



Stock Code :688711



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2024

Macmic Science & Technology Co., Ltd.
Environmental, Social, and Governance
(ESG) Report

2024 Environmental, Social, and Governance (ESG) Report

CONTENTS

About This Report	01
Message from the Chairman	02
About MACMIC	03

Sustainable Development Governance	15
Governance Framework for Sustainable Development	15
Communications with Stakeholders	16
Management of Material Topics	17
Impact, Risk, and Opportunity Management	19
Risks and Opportunities for Topics with Financial Materiality	19
Sustainable Development Goal and Vision	23

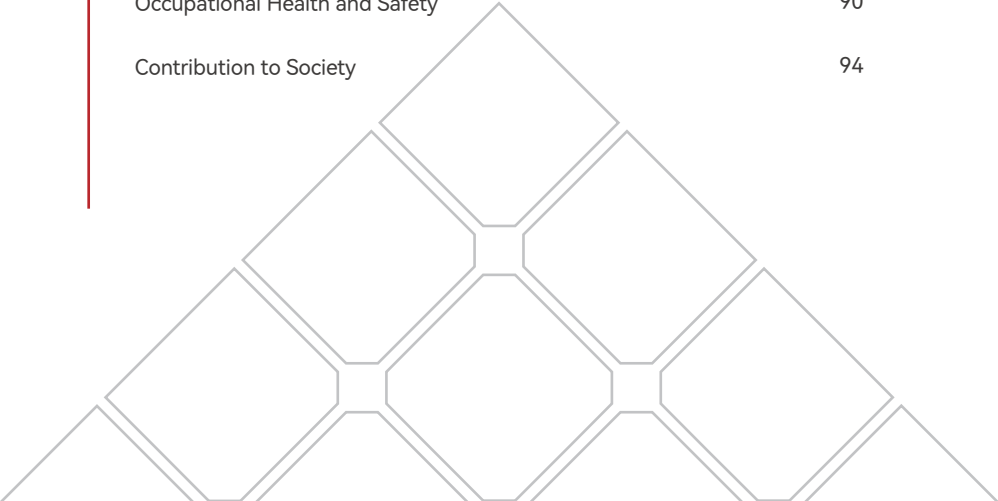
01	Innovation Leadership: Leading the Future of Chip Science and Technology	25
	Opportunities in Product Innovation	27
	Promotion of Industry Development	33
	R&D and Innovation	37
	Product Quality and Safety	44
	Protection of Customers' Rights and Interests	51
	Establishment of Sustainable Supply Chain	53
	Digital Transformation	56

02	Environmental Protection: Empowering a Low-Carbon New Ecosystem	59
	Response to Climate Change	61
	Resource Utilization	66
	Environmental Management	70

03	Talent-oriented Culture: Building a Community of Happiness Together	75
	Protection of Employees' Rights and Interests	77
	Training and Development	86
	Occupational Health and Safety	90
	Contribution to Society	94

04	Compliant Governance: Solidifying the Foundation of Sustainability	95
	Governance Structure	97
	Remuneration Management of Directors, Supervisors and Officers	100
	Risk Management	101
	Business Ethics	101
	Investor Relations Management and Shareholders' Rights and Interests	103
	Data Security and Customer Privacy Protection	105

Future Outlook	107
Appendix	109
Key Performance Form	109
Indexes	119
Feedback Form	121



About This Report

This is the first Environmental, Social and Governance (ESG) Report (the “ESG Report”) issued by Macmic Science & Technology Co., Ltd. (hereinafter referred to as “MACMIC”, “the Company”, or “we”). In the principles of objectivity, standardization, transparency, and comprehensiveness, this report provides a detailed disclosure of the Company’s practices and performance in environmental, social, and governance for the year 2024.

Reporting Scope	This report covers MACMIC and its branches and subsidiaries. Unless otherwise specified, the scope of this report is consistent with that of the Company’s Annual Report.
Reporting Period	This report covers the period from January 1, 2024 to December 31, 2024 (the “Reporting Period”). To improve the comparability and completeness, some sections of this report may extend beyond the Reporting Period.
Impact Duration	The impact duration of this report is defined as short term (within 1 year), medium term (1 to 5 years), and long term (more than 5 years).
Preparation Basis	<ul style="list-style-type: none">Guidelines No. 14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies—Sustainability Report (Trial)Global Reporting Initiative Sustainability Reporting Standards (GRI Standards)China Enterprise Reform and Development Society <i>Guide to Corporate Sustainability Reporting in China</i> (–CASS-ESG 6.0)UN Sustainable Development Goals (SDGs)Sustainability Accounting Standards Board (SASB) Standards
Data Sources	<p>All information and data referenced in this report are sourced exclusively from official documents, statistical reports and financial statements of MACMIC, as well as information related to sustainable development practices gathered, consolidated and audited across functional departments and business units within the Company.</p> <p>This report contains no false records, misleading statements, or material omissions. Unless otherwise specified, all amounts in this report are expressed in RMB.</p>

Definition	Term	Interpretation
	MACMIC, the Company or we	Macmic Science & Technology Co., Ltd.
	Core Energy	Changzhou Core Energy Semiconductor Co., Ltd.

Access to This Report	This electronic version of this report is available for download on the websites of the Company (www.macmicst.com) and the Shanghai Stock Exchange (http://www.sse.cn), where you can find further insights about the Company.
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Message from the Chairman

In 2024, MACMIC made steady progress toward the vision of carbon neutrality, and leveraged green innovation to drive high-quality development and deepen the ESG strategy. To realize the “carbon peaking and carbon neutrality” goal, we integrated ESG concepts into our development philosophy and explored the path of high-quality, sustainable and synergistic development in the principle of “empowering industrial revolution through green technology and leading future development with low-carbon innovation”.

Green Revolution: Reshaping the Development Paradigm

MACMIC comprehensively restructured the development paradigm based on the opportunity presented by the green revolution. With the “carbon peaking and carbon neutrality” goal as our core development driver, we leveraged the *ESG Management System* as a key framework to incorporate ESG into our decision-making system. We established an efficient governance structure which functions through “the decision by the Board of Directors – the coordination by the ESG Leading Group – the execution by the ESG Working Group”, to strengthen compliance governance and solidify the foundation for sustainable growth.

Technological Innovation: Reshaping the Industrial Landscape

Driven by innovation, MACMIC actively increased R&D Investment. In 2024, we made a significant breakthrough in the R&D technologies. We continued to deepen our innovation and promoted the sustained growth of our main products in key fields such as the “Ultra-micro Groove Structures & Field Blocking Technology” and the Soft Recovery Diode Chip for Continuous Flow. We offered our products to help customers achieve sustainable development, and our power products provided customers with clean energy and green development solutions. During the Reporting Period, the installed capacity of our products in the new energy field brought environmental benefits equivalent to planting 456,000 hectares of trees (approximately 1.14 billion trees), which demonstrated our commitment to social responsibility.

Ecological Synergy: Crafting a Green Future

With the intensifying global climate crisis, it is an inevitable choice for MACMIC to promote sustainable development through energy conservation, emission reduction, low-carbon development and environmental protection. We actively assume our responsibility for green development and improve our environmental performance by implementing dynamic monitoring of pollutant emissions and reducing carbon emissions from production processes. We have

built a digital management platform for our environmental management system and incorporated energy conservation and emission reduction indicators into the KPI assessment system for management personnel. This effort helps us steadily advance the achievement of green governance goals, and write a new chapter on green development.

Employee Cohesion: Building a Better Society Together

Adhering to the talent-centric principle, MACMIC makes every effort to protect the legitimate rights and interests of employees. In terms of employees’ remuneration and development, we strictly enforce equal pay for equal work and build an effective incentive mechanism to create broad career development paths for our employees. We also extend our humanistic care, actively engage in public welfare, and participate in the “Walk for a Bag of Milk” event, to spread love through practical actions and contribute to a better society.

Responsibility Fulfillment: Reconstructing the Value Coordinates

MACMIC actively plays a leading role in promoting collaboration with supply chain partners to jointly build a green and low-carbon value network, and reshapes the industry’s responsibility value chain from the source by signing the *Declaration on Non-Use of Conflict Minerals* and the *Commitment to Integrity and Anti-Bribery*.

Upholding the philosophy of “customer-centric, innovation-driven and talent-oriented development”, we optimize industrial structure, improve development quality, actively fulfill social responsibility, and promote sustainable development. Looking ahead, let’s work together to chart a chapter of green development in the new era.

Chairman of MACMIC
Mr. Zhao Shanqi

April 2025

About MACMIC

Company Profile

Founded in 2006, Macmic Science & Technology Co., Ltd. (“MACMIC”) was based in Changzhou City, Jiangsu Province, China. As a leader in the domestic power semiconductor device sector, MACMIC specializes in power semiconductor devices. Upholding the business philosophy of “customer-centric, innovation-driven, and talent-oriented development”, the Company unswervingly takes the path of independent innovation, and conducts all-round product design and R&D. With main products including insulated gate bipolar transistors (IGBT), fast-recovery diodes (FRD), single devices and modules that reach international advanced levels, the Company is committed to building a highly influential national brand. In 2021, the Company was listed on the STAR Market of the Shanghai Stock Exchange (Stock Code: 688711.SH).

National Key High-Tech Enterprise Certification

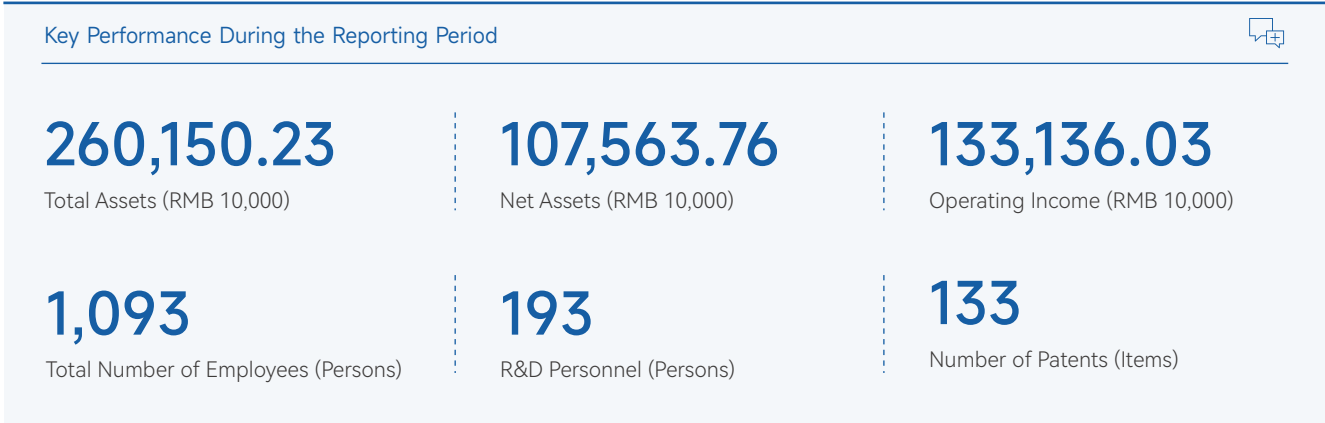
National Intellectual Property Advantage Enterprise

National “Little Giant” Specialized and Sophisticated Enterprise that Produces Novel and Unique Products

National Green Supply Chain Enterprise

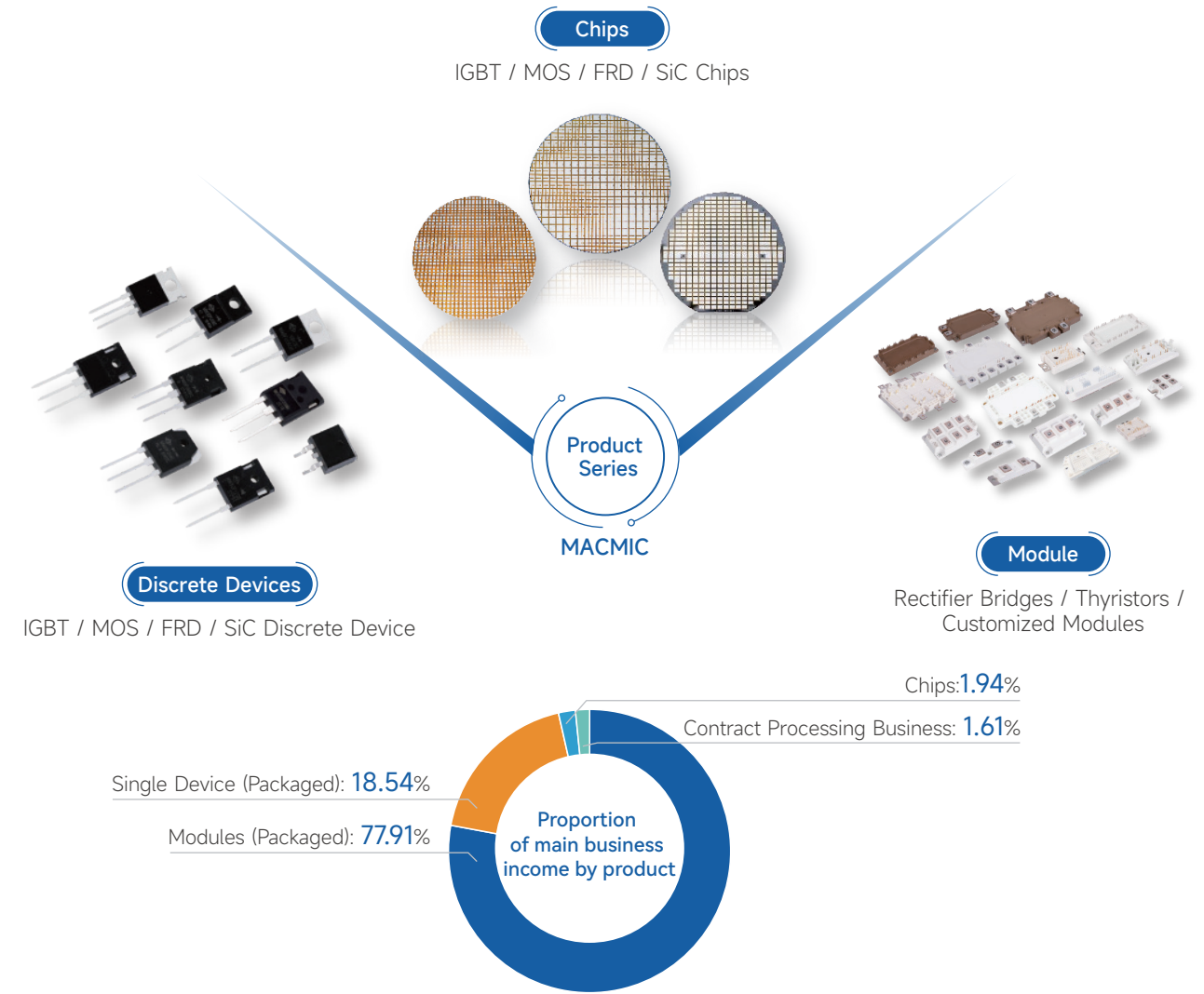
CNAS Laboratory Accreditation

Jiangsu New Power Semiconductor Device Engineering Research Center Certification



Business Scope

The main business of MACMIC is the design, R&D, production, and sales of power semiconductor chips, single devices, and modules, with main products including IGBT, MOSFET, FRD, SiC chips, discrete devices, modules, and other power semiconductor devices. The IGBT and FRD chip technologies of the Company reach the international advanced level, break the foreign technological monopoly, and fill multiple technological gaps in China. All of our single devices adopt self-developed chips, while most of our module products use self-developed chips, with some using externally sourced chips. Our products are applied in diversified application fields such as industrial control (inverters, servo motors, UPS, and various switching power supplies), new energy power generation (photovoltaic inverters, wind energy converters, and power quality management), electric vehicles (electric control systems, charging piles, OBCs, and DC power supplies), and household appliances. The performance and technological processes of our products are at the advanced level in the industry.




Key Performance During the Reporting Period

36
New Development Projects

Major Application Scenarios


Industrial Control

MACMIC offers a range of power device solutions, including IGBT, FRD, and MOSFET, for industries such as frequency converters, welding machines and UPS.




Electric Vehicles

MACMIC provides high-efficiency, reliable automotive-grade power modules to help electric vehicles achieve higher energy utilization and longer driving range.




New Energy Power Generation

MACMIC offers advanced power semiconductor device products to help new energy generation systems improve energy conversion efficiency and achieve the sustainable use of clean energy.



Household Appliances

MACMIC provides power semiconductor products to offer more stable and efficient power transmission and control for home appliances, and enhance user experience and energy utilization efficiency.



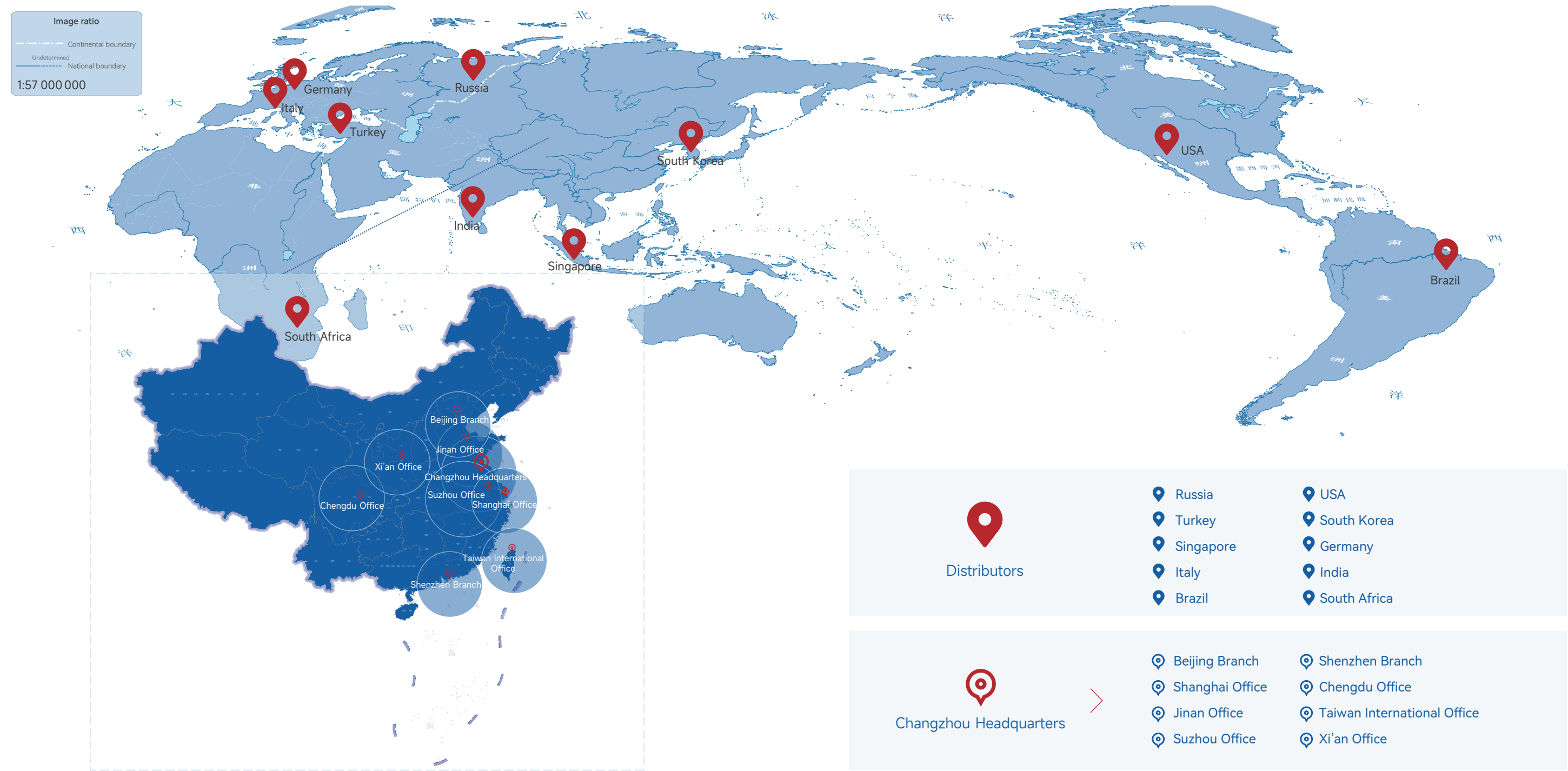
Development Strategy

Corporate Mission	Enhancing power efficiency and improving power quality	
Corporate Vision	Starting from the Core, Driving the Future	
Strategic Initiatives	Technological Leadership	Focus on breakthroughs in third-generation semiconductor frontier technologies, take the development of automotive-grade 1200V 40Mw SiC MOSFET chips as the driving force, and achieve a leap from a technology follower to a technology leader
	Market Expansion	Adhere to the mission of enhancing customer satisfaction, strengthen cooperation with industry leaders, optimize the structure of customer groups, and continuously expand domestic and international market shares
	Talent Acquisition	Attract top talent teams in the industry and leverage the talent training and incubation role of the Postdoctoral Programme
	Digital Transformation	Strive for 100% digitization of the entire process
	Quality Improvement	Take high quality as the benchmark, uphold the philosophy that “quality is above everything, and everything serves quality”, strengthen quality awareness among all staff, enhance quality inspection and supervision, and improve the quality management system

Corporate Culture



Marketing Network (Global)



Milestones

2006

Established the Company

2008年

M1d FRD released

2009年

M2d FRD FU series released

2011

M1i NPT IGBT released

2014

M2i Trench IGBT chip released

2016

Recognized as a Provincial Enterprise Technology Center

2017

First EV MOS module released

2018

M3i IGBT chips and modules serialized

1200 V RC IGBT released

M3d FRD series released

M4d low/medium-power FRD released

2020

M5d medium/high-power FRD released

M4i MPT IGBT chip released

2021

Listed on SSE STAR Market

M6d FH FRD series released

2022

M7i IGBT released

M5i MPT +H injection IGBT chip released

M6i IGBT released

M7d FT FRD series released

2023

Photovoltaic, EV, and industrial control product lines set-up

First SiC MOS chip released

Dedicated production line set-up for automotive-grade SiC modules

2024

M7i 1200V platform series launched

1700V M6i performance enhancement achieved new breakthroughs in wind energy

In-house developed SiC GV module and DTS new process matured

EDT3 platformization (IGBT + FRD) launched, opening new paths for automotive applications

SiC MOS passed 40 milliohm reliability test and led in 13 milliohm performance

M7i 650V platform completed, creating new opportunities in solar and storage markets

Automotive-grade fully automated production line started mass production

Automotive and photovoltaic MES systems launched

Start-up

Exploratory Period

Development Period

Rapid Development Period



Honors

Intelligent Manufacturing Workshop in Jiangsu Province

2024

Industry and Information Technology Department of Jiangsu

Green Factory of Jiangsu Province

2024

Industry and Information Technology Department of Jiangsu

New Technologies and Products for Key Popularization and Application in Jiangsu Province – 40-100A 1200V IGBT Chips and Modules

2024

Industry and Information Technology Department of Jiangsu

New Power Semiconductor Standardization Pilot Enterprises

2023

Jiangsu Administration for Market Regulation

Innovative Leading Enterprise of Jiangsu Province

2022

Jiangsu Provincial Department of Science and Technology

Excellent Overseas Chinese-Funded Enterprises in Jiangsu Province

2021

Federation of Returned Overseas Chinese of Jiangsu Province
Department of Commerce of Jiangsu Province
Jiangsu Provincial Tax Service
Jiangsu Sub-council of China Council for the Promotion of International Trade
Jiangsu Chamber of International Commerce
Jiangsu Federation of Overseas Chinese Entrepreneurs

“Little Giant” Specialized and Sophisticated Enterprise that Produces Novel and Unique Products in Jiangsu Province

2021

Industry and Information Technology Department of Jiangsu

Outstanding Contribution to “30 Years of Electrical Energy Saving in China”

2020年

China Electrotechnical Society Electrical Energy Conservation Professional Committee

National Uninterruptible Power Supply (UPS) Standardization Unit

2020年

National Technical Committee for Standardization of Power Electronic Systems and Equipment Uninterruptible Power Supply Subcommittee

江苏宏微科技股份有限公司
博士后科研工作站
POSTDOCTORAL PROGRAMME

人力资源和社会保障部 制发
全国博士后管委会
二〇二四年五月

Postdoctoral Programme

Ministry of Human Resources and Social Security
National Administrative Committee of Post-Doctoral Researchers
2024

高新技术企业证书

企业名称: 江苏宏微科技股份有限公司 证书编号: GR20232000030
发证时间: 2023年12月13日 有效期: 三年
批准机关:

High-tech Enterprise

Jiangsu Provincial Department of Science and Technology
Department of Finance of Jiangsu Province
Jiangsu Provincial Tax Service, State Taxation Administration
2023

绿色供应链
管理企业

中华人民共和国工业和信息化部
二〇二三年十二月

Green Supply Chain Management Enterprise

Ministry of Industry and Information Technology of the People's Republic of China
2023

江苏宏微科技股份有限公司
江苏省质量信用AA级企业
(2023年度)

江苏省市场监督管理局
江苏省发展和改革委员会

Quality AA Grade Enterprise of Jiangsu Province

Jiangsu Administration for Market Regulation
Jiangsu Development and Reform Commission
2023

国家知识产权优势企业

国家知识产权局

National Intellectual Property Advantage Enterprise

State Intellectual Property Office
2022

专精特新
“小巨人”企业

江苏宏微科技股份有限公司
工业和信息化部
有效期: 2022年7月1日-2025年6月30日

“Little Giant” Specialized and Sophisticated Enterprise that Produces Novel and Unique Products

Ministry of Industry and Information Technology of the People's Republic of China
2022

江苏省
新型功率半导体器件
工程研究中心

江苏省发展和改革委员会
二〇二二年九月

New Power Semiconductor Device Engineering Research Center of Jiangsu Province

Jiangsu Development and Reform Commission
2022

江苏省民营科技企业
Jiangsu Private Science & Technology Enterprise

二零二四年十一月

Private Science and Technology Enterprise of Jiangsu Province

Jiangsu Private Science & Technology Enterprise Association
2024

2024年度
常州市种子独角兽企业

常州市科学技术局

Changzhou Seed Unicorn Enterprise

Changzhou Science and Technology Bureau
2024

Performance in 2024

Economic Performance

Operating Revenue

RMB 1,331,360,300

Total Assets

RMB 2,601,502,300

Employee Performance

Total Number of Employees

1,093 Persons

Up by 12.56% YOY

Employee Satisfaction

93.39%

Up by 5.26% YOY

Investment in Employee Training

RMB 587,000

Investment in Work Safety

RMB 3,471,000

Up by 6.70 YOY

Governance Performance

General Meeting of Shareholders Convened

4 Times

Meetings of the Board of Directors Convened

13 Times

Meetings of the Board of Supervisors Convened

5 Times

Environmental Performance

Total GHG Emissions (Scope 1 + Scope 2)

16,234.96 tCO_{2e}

GHG Emission Intensity

0.12 tCO_{2e}/RMB 10,000 of revenue

At an industry-leading level

Total Investment in Environmental Protection

RMB 2,596,600

Total Water Circulation and Reuse

15,404 Tons

Up by 10,604 tons YOY

R&D Performance

R&D Investment

RMB 109,761,300

Percentage of R&D Investment in Operating Income

8.24%

Up by 1.06 YOY

Total R&D Team Members

193 Persons

Up by 17 persons YOY

Number of New Product Development Projects

36 Projects

Cumulative Number of Granted Valid Patents

133 Items

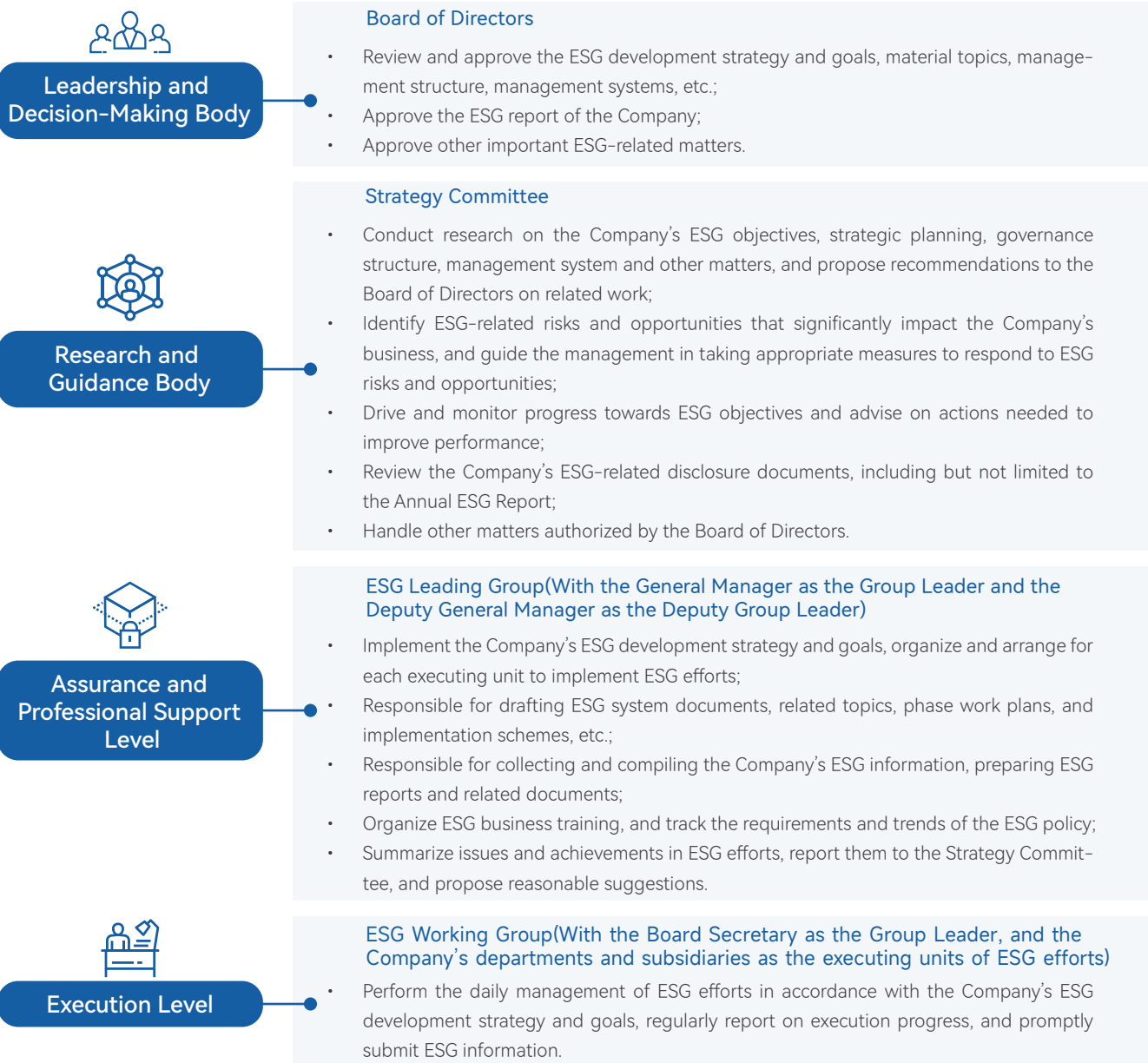
Number of New Patents

8 Items

Sustainable Development Governance

Governance Framework for Sustainable Development

MACMIC deeply embeds the concept of sustainable development into the overall governance framework, and formulates the *ESG Management System* to enhance the risk control and value creation capabilities in ESG. We construct a four-level framework consisting of the Board of Directors, the Strategy Committee, the ESG Leading Group and the ESG Working Group. They are responsible for the leadership and decision-making, research and guidance, assurance and support, and execution of our ESG efforts respectively, and fully considering ESG-related factors in major decision-making processes.



