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COMPUTEX 2025 趋势观察

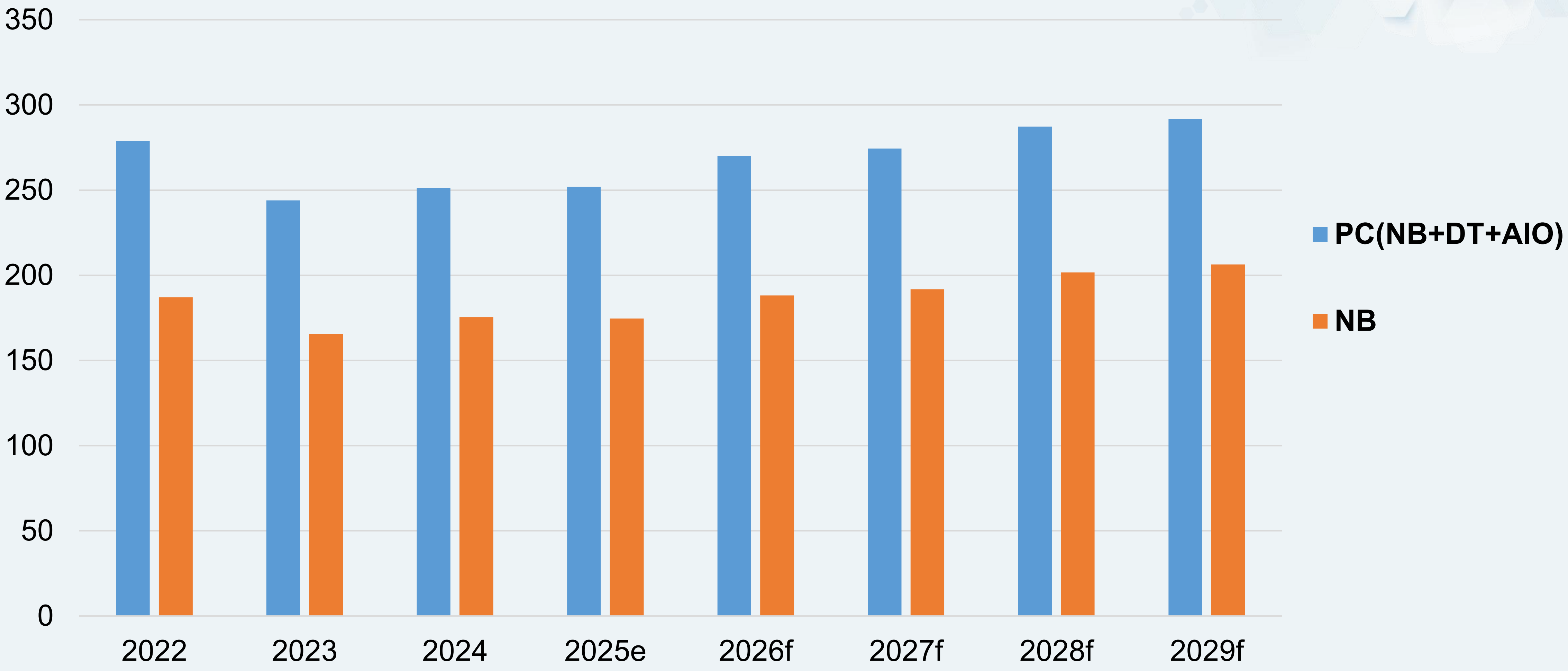
PC, Mainboard & IPC

2025.6 by Marketing Dept.

Part# 1. PC 动态

PC & NB 全球出货量

Unit: KK units



Source: IDC

CPU Roadmap

	~2024	2025	2026~2027
Intel *x86*	Lunar Lake (高阶轻薄NB) LPDDR5 on-package & PCIe Gen4 Arrow Lake (电竞NB & DT) DDR5 & PCIe Gen 4	Barllett Lake (电竞DT & Embedded COM-HPC) (Refresh of Raptor Lake) DDR5 & PCIe Gen 5 Panther Lake (高阶NB & DT) LPDDR5 (NB), DDR5 (DT) & PCIe Gen 4+5 Wildcat Lake (轻薄NB & Mini PC) LPDDR5 (NB) or DDR5 (Mini PC) & PCIe Gen 4	Nova Lake (高阶NB & DT) **DDR5/6 & PCIe Gen 5/6** Arrow Lake Refresh (电竞DT) DDR5 & PCIe Gen 5
AMD *x86/Arm*	Dragon Range (高阶电竞NB & Workstation) DDR5 & PCIe Gen 4 Strix Point (中阶NB 即AI PC) LPDDR5 on-package or DDR5 & PCIe Gen 4	Krackan Point (中阶NB 即AI PC) LPDDR5 on-package or DDR5 & PCIe Gen 4 Fire Range (高阶电竞NB & Workstation) DDR5 & PCIe Gen 4 Strix Halo (中高阶NB, Workstation & Mini PC) LPDDR5 on-package & PCIe Gen 4	Sound Wave (Arm) (轻薄NB) LPDDR5 & PCIe Gen 5 Gorgon Point (中阶NB) LPDDR5 & PCIe Gen 5 Medusa Point (高阶NB & DT) Zen 6平台 LPDDR5 (NB), DDR5 (DT) & PCIe Gen 5
高通 *Arm*	骁龙 X Plus Gen 1 (Purwa) (中阶NB) LPDDR5 on-package & PCIe Gen 4 骁龙 X Elite/Plus Gen 1 (Mamoa) (高阶NB) LPDDR5 on-package & PCIe Gen 4	NA	骁龙 X Gen 2 (Mahua) (中阶NB) LPDDR5 on-package & PCIe Gen 4/5 骁龙 X Gen 2 (Glymur) (高阶NB & DT) LPDDR5 or **LPDDR6** & PCIe Gen 5
联发科 *Arm*	Kompanio 838 (中阶Chromebook) LPDDR4 or DDR4 & PCIe Gen 3	Kompanio Ultra 910 (高阶Chromebook & NB) LPDDR5 & PCIe Gen 4 N1 (GB10) (中阶NB) LPDDR5 & PCIe Gen 4	N1X (高阶NB) LPDDR5/**LPDDR6** & PCIe Gen 4/5 Kompanio Ultra (高阶Chromebook & NB) LPDDR5/**LPDDR6** & PCIe Gen 5

Source: Media

CPU 大厂展出重点

	Intel	AMD	Qualcomm	MediaTek
展出重点	• 延续 CES，释出 Panther Lake 相关信息，使用 Intel 18A制程 • 支援 LPDDR5/DDR5 内存	• 笔电 CPU 维持 Ryzen AI 300 Series (Krackan Point & Strix Point & Strix Halo) • 支援 LPDDR5/DDR5 内存	• 已有超过85款搭载 Snapdragon X Series CPU 的笔电上市 • 预告将于 2025 年 9 月推出 Snapdragon X2 平台	• 4月发表 Kompanio Ultra Chromebook 处理器 • AI总运算力达 50 TOPS
Ref.				

