ESPRESSIF
乐鑫科技

ANNUAL REPORT
2025

Contents

Message from the CEO

"We are seeing a structural transition in IoT from a connectivity-driven phase to a capability-driven phase."

Teo Swee Ann
Espressif's Founder & CEO

In 2025, we delivered strong results while continuing to invest in the technologies and ecosystem that will define the next phase of the IoT industry. Revenue increased by 27.8% year-over-year, and net profit grew by 47.4%. At the same time, we increased R&D expenses by 23.1%, reflecting a deliberate commitment to deepen our core capabilities and expand the long-term competitiveness of our platform.

The broader industry context is becoming clearer. We are seeing a structural transition in IoT from a connectivity-driven phase to a capability-driven phase. In the past, value was defined primarily by how many devices could connect. Today, value increasingly depends on what each device can do once connected—how much computation it can perform locally, and how effectively those functions can evolve through software.

AI is the central driver of this transition. As intelligence moves closer to the edge, demand rises for devices that can sense, interpret, and respond with low latency and strong privacy. In response, we continue to strengthen our "connectivity + processing" roadmap. On the connectivity side, we expanded into Wi-Fi 6E; on the processing side, we are advancing products designed for edge AI workloads, powered by our increasingly sophisticated in-house RISC-V designs.

Our ability to execute this strategy is powered by a truly global perspective. Espressif's diverse team is spread across key innovation hubs in India, Singapore, the Czech Republic, and Brazil. This distributed footprint allows us to tap into varied talent pools, stay close to our global customer base, and maintain 24/7 development cycles.

We also recognize that the current geopolitical climate introduces complexities to global trade. We take these potential effects on the supply chain very seriously. Because our chips are designed for industrial and smart-home applications that require long lifetimes, we have taken proactive steps to build a larger strategic inventory. This ensures that we can minimize any potential disruptions and provide our customers with the stability and continuity they require for their long-term product roadmaps.

Our long-term advantage is reinforced by our 2D2B (Developer-to-Business) model. We build a developer-first platform that encourages experimentation; we then support the conversion of successful designs into mass production. In the fourth quarter of 2025, the average daily increase of new ESP32-series projects on GitHub reached 164, a new historical high.

This creates a reinforcing cycle. Open-source tooling lowers the barriers to building. Faster development yields more real-world feedback. As solutions mature, the probability of designs advancing into scaled deployment increases, attracting further developer participation. Over time, this flywheel improves the scalability and resilience of our business model.

As we look forward, we expect AI to further accelerate technology adoption. We will continue to invest prudently in low-power computing architectures, advanced wireless technologies, and edge AI capabilities. Internally, we will also leverage AI to improve our own productivity, enabling faster development cycles and more efficient execution across engineering and operations.

Throughout this work, we remain committed to technological depth and sustainable long-term value creation. On behalf of the management team, I would like to thank our employees, customers, partners, developers, and shareholders for your continued trust and support.

Facts About Espressif

Espressif Systems (SSE: 688018.SH) is a leading fabless semiconductor company providing wireless connectivity and edge intelligence solutions for IoT devices. The Company has expanded beyond chip supply to become a platform enabler for hardware digitalization and intelligent transformation, supported by an integrated combination of silicon, software, tools, and ecosystem resources.

Built around the **ESP32** product family, which has emerged as a preferred and highly recognizable platform among global developers, Espressif has established strong ecosystem momentum. A large and active developer community, thousands of third-party software components, and long-term platform continuity drive sustained adoption.

Through this ecosystem-led approach, Espressif enables customers to build, scale, and continuously evolve intelligent hardware products, positioning the Company to capture durable value as hardware digitalization and intelligence continue to deepen globally.
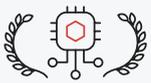
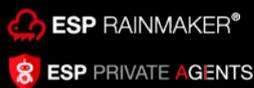|				
1.5 Billion+	**Global Leader**	**200+ Patents**	**10,000+**	**3 Million+**
Global IoT Chip Shipment (Cumulative)	In Wi-Fi MCU Market	In AIoT Technology	Satisfied Customers Worldwide	Active Ecosystem Developers
9	**70%**	**898**	**30**	**35%**
R&D Centers	R&D Employees	Employees	Employee Nationalities	Female Employees

Build Smart with ESP32

As a global semiconductor innovator, we deliver high-performance RISC-V SoCs and comprehensive solutions with integrated AI, in-house operating system, robust security, and seamless cloud integration—shaping the future of smart, connected systems.

| AI Agent | Edge AI | Co-processor | Mesh | Wi-Fi Sensing | HMI | Multimedia | Cloud & Matter | Security |

Cloud & Ecosystem

ESP RAINMAKER®   ESP INSIGHTS
ESP PRIVATE AGENTS   matter

AI & IoT SDK

AI

ESP-SR	ESP-WHO	ESP-DL
Speech Recognition	Image Recognition	Deep Learning

IoT

ESP-Brookesia	ESP-GMF	ESP-IoT-Solution
AI-Powered UI Framework	Audio&Video Processing	Peripheral Integration

Operating System

In-House

ESP-IDF	Compilers & Tool Chains
Official IoT OS	

Third-Party

ARDUINO   WEBASSEMBLY   MicroPython   NX   Zephyr   R

IC Design

Connectivity

Wireless Communication

- Wi-Fi 7/6E/6 | 2.4/5/6 GHz Tri-band
- Bluetooth 6 (LE)
- IEEE 802.15.4

High-Speed Data Transmission
160 MHz Channel Bandwidth | 1024-QAM | 2x2 MIMO

Computing

Core
32-bit RISC-V

AI   FPU | Instruction Set Extensions

Multimedia   ISP | H.264 Encoder | JPEG Codec

High-Speed Interfaces   PCIe | DDR | USB

Cloud & Ecosystem
AI & IoT SDK
Operating System
IC Design

Brand Awareness

The ESP32 and Espressif brands have a strong sense of recognition among users. This recognition has become a key factor in our competitive advantage and success. Users identify with the ESP32 brand due to its reliability, performance, and versatility, which have been proven across various applications and industries. This strong brand awareness not only fosters customer retention but also attracts new users, thereby solidifying Espressif's position in the market.

ESP32 Google Trends

Exceptional IC Design Capability

Espressif independently designs and develops its own chip products, with core IPs being self-developed. These chips are equipped with rich features, ensuring that Espressif's products stand out in the market and avoid the pitfalls of homogenized competition. By controlling the entire design process, Espressif can innovate rapidly and introduce unique functionalities that set our products apart from competitors, providing a distinctive edge in the IoT semiconductor industry.

Espressif Google Trends

Full-Stack Engineering Capability

Espressif possesses comprehensive engineering development capabilities that span from IP development to complete chip design, operating systems, firmware, software frameworks, application solutions, hardware design, edge AI, cloud, and apps. This full-stack engineering expertise allows Espressif to offer highly integrated solutions that meet a wide range of customer needs. The ability to control and optimize every layer of the technology stack is unique in the industry and enables Espressif to deliver superior products and services that are seamlessly integrated and highly efficient.

Superior Cost-Effective and Stable Support

Espressif's products are known for their high performance and low cost, making them competitive in the market. We provide the cost efficiency necessary to promote large-scale commercialization in downstream industries. Additionally, we ensure the long-term availability of our products and offer stable and enduring software support, ensuring that customers can rely on their investments for extended periods. This commitment to value and reliability strengthens customer trust.

Extensive Developer Community Support

Espressif has garnered support from a vast community of professional engineers who are familiar with Espressif's development platform and actively promote its value proposition. This large and engaged community not only aids in the rapid adoption and dissemination of Espressif's technologies but also contributes to continuous improvement through feedback and shared knowledge. The robust community support amplifies Espressif's market presence and enhances our reputation as a trusted and innovative leader in the industry.

Business Highlights

Key Financial Data

CNY	Fiscal Year		
	2025	**2024**	**2023**
Consolidated Statement of Income Data			
Revenue	2,565,275,432	2,006,919,687	1,433,064,911
Gross profit	1,196,087,930	881,196,912	581,248,531
Selling expenses	81,799,952	62,919,353	52,583,650
General and administrative expenses	88,725,443	69,260,100	61,618,348
Research and development expenses	603,427,213	490,297,747	403,713,557
Net income	499,809,218	339,008,315	136,204,637
Net income attributable to Espressif	497,840,142	339,323,927	136,204,637
Earnings per share:			
Basic	3.1520	2.2064	0.8679
Diluted	3.1358	2.1934	0.8637
Consolidated Balance Sheet Data			
Working capital	3,518,352,994	1,432,356,145	999,068,356
Total assets	5,047,755,518	2,649,465,358	2,203,800,366
Long-term obligations	141,345,125	116,956,630	74,166,946
Total shareholders' equity	4,489,877,928	2,179,369,221	1,913,000,228
Consolidated Cash Flow Data			
Net cash provided by operating activities	522,622,032	220,472,557	302,597,343
Non-GAAP Adjustment			
Stock-based compensation	43,878,803	37,661,342	18,737,416
Non-GAAP net income attributable to Espressif	541,718,945	376,985,269	154,942,053

N.B.: Due to the company's implementation of a capital reserve to equity conversion in 2025, the earnings per share for each reporting period have been recalculated based on the adjusted share count.

Key Financial Indicators

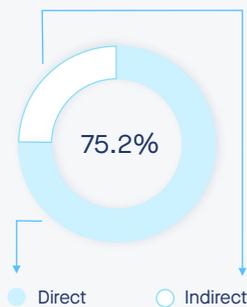|	Fiscal Year		
	2025	**2024**	**2023**
Gross margin	46.63%	43.91%	40.56%
R&D-to-sales ratio	23.52%	24.43%	28.17%
EBITDA margin	22.41%	18.97%	10.01%
Net income margin	19.48%	16.89%	9.50%
Weighted ROE	17.33%	17.06%	7.14%
Number of Espressif employees as of December 31	898	770	625

Financial Analysis

The Company's total revenue in 2025 reached CNY 2.57 billion, representing a year-on-year increase of 27.8% from CNY 2.01 billion in 2024. This growth was primarily driven by continued expansion of the customer base and broader adoption of the Company's solutions.
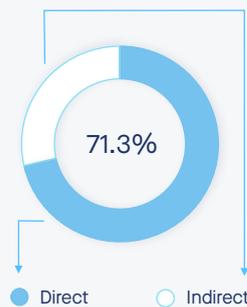
Revenue from the smart home segment increased by more than 20% year on year. Performance across other business segments was mixed, with industrial and energy management–related applications delivering relatively stronger growth.