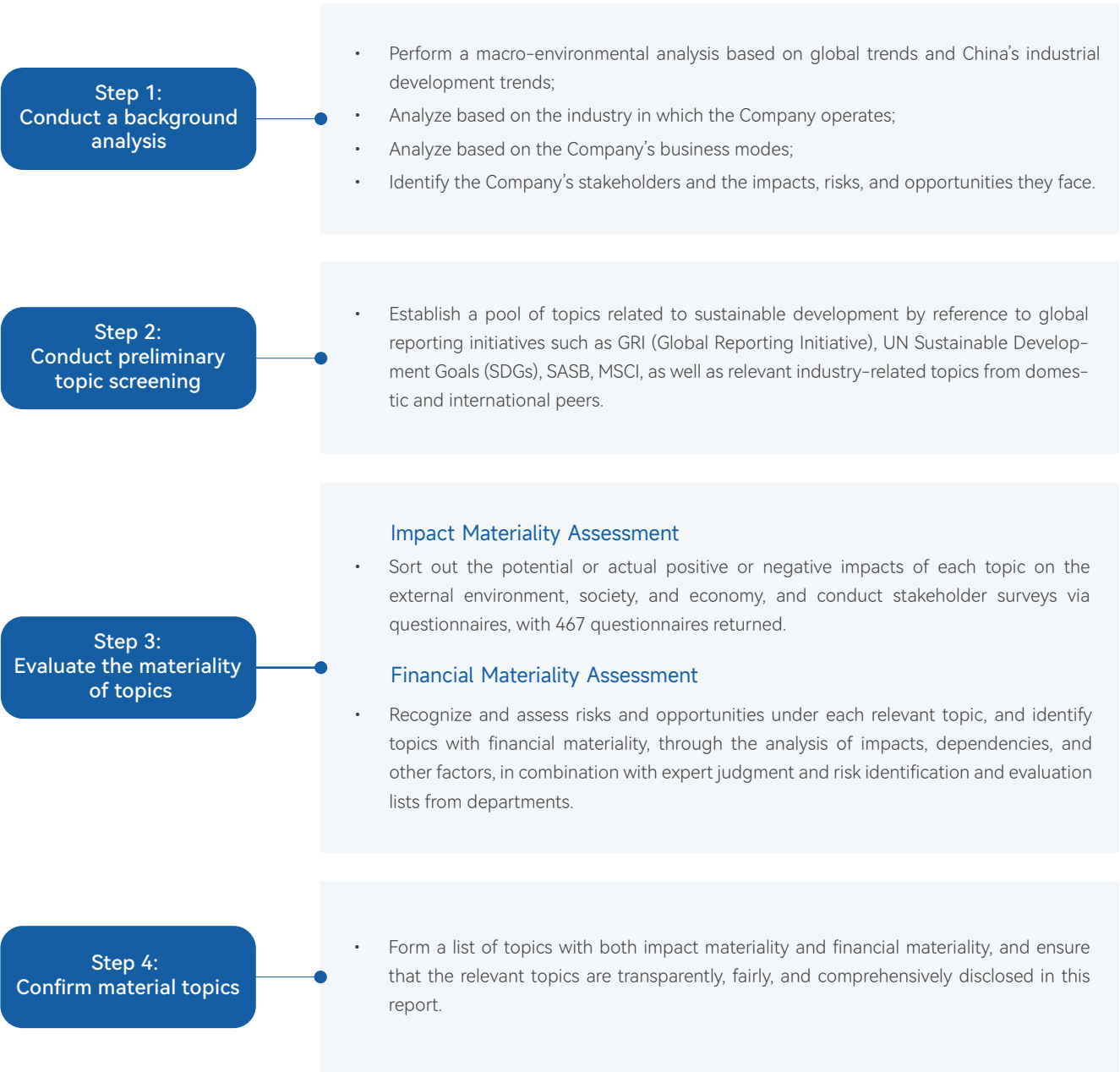
Communication with Stakeholders

MACMIC has formulated the *Stakeholder Communication System*. Through research, the Company gains insights into communication targets and methods with various stakeholders, responds to demands with openness and transparency, and works closely with key parties to forge consensus and promote synergistic development.

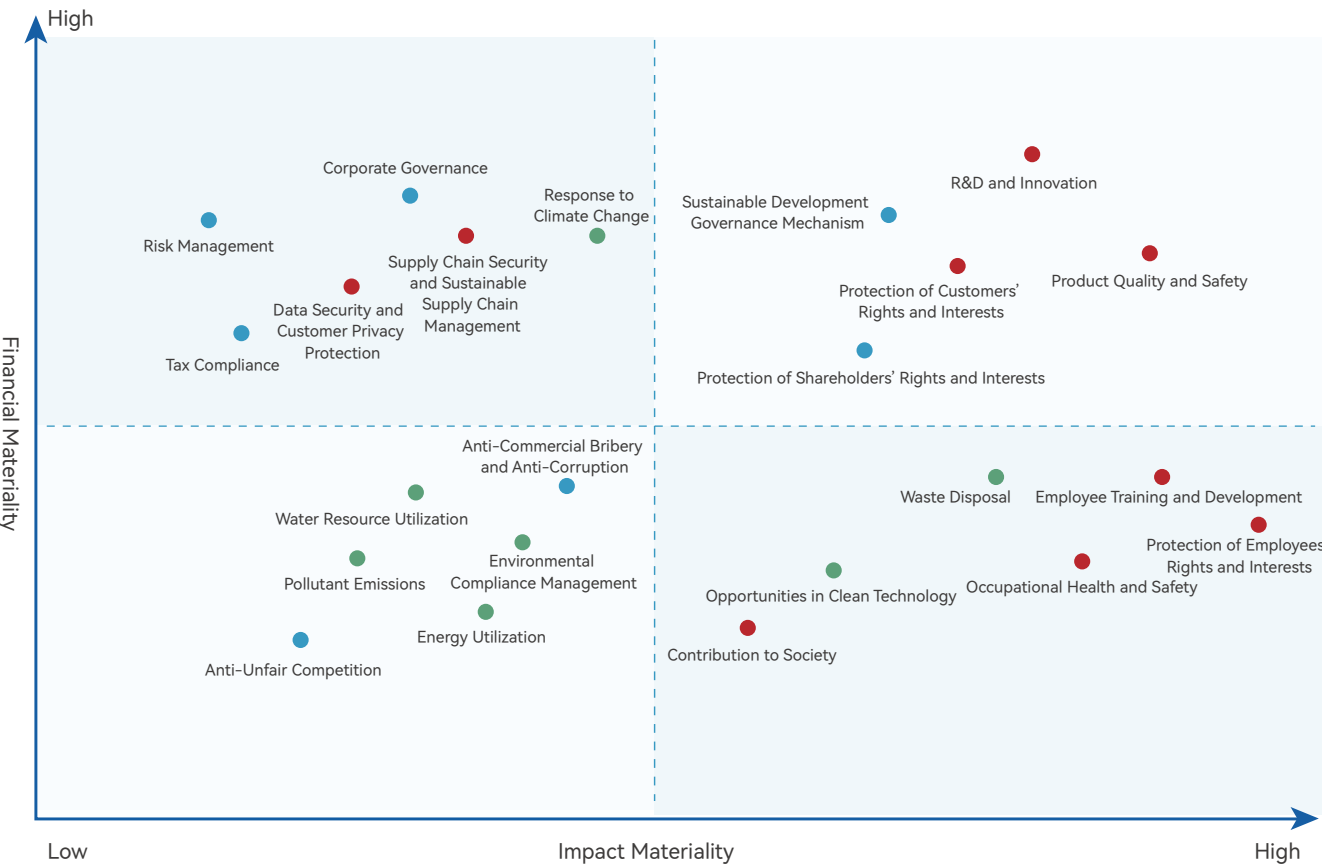
Stakeholders	Communication Channels	Demands and Expectations
 <div>Employees</div>	<ul style="list-style-type: none">Employee CongressTrade UnionFace to Face Communication	<ul style="list-style-type: none">Occupational Health and SafetyProtection of Employees' Legal Rights and InterestsEmployee Training and Development
 <div>Customers</div>	<ul style="list-style-type: none">Customer Service HotlineCustomer Satisfaction Surveys	<ul style="list-style-type: none">Protection of Customers' Rights and InterestsProduct Safety and Quality
 <div>Shareholders</div>	<ul style="list-style-type: none">General Meeting of ShareholdersSSE E-Interactive PlatformReport DisclosureInvestor HotlineRoadshows and Reverse RoadshowsMedia ReportsPerformance Briefings	<ul style="list-style-type: none">Corporate GovernanceProtection of Shareholders' Rights and InterestsRisk ManagementSustainable Development Governance MechanismTax Compliance
 <div>Suppliers</div>	<ul style="list-style-type: none">Supplier TrainingBusiness VisitsPhone Calls and Emails	<ul style="list-style-type: none">Supply Chain Security and Sustainable Supply Chain ManagementData Security and Privacy Protection
 <div>Industry Associations/ Research Institutions</div>	<ul style="list-style-type: none">Industry ConferencesExhibitions	<ul style="list-style-type: none">R&D and InnovationEnergy UtilizationWater Resource UtilizationOpportunities in Clean Technologies
 <div>Public Welfare Organizations/ Community Organizations</div>	<ul style="list-style-type: none">Charitable DonationsExchanges and VisitsMedia InterviewsJoint Events	<ul style="list-style-type: none">Contribution to SocietyEnvironmental Compliance ManagementResponse to Climate ChangePollutant EmissionsWaste Disposal
 <div>Media</div>	<ul style="list-style-type: none">Media InterviewsQuestionnaire	<ul style="list-style-type: none">Corporate GovernanceAnti-Bribery and Anti-CorruptionAnti-Unfair Competition
 <div>Government/Regulator</div>	<ul style="list-style-type: none">Information DisclosureSupervision and AssessmentPhone Calls and Emails	<ul style="list-style-type: none">Environmental Compliance ManagementAnti-Bribery and Anti-CorruptionAnti-Unfair CompetitionTax Compliance

Management of Material Topics

In accordance with domestic and international disclosure standards such as the *Guidelines No. 14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies—Sustainability Report (Trial)*, the *GRI 3: Material Topics*, the *European Sustainability Reporting Standards (ESRS)* and the *International Financial Reporting Sustainability Disclosure Standards No. 1 – General Requirements for Disclosure of Sustainability (IFRS S1)*, MACMIC introduced the analysis perspective of impact materiality and financial materiality to identify and assess material topics in the following steps:



The Company identified a total of 23 topics, designed and distributed stakeholder questionnaires, and received 467 returned questionnaires. The Company prioritized and analyzed topics from four dimensions of “Impact Materiality”, “Financial Materiality”, “Double Materiality” and “Relevance” to form a matrix of material topics.



Matrix of Material Topics			
Double Materiality	Financial Materiality Only	Impact Materiality Only	Relevance
Product Quality and Safety, Protection of Customer' Rights and Interests, R&D and Innovation, Sustainable Development Governance Mechanisms, Protection of Shareholders' Rights and Interests	Response to Climate Change, Corporate Governance, Supply Chain Security and Sustainable Supply Chain Management, Risk Management, Tax Compliance, Data Security and Customer Privacy Protection	Employee Training and Development, Protection of Employees' Rights and Interests, Occupational Health and Safety, Waste Disposal, Opportunities in Clean Technology, Contri-bution to Society	Anti-Commercial Bribery and Anti-Corruption, Environmental Compliance Management, Energy Utilization, Water Resource Utilization, Pollutant Emissions, Anti-Unfair Competition

Impact, Risk, and Opportunity Management

MACMIC has formulated the *Risk and Opportunity Control Procedure*. With the leadership of the Office of the Board of Directors and the cooperation of all departments, we establish a risk identification, analysis, evaluation, and response process covering aspects such as planning, process management, project management, intellectual property protection, product and service provision, operations and decision-making, information technology systems, and network security.

Risks and Opportunities of Topics with Financial Materiality

Risks and Opportunities of Topics with Financial Materiality (1/5)		
Material Topics	R&D and Innovation	Product Quality and Safety
Type of Risk/Opportunity	Risk + Opportunity	Risk + Opportunity
Impact of Risks and/or Opportunities	<ul style="list-style-type: none">Risks: The domestic semiconductor discrete device market is highly competitive, and the market in China is growing rapidly. If we fall behind in technological R&D, our market share may be squeezed, as emerging markets have extremely high requirements for technological foresight and adaptability.Opportunities: The rapid development of industries such as electric vehicles and photovoltaics drives the demand for high-efficiency power semiconductor devices, and provides opportunities for the Company to expand market share. The acceleration of domestic substitution gives the Company an advantage in import substitution. The rise of third-generation semiconductor materials brings new directions for technological breakthroughs, and the national policy support provides a guarantee for R&D and innovation.	<ul style="list-style-type: none">Risks: Updates to product-related laws and regulations, especially strict requirements for hazardous substance limits and environmental safety regulations, require the timely adaptation and compliance of the Company to avoid compliance issues and regulatory risks.Opportunities: The acceleration of domestic substitution and the development of emerging application fields bring opportunities to local semiconductor discrete device manufacturers. The growth in demand for high-performance devices in the new energy industry and emerging sectors allows the Company to enhance competitiveness and market penetration by strengthening R&D and product layout.
	Short term <input checked="" type="checkbox"/>	Short term <input checked="" type="checkbox"/>
	Mid term <input checked="" type="checkbox"/>	Mid term <input checked="" type="checkbox"/>
	Long term <input checked="" type="checkbox"/>	Long term <input checked="" type="checkbox"/>
Value Chain Link Impacted by Risk and/or Opportunity	Upstream <input type="checkbox"/>	Upstream <input type="checkbox"/>
	Operations <input checked="" type="checkbox"/>	Operations <input checked="" type="checkbox"/>
	Downstream <input type="checkbox"/>	Downstream <input type="checkbox"/>

Risks and Opportunities for Topics with Financial Materiality (2/5)		
Material Topics	Protection of Customers' Rights and Interests	Sustainable Development Governance Mechanism
Type of Risk/Opportunity	Risk	Opportunities
Impact of Risks and/or Opportunities	<ul style="list-style-type: none">Low-level customer service and insufficient consumer satisfaction affect the Company's brand image and result in a loss of customers.	<ul style="list-style-type: none">By establishing an international ESG governance framework where the Board of Directors acts as the highest decision-making body, the Company can meet regulatory requirements, avoid trade barriers, attract ESG-preferred capital, reduce financing costs, enhance customer loyalty, and penetrate high-end supply chains.
	Short term <input checked="" type="checkbox"/>	Short term <input checked="" type="checkbox"/>
	Mid term <input checked="" type="checkbox"/>	Mid term <input checked="" type="checkbox"/>
	Long term <input checked="" type="checkbox"/>	Long term <input checked="" type="checkbox"/>
Value Chain Link Impacted by Risk and/or Opportunity	Upstream <input type="checkbox"/>	Upstream <input checked="" type="checkbox"/>
	Operations <input type="checkbox"/>	Operations <input checked="" type="checkbox"/>
	Downstream <input checked="" type="checkbox"/>	Downstream <input type="checkbox"/>

Risks and Opportunities of Topics with Financial Materiality (3/5)		
Material Topics	Protection of Shareholders' Rights and Interests	Response to Climate Change
Type of Risk/Opportunity	Opportunities	Opportunities
Impact of Risks and/or Opportunities	<ul style="list-style-type: none">Through the optimization of dividend policies and the improvement of information disclosure, the Company can boost investor confidence, attract long-term investors, reduce financing costs, enhance valuation premiums, avoid the risk of hostile takeovers, and maintain control stability.	<ul style="list-style-type: none">The continuous iteration of emerging materials such as SiC, GaN and integrated substrates helps the Company leverage low-energy consumption processes to enhance product performance and lead the market.
	Short term <input checked="" type="checkbox"/>	Short term <input type="checkbox"/>
	Mid term <input checked="" type="checkbox"/>	Mid term <input checked="" type="checkbox"/>
	Long term <input checked="" type="checkbox"/>	Long term <input checked="" type="checkbox"/>
Value Chain Link Impacted by Risk and/or Opportunity	Upstream <input type="checkbox"/>	Upstream <input type="checkbox"/>
	Operations <input checked="" type="checkbox"/>	Operations <input checked="" type="checkbox"/>
	Downstream <input type="checkbox"/>	Downstream <input type="checkbox"/>

Risks and Opportunities of Topics with Financial Materiality (4/5)		
Material Topics	Corporate Governance	Sustainable Supply Chain Management
Type of Risk/Opportunity	Opportunities	Risk + Opportunity
Impact of Risks and/or Opportunities	<ul style="list-style-type: none">Based on the governance through the General Meeting of Shareholders, the Board of Directors and the Board of Supervisors and through the digital internal control system, the Company achieves scientific decision-making, grasps the precise R&D direction, reduces investment risks, meets regulatory requirements for domestic and international listings, enhances compliance competitiveness, and attracts international capital.	<ul style="list-style-type: none">Risks: The Company adopts Fabless model to produce self-developed chips, and the outsourced chips mainly come from Infineon and other suppliers. The capacity constraints or supply shortages of major suppliers may result in delayed or insufficient delivery of the Company's products, which will, in turn, affect the business performance of the Company.Opportunities: The Company strengthens supply chain planning, builds a flexible supply chain system, optimizes layout, improves agile response capability, accelerates information construction, strengthens early collaboration and strategic research, promotes competitive procurement, and ensures product delivery. This helps reduce costs, improve efficiency, and enhance market competitiveness.
Impact Duration of Risk and/or Opportunity	Short term <input checked="" type="checkbox"/> Mid term <input checked="" type="checkbox"/> Long term <input checked="" type="checkbox"/>	Short term <input checked="" type="checkbox"/> Mid term <input checked="" type="checkbox"/> Long term <input checked="" type="checkbox"/>
Value Chain Link Impacted by Risk and/or Opportunity	Upstream <input type="checkbox"/> Operations <input checked="" type="checkbox"/> Downstream <input type="checkbox"/>	Upstream <input checked="" type="checkbox"/> Operations <input checked="" type="checkbox"/> Downstream <input checked="" type="checkbox"/>

Risks and Opportunities of Topics with Financial Materiality (5/5)			
Material Topics	Risk Management	Tax Compliance	Data Security and Customer Privacy Protection
Type of Risk/Opportunity	Opportunities	Opportunities	Risk
Impact of Risks and/or Opportunities	<ul style="list-style-type: none">The internal control system established by the Company effectively prevents and controls risks in all aspects of governance and operations, providing strong assurance for the preparation of true and reliable financial statements.	<ul style="list-style-type: none">Through the enhancement of tax risk management, the Company can improve compliance levels, reduce tax costs, strengthen financial soundness, and create favorable conditions for business development.	<ul style="list-style-type: none">Exposure to cyber threats such as hacking, DDoS attacks, viruses or phishing attacks may lead to network interruption and affect production and operations. Additionally, the security vulnerabilities of suppliers or partners may be exploited to indirectly affect the Company's data security and form partner risks
Impact Duration of Risk and/or Opportunity	Short term <input checked="" type="checkbox"/> Mid term <input checked="" type="checkbox"/> Long term <input checked="" type="checkbox"/>	Short term <input checked="" type="checkbox"/> Mid term <input checked="" type="checkbox"/> Long term <input checked="" type="checkbox"/>	Short term <input checked="" type="checkbox"/> Mid term <input checked="" type="checkbox"/> Long term <input type="checkbox"/>
Value Chain Link Impacted by Risk and/or Opportunity	Upstream <input type="checkbox"/> Operations <input checked="" type="checkbox"/> Downstream <input type="checkbox"/>	Upstream <input type="checkbox"/> Operations <input checked="" type="checkbox"/> Downstream <input type="checkbox"/>	Upstream <input checked="" type="checkbox"/> Operations <input checked="" type="checkbox"/> Downstream <input type="checkbox"/>

Sustainable Development Goal and Vision

Keeping pace with the global trend of sustainable development, MACMIC deeply integrates ESG concepts into the Company’s strategy and operations, sets sustainable development goals, and strives for the mission of green development.

Topic	Target	Achievements in 2024
Response to Climate Change	Establishment of a Governance Framework to Address Climate Change	☑
Environmental Compliance Management	Compliance Rate for Control of Characteristic Pollutants: 100%	☑
	Major Environmental Pollution Incidents: 0	☑
R&D and Innovation	Project Compliance Rate: ≥92%	☑
Product Quality and Safety	Customer Satisfaction: ≥90 Points	☑
	Incidents of Excessive Environmentally Hazardous Substances: 0	☑
Supply Chain Security and Sustainable Supply Chain Management	Signing Rate of Environmental Protection Agreement: 100%	☑
	Coverage Rate of Suppliers Providing Test Reports on Hazardous Substances: 100%	☑
	Incoming Material Qualification Rate: 99.5%	☑
Data Security and Customer Privacy Protection	Data Security Incidents: 0	☑

MACMIC creates value for customers and society, actively fulfills social responsibilities, and aligns the development of the Company with the Sustainable Development Goals (SDGs) 2030 of the United Nations. We have established a comprehensive ESG management philosophy and set ESG development goals that are in line with our actual needs, to comprehensively promote ESG development.



INNOVATION LEADERSHIP: LEADING THE FUTURE OF CHIP SCIENCE AND TECHNOLOGY

Key ESG Issues Covered in This Chapter

- Product Quality and Safety
- Protection of Customers' Rights and Interests
- R&D and Innovation
- Supply Chain Security and Sustainable Supply Chain Management
- Opportunities in Clean Technologies

SDGs Responded
in This Chapter



Opportunities in Product Innovation

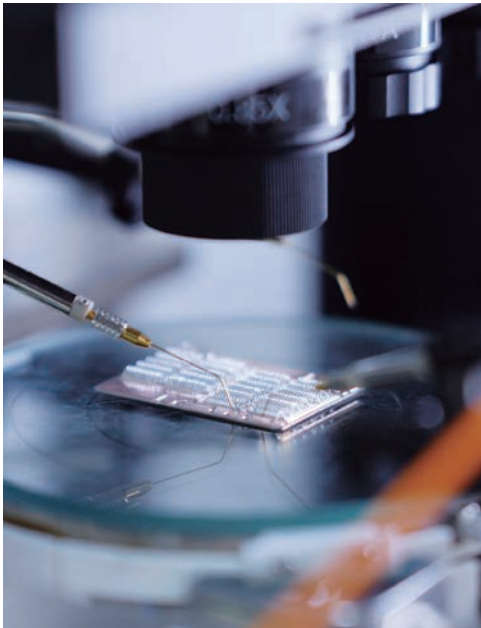
With the advancement of the “carbon neutrality” strategy, the power semiconductor industry ushered in opportunities brought by the new energy revolution and intelligent upgrading. The demand for efficient and reliable devices such as IGBT and SiC is surging in fields such as electric vehicles, photovoltaics/wind power, and industrial automation. MACMIC has the capability to independently develop mainstream IGBT and FRD chips. All of our single devices adopt self-developed chips, while most of our module products use self-developed chips, with some using externally sourced chips. Our products are widely used in fields such as industrial control, new energy power generation, electric vehicles, and household appliances, and their performance and technology are at the advanced level of the industry. With our technological advantages, we empower customers’ sustainable development, expand green applications, accelerate domestic substitution, and contribute to the independence and controllability of China’s power semiconductor industry.

Empowerment for Customers’ Sustainable Development

With core technologies in power semiconductors, MACMIC provides efficient, reliable, and safe products and solutions that help customers achieve sustainable development, enhance energy utilization efficiency, optimize product quality, and improve system safety.

Contribution to Energy Conservation and Emission Reduction

Against the backdrop of global green development, the industrial control sector is under immense pressure to reduce emissions. As a power semiconductor device manufacturer, the Company, through technological innovation and product upgrades, provides efficient energy-saving solutions and supports the achievement of green production and emission reduction goals. As core components for motor frequency control and speed regulation, IGBT devices improve motor efficiency, reduce energy losses, achieve significant energy-saving and emission reduction effects, and provide key power for the green upgrading of the manufacturing industry.



