THine®

Interface to the Future
- Solution by Smart Connectivity -

THine Electronics, Inc. (TSE: 6769) FY2025Q1 Business Results and Opportunities

May 7, 2025

Mid-term Strategy from 2025 to 2027

Innovate100

TODAY'S AGENDA

- Corporate outline
- Business results in FY2025Q1
- The new mid-term strategy, "Innovate100"
- Topics of THine Group's technology and solutions

Corporate outline

Interface to the Future - Solution by Smart Connectivity -

Provider of unique value to the world,
de facto standard technology of high-speed interface, etc.

- Company Name: THine Electronics, Inc.
  (listed on Tokyo Stock Exchange, code: 6769)
- Founder & CEO: Tetsuya Iizuka, Ph.D
- President & COO: Yoichiro Minami
- Capital: 1,175 million yen
- Founded: May, 1991
- Incorporated: June, 1992
- Business Area: Planning, Designing and Sales of Mixed Signal LSI,
  Providing AI & IoT devices/Solutions,
  Planning, Designing and Sales of AI/Data Server
- Employees: 129, consolidated as of March 31, 2025

THine team

Korea

THine Electronics Korea, Inc.
Seoul, Korea
Established in Mar. 2010

United States

THine Solutions, Inc.
Santa Clara, CA USA
Established in Feb. 2018

China

賽恩電子香港股份有限公司
THine Electronics Hong Kong, Co., Ltd.
Established in Nov.2012
前海赛恩电子(深圳)有限公司
THine Electronics Shenzhen, Co., Ltd.
Established in May 2013
上海分公司
Shanghai-Branch
Established in Oct.2013

LSI

Tokyo – *Headquarters* –

Tokyo, Japan
Start-up in May 1991

AIOT

Cathay Tri-Tech, Inc.

Yokohama, Japan
The company name will be changed to "THine MobileTeK, Inc." in July 2025
Acquired in Dec., 2018

Server

THine HyperData, Inc.

Yokohama, Japan
Establish in June 2024

Taiwan

哉英電子股份有限公司
THine Electronics Taiwan, Inc.
Taipei, Taiwan
Established in Sep. 2000

Business Area

	Product and solution	Application market
LSI Biz.	**<High-speed interface LSI>** V-by-One® HS plus V-by-One® HS LVDS Serial Transceiver IOHA:B Optical Chipset (VCSEL driver, TIA) **<Image signal processing>** Image Signal Processor Camera Development Kit	・Camera solution: automotive cameras, security cameras, AR/VR, recognition camera, medical cameras, etc. ・Display solution: high-resolution displays such as 8K / 4K, gaming monitors with high refresh rate ・Drive recorders, automotive CID, exp. for EVs ・Mobile, PC, and single board computers ・OA (multi-function printers), amusement ・Industrial equipment such as inspection equipment for semiconductors and LCD displays ・AI optical computing for optical interconnect in networks of data centers
AI & IoT Biz.	<**Wireless modules**> 5G/LTE/NB-IoT ＜**AI&IoT devices and solution**＞ IoT Gateway / Router AI & IoT Solution ＜**AI Server**＞ AI Server with NVIDIA H100 GPU ＜**Data Server**＞ General Server Smart NIC/Switch	<AI/IoT Solution> ・Drive recorders with wireless modules ・AED monitoring modules ・IP transceivers ・Remote monitoring module for vending machines and elevators ・GPS tracker ・AI thermography with facial recognition ・IoT monitoring system <Server> ・AI servers and data servers for companies and AI research institutes though ODM/OEM

Financial performance in FY2025Q1 (3M)

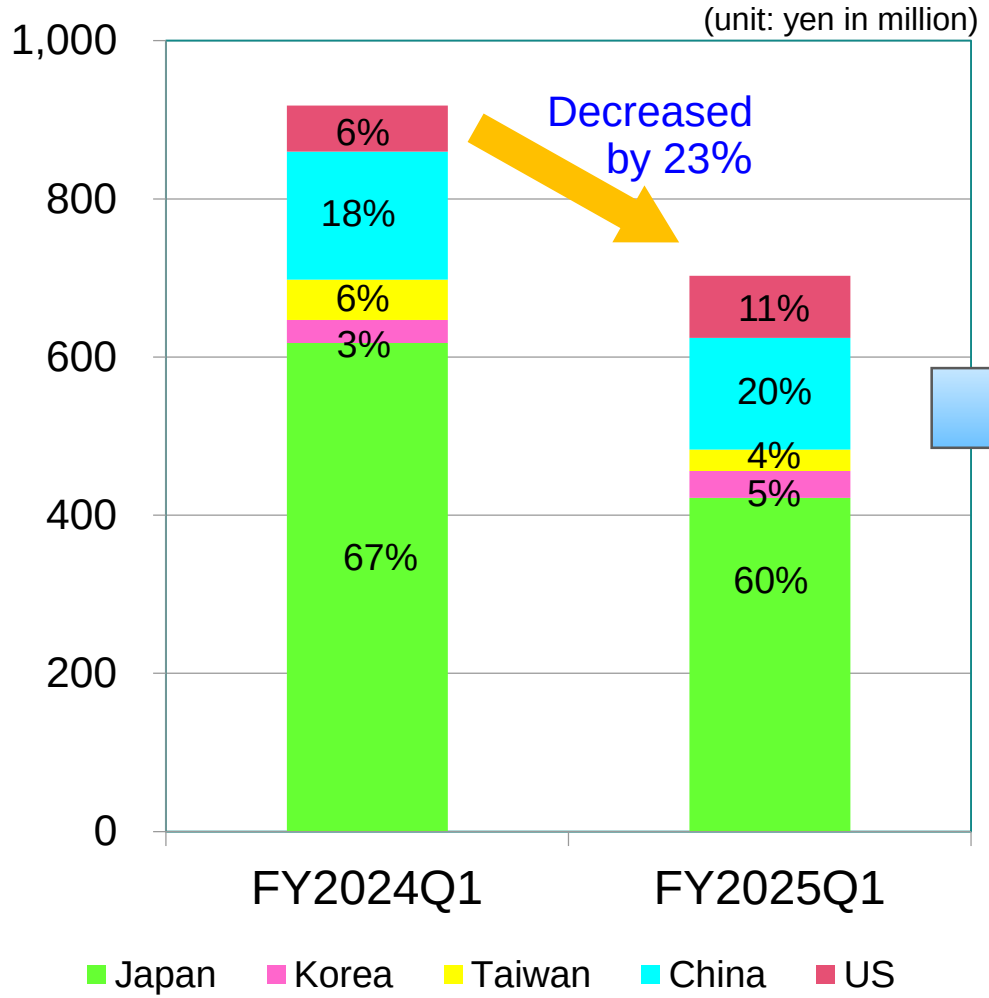
▶ Consolidated financial results

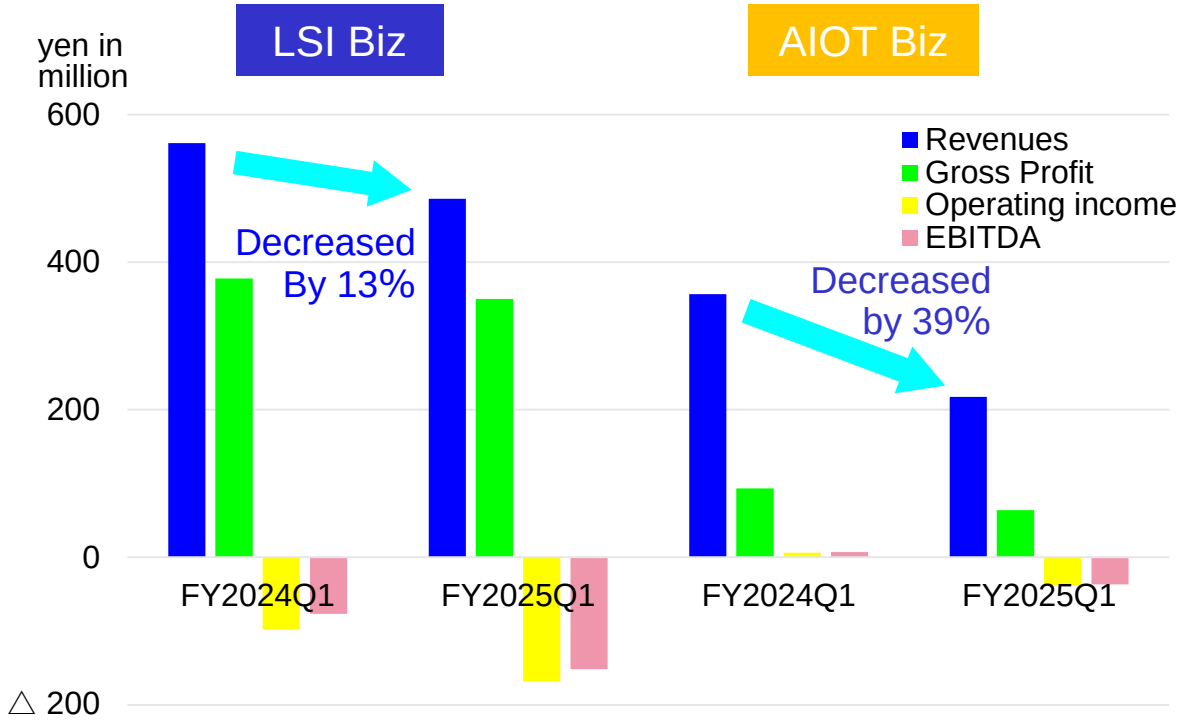
(yen in million)

