

innodisk

ARCHITECT  
INTELLIGENCE

INNODISK 2026  
產品選購指南



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# INNODISK — ARCHITECTS OF INTELLIGENCE

Innodisk 宜鼎國際是**邊緣 AI 解決方案**的全球領導品牌，結合業界領先的關鍵組件與先進運算平台，致力構築邊緣智慧的未來藍圖。

**總部位於台灣**，憑藉超過 20 年的深厚經驗，我們的研發團隊、全球營運體系及合作夥伴生態系，共同為多元的**工業與企業級應用**提供可靠服務、卓越的製造品質以及長期支援。



200+位專注於  
技術創新的  
研發工程師團隊



靈活的产品設計與  
協作模式



無縫整合



深耕垂直市場



4,000+全球客戶  
合作經驗



全球化技術支援與  
服務網路



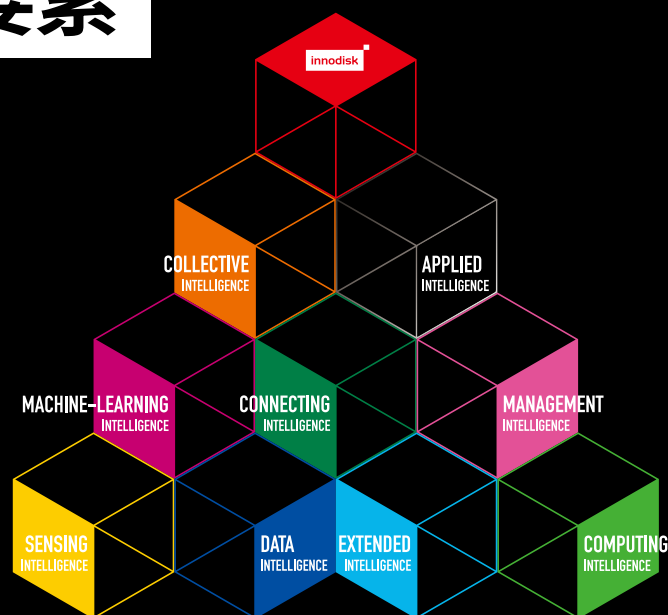
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# 宜鼎 為邊緣 AI 提供關鍵要素

在宜鼎，我們可提供邊緣 AI 的核心關鍵要素，  
並輔以完整的產品與解決方案佈局，落實  
**ARCHITECT INTELLIGENCE** 的願景。

憑藉高度客製化且全面相容的技術，我們賦能真實  
世界的邊緣智慧，在邊緣 AI 時代中，完美串聯去  
中心化、多元化且快速演進的各種應用。



## 全方位產品組合

|          |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                     |                                                                                       |                                                                                       |
|----------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 雲端管理     | 雲端 AI                                                                                | iCAP (Innodisk 雲端管理平台)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                     |                                                                                       |                                                                                       |
| 軟體 / 韌體  | iSeries 軟體                                                                           | iSMART / iTracker / iOPAL / iRAID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                     |                                                                                       |                                                                                       |
|          | Innodisk AI SDK                                                                      | AccelTune / AccelBrain / iVIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                     |                                                                                       |                                                                                       |
| 邊緣 AI 運算 | AI 加速器                                                                               |    <br>NVIDIA Qualcomm Intel                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |                                                                                       |                                                                                       |
|          | 邊緣 AI 系統                                                                             |    <br>   <br>Innodisk APEX 系列 |                                                                                     |                                                                                       |                                                                                       |
| 關鍵組件與週邊  | 快閃記憶體 (Flash)                                                                        | 記憶體 (DRAM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 顯示模組                                                                                | 網路通訊                                                                                  | 儲存裝置                                                                                  |
|          |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |
| 感測器      | 相機模組                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                     | 空氣感測器                                                                                 |                                                                                       |
|          |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                     |  |                                                                                       |