The overall gross margin stood at 46.6%, with the gross margin for IoT chips reaching 48.5%. The increase in gross margin reflects our continuous efforts to attract new, high-value customers. Due to the growth in business volume, our production costs have been further reduced through economies of scale. We remain committed to achieving sustainable profitability to support continued investment in research and development.
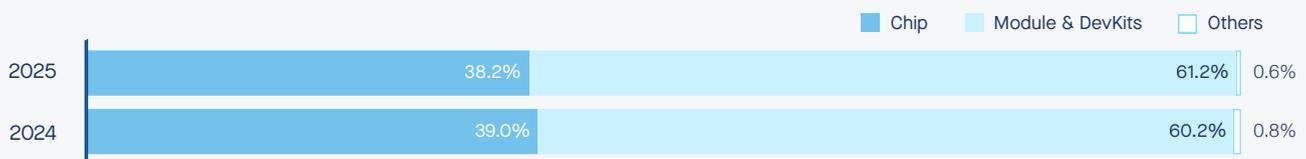
2024 Revenue by Sales Mode

75.2%

● Direct   ○ Indirect

2025 Revenue by Sales Mode

71.3%

● Direct   ○ Indirect

Top-5 Customer Concentration Rate

29.0% 26.4% 28.1% 23.9% 22.3%

2021 2022 2023 2024 2025

Revenue by Product Category

■ Chip ■ Module & DevKits □ Others

Year	Chip	Module & DevKits	Others
2025	38.2%	61.2%	0.6%
2024	39.0%	60.2%	0.8%

Key Financial Indicators

■ 2024 ■ 2025

	Overall GM	Chip GM	Module & DevKits GM	EBITDA Margin	SG&A as % of sales	R&D as % of sales
2024	43.9%	51.5%	38.9%	19.0%	6.6%	24.4%
2025	46.6%	48.5%	45.4%	22.4%	6.6%	23.5%
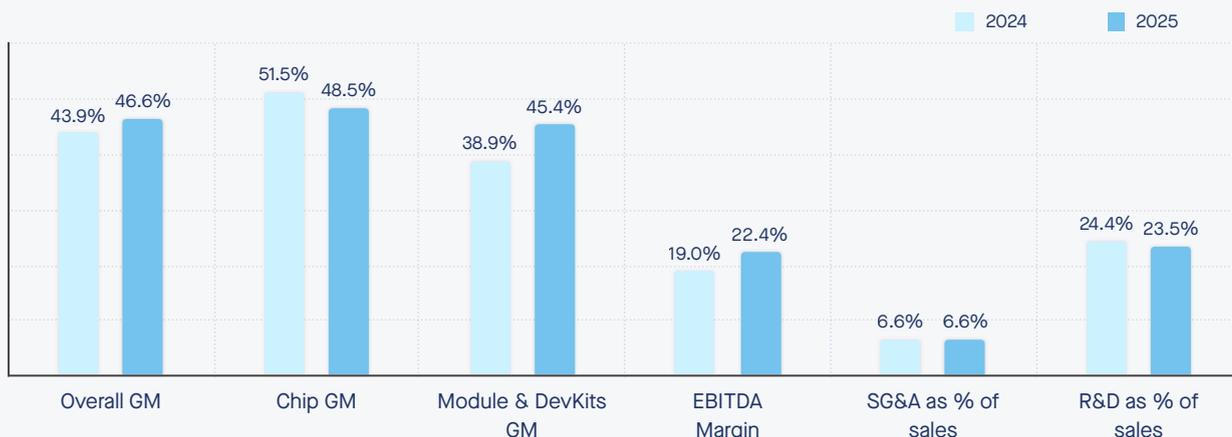
Financial Analysis

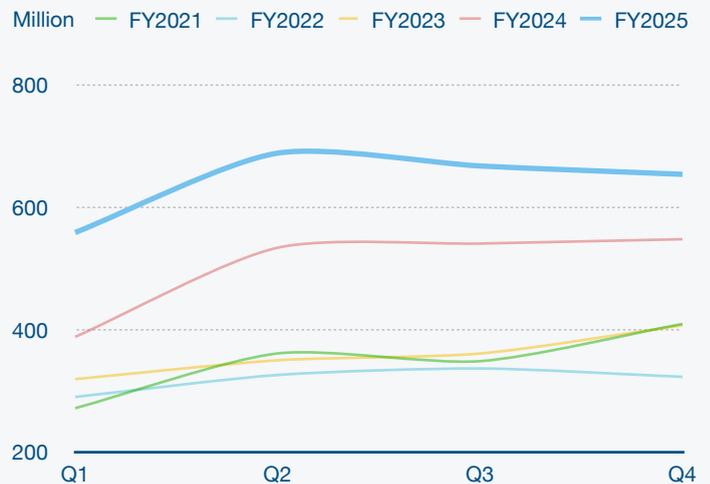Historically, the first quarter reflects a seasonal low, largely attributable to the observance of the Spring Festival holidays in China, which entails an extended break across the industrial supply chain. From Q2 to Q4, the broadening diversification of downstream applications has effectively mitigated seasonality, with Q4 generally outperforming or remaining broadly in line with preceding quarters.
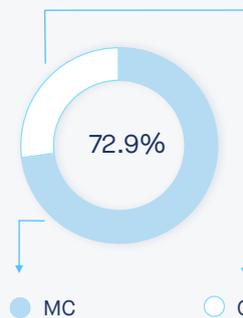
However, 2025 exhibited a different pattern. Influenced by a combination of macroeconomic factors, changes in China's demand-stimulus subsidy policies, and frequent adjustments to U.S. tariff policies amid ongoing geopolitical instability. As a result, Q2 unexpectedly emerged as the peak quarter for the year, potentially reflecting a pull-forward of demand from the subsequent two quarters.

From a full-year perspective, both China's Mainland and overseas markets experienced demand growth in 2025. Revenue from China's Mainland increased by 23.1% year-over-year, while overseas revenue grew by 40.4% year-over-year.

Quarterly Revenue Seasonality

Million — FY2021 — FY2022 — FY2023 — FY2024 — FY2025

FY2024 Revenue by Area

72.9%

MC   OS

FY2025 Revenue by Area

70.2%

MC   OS
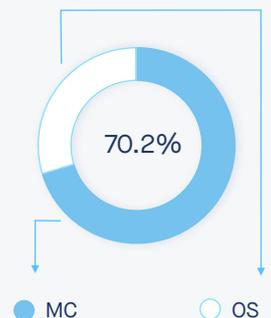
Revenue Growth Drivers: China's Mainland & Overseas

CNY Million ■ Total Revenue ■ MC+ ■ MC- ■ OS+ ■ OS-

1,386

2,565

2021 Total | MC '22 | OS '22 | MC '23 | OS '23 | MC '24 | OS '24 | MC '25 | OS '25 | 2025 Total
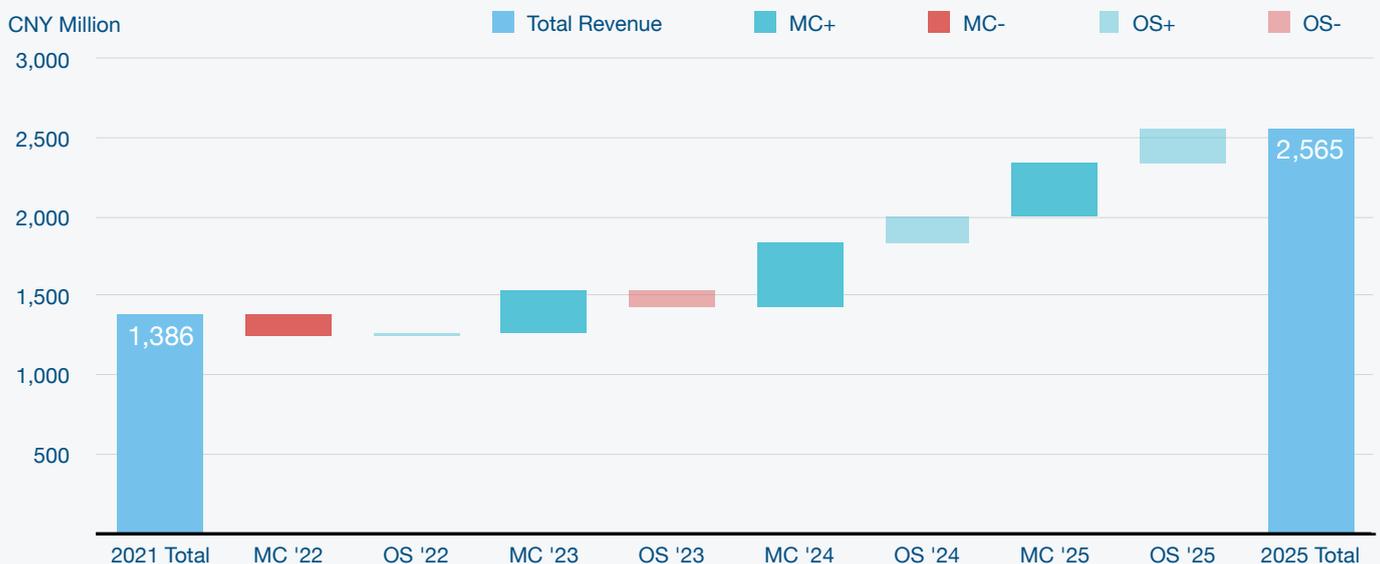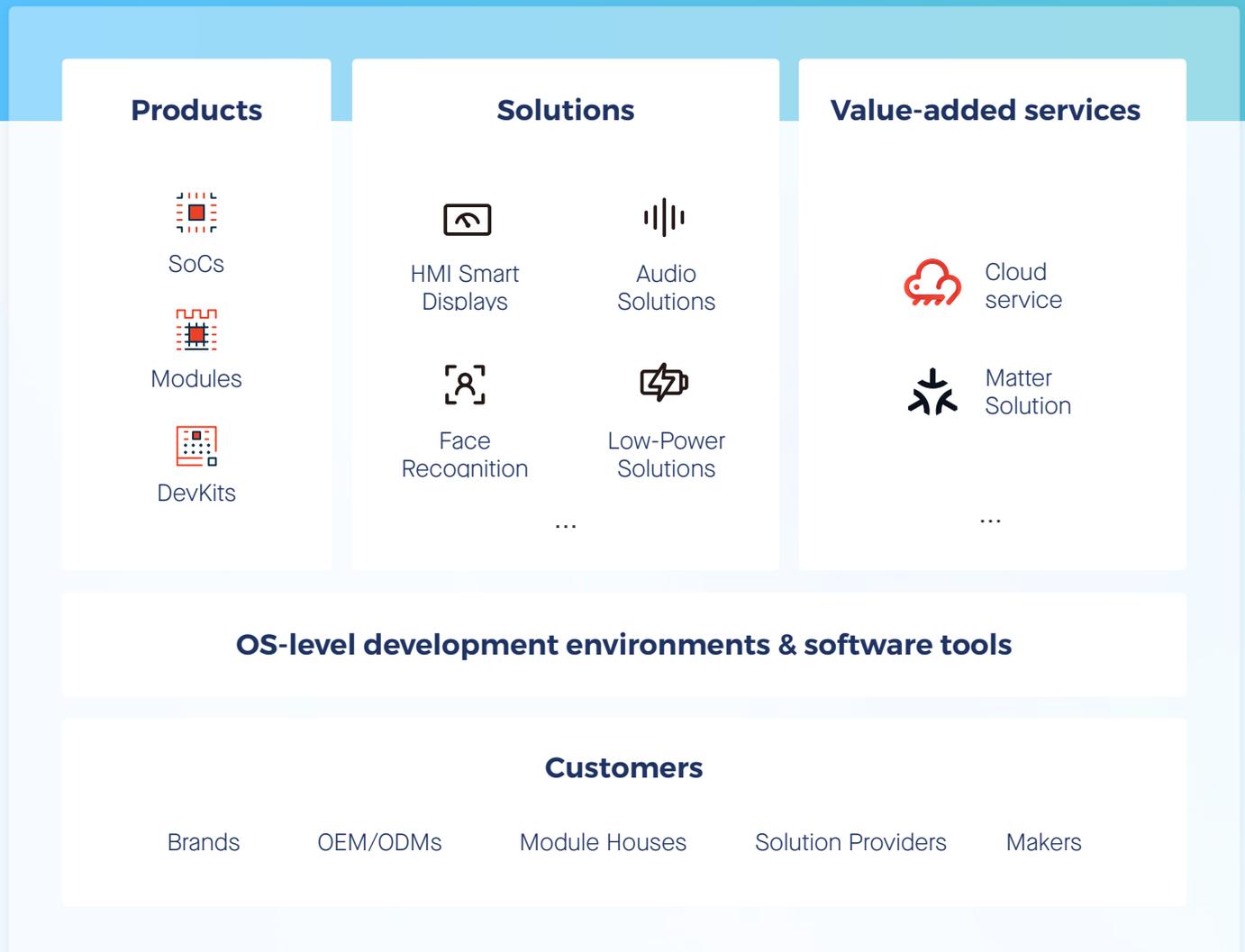
N.B.: MC refers to China's Mainland; OS refers to Overseas.