	FY2025Q1 (3M)			FY2024Q1 (3M)	
		Portion%	YoY		Portion%
Revenues	703	100.0	76.6	917	100.0
Gross Profit	414	58.9	87.9	471	51.3
SG&A	619	88.2	110.1	562	61.3
(R&D expenses)	296	42.1	118.2	250	27.3
Operating Income	△205	△29.3	—	△91	△10.0
(EBITDA)	△188	△26.7	—	△69	△7.5
Ordinary Income	△343	△48.9	—	42	4.6
(Reference purpose only) Ordinary Income without FX effects	△206	△29.3	—	△84	△9.2
Net Income Attributable to Owners of the Parent	△261	△37.1	—	13	1.5

Financial performance in FY2025Q1 (3M) *by region and segment*

▶ Revenues by region

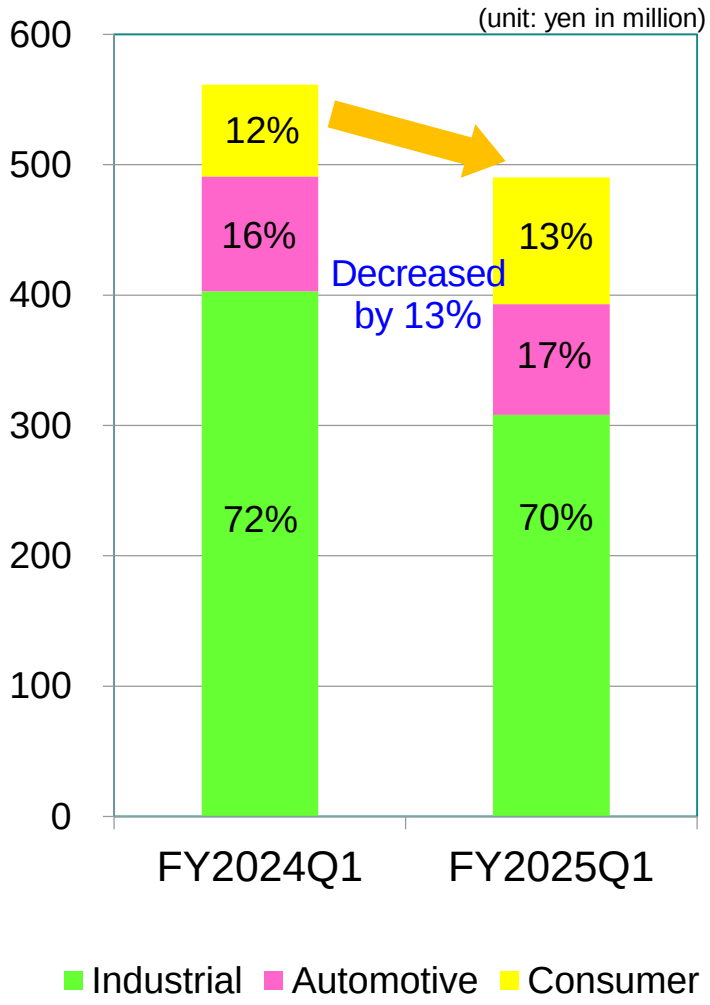




- LSI Biz in China and US became on a recovery trend while OA markets in Japan was still in the situation of inventory adjustment, resulted in revenue decrease by 13%.
- AIOT Biz for wireless communication modules to AED (Automated External Defibrillator), elevators, etc. was in a stable situation, while some customers of vending machines, etc. decreased shipping units because of inventory adjustment. Compared to 2024Q1 with some spot orders, 2025Q1 resulted in revenue decrease by 39%.

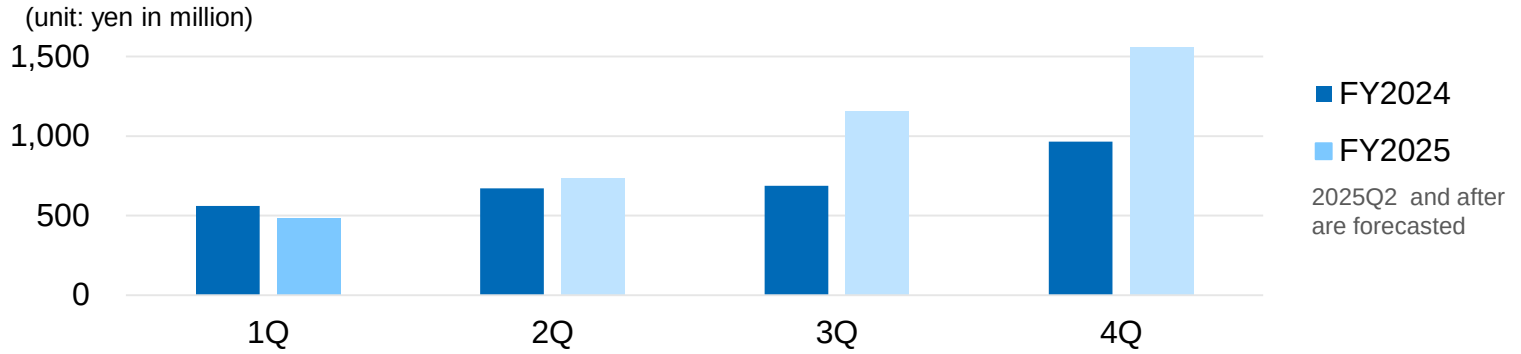
Financial performance in FY2025Q1 (3M) *LSI Business by application markets*

▶ Revenues of LSI business by application



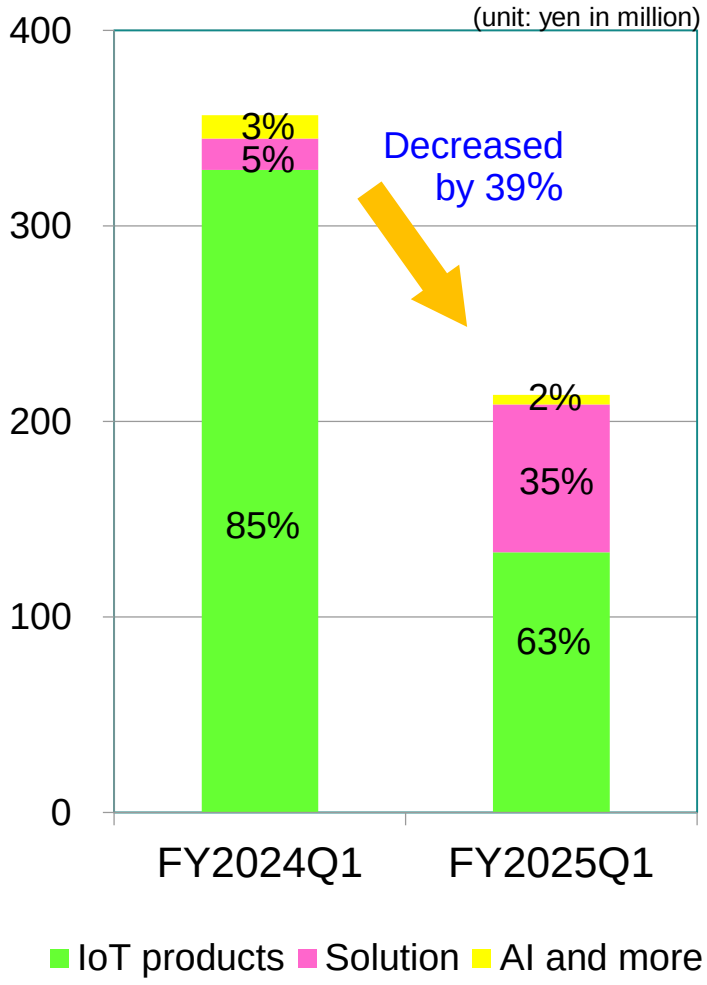
	Analysis
Industrial: decreased by 15% (70% of total)	OA markets are on recovery trend but and amusement markets are still affected by adjusting inventory level: +30% increase in OA, △54% decrease in amusement, and △14% in other industrial.
Automotive: decreased by 3% (17% of total)	Continue to sell new products for EV markets. Shipment to overseas markets increased: +10% increase in China and +28% in US.
Consumer: decreased by 12% (13% of total)	Steadily expanding the new standard of THine's interface technology "V-by-One® HS plus" for high-resolution 4K/8K television and display markets shows healthy growth.

QTR Sales in LSI business



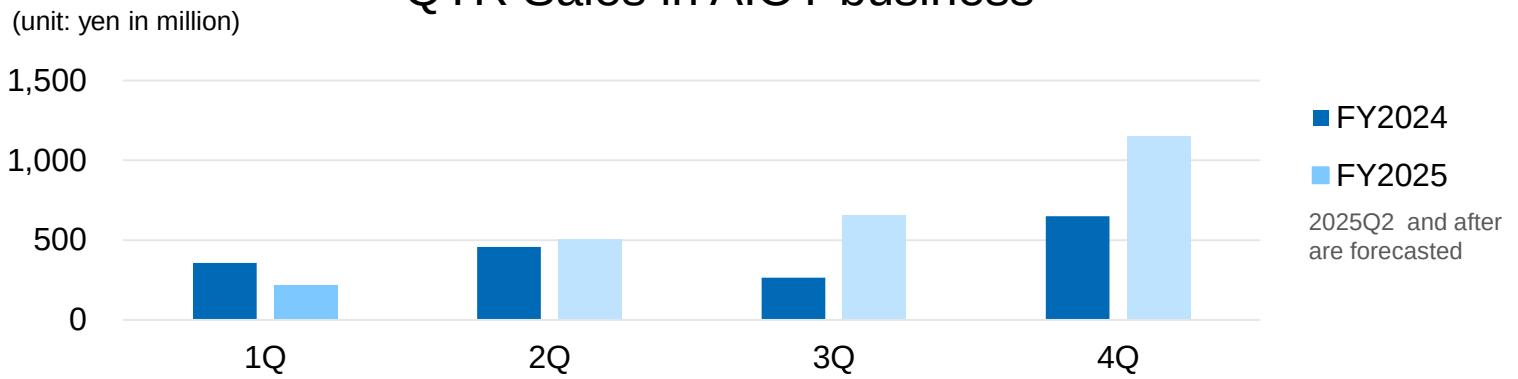
Financial performance in FY2025Q1 (3M) *AIOT Business by segment*

▶ Revenues of AIOT business segments



Analysis	
IoT products: decreased by 59% (63% of total)	Business in monitoring systems for AED and elevators, etc. was stable while those in vending machines decreased by customers' inventory adjustment, etc.
Solution: increased by 372%	Developing new solution such as OEM routers for surveillance cameras, gate access controllers made successful shipments.
AI and more: decreased by 58%	Focusing on newly launching solutions and products of server business by THine HyperData inc., established in 2024.