Panther Lake

INTEL 18A AT SCALE

Leading x86 Power Efficiency
Similar to Lunar Lake

High-Performance Core Design
Similar to Arrow Lake-H

Next Gen Built-In GPU
Expanding 3D perf and AI

Broad Scalability
Consumer, gaming, commercial & LP5/DDR5 support

On-track for production in H2'25
Consumer-ready launch with OEMs beginning early '26

NEW AMD Ryzen™ AI 300 Series Processors for Mobile

Expanding AI Leadership to Everyday Users and Enterprise

Processor model					
AMD Ryzen™ AI 7 350	8 cores 16 threads	5.0 GHz max boost	24 MB Cache	50 Peak TOPS	15-54 W cTDP
AMD Ryzen™ AI 5 340	6 cores 12 threads	4.8 GHz max boost	22 MB Cache	50 Peak TOPS	15-54 W cTDP

Available Q1 2025

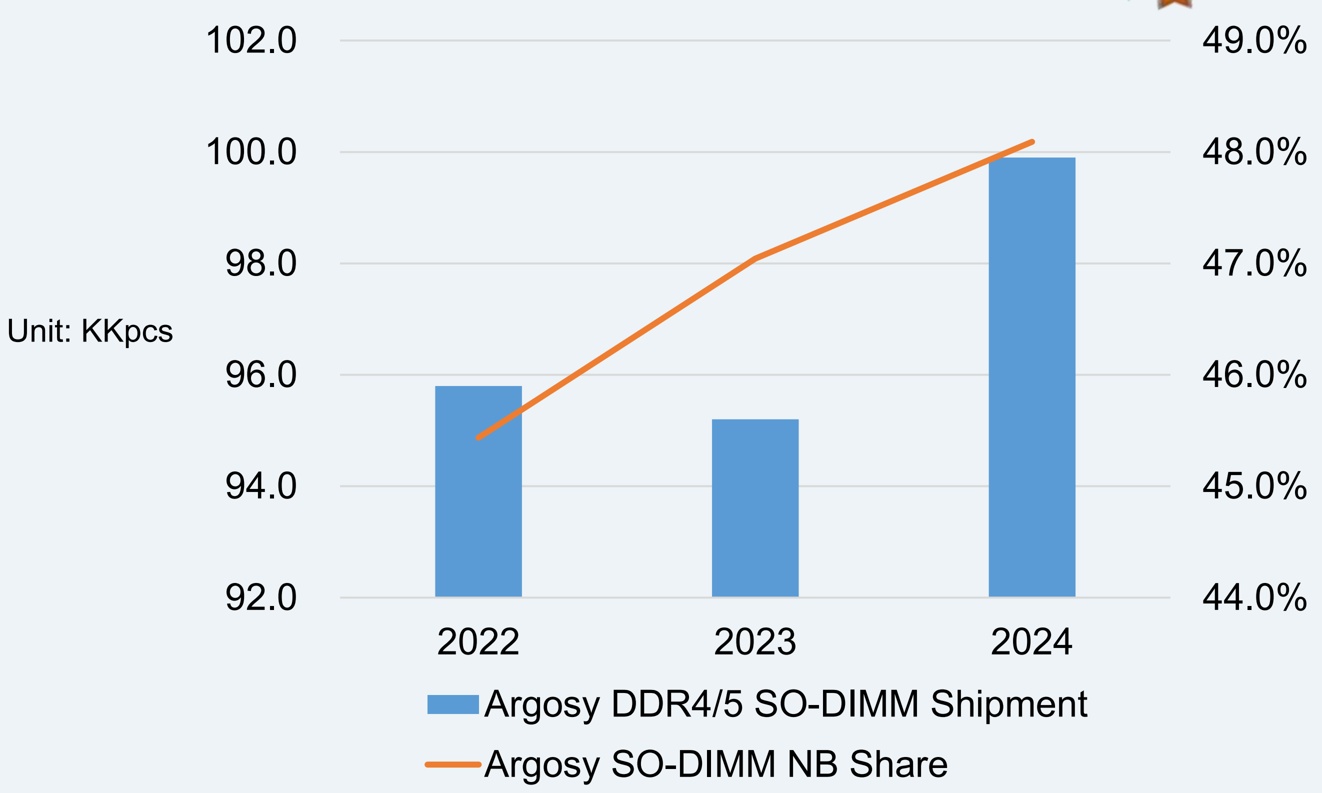
Processor model					
AMD Ryzen™ AI 7 PRO 350	8 cores 16 threads	5.0 GHz max boost	24 MB Cache	50 Peak TOPS	15-54 W cTDP
AMD Ryzen™ AI 5 PRO 340	6 cores 12 threads	4.8 GHz max boost	22 MB Cache	50 Peak TOPS	15-54 W cTDP

Available Q2 2025

DDR4/5 SO-DIMM 系列获品牌与协会认可, 市占 No.1

- **DDR5/4/3 SODIMM Socket**
- 2018 年起参与 JEDEC 及 Intel 共同开发 DDR5、LPDDR5 CAMM2、DDR6 连接器 NEW
- DDR5 高频讯号完整度为全球供货商最佳表现者
- DDR5 SODIMM 出货量在 2024 Q3 超越 DDR4 SODIMM

DDR4/5 SO-DIMM W/W NB Share No.1

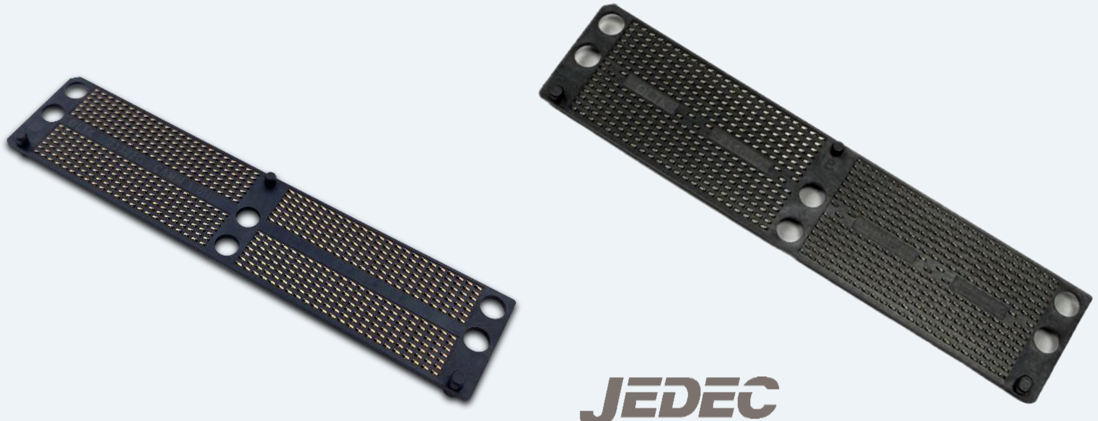


DDR5 SO-DIMM
- Launched 10 spec, W/W NB share No.1

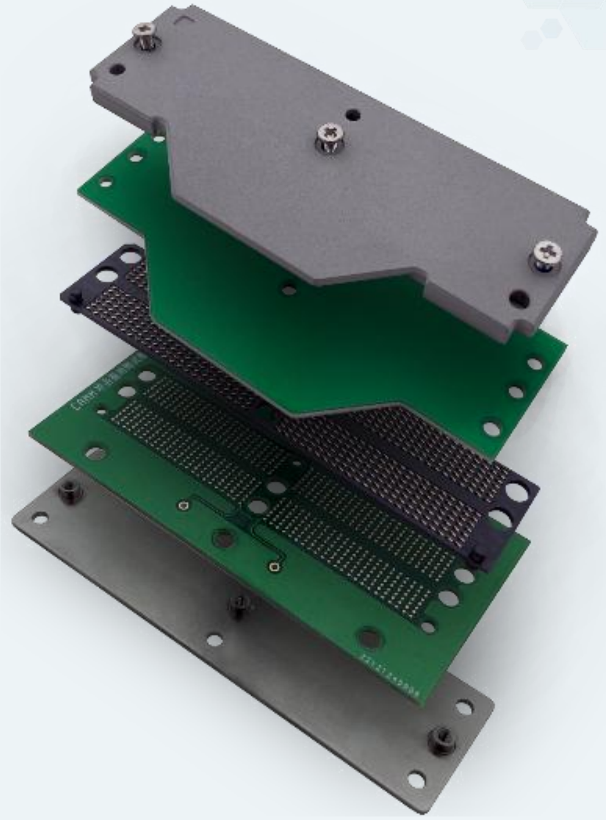
DDR4 SO-DIMM
- Launched 10 spec., W/W NB share No.1

DDR3/2 SO-DIMM
- Launched 10 spec.

Argosy’s LPDDR5 CAMM2 Conn.



