO.1, TAIYUAN 2ND ST., ZHUBEI CITY, HSINCHU COUNTY 30288, TAIWAN, R.O.C
Project-No/-ID
LICENSED TEST MARK
Report No.
S4SC
S4SC0001
Tested according to
ISO 26262-5: 2018 (Clause 9)
Certified Product(s)
ILI9866A
Technical Data/Parameter
The above-mentioned product has been approved based on the safety assessment of a reference configuration (see certification report for details).
The architectural metrics SPFM (Single Point Fault Metric) and LFM (Latent Fault Metric) are in conformance with ASIL B target values.
Specific Requirements
The certificate is for type approval and based on a detailed functional safety assessment. Any changes to the design, materials, components or processing may require repetition of some of the assessment steps in order to retain type approval. The certificate report is an integral part of this certificate. All requirements and specifications of the current valid revision of this report shall be met.
Certification Body for Functional Safety SGS TÜV Saar GmbH
Munich, August 11th, 2023
Marcus Rau
The validation status is documented via SGS Certification Database.
The test mark regulations is an integral part of this certificate.
CERTIFICATE

ITH maintains the SGS-TÜV Saar ISO 26262 ASIL B Ready Certificate

3.3 Customer Service Management

To provide better services for customers, the Company continuously improves product research and development capabilities and quality yield. In addition to striving to meet customer needs, we actively respond to customer feedback on product or service-related issues. ITH values the overall supply chain partners, viewing customer feedback as an opportunity for improvement and progresses together with supply chain partners.

Material Topics

Management Approach for Market Image

Policy and Commitment

Establish a professional and highly trustworthy brand image through brand positioning and customer relationship management strategies, increasing consumer confidence in the Company's products and services.

Adjustment Measures

Appropriately expose and promote collaboration results with customers, actual market performance, and the final product of end brands, deepening the positive impression of potential customers, shareholders, and consumers on the company brand.

Positive Opportunities

A brand image characterized by professionalism, superior technical capabilities, and excellent service will increase customer satisfaction and loyalty, helping to boost orders and revenue. This positions the Company as a preferred partner for new projects and gradually establishes it as a market leader.

Negative Risks

Failure to fulfill commitments and establish a brand image of professionalism, superior technical capabilities, and excellent service may affect the Company's performance, leading to a loss of orders and facing a price-cutting competition scenario, thereby affecting the confidence of investors and shareholders in the brand.

Short-term Goals

Deeply understand customer needs and strive to provide them with superior products and services to enhance customer satisfaction.

Medium- to Long-term Goals

Build ITH's carefully crafted, customer-assured sustainable brand value.

Customer Satisfaction

ITH conducts an annual customer satisfaction survey at the end of each year. The survey targets the top ten customers in annual sales as provided by the sales department (if there are any special customers that need to be surveyed, the sales department must propose them additionally). The survey is designed and distributed to customers using five major aspects: product planning, technical support, defect analysis response time, delivery time, and service. After collecting the completed questionnaires from customers, the quality assurance unit compiles statistical analyses. If the average survey score is below 75 points or does not meet the annual customer satisfaction target, a quality abnormality handling notice will be issued to the responsible unit for further analysis and improvement.

