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HANA MICRON

Innovative Semiconductor Solution Provider

Enabling the next generation
technology to the reality

하나마이크론

Company overview

HANA Micron

Fueled by passion and a spirit of innovation, we have grown into a leading total solutions provider in the semiconductor backend industry.

HANA Micron strives to create greater value for its customers by leveraging its extensive experience, advanced technological expertise, and talented workforce. Driven by continuous change and innovation, along with a spirit of challenge, we will continue to grow as a global semiconductor solutions company that shapes the future.

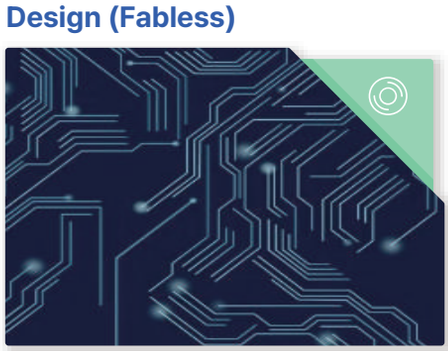
Company	HANA Micron, Inc.
CEO	Dong-Cheol Lee
Establishment	August 23, 2001
Sales Revenue	USD 1.13 billion (As of December 31, 2025)
Business area	Semiconductor packaging and testing
Global employees	4,000+
Global network	6Plants (KOR, VNM, BRZ)
Address in Korea	· Head office (Manufacturing) : 77 Yeonamyulgeum-ro, Eumbongmyeon, Asan-si, Chungcheongnam-do · Pangyo (R&D) : 8~9FL, 35, Pangyo-ro 255beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do

Business area

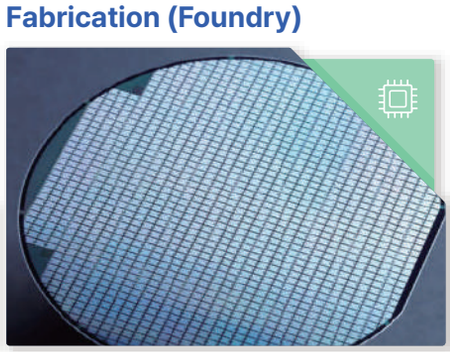
HANA Micron

Front-end

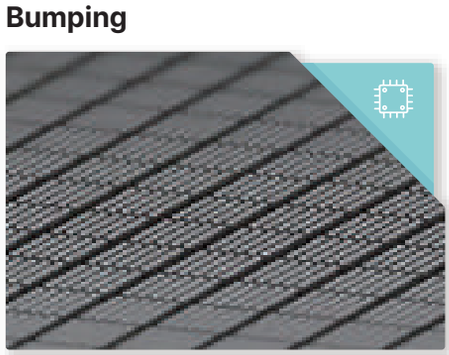
Design (Fabless)



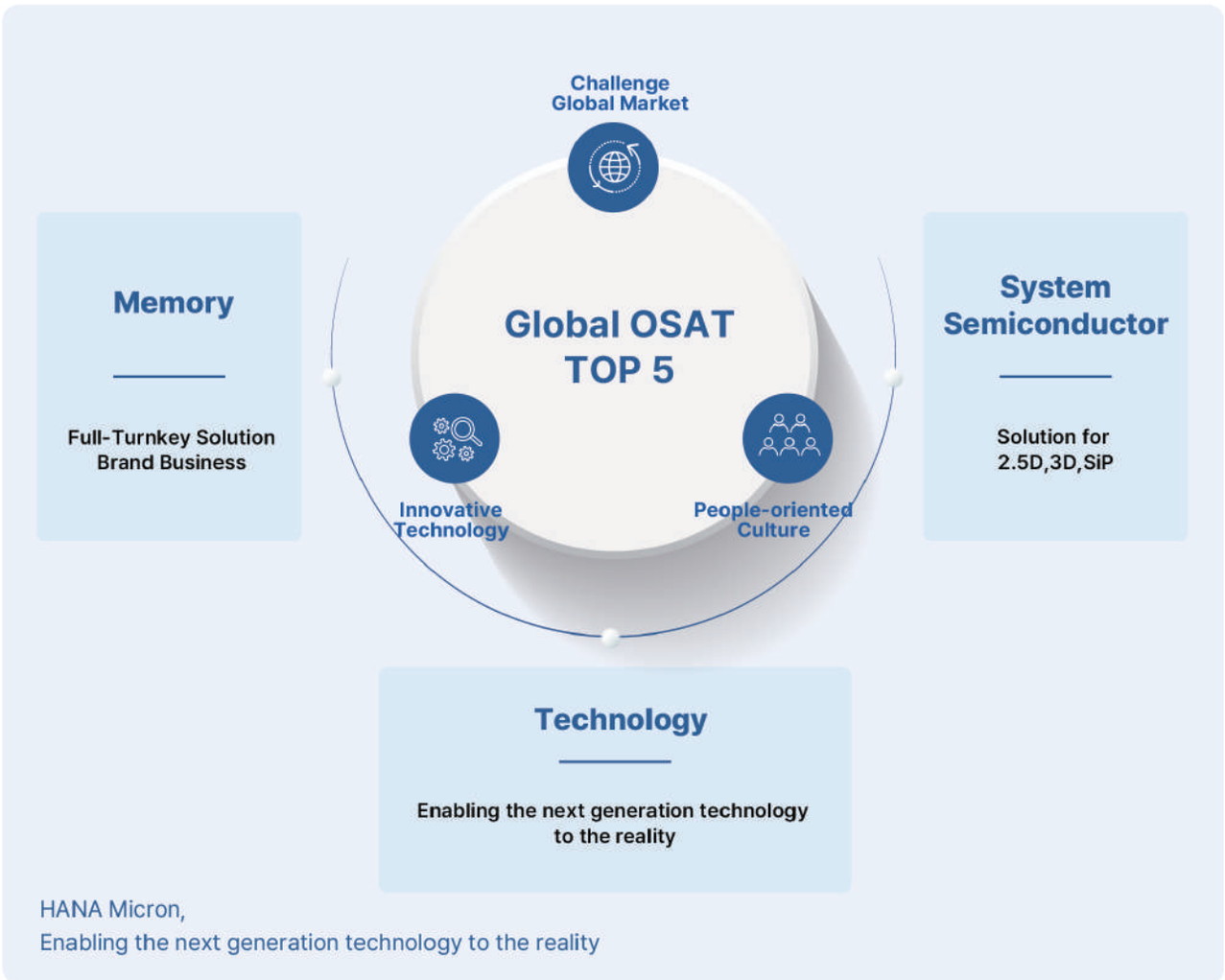
Fabrication (Foundry)