# 跨產業 解決方案

我們串聯產業洞察與實質導入成果。



## 製造

AI 解決方案透過精準、即時的決策，提升效率、安全性與工廠產能。

- 自主移動機器人 (AMR) ■ 人形機器人
- 自動光學檢測 (AOI) ■ 智慧工廠



## 交通運輸

我們的解決方案強化了電動車、巴士、地鐵等應用場域的營運管理與安全性。

- 電動車 (EV) 充電樁 ■ 自駕車



## 安防監控

針對現代安防需求，我們的解決方案提供先進的影像分析與即時反應機制。

- 智慧路燈 ■ 安全防護裝備 (PPE) 辨識



## 資料中心

我們助力伺服器與資料中心應對爆發性成長的資料量，並達成延長產品壽命與節能減碳的目標。

- 雲端儲存系統 ■ 邊緣運算伺服器
- AI 訓練伺服器



## 零售物流

我們驅動零售業的智慧轉型，提升購物、點餐與物流配送的效率與安全性。

- 智慧販賣機 ■ 自助結帳系統



## 網路通訊

我們的解決方案可確保關鍵電信基礎設施在高負載情況下，仍能展現穩定且卓越的效能。

- 5G 基地台 ■ 錄播系統



## 醫療保健

我們將 AI 整合至先進的醫療解決方案中，滿足嚴苛的醫用需求。

- 智慧護理系統 ■ 包裝與檢驗



## 媒體娛樂

我們提供能延長設備壽命、保護資料並符合博弈等娛樂產業標準的解決方案。

- 博弈設備



## 航太

我們針對航太領域的獨特挑戰，量身打造先進解決方案。

- 關鍵任務設備 ■ 強固型系統

# 技術與創新

宜鼎致力於開發兼具可靠性、耐用度與高效能的工業級技術。

透過完善的硬體、韌體與軟體整合，我們提供能在嚴苛環境下穩定運作的智慧解決方案。我們的客製化能力，確保每一項解決方案都能精準滿足您的應用需求。

## 資料優化



### iDATA GUARD 資料守衛技術

確保高效的電源循環運作並維護資料完整性。



### iPOWER GUARD 技術

保護 SSD 免受電力不穩的影響，確保系統穩定運作。



### iRETENTION

利用智慧演算法監控溫度與 P/E 循環次數。



### 端到端資料路徑 保護 (ETEP)

確保資料在傳輸的每一步驟中皆完整無虞。

## 安全性



### PLP 斷電保護技術 (iCELL)

確保 SSD 能保護關鍵任務資料並防止斷電導致的遺失。



### AES 加密

透過 AES 硬體加密技術保護機密資料。



### 資料寫入保護

透過防寫入機制，確保儲存資料的安全。

## 強化耐用性



### 寬溫技術

支援  $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$  的寬溫運作環境。



### 極寬溫技術

針對極端環境，提供可支援高達  $105^{\circ}\text{C}$  /  $125^{\circ}\text{C}$  運作溫度的 DRAM 模組。



### 抗硫化技術

在嚴苛環境下有效抵抗硫化腐蝕。



### 敷形塗層技術 (CONFORMAL COATING)

保護 DRAM 電路板免受酸蝕、灰塵及其他有害物質侵害。



### U 型耐震扣

強化模組穩定性與抗衝擊強度。



### 散熱片技術

防止過熱並延長產品使用壽命。



### U 型強固技術 (SIDE FILL)

讓晶片與電路板之間的焊接點更加穩固。

## 長效運作技術



### iSLC / ULTRA iSLC

大幅延長設備壽命並提升整體效能。



### 耗損平均技術

確保資料讀寫平均分布在各儲存單元，延長裝置壽命。



### 垃圾資料回收與 裁切 (TRIM)

刪除無效資料，優化並延長儲存裝置壽命。

## 系統復原



### InnoOSR

專利韌體技術，支援一鍵即時復原。



### 遠端復原

讓操作人員可遠端復原裝置。

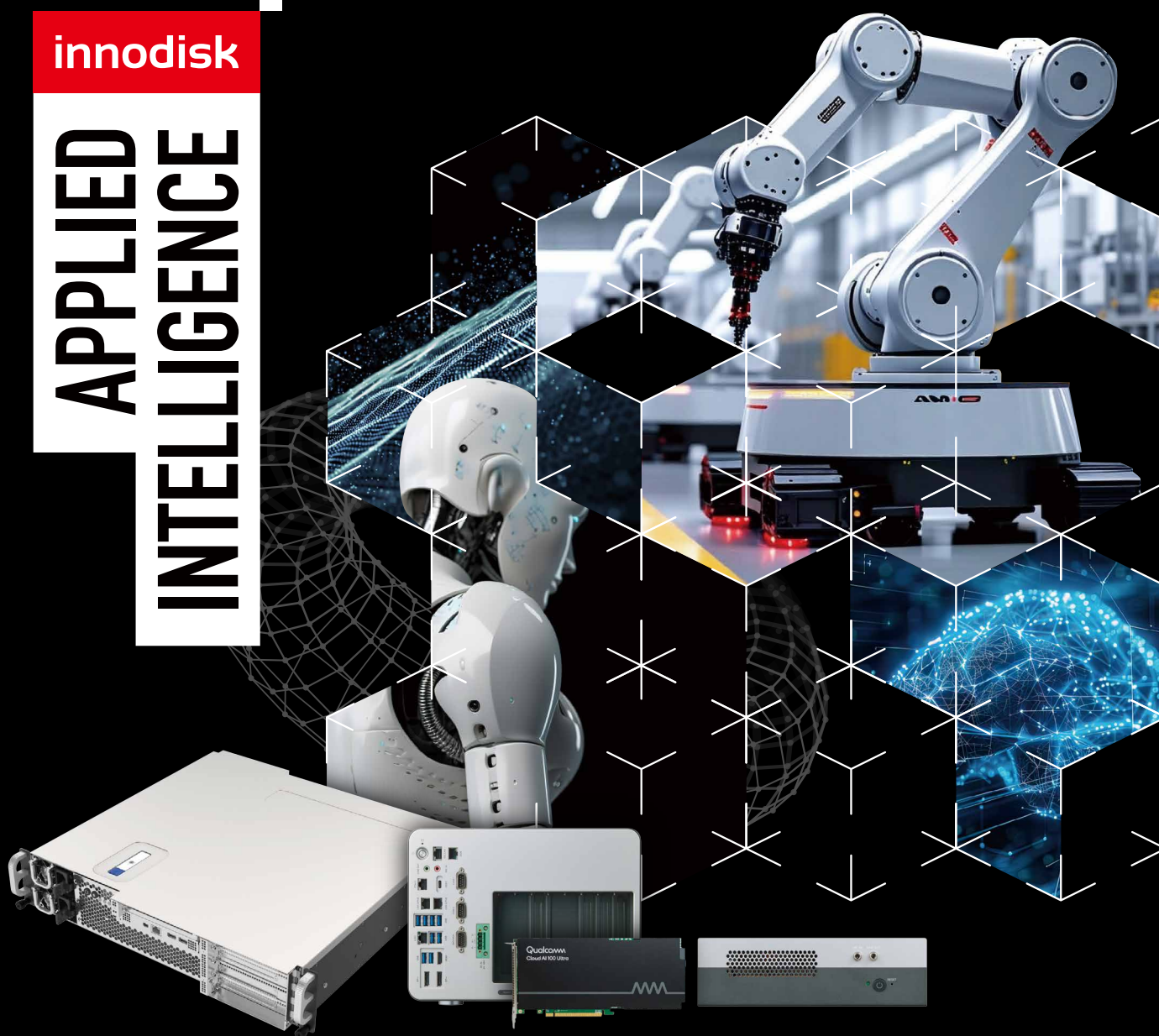


### 本機復原

支援在設備端直接進行復原。

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# APPLIED INTELLIGENCE



## APPLIED INTELLIGENCE

結合搭載 NVIDIA、Qualcomm 及 Intel 核心的 **邊緣 AI 系統** 以及針對 **應用情境** 設計的一站式解決方案，可充分發揮靈活配置、彈性導入的優勢，共同締造成功篇章。