Full-Process Quality Management and Assurance

With product quality and safety as the core, MACMIC establishes a full lifecycle management system. In the R&D process, the Company adopts a “pre-research—pilot test—mass production” three-level incubation mechanism. This enables the Company to integrate resources in the Yangtze River Delta through the Shanghai MACMIC Aisai R&D Center and focus on the development of third-generation semiconductor materials as well as high-voltage and high-current products. All of our products undergo rigorous reliability testing, e.g., the automotive-grade 750V M7i+EDT3 chip has been certified by leading electric vehicle companies. In the production process, the Company implements a “sales-driven production” mode in combination with automated production lines and Lean 6Sigma management. In 2024, the yield rate of IGBT modules improved by 2%. In terms of the supply chain, we strictly screen foundry and packaging partners to ensure that raw materials and foundry links comply with international safety standards. We also carry out cooperative improvement and special counseling, and forge deep and strategic partnerships

with industry-leading clients. We verify product safety performance with actual application scenarios, and drive quality improvement with the most stringent customer standards as the baseline. As of the end of the Reporting Period, the Company has obtained a total of 133 patents (including 43 invention patents) in key areas such as chip design and packaging process, and provided intellectual property protection for product safety. In the future, MACMIC will continue to increase R&D investment and deepen global certification, to ensure the sustainable development of green energy and intelligent manufacturing.

Enhancement of Product Quality and Safety

Regarding product quality as a lifeline, MACMIC builds a full-process quality management system, to ensure product consistency, stability and reliability and reduce quality cost and resource waste. With a focus on technological breakthroughs, the Company aligns product performance with internationally leading standards, guarantees the safety of terminal applications, significantly improves the average trouble-free time of customer equipment, and reduces maintenance costs and equipment replacement frequency. For example, in the field of industrial automation, the stability and consistency of IGBT modules guarantee stable system operation and reduce the risk of downtime. In the field of wind energy storage applications, our highly reliable packaging technology reduces system failure, helps customers prolong product lifecycle, reduces e-waste, and assists customers in meeting the requirements of applicable regulations such as the *Directive of Eco-design Requirements of Energy-using Products (ErP)* of the European Union.

Expansion of Green Applications

In the wave of global energy structure transformation, MACMIC actively deploys in two key areas: new energy power generation and electric vehicles. With advanced power semiconductor technology, the Company provides efficient and reliable green energy solutions to customers. Our core products, including IGBT and SiC, are widely used in photovoltaic, wind power, electric vehicles, and charging infrastructure, and they help industries reduce carbon emissions and accelerate the process of sustainable development. During the Reporting Period, the installed capacity of our products in the new energy field brought environmental benefits equivalent to planting 456,000 hectares of trees (approximately 1.14 billion trees)*, which demonstrated our commitment to social responsibility.

Heart of Electric Vehicle

The series products of MACMIC, such as GV, GVB, GVC, GVD, and GWE, are applied in the electric vehicle sector and directly determine the core power indicators of each entire vehicle, and they are referred to as the “heart” of electric vehicles. The electric drive using IGBT as the power device can effectively reduce carbon emissions while improving the overall efficiency of the system.

*Note: The emission reduction from product applications in the fields of photovoltaics and electric vehicles was calculated based on the shipment and installation of IGBT power semiconductor devices in 2024. In particular, the emission reduction in the the field of photovoltaics is estimated at the carbon emissions reduced by the annual power generation, and the emission reduction in the field of electric vehicles estimated based on the amount of gasoline reduced per vehicle after installation.

Case Study: Two IGBT Modules for Automotive 800V Platforms and Extended Range Hybrid Vehicles

During the Reporting Period, MACMIC launched two new products: MMG600V120X6RS (compatible with 800V electric drive controllers for vehicles) and MMG280VD075X6T7 (compatible with 1.5L range extender 70kW GCU). Both adopt MACMIC's GV and GVD packages, and have advantages such as low loss and high efficiency. The MMG600V120X6RS outputs a current of 380-420 Arms, and can significantly enhance the charging speed and driving capability of electric vehicles. The MMG280-VD075X6T7 features small size, high vibration resistance, and excellent adaptability. Both products bring better experience, higher economic benefits, and stronger reliability to customers.



MMG600V120X6RS

Competitive Advantages:

- Optimized design, and increased PC cycles
- Lower turn-on voltage trailing time, and significant reduction in turn-on losses
- Reduced turn-off current trailing time and significant reduction in turn-off losses



MMG280VD075X6T7

Competitive Advantages:

- Optimized design, and increased PC cycles
- High vibration test standard, and compliance with requirements for 18g random vibration as stated in AQG-324
- Lower turn-on voltage trailing time, and significant reduction in turn-on losses
- Reduced turn-off current trailing time and significant reduction in turn-off losses

Changzhou Core Energy Semiconductor Co., Ltd., a subsidiary of the Company, focuses on plastic encapsulated modules, deeply integrates the layout of both double-sided and single-sided cooled plastic-packaged modules, and expands the Company's product model range and applications in fields like electric vehicles.

Case Study: Core Energy Successfully Produced the 1 Millionth Automotive-Grade Double-Sided Cooling Plastic-Packaged Module

On December 19, 2024, the production line of Core Energy successfully produced the 1 millionth automotive-grade double-sided cooling plastic-packaged module, which made it the second semiconductor company in China to mass-produce such modules. The module, which adopts double-sided welding and cooling technology, is compatible with IGBT and SiC MOSFET chips, with parasitic inductance as low as 6-8nH, and thermal resistance down by about 30% when compared to traditional single-sided water cooling. It has passed all module-level and system-level reliability certifications, as well as stringent power cycle tests under the condition of $\Delta T_j=115^{\circ}\text{C}$ for 50,000 cycles, thus meeting the market demand for motor controllers under 200kW.



Focus on the R&D of Third-Generation Semiconductors

The third-generation semiconductors represented by SiC and GaN are reshaping the industry landscape. With high voltage tolerance and high-temperature resistance, SiC is accelerating its penetration in electric vehicle 800V platforms, energy storage converters, and power supplies. For Si-based devices in electric vehicles and new energy generation fields, MACMIC has increased R&D investment, and focused on the design, development, and application expansion of SiC and GaN in the field of power semiconductor devices. During the Reporting Period, the 1200V SiC MOSFET chip and SBD chip developed by the Company passed client validation, and the automotive-grade 1200V SiC self-developed module passed reliability verification. In the future, the Company will continue to increase R&D investment in third-generation semiconductors like SiC/GaN, expand more green application scenarios, and work with global partners to drive the energy revolution and shape a sustainable future.

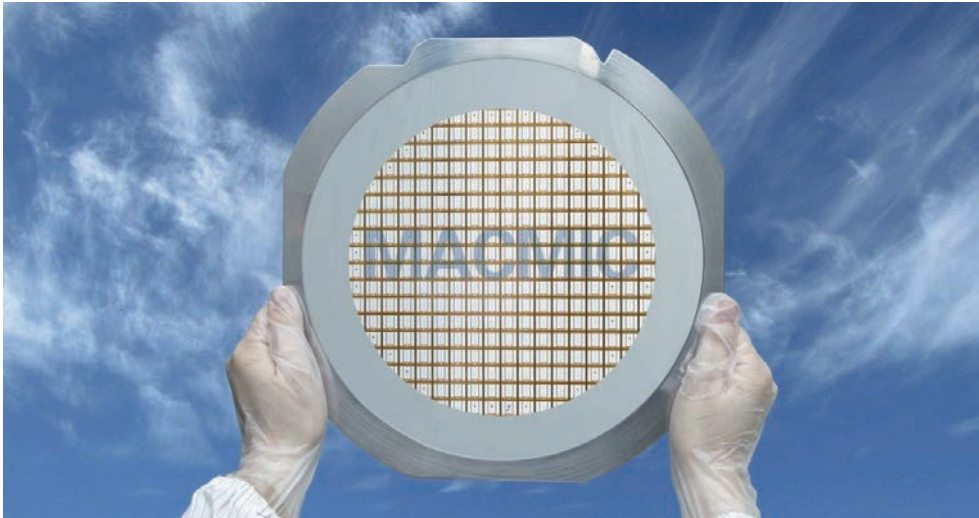
Acceleration of Domestic Substitution

Technological Advantages

After years of technological accumulation, MACMIC has made breakthroughs in multiple core technologies in the design, packaging, and testing of power semiconductor chips and modules such as IGBT and FRD. In the field of chips, the Company has mastered IGBT chip design technologies such as micro-fine groove gates, multi-layer field-blocking layers, virtual cells, and reverse conduction integrated structures, as well as FRD chip technologies like soft recovery structures and non-uniform minority lifetime control, along with high-voltage MOSFET technologies for high-reliability terminal design. In module packaging, the Company possesses technologies such as low distribution-coefficient wiring, silver sintering, terminal ultrasonic bonding, and double-sided cooling plastic-packaging. These technological breakthroughs not only fill domestic gaps and break foreign monopolies, but also provide solid support for domestic substitution. In the future, MACMIC will continue to strengthen core technological barriers, promote the widespread application of localized power semiconductor devices, and assist China's semiconductor industry in achieving independent and controllable development.

Increase in the Proportion of Self-Developed Chips

MACMIC is gradually increasing the proportion of self-developed chips and accelerating domestic substitution. For the IGBT and FRD series chips and modules, the Company masters core process technologies, has mass production capability, and can gradually achieve the substitution of imported chips according to the market demand for "domestic substitution". As of the end of the Reporting Period, all of our FRD-chip single devices and modules, high-voltage MOSFET single devices, as well as IGBT chips and single devices, adopt self-developed chips, while most of our IGBT modules use self-developed chips, with some using externally sourced chips.



Enhancement of Cooperation with Domestic Manufacturers

MACMIC, with a Fabless business mode, is the first to achieve the industrialization of IGBT chips in China, and actively collaborates with domestic foundries to ensure the independence and controllability of the chip manufacturing process. During the Reporting Period, the Company deepened the cooperation with industry chain partners such as HHGRACE, and made a breakthrough in 12-inch wafer mass production technology. Through innovations in groove gate field-blocking structures, ultra-micro groove technology, and other process advancements, the Company has propelled the performance of IGBT and other products to align with international advanced standards.

MACMIC Deepened Strategic Cooperation with HHGRACE



On January 9, 2025, MACMIC attended the celebration for the shipment of 1,000,000 12-inch platforms organized by Shanghai Huahong Grace Semiconductor Manufacturing Corporation (hereinafter referred to as "HHGRACE"). Through joint development and mass production, both parties have established close cooperation. MACMIC was awarded the 2024 Outstanding Contribution Award by HHGRACE, which highlighted the achievements of the cooperation between the two parties. On January 22, 2025, the Company officially signed a five-year Memorandum of Understanding on Strategic Cooperation with HHGRACE, which further consolidated the strategic partnership of win-win cooperation and sustainable development between the two parties and laid a solid foundation for future win-win cooperation and sustainable development.



Promotion of Industry Development

MACMIC values industry communication and interaction, and actively participates in the construction of national and industry standards. The Company joins multiple industry associations, deeply engages in exchange activities, interacts with peers through platforms such as industry exhibitions, and enhances its influence and competitiveness in the industry.

Participation in Domestic and International Industry Exchange Activities

MACMIC actively participates in domestic and international industry summits and exhibitions, showcasing a diverse range of products and multi-scenario solutions. This significantly promotes industry development, deepens cooperation with all parties, and further realizes mutual discussion, co-construction, sharing, and win-win cooperation in the industry.

Case Study: MACMIC at PCIM Europe 2024



On June 11 to 13, 2024, PCIM Europe, the world's top power semiconductor exhibition, was held in Nuremberg, Germany. At the exhibition, MACMIC showcased its full industry chain products and solutions, and displayed the latest achievements in automotive-grade, SiC and photovoltaic storage power devices, which attracted numerous customers worldwide.

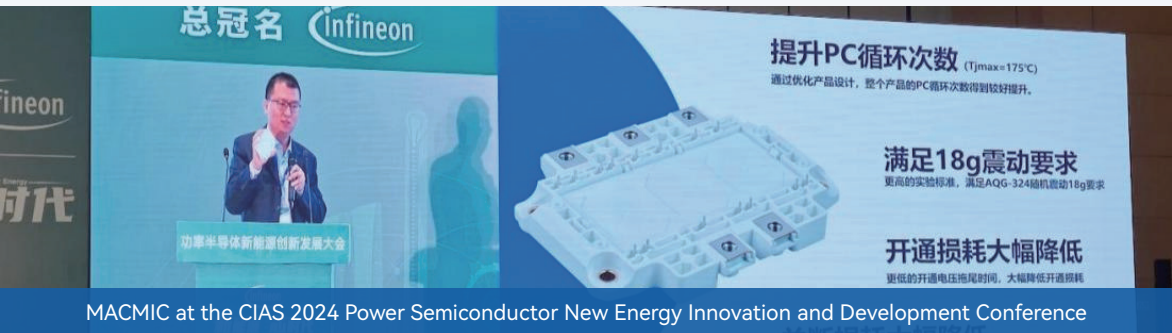


MACMIC at PCIM Europe 2024

Case Study: MACMIC at the CIAS 2024 Power Semiconductor New Energy Innovation and Development Conference



In April 2024, the CIAS 2024 Power Semiconductor New Energy Innovation and Development Conference themed "New Energy, the Era of Chips" was successfully held in Suzhou, China. At the conference, MACMIC gave a keynote speech, and received the "CIAS 2024 Most Innovative Product Award" at the Golden Plume Award Ceremony.



MACMIC at the CIAS 2024 Power Semiconductor New Energy Innovation and Development Conference

Case Study: MACMIC at PCIM Asia 2024



In August 2024, PCIM Asia 2024 concluded successfully in Shenzhen, China. MACMIC set up three exhibition areas of "Electric Vehicles", "Photovoltaic Energy Storage" and "Industrial Control" for the display of innovative products across the entire industry chain, and made eight technical presentations to share the latest products and application solutions.



MACMIC at PCIM Asia 2024

Enhancement of Industry-University-Research Cooperation

Since 2023, MACMIC has been methodically developing university-enterprise cooperation with three 985 universities, two 211 universities and one well-known university in its specialized field by setting specific targets and establishing R&D projects. Adhering to the mission of "enhancing power efficiency and improving power quality", the Company shoulders social responsibility, and conducts research in the power semiconductor field with universities, and contributes to the construction of a green and low-carbon life. The university-enterprise research has achieved certain results, and given full play to the role of mutual involvement, complementary advantages, mutual resource utilization, and benefit sharing. This cooperation will cultivate high-quality and high-skill professionals who meet the real development needs of the Company, and further promote the high-quality development of MACMIC.

Participation in Standard Formulation

Leveraging R&D and technical advantages, MACMIC actively participates in the formulation of national and group standards, exerts influence in the field of industry development and innovation, and promotes industry consensus and cooperation.



Leadership or Participation of MACMIC in the Formulation of National Standards			
Standard Name	Standard Number	Type of Standard	Implementation
Semiconductor Devices – Discrete Devices – Part 9: Insulated Gate Bipolar Transistors (IGBT)	GB/T 29332-2012	National Standard	Valid
Uninterruptible Power Systems (UPS) – Part 5-3: DC Output UPS – Performance and Test Requirements	GB/T 7260.503-2020	National Standard	Valid
Bi-directional Grid-Connected Power Converters – Part 1: General Requirements	GB/T 39572.1-2020	National Standard	Valid
Heat Sinks for Power Semiconductor Devices – Part 1: Radiators	GB/T 8446.1-2022	National Standard	Valid
Heat Sinks for Power Semiconductor Devices – Part 2: Measuring Methods of Thermal Resistance and Input-Output Fluid Pressure Difference	GB/T 8446.2-2022	National Standard	Valid
Heat Sinks for Power Semiconductor Devices – Part 3: Insulators and Fasteners	GB/T 8446.3-2022	National Standard	Valid
Uninterruptible Power Systems (UPS) – Part 1: Safety Requirements	GB/T 7260.1-2023/IEC 62040-1:2022	National Standard	Valid
Uninterruptible Power Systems (UPS) – Part 3: Methods of Specifying the Performance and Test Requirements	GB/T 7260.3-2024	National Standard	Valid
Semiconductor Devices – Discrete Devices – Part 15: Isolated Power Semiconductor Devices	20201543-T-339	National Standard	Pending approval

Support for the Development of Industry Associations

The Company actively participates in exchanges and interactions within the industry, and is committed to strengthening information sharing and resource integration among the same industry to jointly promote the healthy development of the industry.

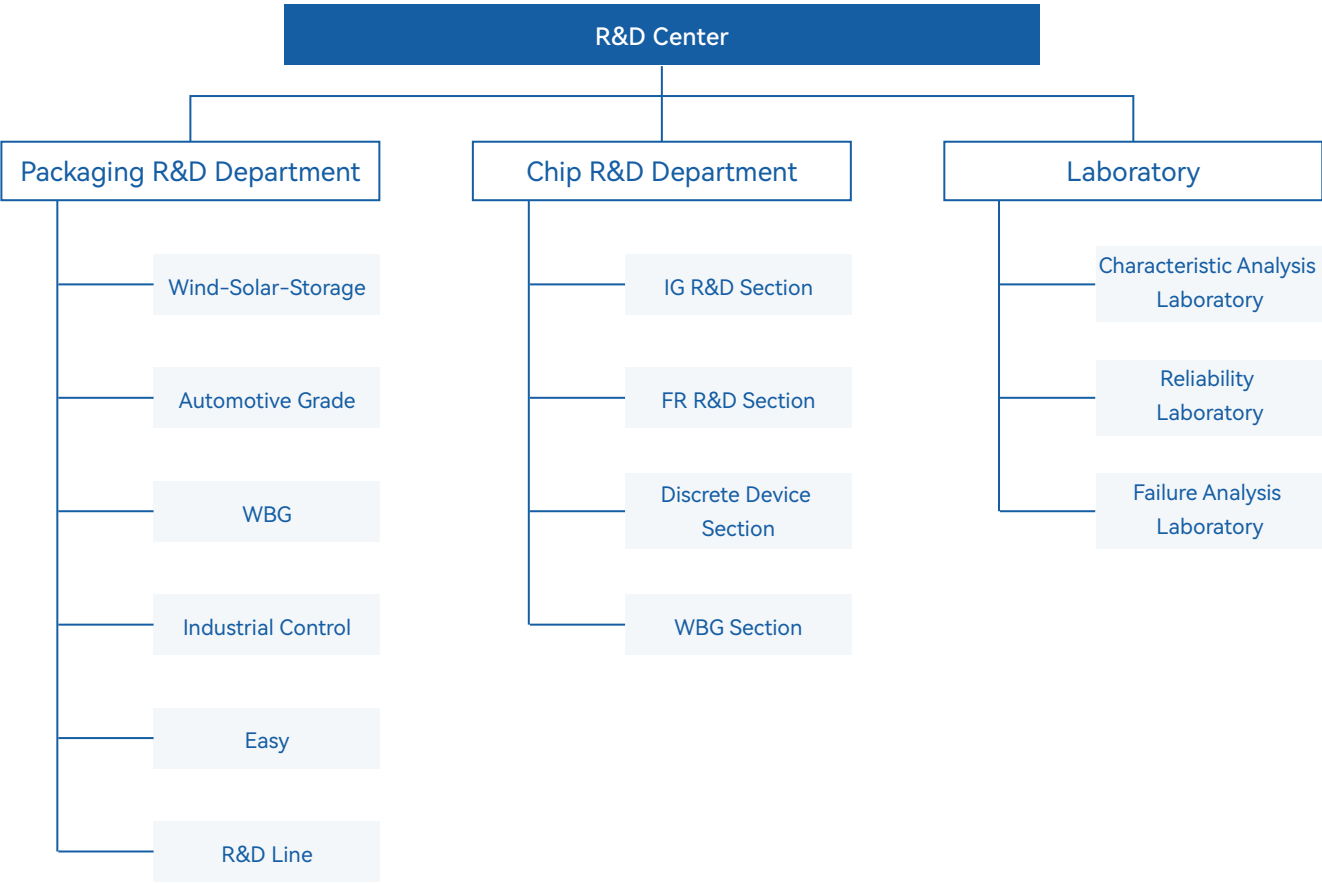
Association	Roles
China Power Supply Society	Director
Changzhou Semiconductor Industry Association	Vice Chairman
China Advanced Semiconductor Industry Innovation Alliance	Vice Chairman
Changzhou Overseas Chinese Entrepreneurs Association	Vice President
Xinbei District Federation of Industry and Commerce	Vice President
Element, Component and Device Committee of China Power Supply Society	Secretariat
China Semiconductor Industry Association (CSIA)	Member
China Electronics Energy Saving Technology Association	Member
Jiangsu Semiconductor Industry Association	Member
Jiangsu Power Supply Society	Member
Jiangsu Enterprise Informatization Association	Member
Power Semiconductor Industry Alliance	Member

R&D and Innovation

R&D Management System

Adhering to the R&D philosophy of “focusing on demand, giving value, and accomplishing brand”, MACMIC has formulated R&D process control documents such as the *Management Measures for Project Initiation*, the *Advanced Product Quality Planning and Control Procedure*, and the *Design and Development Control Procedure*. The R&D process mainly includes five stages: project initiation, product design and development, process design and development, trial production, and mass production. Each R&D project is undertaken by the Advanced Product Quality Planning (APQP) Team, and each stage is reviewed by a dedicated review committee.

The R&D Center of the Company consists of the Packaging R&D Department, the Chip R&D Department, and the Laboratory. The Packaging R&D Department focuses on the development of new products and processes for power modules, the Chip R&D Department is responsible for the structure and process design of discrete devices, and the Laboratory provides testing and analysis support for the R&D process. To ensure the accuracy and reliability of product design and development, every new product development needs to be verified by computer simulation. Through the simulation and analysis of the thermal-electrical-force multi-physical fields of new products, we extract key characteristic parameters, identify potential problems in advance, and optimize product design.

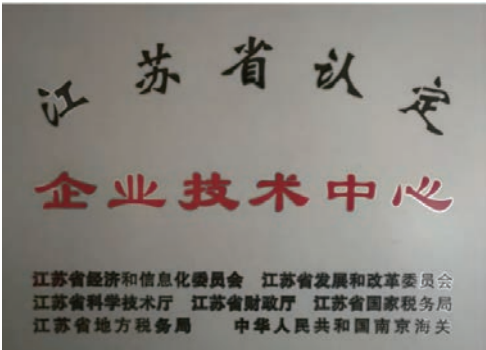


Organizational Chart of R&D Center

Construction of Technological Innovation Platform

With excellent innovative strength and technological advantages, MACMIC has won a number of authoritative certifications that demonstrate its leading position in the industry, including High-tech Enterprise, National High-tech Industrialization Demonstration Project, National “Little Giant” Specialized and Sophisticated Enterprise that Produces Novel and Unique Products, National Intellectual Property Advantage Enterprise, and Jiangsu Innovation-leading Enterprise. Our research achievements have won numerous honors, and the Laboratory has passed CNAS certification, with its strength widely recognized.

Category	R&D Organization Qualification	Awarding Authority
Provincial Level	Jiangsu Engineering Research Center for New Type of Power Semiconductor Devices	Jiangsu Provincial Department of Science and Technology
	Enterprise Certification Technology Center of Jiangsu Province	Jiangsu Provincial Commission of Economy and Information Technology, Jiangsu Development and Reform Commission, Jiangsu Provincial Department of Science and Technology, etc.
	New Power Semiconductor Device Engineering Research Center of Jiangsu Province	Jiangsu Development and Reform Commission
	Postdoctoral Research Station	National Postdoctoral Management Committee, Ministry of Human Resources and Social Securit
Municipal Level	Changzhou Industrial Design Center	Changzhou Bureau of Industry and Information Technology



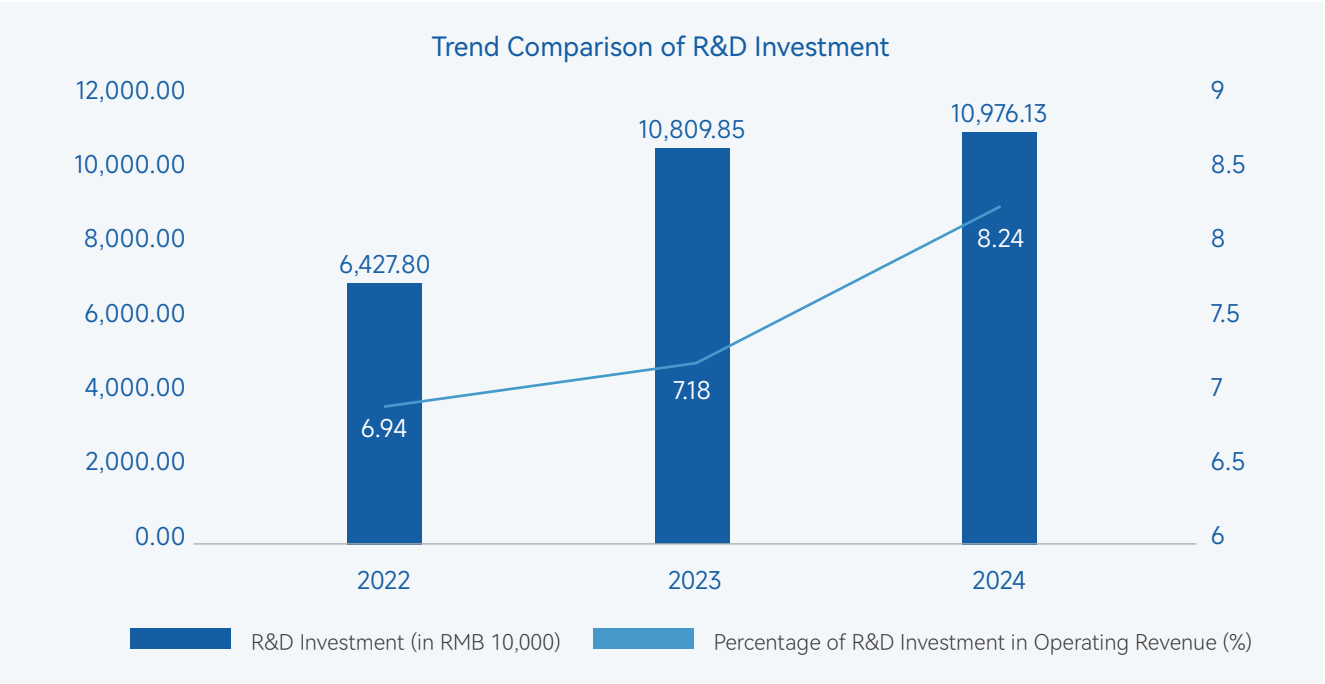
Enterprise Certification Technology Center of Jiangsu Province