Management Report

Business Strategy

Espressif Systems' business strategy emanates from our service/product areas and our engagement with the developer ecosystem.

Our product and service areas include AIoT chips, OS-level development environments, software tools, application solutions, and value-added services, such as Cloud and Matter. The above-mentioned products ensure that we are in the heart of numerous commercial AIoT applications in different markets, including smart home, consumer electronics, industrial automation, healthcare, etc.

Products

SoCs

Modules

DevKits

Solutions

HMI Smart Displays

Audio Solutions

Face Recognition

Low-Power Solutions

...

Value-added services

Cloud service

Matter Solution

...

OS-level development environments & software tools

Customers

Brands   OEM/ODMs   Module Houses   Solution Providers   Makers

Key Products - IoT Chips

Espressif Systems is a global leader in wireless connectivity SoCs and AIoT solutions. Since launching our first Wi-Fi MCU in 2014, we have continuously expanded our product portfolio and deepened our technology stack. Today, Espressif offers a comprehensive range of self-developed wireless SoCs, covering Wi-Fi 4/6/6E, Bluetooth 6 (LE) , Bluetooth Classic (BR/EDR), Thread, Zigbee, and Matter protocols, enabling diverse smart connectivity applications across consumer, industrial, and commercial domains.
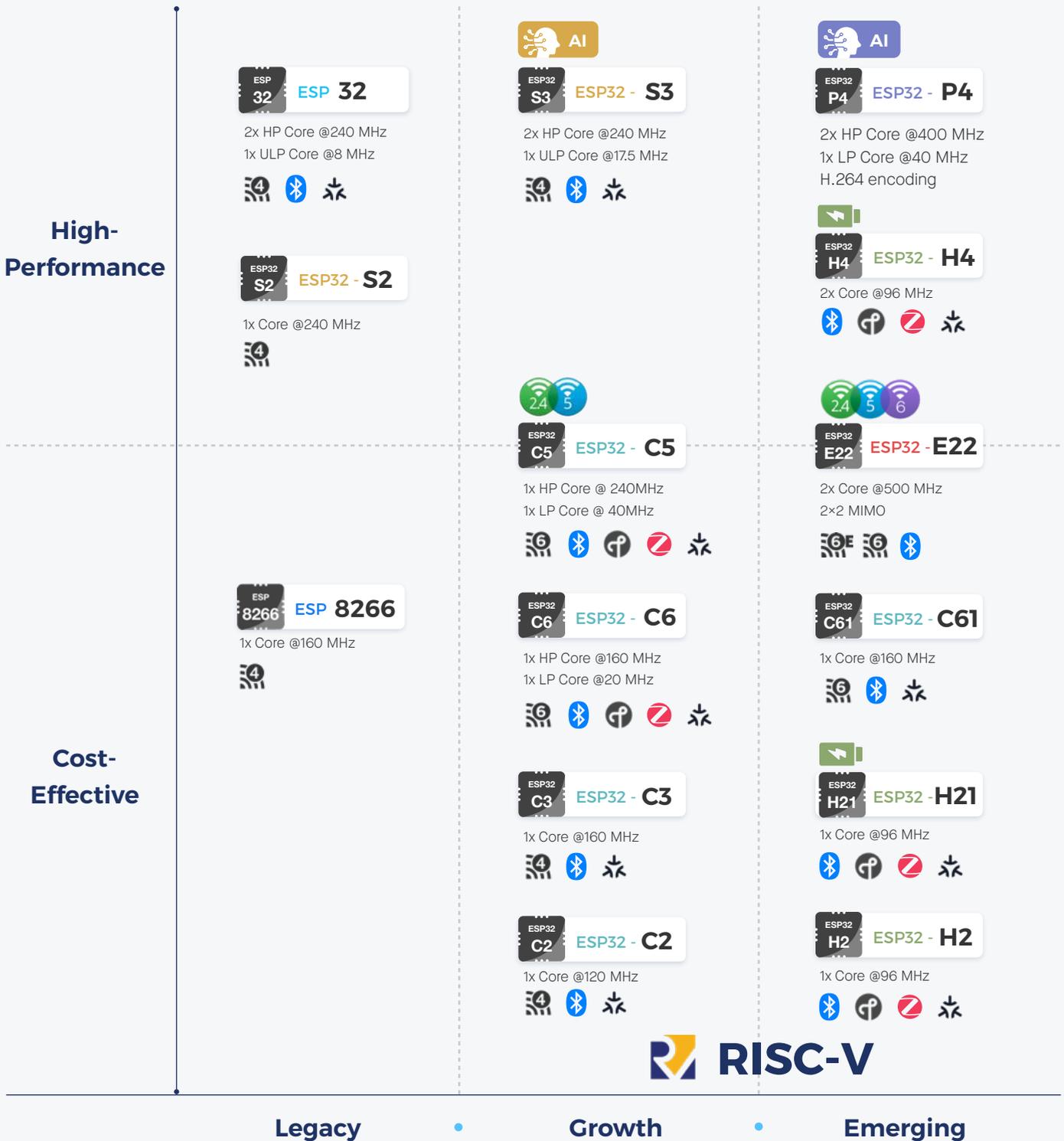
In recent years, Espressif has made notable progress in the development of advanced edge computing platforms. Our RISC-V-based SoCs now integrate AI accelerators, and multimedia processing capabilities, enabling efficient deployment of voice, vision, and large language model (LLM)-based applications on cloud.

Espressif's competitive edge lies in its end-to-end in-house technology development, including RF components, connectivity IPs, RISC-V processor cores, secure boot and OTA frameworks, real-time operating systems, AI toolchains, and developer toolkits. This vertical integration enables us to deliver consistent software and hardware experiences across platforms, ensuring seamless development, high integration, and long-term support for our customers.

To simplify product adoption, we also offer a wide range of IoT modules and development kits, fully supported by Espressif's software ecosystem and global community. This helps customers accelerate time-to-market while optimizing their supply chain through direct technical and logistical support from Espressif.

ESPRESSIF — Key Technologies

Connectivity

Wi-Fi Technologies
- Wi-Fi 7
- Tri-Band Wi-Fi 6E
  2×2 MU-MIMO
- Dual-Band Wi-Fi 6
- Wi-Fi 4

Other Wireless Technologies
- Bluetooth 6 (LE)
- Bluetooth Classic (BR/EDR)
- Thread
- Zigbee

Computing

RISC-V Cores

32-bit Single-Core
96/120/160/240MHz

32-bit Dual-Core
96/240/400/500MHz

32-bit Multiple-Core

AI Related

Voice Wake-up
Offline Voice Commands
Face and Object Recognition
FPU | Instruction Set Extensions

Multimedia

ISP | H.264 Encoder | JPEG Codec

Technical Depth

Technical Breadth

In progress

Key Products - Chip Matrix

High-Performance

ESP 32
2x HP Core @240 MHz
1x ULP Core @8 MHz

ESP32 - S2
1x Core @240 MHz

AI
ESP32 - S3
2x HP Core @240 MHz
1x ULP Core @17.5 MHz

AI
ESP32 - P4
2x HP Core @400 MHz
1x LP Core @40 MHz
H.264 encoding

ESP32 - H4
2x Core @96 MHz

ESP32 - C5
1x HP Core @ 240MHz
1x LP Core @ 40MHz

ESP32 - E22
2x Core @500 MHz
2×2 MIMO

Cost-Effective

ESP 8266
1x Core @160 MHz

ESP32 - C6
1x HP Core @160 MHz
1x LP Core @20 MHz

ESP32 - C61
1x Core @160 MHz

ESP32 - C3
1x Core @160 MHz

ESP32 - H21
1x Core @96 MHz

ESP32 - C2
1x Core @120 MHz

ESP32 - H2
1x Core @96 MHz

RISC-V

Legacy   •   **Growth**   •   **Emerging**

|			
Wi-Fi 4		Bluetooth	
Wi-Fi 6		Thread	
Wi-Fi 6E		Zigbee	
Matter		Ultra-Low Power	

N.B.:
All products shown above are 32-bit MCU-based chips.
Except for ESP8266, ESP32, ESP32-S2 and ESP32-S3, all other products are based on RISC-V architecture.