Pin Count	644 / 666 pins
Height	1.00mm
Pitch	1.0x1.38mm
Current Rating	1.0A
Durability	25 cycles
Operation Temp.	-55 ~ 85°C



Assembly Structure:

-Top Cover (w/ screws)

-CAMM Module

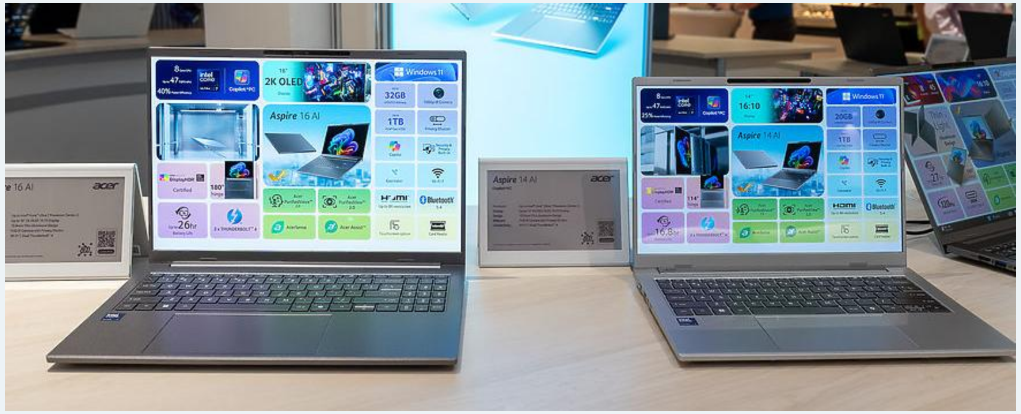
-CAMM2 Conn.

-Mother Board

-Back Plate (w/ nuts)

Acer

- 展出使用Intel Lunar Lake CPU, AMD AI300 Series CPU, Snapdragon X1的笔电



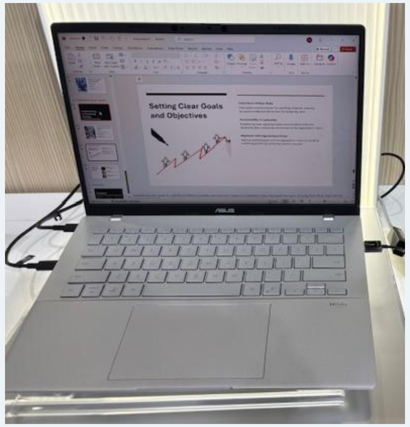
- 展出2款使用Intel Arrow Lake CPU的Predator系列电竞笔电

Source: Acer

ASUS

- 展出多款笔电使用Snapdragon X1 series

Zenbook A14



Vivobook S 14

Vivobook 14

- 展出多款使用AMD AI PRO 9 HX Series，涵盖创作者与电竞笔电

ProArt P16

Zephyrus G14

Source: ASUS

NVIDIA

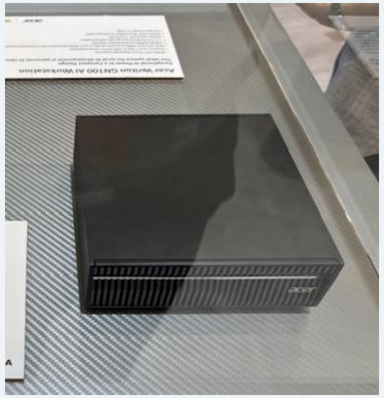
- 与联发科合作GB10芯片
- 目标客群: 人工智能开发人员、研究人员和资料科学家
- 搭载M.2 Gen 5 SSD, WiFi 7 (M.2-1A), USB4 Type-C (40Gbps)

CPU	Grace CPU (20核心)
GPU	Blackwell
記憶體規格	128GB LPDDR5X
儲存空間	1TB or 4TB SSD
作業系統	DGX OS
售價(美元)	2999(1TB), 3999(4TB)
算力	1000 TOPS