QTR Sales in AIOT business

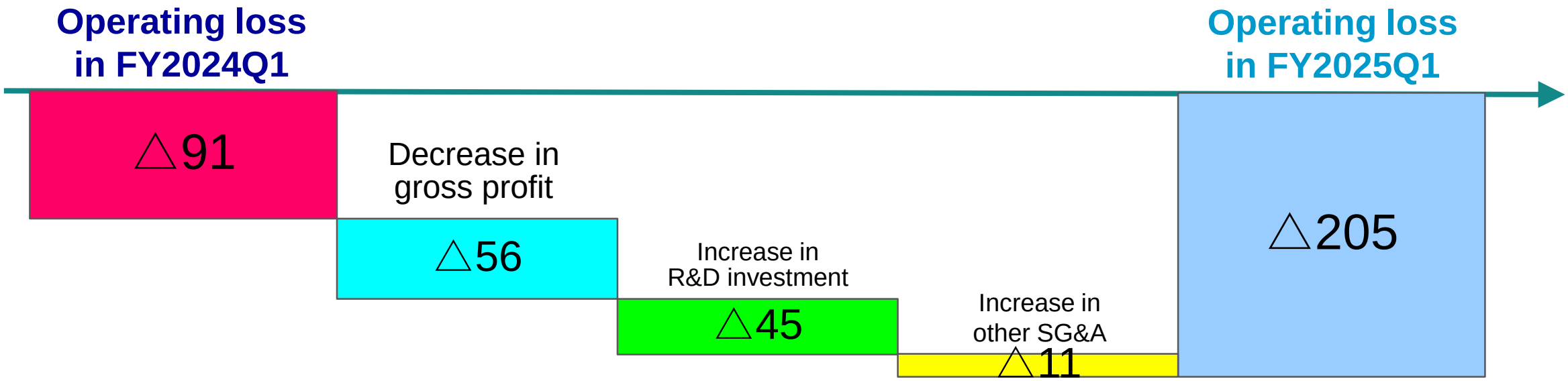


Financial performance in FY2025Q1 (3M) *SGA compared to FY2024Q1 (3M)*

- Reasons of changes in operating income
  - Revenues and gross profit decreased by 23% and 12% respectively with the improved gross profit rate from 51% to 59%
  - Made intensive investment in research and development (R&D) with JPY296M, increased by 5%: developing new products of V-by-One® HS for displays and cameras for EV markets, new power management products, the world-first optical chipsets for AI optical computing, modules for edge AI computing, gateway products with voice communication, smart IoT router products, etc.

    * Also continued government-contracted R&D project using 300GHz communication mostly at the cost of Japanese government, MIAC

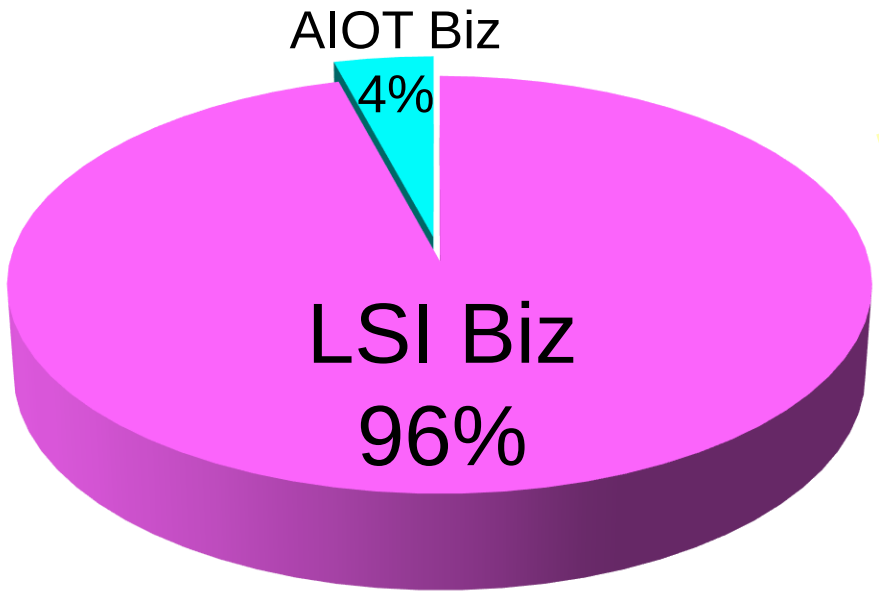
(unit: yen in million)



Financial performance in FY2025Q1 (3M) *R&D investment*

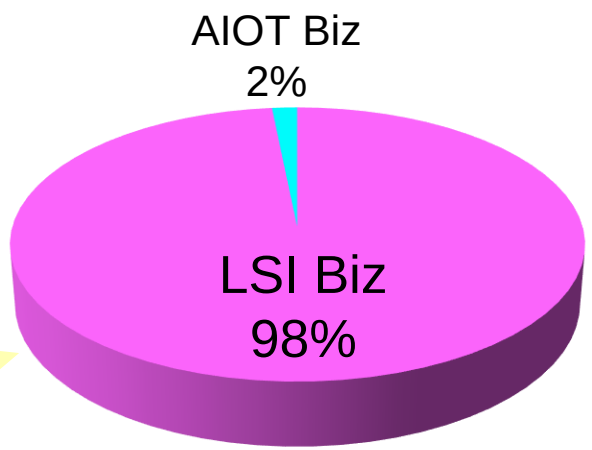
- Intensive investment in R&D
- R&D investment plan in FY2025: totally JPY1,365M (increased by 18%)

R&D in FY2025 (Planned)



R&D in FY2025Q1 (3M) (actual)

- **JPY296M**
  compared to the plan: 22%
  compared to FY2024 118%



Focused development to achieve the goals of the mid-term strategy, “Innovate100”

- New V-by-One®HS products for display panels and cameras of EVs
- New power management products
- The world-first optical IC technology for AI optical computing
- Modules for edge AI computing
- Voice-communication-support gateway products
- Smart IoT router products
- Smart module solutions with neural processing units for AI processing
- High-speed wireless communication technology applicable to 1000Gbps data transmission (Beyond 5G), etc.

Financial performance in FY2025Q1

Outline of Balance Sheet as of the end of March, 2025

(unit: yen in million)

Assets			Liabilities and Net Assets		
	End of FY2025Q1	End of FY2024		End of FY2025Q1	End of FY2024
Cash and Cash Equivalent	7,459	7,306	Account Payable	139	289
Account Receivables	418	1,144	Other Current Liabilities	291	306
Inventories	883	842	Non-current Liabilities	236	141
Other Current Assets	238	264	Shareholders' Equity	8,887	9,309
Property, Plant and Equipment	164	161	Accumulated Other Comprehensive Income	369	79
Intangible Assets	59	55	Deferred Stock-based Compensation	82	73
Investments and others	898	554	Non-controlling Interests	114	130
Total Assets	10,121	10,329	Total Liabilities and Net Assets	10,121	10,329

- US-dollar-based cash as of the end of FY2024 is approximately US$12M.

Financial performance in FY2025Q1 (3M)

Outline of Cash Flow Statements

(unit: yen in million)

	FY2025Q1	FY2024Q1
CF from Operating Activity	328	140
CF from Investing Activity	113	△42
CF from Financing Activity	△166	△204
Effect of Exchange Rate Changes	△122	91
CCE at the beginning of the FY	7,306	7,377
CCE at the end of the QTR	7,459	7,362

- decrease in net loss before tax, account receivables, etc.
- sales of investment securities, etc.
- payment of dividend for FY2024, etc.
- Exchange rate
  JPY158 as of the end of FY2024
  JPY149 as of the end of FY2025Q1

The new mid-term strategy, “Innovate100” from 2025 to 2027

- To increase the corporate value of THine
  - **Making our best effort to achieve the revenues of JPY10Billion in the mid-term strategy “Innovate100”**