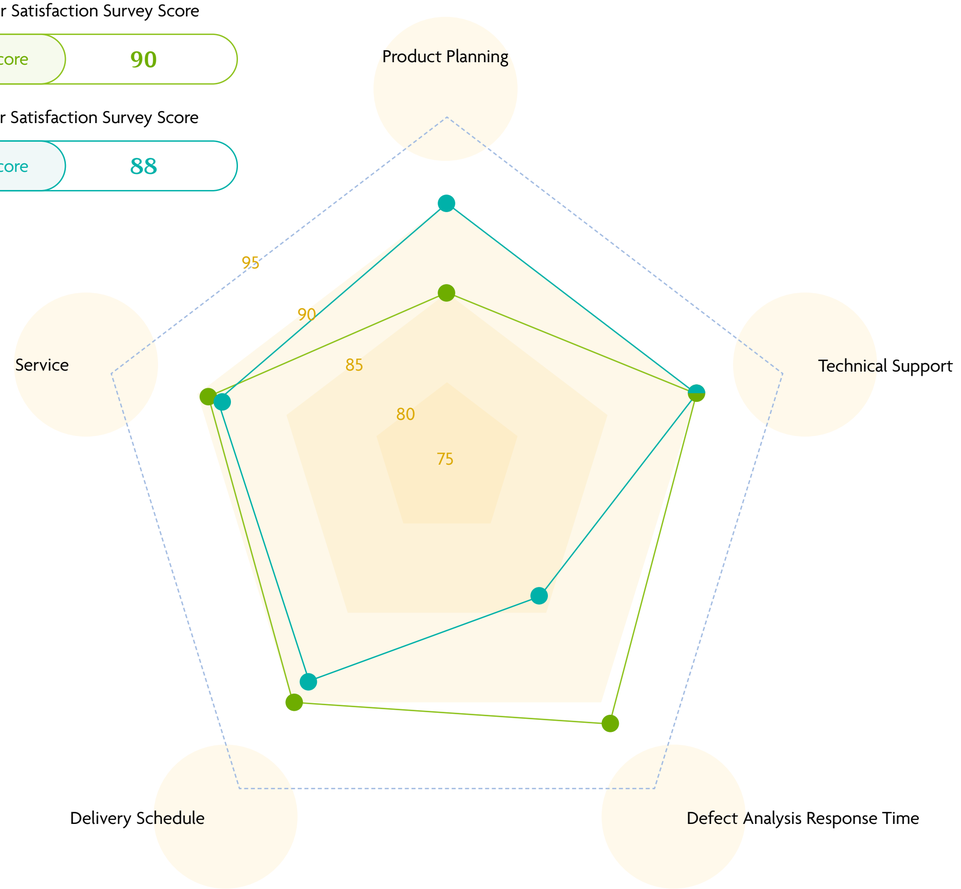
The Customer Satisfaction Survey results are as follows:

2024 Customer Satisfaction Survey Score

Average Score 90

2023 Customer Satisfaction Survey Score

Average Score 88



2024 Customer Service Status

In recent years, the Company has not received any major customer complaints, only general or production-related inquiries. In 2024, the Company received 293 customer feedbacks, primarily inquiries regarding the technical aspects of product production process seeking support-related issues, mostly addressed by the Quality Assurance unit.

∵ Customer Feedback Handling Procedure ∵

STEP 01

Receive customer cases

STEP 02

Confirmation of product return issues by customers

STEP 03

Analysis of the cause of defects

STEP 04

Propose corrective and preventive measures

STEP 05

Respond to the customer's analysis report

STEP 06

Confirm whether the customers agree with the report

STEP 07

Close the case

3.4 Innovative R&D and Energy-Efficient Product Design

Material Topics

Management Approach for Innovation and R&D

Policy and Commitment

Focus on core business, strengthen key technologies and proprietary patent portfolios, clearlyunderstand customer value propositions, and deliver eddective solutions. While sustaining momentum in innovation and R&D, uphold the goal of green energy and carbon reduction, and fulfill sustainability responsibilities toward employers, partners, and corporate society.

Adjustment Measures

Innovative Technology

Develop solutions featuring compact chip size, low power consumption, high performance, customization, and optimized customer experience. Emphasize technology advancement, patent portfolio expansion, cost-effectiveness, and alignment with green energy and low-carbon goals.

Innovative Process

- Examine the deficiencies in the product development process, continuously refine the product development process, and accurately allocate R&D resources.
- Conduct regular field research to stay close to customers, clearly grasp customer value propositions, and consider products with green design and manufacturing.
- Drive digital transformation by implementing diverse learning channels, cultivating a growth-oriented culture, and becoming a learning organization.

Innovative Services

- Collaborate with customers and suppliers to co-create value.
- Identify areas within the value chain that can be optimized to enhance efficiency, reduce waste, create mutual benefits, and achieve success with partners.
- Deepen cooperation with key partners, consider the key partner satisfaction indicators.