DGX Spark

Gigabyte AI Top Atom

MSI EdgeXpert MS-C931



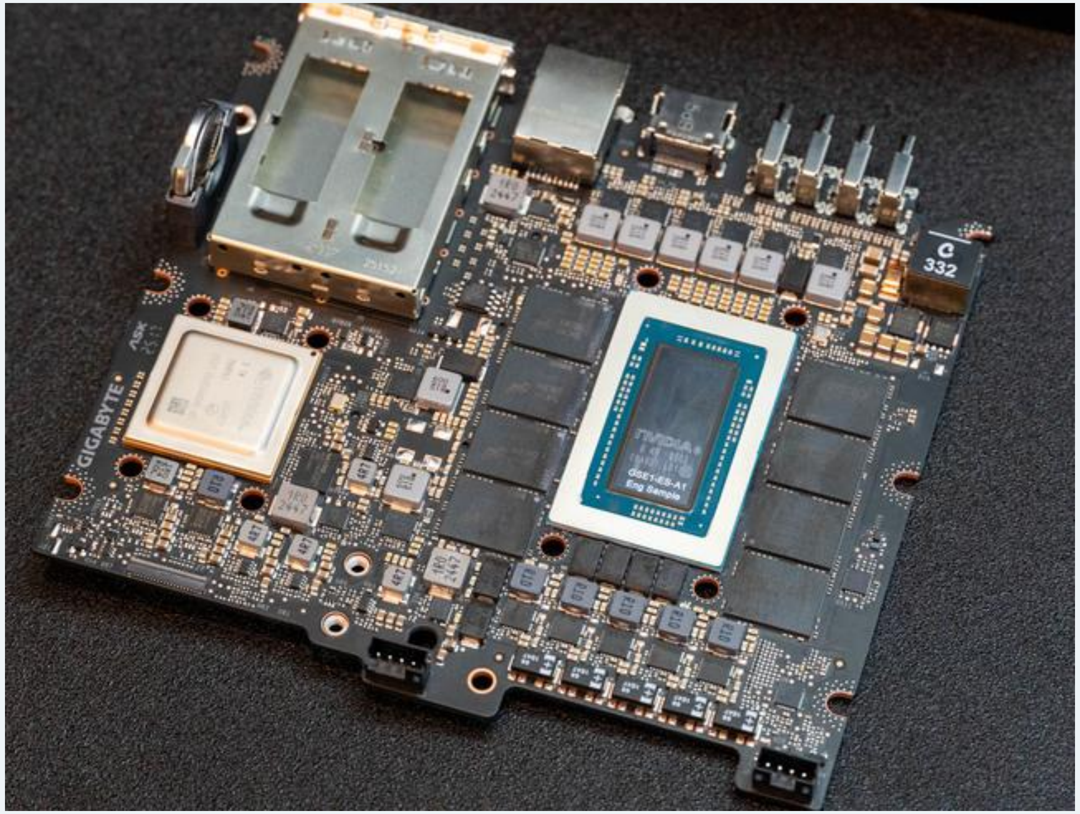
Acer Veriton GN100

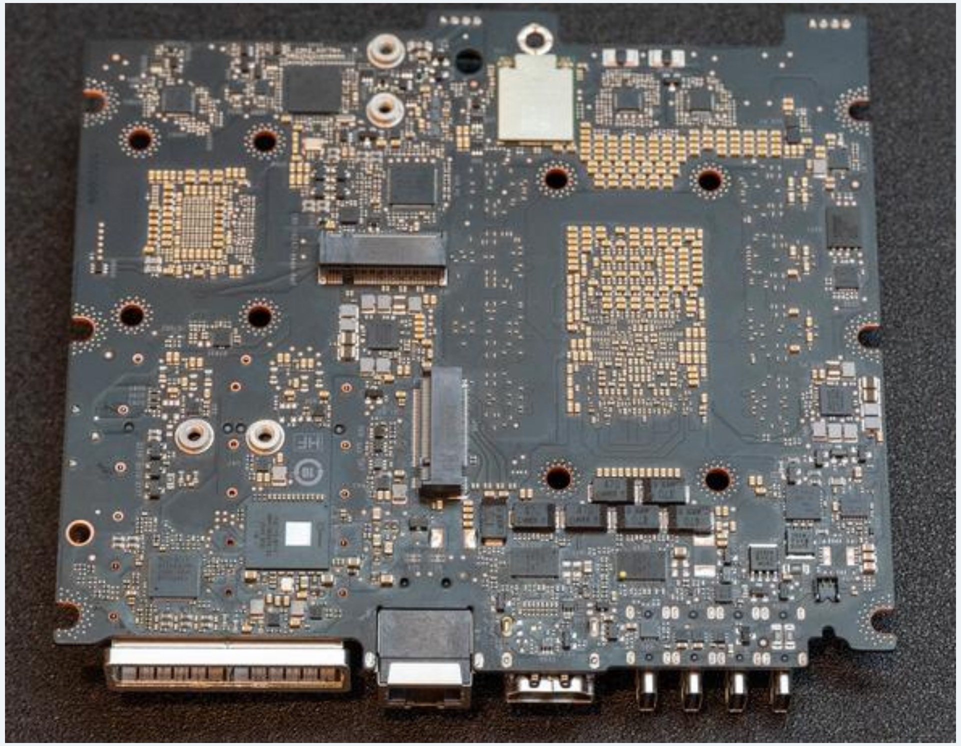
Asus Accent GX 10

Source: NVIDIA

Gigabyte

- 展出AI TOP ATOM
- 维持散热所需要的进出风通道设计



Source: Gigabyte

MSI

- 展出多款采用Intel Arrow Lake CPU与AMD AI 300 series CPU电竞笔电
- 两台 EdgeXpert MS-C931可以利用NVIDIA ConnectX进行串联

Cyborg 17/15

Crosshair 18 HX AI

Raider 18 HX AI

Vector 17/16 HX AI

Source: MSI

M.2 Gen 4/5 & M.2-1A 系列,获品牌认可, 市占 No.1

PCI EXPRESS

M.2 Gen 5 (M.2-1A & 0.5A) NEW

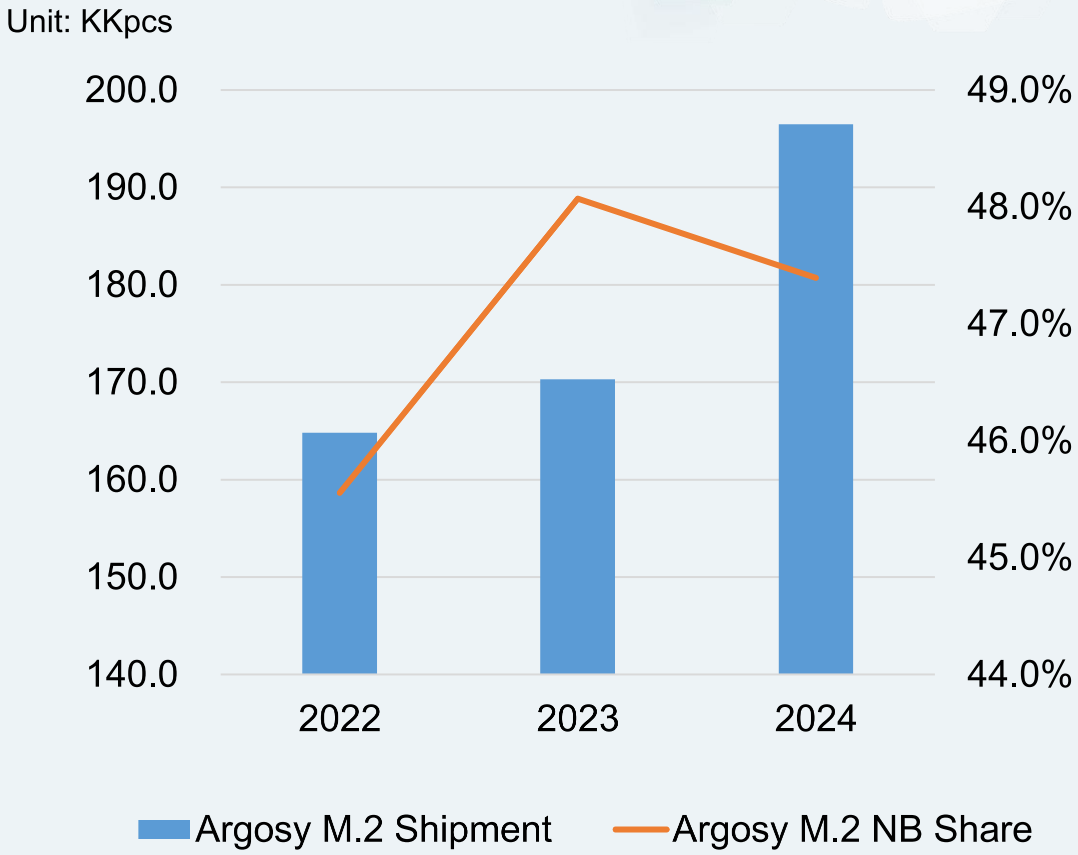
Launch >30 spec.

- 25~款规格已出货
- 3款规格于样品阶段
- M.2 Gen 5 用於 SSD、M.2-1A用於Wi-Fi 7

M.2 Gen 4 (0.5A & M.2-1A)

Launch >60 spec., W/W NB share No.1

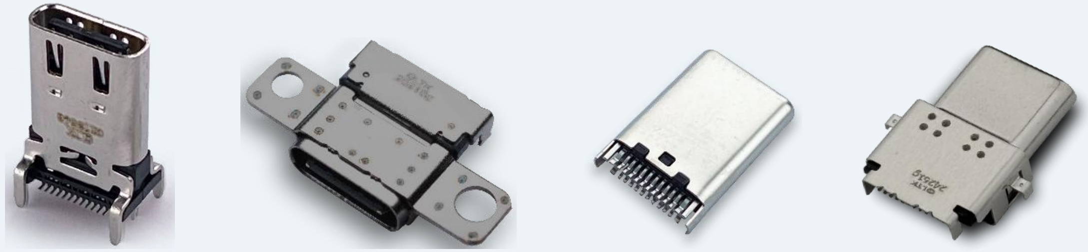
M.2 Shipment & W/W NB Share No.1



全球首批获 USB4 & Thunderbolt 5/4 双认证厂商

Type-C USB4 & Thunderbolt 4/5 高速Conn.

- 全球首批取得Thunderbolt 4认证: 6家厂商 11 P/Ns 获承认
- 获 Intel Thunderbolt 5/4 认证 13 P/Ns
- 获 USB4 Gen 3 (40Gbps) 认证 17 P/Ns
- 获 USB 3.2 (10Gbps) 认证 26 P/Ns