Jiangsu Engineering Research Center for New Type of Power Semiconductor Devices

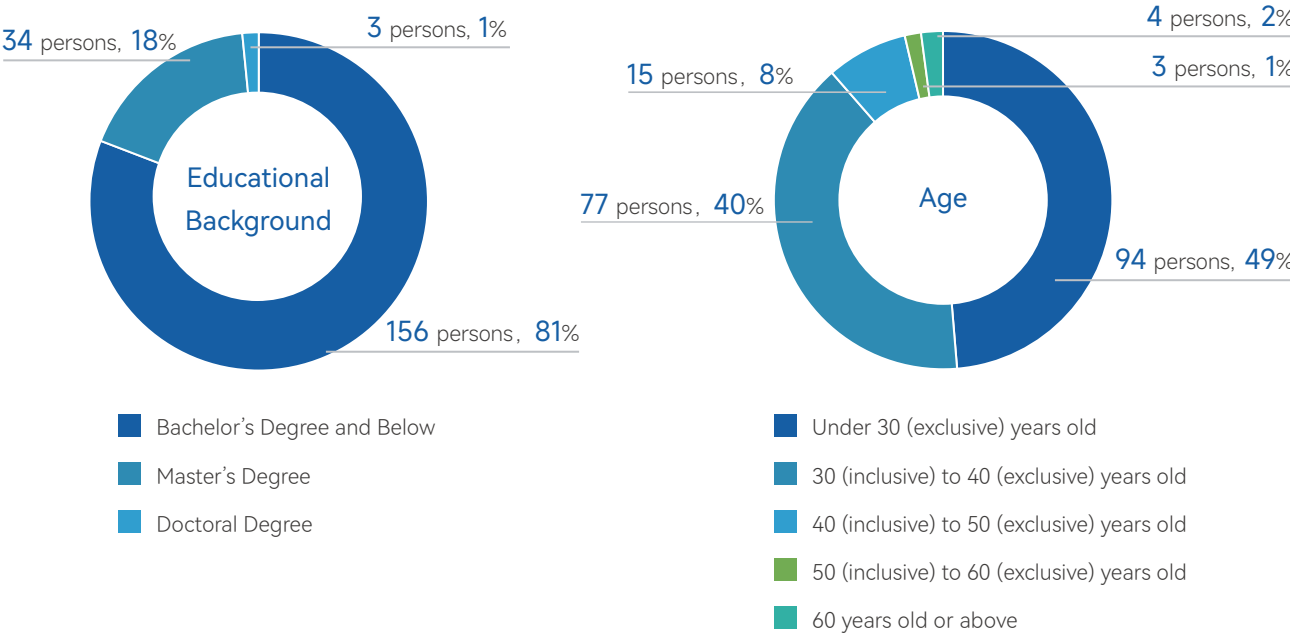
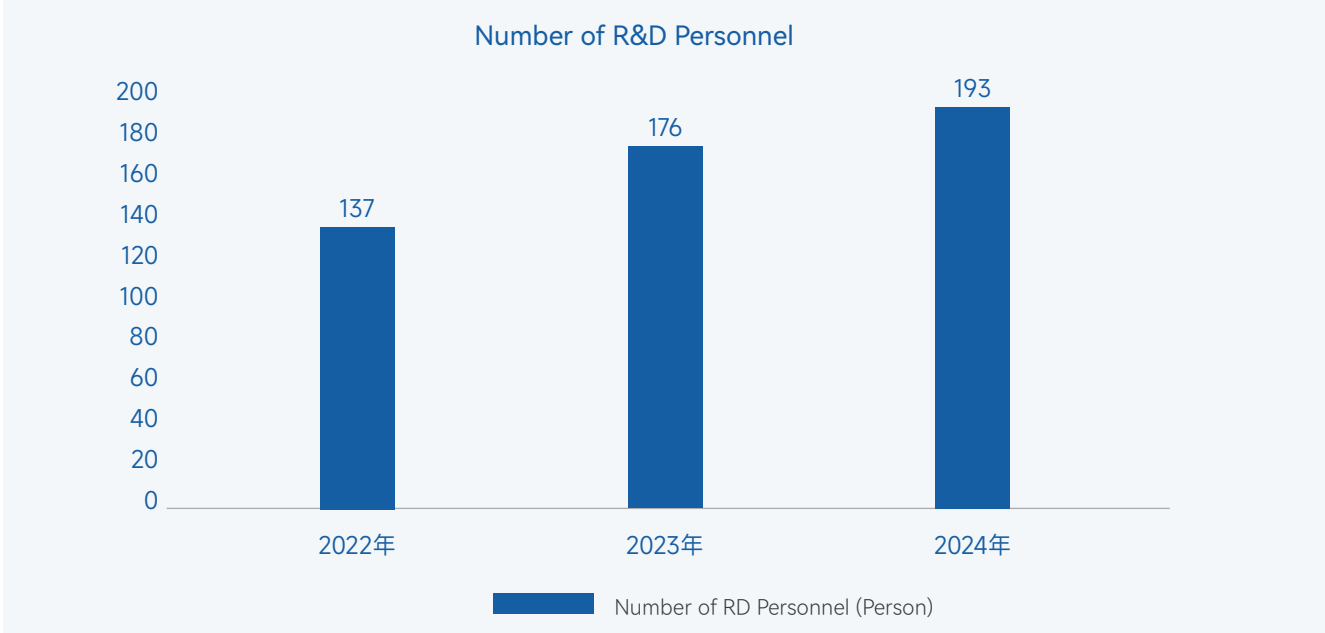


Laboratories Accredited by CNAS



Building of R&D Team

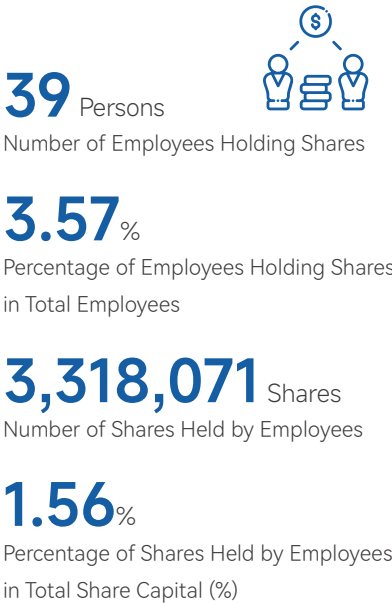
The core members of MACMIC’s R&D Team are senior technical talents with more than 20 years of rich experience in the power electronics device industry. They have participated in national technological breakthroughs of IGBT chips and modules in “Eighth Five-Year”, “Ninth Five-Year”, “Eleventh Five-Year”, and “Twelfth Five-Year” periods, and served as members of the National Technical Committee on Semiconductor Device of Standardization Administration of China, and formulated multiple national technical standards. In addition, they also have rich experience in the design and production of semiconductor devices. The R&D Team of the Company was awarded the title of “Key Overseas Chinese Entrepreneurial Team” by the Overseas Chinese Affairs Office of the State Council.



Talent Incentive Mechanism

To retain core talents, the Company implements an equity incentive plan. On June 20, 2022, the Company planned to grant 1,765,600 restricted shares (accounting for 1.28% of the total share capital) to 130 core employees, at a price of 30.06 yuan per share. Among these, 1,412,500 shares (80%) were granted initially, and 353,100 shares were reserved. Performance assessment indicators are: the operating income in 2022/2023/2024 should increase by no less than 37%/81%/172% over that of 2021.

The Company established Hongzhong Consulting as a platform for employee shareholding. As of the end of the Reporting Period, a total of 39 employees held 3,318,071 shares of the Company, accounting for 1.56% of the total share capital. During the Reporting Period, the Company implemented two share repurchase plans, and repurchased shares were used for equity incentives or employee stock ownership plans and convertible bond conversions. In particular, the first repurchase amounted to RMB 25,496,200 and the second repurchase amounted to RMB 16,379,100, which demonstrated the Company's firm confidence in future development. Meanwhile, in 2024, the Company issued project incentive funds of RMB 1,422,800 and incentivized 322 employees to strengthen the performance assessment and incentive management for R&D personnel.



*Note: The above number of shares held by employees refers only to the shares indirectly held by the employees through the employee stock ownership platform, i.e., Changzhou Hongzhong Consulting Management Partnership (Limited Partnership).



Development of Honor Incentive System

The Company actively explores the innovation recognition mechanism, and provides a stage for displaying and motivating the innovation achievements of employees by building a recognition platform.

Case Study: 2024 Annual Technical Engineer Conference



On April 27, 2024, MACMIC held its annual Technical Engineer Conference at the Lecture Hall of Hongguang Building. The conference consisted of two parts: a keynote presentation in the first half and a recognition ceremony in the second half. A total of 15 outstanding engineers were recognized, including champions for challenge tackling, technological innovation, process optimization and application service. This event promoted an engineer culture and stimulated innovation enthusiasm.

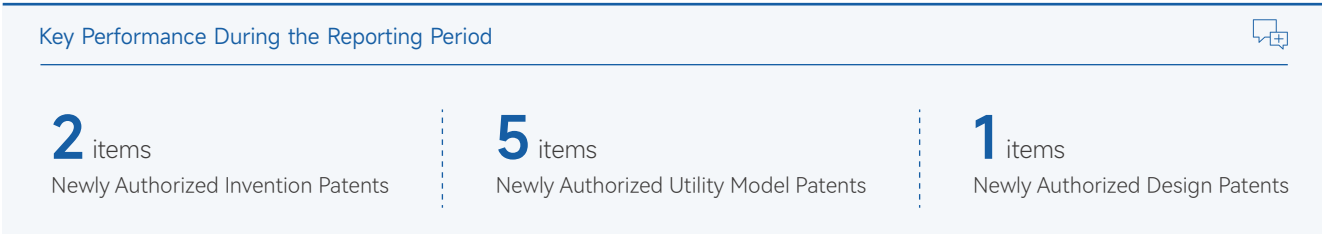


2024 Annual Technical Engineer Conference

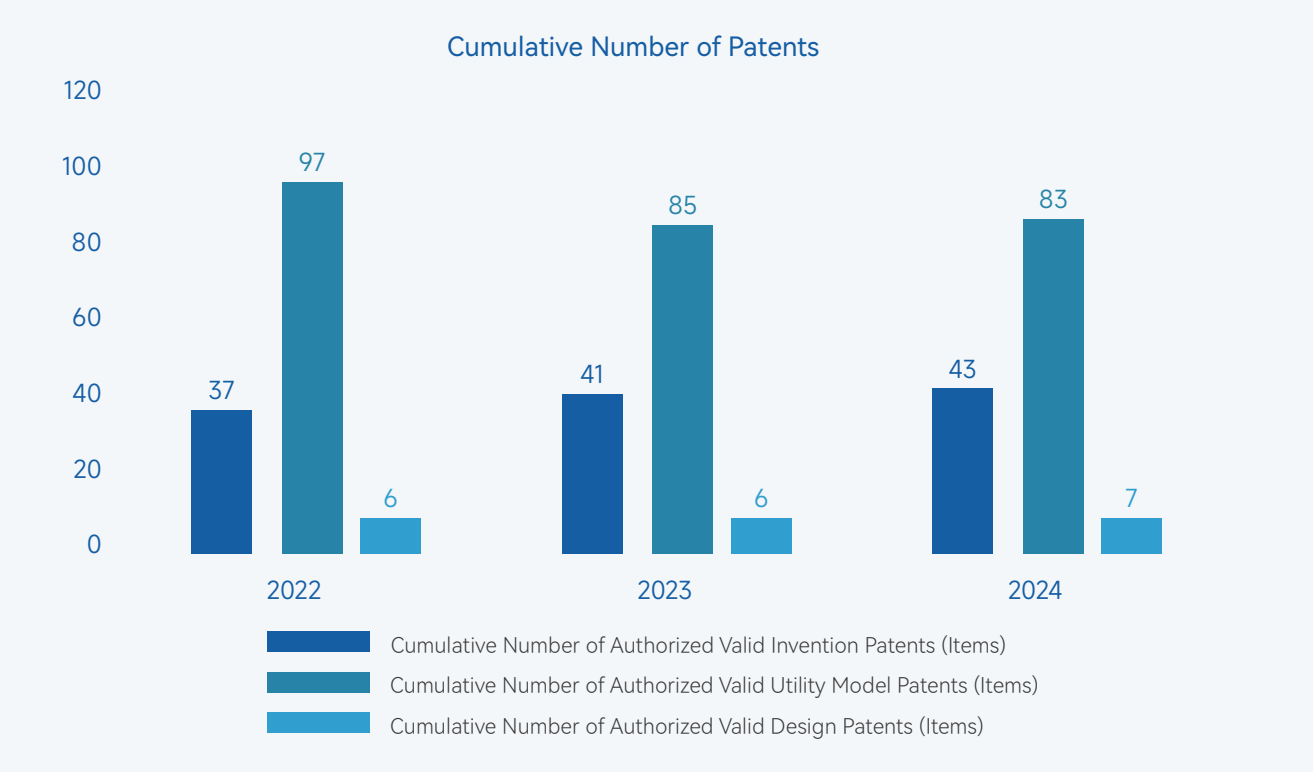
Innovation Achievements and Scientific Research Projects

In terms of innovation achievements, MACMIC makes remarkable scientific and technological innovations. As of the end of the Reporting Period, the Company had obtained 43 invention patents, 83 utility model patents, and 7 design patents.

Regarding major scientific research projects, the Company participated in the “High-efficiency IGBT and SiC Diode Hybrid Packaging Technology for Photovoltaic Inverters” project of Jiangsu Province and the “Key Technology Research on Integrated Manufacturing of Smart Power Modules Based on Silicon Carbide-based Chips” project under the Plan 863 of the Ministry of Science and Technology, and undertook the industrialization production task for SiC modules.



Honors for MACMIC's Innovation Achievements in Recent Years		
Award-winning Projects	Honor Name	Awarding Authority
R&D Project of Localized New RC IGBT Chips and Discrete Devices	Second Prize of 2018 Changzhou Innovation and Entrepreneurship Competition	Changzhou Innovation and Entrepreneurship Competition Organizing Committee Office
Development and Industrialization of a Novel NPT IGBT Chip and Module	First Prize of the Science and Technology Award of China Power Supply Society in 2015	China Power Supply Society
Industrialization of High-Voltage, High-Current and High-Performance IGBT Chips and Modules	Third Prize of 2014 Jiangsu Provincial Science and Technology Award	Jiangsu Provincial People's Government
A New NPT IGBT Structure	2014 China Semiconductor Innovative Product and Technology Awards	China Semiconductor Industry Association, etc.
40-100A/1200V IGBT Chips and Modules	2014 National Key New Product Certificate	Ministry of Science and Technology of the People's Republic of China, etc.
Development and Industrialization of 1200V-1700V IGBT Chips and Modules	First Prize of 2012 Changzhou Science and Technology Progress Award	Changzhou Municipal People's Government
Dynamic Energy-saving Lighting Power Supply	Third Prize of 2011 Changzhou Science and Technology Progress Award	Changzhou Municipal People's Government
Ultrafast Soft Recovery Epitaxial Diode Series Products	2011 China Semiconductor Innovative Product and Technology Awards	China Semiconductor Industry Association (CSIA)



Protection of Intellectual Property Rights


The protection of intellectual property rights is an important guarantee for promoting innovation and development. In accordance with the requirements of GB/T29490, MACMIC has established and continuously improved its intellectual property management system, and formulated and strictly implemented a series of management systems, such as the *Intellectual Property Risk Management Control Procedure*, the *Patent Management System*, the *Trademark Management System*, the *Confidentiality Management System* and the *Risk Prevention Plan*.

The Company has set up an Intellectual Property Leading Group, which consists of General Manager, Deputy General Manager, and heads of departments, with the General Manager as the Group Leader. The Intellectual Property Leading Group is the leading body of the intellectual property in the Company and it is responsible for the macro management of the Company’s intellectual property. The Intellectual Property Section of the Project Management Department is responsible for the daily management of intellectual property. In 2022, the Company was recognized as a National Intellectual Property Advantage Enterprise.



Product Quality and Safety

Quality Management System



Quality Policy

Adhering to independent innovation, scientific management, and continuous improvement, committed to providing higher-quality products and services that meet and exceed customer requirements and expectations.

MACMIC is always committed to providing quality products and services, and attaches great importance to product safety and quality control. At the early stage of product development, the Company selects green materials and processes, restricts the use of hazardous substances, and ensures that the entire series of products meets the requirements of RoHS, REACH and other international environmental directives. In addition, the Company has established a scientific management system according to international standards such as ISO 9001 and IATF 16949, and developed and implemented the Quality Manual to ensure that the entire product process is under control. The Company and Core Energy (one subsidiary of the Company) have passed ISO9001:2015 and IATF 16949 certifications, and the Company’s products have also passed UL certification.



» **Internal Audit**

The Company conducts regular product quality management audits annually to further improve and enhance the level of product quality management. We conduct in-depth analysis of issues identified in internal control management, incoming material inspections, and other processes, and promote relevant departments to implement improvements and form a closed-loop quality management system. In 2024, MACMIC conducted 1 internal quality audit.

» **External Audit**

The Company has always been committed to providing high-quality products and services to win the trust of customers. Every year, we invite third-party professional organizations to carry out quality audits and product testing, and obtain many authoritative certifications for our excellent performance.

Key Performance During the Reporting Period

The IGBT module yield rate was improved, increasing from **94.9%** in 2023 to **96.5%** in 2024.

The number of major production process anomalies decreased by **80%** when compared to that of 2023.

The total number of external customer complaints and feedback decreased by **20.9%**.

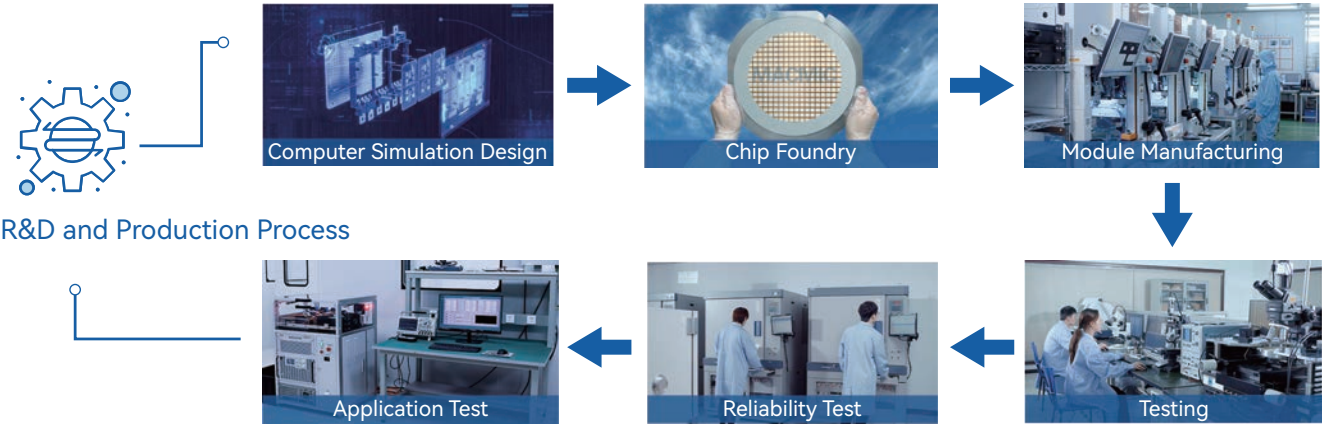
The client-side failure PPM was steadily improved, with the failure rate due to process issues decreasing by **40%** when compared to that of 2023.

The failure rate in key automotive-grade products was improved significantly, dropping by **69.9%** when compared to that of 2023.

Quality Management in R&D and Production Processes

Management Processes

Through a full-process closed-loop quality management system, MACMIC embeds strict quality control mechanisms in the six core stages of R&D and production (computer simulation design, chip foundry, module manufacturing, testing, reliability test, and application test). At the computer simulation design stage, through physical field simulations, the Company performs design optimization to predict failures and detect the best path, which reduces trial and error costs and improves design efficiency. At the chip foundry stage, the Company, in cooperation with leading enterprises worldwide, strictly controls processes and materials, and conducts full inspection of electrical parameters to enhance in-depth process quality management. At the module manufacturing stage, the Company adopts automated production equipment has been adopted to implement SPC (Statistical Process Control) on key parameters to reduce process fluctuations. At the testing stage, the testing scope comprehensively covers static testing, dynamic testing, and automotive-grade reliability certification testing. At the reliability test stage, the Company conducts a comprehensive evaluation of the chip's performance and reliability through environmental stress tests, electrical stress tests, mechanical stress tests, life tests, functional and performance tests, automotive-grade certification tests, as well as failure analysis and improvement feedback loops. At the application test stage, the Company builds platforms for testing by reference to customer application scenarios, optimizes electrical performance indicators, and improves product characteristics and application suitability.



Hardware Equipment

The Laboratory, with an area of 2,200 m², is divided into three core functional areas: reliability test area, performance study area and failure analysis area. The 110 pieces of hardware equipment cover the full-process testing scenarios. With professionalism and compatibility, the equipment in the Laboratory can meet the full-chain technical needs from material performance testing to product failure mechanism analysis, providing solid hardware support for scientific research and production.

Key Performance During the Reporting Period

2,200 m²
Laboratory Area

110 Sets
Hardware Equipment

Testing and Analysis Center

Semiconductor Power Analyzer

Double-Pulse Test Bench

IGBT Short Circuit Test Bench

UIS Tester

Thermal Resistance Test Bench

Surge Current Test Bench

ESD Test Bench

LCD Analyzer

Digital Microscope

Reliability Laboratory



High-Temperature Gate Bias (HTGB) Test Bench



High Temperature Reverse Bias (HTRB) Test Bench



High Temperature and High Humidity (TH) Test Chamber



High Temperature High Humidity Reverse Bias (H*TRB) Test Bench



Power Cycling (PC) Test Bench



Temperature Cycling (TC) Test Chamber



Temperature Shock Tester TST



Intermittent Operational Life (IOL) Test Bench



Vibration Variable Frequency (VVF) Test System

Application Testing Platform



Photovoltaic Testing Platform



Electric Vehicle Testing Platform



Inverter Testing Platform



Switching Power Supply Testing Platform

Improvement of Quality Awareness

MACMIC improves employee quality awareness through the “Quality Month” event, helping the Company realize the goal of “zero defects”. The event features rich and diverse activities, such as publicity, training, QCC, quality solutions, competitions, production line competitions, technical difficulty tackling, quality inspections, supplier empowerment and book-sharing sessions. It creates an atmosphere where everyone focuses on quality and improving the quality management level.

Key Performance During the Reporting Period

2,478 Person-times
Number of Participants in Quality Training

197.5 Hours
Total Hours of Quality Training

46 Times
Number of Quality Training Sessions

Case Study: Training on Quality Tools

MACMIC organized multiple training sessions on quality management. These training sessions covered various commonly used quality tools, aiming to improve employees’ quality awareness and practical abilities. The training included: Advanced Product Quality Planning (APQP), Statistical Process Control (SPC), the 7 QC Tools, Control Plans (CP), Production Part Approval Process (PPAP), Failure Mode and Effect Analysis (FMEA), Quality Control Circles (QCC), and 8D Problem Solving Methods.



First Season of PFMEA Training



2nd Proposal Improvement Review Meeting in 2024



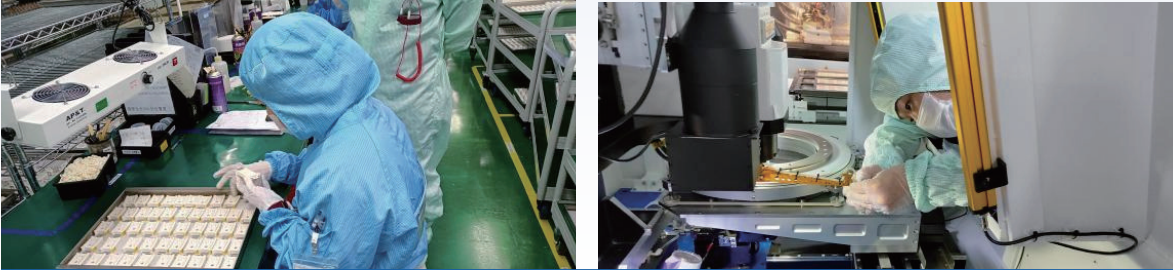
3rd QCC/QIT Presentation



4th QCC Presentation

Case Study: Case Study: Skills Competition

The skills competition involves 9 positions, and covers competition items such as quantitative identification of defects, work speed and quality, and point inspection effectiveness. Nearly 100 employees participated in the competition, which improved employees' skill levels and better served quality production and quality inspection.



Skills Competition

HSF Management

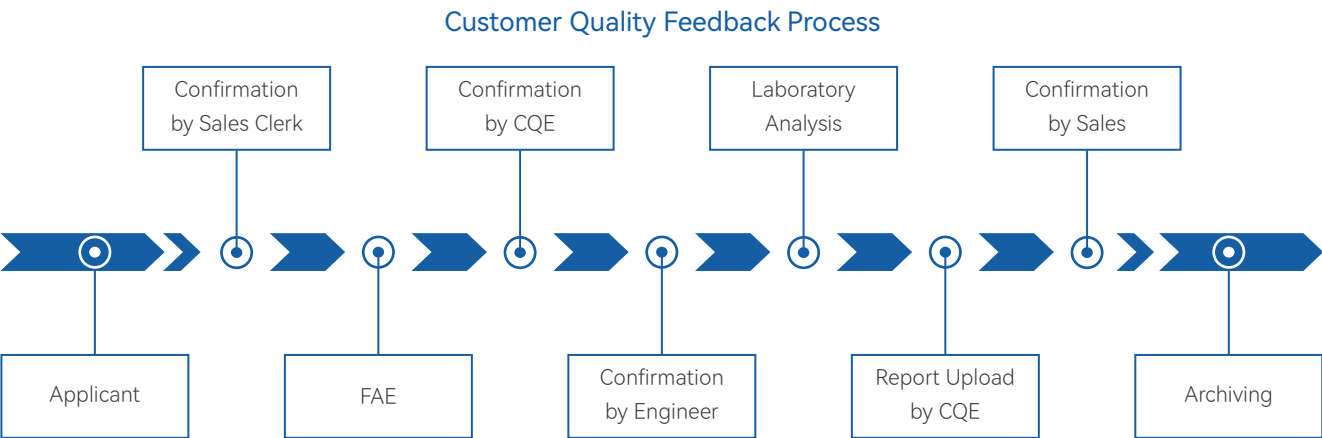
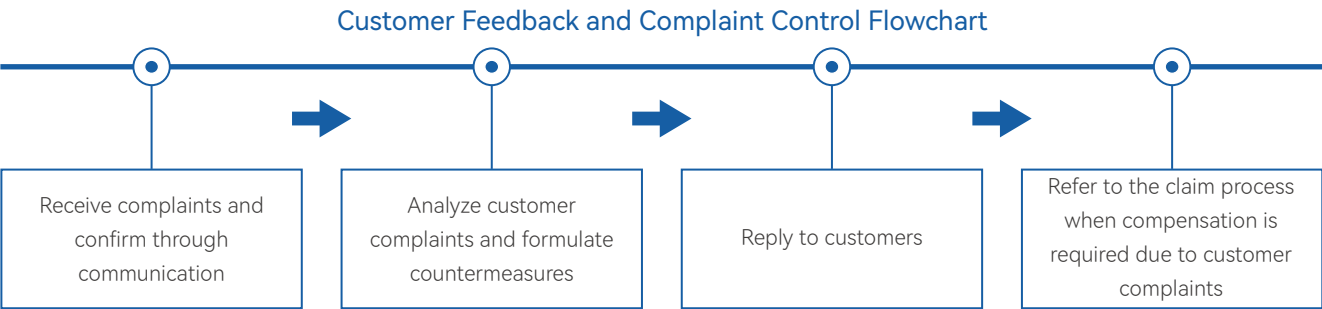
MACMIC adheres to product safety and strictly controls the use of hazardous substances. The Company has developed the Chemical Substance Management Measures to implement tiered management, and established a full-process control system from product design to full substance declaration, providing customers with high-quality, sustainable products. Suppliers are required to sign the Commitment and Guarantee on the Non-use of Hazardous Substances to ensure that all products and components provided by suppliers comply with the requirements of RoHS2.0 and REACH. In addition, the Company regularly updates the *List of Controlled Hazardous Substances* and the *Material Safety Data Sheet (MSDS)*, conducts rigorous testing on materials and products, and ensures that delivered products meet safety and environmental requirements.



Protection of Customers’ Rights and Interests

Customer Management System

The Company has established systems such as the *Interim Documents for Key Account Management* and the *Customer Feedback and Complaint Control Procedure*, to ensure the timely handling of customer issues and improve customer satisfaction. For customer feedback, the Company has specified requirements for handling time: Customer Quality Engineer (CQE) is required to confirm the abnormality (e.g., shipment lot, defective phenomenon, usage conditions, etc.) within 4 hours after receiving the complaint; and if the feedback is received by a Sales or Failure Analysis Engineer (FAE), the relevant personnel is required to confirm it in time and forward it to CQE. For complaints involving on-site verification, the FAE in China must arrive at the customer’s site within 24 hours, calculated from the time of communication with overseas customers. Relevant information must be promptly uploaded to the OA system.



Training on Customer Service

The Marketing Center establishes an annual training plan and organizes sales personnel to focus on product quality, market changes, sales skills, customer tracking, and other courses every six months, which strengthens service awareness, enhances professional competence and improves customer satisfaction.

Case Study: Customer Relationship Management for Key Accounts of Industrial Product



In 2024, MACMIC invited external experts to conduct training on Customer Relationship Management for Key Accounts of Industrial Products, and adopted a combination of lectures, interaction, and discussions to explain classification and differentiated marketing strategies for key accounts. The training enhanced our customer management capabilities, strengthened our team collaboration and innovative thinking, and laid a foundation for the deep cultivation of customer resources in the field of industrial products and the enhancement of customer value.