Key Products - M5Stack Development Kits

Espressif acquired a majority stake in M5Stack in 2024 Q2. M5Stack is renowned for its innovative approach to hardware development and offers a modular, open-source platform that simplifies the creation of IoT and embedded system solutions, greatly enhancing deployment efficiency. The M5Stack ecosystem is built around its flagship main control module, powered by Espressif's all ESP32 series of chips, highlighting the deep technical synergy between the two companies.

Beyond its hardware prowess, M5Stack has cultivated an exceptionally vibrant global developer community, commanding high brand mindshare within the ecosystem. With an impressive pace of launching one new hardware product every week and a diversified portfolio of over 400 SKUs, M5Stack enables developers to rapidly prototype and iterate. This vast community serves as a continuous validation engine, where grassroots innovation frequently translates into mature, market-ready solutions.
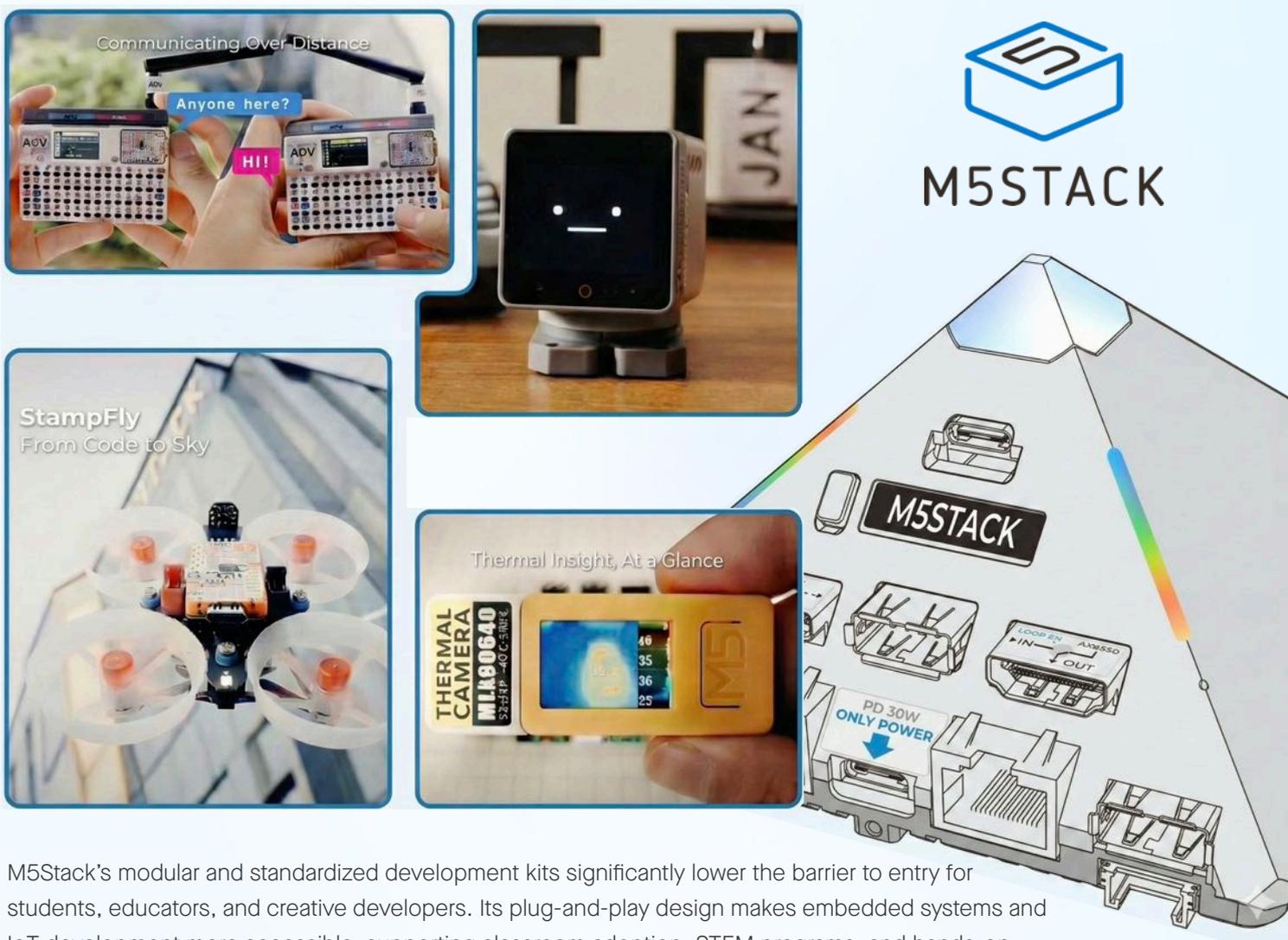
M5Stack's modular and standardized development kits significantly lower the barrier to entry for students, educators, and creative developers. Its plug-and-play design makes embedded systems and IoT development more accessible, supporting classroom adoption, STEM programs, and hands-on experimentation.

Developers who gain experience with Espressif-based platforms during their education or prototyping phase are more likely to continue using the same ecosystem in future professional or commercial projects.

Edge AI Strategy

In recent years, Espressif has expanded its software capabilities around AI-enabled IoT applications. The Company has released multiple on-device AI frameworks, including ESP-WHO (image recognition), ESP-DL (deep learning inference), and ESP-SR (speech recognition), as well as cloud-side tools such as the ESP Private Agents Platform to support large-model-based applications and device–cloud collaboration. These components enable customers to deploy perception, interaction, and autonomous operation features on existing device categories with limited additional system complexity.

On the hardware side, the Company observes that the IoT industry is transitioning from a connectivity-driven phase to a capability-driven phase. Historically, device value was primarily determined by the number of connected nodes. As local computing performance improves, devices increasingly undertake recognition, decision-making, and continuous operation tasks. As a result, value is shifting toward the functional richness achievable per node rather than connectivity scale alone.

In response to this shift, the Company has identified edge-side capability enhancement as a long-term development direction. While maintaining advantages in cost efficiency and power consumption, next-generation products will progressively improve local execution capability and supporting software environments. This allows customers to expand functionality within existing device form factors without materially increasing system complexity.

The Company expects the adoption of edge intelligence to occur gradually, with commercialization driven by increasing feature penetration rather than a single product replacement cycle. Accordingly, future business growth is expected to expand from shipment volume alone toward value growth per device node. As devices undertake more tasks over their lifecycle, customers are placing greater emphasis on platform stability, compatibility, and long-term support.

AI Solutions

AI COMPUTING

Large Language Models (LLM)

Espressif enables edge devices to access advanced AI capabilities through secure, low-latency connections to cloud-based large language models.

ESP Private Agents Platform

The ESP Private Agents Platform enables IoT device makers to deploy AI agents entirely within their own AWS environments. With a ready-to-use runtime, flexible LLM support, and a unified dashboard, it simplifies agent development and lifecycle management for secure, scalable IoT products.

EDGE AI

ESP-WHO   Image Recognition Framework

A vision framework supporting face detection, recognition, liveness, and gestures. It delivers real-time edge inference for smart cameras and access control systems.

ESP-SR   Speech Recognition Framework

A low-power speech solution integrating Acoustic Front-End (AFE), wake word, and command recognition. Enables fast, accurate, and ready-to-use voice interaction for edge devices.

ESP-DL   Deep-Learning Library for AIoT

A lightweight neural network inference framework optimized for Espressif ESP-series SoCs. It enables efficient on-device AI by providing APIs to load, debug, and run AI models with low memory and high performance.

Business Model
Business-to-**Developer**-to-Business (B2D2B)

Espressif operates under a Business-to-Developer-to-Business (B2D2B) model. By engaging developers through open platforms, software tools, and a global community, we influence technology selection at the design stage and ultimately convert developer adoption into long-term enterprise customer relationships.

- A vibrant and active community attracts an increasing number of developers to the platform. As ecosystem resources expand — including open-source projects, technical documentation, and AI support — the barrier to entry declines, reinforcing a positive feedback loop in which community growth further strengthens platform attractiveness.

- As more developers join, they select the platform during the design phase and build commercial prototypes and demonstration products. At this stage, technical familiarity, toolchain maturity, and ecosystem support become key decision factors, embedding the platform into early-stage product architecture.

- Once customer products move from prototype to formal product definition and mass production planning, the platform choice is typically locked in. In the IoT industry, redesigning core connectivity and processing architecture involves significant validation, firmware migration, and certification efforts, making switching both time-consuming and costly.

- After entering mass production, customer products often remain in the market for 5 to 10 years. During this period, customers continue annual procurement while introducing model upgrades and feature enhancements based on the same platform architecture. As functionality expands and lifecycle duration extends, the cumulative value generated per project increases, supporting long-term and recurring revenue streams.

Revenue Growth Driven by Customer Lifetime Value

N.B.: Rev. Δ denotes the revenue growth recorded in the respective year.