Positive Opportunities

Innovation and R&D cover aspects such as technology, services, processes. While utilizing innovation and R&D to achieve customer value propositions, the Company can achieve sustainable operations through a positive cycle characterized by recognition from employers, partners, and corporate citizens, economically mutually beneficial outcomes, lean and efficient resource investment, and reduced environmental impact.

Negative Risks

In the rapidly changing world of technology and intense industrial competition, maintaining momentum in innovation and R&D is crucial for corporate survival. In the dynamic competitive process, if innovative technology, processes, services fail to keep pace with the times, they risk becoming disconnected from the value chain and being eliminated, resulting in wasted R&D and supply chain resources.

Short-term Goals

Short-term Product Strategy

- Increase the proportion of R&D for flagship and mid-to-high-end products. Continue investing in display driver ICs and touch control ICs with market potential.
- Expand the product portfolio, strengthen key technologies and patent portfolios.
- Committed to balanced development of product lines and optimization of product development process to reduce the impact of economic cycles on company operations.

Medium- to Long-term Goals

Medium- to Long-Term Product Strategy

- Continuously invest in R&D of new-generation products, expand diverse product lines, and aim to become a supplier of diverse components.
- Regularly review and optimize the product value chain, improving efficiency and reducing waste through enhancements in raw materials, design, manufacturing, and testing to achieve mutually beneficial outcomes and foster long-term, stable partnerships.

Products Value Chain of ITH Corporation

Upstream Supply → **ITH Corporation** → **Downstream Manufacturing**

Production Materials

Obtain silicon ingots and related metals and semiconductor materials from suppliers.

IC Design

Design chips based on customer value propositions, emphasizing value innovation and intellectual property strategies. Pursue ultimate performance experience while also meeting extreme power consumption, aligning with goals of green energy and low carbon.

Wafer Fabrication

Emphasize supplier management of products and environmental aspects to achieve environmental protection and energy conservation.

Assembly & Testing

Emphasize supplier management of products and environmental aspects to achieve environmental protection and energy conservation.

End Use

Focus on consumer user experience, integrate the technological capabilities of suppliers to lead market trends, and create value for target customers.

Innovative Products

In 2024, ITH developed innovative products across seven major product areas: timing controller embedded driver IC for notebook application (TED), timing controller for notebook application (TCON), AMOLED display driver IC for mobile application, AMOLED display driver IC for notebook application, touch control IC for AMOLED panel, display and touch integration IC for automotive application (TDDI), and display and touch integration IC with stylus pen support for tablets. The designs emphasize lower power consumption, higher noise resistance, improved signal-to-noise ratio, and cost efficiency, along with ultra-narrow bezels. This approach delivers greater value to customers and enhances the user experience.

The display and touch integration IC for automotive application (TDDI) complies with the ISO 26262 development process and meets the ASIL B standard. It is the first in the industry to integrate an Ambient Light Sensor (ALS) into the panel. By analyzing the intensity of ambient light through driver IC, it reduces the number of system components required by customers, offering cost benefits and increased flexibility for structural design changes. This innovation provides unique added value for customers.

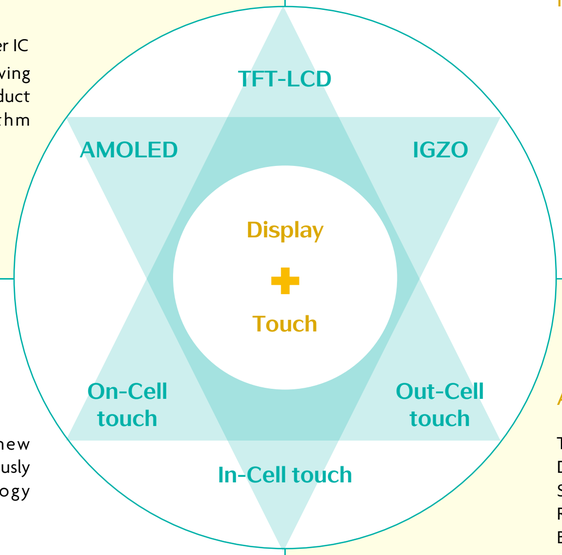
Core Technology, Product Research and Development