Bumping



Vision and Strategy



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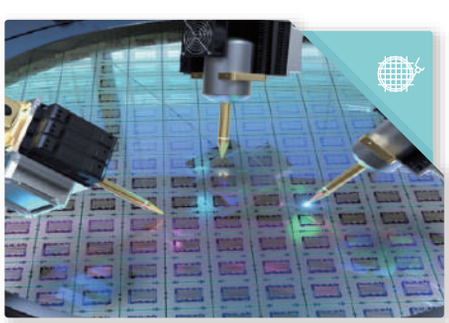
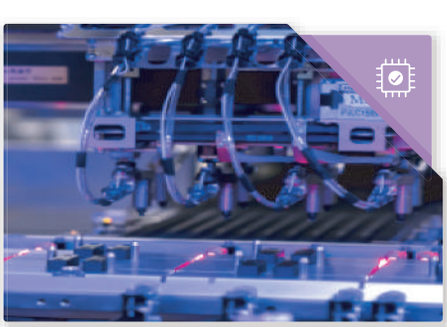
Back-end

Wafer Test



Assembly

Final Test



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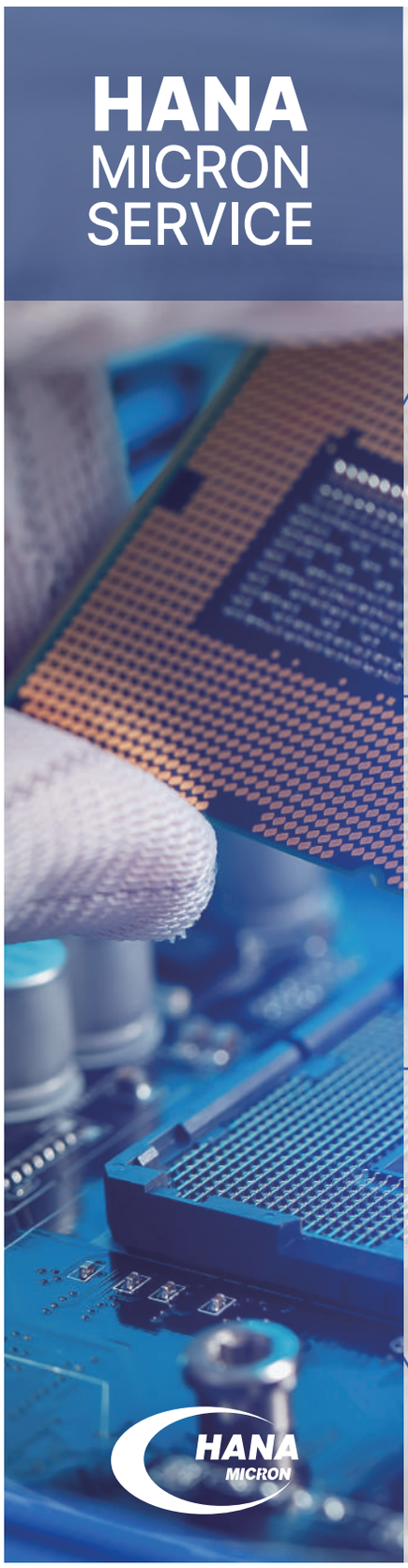
Package & TEST Service for Application