Customer Satisfaction Surveys

MACMIC, in accordance with the requirements of the *Customer Satisfaction Management Procedure*, conducts customer satisfaction surveys around dimensions such as customer expectations, perceived quality, and perceived value. We analyze main factors influencing customer satisfaction, understand the current state of the Company’s product and service quality, enhance the customer service experience, and respond to customer needs in a timely manner.

Key Performance During the Reporting Period

90.95 Points
Customer Satisfaction



Establishment of Sustainable Supply Chain

Through sustainable supply chain management, MACMIC helps the Company effectively control environmental and social risks in the value chain, thereby building a more stable and resilient value chain. The Company actively collaborates closely with suppliers and value chain partners to promote continuous improvement and enhancement of industry performance in ESG.

Admission of Suppliers

MACMIC has formulated the Measures for the *Classified Management of Suppliers* and the *Supplier Selection, Certification, and Evaluation Management Procedures*. In the supplier admission and review stages, the Company conducts a comprehensive qualification evaluation based on factors such as environmental and hazardous material management, social responsibility fulfillment, and conflict minerals. This optimizes the supplier structure and standardizes daily management.

Admission of Suppliers	Management Measures
Supplier Admission Conditions	<p>The Company sets different admission conditions for suppliers of direct materials, automotive project materials, and agents:</p> <ul style="list-style-type: none">Suppliers of direct materials: must have good production equipment, inspection equipment, and business reputation, and pass relevant management system certifications.Suppliers of automotive-grade materials: must meet the requirements of the automotive-grade supplier selection, certification, and evaluation management procedures.Suppliers of agents: must provide agency certificate or a letter of commitment if without any agency certificate, and an enterprise credit rating certificate or an enterprise credit report for agent suppliers with monthly procurement amounts greater than RMB 0.5 million.
Requirements for On-site Audit	<p>The Company conducts audits in accordance with the relevant provisions of the <i>Supplier Selection, Certification, and Evaluation Management Procedures</i>, from dimensions such as supplier quality, environmental safety and hazardous substances, and social responsibility, with the audit content including but not limited to: ISO 9001 Quality Management System Certification, ISO 14001 Environmental Management System Certification, ISO 45001 Occupational Health and Safety Management System Certification, and hazardous substance management, etc.</p>
Agreements Signed	<p>The Company requires suppliers to sign the <i>Quality Agreement</i>, the <i>PCN Agreement</i>, the <i>Commitment and Guarantee on the Non-use of Hazardous Substances</i>, the <i>Declaration on Non-Use of Conflict Minerals</i>, and the <i>Commitment to Integrity and Anti-Bribery</i>.</p>

87 Suppliers
Number of Suppliers Passing the
Quality Management System Certification

23 Suppliers
Number of Suppliers Passing the Occupational Health and Safety Management Certification

33 Suppliers
Number of Suppliers Passing the Environmental
Management System Certification

Supplier Performance Management

For approved suppliers, MACMIC strictly follows the *Supplier Performance Management Measures* and has established a complete performance management system. The Company adopts a combined approach of quarterly and annual comprehensive scoring to conduct a comprehensive evaluation of suppliers from four dimensions: product quality, delivery time, price, and cooperation. The suppliers of key raw material are classified into four grades of A, B, C, and D, subject to corresponding reward and punishment measures for each performance grade.

Number of MACMIC's Suppliers of Different Performance Grades in 2024		
Supplier Performance Grade	Unit	2024
Total Number of Suppliers	Suppliers	87
Number of Grade-A Suppliers	Suppliers	20
Number of Grade-B Suppliers	Suppliers	14
Number of Grade-C Suppliers	Suppliers	3
Number of Grade-D Suppliers	Suppliers	2

Supplier Code of Conduct

MACMIC is committed to establishing fair, honest, and sustainable cooperative relationships with business partners and has formulated systems such as the *Supplier Code of Conduct* and the *Business Code of Conduct*, which have been publicly disclosed on the official website of the Company. We clarify the code of conduct and ethical standards of cooperative suppliers, ensure the transparency and fairness of procurement activities, and jointly maintain a good business order and market environment.

Focus of MACMIC's Supplier Code of Conduct		
Anti-Corruption and Anti-Commercial Bribery	Anti-Fraud	Information Security
Environmental Protection and Sustainable Development	Compliant Operation and Risk Management	Anti-Unfair Competition
Intellectual Property	Product Quality and Safety	Labor Rights and Social Responsibility

Transparent Procurement

The Company requires suppliers to sign the *Commitment to Integrity and Anti-Bribery* to further promote the construction and development of the supply chain system, ensuring the transparency and stability of the supply chain.

Key Performance During the Reporting Period

100%

Signing Rate of the *Commitment to Integrity and Anti-Bribery* by Suppliers of MACMIC

Conflict Minerals

MACMIC has established the *Conflict Minerals Commitment and Policy*, which requires the suppliers of MACMIC to sign the *Declaration on Non-Use of Conflict Minerals*. The Company has incorporated whether or not suppliers are involved in the mining, production and procurement of minerals from conflict areas into its supplier assessment system, and required the tracing of information on the sources of tantalum, tin, tungsten, gold and other minerals contained in products supplied. We also have carried out supply chain risk identification and analysis, and formulated workflow and relevant measures on conflict minerals management to ensure that the raw materials of the Company does not sourced from minerals produced in conflict areas.

Key Performance During the Reporting Period

100%

Signing Rate of the *Declaration on Non-Use of Conflict Minerals* by Suppliers of MACMIC

Communication with Suppliers

By holding quarterly supplier performance communication meetings and paying regular visits to suppliers, MACMIC has conducted in-depth exchanges with suppliers on product information, quality control and other key issues. This ensures that the Company can stay updated on the latest market trends and industry standards, and establishes a stable and sustainable partnership with suppliers.

Communication Methods

- Quarterly Performance Communication with Suppliers
- Annual On-Site Audits for Suppliers
- Visits to Suppliers
- Technical Exchanges
- Business Exchanges

Communication Content

- Performance in quality, business, technology, etc.
- Product information (including high efficiency, low energy consumption, and packaging reduction to reduce environmental impact)
- Industry Insights and Business Opportunities
- Countermeasures and Solutions for Potential or Identified Risks
- Supplier Claims



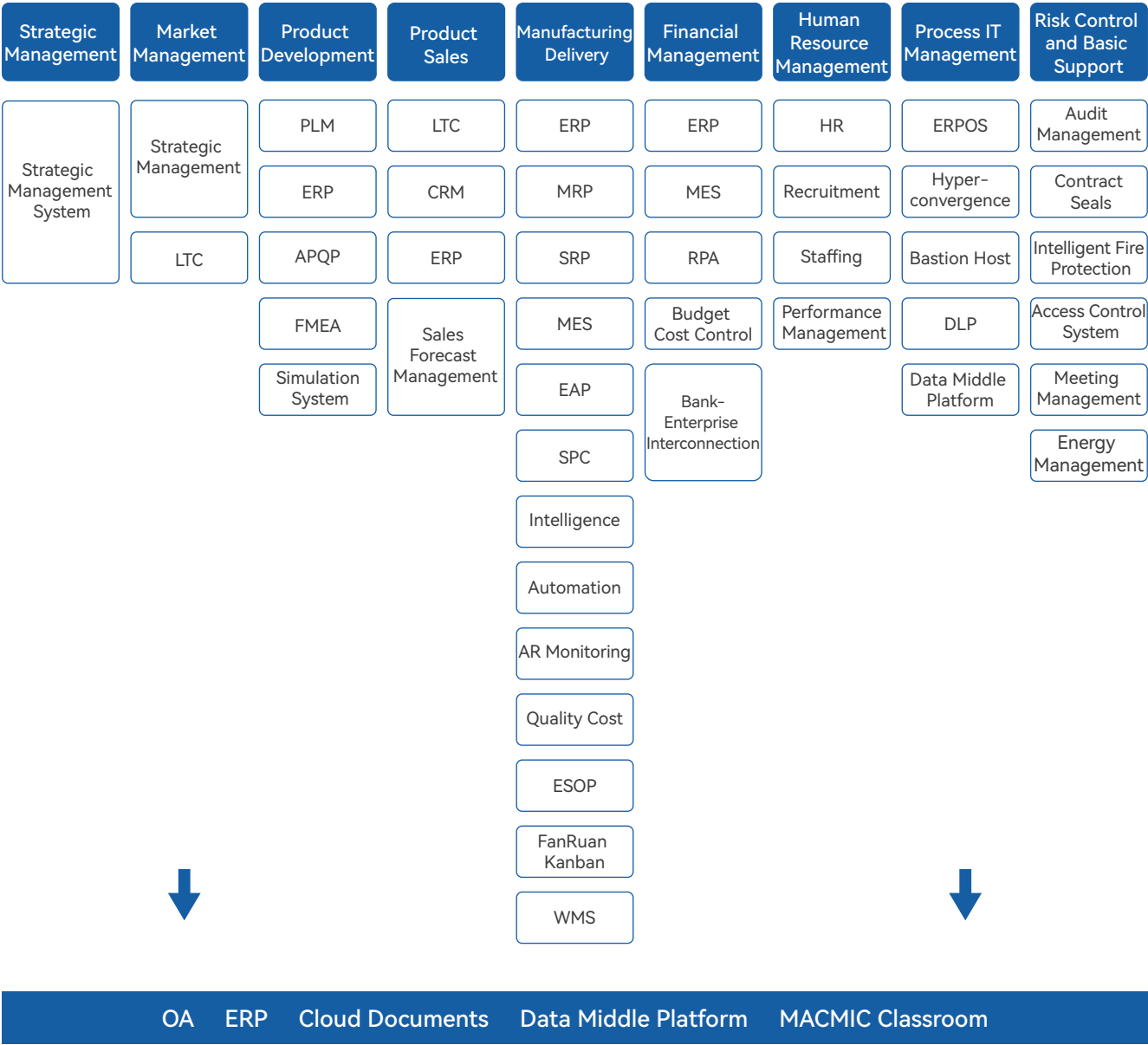
MACMIC's Technical Exchange with Suppliers

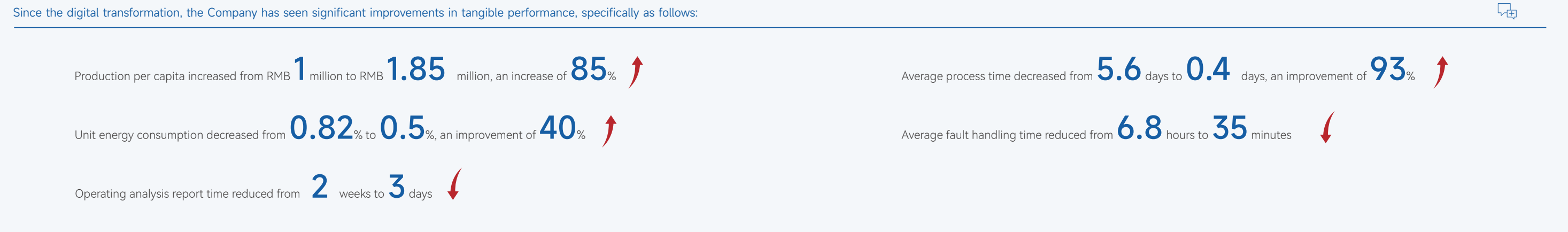
Establishment of Sustainable Supply Chain

Digital Construction System



In recent years, MACMIC has actively laid out its digital strategy and accelerated its digital transformation, with preliminary results already emerging. The Company has constructed an application system covering 9 major processes such as strategy, marketing, product development, etc. We have also established a digital management system for 6 major functional departments such as finance and production. Through these systems, we can offer more precise data analysis and decision support, improve the rationality of resource allocation and operational efficiency, and assist in corporate development.





Intelligent Workshop

The achievements of MACMIC in automation and digitalization have also been recognized by the government. In 2024, the Company received the honor of Intelligent Manufacturing Workshop in Jiangsu Province, which strengthened the Company's confidence and motivation to continuously improve production efficiency, product quality, cost reduction and energy consumption. MACMIC will continue to play a benchmarking and leading role in the field of intellectualization and digitalization, cultivate the talents needed for intellectualization and digitalization, inject momentum for the high-quality development of the Company, and drive the industry to move towards medium and high-end upgrading.



Surface Mount Soldering



Gel Potting Protection



Wire Bonding



Chip Picking



Testing

ENVIRONMENTAL PROTECTION: EMPOWERING A LOW-CARBON NEW ECOSYSTEM

Key ESG Issues Covered in This Chapter

- Response to Climate Change
- Waste Disposal
- Opportunities in Clean Technologies
- Environmental Compliance Management
- Energy Utilization
- Water Resource Utilization
- Pollutant Emissions

SDGs Responded
in This Chapter



Response to Climate Change

Climate Change Management System

MACMIC has integrated the philosophy of sustainable development into the governance structure and formulated the *Climate Change Response System* in accordance with the national “carbon peaking and carbon neutrality” policy. The Board of Directors, as the highest governance body for sustainable development and climate risk management, has set up the Strategy Committee that is responsible for formulating and improving strategies and management measures against climate change and regularly reporting related climate matters to the Board of Directors. The Company has also established an ESG Leading Group responsible for implementing climate change-related goals and actions, ensuring that measures are effectively promoted.

MACMIC’s Management Structure for Addressing Climate Change		
Level	Main Body	Responsibilities
Decision-making Level	Board of Directors	Review and approve climate-related policies, strategies, and goals, incorporate climate-related risks and opportunities into consideration, and oversee the disclosure of climate-related risk information.
	Strategy Committee	Formulate and review climate-related strategies and management methods, discuss climate change-related goals and key initiatives; regularly report the latest climate-related matters affecting the Company to the Board of Directors.
Management Level	ESG Leading Group	Implement the climate change-related goals and key initiatives, organize and arrange the execution team to carry out climate change-related tasks; track the requirements and trends of climate change-related policies, develop management methods for climate change risks and opportunities, and provide guidance and training for the execution team; assess the effectiveness and appropriateness of climate change risk and opportunity management.
Execution Level	ESG Working Group	Execute climate change-related tasks assigned by the ESG Leading Group; identify and assess climate change-related risks and opportunities, and develop corresponding response measures; formulate a climate change work plan and take corresponding actions to achieve climate change-related goals; implement climate change risk management measures in business activities and execute energy-saving and emission-reduction work plans.

Greenhouse Gas (GHG) Management

In April 2025, MACMIC hired a qualified third-party organization to conduct the verification and certification of the greenhouse gases generated in the parks of the Company in 2024. The GHG emission management of the Company complies with ISO 14064-1:2018.

24.18 tCO_{2e}
Direct GHG Emissions (Scope 1)

16,210.77 tCO_{2e}
Indirect GHG Emissions (Scope 2)

16,234.96 tCO_{2e}
Total GHG Emissions

0.12 tCO_{2e}/10,000 yuan of revenue
GHG Emission Intensity



GHG Management System Certificate

*Note: GHG emissions are calculated by reference to the *Guidelines for Calculation Method and Reporting Guidance on GHG Emissions for Other Industrial Enterprises (Trial)*, the average emission factor of the electricity grid in 2023, and the carbon footprint factors for major power generation types in 2023.

Energy Conservation and Carbon Reduction Actions

MACMIC actively practices low-carbon development and has implemented a number of energy conservation and carbon reduction projects, such as new energy substitution and intelligent system applications, to effectively reduce GHG emissions.

Case Study: Photovoltaic Power Plant

MACMIC built photovoltaic power generation projects with installed capacities of 0.4 MW and 1.0 MW on the rooftops of Phase 1 and Phase 2 of factory buildings, to prioritize the use of photovoltaic power and grid-connecting surplus power. During the Reporting Period, a total of 1,249.29 MWh of power was generated.



Distributed Photovoltaics for Parks



Photovoltaic Power Generation Facilities

Case Study: Containerized Energy Storage Power Station



The factory adopted a contracted energy management mode and built two 1 MWh containerized energy storage units at the southwest corner of the Xinzhu Plant. The project covered the pouring of the foundation, and the installation of energy storage tanks and grid-connected cabinets. The two storage tanks converged through a grid-connected cabinet and were connected to the low-voltage busbar of the plant's distribution room for the power interaction with the plant's distribution system. The energy storage system features functions such as smooth transition, peak shaving, frequency and voltage regulation, etc. The stored power can be used as an emergency power source, and can also store energy during low grid demand periods and discharge during peak periods, effectively reducing grid fluctuations.

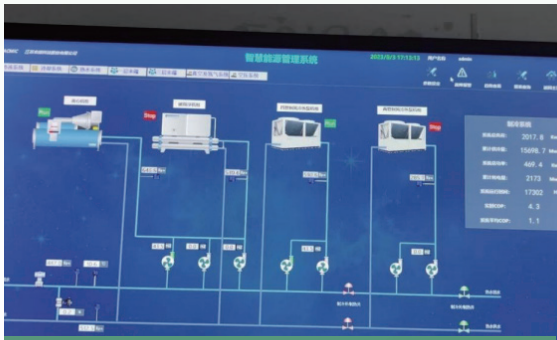


Design Drawing of Containerized Energy Storage Power Station

Case Study: Intelligent and Efficient Central Air Conditioning System



Due to the production needs at workshops, the Company needs to supply cooling and heating all year round to maintain high cleanliness, temperature and humidity levels, with long system operation and high energy consumption. To address these challenges, the Company equipped a 600RT multi-head magnetic levitation centrifugal chiller, a 600RT variable frequency water-cooled centrifugal chiller unit, six 65kW cooling capacity four-pipe air-cooled module chilled water units, and six 130kW cooling capacity air-cooled module chilled water units, which ensure uninterrupted cooling and heating 24/7 throughout the year and maintain safe, stable, and energy-efficient operation of the workshop. The intelligent and efficient central air conditioning system uses technologies such as the variable flow operation of chilled water and cooling water, the control of cooling tower wet-bulb temperature, and the operation in the efficient zone of the chiller, to realize one-button start/stop, safe and efficient operation.



Intelligent and Efficient Central Air Conditioning System

The total annual energy for cooling and heating of the system exceeds **10** million kW·h.

The total power consumption is less than **2** million kW·h

The energy efficiency ratio of the machine room reaches **5.0**.

Over **40** % of energy savings are realized when compared to traditional cooling and heating systems.

Case Study: Intelligent Energy Consumption Control System



MACMIC has established an energy consumption detection system, which collects data from smart meters to monitor energy consumption data and key parameters in real-time, and uploads the data to the comprehensive energy consumption management system. The system integrates the management of workshop energy efficiency, public and auxiliary energy consumption and micro-grid energy to realize energy consumption monitoring and energy management. By setting energy consumption control targets and generating analytical reports through monthly and quarterly reports, the Company formulates energy-saving strategies, reduces waste, and ensures reasonable energy usage.



Real-time Energy Data Monitoring System

Product Full-Lifecycle Management for Carbon Reduction

MACMIC adheres to the concept of green development and makes every effort to promote the full-lifecycle management of products for carbon reduction. The Company leverages core products such as IGBT modules, and utilizes lifecycle assessment (LCA) methods to calculate the carbon emissions from the entire product lifecycle, from raw material procurement, production manufacturing, and usage phase to disposal. On this basis, through measures such as optimizing supply chain management, upgrading production processes, and promoting green design, MACMIC effectively reduces carbon emissions in all links, creates green products, and promotes green upgrading of the industry.

Green Design

MACMIC vigorously promotes the green design of products. The Company adopts lifecycle evaluation methods to quantify resource consumption and environmental emissions throughout the entire product lifecycle, identifies areas for improvement, conducts green design, and formulates green design improvement plans. We also realize energy conservation and emission reduction in the production process by improving process methods, technological innovation, equipment upgrading and transformation, substituting and limiting the use of hazardous substances, and reducing resource and energy consumption.

Green Technology

- With a new epitaxial design & doping distribution and electronic lifetime control technology, the FRD product features ultra-fast reverse recovery and soft recovery characteristics, and reduces device losses.
- The optimized design of the IGBT lateral and vertical structure achieves the best coordination of saturation voltage drop and short-circuit capability.
- The in-depth research on the backside laser annealing process has improved the uniformity of electrical parameters both within and between chips, achieving a product yield rate of over 87%.
- The increased research on the design and process of the field barrier layer structure helps realize lower static and dynamic losses.

With continuous technological innovation, MACMIC has significantly improved the energy and material saving performance of its products during manufacturing and use processes, effectively reducing environmental pollution.

Green Procurement

MACMIC has established a complete procurement process. In material procurement, the Company prefers materials that meet environmental protection standards and energy conservation requirements and feature low energy consumption, low pollution, non-toxicity, high resource utilization, and recyclability, by fully considering environmental, resource, economic, and social benefits. For the procurement of fixed assets, the Company, in strict compliance with national policies, do not purchase equipment listed in the *Guidance Catalog for Eliminating Outdated Production Processes, Equipment and Products in Selected Industrial Industries* issued by the Ministry of Industry and Information Technology, or high-energy-consuming and high-polluting products that are restricted or not encouraged by the state for production, procurement, or use.

Green Production

MACMIC actively implements the philosophy of energy conservation and emission reduction in the production process. By giving priority to the use of clean energy and accurately controlling energy consumption with the help of intelligent systems, the Company effectively promotes green production and contributes to sustainable development.

Green Packaging

MACMIC does not recycle packaging boxes after the products are delivered to customers, but adopts recyclable packaging materials such as chip packaging boxes, inner rings, copper turnover boxes and pallets with suppliers, to reduce environmental pollution from packaging materials.

Key Performance During the Reporting Period

98,000

Plastic Turnover Boxes Used

100%

Recycling Rate

600

Plastic Pallets Used

100%

Recycling Rate

130,000

Chip Packaging Iron Rings Used

61.5%

Recycling Rate

130,000

Other Chip Packaging Materials (Plastic Boxes and Trays) Used

34.6%

Recycling Rate

Green Recycling

MACMIC implements a strict classification of defective products. Defective products that cannot be reworked are scrapped in a way that: the products are disassembled, and components of different materials are processed separately. Among others, plastic parts are entrusted to a professional solid waste company for standardized processing; silicone gel is safely disposed of according to hazardous waste standards; metal materials such as copper plates are recycled and reused, to achieve recycling of resources.

Resource Utilization

Energy Utilization

In accordance with applicable laws and regulations, and based on actual needs, MACMIC has formulated the Energy Work Management System, established a three-level energy management system for the Company, workshops and shifts, and set up an Energy Management Leading Group and management groups at all levels to form a company-wide energy management network. The Company has formulated the Energy Conservation Reward and Punishment System, to reward those who contribute to energy conservation and penalize those who waste energy. During the Reporting Period, the Company passed the ISO 50001 Energy Management System certification and accepted third-party audits and evaluations.



Energy Management System Certification

26,015.61 MWh

Total Purchased Power

1,249.29 MWh

PV Generation

6.33 Tons

Gasoline

1.83 Tons

Diesel

11.98 tce

Total Direct Energy Consumption

3,350.86 tce

Total Indirect Energy Consumption

3,362.84 tce

Total Energy Consumption

0.03 tce/10,000 yuan of revenue

Energy Consumption Intensity

MACMIC actively implements measures for energy conservation and emission reduction, and promotes green and low-carbon development from various aspects such as power consumption, equipment and vehicle management, which supports the sustainable development of the Company.



Power Consumption Management

To ensure power supply, MACMIC has initiated a power system renovation to enhance energy security and equipment stability in case of emergencies. In 2025, the Company will deploy DVR (Dynamic Voltage Restorer) systems in batches, with the first batch of equipment expected to be installed by May. The systems integrate harmonic control and voltage stabilization, which can effectively deal with voltage dips, voltage fluctuations and power quality abnormalities, reduce the frequency of power jumps caused by extreme weather and the impact on production equipment, and guarantee the continuity and stability of power supply in the precision manufacturing process.



Equipment Management

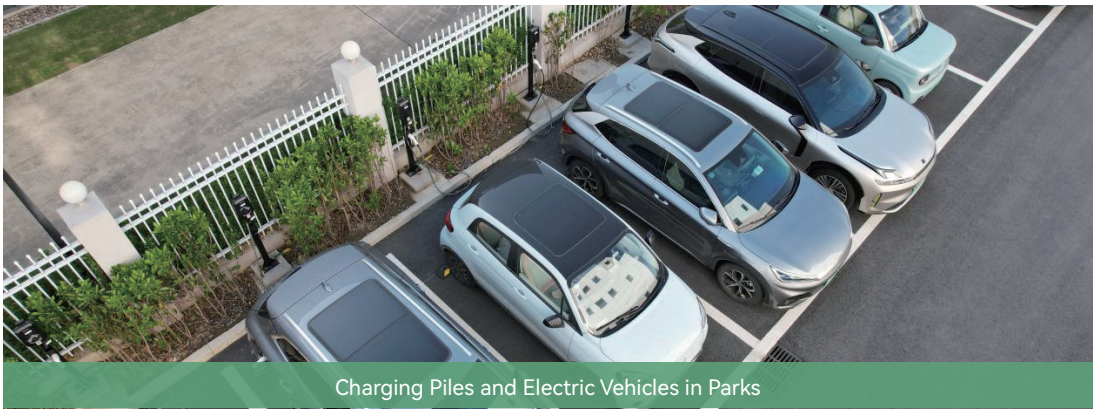
The Company carries out energy-saving reviews to optimize energy-consuming equipment in the course of operations and to improve the efficiency of energy use.

Energy-saving Equipment	Implementation
Frequency Converter	Adopt frequency converters in all compressors, water pumps, air conditioning units, exhaust fans, etc.
Transformer Selection	Select energy-saving equipment with level-2 energy efficiency for transformers.
Air Compressor Selection	Adopt oil-free variable frequency centrifugal air compressors with level-2 energy efficiency.
Air Conditioner Selection	Select magnetic levitation chillers, split air conditioners, and variable frequency centrifugal chillers with level-1 energy efficiency, or air-cooled heat pump units with level-2 energy efficiency.
Lighting	<ul style="list-style-type: none">Adopt high-efficiency/high-power-factor LED fixtures for both indoor and outdoor lighting.Power outdoor street lights and courtyard lights with photovoltaic energy.Realize day/night time control through automatic control loops.Gradually replace 500W and above incandescent lamps at workshops with energy-efficient lamps.



Vehicle Management

The Company comprehensively promotes electric vehicles, replaces traditional fuel models with new energy forklifts, trucks and cars, and builds 33 charging piles in the park to help green travel.



Water Resource Utilization

MACMIC has formulated the *Water Conservation Management System* to promote the construction of water-saving enterprises by stipulating water-saving measures, assessing water consumption, and implementing a reward and punishment mechanism. While meeting production needs, the Company effectively conserves water resources and promotes water recycling, to support scientific and sustainable development.



Case Study: Concentrated Water Reuse Project

MACMIC has an RO concentrated water treatment capacity of 80 tons per day. After the removal of impurities, purification of toxic substances and heavy metal ions, and disinfection treatment, the reused water is colorless, odorless, clear, and suitable for toilet flushing and landscaping irrigation.

The water saving is estimated to be

55,000 tons per year

Utilization of Packaging Materials

MACMIC primarily uses cardboard and plastic boxes as packaging materials in the production process and has formulated the *Packaging Design Specification*, which sets out clear requirements for material quality, ROHS & REACH, ESD and other characteristics. For second-hand plastic packaging boxes, the Company has established the *Management Measures for Outsourced Recycled Packaging Boxes* to standardize their cleaning process to ensure safe and compliant use.

Use of Major Packaging Materials	Unit	2024
Blister Packs	Tons	125.95
Cardboard Boxes	Tons	59.10
EPP	Tons	18.47
Total Consumption of Main Packaging Materials	Tons	203.52
Use Intensity of Main Packaging Materials	Tons/10,000 yuan of revenue	0.0015

Green Office

MACMIC advocates for green office practices, promotes initiatives such as paperless office operations and water and power conservation, and reduces resource waste. Signs are posted in the office area to strengthen environmental awareness. The Company also actively launches the World Earth Day event to further enhance employees’ environmental awareness, create a low-carbon and environmentally friendly office atmosphere, and help the Company coexist harmoniously with the environment.