Mobile / Tablet

- Flexible Display/Integrated Driver IC
- Assisting customers in improving yield rates and extending product lifecycles through algorithm optimization

NB / MNT

- Development of NB integrated Driver IC, LTDI, and Tcon SOC products
- TCON visual effect-related IP and PSR/PSR22/3 power-saving technology development



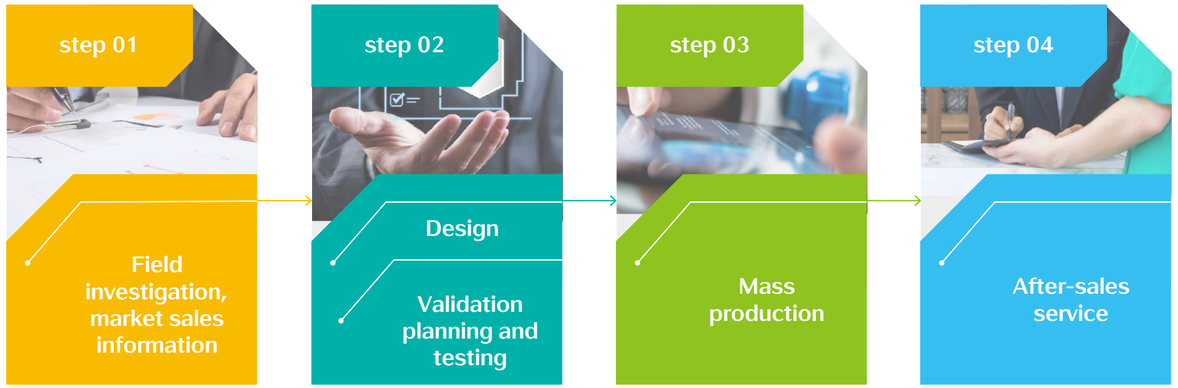
Industrial Touch

- Developing products for new application scenarios, continuously building up touch technology capabilities
- Enhancing user experience

Automotive

Trends in Automotive Large Screens: Developing LTDI Integrated Chips Supporting Larger Sizes and Higher Resolutions, Along with TCON and Bridge (eDP to LVDS) for Smart Cockpits