HPC&AI

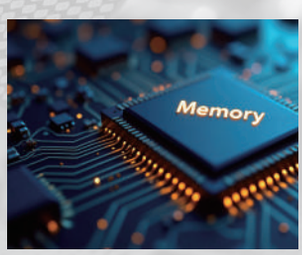
AI data center & Cloud servers

- 2.xD Packaging
- UCIe Packaging
- RDL interposer

Automotive & Industrial

AP & MCU & Optical Sensor

- AP, ADAS, BPS, APS, IPS
- ToF Sensor, LiDAR, Sensor PKG



Memory

SSD Module & Memory IC

- SSD Brand Business (Brazil)
- High stack memory PKG

IoT

MCU & Connectivity

- PMIC
- T-Con
- Wireless connectivity
- SOC

Package tech roadmap

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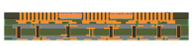
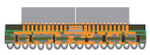
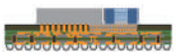
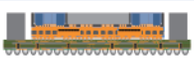
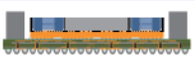
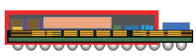
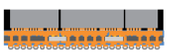
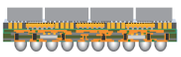
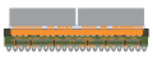
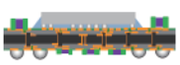
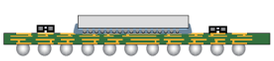
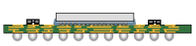
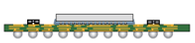
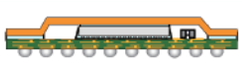
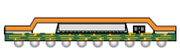
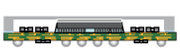
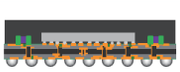
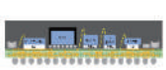
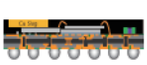
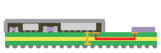
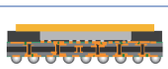
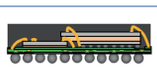
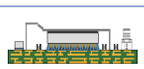
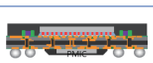
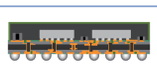
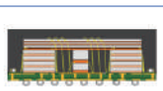
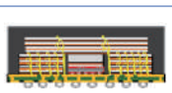
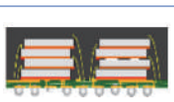
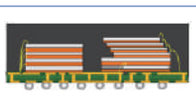
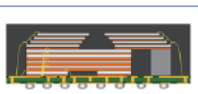
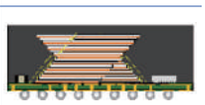
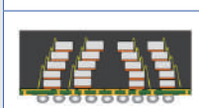
	Available			2026	2027	2028
Advanced	 Hybrid Interconnect	 2.3D (SOC-SOC)	 2.3D (SOC-HBM)	 HIC-B (Bridge die)	 2.5D(Bridge die)	 2.5D(Large Body RDL)
	 Antenna in PKG (SiP+AiP)	 2.3D (1SOC4HBM)		 Wafer level MCM	 Chiplet Integration (BD+IPD)	 HIC-R (Large Body RDL)
FCBGA	 FCBGA – SIP (Double Side)	 FcBGA Large Body (58×75)		 FcBGA Large Body (85×85)	 Flipchip w/Glass Core Sub	 FcBGA Large Body (120×120)
	 FcBGA-H w/Double side passive	 FcBGA-H w/Indium 75 W↑/mK		 FcBGA-H w/ Graphene 100 W↑/ mK	 Large Body MCM SiP	 FCBGA-H w/ Graphene (130W ↑/mk)
FCCSP-SIP	 FcFBGA MUF	 FcFBGA-SiP heterogeneous	 Hybrid SIP	 Exposed Cu Slag Hybrid	 FCFBGA-PM (Partial Mold)	 FcFBGA-SiP Cu Core
	 FcFBGA-ED-HS	 FcFBGA-Hybrid stack	 FcFBGA-AIP	 FcFBGA-DSM	 FcFBGA-SIP EMI	 FcFBGA-SiP Compartment EMI
FBGA	 17 Chips Stack (1C+6S+2N+8D)	 16 Chips Stack D1z+V6 (1C+4S+4N+8D)	 8 Chips Stack D1a (LPDDR5x)	 14 Chips Stack D1a+V8 (1C+5S+6N+6D)	 22 Chips Stack D1b+V9 (1C+5S+8N+8D)	 33Chip Stack SSD(1C+32N)
	 V5 NAND (20N)	w.F/C V8 NAND (1C+3S+4N)	8 Chips Stack D1z (LPDDR4)	w.F/C V9 NAND (1C+3S+8N)	Thin POP (LPDDR5X)	12 Chips Stack (LPDDR6)
Module	2-VCSEL SiP	ToF SiP		All in one ToF	Curved LiDAR module	One-board LiDAR module
	Curved MD FPS	Package on Package		VLP-DIMM	CPO PKG (3D)	
FLGA	Hybrid SIP			FLGA SIP (Cu Wire Stack)	Hybrid SIP (Cu Wire)	d-ToF SiP
QFN	QFN-Single (Au / Cu wire)			Dual Row QFN (Single Cut)	Hybrid QFN-SiP	Multi Row QFN

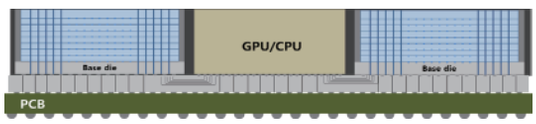
Flip chip & Thermal solution

HANA Micron

Target Market

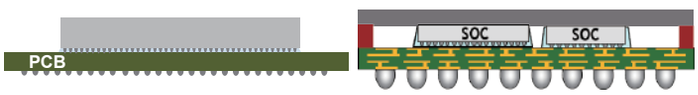
AI Packaging, Automotive(ADAS, In-Vehicle Network), FCBGA(CPU for Sever, Datacenter, Module)