Business Model

Business-to-**Developer**-to-Business (B2D2B)

The market for IoT is truly diverse, encompassing applications for smart homes, consumer electronics, industrial automation, tools and equipment, smart agriculture, healthcare, energy control, and the Internet of Vehicles. Given this high degree of market fragmentation, the company's B2D2B business model provides significant competitive advantages.
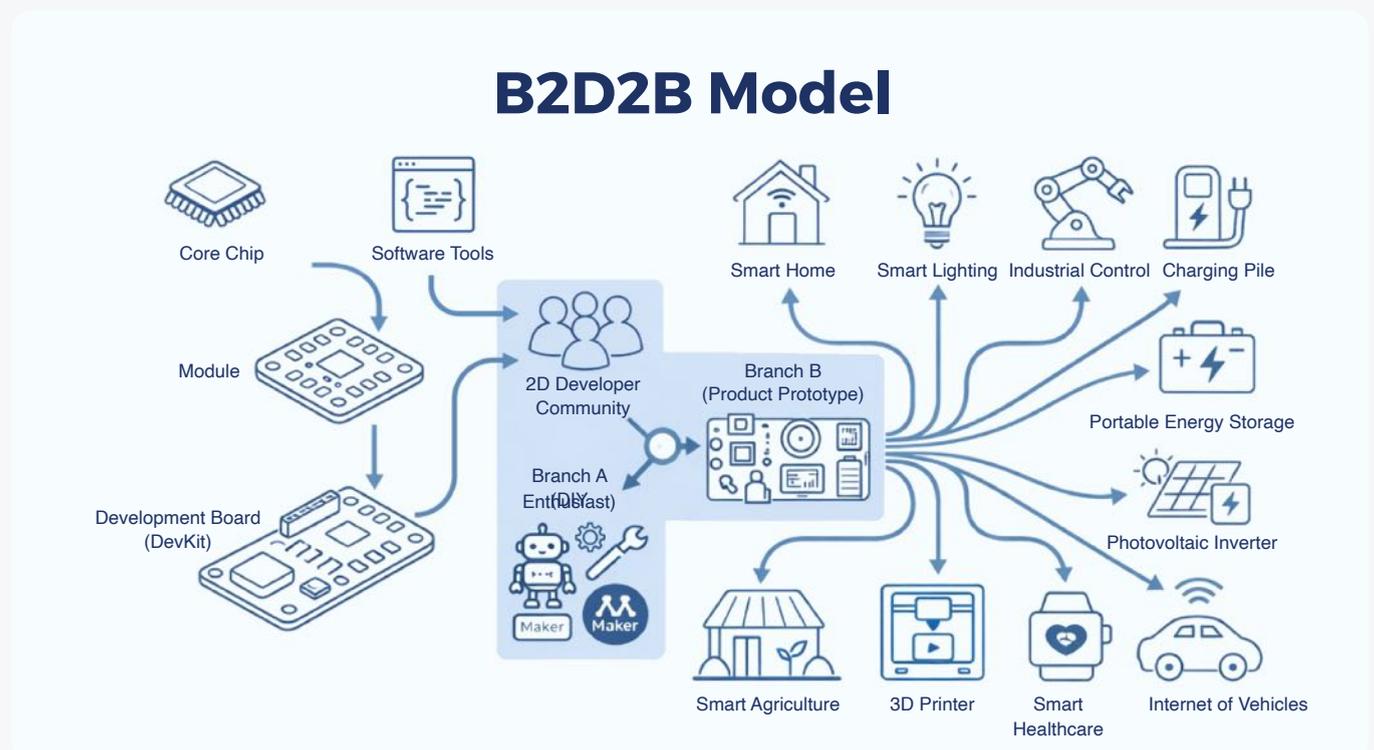
1. Foundation for Sustained Demand

The Developer Platform Model operates on a fundamental multiplier: total demand is driven by the volume of design-in projects and the longevity of their lifecycles. By consistently increasing the number of active design projects, the platform establishes a long-term foundation for recurring demand. Each project integration represents a multi-year commitment to the platform's technology, ensuring a predictable and stable growth trajectory.

2. Market Penetration and Diversification

The scaling of design projects naturally leads to increased industry fragmentation and a broader range of application scenarios. As the platform expands, its technology penetrates a diverse array of sectors, moving beyond specialized markets into a wide variety of commercial and industrial uses. This horizontal expansion allows the platform to capture value across multiple independent growth drivers simultaneously.

3. Structural Resilience Against Volatility

This diversified footprint serves as a strategic hedge against systemic risk. By distributing the platform's presence across a vast range of industries, overall performance becomes increasingly decoupled from the cyclical volatility of any single sector. Consequently, the business achieves greater structural resilience, maintaining steady performance even when specific market segments face temporary downturns.


B2D2B Model

Developer Community Content

GitHub — Global Code Hosting Platform
reddit — Social Networking Site
BOOKS — Developer-written books

183,300
ESP32 and ESP8266 Projects

159,689
ESP32 Group Members

> 300
Covering more than 10 languages

bilibili — Chinese Video Sharing Platform
YouTube — Global Video Sharing Platform

1.35 M
Most Viewed ESP32 Video (2025)

20 M
Most Viewed ESP32 Short (2025)

1 M
Most Viewed ESP32 Video (2025)

## Cumulative Number of GitHub ESP32 Projects

130 K

2016-12 ———— 2025-12

Daily Increase on GitHub ESP32 Projects

164

2016Q4 ———— 2025Q4

Always a Hot Topic on Social Media

Posted on 24 Jan 2026

Usuário 'wewillmakeitnow' no Reddit fez um PS4 portátil totalmente funcional!

A placa-mãe foi cortada e modificada para torná-la o mais compacta possível, mantendo todas as funcionalidades.

https://x.com/IlirAliu_/status/2014797453254353325

Posted on 2 Feb 2026

废弃的DVD光盘机搭配ESP32开发板制作CNC绘画仪

https://www.bilibili.com/video/BV1nLz9BJEPH

Posted on 23 Jan 2026

Make Your Coffee Machine Smart with ESP32

☕ Turn your OLD coffee machine into a SMART one! 🚀
In this video, I show how to use an optocoupler in a real ESP32 project.

⚠️ Safety Warning
This project involves working with high voltage (mains power).
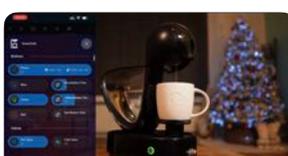
https://www.youtube.com/watch?v=FOOzE7EWT_Y

Posted on 24 Jan 2026

PID Control of a Ball and Beam System using a ESP32 microcontroller.

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https://x.com/IlirAliu_/status/2014797453254353325

Posted on 21 Jan 2026

블랙매직 포켓 시네마 카메라 블루투스 리모컨 - ESP32

테스트해 본 카메라 BMPCC 4K, 6K, 6K Pro

🔧 참고
오디오는 영상 편집 시에 -18 LUFS로 노멀라이즈 했습니다.
유튜브 자막을 지원합니다.

Posted on 6 Dec 2025

I made a DIY kit to learn guitar

"Tuitar" is is a terminal-based guitar training tool that runs standalone on ESP32 hardware.

Demo: https://www.youtube.com/watch?v=tZm7cLaHARO

https://www.reddit.com/r/esp32/comments/1pstqx9/

Posted on 6 Feb 2026

Searched on 5 Mar 2026

Books about ESP Products

More than 300 books on how to use ESP products can be found in the developer community and cover over a dozen languages.
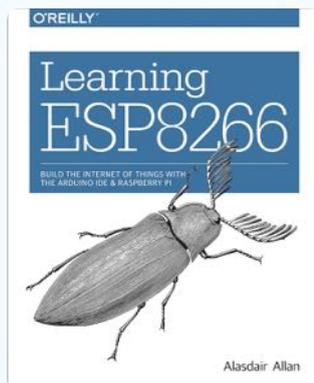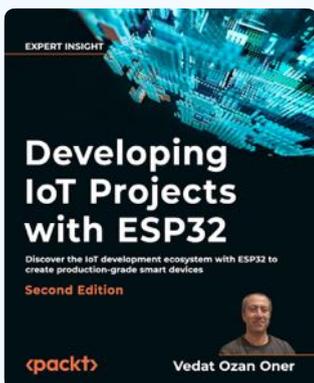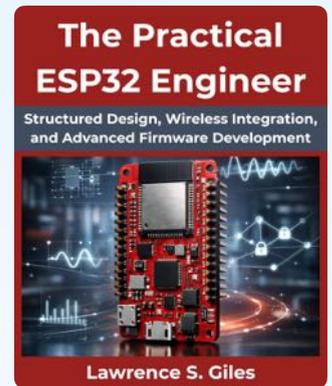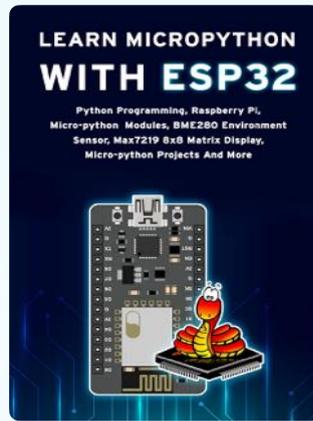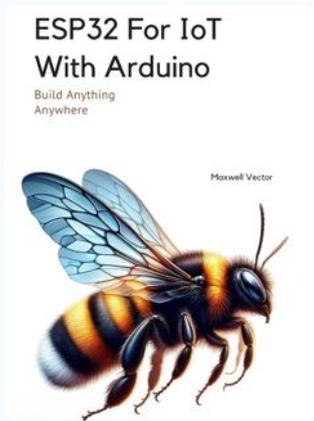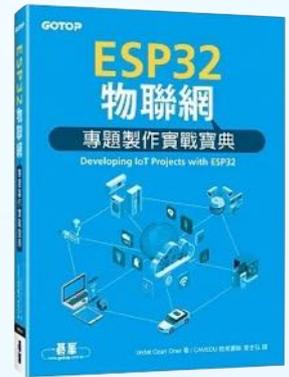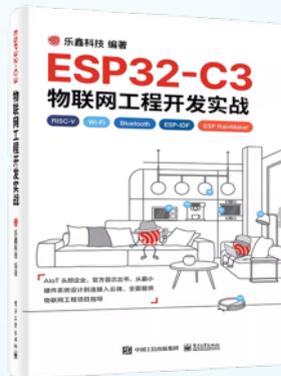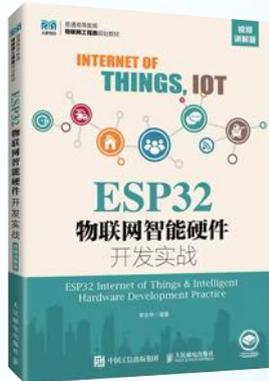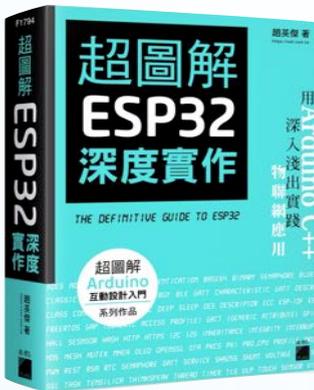
Research and Development

R&D Investment

R&D investment is at the heart of Espressif Systems' development. During the reporting period, R&D cost CNY 603 million, which marked a 23.07% increase compared with that of 2024. At the same time, the R&D-to-sales ratio was 23.52% in 2025.