Sign for Turning off the Lights



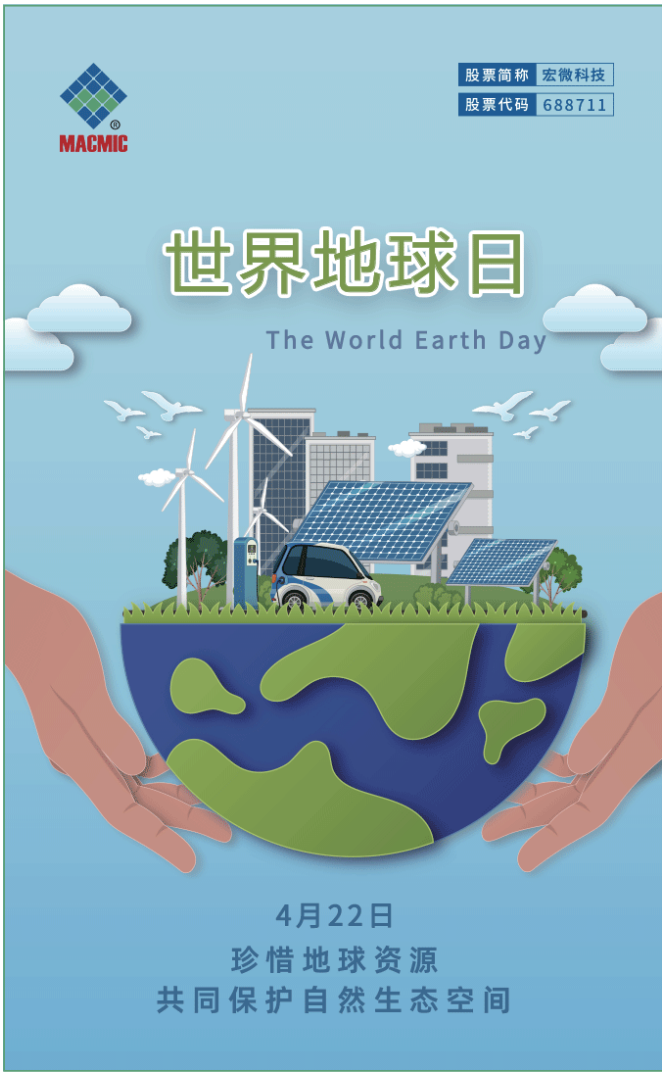
Sign for Saving Paper



Sign for Water Conservation



Poster of World Earth Day



Environmental Management

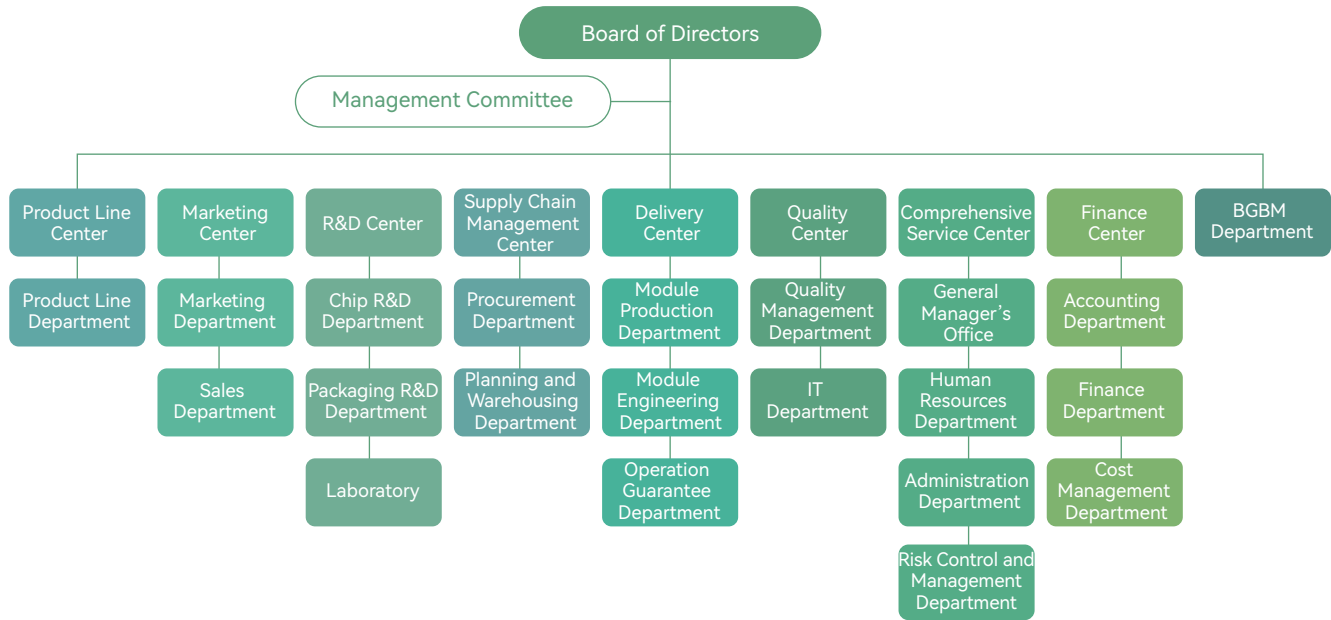
Adhering to the environmental management policy of “comprehensive planning, reasonable layout, integrated utilization, beneficial transformation, employee engagement, full participation, environment protection, and social benefits”, MACMIC strictly complies with national laws and regulations, and establishes an environmental protection system in accordance with ISO 14001 to ensure employee health and environmental safety. During the Reporting Period, the Company was not penalized for violating environmental regulations, and no significant deficiencies were identified during environmental monitoring and risk management.

Environmental Management System

In accordance with applicable law and regulations, MACMIC has compiled the Management Manual for Environmental Protection and Occupational Health and Safety, which specifies that the Board of Directors, as the highest governance body, should set up the Management Committee to promote the scientific and sustainable development of the environmental management system. At the beginning of each year, the Company sets the environmental goals and assessment methods for the current year based on the previous year’s completion, requiring continuous improvement in environmental performance, while reducing failure rates and accident rates year by year. During the Reporting Period, the Company passed ISO 14001:2015 certification, and other bases also established their environmental management systems according to the standard.



Environmental Management System Certification



Organizational Structure of the Environmental Management System

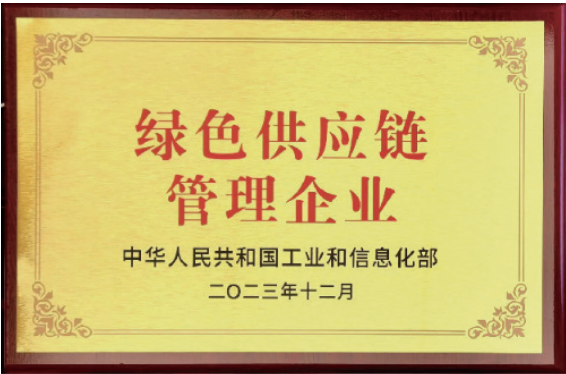
Key Performance During the Reporting Period

RMB **2,596,600**
Total Investment in
Environmental Protection

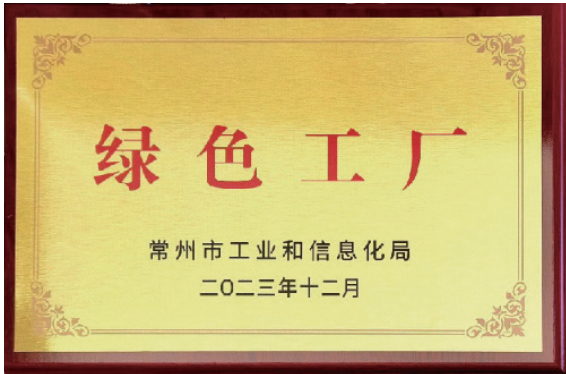
100%
Compliance Rate Observed in
Pollutant Monitoring

100%
Synchronized Operation Rate of
Environmental Facilities

MACMIC actively conducts environmental management reviews to improve management levels and has obtained certifications as a Green Supply Chain Management Enterprise and a Green Factory of Changzhou.



Green Supply Chain Management Enterprise



Green Factory of Changzhou

Environmental Impact Assessment

In strict compliance with the *Environmental Impact Assessment Law of the People’s Republic of China* and other relevant laws and regulations, MACMIC fully implements the principle of “Three Simultaneities” in all projects. During the project construction process, environmental protection facilities are designed, constructed, and put into use simultaneously with the main engineering works, controlling environmental risks from the source and minimizing the potential environmental impact of production activities.

During the Reporting Period, the Company obtained approval for the Environmental Impact Reports of the High-End Power Semiconductor Device Technology Renovation Project and the New Energy Power Semiconductor Device Technology Renovation Project, and completed the inspection and acceptance of the High-End Power Semiconductor Device Technology Renovation Project.

Key Performance During the Reporting Period

100%

Execution rate of the “Environmental Impact Assessment” and “Three Simultaneities” Systems

Management of Environmental Risks

MACMIC has developed the *Environmental Factor Identification and Evaluation Procedure* under which we regularly review risk and opportunity management, improve the accuracy of risk management, and reduce the likelihood of risk occurrence. Based on standards such as the *Self-Monitoring Technology Guidelines for Pollution Sources*, the Company monitors pollution sources, with wastewater and waste gas monitored annually, and noise monitored quarterly.

Additionally, we develop and implement the *Emergency Response Plan for Environmental Emergencies*. In compliance with the *Emergency Response Law of the People’s Republic of China* and other laws and regulations, we also enhance emergency response capabilities, minimize event losses, and ensure employee health and safety. Furthermore, we actively carry out multi-themed drills such as hazardous waste leakage, chemical leakage, and pressure vessel explosion, to improve employees’ emergency response abilities and create a safe and environmentally friendly working environment.

Pollutant Management

Waste Gas Management

MACMIC establishes monitoring indicators for the concentration of non-methane hydrocarbons, nitrogen oxides and other waste gas pollutant emissions, and optimizes the treatment process through regular testing and monitoring to ensure that the waste gas meets the emission standards.

Category	Monitoring Indicators	Maximum Allowable Emission Concentration (mg/m³)	Achievement	Executive Standard
Organized Emission	Total Non-Methane Hydrocarbons	50	Achieved	<i>Emission Standard of Pollutants for the Semiconductor Industry (DB32/3747-2020)</i>
	Fluoride	1.5	Achieved	
	Nitrogen Oxide	50	Achieved	
	Tin and its Compounds	1	Achieved	
	Particulate Matter	20	Achieved	
	Isopropanol	40	Achieved	
	Nickel and its Compounds	1	Achieved	
Unorganized Emission	Odor Concentration (Dimensionless)	20	Achieved	<i>Integrated Emission Standard of Air Pollutants (DB32/4041-2021)</i>
	Ammonia	1.5	Achieved	
	Hydrogen Sulfide	0.06	Achieved	
	Tin and its Compounds	0.06	Achieved	
	Particulate Matter	0.5	Achieved	
	Nickel and its Compounds	0.02	Achieved	
	Nitrogen oxide	0.12	Achieved	
	Fluoride	0.02	Achieved	
	Total Non-Methane Hydrocarbons	2	Achieved	

Types of Waste Gases		Preventive Measures	Remarks
Waste Gas from Etching Process	Secondary Alkali Spray Device	Discharged through a 15m-high Exhaust Funnel	
Waste Gas from Welding and Cleaning Processes	Activated Carbon Adsorption/Desorption + Catalytic Combustion		
Waste Gas from Evaporation Process	Activated Carbon Adsorption Device		
Waste Gas from Hazardous Waste Warehouse			

Wastewater Management

The Company has established monitoring indicators for wastewater pollutants such as chemical oxygen demand (COD) and suspended solids. The pollutants are treated by wastewater pre-treatment facilities before being discharged in compliance with relevant standards.

Monitoring Indicators	Maximum Allowable Discharge Concentration (mg/L)	Achievement	Executive Standard
pH (Dimensionless)	6.0-9.0	Achieved	<i>Emission Standard of Pollutants for Semiconductor Industry (DB32/3747-2020)</i>
COD	300	Achieved	
SS	250	Achieved	
TN	35	Achieved	<i>Discharge Standard of Pollutants for Municipal Wastewater Treatment Plants (DB32/4440-2022)</i>
NH3-N	20	Achieved	
TP	3	Achieved	
Fluoride	15	Achieved	<i>Wastewater Quality Standards for Discharge to Municipal Sewers (GB/T 31962-2015)</i>
Animal and Plant Oils	100	Achieved	
Total Dissolved Solids	2,000	Achieved	

Wastewater Types	Preventive Measures	Remarks
Nitrogen-free Production Wastewater	Sewage Pre-Treatment Facility 1# (Pre-Sedimentation + Coagulating Sedimentation)	Directed to Changzhou Jiangbian Wastewater Treatment Plant for treatment
Nitrogen-Containing Production Wastewater	Sewage Pre-Treatment Facility 2# (Sedimentation + Nitrification, Denitrification + Secondary Sedimentation + Coagulating Sedimentation)	
Concentrated Wastewater for Production of Pure Water	Concentrated Water Reuse Facility + Wastewater Pre-Treatment Facility 3# (Bag Filtration + Fine Filtration)	Reused for toilet water, floor cleaning water, alkaline spray water, and replenishment to the original water tank; concentrate water from pure water preparation is connected to the municipal sewage network and sent to Changzhou Jiangbian Wastewater Treatment Plant for centralized treatment.



Management of Wastes

MACMIC manages waste in a categorized manner, covering domestic waste, recyclable industrial waste, and hazardous waste. Through the establishment of a specialized management system, the Company improves material utilization efficiency, reduces waste at the source, and promotes resource utilization. This effort helps to minimize the generation of solid waste and achieve “reduction, resource utilization, and harmlessness” for solid waste.



Noise Management

The noise of the Company mainly comes from equipment such as slicers, washing machines, and dryers. To reduce noise emissions, the Company takes the following measures: prioritize the selection of low-noise and low-vibration equipment; make rational layout and use buildings for sound insulation and noise reduction; and strengthen the operation and management of equipment to ensure good operating conditions and avoid sudden noise. The Company also regularly entrusts third-party organizations to monitor noise levels to ensure compliance with the Emission Standard for Industrial Enterprise Noise at Boundary (GB12348-2008).



TALENT-ORIENTED CULTURE: BUILDING A COMMUNITY OF HAPPINESS TOGETHER

Key ESG Issues Covered in This Chapter

- Employee Training and Development
- Protection of Employees' Rights and Interests
- Occupational Health and Safety
- Contribution to Society

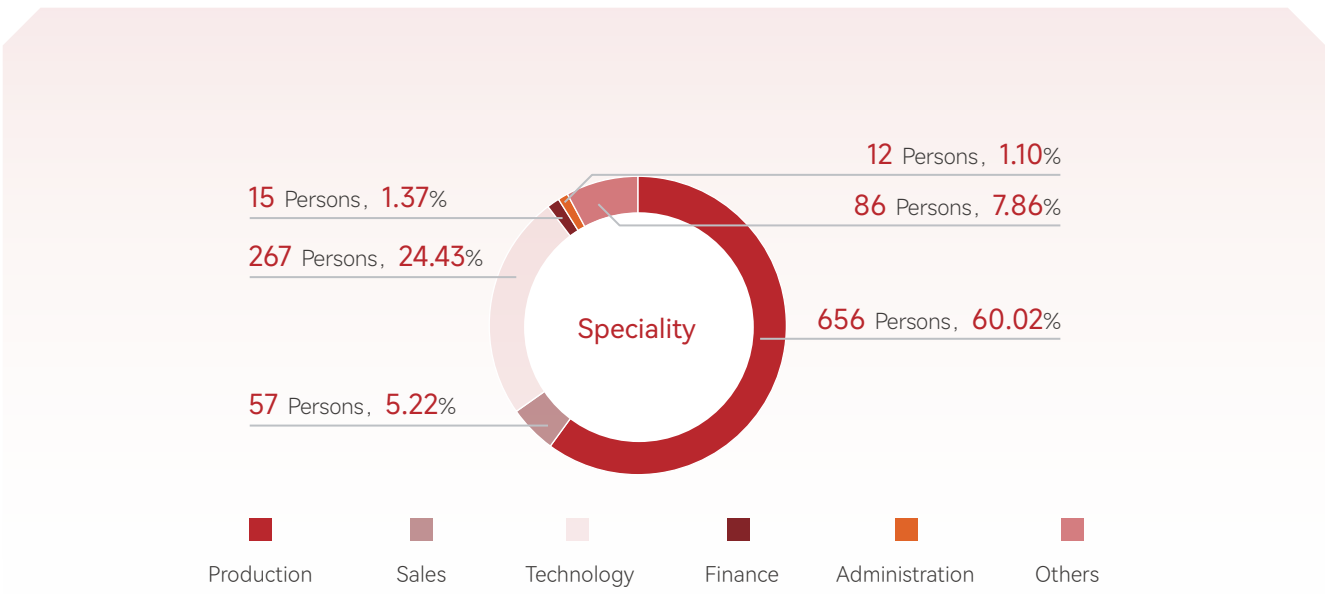
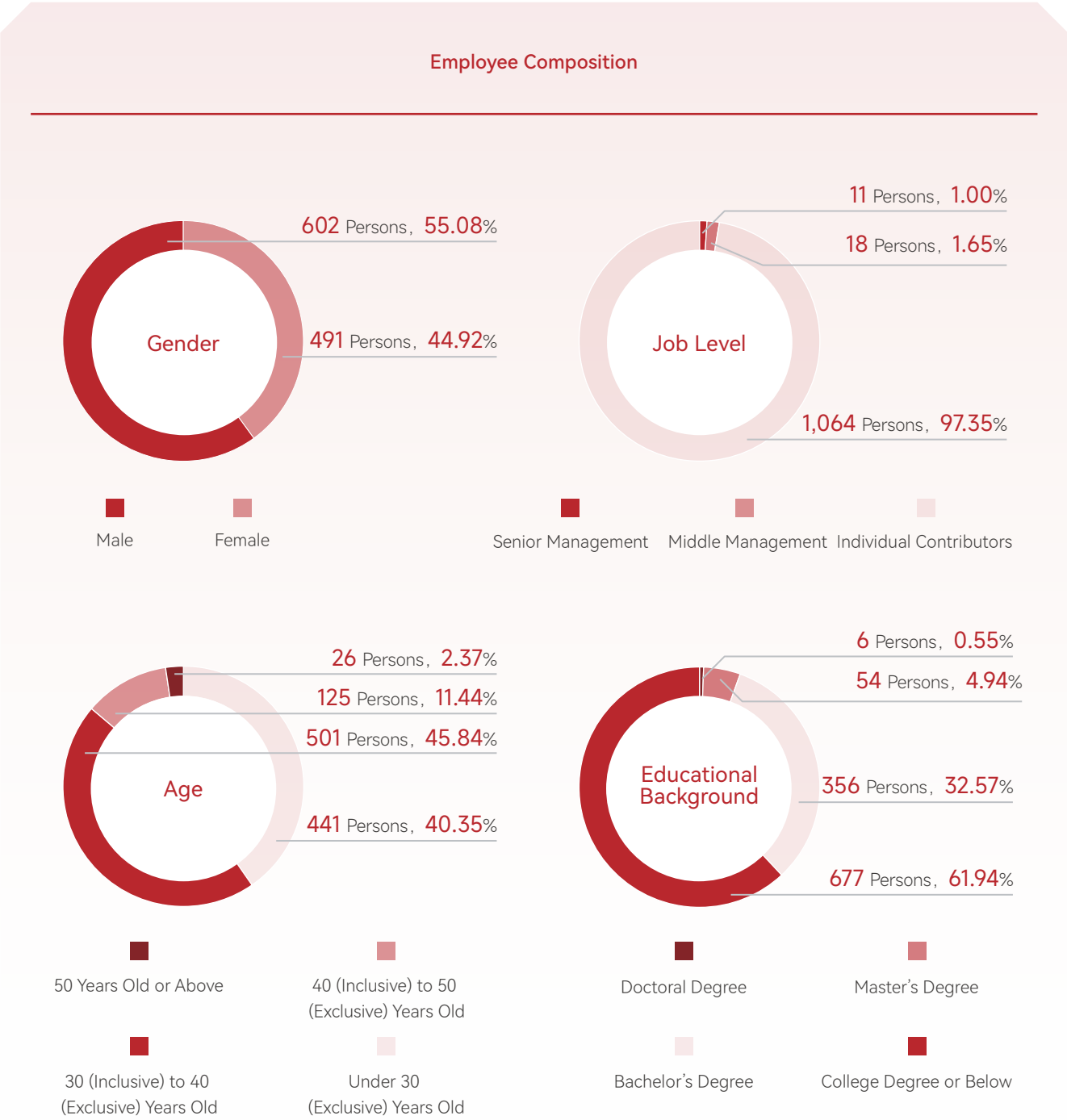


SDGs Responded
in This Chapter



Protection of Employees’ Rights and Interests

MACMIC adheres to a people-oriented approach, and strictly follows national labor laws, regulations, and local ordinances. Based on actual needs, the Company has built a comprehensive system that covers recruitment, career development, remuneration, and benefits, to provide employees with ample development space. We abide by ethical and legal standards, eliminate child labor, forced labor, workplace discrimination, and harassment, and strive to create a diverse, equal, fair, and inclusive working environment and protect the legitimate rights and interests of employees.



Employee Recruitment and Employment

MACMIC, in the recruitment principle of “adjustment first, recruitment later”, has developed the *Measures for the Management of Employee Recruitment* to clarify key processes such as recruitment plans, channels, interviews, hiring, probation, and regularization, and standardize procedures to deliver high-quality talents for the Company. In strict compliance with the *Regulations on Prohibiting the Use of Child Labor* and the laws and regulations of business locations, the Company rigorously verifies the age of job applicants and has established the *Control Procedure for Child Labor and Minor Worker Protection*, to resolutely prohibit the employment of child labor and ensure the legality, compliance, fairness, and justice of recruitment process.

Additionally, MACMIC actively develops diversified recruitment channels such as network recruitment, internal recommendation, headhunting recruitment, school recruitment and school-enterprise cooperation. These channels help us establish an efficient recruitment mechanism, quickly attract and lock in outstanding talents, and inject a strong impetus into the Company’s talent resource pool.



Case Study: Campus Recruitment

MACMIC's campus recruitment channels primarily consist of university presentations and job fairs, with a presence at universities such as University of Electronic Science and Technology of China, Xi'an University, Xi'an Jiaotong University, Xi'an University of Technology, Southeast University, Soochow University, Hohai University, Nanjing University of Science and Technology, Wuhan University, Huazhong University of Science and Technology, Shandong University, Harbin Institute of Technology, and Hefei University of Technology.



Campus Recruitment

Diversity, Equality and Inclusion

MACMIC adheres to the principles of inclusion, diversity, and equality. The Company has established systems such as the *Learning Handbook for New Employees* and the *Control Procedure for Anti-Discrimination Management*, clearly specifying the prohibition of discrimination based on factors such as ethnicity, race, gender, age, religion, beliefs and disability in the processes of recruitment, compensation, training, and promotion. The Company strictly implements equal pay for equal work and provides equal promotion opportunities.

MACMIC attaches great importance to the protection of women's rights and interests, and pays attention to the equal development of women. The Company strictly implements the statutory leave policies such as marriage leave and maternity leave, and effectively protects the rights and interests of female employees in taking holidays and leave. We organize a series of activities events such as the Women's Day on the 8th of March to create a warm atmosphere, and further enhance the sense of belonging and identity of female employees. Additionally, we provide facilities and human care for people with disabilities, strive to create a fair, just, and mutually respectful working environment, and help talents to fully release their potential.



"Women's Day" Event



Accessible Restroom

Key Performance During the Reporting Period

47 Persons Number of Employees of Minority Nationalities	24% Proportion of Women in Management	10 Persons Number of Employees on Maternity Leave
100% Return Rate of Employees on Maternity Leave	2 Persons Number of Employees on Parental Leave	100% Return Rate of Employees on Parental Leave

Remuneration and Benefits

Remuneration and Performance Assessment

The remuneration system of MACMIC covers monthly salary, subsidies, bonuses and benefits, amongst which the monthly salary consists of base salary, seniority pay, confidential pay, job allowance, performance pay and various subsidies. In the principle of responsibility-based allocation and based on the Salary Management Measures and the Performance Assessment Management Plan, the Company has established a competitive remuneration and benefit system that closely links employees' interests with the Company's development. According to different objects and levels, the Company adopts assessment methods such as KPI and OKR, and sets the corresponding assessment criteria and frequency. This effort effectively motivates employees, improves work efficiency and promotes the common development of the enterprise and employees.

To ensure fairness and transparency in employee assessment, MACMIC has established an assessment appeal mechanism. If the assessed employee disagrees with the assessment result, they can raise the issue during the assessment interview or file an appeal with the Human Resources Department within 3 days after the results are published. HR will collect performance data within 5 working days and communicate and coordinate with both parties. If no agreement is reached, the matter will be submitted to the performance assessment group for review, and the approval result will be final.


100%
Proportion of Employees Receiving Regular
Performance and Career Development Assessments



Employee Benefits

MACMIC values the well-being of employees. In addition to offering competitive remuneration, the Company has established a comprehensive employee benefits system, clearly defining various benefit mechanisms, including health checkups, paid annual leave, skills training, etc.

Benefits related to Working Hours	>	Overtime pay, night shift allowances, perfect attendance bonuses, etc.	
Statutory Benefits	>	Full contribution to employees' five social insurances and one housing fund in accordance with national policies	
Employee Incentives	>	Monthly/quarterly star employees, year-end bonuses, improvement awards, innovation awards, annual recognition, project awards, etc.	
Health Care Benefits	>	Annual health checkups, free gym, sports rooms, etc.	
Vacation Benefits	>	Holiday benefits and subsidies, and full salary payment during annual leaves	
Free Clubs	>	Clubs, venues for football, basketball, badminton, and relevant equipment, regular competitions and participation in social competitions.	
Training Benefits	>	Skill training, team-building, and other career development training programs, as well as subsidies for employees who pursue higher education or obtain professional certifications	
Free Meals, Accommodation, and Transportation	>	Free meals, shuttle buses, and shared dormitories are provided for employees in need.	
Other Welfare	>	Lunch subsidies, transportation subsidies, phone bill subsidies, wedding gifts, condolence money for bereavement leave, monthly birthday parties and gifts, sickness condolences, red envelopes at the start of work, high-temperature allowances, special position allowances, business trip subsidies, etc.	

Key Performance During the Reporting Period		
100%	5.26 Days	
Coverage Rate of Social Insurance	Per Capital Paid Annual Vacation Days	



Support for Employees in Difficulty

MACMIC cares about employees in difficulty. The Company sets up a support mechanism, provides financial support and psychological care, and organizes love activities to help them overcome difficulties and enhance their sense of belonging and happiness.

Case Study: Warmth in the World – Love in the Air



MACMIC always adheres to the spirit of humanistic care. When learning that an employee's child was sick and the family was facing financial hardship, the leaders of the Company immediately went to the hospital with their families to visit and provide condolence. The Administration Department organized a one-week “Warmth in the World” donation across two factory locations. All employees actively responded to the donation, and the total amount donated was RMB 112,267.20.



Charitable Donation Event

Employee Activities

MACMIC values the cultural needs and humanistic care of its employees. In response to the Healthy China Initiative, the Company promotes a healthy lifestyle, and organizes a variety of cultural and sports activities, such as the Family Day, birthday parties, team-building events, ping-pong matches and badminton tournaments, to help employees engage in life and work with a healthier body and mind. These activities fully motivate employees, promote mutual communication among employees, and enhance team cohesion.