# 邊緣 AI 系統產品版圖

## 串聯全球領先的 邊緣 AI 核心技術，持續創新

 **NVIDIA**

RTX 系列 AI 加速器 提供高效能繪圖、長效生命週期及多功能的 AI 運算能力。

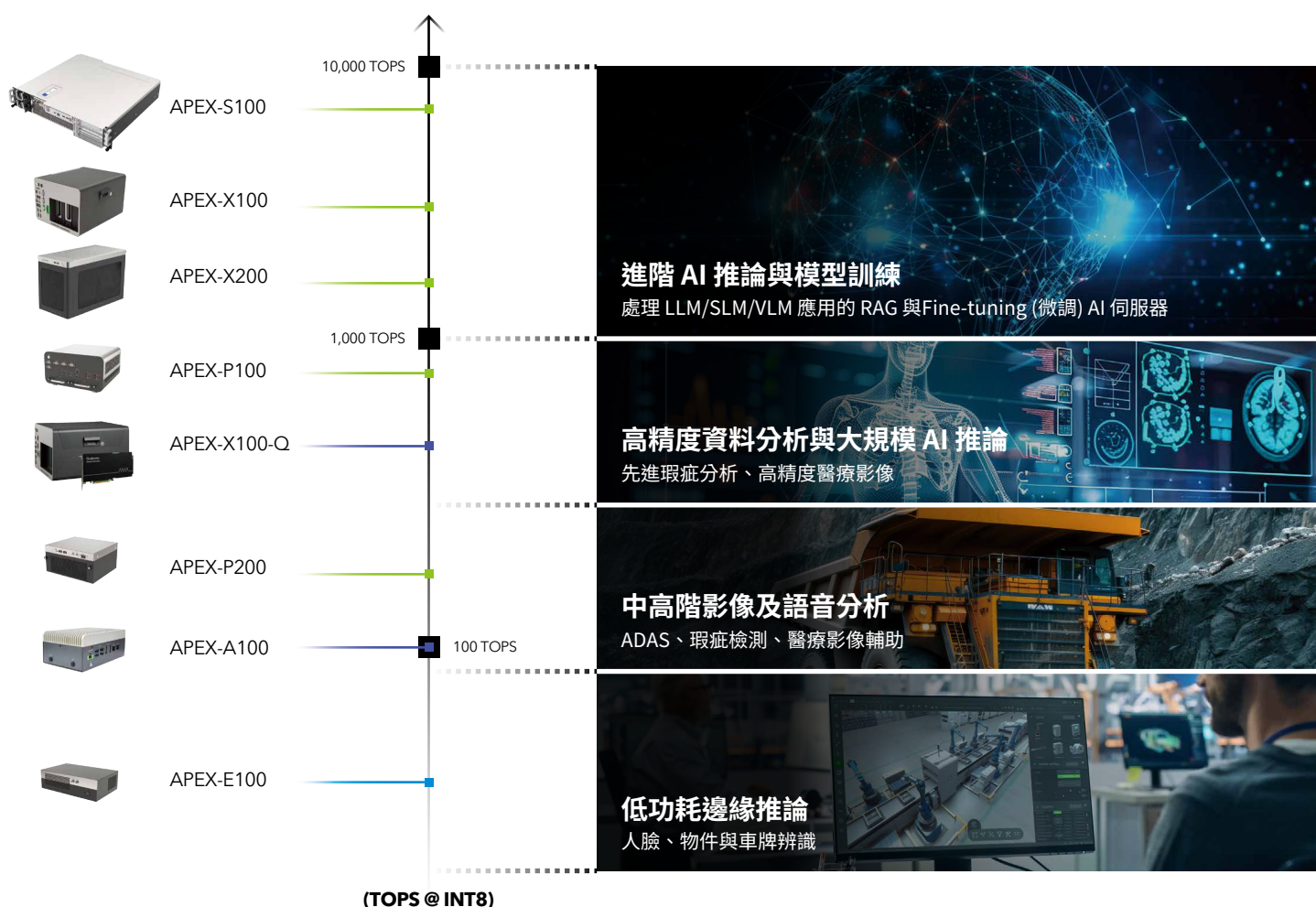
 **Qualcomm**

Cloud AI 100 Ultra 加速器 適用於落地部署的大型語言模型 (LLM)；Dragonwing IQ 系列 則專為具擴展性的邊緣 AI 打造。

 **Intel**

內建 NPU 的 Core Ultra 處理器 提供核心 AI 算力；Intel x86 平台 則為多元應用情境提供極佳相容性。

## 專為工業與企業級應用打造的 全方位 AI 運算





### 2U Short-depth Design Empowering NVIDIA MGX Modular AI Server

- Support NVIDIA H200NVL, RTX PRO 6000 Blackwell Server Edition, L40S accelerators.
- Support Intel Xeon 6 processor, up to 768GB DDR5 6400 MT/s RDIMM, 4 x 4T E1.S, 2 x 2TB M.2 SSD.
- Hot-swappable E1.S SSD and CRPS PSU; supports NVIDIA BlueField-3 DPU and NVLink Bridge.
- Optimized for edge AI training, deep learning workloads, LLM/SLM inference and fine-tuning, and RAG pipelines.

|                                 |                                |                                                                                                                 |                                                                                                          |                                            |
|---------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------|
| <b>Platform</b>                 | Intel CPU                      | Xeon 6731P                                                                                                      | Xeon 6730P                                                                                               | Xeon 6736P                                 |
|                                 | Cores                          | 32C                                                                                                             | 32C                                                                                                      | 36C                                        |
|                                 | Max. Frequency                 | 4.1GHz                                                                                                          | 3.8GHz                                                                                                   | 4.1GHz                                     |
| <b>AI Accelerator</b>           | AI Engine                      | up to 2 x L40S                                                                                                  | up to 2 x RTX PRO 6000 Blackwell Server Edition                                                          | up to 2 x H200 NVL                         |
|                                 | Form Factor (Interface)        | 11.2cm H x 26.7cm L, dual slot, full height (PCIe Gen 5 x16)                                                    |                                                                                                          |                                            |
|                                 | Cores / Computational power    | 18,176 x Ada CUDA Cores<br>568 x fourth-generation Tensor Cores<br>142 x third-generation RT Cores              | 24,064 x Blackwell CUDA Cores<br>752 x fifth-generation Tensor Cores<br>188 x fourth-generation RT Cores | 1,671 TFLOPS (FP16 / BFLOAT16 Tensor core) |
|                                 | GPU memory                     | 48GB GDDR6 (w/ECC)                                                                                              | 96GB GDDR7 (w/ECC)                                                                                       | 141GB HBM3e (w/ECC)                        |
| <b>Memory</b>                   | Technology / Socket            | DDR5 6400 MT/s, 8 x 288-pin DDR5 RDIMM<br>DDR5 8000 MT/s, 8 x 288-pin DDR5 MRDIMM (support ECC, 128GB per DIMM) |                                                                                                          |                                            |
|                                 | Max. Capacity                  | up to 1T                                                                                                        |                                                                                                          |                                            |
| <b>Displays</b>                 | Mini DP (Full HD@60Hz)         | 1                                                                                                               |                                                                                                          |                                            |
| <b>BMC</b>                      | BMC                            | 1 x 1Gbps by AST2600 (BMC management only, no Internet access)                                                  |                                                                                                          |                                            |
| <b>Ethernet</b>                 | Ethernet                       | 2 x 10Gbps by Intel X710-T2L                                                                                    | 2 x 10Gbps by Intel X710-T2L or 2 x 25Gbps by Intel E810-XXVDA2                                          | 2 x 200Gbps by NVIDIA BlueField-3 B3220    |