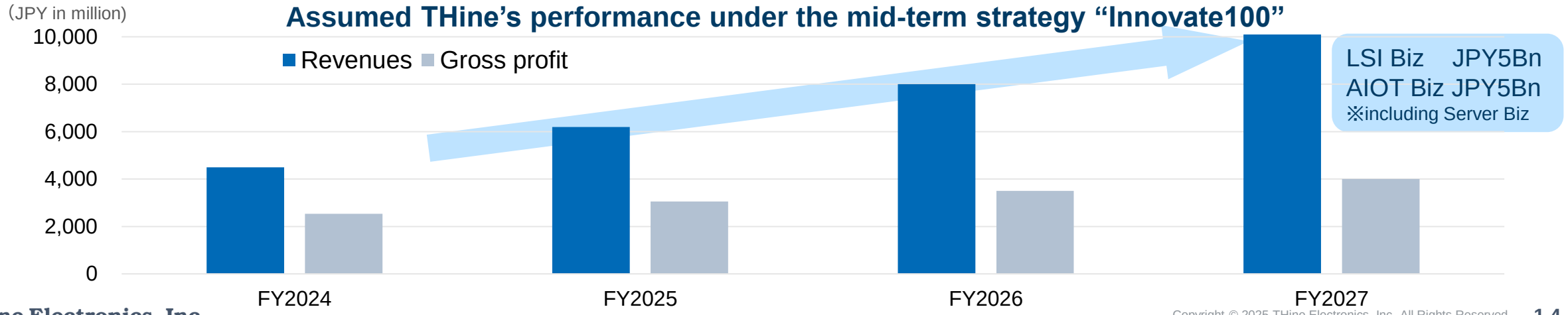
5G&Beyond-NE
(2022—2024)

Innovate100
(2025—2027)

FY2027 **Revenues of JPY10Bn or more**

Assuming in the case of achieving the goal
ROIC (return on invested capital) exceeds 10%

Assumed THine’s performance under the mid-term strategy “Innovate100”



The new mid-term strategy, “Innovate100” from 2025 to 2027

- Outline of the next mid-term strategy, “Innovate100”

◆ Basic strategy

THine Group will contribute to accelerating implementation of AI use cases through its three business portfolio of LSI, AIOT, and Server, proposing low power solution for data center markets that shall increase power consumption enormously.
THine Group will proactively cultivate collaboration opportunities with partners, including M&A deals.

◆ Typical action items

- Launching solution business with AI processors
- Widely applying THine’s LSI solution that can aggregate IoT wiring drastically
- Launching EdgeAI solution business, supporting industrial IoT use cases
- Developing new DSP-less optical chipsets that extraordinary reduce power consumption and latency
- Providing wireless communication solution for smart meters that can be data source for AI-based sensing
- Applying wireless communication solution to automotive and industrial equipment that communicate with cloud
- Starting business for telecommunications carriers
- Widely applying server business, including AI servers

◆ Enhancing synergy among THine Group’s 3 business of LSI, AIOT solution, and Servers

On July 1st, 2025, Cathay Tri-Tech., Inc., THine Group’s AIOT solution company, will change its company name to **“THine MobileTek., Inc.”**, enhancing THine Group’s synergy effects.

The new mid-term strategy, “Innovate100” from 2025 to 2027

Forecast in FY2025

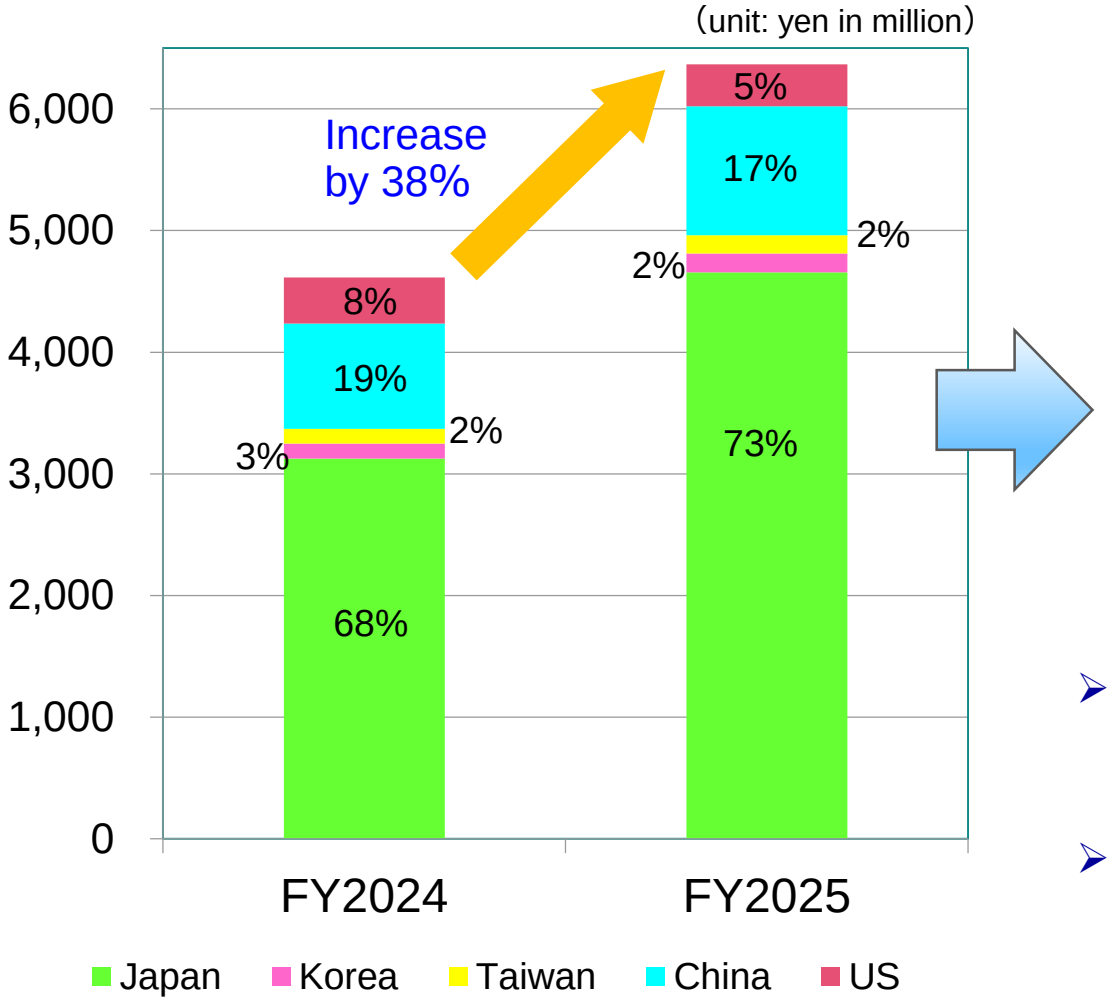
From this FY2025 THine Group has started its new mid-term strategy, “Innovate100,” aiming its goal of revenues in FY2027 with 10 billion yen or more.

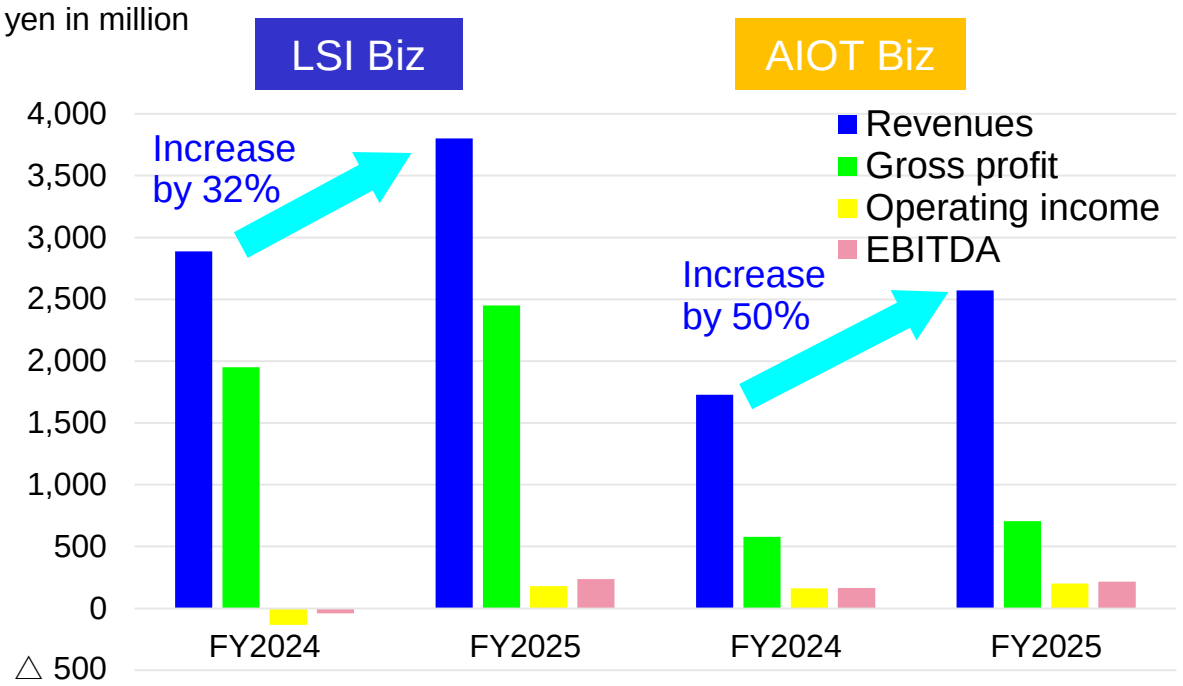
(yen in million)

	Forecast in FY2025			FY2024 results		FY2023 results	
		Portion%	YoY		Portion%		Portion%
Revenues	**6,366**	**100.0**	**138.0**	**4,614**	**100.0**	**5,018**	**100.0**
Gross Profit	**3,150**	**49.5**	**124.6**	**2,528**	**54.8**	**2,435**	**48.5**
SG&A	2,768	43.5	110.7	2,500	54.2	2,476	49.3
(R&D expenses)	1,365	21.5	118.3	1,154	25.0	1,102	22.0
Operating Income	**381**	**6.0**	**1360.5**	**28**	**0.6**	**△40**	**△0.8**
EBITDA	455	7.2	363.4	125	2.7	173	3.5
Ordinary Income	360	5.7	136.2	264	5.7	71	1.4
Net income attributable to Owner of the Parent	301	4.7	88.9	339	7.4	△69	△1.4