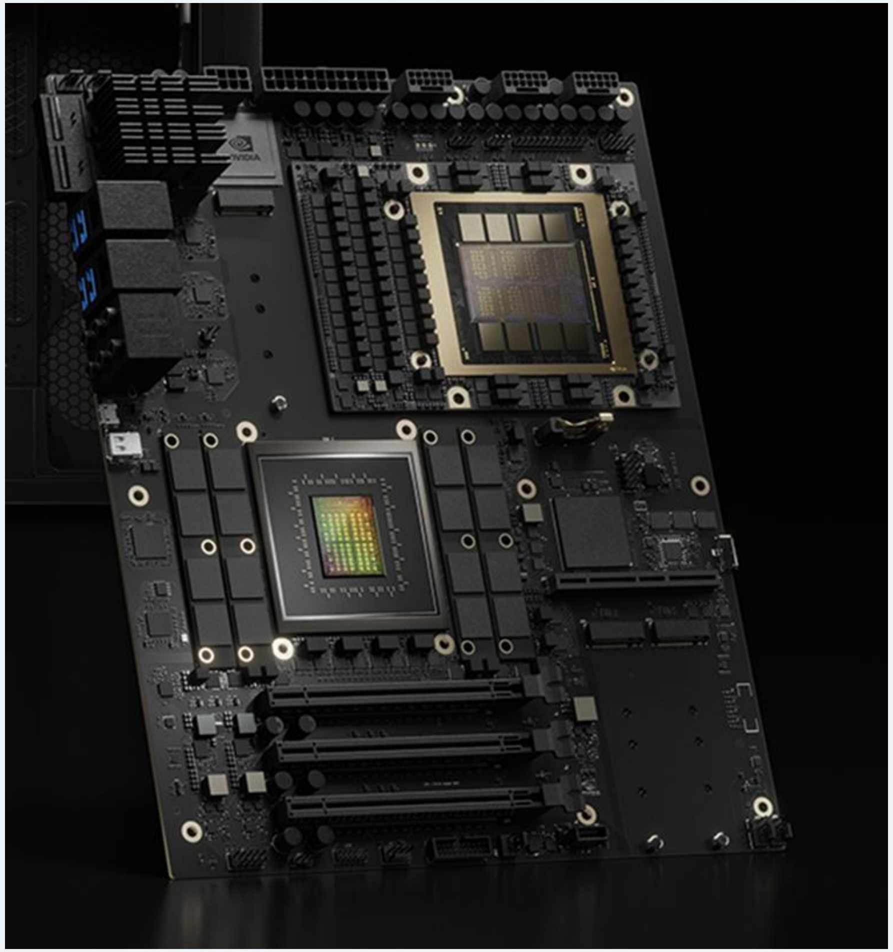
Type-C 功能型

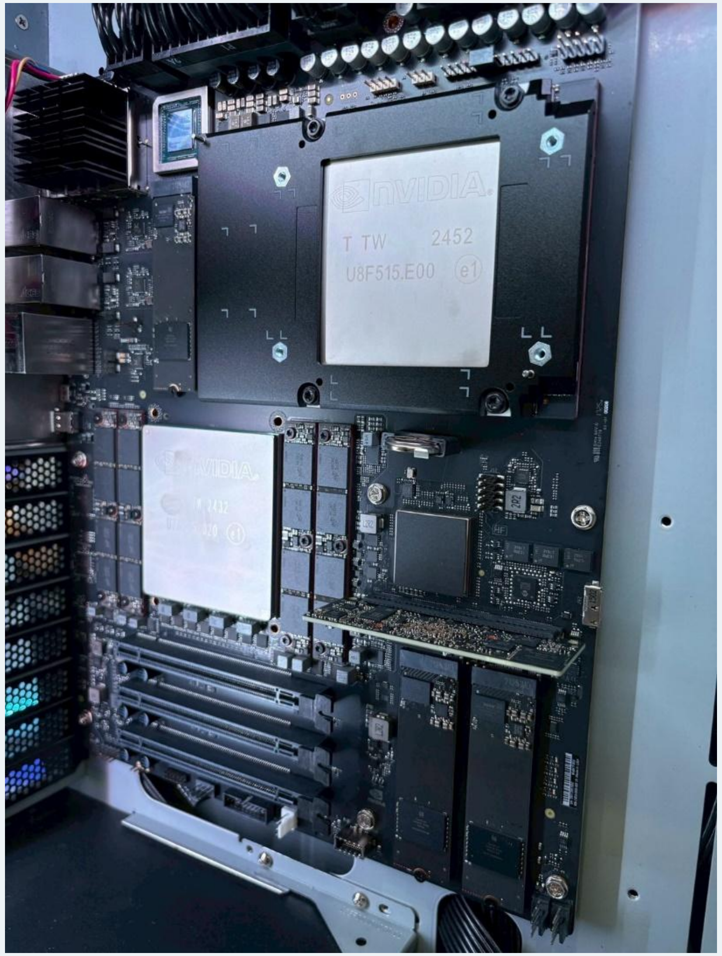
- 于高速传输型再增加延伸功能, 如直立式、附带螺丝锁固外壳、沉板式…

NVIDIA DGX Station

- 使用GB300芯片
- 让桌上工作站具备资料中心效能支援AI开发
- CPU内存后续有机会使用SOCAMM Connector

CPU	Grace CPU (72核心)
GPU	Blackwell Ultra
CPU内存规格	最高496GB LPDDR5X
GPU内存规格	最高288GB HBM3e
操作系统	DGX OS



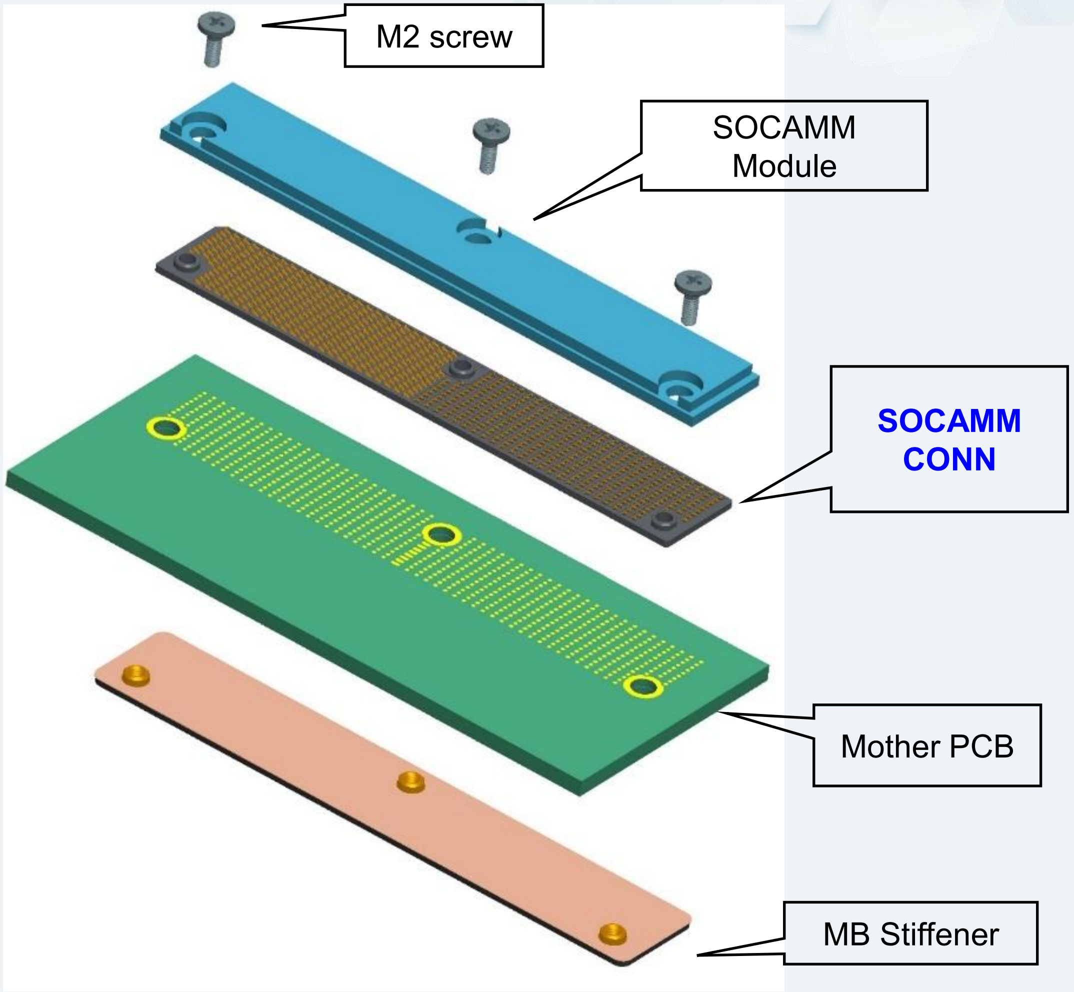


Source: ASUS, NVIDIA

Argosy's SOCAMM Connector

SOCAMM (Small Outline Compression Attached Memory Module)

Pin Count	694pins
Height	1.00mm
Pitch	0.93x1.60mm
Current Rating	1.0A
Durability	25cycles
Operation Temp.	-55 ~ 85°C
Application	Memory Module to Main Board