Espressif's escalating R&D investment cost can be attributed to the increase in the number of R&D staff and their subsequent compensation level, which increased significantly year-over-year.

	Fiscal Year		
CNY	**2025**	**2024**	**change (%)**
R&D Expenses	603,427,213	490,297,747	23.07
R&D-to-sales ratio	23.52%	24.43%	

Intellectual Property

We seek to protect our technologies through a combination of patents, software copyright and trade secrets. As of December 31, 2025, the Company had been granted 227 intellectual property rights. We continue to file new applications relating to our recent R&D innovations.

344 Applied for

227 Granted

List of Intellectual Property Rights Applied and Granted

	2025		Cumulative number	
	Applied for	**Granted**	**Applied for**	**Granted**
Invention patents	30	12	181	110
Utility model patents	4	7	40	38
Design patents	4	0	15	11
Software copyright	0	0	27	27
Others	8	6	81	41
Total	**46**	**25**	**344**	**227**

N.B.: The number of intellectual property rights that have been "applied for" does not include the rejected applications in China, or the PCT patent applications not submitted to any particular country, or any patent applications beyond the reporting period. The number of "granted" patents includes those with expired IP rights. The category of "others" includes overseas (non-Chinese) patent applications, i.e. the PCT patent applications, U.S. patent applications through the PCT route or the Paris Convention route, as well as patent applications in India.

R&D Employees

We are proud of our talented, diverse and multicultural workforce. By December 31, 2025, across our nine branches worldwide, we had employed 898 people, more than 70% of whom are in engineering roles. Meanwhile, we have expanded our business beyond Wi-Fi MCUs, thus offering innovative solutions to wireless connectivity and processing, including AI, RISC-V MCU, Wi-Fi 6, Bluetooth LE, Thread, Zigbee and other IoT-related technologies.

Since the research and development of software and hardware are inextricably intertwined, we constantly invest in software technology, too. Hence, we are currently focused on AIoT technologies, including toolchains, compilers, operating systems, application frameworks, AI algorithms, Cloud products, apps, etc. Our aim is to make Espressif a one-stop solution-provider offering anything relating to hardware, software and the Cloud.

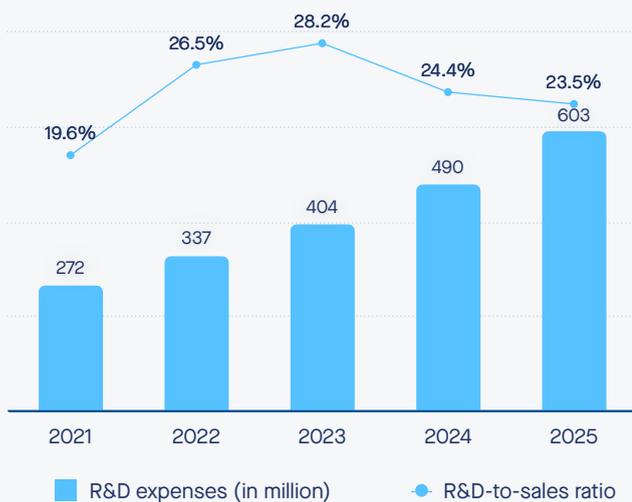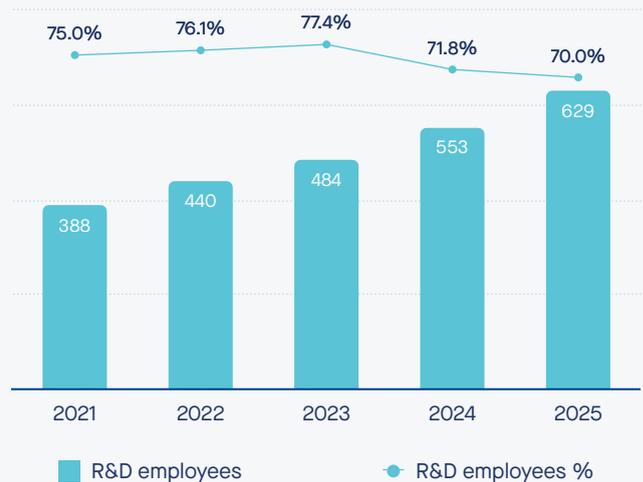|	Fiscal Year	
	December 31, 2025	December 31, 2024
R&D employees	629	553
R&D employees as a percentage of total employees	70.04%	71.82%
Total compensation of R&D employees (CNY in thousands)	450,542	354,457
Average compensation of R&D employees (CNY in thousands)	762	684

R&D Expenses

R&D Employees

N.B.: Following the acquisition of M5Stack in 2024, M5Stack brought in its own production line and manufacturing staff, leading to a decrease in the proportion of R&D personnel since 2024.

Ownership of Securities

Basic information of securities

Share types	Ordinary share
Share capital	167,143,010 (as of December 31, 2025)
Listing	Shanghai Stock Exchange (SSE)
Ticker	688018.SH
Listing Date	2019-07-22

Shareholder Structure as of December 31, 2025

Shareholder	Share Numbers	Percentage (%)
Espressif (Hong Kong) Investment Ltd.	61,210,572	36.62
Hong Kong Securities Clearing Company Limited	4,709,176	2.82
NSSF Portfolio 114	2,759,816	1.65
Wisdomshire Asset Management Co., Ltd. - Wisdomshire Youfu Private Equity Securities Investment Fund No.1	2,346,348	1.40
CITIC Securities Co., Ltd. – Harvest SSE STAR Market Chip Tradable Open-ended Index Securities Investment Fund	2,278,162	1.36
Wisdomshire Asset Management Co., Ltd. - Wisdomshire Youfu Private Equity Securities Investment Fund No.3	2,024,546	1.21
Shinvest Holding Ltd.	1,866,500	1.12
Guotai Haitong Securities Co., Ltd.	1,471,678	0.88
Shanghai Letun Enterprise Management Partnership (Limited Partnership)	1,462,688	0.88
ABC – CSI 500 Exchange Traded Open-ended Index Securities Investment Fund	1,435,362	0.86
Top 10 shareholders	**81,564,848**	**48.80**
Espressif Systems (Shanghai) Co., Ltd. Repurchase Special Securities Account	822,345	0.49
Other public shareholders	84,755,817	50.71
Total of outstanding shares	**167,143,010**	**100.00**

Stock-Based Compensation

Espressif has four ongoing restricted stock incentive plans. The fair value of the restricted stock incentive plans is calculated by using the Black-Scholes model. The following table presents details of stock-based compensation costs acknowledged in the Consolidated Statements of Income.

Restricted Stock Incentive Plans

Plan	Award Type	Number of Underlying Shares	Ratio of Underlying Shares (%)	Number of Employees in the Plan	Proportion of Awarded Employees to Total (%)	Grant Price (CNY)
2021 RSIP	Class II restricted stock	742,892	0.4445	206	22.94	46.46
2022 RSIP	Class II restricted stock	1,250,509	0.7482	137	15.26	59.47
2023 I RSIP	Class II restricted stock	86,893	0.0520	21	2.34	42.14
2023 II RSIP	Class II restricted stock	864,195	0.5170	53	5.90	19.47
2023 III RSIP	Class II restricted stock	108,934	0.0652	6	0.67	31.97
2024 I RSIP	Class II restricted stock	1,550,634	0.9277	167	18.60	24.57
2025 I RSIP	Class II restricted stock	1,241,642	0.7429	207	23.05	120.29

N.B.:

RSIP: Restricted Stock Incentive Plan

The above-mentioned ratios have been recalculated on December 31, 2025.

The grant price has been adjusted due to dividend distribution and the conversion of capital reserves into share capital.

Stock-Based Compensation

	Fiscal Year	
CNY	**December 31, 2025**	**December 31, 2024**
Selling expenses	2,036,379	2,385,585
G&A expenses	2,577,688	705,080
R&D expenses	39,264,736	34,570,676
Total stock-based compensation	43,878,803	37,661,342

Risks and Uncertainties

Financial Risk

The Company performs periodic credit evaluations of its customers' financial condition and generally requires of its customers no collateral. The Company provides an allowance for expected credit losses, based on the net amount expected to be collected on such receivables. Losses have not been significant for any of the periods presented in this report.

R&D Risk

Espressif's research and development strategy is focused on leveraging new technologies for the creation of innovative AIoT products. Any delays or changes in the development of these technologies by our industry partners, or a failure of our products to achieve market acceptance, could compromise our competitive position.

Competitors

As the market for AIoT products grows, we face an increasing antagonism from relatively large competitors, such as Realtek, MediaTek, Infineon, NXP, Qualcomm, TI Silicon Labs, Nordic, and others. Intense competition from current players may reduce our product sales and market share.

Suppliers

A significant portion of the Company's products is fabricated by the Taiwan Semiconductor Manufacturing Company Limited (TSMC). The inability of TSMC to deliver wafers to the Company in a timely manner could impact the production of the Company's products for a certain period of time, which could have an adverse effect on the Company's business, financial condition, results of operations and cash flow.

Customers

The Company sells directly to end customers, distributors, solution providers and contract manufacturers. Our customers are a mix of several big customers and numerous small customers. The concentration ratio for our top-five customers was 22.3% in 2025.