Product Development Flowchart

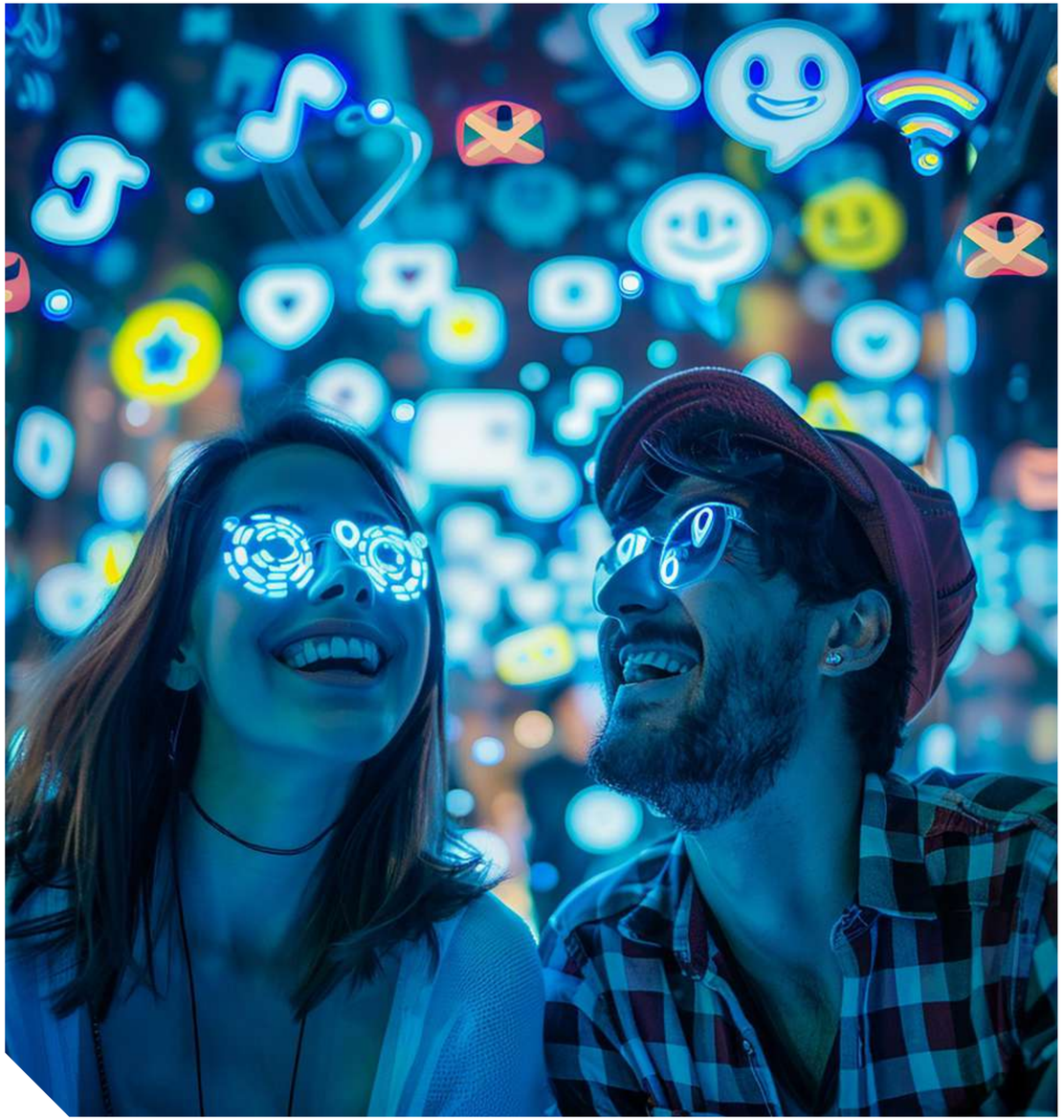


Primary Products

Product Type	Primary Product Name	Application Areas and Features
Mid-to large-size	Display driver IC for mid- to large-size notebook panels	LCD: Applied to gaming notebooks, featuring a narrow bezel, high refresh rate, high resolution, and support for high contrast. Achievements in this application area include: * In the LTPS/IGZO panel gaming notebook market, it has the most optimized power consumption performance. * The industry's first panel supporting a recessed notebook, applied to ultra-narrow bezel gaming notebooks. OLED: Applied to high-end notebooks, it offers high resolution, higher color saturation and contrast, and faster response time for a smoother visual experience. It supports dynamic refresh rate adjustment to reduce operating power consumption.
	Touch control IC for notebook application	Introduces active pen requirements, supporting the latest USI/MPP protocols and featuring waterproof false touch prevention, characterized by low power consumption and long standby time. Superior anti-interference and waterproof capabilities, supporting up to 10-finger touch. Achievements in this application area include: * Industry-leading power consumption performance. * Supports multiple active pens with automatic switch, and is Microsoft certified.
	Timing controller embedded driver IC for notebook application (TED)	In response to full screen, narrow bezel design, and simplified material costs, it is the best cost solution in this application area.
	Timing controller for notebook application (TCON)	Applied to display screens, it is the control core of the display, providing high-speed transmission, color and image processing, and low power consumption.
Small-size	AMOLED display driver IC for mobile application	Applied to full-screen mobile phones, featuring high frame rates, dynamic frame rate switching, high resolution, low power consumption (supporting multi-zone display and vertical/horizontal multi-zone variable refresh rate driving), high PPI, and high brightness applications. Achievements in this application area include: * World's first 2K Oriental display. * The industry's first complete support for LTPO dynamic refresh rate solutions. * The industry's first single IC (HPC) that supports foldable screens and multi-zone display frame rate driving function.
	Touch control IC for AMOLED panel for mobile application	Applied to high-end smartphones, it supports AMOLED flexible screens, up to 480Hz touch refresh rate, use with gloves, display high noise resistance/waterproof, and display water ripple interference prevention.
	Display and touch integration IC for mobile application	Applied to LCD screen mobile phones, featuring a high signal-to-noise ratio, high frame rate, high resolution, low power consumption, high PPI, and integration of ALS.
	AMOLED display driver IC for wearable application	In wearable device applications, it extends battery life, showcasing exceptional power consumption.
	Display and touch integration IC for wearable application	
	Display and touch integration IC for tablet application	Applied to tablet devices, featuring high resolution, high frame rate, a high signal-to-noise ratio, and automatic detection of various active pen specifications, as well as integration of ALS.
Industrial control	Touch control IC for industrial application	Applied to fitness equipment, smart home appliances, IWB whiteboards, POS, and vending machines. Featuring a high signal-to-noise ratio, waterproof and anti-fog capabilities, and compatibility with various active pen specifications.
Automotive-related products	Display and touch integration IC for automotive application (TDDI)	Applied to the automotive field, featuring a high signal-to-noise ratio, high ESD and EMI protection, ASIL specifications, integration of ALS, and support for large panel touch.
Consumer	Touch control IC for consumer specifications	Applied to e-paper related products, featuring a high signal-to-noise ratio, low power consumption, and support for the latest active pen protocols.