| <b>Expansion Slots</b>          | M.2 2280/22110 M Key           | 2 x (PCIe Gen 5 x4) support RAID 0/1                                                                            |                                                                                                          |                                            |
|                                 | E1.S                           | 4 x (PCIe Gen 5 x4) support RAID 0/1/5/10, hot-swappable, limit height 15mm                                     |                                                                                                          |                                            |
|                                 | PCIe x16 (FHFL)                | 2 x (PCIe Gen 5 x16) accelerator default support NVLink Bridge                                                  |                                                                                                          |                                            |
|                                 | PCIe x16 (FHHL)                | 1 x (PCIe Gen 5 x16) NIC default                                                                                |                                                                                                          |                                            |
|                                 | PCIe x8 (FHFL)                 | 1 x (PCIe Gen 5 x8) <sup>*1</sup>                                                                               |                                                                                                          |                                            |
| <b>External I/O</b>             | USB 2.0                        | 2                                                                                                               |                                                                                                          |                                            |
| <b>Power</b>                    | Power Input Voltage            | AC 220-240V, 47-63Hz                                                                                            |                                                                                                          |                                            |
|                                 | Power Connector Type           | IEC 60320 C13 (1+1 Redundant CRPS, 2 x 2,000W Titanium)                                                         |                                                                                                          |                                            |
| <b>Environment</b>              | Operating Temperature          | 0°C ~ 30°C (with accelerator)                                                                                   |                                                                                                          |                                            |
| <b>Security</b>                 | TPM 2.0                        | dTPM2.0 (Hardware, Infineon:SLM9670AQ2.0)                                                                       |                                                                                                          |                                            |
| <b>Miscellaneous</b>            | LED Indicator                  | 1 x HDD, 1 x UID, 1 x Power, 1 x LAN, 1 x Info                                                                  |                                                                                                          |                                            |
| <b>Physical Characteristics</b> | Dimension L x W x H (mm)       | 438 x 420 x 88                                                                                                  |                                                                                                          |                                            |
|                                 | Net Weight / Gross Weight (KG) | TBA                                                                                                             |                                                                                                          |                                            |
|                                 | Mount                          | Rackmount                                                                                                       |                                                                                                          |                                            |
| <b>Operating System</b>         | Operating System               | Linux Ubuntu Server<br>Microsoft Windows Server 2019/2022                                                       |                                                                                                          |                                            |
| <b>Regulation</b>               | Safety                         | CE/FCC                                                                                                          |                                                                                                          |                                            |