Consolidated Financial Statements

Consolidated Balance Sheet

CNY	December 31, 2025	December 31, 2024
Assets		
Current assets:		
Cash and cash equivalents	1,024,792,840	673,884,162
Held for trading financial assets	876,009,608	
Notes receivable	65,534,507	38,605,565
Accounts receivable, net	298,106,030	318,420,157
Accounts receivable financing		
Prepayments	19,427,100	15,857,596
Other receivables	11,439,963	19,978,007
Including: Interest receivable		
Inventories	627,637,513	485,620,281
Other current assets	1,011,937,898	233,129,885
Total current assets	**3,934,885,459**	**1,785,495,653**
Non-current assets:		
Debt investment	210,430,400	413,542,900
Investment in other equity assets	42,036,070	30,967,840
Other non-current financial assets	41,937,416	34,221,626
Fixed assets	556,813,866	93,949,828
Right-of-use assets	29,091,243	25,169,744
Intangible assets	26,662,076	30,853,579
Goodwill	74,654,024	74,654,024
Long-term deferred expenses	22,753,695	19,452,629
Deferred income tax assets	108,491,271	101,157,536
Other non-current assets		40,000,000
Total assets	**5,047,755,518**	**2,649,465,358**

Consolidated Balance Sheet

CNY	December 31, 2025	December 31, 2024
Liabilities & Shareholders' Equity		
Current liabilities:		
Short-term loan		500,333
Accounts payable	187,528,762	160,741,033
Contract liabilities	23,381,055	20,877,548
Payroll payable	157,619,024	129,439,567
Taxes payable	2,581,791	16,321,501
Other payable	37,303,747	12,397,576
Including: Interest payable		
Non-current liabilities due within one year	6,944,668	11,705,721
Other current liabilities	1,173,418	1,156,230
Total current liabilities	**416,532,465**	**353,139,508**
Non-current liabilities:		
Lease liabilities	23,701,708	14,802,190
Provisions	636,582	620,582
Deferred income tax liabilities	117,006,835	101,533,858
Total liabilities	**557,877,590**	**470,096,138**
Owners' equity (or shareholders' equity):		
Share capital	167,143,010	112,200,431
Capital reserves	3,040,623,359	1,351,379,589
Less: Treasury stock	67,433,448	208,684,568
Other comprehensive income	17,636,423	25,620,966
Surplus reserves	123,024,049	76,858,747
Retained earnings	1,177,520,921	792,599,518
Total Espressif shareholders' equity	**4,458,514,314**	**2,149,974,683**
Non-controlling interests	31,363,613	29,394,537
Total shareholders' equity	**4,489,877,928**	**2,179,369,221**
Total liabilities and shareholders' equity	**5,047,755,518**	**2,649,465,358**

Consolidated Income Statement

| | Year Ended | |
CNY	December 31, 2025	December 31, 2024
Revenue	2,565,275,432	2,006,919,687
Cost of Revenue	1,369,187,502	1,125,722,775
Gross Profit	**1,196,087,930**	**881,196,912**
Taxes and surcharges	6,223,116	3,420,283
Selling expenses	81,799,952	62,919,353
General and administrative expenses	88,725,443	69,260,100
Research and development expenses	603,427,213	490,297,747
Financial expenses	-10,536,229	-7,802,843
Including: Interest expenses	5,000,022	964,538
Interest income	24,160,293	17,019,179
Add: Other income	61,830,963	52,414,543
Investment income (mark"-" for loss)	16,877,402	21,042,124
Income from changes in fair value (mark"-" for loss)	8,725,398	
Credit impairment losses (mark"-" for loss)	-865,419	-1,293,418
Assets impairment losses (mark"-" for loss)	-5,653,168	-1,097,156
Assets disposal income (mark"-" for loss)	-7,647	-4,355
Operating Income	**507,355,966**	**334,164,009**
Add: Non-operating revenue	840,349	
Less: Non-operating expenses	508,648	1,192,230
Income before income taxes	**507,687,667**	**332,971,779**
Provision (benefit) for income taxes	7,878,449	-6,036,536
Net Income	**499,809,218**	**339,008,315**
Net Income attributable to non-controlling interests	1,969,076	-315,612
Net Income attributable to Espressif	**497,840,142**	**339,323,927**
Earnings per share		
Basic	3.1520	2.2064
Diluted	3.1358	2.1934

| | Year Ended | |
CNY	December 31, 2025	December 31, 2024
Net Income	499,809,218	339,008,315
Other comprehensive income (loss), after tax		
Changes to the fair value of investment in other equity instruments	9,407,995	9,486,000
Currency translation reserves	-17,392,538	3,858,860
Other comprehensive income (loss)	**-7,984,543**	**13,344,860**
Other comprehensive income (loss) attributable to non-controlling interests		
Comprehensive income	**491,824,676**	**352,353,175**
Comprehensive income attributable to non-controlling interests	1,969,076	-315,612
Comprehensive income attributable to Espressif	**489,855,600**	**352,668,787**

N.B.: Due to the company's implementation of a capital reserve to equity conversion in 2025, the earnings per share for each reporting period have been recalculated based on the adjusted share count.

Consolidated Cash Flow Statement

CNY	Year Ended	
	December 31, 2025	December 31, 2024
Operating Activities		
Cash from sales of merchandise and provision of services	2,804,757,217	2,142,128,785
Tax refund	60,751,048	44,635,896
Other received cash related to operational activities	79,654,118	37,342,231
Subtotal of cash inflow from operational activities	2,945,162,383	2,224,106,912
Cash paid for merchandise and services	1,687,826,354	1,439,436,401
Cash paid to and for employees	527,894,998	425,441,190
Cash paid for taxes and surcharges	56,480,692	20,443,795
Other paid cash related to operational activities	150,338,308	118,312,968
Subtotal of cash outflow from operational activities	2,422,540,351	2,003,634,355
Net cash provided by operating activities	**522,622,032**	**220,472,557**
Investing activities		
Cash arising from the disposal of investments	575,516,669	476,534,893
Cash arising from investment income	17,782,233	4,986,872
Net cash arising from the disposal of fixed assets, intangible assets and other long-term assets	29,047	16,916
Other received cash relating to investment activities	2,143,200	2,518,600
Subtotal of cash inflow from investment activities	595,471,149	484,057,281
Cash paid for the purchase and construction of fixed assets, intangible assets and other long-term assets	515,730,504	97,671,199
Cash paid for investments	1,990,000,000	145,000,000
Net cash paid for acquisition of subsidiaries and other business units		84,632,507
Other paid cash relating to investment activities	2,800,000	2,780,000
Subtotal of cash outflow from investment activities	2,508,530,504	330,083,706
Net cash provided by investment activities	**-1,913,059,355**	**153,973,575**
Financing activities		
Cash arising from the issuance of common stock	1,841,747,345	13,680,557
Including: Cash arising from subsidiaries absorbing investments by minority shareholders		
Cash received from borrowings	383,350,000	20,000,000
Subtotal of cash inflow from financing activities	2,225,097,345	33,680,557
Cash paid to repay debt	383,850,000	19,500,000
Cash paid for the distribution of dividends and profits, or payment of interests	70,900,359	78,299,414
Including: dividends and profits paid to minority shareholders by subsidiaries		
Other paid cash relating to financing activities	13,397,079	104,664,429
Subtotal of cash outflow from financing activities	468,147,438	202,463,843
Net cash provided by financing activities	**1,756,949,907**	**-168,783,287**
Impact of fluctuation in exchange rates on cash and cash equivalents	-16,121,119	2,403,735
Net increase in cash and cash equivalents	**350,391,465**	**208,066,580**
Add: Cash and cash equivalent at the commencement of the period	667,632,307	459,565,727
Cash and cash equivalents at the end of the period	**1,018,023,771**	**667,632,307**

Consolidated Cash Flow Statement - Indirect Method

	Year Ended	
CNY	December 31, 2025	December 31, 2024
Additional information		
Net income	499,809,218	339,008,315
Adjustments to cash provided by operating activities, for the purpose of reconciling net income:		
Add: provision for the impairment of assets	5,653,168	1,097,156
Credit impairment provision	865,419	1,293,418
Depreciation of fixed assets	37,495,222	22,528,716
Depreciation of right-of-use assets	10,957,599	13,854,471
Amortization of intangible assets	4,191,504	2,938,342
Amortization of long-term prepaid expenses	9,629,474	7,413,149
Losses on disposal of fixed assets, intangible assets and other long-term assets (mark"-" for income)	7,647	4,355
Losses on scrapping of fixed assets (mark"-" for income)	166,926	1,002,412
Losses on fair value changes (mark"-" for income)	-8,725,398	
Financial expenses (mark"-" for income)	12,375,175	8,284,773
Losses on investment (mark"-" for income)	-16,877,402	-21,042,124
Decrease on deferred income tax assets (mark"-" for increase)	-7,669,865	-40,376,467
Increase on deferred income tax liabilities (mark"-" for decrease)	14,225,927	36,855,548
Changes in operating assets and liabilities:		
Decrease in inventories (mark"-" for increase)	-152,161,810	-217,732,331
Decrease in operational receivables (mark"-" for increase)	130,080	-105,203,719
Increase in operational payables (mark"-" for decrease)	68,670,344	132,885,201
Others	43,878,803	37,661,342
Net cash flow provided by operating activities	**522,622,032**	**220,472,557**

Consolidated Statement of Changes in Equity

CNY	Equity attributable to Espresssif							Non-controlling Interests	Total equity
	Share capital	Capital reserves	Less: Treasury stock	Other comprehensive income	Surplus reserves	Retained earnings	Total Espressif equity		
Balance as of December 31, 2023	80,789,724	1,358,508,382	146,969,563	24,067,306	55,460,195	541,144,184	1,913,000,228		1,913,000,228
Comprehensive income				13,344,860		339,323,927	352,668,787	-315,612	352,353,175
Capital increase	31,410,707	-22,339,823	-27,059,984				36,130,868		36,130,868
Repurchase			88,774,989				-88,774,989		-88,774,989
Stock-based compensation		15,211,030					15,211,030		15,211,030
Surplus reserves					21,398,552	-21,398,552			
Subsidiary Acquisition				-11,791,200		11,791,200		29,710,150	29,710,150
Dividends						-78,261,241	-78,261,241		-78,261,241
Balance as of December 31, 2024	**112,200,431**	**1,351,379,589**	**208,684,568**	**25,620,966**	**76,858,747**	**792,599,518**	**2,149,974,683**	**29,394,537**	**2,179,369,221**

CNY	Equity attributable to Espresssif							Non-controlling Interests	Total equity
	Share capital	Capital reserves	Less: Treasury stock	Other comprehensive income	Surplus reserves	Retained earnings	Total Espressif equity		
Balance as of December 31, 2024	112,200,431	1,351,379,589	208,684,568	25,620,966	76,858,747	792,599,518	2,149,974,683	29,394,537	2,179,369,221
Comprehensive income				-7,984,543		497,840,142	489,855,600	1,969,076	491,824,676
Capital increase	54,942,579	1,685,914,654	-141,251,119				1,882,108,352		1,882,108,352
Repurchase									
Stock-based compensation		3,329,117					3,329,117		3,329,117
Surplus reserves					46,165,302	-46,165,302			
Subsidiary Acquisition									
Dividends						-66,753,437	-66,753,437		-66,753,437
Balance as of December 31, 2025	**167,143,010**	**3,040,623,359**	**67,433,448**	**17,636,423**	**123,024,049**	**1,177,520,921**	**4,458,514,314**	**31,363,613**	**4,489,877,928**

N.B.: In June 2025, the Company capitalized its capital reserve into share capital, resulting in an increase in share capital of RMB 44,502,291. In September 2025, the Company issued 10,440,288 ordinary shares at an issue price of RMB 170.29 per share, increasing share capital by RMB 10,440,288. The remaining proceeds, after deducting issuance expenses, were recorded in capital reserves.