Planned Products

Product Line	Future R&D Plans
R&D roadmap for mid-to large-size notebook panels	* High-end gaming notebook driver IC, supporting high resolution and a refresh rate of up to 480Hz. * eDP Tcon Embedded Integrated Driver IC * OLED NB Driver Solution * In cell Touch Solution
R&D roadmap for small-size panels	* Products supporting high resolution, such as WQHD and 4K2K. * Development of new display products, such as AMOLED and wearable products. * In-cell touch Driver IC * Development of 2-port MIPI interface, CPHY MIPI interface * Development of image algorithms such as sub pixel rendering, scaling up, dynamic C.R enhancement. * Low power consumption applications * Data compression technology
R&D roadmap for touch control IC	* Development of new high-channel platforms, such as AIO, IWB, and new generation touch solutions for extra-large sizes, etc. * Development of electronic paper application products. * Development of notebook application products. * High SNR and enhanced noise immunity are highlights of innovative products. * Low power consumption design * Simultaneous Pen and Touch Solution
R&D roadmap for automotive IC	* Compliant with ISO 26262 and AEC-Q100 for automotive ICs. * TDDI Solution for 1920 Channel & 1440 Channel * Supporting the development of larger size and high resolution products, such as LTDI integration chips. * Timing Controller and Bridge for Local dimming、Interface transferring (LVDS to eDP) and High Resolution * OLED Driver Solution



Intellectual Property Management

Innovation and R&D are the driving force and cornerstone of ITH's progress. To properly protect research outcomes and enhance competitiveness and market position, the Company established the "Invention and Patent Rights Management Regulations" in 2006, with the most recent revision in 2024. From the initial review and application, evaluation strategy, to subsequent portfolio management, we have designed corresponding deployment policies. Through systematic management, regular patent meetings, and a patent bonus system, we pursue the most appropriate resource allocation to maximize the benefits of patent applications.

Management Policies

01 Improve internal management systems

The patent management measures not only regulate the review procedures for patent applications by employees, but also outline the obligations and rewards for employees as inventors, as well as the management of research outcomes, enabling ITH to effectively utilize the results of innovation and R&D.

In addition, the Company's legal training courses for new employees cover important themes such as business secrets, work regulations, and legal system, providing new employees with increased understanding.