AI(Si interposer) oS Process

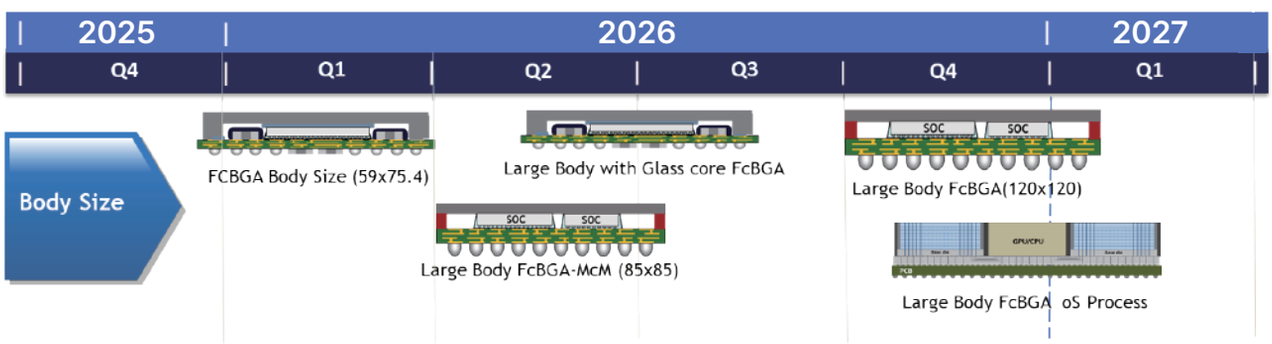


- PKG Body size : 85×85mm
- Interposer size : 70×50mm / 93umT

Large die Flip Chip

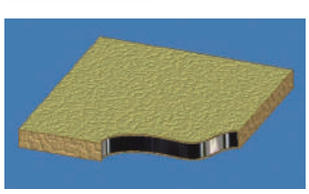


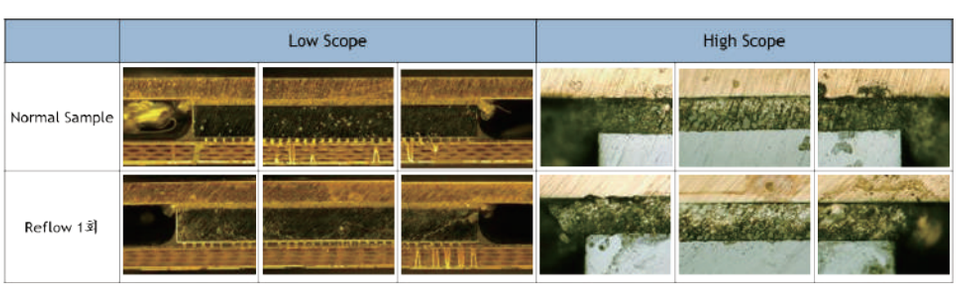
- PKG Body size : 85×85mm
- Die size : 70×50mm / 20×18mm x 2 SOC



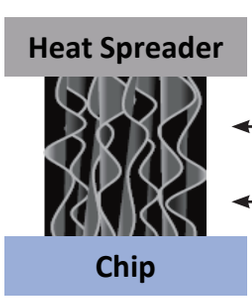
Thermal Solution

Induim



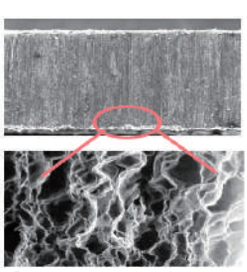


Graphene



← Continuous and high thermal conductive graphene structure for heat conduction at vertically direction

← Highly flexible graphene foam structure for deformation



Cross-section Image

Advanced Material

BEOL Bridge Die Wafer

▸ Features

· Chip size : 20.972 × 13.282mm / 13.282 × 4.580mm
· Dimension : 12 inch / 300 mm
· Configuration : BEOL(2/2um,4 layer) + RDL(2 layer) (Line/Space, Layer)
· Bump : Top side - Cu pillar, Btm side - SnAg

Organic RDL Interposer Wafer

▸ Features

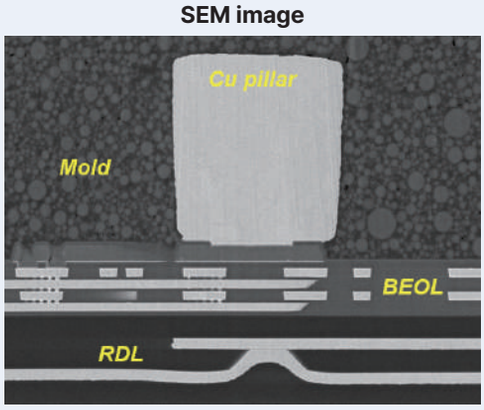
· Interposer size : 4.6 × 2.1 mm
· Dimension : 8 inch / 200 mm
· RDL : 2 /2 um, 6 layer
· Bump : Top side - Cu pillar, Btm side - SnAg

▸ Technologies

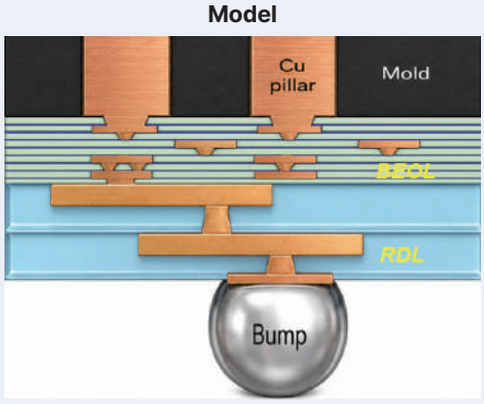
· MBoS(Molded Bridge die on Substrate) structure
· Fine pitch 6L signal RDL
· Structure for pressure & Temp. stress relief
· A cheaper and simpler process than TSV