<sup>\*1</sup> Dual accelerators installed will occupy this slot



# APEX-X100

## NVIDIA 解決方案



### Intel-Based AI System with NVIDIA PRO 6000 Blackwell Max-Q / 6000 Ada Accelerator

- Supports up to 24,064 CUDA Cores, 752 Tensor Cores, and 188 RT Cores with 96GB GDDR7 memory for AI LLM/SLM applications.
- Supports up to Intel 14th Gen Core i9 CPU, with up to 192GB DDR5 DRAM and 2TB NVMe SSD pre-installed.

|                          |                                  |                                                                                                    |                                                                                                                         |                                                      |
|--------------------------|----------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| Platform                 | Intel CPU                        | Core i9-14900                                                                                      | Core i9-13900E                                                                                                          | Core i7-13700E                                       |
|                          | Cores (P + E + LPE)              | 24C (8P + 16E)                                                                                     | 24C (8P + 16E)                                                                                                          | 16C (8P + 8E)                                        |
|                          | Max. Frequency                   | 5.8GHz                                                                                             | 5.2GHz                                                                                                                  | 5.1GHz                                               |
| AI Accelerator           | AI Engine                        | NVIDIA RTX 6000 Ada                                                                                | NVIDIA RTX 6000 Ada                                                                                                     |                                                      |
|                          | Form Factor (Interface)          | 11.2cm H x 26.7cm L, dual slot, full height (PCIe Gen 4 x16)                                       |                                                                                                                         |                                                      |
|                          | Cores                            | 24,064 x NVIDIA Blackwell CUDA Cores<br>752 x NVIDIA 5th Tensor Cores<br>188 x NVIDIA 4th RT Cores | 18,176 x NVIDIA Ada Lovelace architecture-based CUDA Cores<br>568 x NVIDIA 4thTensor Cores<br>142 x NVIDIA 3th RT Cores |                                                      |
|                          | GPU memory                       | 96GB GDDR7 (w/ECC)                                                                                 | 48GB GDDR6 (w/ECC)                                                                                                      |                                                      |
| Memory                   | Technology / Socket              | DDR5 4400MT/s <sup>*1</sup> / 4 x 288-pin DDR5 UDIMM                                               |                                                                                                                         |                                                      |
|                          | Max. Capacity                    | 2 x (PCIe Gen 4 x4), 1 x 2TB M.2 SSD pre-installed                                                 | 2 x (PCIe Gen 4 x4), 1 x 1TB M.2 SSD pre-installed                                                                      | 2 x (PCIe Gen 4 x4), 1 x 512GB M.2 SSD pre-installed |
| Displays                 | HDMI 2.0 (4K@30Hz)               | 1                                                                                                  |                                                                                                                         |                                                      |
|                          | DP++ 1.4 (4K@60Hz)               | 2                                                                                                  |                                                                                                                         |                                                      |
|                          | VGA                              | 1 (optional, share the same connector with GPIO/DIO)                                               |                                                                                                                         |                                                      |
| Ethernet                 | LAN (Marvell AQC113 10Gbps)      | 1                                                                                                  |                                                                                                                         |                                                      |
|                          | LAN (Intel I226 2.5Gbps)         | 3 x (LAN2/3 support 802.at with 30W PoE)                                                           |                                                                                                                         |                                                      |
| Expansion Slots          | M.2 2280 M Key                   | 2 x (PCIe Gen 4 x4), 1 x 2TB M.2 SSD pre-installed                                                 | 2 x (PCIe Gen 4 x4), 1 x 1TB M.2 SSD pre-installed                                                                      | 2 x (PCIe Gen 4 x4), 1 x 512GB M.2 SSD pre-installed |
|                          | M.2 2230 E Key                   | 1 x (PCIe Gen 3 x1/USB 2.0)                                                                        |                                                                                                                         |                                                      |
|                          | M.2 3052 B Key                   | 1 x (USB 3.2) with Nano SIM socket                                                                 |                                                                                                                         |                                                      |
|                          | PCIe x16                         | 1 x (Gen 4 x16 signal) accelerator pre-installed or 1 x (Gen 4 x8 signal)                          |                                                                                                                         |                                                      |
|                          | PCIe x16                         | 1 x (Gen 4 x8 signal) <sup>*2</sup>                                                                |                                                                                                                         |                                                      |
|                          | PCIe x16                         | 1 x (Gen 3 x4 signal)                                                                              |                                                                                                                         |                                                      |
|                          | PCIe x4                          | 1 x (Gen 3 x4 signal)                                                                              |                                                                                                                         |                                                      |
|                          | PCIe x1                          | 1 x (Gen 3 x1 signal)                                                                              |                                                                                                                         |                                                      |
| External I/O             | COM1                             | RS232/422/485                                                                                      |                                                                                                                         |                                                      |
|                          | COM2                             | RS232/422/485                                                                                      |                                                                                                                         |                                                      |
|                          | COM3                             | RS485 (RJ45)                                                                                       |                                                                                                                         |                                                      |
|                          | USB 3.2 Gen 2 x2 (20Gbps) Type-C | 1                                                                                                  |                                                                                                                         |                                                      |
|                          | USB 3.2 Gen 2 x1 (10Gbps)        | 8                                                                                                  |                                                                                                                         |                                                      |
|                          | Buttons                          | 1 x Power (with LED)                                                                               |                                                                                                                         |                                                      |
|                          | Audio (Realtek ALC888S)          | Mic-in x 1, Line-out x 1                                                                           |                                                                                                                         |                                                      |
|                          | GPIO/DIO                         | 8 bits (4 in/ 4 out)                                                                               |                                                                                                                         |                                                      |
| Power                    | Power Input Voltage              | DC 24~48V (±5%)                                                                                    |                                                                                                                         |                                                      |
|                          | Power Consumption                | 24V@25A (with i9-13900E / 1TB SSD / 128GB DRAM / NVIDIA RTX6000 Ada)                               |                                                                                                                         |                                                      |
| Environment              | Operating Temperature            | 0°C ~ 40°C (with accelerator)                                                                      |                                                                                                                         |                                                      |
| Miscellaneous            | LED Indicator                    | 2 x Power LED, 2 x Fan LED, 2 x Temp LED                                                           |                                                                                                                         |                                                      |
| Physical Characteristics | Dimension L x W x H (mm)         | 340 x 279 x 215                                                                                    |                                                                                                                         |                                                      |
|                          | Net Weight / Gross Weight (KG)   | 11 / 17                                                                                            |                                                                                                                         |                                                      |
|                          | Mount                            | Wall Mount / Desk mount                                                                            |                                                                                                                         |                                                      |
|                          | Antenna Holes                    | 6                                                                                                  |                                                                                                                         |                                                      |
| Regulation               | Safety                           | CE/FCC/UKCA                                                                                        |                                                                                                                         |                                                      |