Family Day



Team Building of Delivery Center



Team Building of R&D Center



Team Building of Comprehensive Service Center



Badminton Tournament



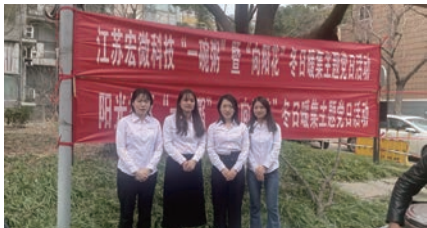
Ping-Pong Match



New Employee Welcome Party



Employee Birthday Party



"Bowl of Porridge" Event

Democratic Governance



MACMIC promotes democratic management institutionalization and has established the *Employee Congress System*, to ensure employees' rights to know, participate, express, and supervise. The Company holds annual Employee Congress and establishes the Trade Union, to discuss major issues involving employees' rights and interests and safeguard their rights and interests. The Trade Union coordinates labor relations, organizes employee activities, and creates a harmonious working atmosphere.



Employee Congress

Key Performance During the Reporting Period

3 Items
Proposals Passed at
the Employee Congress

3 Items
Proposals Passed
by the Trade Union

55.72%
Proposition of Trade Union Members
in In-service Employees

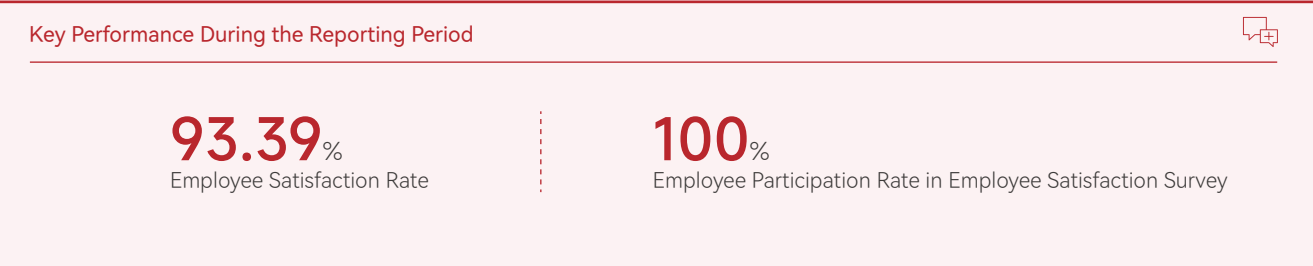
Employee Communication Channels

MACMIC attaches great importance to communication and interaction with employees. The Company promptly conveys information, and widely collects employee demands through channels such as workshop interviews, the Employee Congress, new employee welcome parties, suggestion boxes, and the General Manager’s Mailbox. The Company also has established a well-organized, anonymous complaint channel according to the internal *Control Procedure for Employee Complaint Management* to ensure strict confidentiality of the complainant’s information. In the process of handling complaints, if any retaliation against the complainant occurs, the Company will strictly handle it according to laws, regulations, and in-house policies.



Employee Satisfaction

MACMIC regularly conducts employee satisfaction surveys through the distribution of questionnaires. The questionnaires cover key aspects including evaluations of the working environment and atmosphere, opinions on remuneration and benefits, as well as employees’ assessments of their personal development and departments. By collecting feedback from employees, the Company is able to identify and solve potential problems in a targeted manner and further optimize its management style and working environment.



Training and Development

Adhering to the talent philosophy of “maximizing individual potential, prioritizing integrity, and fostering self-fulfillment”, MACMIC places great importance on talent cultivation and has established a comprehensive, multi-level talent training system, supported by documents like the *Training Management Measures* and the *Promotion Management Measures*. We provide differentiated promotion paths based on key business needs, position value differences, and the professional requirements of various job roles. This helps to create clear talent development opportunities and encourages better coordination and communication of professional talent across departments.



Employee Training

MACMIC has developed the *Employee Training Management Measures* based on the actual needs of training management, outlining the implementation process and assessment mechanisms. The Human Resources Department serves as the central body and organizer for managing employee training, overseeing and coordinating all training activities. Other functional departments and internal instructors support or assist HR in carrying out relevant training activities.



Training Platform Construction

To enhance the overall competence of our workforce and align employees’ career development with the growth of the Company, MACMIC has introduced the Yingsheng Training Platform which integrates both online and offline training services. This platform offers comprehensive training from onboarding to skill development. Additionally, a dedicated training incentive system has been established to fully motivate employees’ enthusiasm for learning and foster mutual growth between the employees and the Company. We also have developed the training plan for 2024 which required relevant departments to complete the corresponding course training within the specified timeframe.



Training on Professional Skills



Case Study: Training on Failure Analysis

On April 18th, the Company organized a training session on failure analysis for 28 employees from the module development, module engineering, and laboratory departments. The training covered topics such as the failure analysis process, current analytical capabilities, handling methods, and typical failure modes. Through this training, employees gained an understanding of industry products and process defects, became familiar with analytical methods and related equipment, and enhanced their awareness and practical skills in failure analysis.




Training on Failure Analysis

Case Study: Training on Professional Skills (Partial)



Training on Quality Awareness for Decision-Makers

Training on ESD Basic Theory







Outward Bound of University Graduates

Leadership Training

Case Study: Conducting a Integrated Leadership Situational Case Simulation Course

On December 28-29, 2024, the Company organized a training session titled “Integrated Leadership Situational Case Simulation Course” for management personnel. The training focused on leadership, values, teamwork, and communication, and guided participants to learn and master advanced leadership concepts and techniques through real-world scenario simulations.



Building of Instructor Team

MACMIC has established an internal instructor team to fully leverage and utilize internal resources, promoting the sharing and transfer of knowledge, experience, and skills across various fields. Internal instructors are selected by the Human Resources Department. After a trial lecture and evaluation by the panel, those who pass the assessment are awarded appointment letters and are authorized to teach.

Key Performance During the Reporting Period

62Persons

Total Number of Internal Instructors

Employee Promotion

MACMIC attaches great importance to employee career development. The Company has implemented the Promotion Management Measures, which outline a transparent process for promotions, from submitting applications and filling in information to review, approval, salary increases, and public announcement. In addition, the Company offers three core career channels (i.e., the technical, managerial, and professional channels), each with clearly defined levels to create a structured, transparent path for career advancement.

Job Level	Job Level	Position			Tenure in the Promoted Position						
		Technical Position Qualifications (Six Levels)	Managerial Position Qualifications (Five Levels)	Professional Position Qualifications (Five Levels)							
Level 14	A	————	Chief Scientist	General Manager	————	3 years					
	B										
Level 13	A		Expert	Level 1 Department Head			Chief Management Professional				
	B										
Level 12	A		Level 2 Department Head								
	B										
Level 11	A					Chief Engineer					
	B										
Level 10	A	Senior Technician	Level 3 Department Head								
	B										
Level 9	A					Senior Engineer	Senior Management Professional				
	B										
Level 8	A	Technician /Supervisor		Primary Management	Management Professional						
	B										
Level 7	A						Engineer				
	B										
Level 6	A	Assistant Engineer			Assistant Management	1 year					
	B										
Level 5	A						Senior Worker /Technician			Staff	
	B										

Career Development Path

Occupational Health and Safety

Adhering to the occupational health and safety principle of “prevention first, prevention and control integration, and comprehensive governance”, and following related standards such as the *Occupational Health and Safety Management Systems—Requirements with Guidance for Use*, the Company has established the environmental and occupational health and safety management system. During the Reporting Period, no major work safety accidents occurred in the Company.

Safety Management System

Our top management assumes full leadership responsibility for occupational hazard prevention and has created a dedicated occupational health management body to oversee the implementation of these measures. The responsible leader organizes the formulation of procedures such as the *Occupational Health Management System* and the *Environmental Health and Safety Manual* and ensures that they are followed. These documents offer clear safety directives and behavior standards for employees, promoting the efficient enforcement of work safety policies and procedures. During the Reporting Period, the Company passed the ISO 45001 Occupational Health and Safety Management System Certification.



ISO 45001 Occupational Health and Safety Management System Certification

Indicator	Objectives	Achievements in 2024
Work-related Fatalities	0 Case	
Severe Injuries	0 Case	
Major Fires	0 Case	
Incidence Rate of Occupational Diseases	0%	
Occurrence rate of Accidents in the Plant Area	<0.3%	
Rectification Rate for Major Potential Safety Hazards	100%	
Percentage of Special Operators Licensed	100%	
Pass Rate in Evaluation of Safety Training	100%	

Safety Risk Management

In line with the *Hazard and Risk Source Assessment and Management System*, the Company evaluates hazards in production, operations, and product processes. For high-risk areas, risk notification cards are provided to visually alert employees to take protective actions. Moreover, normalized inspections are conducted to promptly eliminate potential hazards. Emergency drills are organized to enhance emergency response capabilities, thereby reducing accident likelihood and improving the safety management level.

Inspection of Potential Hazards

MACMIC has established a sound normalized inspection system against potential hazards, and organizes professional personnel to conduct comprehensive safety monitoring on a regular basis. The Company has clear guidelines in place that, once safety hazards are identified during inspections, the responsible individuals must make rectifications within the stipulated time to ensure timely and effective resolution of all issues.

MACMIC offers rewards to employees in functional departments who promptly detect and properly handle safety hazards. Additionally, a comprehensive evaluation of the quality and quantity of hazards identified by supervisory personnel during the inspection process is conducted, with this evaluation serving as a factor in employee incentive decisions. By establishing a sound incentive and evaluation system, the Company effectively boosts employees' motivation and initiative in hazard identification and risk control, thus lowering risks from the source and ensuring safe operations.

Case Study: Government Visits



On September 3, 2024, the Longhutang Comprehensive Law Enforcement Bureau arranged for an inspection team to visit MACMIC for a "Four No's and Two Straight's" inspection. This practice means no notifications, no pre-visit greetings, no reports, and no reception. The team goes directly to the grassroots level and engages on-site. The purpose is to ensure that the visited company maintains a high-pressure stance and fosters a secure and stable social environment. The inspection team went directly to the frontline at MACMIC, thoroughly inspecting the power, production, office, and storage areas, as well as the safety operations of the facilities and equipment. They also provided clear directives for safety precaution measures.



Government Visit

Key Performance During the Reporting Period



RMB **3,471,000**
Investment in Work Safety

RMB **414,300**
Investment in Work-Related
Injury Insurance

100%
Coverage Rate of Work-Related
Injury Insurance for Employees

Safety Emergency Management and Drills

MACMIC prioritizes safety and emergency response, actively conducting emergency drills. During the Reporting Period, drills were held to simulate scenarios such as poisoning, suffocation, and fires. These drills aimed to enhance employees' emergency knowledge and response capabilities, improve departmental capabilities in managing and responding to emergencies, and provide strong support for the work safety of the Company.

Case Study: Fire Emergency Response Plan Drill



On March 14, 2024, the Huashan Plant of MACMIC conducted a fire emergency response drill. The drill simulated a fire emergency, including stages like command, response, evacuation, and roll call, all executed according to the plan. This drill improved employees' emergency response capabilities, supporting the Company's commitment to work safety.



Fire Emergency Response Plan Drill

Case Study: Emergency Response Plan Drill Against Poisoning and Suffocation



On August 6, 2024, the Third Plant of MACMIC conducted an emergency response drill against poisoning and suffocation, simulating an accident scenario in the workshop. The drill covered emergency response stages like on-site rescue, emergency response, evacuation, and roll call, all executed according to the plan. This drill tested the effectiveness of the emergency management system, enhanced the rescue team's coordination skills, strengthened the command and response capabilities of various departments, and deepened employees' understanding of evacuation procedures.



Emergency Response Plan Drill against Poisoning and Suffocation

Occupational Health and Safety Measures

To ensure a safe working environment for employees, MACMIC has implemented comprehensive and detailed safety management measures aimed at creating a zero-accident, zero-injury workplace.

Fire Safety Management

The alarm valve set can control the water flow, supplying water during a fire and cutting off the water supply when there is no fire. It can rapidly sense changes in water flow, trigger the alarm device, send out a warning immediately, buy time for rescue, minimize fire damage, and protect both personnel and property.

Warehouse Safety Management

MACMIC implements strict safety and security measures for flammable and explosive materials in Class A warehouses, effectively preventing fires, explosions, and chemical leaks, thus minimizing risks to the environment and personnel, and maintaining regional safety and stability.

Installation of Safety Signs

The purpose of safety signs is to clearly and intuitively communicate safety information to personnel, helping them quickly identify potential hazards during production and daily operations. This also helps standardize their behavior, raise safety awareness, and create a safe and orderly work environment.

Occupational Health and Safety Training

The training program covers knowledge related to laws and regulations, potential hazard identification and safety risk assessment, fire safety, employee safety behavior and emergency response, as well as occupational health and safety knowledge.

Key Performance During the Reporting Period

58 Sessions
Total Sessions of Safety Training

8,853 Person-times
Total Participants

58 Hours.
Total Training Duration

Occupational Health Checkups

MACMIC regularly organizes occupational health checkups, with standard health screenings conducted annually. For positions with higher risks, an additional X-ray examination is arranged every two years.

Key Performance During the Reporting Period

100%
Coverage Rate of Employee Health Checkups



Class A Warehouses



Safety Signs

Contribution to Society

Always committed to social responsibility, MACMIC has formulated the *Public Welfare Activity Management Regulations* to govern its behavior in community involvement and public welfare. The Company also actively creates greater value for society by organizing a series of public welfare activities, such as helping people with disabilities, offering support to frontline police officers, and participating in the “Walk for a Bag of Milk” event. These actions embody our dedication to spreading love and warmth and showcasing our corporate responsibility.

Key Performance During the Reporting Period

RMB 49,600
Total Investment in Public Welfare

Case Study: Walk for a Bag of Milk: Bringing Hope to Children in Difficulties

Under the theme “Connected by Heart, Walk for Love”, the Company organized the MACMIC Public Welfare Walking Team to participate in the 2024 Changzhou “Walk for a Bag of Milk” charity event. Their participation helped raise RMB 13,400 for the milk expenses of children from families in need, actively contributing to public welfare. This event is a relay of love, showcasing the spirit of MACMIC employees and demonstrating their sense of responsibility.



Walk for a Bag of Milk Event

Case Study: Care and Support to Frontline Police Officers

On February 26, 2024, representatives from MACMIC visited the local police station to thank the officers for their steadfast commitment to maintaining public order and safeguarding the security of the Company and our employees. On that day, the police officers also conducted a training session for our representatives to enhance employees’ self-protection skills and raise awareness of fraud prevention and traffic safety.

COMPLIANT GOVERNANCE: SOLIDIFYING THE FOUNDATION OF SUSTAINABILITY

Key ESG Issues Covered in This Chapter

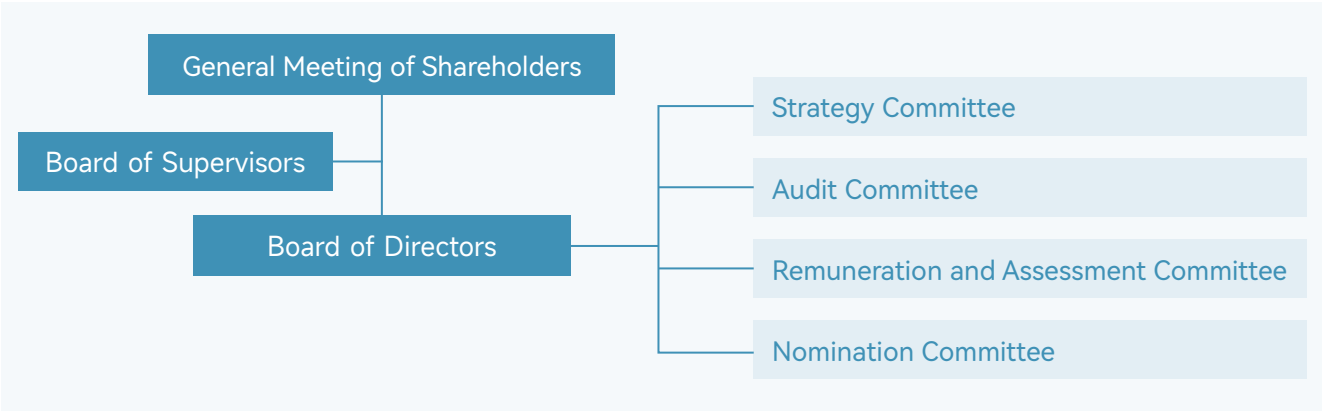
- Protection of Shareholders' Rights and Interests
- Corporate Governance
- Risk Management
- Tax Compliance
- Data Security and Customer Privacy Protection
- Anti-Commercial Bribery and Anti-Corruption
- Anti-Unfair Competition

SDGs Responded
in This Chapter



Governance Structure

MACMIC strictly follows the *Company Law of the People’s Republic of China*, the *Securities Law of the People’s Republic of China*, and other laws, regulations, and regulatory requirements. We enhance our governance level by improving internal control systems and promoting the standardization and proceduralization of corporate governance. The Company has established a governance structure and supervision mechanism with clear responsibilities and effective checks and balances, ensuring strict legal compliance in our operations. Our internal governance framework comprises the General Meeting of Shareholders, the Board of Directors, and four specialized committees (the Strategy Committee, the Audit Committee, the Remuneration and Assessment Committee, and the Nomination Committee), along with the Board of Supervisors. Each body has clear roles and responsibilities, works in a highly efficient and collaborative manner, and adheres to a strict and transparent decision-making process, establishing a strong foundation for the Company’s standardized operations and long-term growth.



General Meeting of Shareholders

In accordance with applicable laws and regulations, MACMIC convenes and holds general meetings of shareholders, and fully ensures the rights and interests of shareholders. We adopt both on-site and online voting methods to facilitate investors and ensure separate vote counting for material matters impacting the interests of minority investors, effectively safeguarding their rights and interests. Moreover, legal counsel is engaged to participate in the meetings to ensure that the procedures and decisions are lawful and compliant, and issue a legal opinion on the meeting’s legality.



Board of Directors

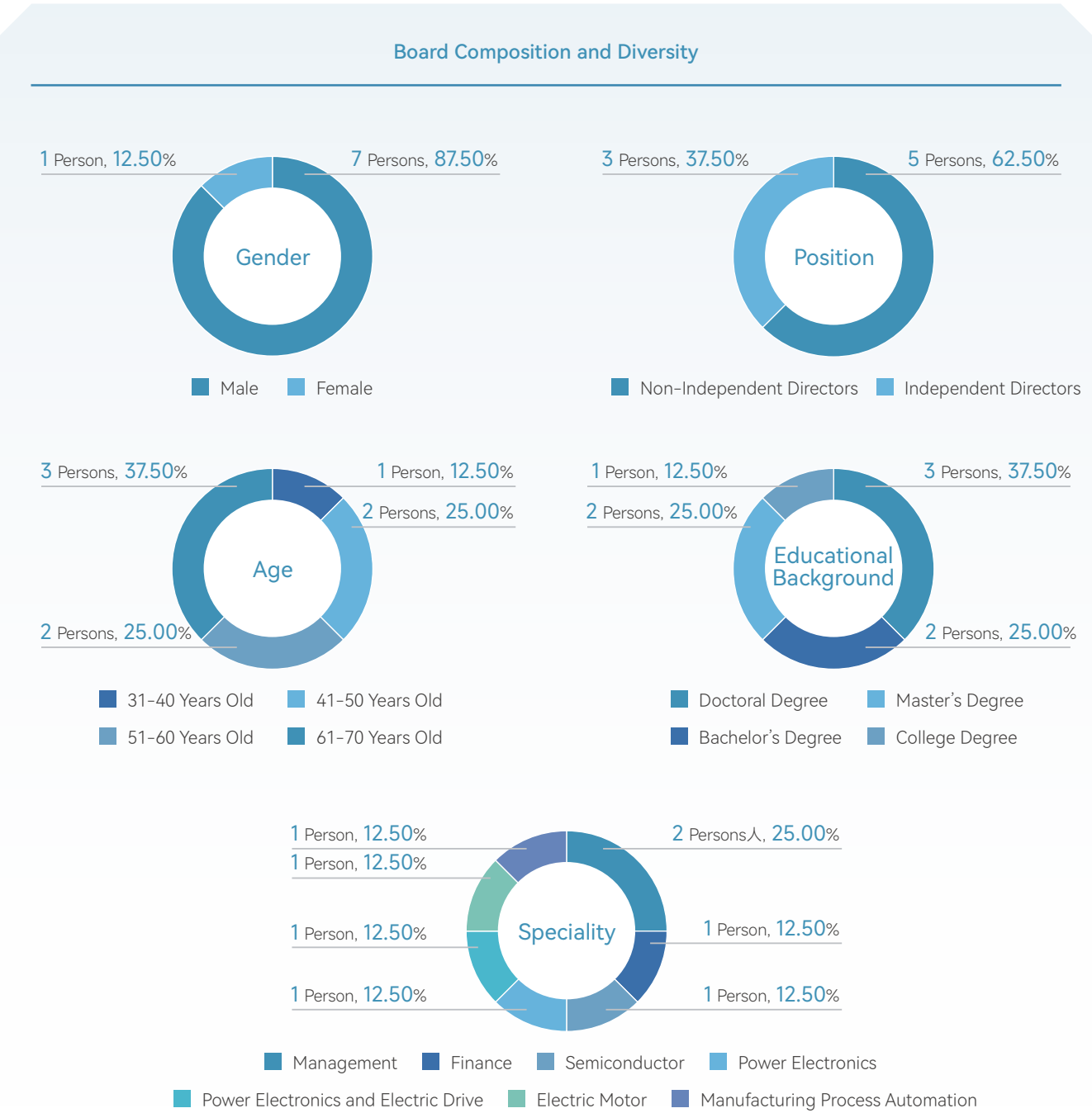
The Board of Directors is accountable to the General Meeting of Shareholders. In accordance with relevant laws, regulations, normative documents, and the *Articles of Association*, MACMIC has established the *Rules of Procedure for the Board of Directors* to improve the corporate governance structure and regulate the behaviors of the board and its members. This effort ensures the legality of meeting procedures and resolutions, promotes efficient operation and sound decision-making of the board, and protects the legitimate rights and interests of the Company and its stakeholders.



Board Diversity

MACMIC prioritizes the diversity of our board members, believing it plays a crucial role in enhancing decision-making quality, governance effectiveness, and competitiveness. In selecting board candidates, we take into account factors such as gender, age, educational background, professional expertise, and experience to ensure a balanced composition, thereby improving the operational efficiency of the Board of Directors.

As of the end of the Reporting Period, the Board of Directors comprises 8 members, including 1 female director. All board members have extensive experience in fields such as technology, finance, and management.



Board Independence

The Board of Directors comprises 3 independent directors, meeting the regulatory requirement of at least one-third representation. These independent directors actively engage in the Company’s day-to-day operations and major decision-making processes, diligently fulfilling their duties. They carefully deliberate matters requiring their opinions and present independent and objective views to safeguard the rights and interests of minority shareholders and investors.

Specialized Committees under the Board of Directors

The Board of Directors has four specialized committees: the Strategy Committee, the Nomination Committee, the Remuneration and Assessment Committee, and the Audit Committee. Each committee exercises its powers and provides professional support for the decision-making of the Board of Directors, in accordance with the *Articles of Association* and implementation rules. Independent directors constitute the majority in most committees and serve as conveners, and provide scientific and professional insights to the Board of Directors, thereby ensuring the effectiveness and rationality of decision-making.

Committee	Composition
Strategy Committee	Comprising 3 directors, with 2/3 being independent directors
Audit Committee	Comprising 3 directors, all of whom are independent directors, with an accounting professional serving as the chairman (convenor) of the committee
Remuneration and Assessment Committee	Comprising 3 directors, with 2/3 being independent directors and serving as the Chairman (convenor)
Nomination Committee	Comprising 3 directors, with 2/3 being independent directors and serving as the Chairman (convenor)

Key Performance During the Reporting Period			
1 time Meetings of the Strategy Committee Held	6 time Meetings of the Audit Committee Held	2 time Meetings of the Remuneration and Assessment Committee Held	2 time Meetings of the Nomination Committee Held
2 Items Proposals Reviewed and Approved	18 Items Proposals Reviewed and Approved	5 Items Proposals Reviewed and Approved	5 Items Proposals Reviewed and Approved

Board of Supervisors

The Board of Supervisors, in accordance with the *Articles of Association* and the *Rules of Procedure for the Supervisory Board*, supervises the Company’s finance as well as the compliance of the Company’s directors and senior management in performing their duties in accordance with applicable laws and regulations, thus effectively safeguarding the legitimate rights and interests of the stakeholders.

The Board of Supervisors consists of three supervisors, including one employee supervisor, who is elected by the Employee Congress.

Key Performance During the Reporting Period	
5 Times Meetings of the Board of Supervisors Held	19 Items Proposals Reviewed and Approved

Remuneration Management for Directors, Supervisors and Officers

When formulating the remuneration program for directors, supervisors, and officers, we fully consider our circumstances, taking into account industry salary trends and regional levels. We balance short-term incentives with long-term development, align individual and team interests, protect shareholders’ rights and interests, and aim for mutual growth of the Company and the management.

Remuneration Program for Directors	<ul style="list-style-type: none">The Chairman and non-independent directors who hold positions are compensated based on the salary and performance appraisal system (annual salary = basic salary + performance bonus + long-term incentives) and do not receive director allowances. Long-term incentives include stock-based incentives and employee stock ownership plans, among other programs.The remuneration for independent directors follows an independent director allowance system, with an allowance of RMB 84,000 per year (before tax), paid monthly.
Remuneration Program for Supervisors	<ul style="list-style-type: none">Supervisors who hold positions are compensated based on their job responsibilities, performance capabilities, and work achievements, and do not receive supervisor allowances.
Remuneration Program for Officers	<ul style="list-style-type: none">Officers are compensated based on their roles and job responsibilities, in line with the Company’s salary and performance appraisal system (annual salary = basic salary + performance bonus + long-term incentives). Performance bonuses are based on the Company’s performance as well as individual performance. Long-term incentives include stock-based incentives and employee stock ownership plans, among other programs.

Key Performance During the Reporting Period	
RMB 5,551,900 Total Remuneration Actually Received by All Directors, Supervisors, and Officers	

Risk Management

Risk Management System

In accordance with the *Company Law of the People's Republic of China*, the *Basic Standard for Enterprise Internal Control*, and other related regulatory documents, MACMIC has developed the *Internal Control Management Measures*. The Board of Directors is the highest governing body for internal control, the Risk Control and Management Department is responsible for internal control tasks, and each business department is responsible for implementing the internal control system and conducting self-assessments. This guarantees the establishment and continuous effective execution of the Company's internal control system, supports the achievement of internal control objectives, complies with regulatory requirements, ensures the smooth progress of self-assessment, and identifies and prevents operational risks.

With a strong awareness of risk prevention, MACMIC regularly conducts internal risk training for employees, aiming to enhance their awareness of risk prevention and reduce the occurrence of potential risks.



Tax Management

MACMIC strictly follows tax regulations, and has established a robust tax risk management system and streamlined management processes to ensure compliance with tax filings. We closely monitor policy changes, maintain good communication with tax authorities, regularly conduct risk assessments and self-inspections, effectively preventing tax risks, and ensuring the stable business development.

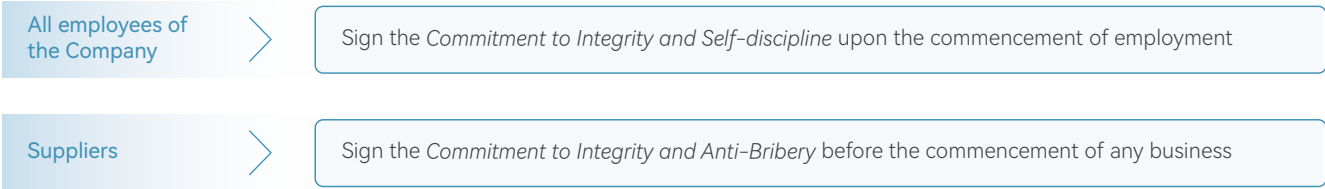


Business Ethics

Anti-Bribery and Anti-Corruption

MACMIC has formulated related regulations such as the *Integrity Management System*, issued the *Code of Business Conduct*, and established an Integrity Committee, to promote the development of an integrity system and foster a positive image for both the Company and employees. Furthermore, we integrate the inspection and supervision of departments and employees into our daily operations, ensuring timely alerts and corrections to prevent potential issues. Any violations are promptly stopped, and after reporting to the Company's management, corrective measures are implemented.