BEOL + RDL structure

SEM image

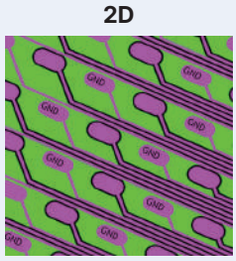


Model

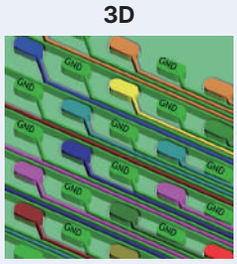


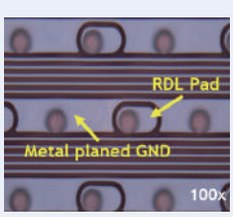
Organic RDLs

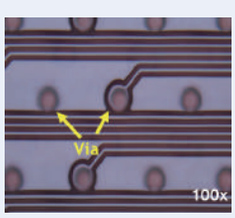
2D

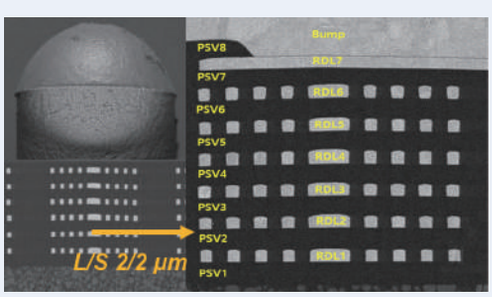


3D



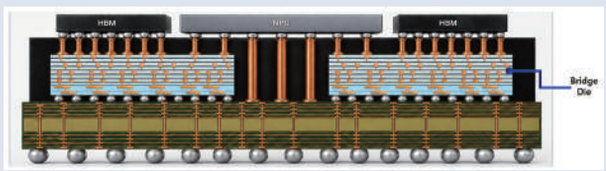


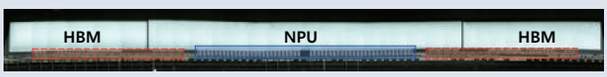


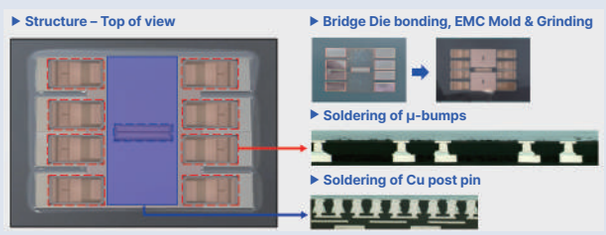


Advanced Package

2.xD Packaging







▶ HIC™ (Heterogeneously Integrated Chip)

· Molded Bride Die on Substrate Structure

▶ Features

· Chipset : SOC 2 ea + HBM 8 ea
· Interconnect : Bridge Die 9 ea
· Dimension : 70 × 70 × 5 mm
· Die bump pitch : Min. 73 um
· BGA Count : 4749 ea
· Ball Size / Pitch : 0.6 mm /1.0 mm

▶ Technologies

· Channel length : 5 mm
· Data Speed : 6.4 Gb/s

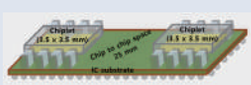
▶ High Density Bridge Die without TSV

· High SI/PI Performance

▶ Application

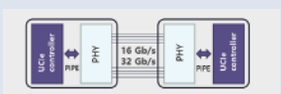
· AI Data centers and cloud severs · On device AI

UCIe Standard Packaging



▶ Features

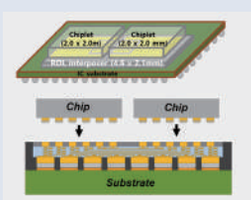
· IP Chip size : 3.55×3.55mm (UCIe IP Chips)
· Dimension : 35.4 × 21.8 × 1.2 mm
· Die bump size / Pitch : 60 / 110 um
· Bump : Cu pillar (Cu/Ni/Cu/SnAg)
· Interface : UCIe ver2.0



▶ Technologies

· Standard Package : 16-Lanes, Max 16Gb/s,
· Advanced Package : 64-Lanes, Max 32Gb/s
· Power efficiency : 0.6pJ/bit
· PHY to PHY Length : 2.0mm, L/S : 2/2um