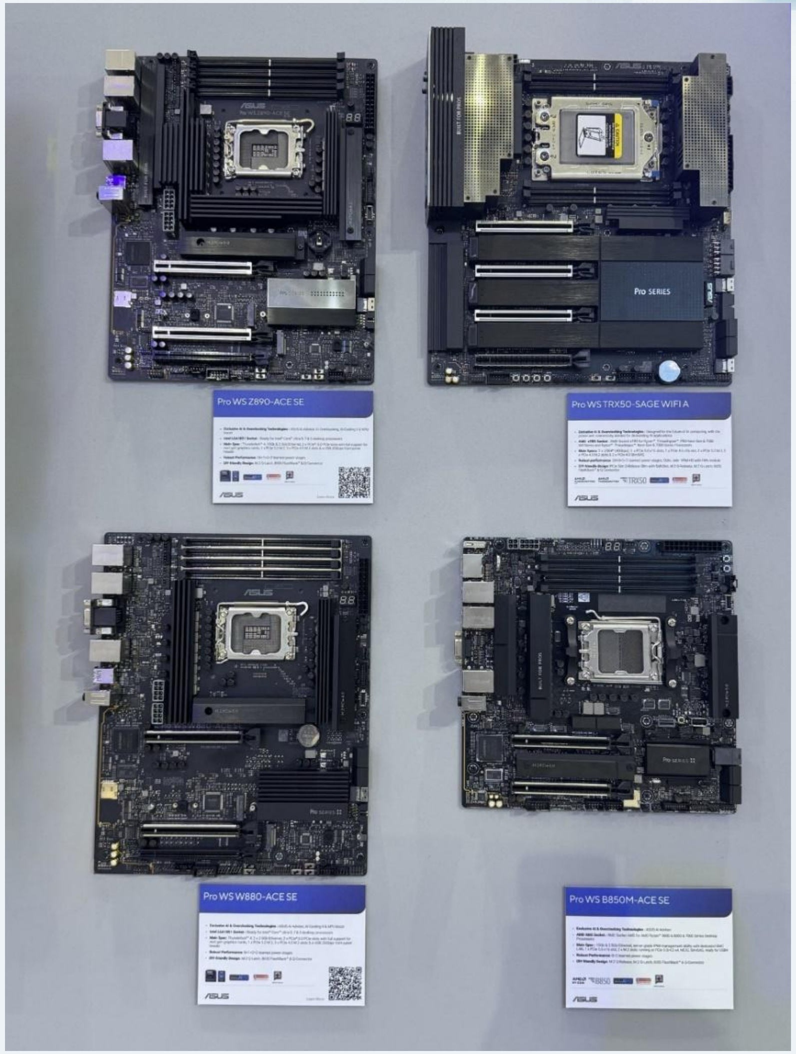


Part# 2. Mainboard

ASUS

- ROG背插式主机板,支援 PCIe 5.0, M.2 Gen 5

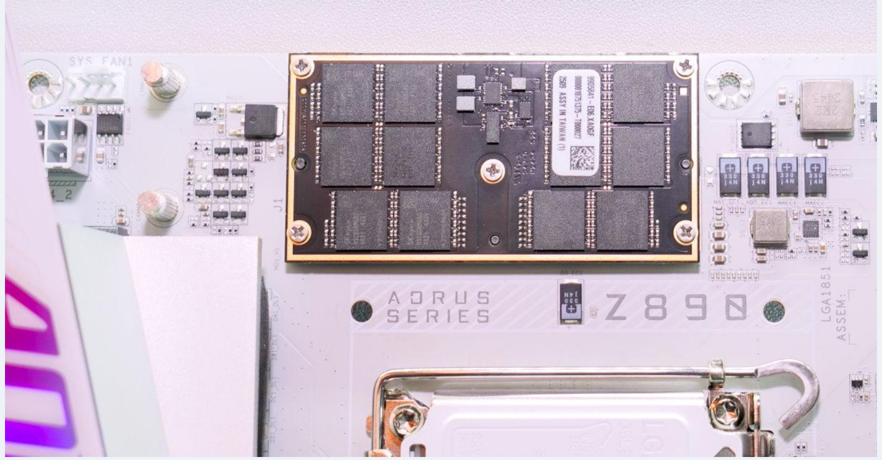
ROG CROSSHAIR X870E HERO BTF



Gigabyte

搭载:

- DDR5 CAMM2内存
- Thunderbolt 4 Type-C
- M.2 Gen 5/4 SSD
- PCIe 5.0 外接插槽



Z890 AORUS TACHYON ICE C2

MSI

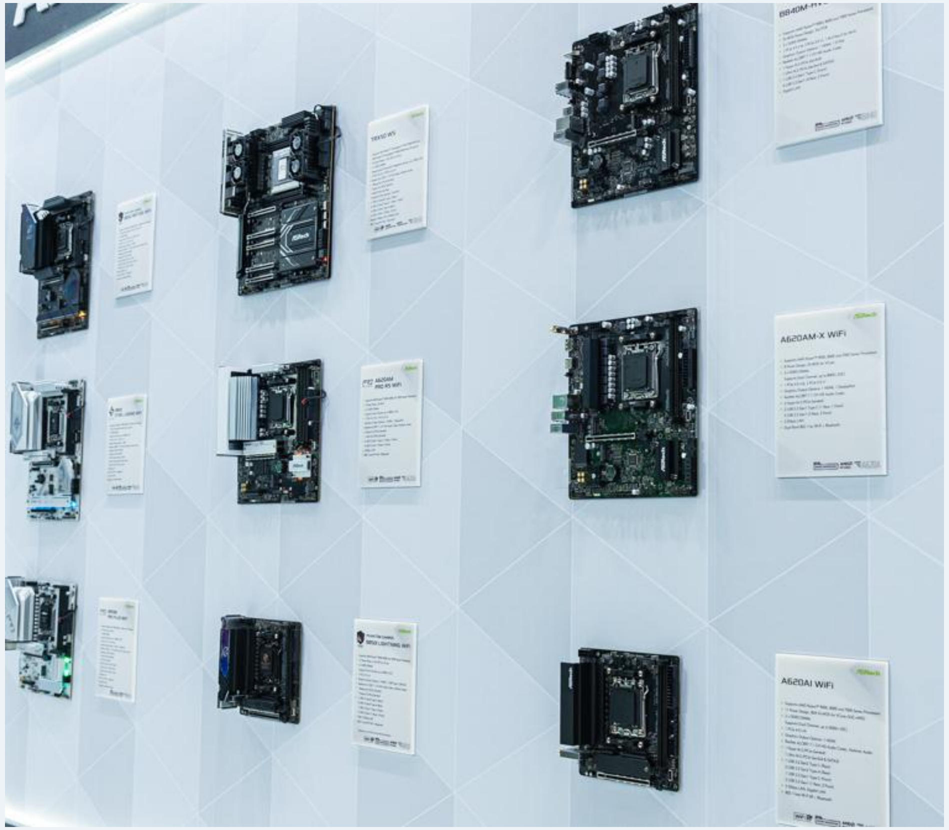
- 展出高阶主板，在 I/O 护盖上面图样也采用多层次的灯效设计
- 支援: DDR5 UDIMM, USB4 Type-C (40Gbps), M.2 Gen 5/4 SSD, WiFi 7 (M.2-1A)

MEG X870E ACE

ASRock

观察新的设计几乎都搭载:

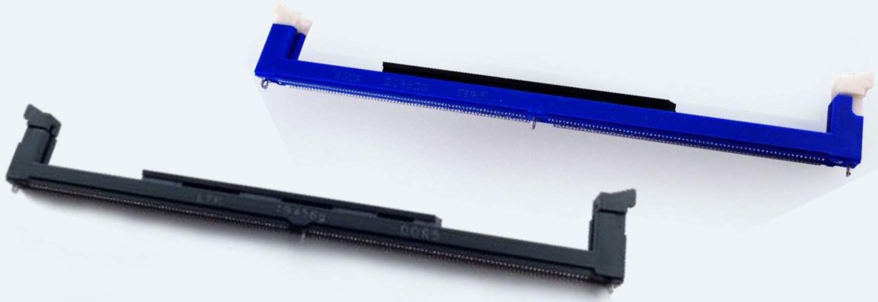
- WiFi 7 (M.2-1A)
- M.2 Gen 5/4 SSD
- USB4 Type-C (40Gbps)



X870 NOVA WiFi

Argosy’s DDR5 DIMM 获品牌与协会认可，性能 No.1

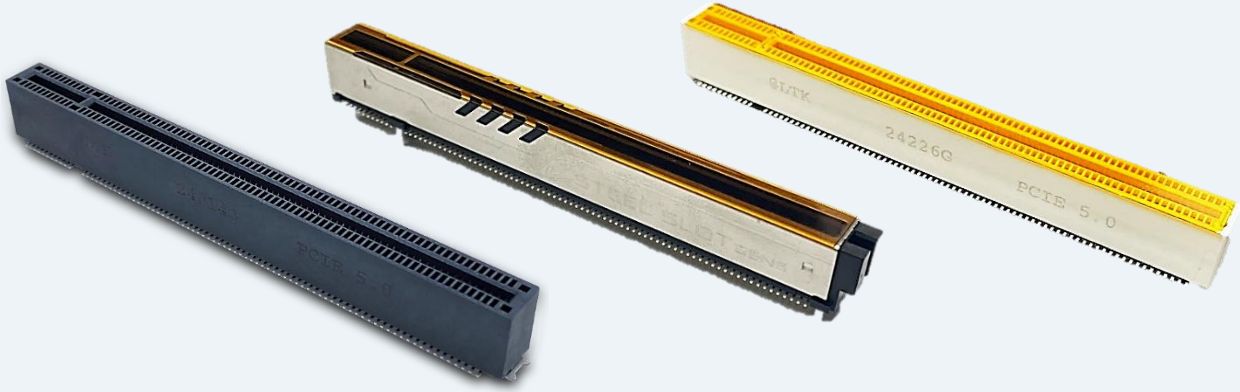
- **DDR4/5 DIMM Socket**
- 2018 年起参与 JEDEC 及 Intel 共同开发 DDR5、LPDDR5 CAMM2、DDR6 连接器
- 2019 年 Intel 高温翘曲测试为 No.1 (Pass: 2/5)
- 2019 年 JEDEC 讯号完整度测试为全球供货商 No.2 (Pass: 2/6)
- 2020 年 JEDEC 高温翘曲测试为 No.1 (Pass: 4/8)
- 2021 年 HPE 焊接点测试为 “0%缺陷率”，即表现最佳者 (Pass: 2/5)



DDR5 R-DIMM (288 & 287-pin)
DDR5 U-DIMM
共开发20多种规格

DDR4 DIMM SMT & DIP
共开发>40种规格

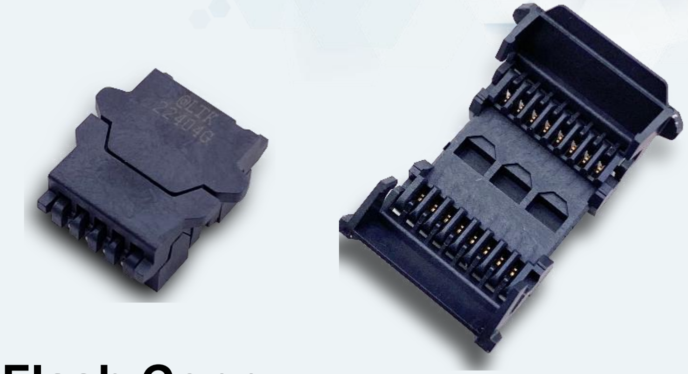
Argosy’s PCIe 5.0 & SPI系列



PCIe CEM 5.0 Conn. NEW

Launch >10 spec.

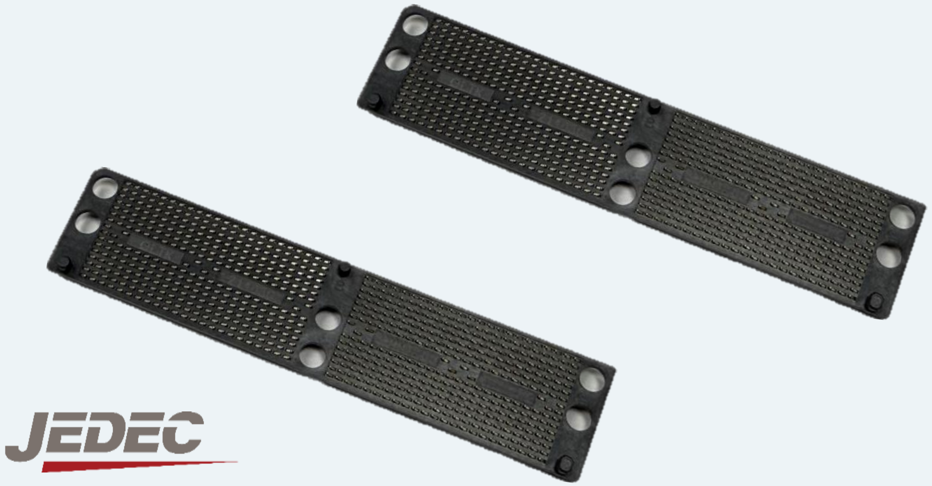
- 开发多款规格: housing, shell, ejector & color 选择
- 完成SI加强版slim type开发, 阻抗 <90.0Ω



SPI Flash Conn.

- 开发 2 种规格 8-pin & 16-pin
- 应用于 chip SoC burning 或 debug

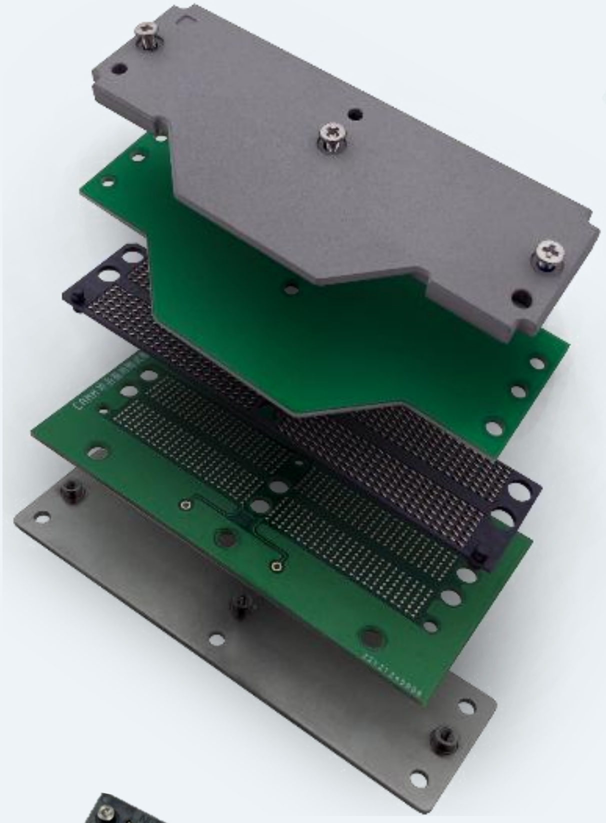
Argosy's Compression Attached Memory Solution



NEW

LPDDR5 CAMM2 Conn. w/ cover & back plate

- 644 & 666 pins, 1.0m height



Assembly Structure:

-Top Cover (w/ screws)

-CAMM Module

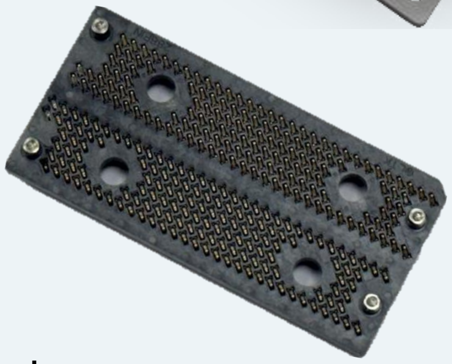
-CAMM2 Conn.