<sup>\*1</sup> by Intel CPU limitation <sup>\*2</sup> When enabled, will downclock speed from Gen 4 x16 to Gen 4 x8

# APEX-X200

## NVIDIA 解決方案



### Intel-based AI system with NVIDIA GeForce RTX 5080 accelerator

- Supports 10,752 CUDA Cores, 336 Tensor Cores, and 84 RT Cores with 16GB GDDR7 memory for AI LLM/SLM applications.
- Integrated with Intel 15th Gen Ultra 9/7 CPU, up to 96GB DDR5 DRAM and 1TB SSD pre-installed.

|                                 |                                |                                                                                                                                                 |                                                                       |
|---------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Platform</b>                 | Intel CPU                      | Core Ultra 9 285                                                                                                                                | Core Ultra 7 265                                                      |
|                                 | Cores (P + E + LPE)            | 24C (8P + 16E)                                                                                                                                  | 20C (8P + 12E)                                                        |
|                                 | Max. Frequency                 | 5.6GHz                                                                                                                                          | 5.3GHz                                                                |
| <b>AI Accelerator</b>           | AI Engine                      | NVIDIA GeForce RTX 5080                                                                                                                         |                                                                       |
|                                 | Form Factor (Interface)        | 13cm H x 316.5cm L, 3.5 slot, full height (PCIe Gen 5 x16)                                                                                      |                                                                       |
|                                 | Cores                          | 10,752 x NVIDIA Blackwell architecture-based CUDA Cores<br>336 x NVIDIA fifth-generation Tensor Cores<br>84 x NVIDIA fourth-generation RT Cores |                                                                       |
|                                 | GPU memory                     | 16GB GDDR7                                                                                                                                      |                                                                       |
| <b>Memory</b>                   | Technology / Socket            | DDR5 6400MT/s <sup>*1</sup> / 2 x 262-pin DDR5 CSODIMM                                                                                          |                                                                       |
|                                 | Max. Capacity                  | up to 96GB (2 x 32GB, total 64GB pre-installed)                                                                                                 |                                                                       |
| <b>Displays</b>                 | HDMI 2.1 (8K@60Hz)             | 1                                                                                                                                               |                                                                       |
|                                 | DP++ 2.1 (8K@60Hz)             | 1                                                                                                                                               |                                                                       |
|                                 | LAN (Intel I226 2.5Gbps)       | 2                                                                                                                                               |                                                                       |
| <b>Expansion Slots</b>          | M.2 2280 M Key                 | 1 x (PCIe Gen 5 x4), 1TB M.2 SSD pre-installed<br>1 x (PCIe Gen 4 x4)                                                                           | 1 x (PCIe Gen5 x4), 512GB M.2 SSD pre-installed<br>1 x (PCIe Gen4 x4) |
|                                 | M.2 2230 E Key                 | 1 x (PCIe Gen 4 x1/USB 2.0)                                                                                                                     |                                                                       |
|                                 | PCIe x16                       | 3 x (Gen 5 x16 signal) RTX 5080 pre-installed                                                                                                   |                                                                       |
|                                 | USB 3.2 Gen 2 x1 (10Gbps)      | 8                                                                                                                                               |                                                                       |
|                                 | Buttons                        | 1 x Power                                                                                                                                       |                                                                       |
|                                 | Audio (Realtek ALC888S)        | Mic-in x 1, Line-out x 1                                                                                                                        |                                                                       |
|                                 | GPIO/DIO                       | 8 bits (4 in/ 4 out)                                                                                                                            |                                                                       |
| <b>Power</b>                    | Power Input Voltage            | AC 100-240V                                                                                                                                     |                                                                       |
|                                 | Power Consumption              | TBC                                                                                                                                             |                                                                       |
| <b>Environment</b>              | Operating Temperature          | 0°C ~ 45°C (with RTX 5080)                                                                                                                      |                                                                       |
| <b>Miscellaneous</b>            | LED Indicator                  | 2 x Power LED, 2 x Fan LED, 2 x Temp LED                                                                                                        |                                                                       |
| <b>Physical Characteristics</b> | Dimension L x W x H (mm)       | 381 x 185 x 235                                                                                                                                 |                                                                       |
|                                 | Net Weight / Gross Weight (KG) | TBC                                                                                                                                             |                                                                       |