UCIe Advanced Packaging

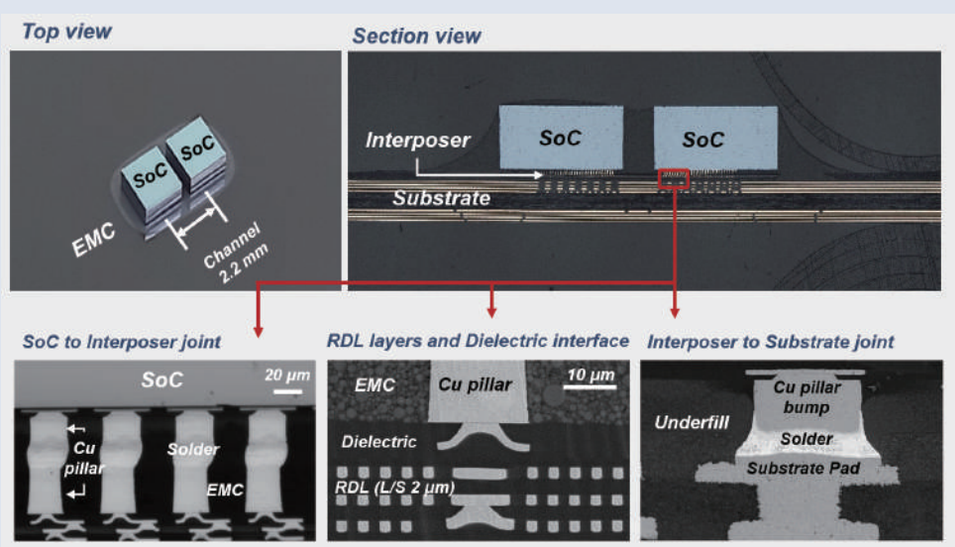


▶ Features

· IP Chip size : 2.0×2.0mm (UCIe IP Chips)
· Dimension : 15.4 × 11.4 × 1.2 mm
· Die bump size / Pitch : 25 / 45 um
· Bump : Cu pillar (Cu/Ni/Cu/SnAg)
· Interface : UCIe ver2.0

▶ Application

· Integrated Chiplet
· AI Data centers and cloud severs
· Integrated AI accelerators
· Smart surveillance systems
· Autonomous Vehicles and ADAS Systems



Optical Package

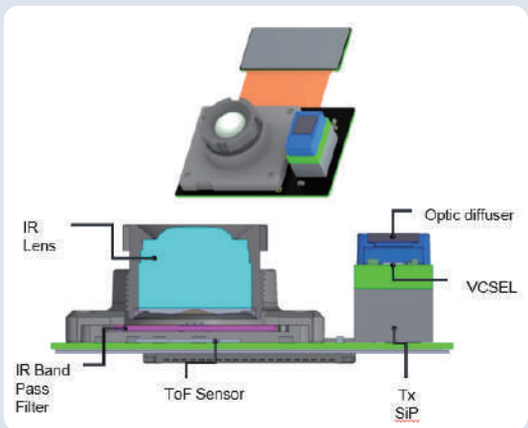
ToF Module

▸ Features

· 3D ToF Depth Module
· Dimension : 18.5(W) x 23.7(H) x 6.0(D) mm
· Resolution VGA/ QVGA
· TOF H/W ISP(QVGA) integrated
· High Frame rate : 30fps
· High Accuracy : under 1%
· Detection range : 0.2m to 7m
· Multi camera scenario support with MUIC algorithm
· Eye safety : IEC 60825-1 Class 1

▸ Application

· Robotics
· Security, Gaming, AR/VR



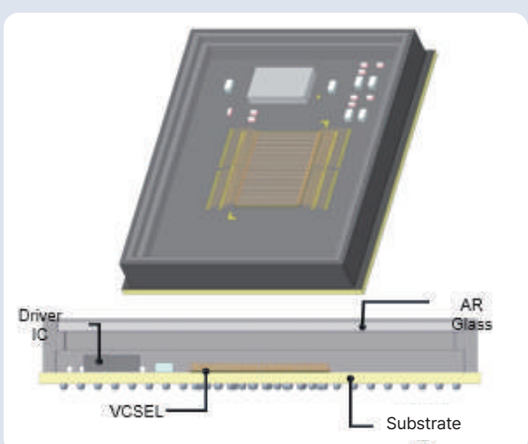
Optical SiP

▸ Features

· Optical source for LiDAR
· Dimension : 21.1(W) x 24.6(H) x 3.92(D) mm
· Wave length : 940nm ±10
· Optical power : 100W peak
· Operating temperature : -40 ~ 105°C

▸ Application

· Robotics
· Security, Industrial



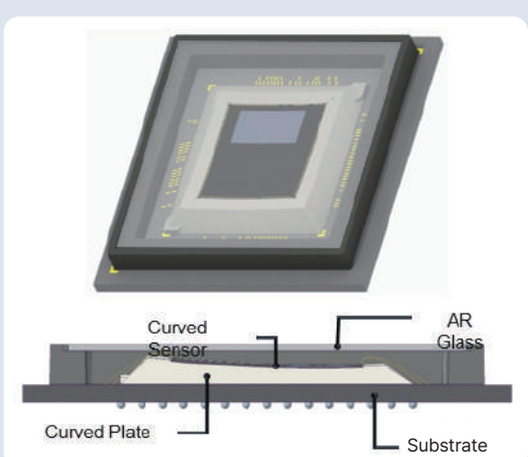
Sensor PKG

▸ Features

· SPAD sensor for LiDAR
· Chip size : 10.56 × 9.0 mm (Sensor)
· Dimension : 25 × 27 mm
· curved : R50 mm
· Chip thickness : 50um
· Interface : MIPI CSI-2
· Wave length : 940nm