The new mid-term strategy, “Innovate100” from 2025 to 2027

▶ Forecast in FY2025 by region and segment

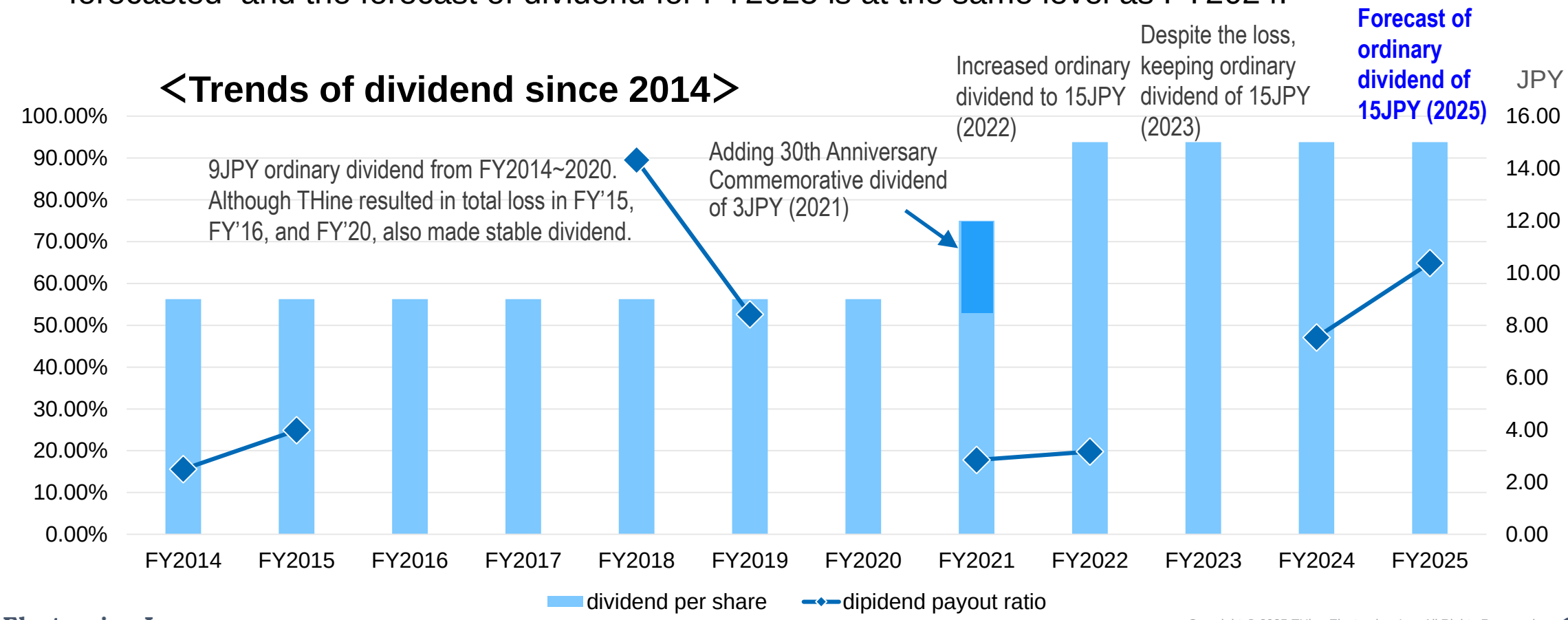




- LSI Biz’ forecast increases by 32%. Its OA markets are on a recovery trends and overseas markets such as China and US are on a growing trend.
- AIOT Biz’ forecast increases by 50%, making intensive efforts on launching business for smart-meters, in addition to existing drive recorders, wireless communication modules to vending machine, elevators, AED, etc.

The new mid-term strategy, “Innovate100” from 2025 to 2027

- Shareholder return policy
  - THine Group makes efforts to achieve the new mid-term strategy, “Innovate100” and to return profits to shareholders based on assuming THine’s future growth. Dividend for FY2024 is 15JPN per share as forecasted and the forecast of dividend for FY2025 is at the same level as FY2024.

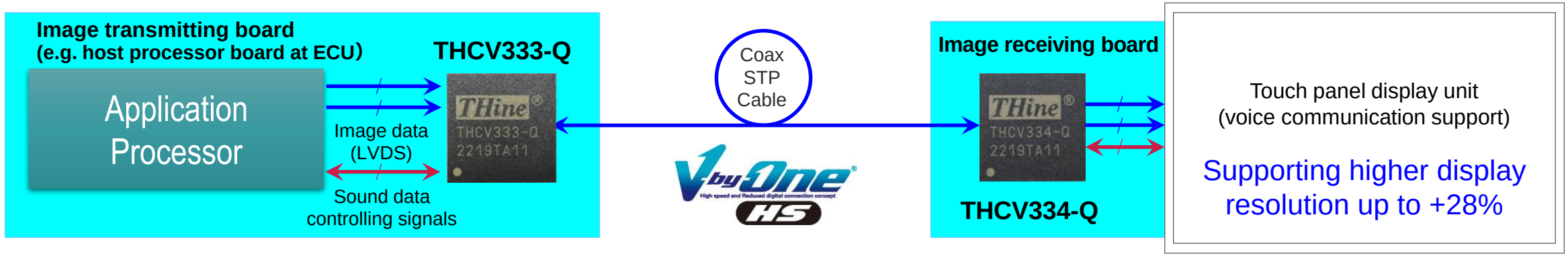


The new mid-term strategy, “Innovate100” from 2025 to 2027

- Enhancing user experience – simplifying cable wiring solution for in-vehicle touch panels for EVs

Start volume production shipping of new V-by-One®HS products for EVs and industrial equipment

- Enabling to transmit and receive fullHD60fps images, controlling signals, and voice signals only with 1 chip
- Capable to handle approximately +28% more data volume, compared to similar-class products in automotive industry
  the world-fastest class SerDes support OpenLDI(LVDS)



1) Automotive in-vehicle touch panel display
- Information display
- Rear seat entertainment
- Navigation
- Display Audio

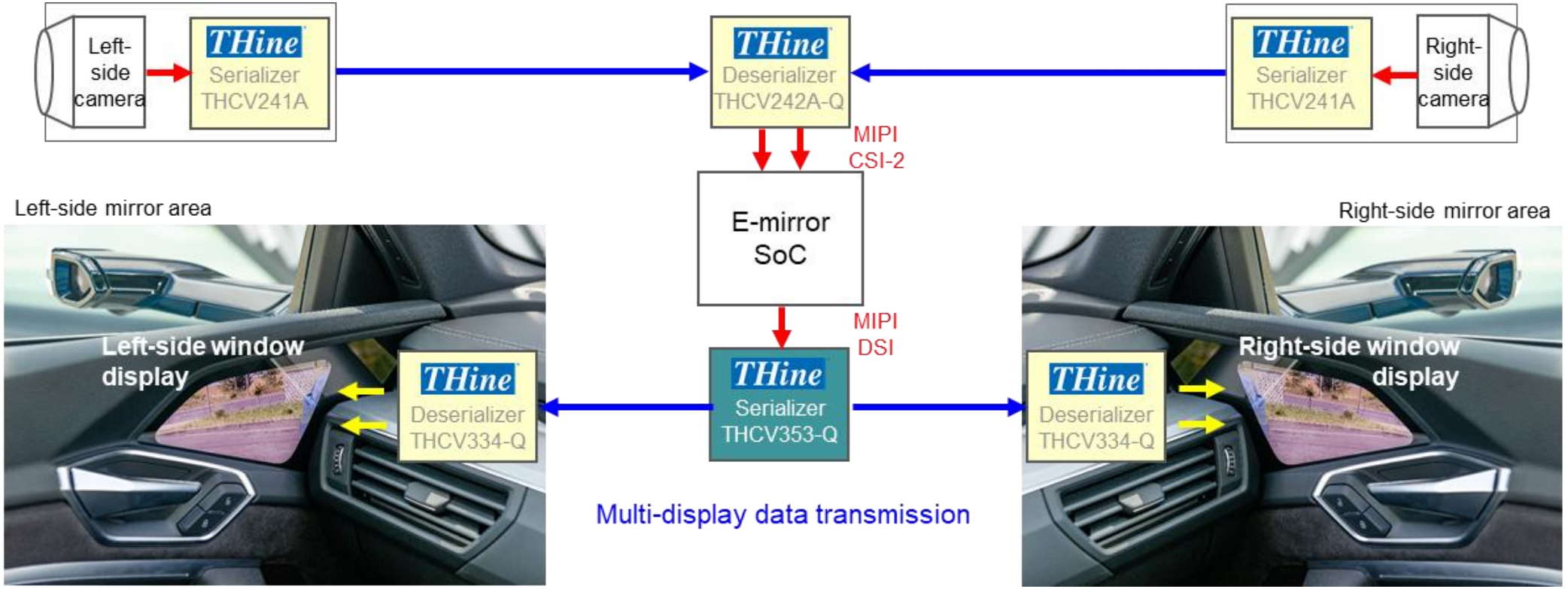
2) Industrial embedded touch panel display
- HMI/programmable display
- Vending machines with touch panel
- Elevator interior panel
- Traffic monitors

The new mid-term strategy, “Innovate100” from 2025 to 2027

- Enhancing user experience – solution for multi-displays

New V-by-One®HS products for multi-panel solutions for EV’s and Industrial equipments

- Images from left/right-side mirrors can be displayed on left/right-side window displays, simplifying automotive systems.
- Achieves well-performing tach-panel responses, transmitting together with sound data through the same cables.