|                                 | Mount                          | Wall Mount / Desk mount                                                                                                                         |                                                                       |
|                                 | Antenna Holes                  | 2                                                                                                                                               |                                                                       |
| <b>Regulation</b>               | Safety                         | CE/FCC/UKCA                                                                                                                                     |                                                                       |

<sup>\*1</sup> by Intel CPU limitation



### Intel-Based AI System with NVIDIA RTX 5000 Ada Accelerator

- Supports 9,728 CUDA Cores, 304 Tensor Cores, and 76 RT Cores with 16GB GDDR6 memory for factory AOI and AI medical imaging recognition.
- Integrated with Intel 13th Gen Core i7 CPU, and 32GB DDR5 DRAM and 512GB NVMe SSD pre-installed.

|                                 |                                 |                                                                                                                                                   |
|---------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Platform</b>                 | Intel CPU                       | Core i7-13700E                                                                                                                                    |
|                                 | Cores (P + E + LPE)             | 16C (8P + 8E)                                                                                                                                     |
|                                 | Max. Frequency                  | 5.1GHz                                                                                                                                            |
| <b>AI Accelerator</b>           | AI Engine                       | NVIDIA RTX 5000 Ada                                                                                                                               |
|                                 | Form Factor (Interface)         | MXM graphics module version 3.1, Type B (PCIe Gen 4 x16)                                                                                          |
|                                 | Cores                           | 9,728 x NVIDIA Ada Lovelace architecture-based CUDA Cores<br>304 x NVIDIA fourth-generation Tensor Cores<br>76 x NVIDIA third-generation RT Cores |
|                                 | GPU memory                      | 16GB GDDR6 (w/ECC)                                                                                                                                |
| <b>Memory</b>                   | Technology / Socket             | DDR5 5200MT/s / 2 x 262-pin DDR5 SODIMM                                                                                                           |
|                                 | Max. Capacity                   | up to 64GB (2 x 16GB, total 32GB pre-installed)                                                                                                   |
| <b>Displays</b>                 | DP++ 1.4 (4K@60Hz)              | 5                                                                                                                                                 |
| <b>Ethernet</b>                 | LAN (Intel I226 2.5Gbps)        | 5                                                                                                                                                 |
| <b>Expansion Slots</b>          | M.2 2280 M Key                  | 2 x (PCIe Gen 4 x4/SATA) 512GB M.2 SSD pre-installed                                                                                              |
|                                 | MXM Type B / B+                 | 1 x (PCIe Gen 4 x16) RTX 5000 Ada pre-installed                                                                                                   |
| <b>External I/O</b>             | COM1                            | RS232/422/485                                                                                                                                     |
|                                 | COM2                            | RS232/422/485                                                                                                                                     |
|                                 | COM3                            | RS232/422/485                                                                                                                                     |
|                                 | COM4                            | RS232/422/485                                                                                                                                     |
|                                 | USB 3.2 Gen 2x2 (20Gbps) Type-C | 1                                                                                                                                                 |
|                                 | USB 3.2 Gen 2x1 (10Gbps)        | 6                                                                                                                                                 |
|                                 | USB 2.0                         | 2                                                                                                                                                 |
|                                 | Buttons                         | 1 x Power (with LED)                                                                                                                              |
|                                 | Audio (Realtek ALC888S)         | Mic-in x 1, Line-out x 1                                                                                                                          |
|                                 | GPIO/ DIO                       | 8 bits (by BIOS selection)                                                                                                                        |
| <b>Power</b>                    | Power Input Voltage             | DC 24V (±5%)                                                                                                                                      |
|                                 | Power Consumption               | Wall Mount                                                                                                                                        |
| <b>Environment</b>              | Operating Temperature           | 0°C ~ 50°C (with NVIDIA RTX 5000 Ada)                                                                                                             |
| <b>Physical Characteristics</b> | Dimension L x W x H (mm)        | 280 x 270 x 148.2                                                                                                                                 |
|                                 | Net Weight / Gross Weight (KG)  | 5.7 / 8                                                                                                                                           |
|                                 | Mount                           | Wall Mount                                                                                                                                        |
| <b>Regulation</b>               | Safety                          | CE/FCC                                                                                                                                            |