Integrity Practices



Construction of a Culture of Integrity

MACMIC encourages all employees to strengthen their awareness of integrity and self-discipline, thereby preventing violations and misconduct from the source. Through activities like integrity promotion and education, we promote a spirit of honesty, integrity, and self-discipline in the workplace. During the Reporting Period, the Company implemented various measures to strengthen awareness of integrity, self-discipline, and compliance. Independent directors attended a special anti-fraud course organized by the Shanghai Stock Exchange. MACMIC also organized training on sales legal compliance risks, which covered compliance requirements in three areas: client relations, regulatory compliance, and corporate governance. The training highlighted risk alerts and response strategies related to integrity, anti-corruption, and market promotion compliance, aiming to comprehensively improve compliance awareness and response capabilities, and to prevent violations and misconduct from the source.



Whistleblowing Channels and Protection of Whistleblowers

MACMIC has established accessible reporting channels and improved the protection system for whistleblowers. We encourage mutual supervision and self-restraint among employees and support the reporting or filing of complaints regarding misconduct. Whistleblowers who offer credible evidence will have their identity kept confidential, and will be rewarded upon verification of the information. Furthermore, we make it clear that reports and complaints should be objective, just, and fact-based, with a firm prohibition on false accusations, framing, and retaliatory actions.



Anti-monopoly and Fair Competition

MACMIC strictly adheres to antitrust and unfair competition laws and regulations, actively promotes a fair and honest competitive environment, opposes unfair practices, and encourages employees to uphold strong business ethics to ensure compliance and support the sustainable development of the industry.

We are committed to improving the review and supervision system for responsible marketing. All promotional and marketing activities must undergo internal review and approval to ensure the communication of truthful, accurate, and compliant product information. We also require employees to strictly follow company guidelines during marketing activities, ensure legal, honest, and scientifically-based communication and avoid exaggeration, fraud, and false information. In addition, the Company has established the *Product Pricing Management Measures* to standardize the formulation and management of product prices, thus ensuring that prices are scientifically determined, reasonable, responsive to market changes, and protective of customer resources.

Case Study: Case StudyAnti-Monopoly and Fair Competition Training

During the Reporting Period, the Company conducted anti-monopoly and fair competition training on December 28, 2024, with 52 participants. The training was based on the *Code of Business Conduct*, with a focus on key provisions of the *Anti-Monopoly Law of the People’s Republic of China*, and the *Anti-Unfair Competition Law of the People’s Republic of China*. It effectively enhanced the legal awareness of marketing personnel, and helped them identify monopolistic practices (such as price collusion) and unfair competition (such as false advertising), while emphasizing the importance of compliance. It helped regulate market competition, enabling the Company to avoid monopolistic behavior and maintain a well-ordered market. The training improved the Company’s risk management capabilities, helped in building a strong internal compliance culture, shifted employees from passive law-following to active compliance, and contributed to the creation of a fair competition landscape.

Investor Relations Management and Shareholders’ Rights and Interests

Information Disclosure

In strict compliance with relevant laws, regulations, and the Articles of Association, MACMIC has established the *Information Disclosure Affairs Management System* to regulate information disclosure practices. We reinforce our information disclosure management by clearly defining responsibilities, scope, procedures, and confidentiality requirements, thereby improving the quality of information disclosure. The Chairman of the Board of Directors is the primary responsible person, and the Board Secretary is the direct responsible person.

The Company follows the principles of openness, fairness, and justice in information disclosure, and provides timely and accurate information to investors through channels such as the Shanghai Stock Exchange website, to ensure investors have equal access to information for all investors.

Key Performance During the Reporting Period

97 Announcements Disclosed, including 4 Periodic Reports and 93 Interim Reports.

Investor Relations Management

MACMIC values the legitimate rights and interests of shareholders, creditors, and other stakeholders, and strictly adheres to relevant laws, regulations, and normative documents. We have established the Office of the Board of Directors to oversee and execute investor relations management, and have formulated the Investor Relations Events to regulate the Company’s interaction with investors, address their concerns, improve information flow, increase investor understanding and trust, and enhance corporate governance and overall value.

We also actively engage with investors through multiple channels, including performance briefings and investor hotlines, to share corporate information, protect investors’ legal rights, and foster long-term, stable, and mutually beneficial relationships built on trust.



Investor Relations Events

Key Performance During the Reporting Period

4

Time Performance Briefings Held

260

Person-times Investor Research Visits Received

76

Times Interactions with Investors via SSE E-Interactive Platform

100%

Reply Rate to Investors' Inquires at SSE E-Interactive Platform

Return on Shareholders’ Investment

MACMIC strictly implements the shareholder dividend distribution plan and profit allocation policy, and distributes cash dividends to investors by taking into account factors such as the industry characteristics, our development stage, business model, profitability, and capital expenditures. The dividend distribution of the Company in the past two years is as follows:

Indicator	Unit	2023	2022
Cash Dividend per Share	Yuan/Share	0.09	0.064
Total Cash Distribution (Tax Inclusive)	RMB	13,672,561.77	8,825,002.75
Proportion to Net Profit Attributable to Shareholders of the Listed Company in Consolidated Financial Statements	%	11.77	11.21

Data Security and Customer Privacy Protection

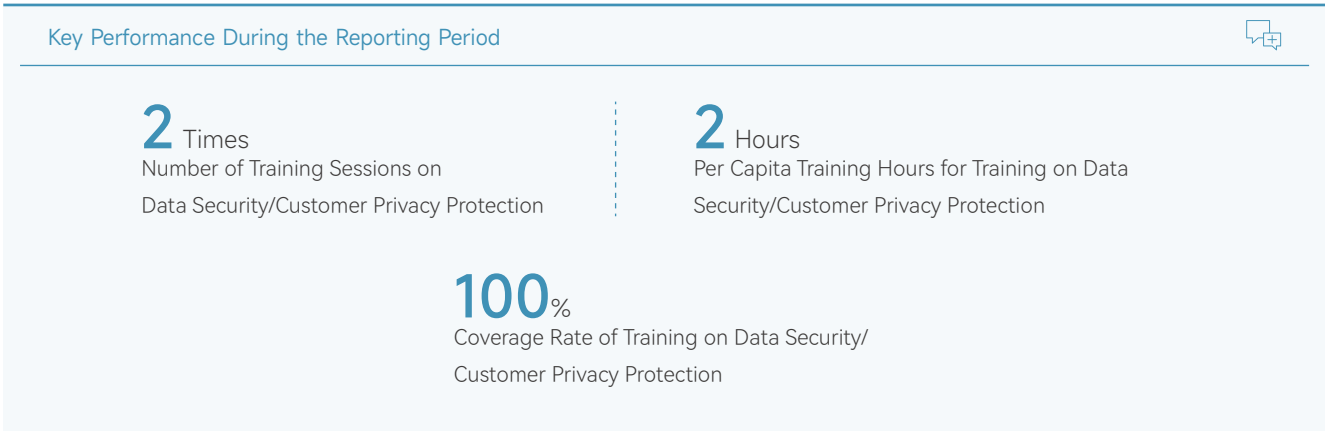
Information Security Management System

MACMIC attaches great importance to data security and customer privacy protection. Adhering to the "need-to-know" principle, the Company strictly controls the scope of information access to minimize the risk of leaks. We have established a comprehensive system, formed a confidentiality leadership team, defined individual responsibilities, and included information security in the performance appraisal process. During the Reporting Period, no data leaks occurred in the Company.

Moreover, in 2024, we appointed a qualified third party to assess the information security management system and its operations, and developed a practical implementation plan for information security to further improve the management system.

Training on Information Security

During the Reporting Period, MACMIC organized a wide range of training on information security. The training covered topics like the fundamentals of information security, the status quo of network information security, personal security awareness, analysis of typical cybersecurity incidents, and daily office security, fully improving employees' information security awareness.



Emergency Management and Drills

During the Reporting Period, MACMIC conducted targeted emergency drills to address potential issues such as line faults, power supply abnormalities, hardware malfunctions, and firewall failures related to low-voltage access devices through simulations. During the drill, the Company conducted a comprehensive evaluation of the plan's content, procedures, and effectiveness. The drill results showed that the emergency plan was effective generally, provided guidance for handling emergencies, and ensured quick response and system recovery.

Data Security Management

MACMIC has formulated rules and regulations like the *Computer and Network Maintenance Guidelines* and the *Confidentiality Code*, and outlined specific requirements for daily computer maintenance, network usage standards, and data confidentiality. Moreover, through mechanisms like backups, early warning systems, and tiered responses, the Company can quickly address potential security risks, providing all-around protection for our data security.

Backup Mechanism

We have established a backup mechanism for critical information systems, conduct regular full data backups, and store them both centrally and offsite to ensure quick recovery in the event of data damage. Backup data are checked monthly, and if any issues are detected, a fresh backup is created in time.

Early Warning Mechanism

When unauthorized access to the network or server is detected, the administrator must verify and report the incident to leadership, shut down the server, modify firewall rules, block or delete compromised accounts, and terminate any suspicious user access.

Tiered Response Mechanism

We have implemented a file encryption system and an internal cloud document system. All outgoing files must undergo review and decryption, with tiered control and management of personnel and operational permissions.

Customer Privacy Protection

In strict compliance with the *Personal Information Protection Law of the People's Republic of China* and other relevant laws and regulations, MACMIC ensures the responsible use of data and the protection of customer privacy. We sign the *Confidentiality Agreement of Macmic Science & Technology Co., Ltd.* with our customers, which specifies confidentiality obligations, intellectual property protection, and other important terms, thereby reinforcing the security of customer information. During the Reporting Period, no customer information leakage incidents occurred in the Company.



Future Outlook

Looking ahead to 2025, MACMIC will remain dedicated to the mission of “enhancing power efficiency and improving power quality”. We will fully integrate ESG principles into our business management process, fulfill our corporate social responsibilities and mission in the economic, social, and environmental aspects, and advance with determination in the tide of the times.

In terms of corporate governance, we will further refine the structure of the Board of Directors, strengthen the functions of specialized committees, ensure timely and accurate information disclosure, and boost investor confidence. In addition, we will continue to enhance business ethics, extend the coverage of our integrity and transparency commitments to include suppliers, partners, and others, and create a more extensive ecosystem of trust-based business practices.

In terms of environmental governance, we will actively support the national “carbon peaking and carbon neutrality” goal, explore the development of low-carbon technologies, and increase investment in energy-saving and emission-reduction research and applications to improve energy and resource utilization in our operations.

In terms of products, we will continue to develop cost-effective products that meet customer needs, enhance production efficiency and product quality, reduce production costs, optimize product portfolio, and intensify market expansion both domestically and internationally to boost market share and ensure steady sales growth.

In terms of social responsibility, we will continue to uphold the talent philosophy of “maximizing individual potential, prioritizing integrity, and fostering self-fulfillment”, optimize career development paths for employees, strengthen independent talent cultivation, enhance employees’ professional skills and overall competence, and ensure the sustainable inheritance of our core competitiveness and corporate culture.

Appendix

Key Performance Form

Performance Overview			
Indicator		Unit	2024
Economic Performance			
Operating Revenue		RMB 10,000	133,136.03
By Product	Modules (Packaged)	RMB 10,000	103,378.35
	Single Devices (Packaged)	RMB 10,000	24,597.97
	Chips	RMB 10,000	2,567.43
	Contract Processing Business	RMB 10,000	2,137.96
	Other Businesses	RMB 10,000	454.32
Total Assets		RMB 10,000	260,150.23
Net Assets		RMB 10,000	107,563.76
Industry Value and Performance			
R&D and Innovation			
R&D Investment		RMB 10,000	10,976.13
Percentage of R&D Investment in Operating Income		%	8.24
Number of New Product Development Projects		Projects	36
Number of R&D Personnel		Persons	193
Composition of R&D Team by Educational Background	Bachelor’s Degree and Below	Persons	156
	Master’s Degree	Persons	34
	Doctoral Degree	Persons	3
Composition of Our R&D Team by Age	Under 30 (Exclusive) Years Old	Persons	94
	30 (Inclusive) to 40 (Exclusive) Years Old	Persons	77
	40 (Inclusive) to 50 (Exclusive) Years Old	Persons	15
	50 (Inclusive) to 60 (Exclusive) Years Old	Persons	3
	60 Years Old or Above	Persons	4

Indicator	Unit	2024
Project Incentive Distribution Amount	RMB 10,000	142.28
Number of Employees Receiving Project Incentives	Person-times	322
Number of Employee Shareholders	Persons	39
Percentage of Employee Shareholders to Total Employees	%	3.57
Number of Shares Held by Employees	Shares	3,318,071
Percentage of Employee Shares to Total Share Capital	%	1.56
Cumulative Number of Granted Valid Invention Patents	Items	43
Cumulative Number of Granted Valid Utility Model Patents	Items	83
Cumulative Number of Granted Valid Design Patents	Items	7
Number of Newly Granted Invention Patents	Items	2
Number of Newly Granted Utility Model Patents	Items	5
Number of Newly Granted Design Patents	Items	1
High-Tech Enterprise Certification	Certifications	1
National “Little Giant” Specialized and Sophisticated Enterprise that Produces Novel and Unique Products	Enterprises	1
Postdoctoral Programme	Programmes	1
Number of National Standards Led or Contributed by MACMIC	Items	9
Number of Industry Standards Led or Contributed by MACMIC	Items	21
Product Quality and Safety		
Number of Internal Quality Audits	Times	1
IGBT Module Quality Yield	%	96.5
Number of Participants in Quality Training	Times	2,478
Total Hours of Quality Training	Hours	197.5

Indicator		Unit	2024
Number of Quality Training Sessions		Times	46
Number of Major Product Recalls Due to Quality or Safety Issues		Times	0
Product Recall Rate		%	0
Protection of Customers’ Rights And Interests			
Customer Satisfaction		Points	90.95
Establishment of Sustainable Supply Chain			
Number of Suppliers		Suppliers	87
Number of Suppliers Passing the Quality Management System Certification		Suppliers	87
Number of Suppliers Passing the Environmental Management System Certification		Suppliers	33
Number of Suppliers Passing the Occupational Health and Safety Management System Certification		Suppliers	23
Performance Evaluation of Key Raw Material Suppliers	Number of Grade-A Suppliers	Suppliers	20
	Number of Grade-B Suppliers	Suppliers	14
	Number of Grade-C Suppliers	Suppliers	3
	Number of Grade-D Suppliers	Suppliers	2
Signing Rate of the <i>Commitment to Integrity and Anti-Bribery</i> by Suppliers		%	100
Signing Rate of the <i>Declaration on Non-Use of Conflict Minerals</i> by Suppliers		%	100
Environmental Performance			
Response to Climate Change			
Direct GHG Emissions (Scope 1)		tCO _{2e}	24.18
Indirect GHG Emissions (Scope 2)		tCO _{2e}	16,210.77
Total GHG Emissions		tCO _{2e}	16,234.96
GHG Emission Intensity		tCO _{2e} /10,000 yuan of revenue	0.12

Indicator		Unit	2024
Resource Utilization			
Energy Utilization	Total Purchased Power	MWh	26,015.61
	PV Generation	MWh	1,249.29
	Gasoline	Tons	6.33
	Diesel	Ton	1.83
	Total Direct Energy Consumption	tce	11.98
	Total Indirect Energy Consumption	tce	3,350.86
	Total Energy Consumption	tce	3,362.84
	Energy Consumption Intensity	tce/10,000 yuan of revenue	0.03
Water Resource Utilization	Quantity of Municipal Water Purchased	Tons	154,159
	Total Water Consumption	Tons	169,563
	Water Consumption Intensity	Tons / 10,000 yuan of revenue	1.27
	Total Water Circulation and Reuse	Tons	15,404
Packaging Material Utilization	Number of Plastic Turnover Boxes Used	Cases	98,000
	Plastic Turnover Box Recovery Rate	%	100
	Number of Plastic Pallets Used	Cases	600
	Plastic Pallet Recovery Rate	%	100
	Number of Wafer Iron Ring Used	Cases	130,000
	Wafer Iron Ring Recovery Rate	%	61.5
	Other Chip Packaging (Plastic Boxes and Trays) Used	Cases	130,000
	Recovery Rate of Other Chip Packaging (Plastic Boxes and Trays)	%	34.6
	Blister Packs	Tons	125.95
	Cardboard Boxes	Tons	59.10
	EPP	Tons	18.47
	Total Consumption of Main Packaging Materials	Tons	203.52
	Use Intensity of Main Packaging Materials	Tons/10,000 yuan of revenue	0.0015

Indicator	Unit	2024
Environmental Management		
Number of Penalties for Violating Environmental Regulations	Times	0
Total Investment in Environmental Protection	RMB 10,000	259.66
Percentage of Total Investment in Environmental Protection to Operating Income	%	0.20
Compliance Rate Observed in Pollutant Monitoring	%	100
Synchronized Operation Rate of Environmental Facilities	%	100
Compliance Rate of Environmental Impact Assessment (EIA) and “Three Simultaneities” System	%	100
Volume of Non-Hazardous Waste Generated	Tons	32.81
Volume of Non-Hazardous Waste Disposed Of	Tons	32.81
Volume of Hazardous Waste Generated	Tons	168.23
Volume of Hazardous Waste Disposal Of	Tons	167.51
Number of Environmental Training Sessions	Times	1
Number of Participants in Environmental Training	Person-times	672
Total Hours of Environmental Training	Hours	2

Social Performance			
Protection of Employees’ Rights And Interests			
Total Number of Employees		Persons	1,093
By Gender	Male	Persons	602
	Female	Persons	491
By Job Level	Senior Management	Persons	11
	Middle Management	Persons	18
	Individual Contributors	Persons	1,064

	Indicator	Unit	2024
By Age	Under 30 (Exclusive) Years Old	Persons	441
	30 (Inclusive) to 40 (Exclusive) Years Old	Persons	501
	40 (Inclusive) to 50 (Exclusive) Years Old	Persons	125
	50 Years Old or Above	Persons	26
By Educational Background	Doctoral Degree	Persons	6
	Master’s Degree	Persons	54
	Bachelor’s Degree	Persons	356
	College Degree or Below	Persons	677
By Speciality	Production	Persons	656
	Sales	Persons	57
	Technology	Persons	267
	Finance	Persons	15
	Administration	Persons	12
	Others	Persons	86
Number of Employees under Labor Dispatch Contracts		Persons	70
Number of Part-time Employees		Persons	0
Number of Employees of Minority Nationalities		Persons	47
Percentage of Employees of Minority Nationalities		%	4.30
Proportion of Women in Management		%	24
Number of Employees on Maternity Leave		Persons	10
Return Rate of Employees from Maternity Leave		%	100
Number of Employees on Parental Leave		Persons	2
Return Rate of Employees on Parental Leave		%	100
Proportion of Employees Receiving Regular Performance and Career Development Assessments		%	100

Indicator	Unit	2024
Coverage Rate of Social Insurance	%	100
Per Capita Paid Annual Vacation Days	Days	5.26
Number of Proposals Approved by the Employee Congress	Items	3
Number of Proposals Approved by the Trade Union	Items	3
Percentage of Trade Union Members to In-Service Employees	%	55.72
Employee Satisfaction	%	93.39
Employee Participation Rate in Employee Satisfaction Survey	%	100
Training and Development		
Investment Amount in Employee Training	RMB 10,000	58.7
Number of Employee Training Sessions	Sessions	813
Total Participants of Employee Training	Person-times	31,876
Total Hours of Employee Training	Hours	42,951.5
Average Training Hours per Employee	Hours/Person	47.67
Coverage Rate of Employee Training	%	88.56
Number of Internal Instructors	Persons	62
Occupational Safety and Health		
Number of Major Safety Incidents	Cases	0
Number of Work-related Fatalities	Cases	0
Number of Serious Work-related Injuries	Cases	0
Number of Major Fire Incidents	Cases	0
Incidence Rate of Occupational Diseases	%	0
Rectification Rate for Major Potential Safety Hazards	%	100
Percentage of Special Operators Licensed	%	100
Pass Rate in Evaluation of Safety Training	%	100
Investment in Work Safety	RMB 10,000	347.10

Indicator		Unit	2024
Investment in Work-related Injury Insurance		RMB 10,000	41.43
Coverage Rate of Work-Related Injury Insurance for Employees		%	100
Number of Occupational Health and Safety Training Sessions		Sessions	58
Number of Participants in Safety Training		Person-times	8,853
Total Duration of Safety Training		Hours	58
Coverage Rate of Employee Health Checkups		%	100
Social Welfare			
Total Investment in Public Welfare		RMB 10,000	4.96
Governance Performance			
Governance Structure			
General Meeting of Shareholders Convened		Times	4
Number of Proposals Reviewed and Approved at the General Meeting of Shareholders		Items	23
Meetings of the Board of Directors Convened		Times	13
Number of Proposals Reviewed and Approved at Meetings of the Board of Directors		Items	61
Number of Members in Board of Directors		Persons	8
By Gender	Male	Persons	7
	Female	Persons	1
By Position	Non-Independent Directors	Persons	5
	Independent Directors	Persons	3
By Gender	31-40 Years Old	Persons	1
	41-50 Years Old	Persons	2
	51-60 Years Old	Persons	2
	61-70 Years Old	Persons	3

Indicator		Unit	2024
By Educational Background	Doctoral Degree	Persons	3
	Master's Degree	Persons	2
	Bachelor's Degree	Persons	2
	College Degree	Persons	1
By Speciality	Management	Persons	2
	Finance	Persons	1
	Semiconductor	Persons	1
	Power Electronics	Persons	1
	Power Electronics and Electric Drive	Persons	1
	Motor	Persons	1
	Manufacturing Process Automation	Persons	1
Number of Meetings Convened by the Audit Committee		Times	6
Number of Proposals Reviewed and Approved at Meetings of the Audit Committee		Items	18
Number of Meetings Convened by the Remuneration and Assessment Committee		Times	2
Number of Proposals Reviewed and Approved at Meetings of the Remuneration and Assessment Committee		Items	5
Number of Meetings Convened by the Nomination Committee		Times	2
Number of Proposals Reviewed and Approved at Meetings of the Nomination Committee		Items	5
Number of Meetings Convened by the Strategy Committee		Times	1
Number of Proposals Reviewed and Approved at Meetings of the Strategy Committee		Items	2
Meetings of the Board of Supervisors Convened		Times	5
Proposals Reviewed and Approved at Meetings of the Board of Supervisors		Items	19

Indicator	Unit	2024
Remuneration Management for Directors, Supervisors and Officers		
Total Remuneration Actually Received by All Directors, Supervisors, and Officers	RMB 10,000	555.19
Risk Management		
Number of Internal Risk Training Sessions	Times	4
Number of Participants in Internal Risk Training	Person-times	100
Total Hours of Internal Risk Training	Hours	4
Total Taxes and Fees Paid	RMB 10,000	1,420.88
Investor Relations Management and Shareholders' Rights and Interests		
Number of Announcements	Copies	97
Number of Periodic Reports	Copies	4
Number of Interim Reports	Copies	93
Number of Performance Briefings	Times	4
Number of Investor Research Visits	Person-times	260
Number of Interactions with Investors via SSE E-Interactive Platform	Times	76
Reply Rate to Investors' Inquires at SSE E-Interactive Platform	%	100
Data Security and Customer Privacy Protection		
Number of Training Sessions on Data Security/ Customer Privacy Protection	Sessions	2
Coverage Rate of Training on Data Security/ Customer Privacy Protectio	%	100
Per Capita Training Hours for Training on Data Security/ Customer Privacy Protection	Hours	2

Indexes

Chapters and Sections	Global Reporting Initiative Sustainability Reporting Standards (GRI Standards)	Guide to Corporate Sustainability Reporting in China (CASS-ESG 6.0)	Guidelines No. 14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies—Sustainability Report (Trial)
About This Report	2-1/2-2/2-3	P1	Article 4/6
Message from the Chairman	2-22	P2	/
About MACMIC	2-1/2-6/201-1	P3	/
Sustainable Development Governance	2-9/2-11/2-12/2-13/2-14/2-16/2-22/2-29/3-1/3-2/3-3	G1.1/G1.1.2/G1.1.6/G1.1.8/G1.1.9/G1.1.11/G1.3/E1.1.3/E1.1.4/S2.1.1	Articles 5/9/11/12 Articles 13/18/19 Articles 21/42
Innovation Leadership: Leading the Future of Chip Science and Technology			
Opportunities in Product Innovation	2-6	S2.1.3/S2.1.8/S2.1.13	Article 42
Promotion of Industry Development	2-28	S2.1.3/S2.1.12	Article 42
R&D and Innovation	2-6	S2.1.2/S2.1.4/S2.1.5/S2.1.6/S2.1.7/S2.1.10/S2.1.11/S2.1.12	Article 42
Product Quality and Safety	2-5/2-23/2-25/416	S3.3.1/S3.3.2/S3.3.3/S3.3.5	Article 45/47/50
Protection of Customers' Rights And Interests	2-25	S3.3.4/S3.3.6	Article 47
Establishment of Sustainable Supply Chain	2-23/2-24/308-1/414-1	S3.1	Article 45
Digital Transformation	/	/	/
Environmental Protection: Empowering a Low-Carbon New Ecosystem			
Response to Climate Change	2-5/2-9/2-12/305-1/305-2/305-4	E1.1.1/E1.1.2/E1.1.5/E1.1.6/E1.1.7/E1.1.8/E1.1.12/E1.1.15/E1.1.16/E1.1.19	Articles 21/22/23 Articles 24/27
Resource Utilization	2-5/301-1/302-1/302-3/302-5/303-3	E3.1/E3.2/E3.3.2/E3.3.3	Articles 35/36/37
Environmental Management	2-5/303-4/305-7/306-1/306-2/306-3/306-5	E2.1.1/E2.1.5/E2.1.6/E2.2.1/E2.2.3/E2.2.5/E2.2.6/E2.4	Articles 29/30/31 Article 33

Chapters and Sections	Global Reporting Initiative Sustainability Reporting Standards (GRI Standards)	Guide to Corporate Sustainability Reporting in China (CASS-ESG 6.0)	Guidelines No. 14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies—Sustainability Report (Trial)
Talent-oriented Culture: Building a Community of Happiness Together			
Protection of Employees' Rights and Interests	2-7/2-27/2-30/201-1/401-2/401-3/405-1/408-1/409-1	S4.1.3/S4.1.5/S4.1.6/S4.1.7/S4.1.11/S4.1.12	Article 49/50
Training and Development	404	S4.3	Article 50
Occupational Health and Safety	2-5/403-1/403-2/403-5/403-7/403-9	S4.2	Article 50
Contribution to Society	/	S1.2.1/S1.2.2	Article 40
Compliant Governance: Solidifying the Foundation of Sustainability			
Governance Structure	2-9/2-10/2-11/2-12/2-13/405-1	/	/
Remuneration Management for Directors, Supervisors and Officers	2-19	/	/
Risk Management	207-1/207-2	G1.2.4	Article 52
Business Ethics	2-23/2-24/2-27	G2.1.1/G2.1.2/G2.1.3/G2.2.1/G2.2.2	Article 55/56
Investor Relations Management and Shareholders' Rights and Interests	2-16/2-29/201-1	/	/
Data Security and Customer Privacy Protectio	408-1	S3.4	Article 48
Future Outlook			
Future Outlook	2-22	A1	/
Appendix			
Key Performance Form	/	A2	Article 6
Indexes	/	A3	Article 57
Feedback Form	/	A6	Article 9

Feedback Form

Dear readers,

Thank you for reading this report. We highly value and look forward to hearing your feedback on this report. Your opinions and suggestions are crucial for us to continuously improve our ESG information disclosure, management and practices. We welcome and sincerely appreciate your valuable comments!

1. Your overall assessment of our performance in ESG:

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

2. Your overall assessment of the report:

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

3. How do you think we have communicated with stakeholders?

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

4. How do you think we have fulfilled our product responsibilities?

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

5. How do you think we have performed in terms of environmental, safety, and occupational health?

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

6. How do you think we have fulfilled our employee responsibilities?

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

7. How do you think we have performed in terms of ESG?

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

8. Any comments or suggestions on our ESG performance and this report?

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