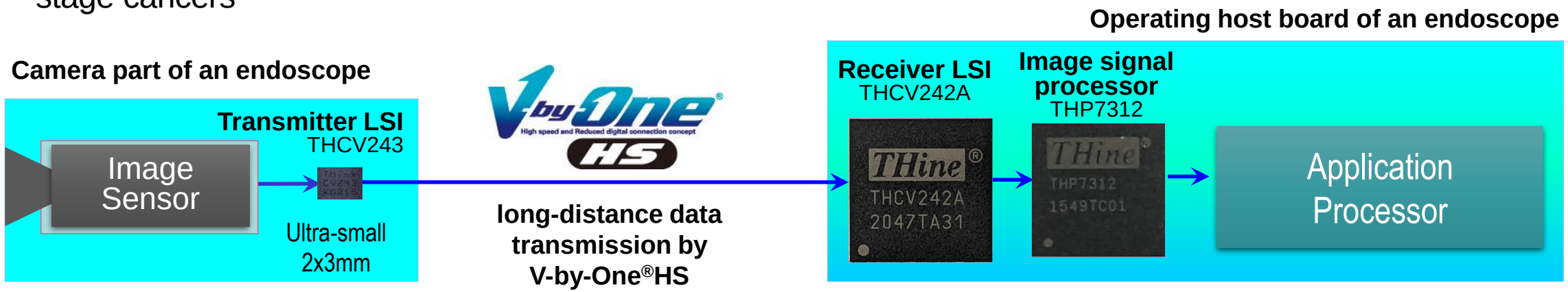


The new mid-term strategy, “Innovate100” from 2025 to 2027

- Contribution to envolving medical cameras

V-by-One®HS product supports 4K medical cameras

- Contributing to achieve 4K high-resolution endoscope cameras
- The world smallest V-by-One® HS product enables to transmit images from 4K cameras to operating equipment for several meters through just one cable
- THine’s image signal processor applicable simultaneously
- Contributing for users to apply AI-based machine learning with 4K images for higher detection rates for early-stage cancers



THine® Interface to the Future - Solution by Smart Connectivity -

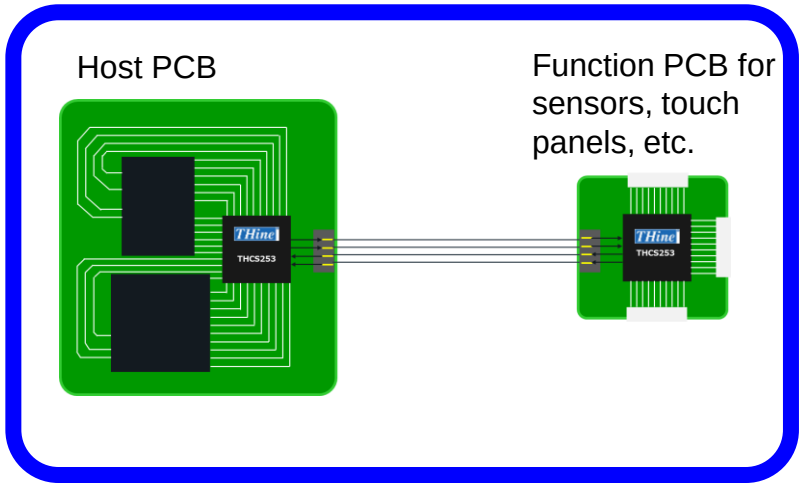
The new mid-term strategy, “Innovate100” from 2025 to 2027

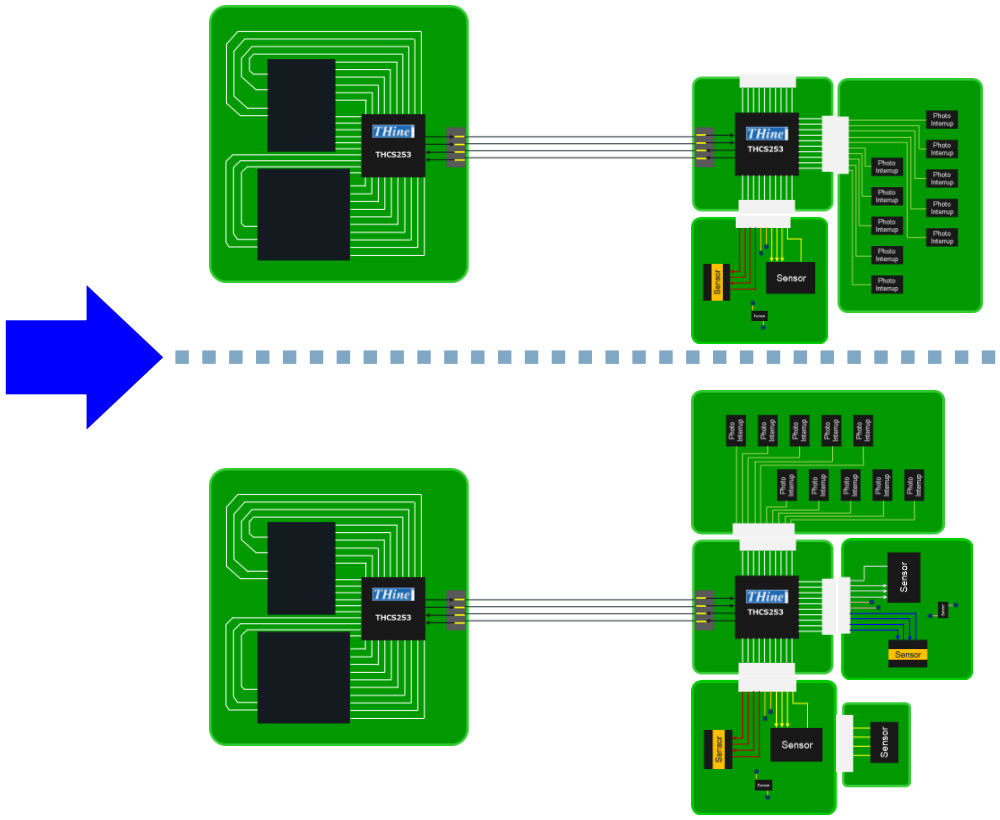
- Contribution to simplifying sensing & control systems

Launching the industry-first unique serial transceiver that enables to achieve IoT platform

- Flexible I/O pattern of sensors and controlling signals up to 4.3-billion different configuration degrees of freedom

IoT Platform with THine





IoT Platform Applied to Customer A

Adding a camera sensor and an acceleration sensor

No need to re-design PCB

IoT Platform Applied to Customer B

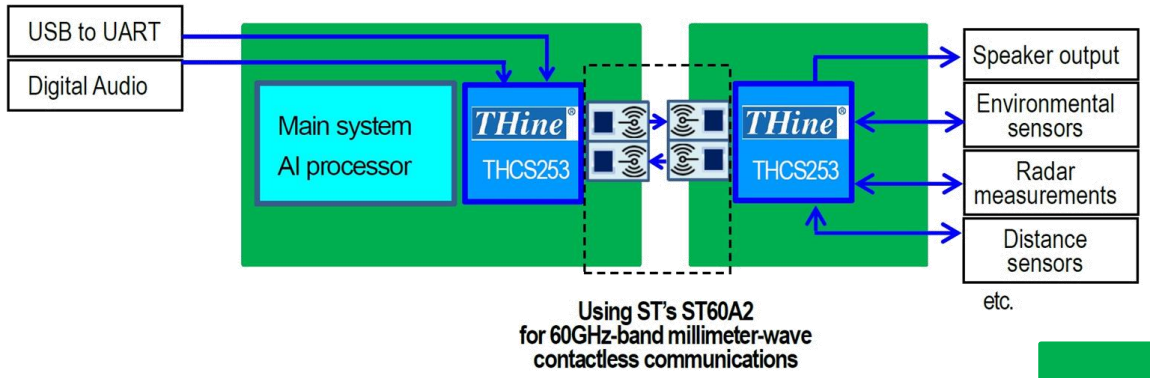
Changing input pins of the camera sensor, removing the acceleration sensor, and adding pressure sensor, temperature sensor, and touch-panel sensor

The new mid-term strategy, “Innovate100” from 2025 to 2027

- Contribution to use cases with contactless communication

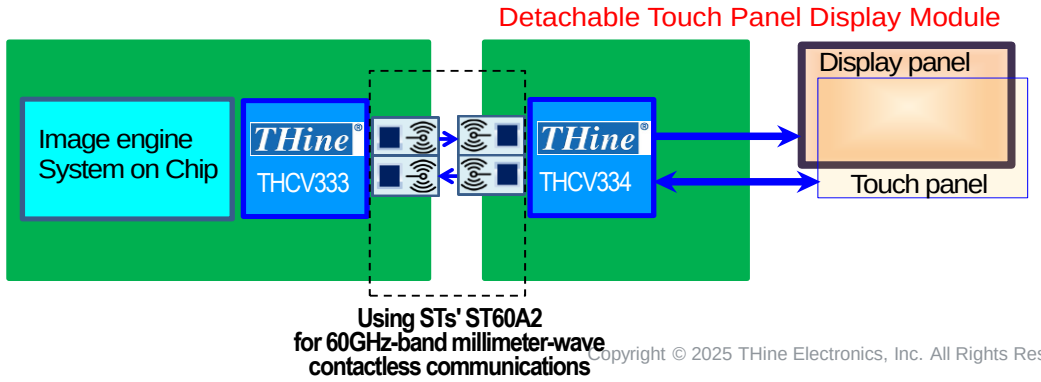
Collaboration with STMicroelectronics’s near field communication technology

- To support for new use cases in high-speed contact connectivity, combining THine’s high-speed interface technology and ST’s 60GHz RF millimeter-wave
- THine’s V-by-One® and other interface technologies, together with ST’s ST60A2 contactless 60GHz transceiver, enables high-speed data transmitting solutions of board-to-board contactless connections.