02 Strengthen the concept of intellectual property protection

In addition to strengthening employees' intellectual property awareness and preventing technology from being disclosed before it is protected, the dedicated patent department regularly provides updates on competitors' newly published patents and conducts FTO analysis for technologies used in new products to ensure there is no risk of intellectual property infringement.

03 Protection of R&D intellectual property

The dedicated patent office regularly provides internal patent portfolio analysis, allowing R&D supervisors to understand the Company's current patent application directions. This enables a comprehensive patent portfolio or trade secret management for key technologies, effectively protecting innovative technologies.

04 Activate the value of intellectual property

Pro-actively investigate whether competitors' products infringe on patents, and offer whistle-blower rewards if corporate employees discover others infringing on the Company's patents.

Patent Management Framework

Patent Management Framework

Patent application

Patent proposals from the R&D department undergo prior case searches by the patent office and are then reviewed by the head of the R&D department.

Patent strategy

The patent office regularly provides the R&D department with analysis of technology-related patents, after which the inventor confirms whether to continue maintaining the patent.

- Patent proposal
- Patent review
- Patent portfolio
- Patent maintaince

Patent Application

Patent application

Patent proposals from the R&D department undergo prior case searches by the patent office and are then reviewed by the head of the R&D department.

Patent strategy

The patent office regularly provides the R&D department with analysis of technology-related patents, after which the inventor confirms whether to continue maintaining the patent.

Patent portfolio

Through patent proposals to accumulate patent portfolio, patent examination to confirm whether technologies warrant protection, and subsequent analysis of related technology patents to understand technological developments and determine whether patents should continue to be maintained, enabling effective patent management.

ITH continues its patent portfolio in related technological fields. 44 domestic and international patent applications were filed in 2024, and 16 new domestic and international patents were granted, with 1 trade secret managed internally. As of 2024, we had filed a total of 488 patent applications and maintained 313 valid patents. In 2024, ITH did not have any patent infringement cases or patent litigation cases.

Patent Application Granted Status

Number of Patent Application/Granted from 2021 to 2024				
Year	Number of Domestic Patents		Number of Foreign Patents	
	Number of Applications	Number of Granted	Number of Applications	Number of Granted
2021	18	13	20	14
2022	9	10	10	10
2023	11	8	13	11
2024	19	11	25	5

Green Product Design

Material Topics

Management Approach for Green Products

Policy and Commitment

Integrate sustainability with core business, refine and optimize the product development process and implement robust talent cultivation and management strategies. Continuously innovate and enhance the performance of green products, while conducting regular reviews and periodic training programs to ensure more effective utilization of R&D resources. Manage the supply chain in compliance with ISO 14001, RoHS, Quality Management Process, and supplier evaluation standards.

Adjustment Measures

Upholding the principles of sustainable development, we collaborate with key partners to become part of the green component supply chain, aiming to pursue shared values to mitigate risks and increase demand, thereby creating economic returns. Set green product goals to improve energy efficiency and achieve energy-saving objectives. Implement rigorous quality management practices to strengthen our position within the green supply chain and invite suppliers to sign relevant sustainability policies and commitments.

Positive Opportunities

Countries worldwide are progressively setting carbon neutrality targets, and financial regulations are evolving accordingly. As energy conservation and carbon reduction become universal values, carbon emissions represent a significant long-term challenge for businesses. These global trends create strong growth potential for green products, making them an increasingly important opportunity for the future.

Negative Risks

As the financial system increasingly values ESG sustainability indicators, investors make decisions based on the information disclosed through these metrics. Companies that fail to meet their ESG responsibilities risk jeopardizing their operations. Major suppliers also emphasize sustainable practices, making participation in the green supply chain critical for future business success. Failure to invest in green product development constitutes an indirect exploitation of environmental public goods and necessitates sharing the costs of establishing a fair and sustainable supply chain.

Short-term Goals

- Optimize the product development process to achieve energy conservation and environmental protection, improve product energy efficiency, and minimize environmental impact.
- Continuously cultivate and manage R&D talents to strengthen the team’ s capabilities in green product development.