▸ Application

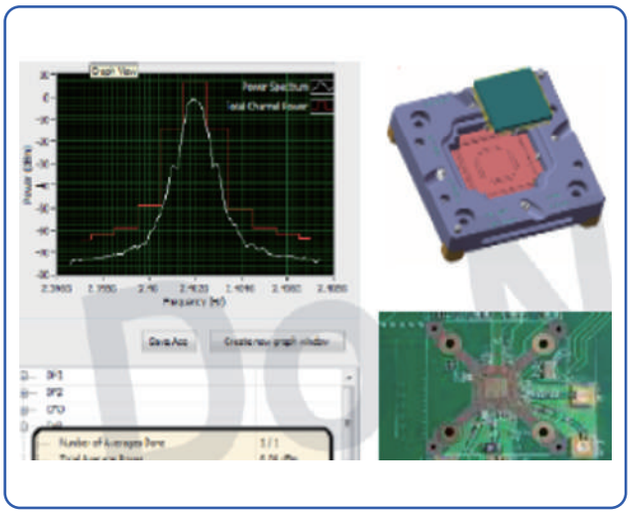
· Robotics
· Security, Industrial



Test service

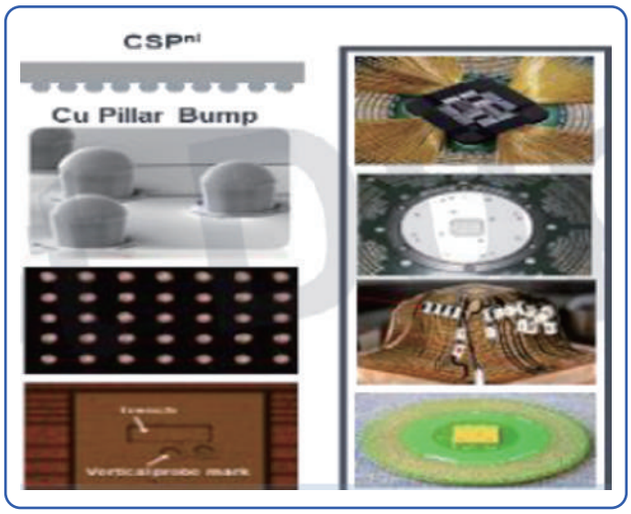
Test Offerings

We offer the best solution in the optimal platform that meets customer requirements.
Our test solution covers wafer test, package test, and module test and shortens the development time frame by supporting test program development and design solution.



TEST LAB

- ▶ Test Consultation
- ▶ SW/HW Development
- ▶ Technical Support



Wafer Test

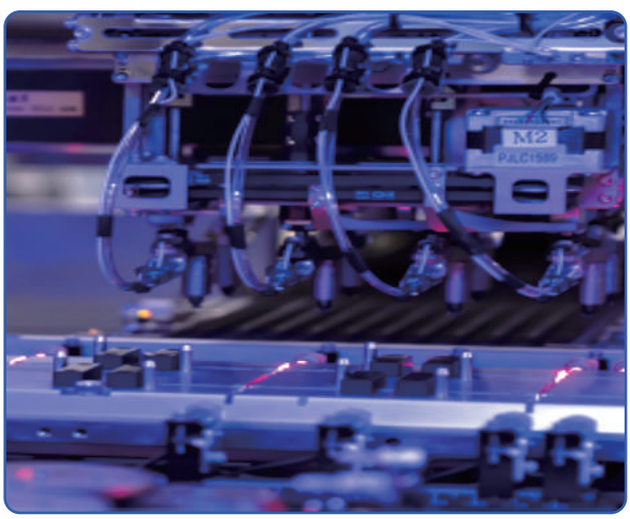
- ▶ 6″, 8″, 12″ Wafer Test
- ▶ Advanced Probe Solution
- ▶ Tri-Temp & Direct Probe

Production

: Premium Mobile AP(FOWLP/IPOP), RF, Automotive AP,
DDR5 Memory, Controller & Sensor
WLCSP Solution (Bump - Test - DPS - 4S IR Insp. - T&R)

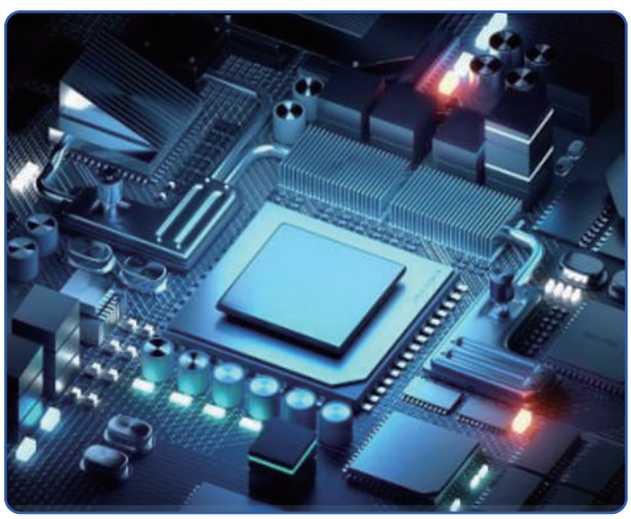
Equipment

: Teradyne UFLEX+ & UFLEX / Advantest V93K & T2K



Final Test

- ▶ Singulated PKG Test
- ▶ Latest Test Platforms
- ▶ Tri-Temp/Multi Parallel



System Level Test & Module Test

- ▶ Mobile AP/Modem
- ▶ Automotive SLT
- ▶ Memory Module(HMV*)

Development man power :

· Test Program Development

· Test HW(Probe card, COK) Design

· IT System Development

Test Lab (Test Development Center @ Pangyo) :