Seamless device-to-device data transfer without cables and connectors
(e.g., docking stations for PCs, game consoles)

Solution for detachable touch panel display
(Mechanical connectors replacement for large signage modules, water-proof and dust-proof, and vibration-resistant devices can also be realized.)



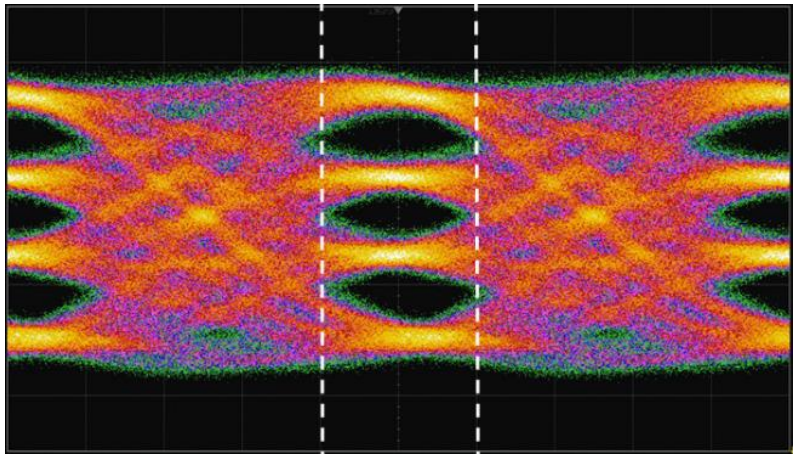
The new mid-term strategy, “Innovate100” from 2025 to 2027

- Contribution to reducing power consumption in AI data centers

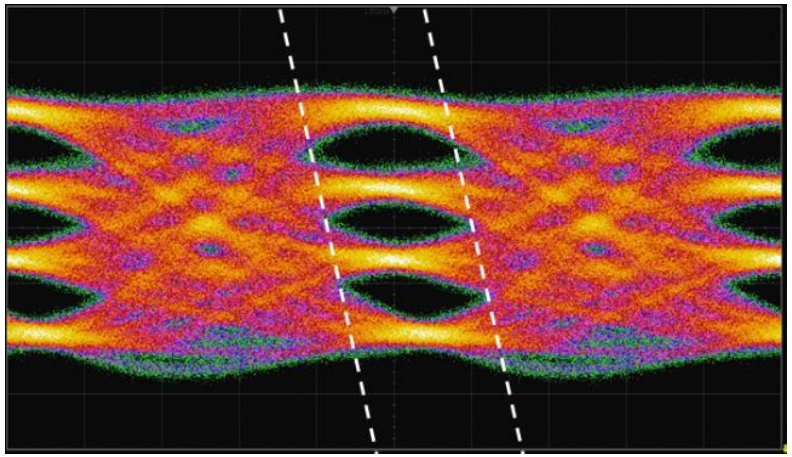
The world-first DSP-less optical chipset (ultra-low power and ultra-low latency) supporting VCSEL

- The world-first optical DSP-less technology, “ZERO EYE SKEW™” for 2TB/s PCI Express 7.0, saving power consumption by 80%, lowering latency by 90%
- Exhibited in OFC2025 with significant responses from various attendees, communicating with potential partners, customers, system venders and operators of AI optical computing in data centers

Performance with ZERO EYE SKEW™



Performance without ZERO EYE SKEW™



ZERO EYE SKEW™ demonstration at OFC

*By applying ZERO EYE SKEWTM technology, it has been shown that skew in the eye pattern opening is adjusted appropriately, maintaining excellent signal quality. (Both are eye patterns after applying 5-tap feed forward equalizer (FFE).)

* “ZERO EYE SKEW” is THine Electronics, Inc’s trade mark or registered trade mark.

The new mid-term strategy, “Innovate100” from 2025 to 2027

- Innovating solution of beyond 5G and 8K, obtaining beyond growth advantages

R&D toward 1000Gbps ultra-high-speed data transmission

- Successfully developed the World-First Mixed-Signal Baseband Demodulator Technology

The National Institute of Information and Communications Technology (NICT)

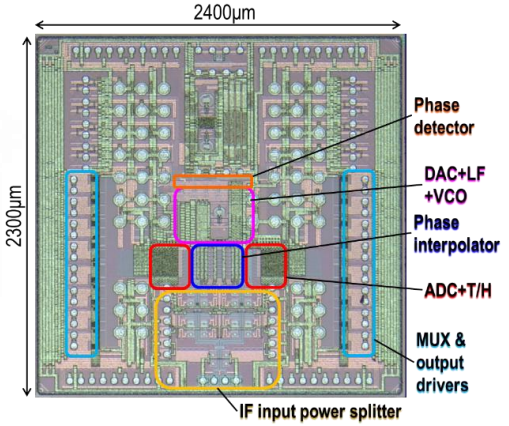
THine

Ministry of Internal Affairs and Communications (MIAC)

Hiroshima University

Nagoya Institute of Technology

Tokyo University of Science



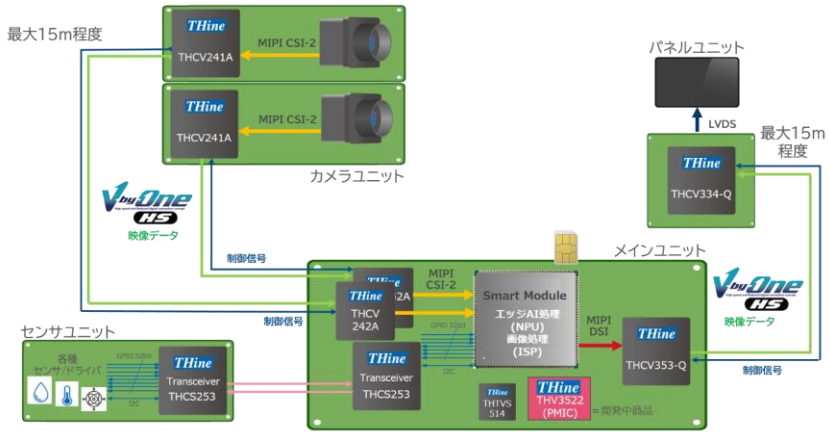
Wide application
- **remote medical diagnosis,**
- **eSports,**
- **8K TV, etc.**

The new mid-term strategy, “Innovate100” from 2025 to 2027

- THine’s interface technology achieves smart connectivity and enhances smart analysis

EdgeAI-Link® one stop solution, enabling to link with cloud AI solution

- Accelerate customers’ time-to-market of edge A solution, reducing total developing costs
- Supporting 3.5 ~ 12 TOPS (Tera Operations Per Second), preparing for faster-TOPS lineups
- Various available solution: full custom, SoC board solution, and EdgeAI Computers
- Applications: facial recognition, store marketing, crime prevention, drive recorders, etc.



Full Custom Solution ⟷ **SoC Board Solution** ⟷ **EdgeAI Computer**

Module ＋ SerDes

Customized solution for customers’ request

Complete finished products

* “EdgeAI-Link” is THine Electronics, Inc’s trade mark or registered trade mark.

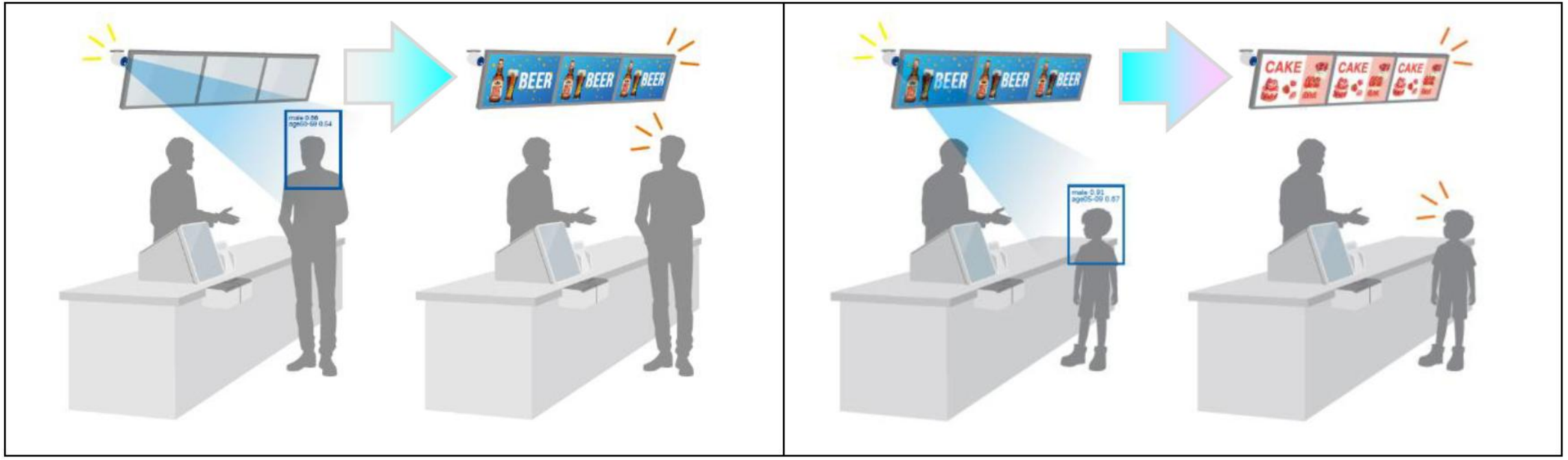
The new mid-term strategy, “Innovate100” from 2025 to 2027