Further Information
Terms and Conditions of the Report

Responsibility Statement

The Board of Directors, and the executive management of the Company warrant that the contents of this report are true, accurate and complete, and do not contain any false information, misleading statements or material omissions, severally and jointly accepting any legal responsibility thereof.

Shanghai, 20 March 2026
Espressif Systems

Board of Directors

Teo Swee Ann
Founder and Chairman

Ng Pei Chi
Information Technology Director

Wang Jue
Board Secretary

Teo Teck Leong
Shareholder-elected

Chen Myn
Independent Director

Lee Kian Soon
Independent Director

Leong Foo Leng
Independent Director

Executive Management

Teo Swee Ann
Founder and CEO

Wang Jue
Board Secretary

Shao Jingbo
Financial Director

Forward-looking Statements

This report contains forward-looking statements and/or assessments about the business, financial condition, performance and strategy of the Espressif Group. These statements and/or assessments are based on assumptions and management expectations resting upon currently available information and current estimates. These are subject to a multitude of uncertainties and risks, many of which are partially or entirely beyond Espressif's control. Espressif's actual business development, financial condition, performance and strategy may, therefore, differ from what is discussed in this report.

Independent Auditor's Report

To the Shareholders of
Espressif Systems (shanghai) Co., Ltd.

Opinion

We have audited the financial statements of Espressif Systems (Shanghai) Co., Ltd. ("the Company"), which comprise the consolidated balance sheet and balance sheet as of December 31, 2025, the consolidated income statement, the income statement, the consolidated cash flow statement, the cash flow statement, the consolidated statement of changes in equity, and the statement of changes in equity for the year then ended, and the notes to the financial statements.

In our opinion, the enclosed financial statements were prepared in accordance with the Accounting Standards for Business Enterprises (the "ASBE") in all material aspects, and present fairly the consolidated and other financial positions of the company as of December 31, 2025, the consolidated and other results of company operations, and the consolidated and other cash flows of the company for the year then ended.

Basis For the Opinion

We conducted our audit in accordance with the Chinese Standards on Auditing for Certified Public Accountants. Our responsibilities under those standards are further described in the section titled "Auditors' Responsibilities for the Audit of the Financial Statements" of our report. We are independent of Espressif Systems (Shanghai) Co., Ltd. in accordance with the Chinese Code of Ethics for Certified Public Accountants, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We have also complied with the independence requirements applicable to public interest entities. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of the greatest significance in our auditing of the financial statements for the financial year from January 1, 2025 to December 31, 2025. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Key Audit Matter	How our audit addressed the Key Audit Matter

Revenue Recognition

Espressif's main business includes the sales of chips, modules & devKits, which created a revenue of CNY 2,565,275,431.81 in 2025.

Since the operating revenue is a key performance indicator, there is an inherent management risk when adjusting the time point of revenue recognition, in order for it to coincide with certain goals or expectations. Therefore, we identify revenue recognition, too, as a key auditing matter.

Our main auditing procedures for revenue recognition are as follows:

> Understanding and evaluating the effectiveness of the internal control design relating to the revenue recognition of product sales, and testing the effectiveness of the critical control point.

> Evaluating the appropriateness of the sales revenue recognition policy by interviewing the management, reviewing the main terms of the sales contracts and the time point of major control transfers relating to the revenue recognition.

> Checking the origin of revenue by performing analytical procedures for the operating revenue, including monthly sales analysis, as well as gross profit analysis categorized by customers and products.

> Checking the authenticity of revenue by sampling supporting documents related to revenue recognition, such as sales contracts, shipping records and customer receipts.

> Checking commercial information and the transaction prices paid by important customers, in order to determine whether any abnormal transactions were made by the company.

> Performing a cut-off test to check whether the revenue recognition is recorded within the correct accounting period.

Inventory

As of December 31, 2025, the inventory balance amounts to CNY 646,183,425.02 with provision for inventory impairment CNY 18,545,912.30, and a net book value amount of CNY 627,637,512.72.

Since most inventories are stored in warehouses entrusted by external processors and third parties, and the determination of provision for inventory impairment involves significant management judgment and estimation, we identify the existence of inventories and the provision for inventory impairments as key matters.

The audit procedures we performed include, but are not limited to, the following:

> Evaluating the effectiveness of the internal control design of the inventory management, and testing the effectiveness of the critical control point.

> Analyzing the rationality of the inventory balance fluctuation at the end of the reporting period by investigating its production cycle and stock policy.

> Calculating the inventory turnover during the reporting period and performing a comparative analysis with the turnover rates of peer companies.

> Implementing a supervision on the inventory check at the end of the reporting period.

> Performing confirmation procedures for inventory involving outsourced processing and those held in third-party warehouses.

> Evaluating whether the provision for inventory impairment at the end of the reporting period is fully accrued by conducting storage age analysis, understanding the specific accrual process, and reviewing the calculation results of the impairment provision.

Other Information

The management of Espressif Systems (Shanghai) Co., Ltd. (henceforth, "the management") is responsible for any information on all aspects of the 2025 company report, apart from the financial statements and the auditor's report on them.

Our opinions on the financial statements and the group management report do not cover the rest of the information provided here, and consequently we do not express an opinion or any other form of assurance conclusion thereof.

In connection with our audit, our responsibility is to read the rest of the information provided and, in so doing, consider whether this information:

> is materially inconsistent with the consolidated financial statements, with the group management report information audited for content or our knowledge obtained in the audit, or

> appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. However, we have nothing to report in this regard.

Management's Responsibilities for the Financial Statements

The management is responsible for the preparation of financial statements that give a true and fair view, in accordance with the ASBE, and for the design, implementation and maintenance of such internal controls as the management deems necessary, to enable the preparation of financial statements that are free from material misstatements, whether due to fraud or error.

In preparing the financial statements, the management is responsible for assessing the Company's ability to continue its operation, disclosing, as applicable, any matters related to ongoing concerns and using them as the basis of accounting, unless the management either intends to liquidate the Company or cease its operations, having no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the financial reporting process of Espressif Systems.

Auditor's Responsibilities for the Auditing of the Financial Statements

Our objectives are to obtain reasonable assurances about whether the financial statements as a whole are free from material misstatements, due to either fraud or errors, and to issue an auditor's report that includes our true opinion. Reasonable assurances provide a high level of confidence, but are not a guarantee that an audit conducted in accordance with CSAs will always detect a material misstatement when and where it exists.

Misstatements can arise from fraud or errors and are considered substantial if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users, taken on the basis of these financial statements.

As part of an audit in accordance with CSAs, we exercise our professional judgment and maintain professional skepticism throughout the audit. We also:

> Identify and assess the risks of substantial financial misstatements, due to either fraud or errors; design and perform auditing procedures in response to those risks, and obtain auditing evidence that is sufficient and appropriate for providing a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

> Obtain an understanding of internal controls relevant to the audit, in order to design auditing procedures that are appropriate to the circumstances.

> Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management.

> Conclude on the appropriateness of the management's use of a growing concern as the basis of accounting and, according to the auditing evidence obtained, determine whether a substantial uncertainty exists about events or conditions that may cast a significant doubt on the Company's ability to continue its operation. If we conclude that there is substantial uncertainty, we are required to draw users' attention to our auditor's report on the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the auditing evidence obtained up until the date of our auditor's report. However, future events or conditions may force the Company to cease its operation altogether.

> Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and determine whether the financial statements represent the underlying transactions and events in a manner that achieves a fair presentation.

> Obtain sufficient and appropriate auditing evidence about the financial information of entities or business activities of the Company, in order to express our auditing opinion on the Company's consolidated financial statements. We are responsible for directing, supervising and executing group audits and assume full responsibility for auditing opinions.

We communicate with those charged with governance, among other matters, on the planned auditing scope, timing and significant audit findings, including any significant deficiencies in internal controls that we may identify during our audit.

We also provide those charged with governance with a statement that we have complied with all relevant ethical requirements regarding our independence, and we also communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and, where applicable, any other related protections.

From the matters communicated to those charged with governance, we determine which matters are of the highest significance in the auditing of the financial statements of the current period and are, therefore, the key auditing findings. We describe these findings in our auditor's report, unless a law or regulation prohibits such public disclosure about those findings, or when -in extremely rare circumstances- we determine that a finding should not be communicated in our report, because the adverse consequences of its disclosure would reasonably be expected to outweigh the benefits of such communication for the public interest.

Beijing, 20 March 2026

Baker Tilly China

Ma Gang   Zhang Wuyi

Chinese Certified Public Accountant   Chinese Certified Public Accountant

List of abbreviations

2B	to Business
2D	to Developer
AI	Artificial Intelligence
AIoT	Artificial Intelligence and Internet of Things
Bluetooth LE	Bluetooth Low Energy
CEO	Chief Executive Officer
CES	Consumer Electronics Show
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
Espressif	ESPRESSIF SYSTEMS (SHANGHAI) CO., LTD.
G&A	General and Administrative
GM	Gross Margin
HMI	Human-Machine Interaction
IC	Integrated Circuit
IoT	Internet of Things
LLM	Large Language Model
MCU	Microcontroller Unit
OBD	On-Board Diagnostics
R&D	Research and Development
RF	Radio Frequency
RISC-V	Reduced Instruction Set Computer-V
ROE	Return on Earnings
RTOS	Real-Time Operating System
SG&A	Selling, General and Administrative
SH	Shanghai
SoCs	System on Chips
YoY	Year-on-Year

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