-Mother Board

-Back Plate (w/ nuts)

CA Board To Board NEW

- 408 pins, 1.3mm height
- Interconnect btw GPU & Mainboard



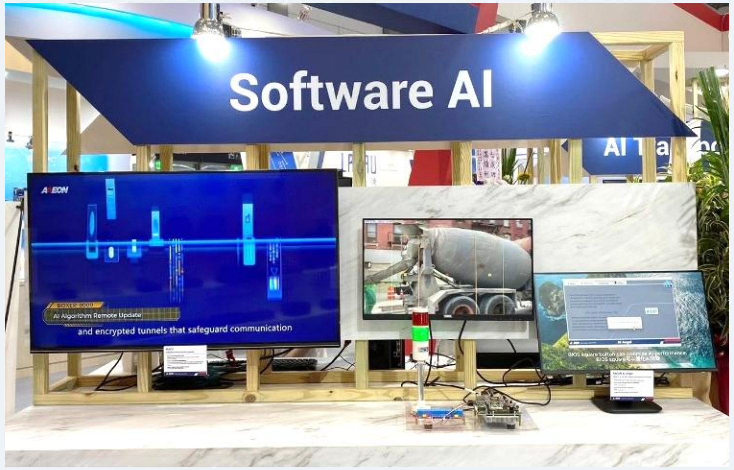
CA Board To Board NEW

- 288 pins, 1.3mm height
- Interconnect btw Module & Mainboard

Part# 3. IPC动态

AAEON 研扬

- 智慧零售革新: AI 自助结帐& AI 驱动广告
- 用于车流分析与行人安全的交通解决方案
- 多项生成式 AI 应用，涵盖文字提示与图像生成
- 搭载: M.2 Gen 4 for WiFi & Bluetooth, LTE & SSD



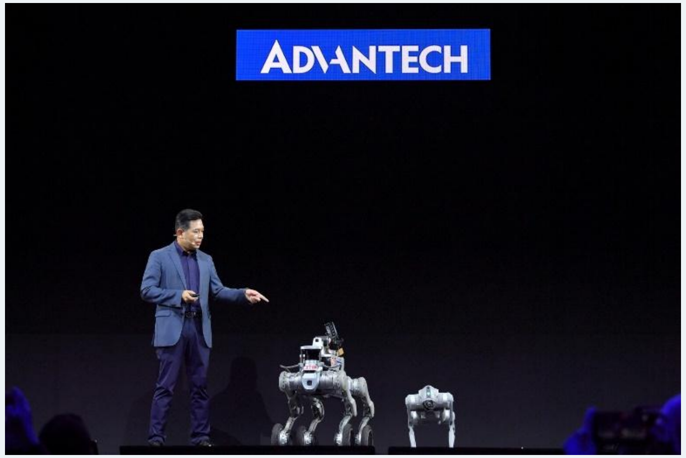
BOXER-8645AI

Advantech 研华

展出边缘AI软硬体与落地应用:

- **自主系统与机器人**
- **SKYRack边缘服务器**
- **WISE-Edge 云边协同平台:** 支援各大晶片厂商主流平台，大幅简化整合流程，提供容器化平台给开发者、系统整合商与合作伙伴
- 搭载: M.2 Gen 4/5 for 5G Sub-6G & GNSS, SSD

MIC-743



Source: Advantech

Neousys 宸曜

- 展示加速边缘 AI 机器人 –以 Intel® Core™ Ultra 200 系列的工业级嵌入式电脑 Nuvo-11000 作为运算平台，可为机械手臂实现高速即时的运动生成
- 搭载: DDR5 SODIMM, M.2 Gen 5 SSD, PCIe, Mini PCIe

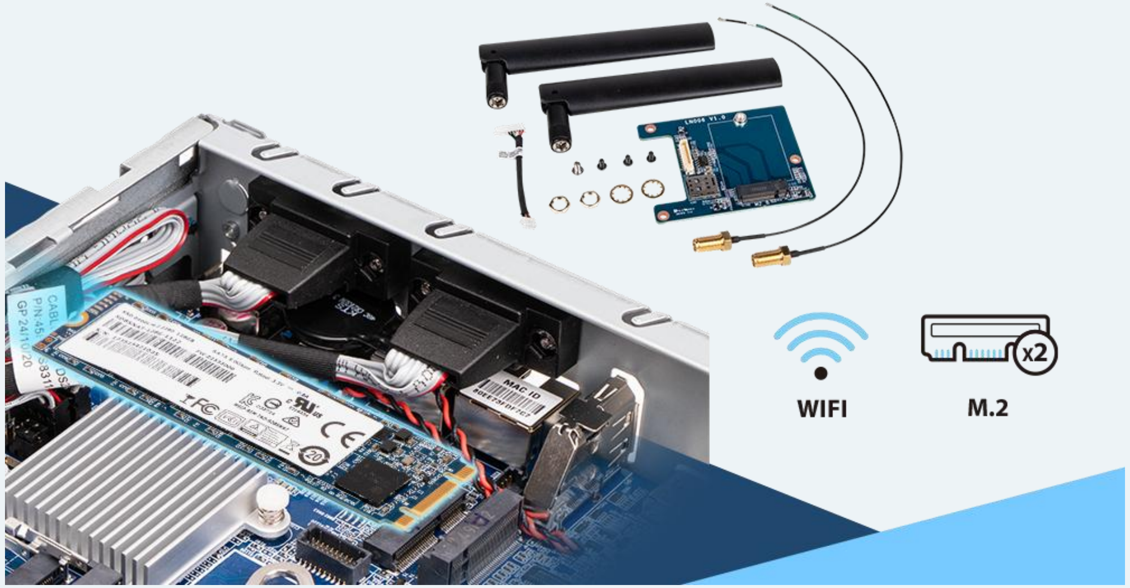
Nuvo-11000

Source: Neousys

Shuttle 辅信

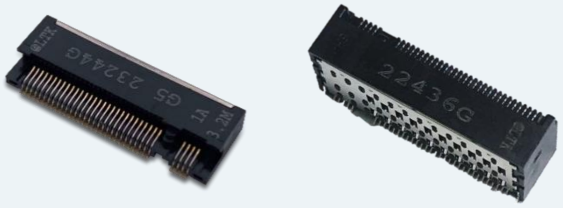
- 展示一系列全新AI迷你电脑，搭载Intel Arrow Lake-S NPU处理器，专为AI推论、数据视觉化、创意工作负载与商业应用量身打造
- DH810是一款1.3公升的迷你电脑，搭载Intel® Core™ Ultra (Arrow lake-S)处理器
- 搭载: DDR5 SODIMM, M.2 Gen 4/3 for WLAN

DH810



Source: Shuttle

Argosy's Connector Solution on IPC

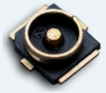


M.2 Gen 5 Connector NEW

Launch >30 spec: 8 height x 4 keys

Application: SSD

M.2-1A Connector NEW **& RF**



Launch 12 spec: 3 height x 4 keys

Application: WiFi 7

PCIe 5.0 Connector NEW

Launch 5 spec: Including metal shell and slim option

Application: AI accelerator card or GPU card

Mini PCIe Connector

Launch >10 spec.

Application: SSD, WiFi & GPU card

DDR5/4 SO-DIMM Connector

Launch 8 spec.

Application: DRAM socket

DDR5/4 DIMM Connector

Launch >20 spec.

Application: DIMM socket

USB Type-C Thunderbolt 5/4 & High Power 7A

13 part# Thunderbolt 5/4 qualified

Application: high-speed data transmission &
high-power charging 140W (7A*20V)

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ARGOSY RESEARCH INC.

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感谢您的聆听

www.argosytw.com