- THine’s interface technology achieves smart connectivity and enhances smart analysis

EdgeAI-Link® one stop solution

- AI signage solution for sales promotion in retail stores

Images of operation of AI signage solution for sales promotion in retail stores
(an example of supporting customer attribute recognition in convenience stores)



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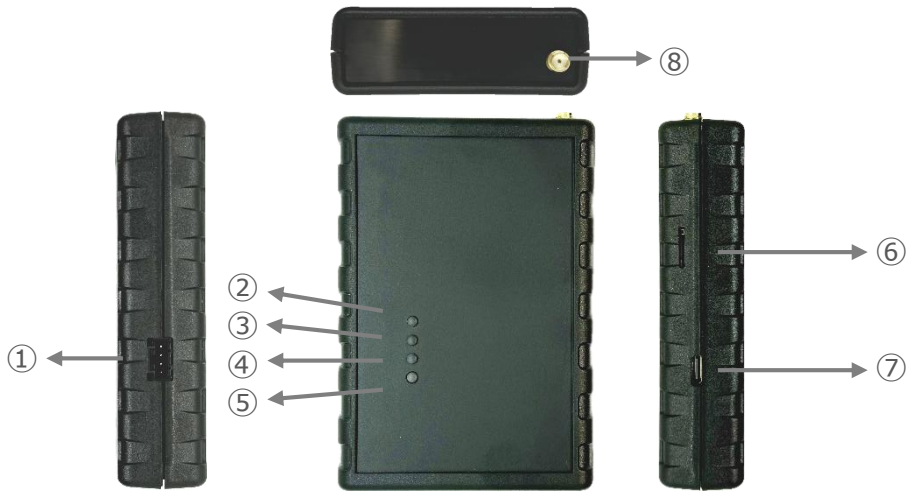
THine® Interface to the Future - Solution by Smart Connectivity -

The new mid-term strategy, “Innovate100” from 2025 to 2027

▶ Contribution to various IoT use cases

LTE/BLE Gateway CTG-B01/B02

Upper side



Left side Top Right side

■ **Product Overview**

CTG-B01/CTG-B02 is a BLE/LTE gateway that can collect data from various BLE sensor devices and transmit the data via LTE lines. Two types are available depending on the type of LTE line: CTG-B01 for Cat.M and NB-IoT, and CTG-B02 for Cat.1bis.
Customized applications compatible with various BLE sensors can be developed using the development environment provided by BlueX Micro. GNSS receiver function and LTE connection function via external antenna are also available as factory production options.

Items			CTG-B01／CTG-B02
Left side connector	Application software connector	①	SWD interface
Top indicators	Power	②	White
	LTE communication	③	Blue
	Alarm	④	Red
	BLE communication	⑤	Green
Right side connector	SIM connector	⑥	Nano SIM push-push type
	USB power delivery connector	⑦	Type-C
Upper side connector	External RF antenna connector	⑧	Valid when SMA･female is selected
Average power consumption in operation	Idle state		CTG-B01 Approximately 60mA@5V DC CTG-B02 Approximately 50mA@5V DC
	General operation state		CTG-B01 Approximately 80mA@5V DC CTG-B02 Approximately 60mA@5VDC
Operating environment	Temperature		0 ～ 40℃
	Humidity		30 ～ 80%
Storage environment	Temperature		-10 ～ 55℃
	Humidity		30 ～ 80%
Size	Length × Width × Height		111.5 × 77 × 25.5 (mm)
Weight			Approximately 105g

The new mid-term strategy, “Innovate100” from 2025 to 2027

▶ Contribution to various IoT use cases

SIM6600-eM2 supporting SIMO Cloud SIM

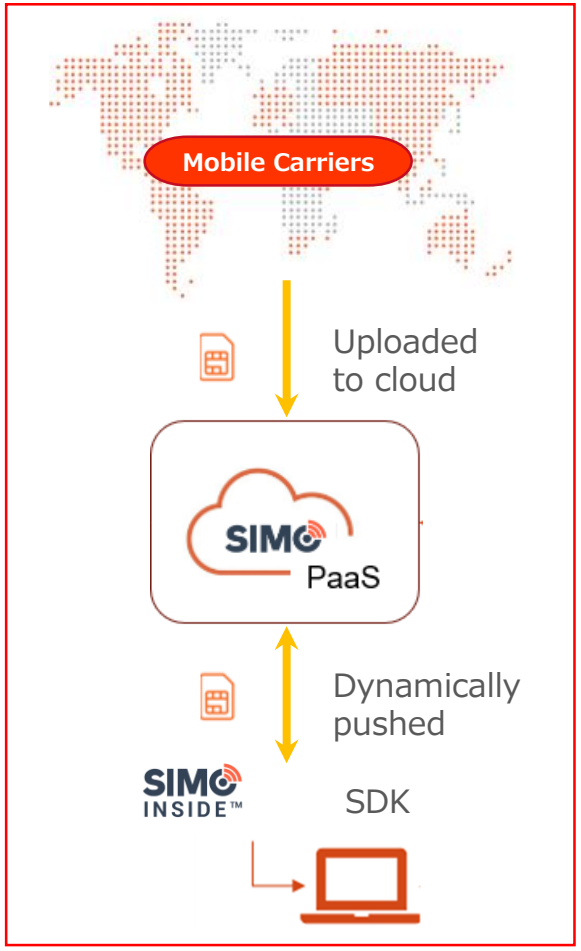
Wireless communication Module
SIM6600-eM2

SIM6600-eM2 is a smart module with Android system and supports LTE Cat.7.
It adopts MTK's 4-core 64-bit ARM Cortex-A53 processor with clock speed up to 2.0GHz and IMG GE8300 GPU.
It supports wireless communication modes such as LTE-TDD/LTE-FDD/HSPA+, and achieves communication speeds of up to 300Mbps downlink and 150Mbps uplink.

■ Major features

- Standard M.2 interface
- Embedded eSIM (2.6mm x 2.4mm)
- MTK 4-core 64-bit ARM Cortex-A53 processor
- High throughput data communication
- Supports LTE and UMTS networks for global coverage
- Rich software functions: Virtual SIM, FOTA, etc.

Features of SIMO Cloud SIM



Benefits of applied products

It can connect to all carrier networks in Japan, so if a disaster causes a network outage, it will automatically switch to another carrier.

- ◆No need to insert a SIM, greatly reducing kitting work
- ◆Automatically selects the optimal line, ensuring constant online operation
- ◆Supports global carrier lines, can be used overseas
- ◆Can be used with a wide variety of products
- ◆Reasonable pricing plans

Examples of products supporting SIMO Cloud SIM

Industrial Router
WiFi4/VPN

Dongle: Built-in antenna type also available

Toughness Tablet

MiniPC
Windows11/
Linux Ubuntu

IP camera
With PoE

CPE
WiFi6

THine® Interface to the Future - Solution by Smart Connectivity -

The new mid-term strategy, “Innovate100” from 2025 to 2027

▶ Contribution to various IoT use cases

Video call terminal CTV-003

Simple use

Easy to set up

Easy to installation

■ **Specification of the main terminal with stand**

Communication method	LTE (VoLTE)
Display	8-inch WXGA
Touch panel	Electrostatic multi-touch panel
Remote control	Specified low power radio
Size	235(W) x 195(H) x 65(D) mm
Power source	AC100～240V
Weight	0.9 kg
Operating temperature	0℃～40℃

■ **Features (supporting LTE)**

Video call terminal, suitable for use cases in medical, welfare, and nursing case

<Touch phone>

- ◆ Easy calling at anytime from anywhere
  - LTE line supports calling at anytime from anywhere even from remote place, outside of office or home
- ◆ Simple use allows even children or elderly people to operate easily
  - One touch operation on the touch panel
  - One push of a button of a remote controller
- ◆ Comfortable communication with looking at speakers’ face

■ **Simple remote controller**, using specified low power radio, less susceptible to walls and obstructions than infrared communication

■ **Battery-powered**

user can talk for a certain time even in a sudden power outage

■ **Re-dialing/auto answer function**, equipped with functions designed for use in the medical and welfare fields, such as an “auto answer function” that automatically starts a video call and a “redialing function” that repeatedly dials until communication with the other party is established.

* Can also be used as a regular telephone.

The new mid-term strategy, “Innovate100” from 2025 to 2027

- Contribution to computational resources including AI server

Starting the server business, including AI servers with NVIDIA’s latest GPU

- In April 2025, THine has acquired 100% shares of THine HyperData, Inc., dissolving the joint venture in order to achieve more appropriate corporate structure for sales in Japan due to changes in relationship between US and China
- Leveraging its synergy with the AIOT business, the company will contribute to the utilization of AI and other computing resources through its server business for Japanese companies and research institutions.
- Starting sales including AI servers equipped with NVIDIA’s GPUs

TA-8140 8U AI server (2024)
NVIDIA H100/H200 HGX GPU model

The new mid-term strategy, “Innovate100” from 2025 to 2027

- Contribution to SDGs

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- ✓ V-by-One® HS plus contributes to reduce energy consumption in high-resolution displays
- ✓ Smarter data transmission in automotive sensing
- ✓ Reducing number of cables by high-speed data transmission technology
- ✓ Reducing energy consumptions by achieving low power consumption and by achieving heat efficiency in power system
- ✓ Reducing energy consumptions in transporting and delivering through AI and IoT technology

Interface to the Future
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URL https://www.thine.co.jp/corporate/investors/

Please inquire through the inquiry form in the URL.

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