· Provide the most effective Test Platform and fixtures

· Test PGM development & Production release , Test Engineering Support

FA/Reliability Test Capabilities

HANA Micron

Guaranteeing Semiconductor Lifetime and Quality to Global Standards

GLOBAL SEMICONDUCTOR RELIABILITY TEST SERVICES

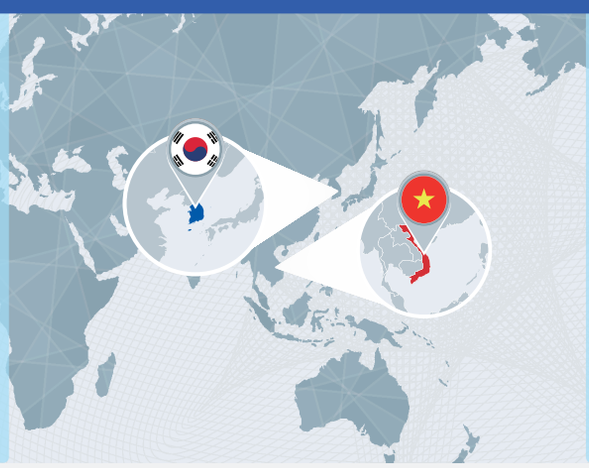
GLOBAL STANDARD | Third-Party Independent Evaluation

GLOBAL RELIABILITY LAB INFRASTRUCTURE

KOREA SITE RELIABILITY LAB

CORE CAPABILITIES

- Environmental Test
- Failure Analysis
- Customer support



VIETNAM SITE RELIABILITY LAB

CORE CAPABILITIES

- Environmental Test
- Mechanical Test
- Failure Analysis

RELIABILITY TEST SERVICES ITEM

ENVIRONMENTAL TESTS

- Temperature
- Humidity
- Pressure
- Cycle Test
- Accelerated Test
- Storage Test

STRESS TESTS

MECHANICAL TESTS

- Shock
- Vibration
- Pull Tests
- Torsion Tests
- Bending Tests
- Push Tests

Turn-Key Service

Step 1: Planning → Step 2: Reliability TEST → Step 3: Failure Analysis → Step 4: TEST & FA Result

KOLAS ACCREDITATION INITIATIVE (ISO/IEC 17025)

GLOBAL ACCEPTANCE
Global acceptance in temp/humidity and environmental tests

ACCREDITED RESULTS
Verification of testing capabilities and issuance of accredited test reports

ENHANCED TRUST
Provision of error-free test results

PROJECTED TIMELINE : ~ 2026.10

2025 Jun. → 2026 Oct.

Contact us : contact@hanamicron.com
https://hanamicron.com / +82-41-423-7777

▶ One of the best capability among OSATs
▶ Various FA & Reliability test equipment to satisfy the quality requirements

Electrical Test


TDR(Time Domain Reflectometry)


DC Tester


Probe Station Parameter Analyzer


Thermal
Emission Microscope

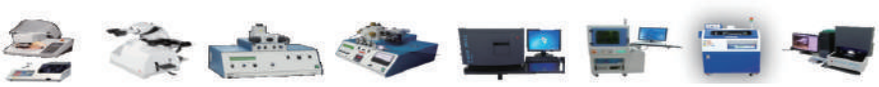

Photo
Emission Microscope

Structure/Element NDA/Preparation


[Structure/Element Analysis]
SEM(Scanning Electron Microscope)
EDS(Energy Dispersive X-ray Spectrometer)


[Non Destructive Analysis]
X-ray / SAM(SAT)


Out-Of-Plane Displacement
Measurement System Shadow Moire


[Sample Preparation]
Polisher/Ion Miller/Plasma Etcher/Laser
& Wet Decaper/Heat Spreader Decap.

Material Analysis


Thermal Analyzer (DSC/TMA)


X-ray Fluorescence Spectrometry


Universal Testing Machine

Environment Test


Temperature Cycling
Tester


High Accelerated Temperature
and Humidity Stress Tester


Temperature
Humidity Storage Tester


High Temperature
Storage Tester


Pressure
Cooker Tester


IR Reflow

Mechanical Test


VIBRATION Test


Mechanical Shock


Torsion Test


Bending, Pull, Push Test

HANA Micron, Inc.

Founded in 2001,
HANA Micron is Korea's No.1 OSAT company and ranks 8th globally (2024),
specializing in packaging and testing.
We provide Full-Turnkey solution –
including Wafer Test (Probe Test), Assembly, Final Test and Module.
We are expanding our business from memory packaging to non-memory packaging and testing.
With our production sites in Korea, Brazil and Vietnam, we have built a solid global presence.
HANA Micron continues to develop advanced technology such as 2.5D packaging through ongoing R&D and drive future growth by collaborating with global customers.

Contact : +82-41-423-7439
Email : contact@hanamicron.com

Global Network

HANA Micron (HQ)

Korea Asan (23Ksqm)
Bump, BGA, FCCSP, FCBGA, SiP & Test

R&D Center

Korea Pangyo
R&D, Sales, Test Support Center

HANA Micron Vietnam

Vietnam Bac Ninh (9Ksqm)
FBGA, QFN, SiP, FCCSP, FCBGA(P)

HANA Micron VINA

Vietnam Bac Giang (60Ksqm)
BGA, FCCSP A/T Memory Module A/T

HT Micron / HANA Electronics

Brazil Porto Alegre(HT Micron), Manaus(HANA Electronics)
BGA, Test, Memory Module A/T

HANA Micron America

America Santa Clara, CA; Austin, TX;
Sales office

HANA MICRON

Innovative
Semiconductor Solution
Provider

HANA Micron, Inc. 하나마이크론

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Gyeonggi-do