Medium- to Long-term Goals

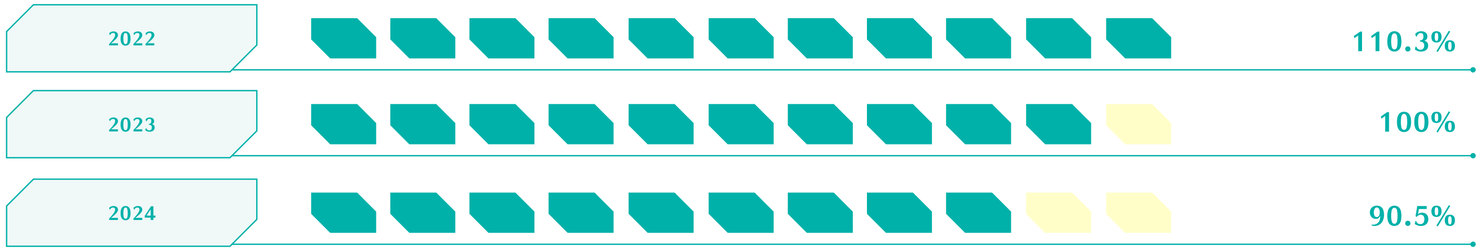
Improve the production and supply chain management of green products to become a supplier of green components, ensuring that the production processes comply with the environmental protection principles and sustainable development standards.

ITH sets annual goals for reducing product energy consumption and product size in mobile phone, automotive, industrial control, and notebook products. The achievement status in 2024 is as follows:

Aspect	2024 Results (% Increase/Decrease Compared to Previous Generation)	Goals
Reduce Product Energy Consumption	-9.5%	-5%
Product Size	-9%	-5%

Changes in Product Energy Consumption over the years

ITH continuously reduces product energy consumption each year from 2022 to 2024 in mobile phone, automotive, industrial control, and notebook products to to meet customer and market requirements.



Core Technologies of Green Products

Product Name	Key Technology	Development Costs Invested (NT$ million)
Notebook-related products	* Optimize the electrical design architecture to achieve power consumption levels on par with both the N generation and N-1 generation processes * Integrated GOA driver solution for bezel reduction * Dynamic refresh rate driving support * Ultra-narrow bezel IC-saving solution * A Reduced-IC solution for high-end narrow bezel gaming notebooks	30
Mobile-related products	* Pioneered the adoption of the 22nm process, reducing digital power consumption by 30% compared to the previous generation. * Optimize circuit design architecture, reducing digital power consumption by 25%. * Dynamic refresh rate driving, vertical/horizontal partition driving * QHD/WFHD shared platform, streamline IC material requirements	50
Industrial-related products	* Optimize IP performance, streamline the number of operations, and achieve electricity-saving targets * Hibernate mode power saving	10
Automotive-related products	Integrating an ambient light sensor can reduce material requirements	20

∵ Training for R&D Personnel ∵

To strengthen R&D capabilities, meet customer needs, and support the long-term professional development of ITH’ s R&D team members, the Product Development Department conducted seven training programs in 2024. In addition, the ITH HR Department offered courses on soft skills development and workplace health and safety. These initiatives ensure that the R&D team advances in both technical expertise and interpersonal skills while maintaining strong awareness of workplace safety.

In 2024, the Product Development Department focused its professional training on AMOLED, touch, and automotive-related courses to engance expertise in display and touch technologies. This is complemented by on-the-job training, enabling team members to learn and grow through hands-on R&D design work.

For soft skills development, provides diverse learning opportunities through instructor-led training and online learning platforms, including Da Da Academy, SAT. KNOWLEDGE, and YanGuo Learning. Key areas of focus include management, communication, and execution—critical components of annual quality development—helping R&D colleagues broaden their skill sets and strengthen self-learning capabilities.

Additionally, senior executives of the R&D team also actively participated in the strategic consensus workshop co-organized by ITH and Harvard Business Review, enabling the R&D team to better understand the needs of other management teams from a strategic perspective. Through collaborative discussions, operational consensus was achieved, allowing ITH to move forward in a more unified direction.