# APEX-P200

## NVIDIA 解決方案



### Intel-Based AI System with NVIDIA RTX 2000 Ada Accelerator

- Supports 3,072 CUDA Cores, 96 Tensor Cores, and 24 RT Cores with 8GB GDDR6 memory for AI medical imaging diagnostics and object detection.
- Integrated with Intel 13th Gen Core i7 CPU, and 32GB DDR5 DRAM and 512GB NVMe SSD pre-installed.
- Compact design with dimensions of 182mm x 158.6mm x 90mm for efficient space usage.

|                          |                                |                                                                                                                                                  |
|--------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Platform                 | Intel CPU                      | Core i7-13800HE                                                                                                                                  |
|                          | Cores (P + E + LPE)            | 14C (6P + 8E)                                                                                                                                    |
|                          | Max. Frequency                 | 5GHz                                                                                                                                             |
| AI Accelerator           | AI Engine                      | NVIDIA RTX 2000 Ada / RTX PRO 2000 Blackwell (planning)                                                                                          |
|                          | Form Factor (Interface)        | MXM graphics module version 3.1, Type A (PCIe Gen 4 x8)                                                                                          |
|                          | Cores                          | 3,072 x NVIDIA Ada Lovelace architecture-based CUDA Cores<br>96 x NVIDIA fourth-generation Tensor Cores<br>24 x NVIDIA third-generation RT Cores |
|                          | GPU memory                     | 8GB GDDR6 (w/ECC)                                                                                                                                |
| Memory                   | Technology / Socket            | DDR5 5200MT/s / 2 x 262-pin DDR5 SODIMM                                                                                                          |
|                          | Max. Capacity                  | up to 64GB (2 x 16GB, total 32GB pre-installed)                                                                                                  |
| Displays                 | HDMI 2.1 (8K@60Hz)             | 1                                                                                                                                                |
| Ethernet                 | LAN (Intel I226 2.5Gbps)       | 3x (LAN 2/3 support 802.at with 30W PoE)                                                                                                         |
| Expansion Slots          | M.2 2280 M Key                 | 1 x (PCIe Gen 4 x4) 512GB M.2 SSD pre-installed                                                                                                  |
|                          | M.2 2230 E Key                 | 1 x (PCIe Gen 3 x1/USB 2.0)                                                                                                                      |
|                          | MXM Type A                     | 1 x (Gen 5 x8), RTX 2000 Ada pre-installed                                                                                                       |
| External I/O             | COM1                           | RS232/422/485 (5V/12V)                                                                                                                           |
|                          | COM2                           | RS232/422/485                                                                                                                                    |
|                          | USB 3.2 Gen 2 x1(10Gbps)       | 2                                                                                                                                                |
|                          | USB 2.0                        | 2                                                                                                                                                |
|                          | Buttons                        | 1                                                                                                                                                |
|                          | Audio (Realtek ALC888S)        | Mic-in x 1, Line-out x 1                                                                                                                         |
| Power                    | Power Input Voltage            | DC 19V (±5%)                                                                                                                                     |
|                          | Power Consumption              | 19V@10.5A (with i7-13800HE/ 512GB SSD/ 32GB DRAM/ NVIDIA RTX 2000 Ada)                                                                           |
| Environment              | Operating Temperature          | -20°C ~ 60°C (with NVIDIA RTX 2000 Ada)                                                                                                          |
| Miscellaneous            | LED Indicator                  | 1 x HDD LED                                                                                                                                      |
| Physical Characteristics | Dimension L x W x H (mm)       | 182 x 158.6 x 90                                                                                                                                 |
|                          | Net Weight / Gross Weight (KG) | 3 / 3.7                                                                                                                                          |
|                          | Mount                          | Wall Mount                                                                                                                                       |
|                          | Antenna Holes                  | 2                                                                                                                                                |
| Regulation               | Safety                         | CE/FCC/UKCA                                                                                                                                      |



### Intel-Based AI System with Qualcomm Cloud AI 100 UltraAccelerator

- Supports 870TOPS with 128GB LPDDR4x memory for SLM, LLM, and generative AI applications.
- Intel 13th Gen Core i7 CPU, 192GB DDR5 DRAM and 2TB NVMe SSD pre-installed.

|                                 |                                  |                                                                                   |
|---------------------------------|----------------------------------|-----------------------------------------------------------------------------------|
| <b>Platform</b>                 | Intel CPU                        | Core i7-13700E                                                                    |
|                                 | Cores (P + E + LPE)              | 16C (8P + 8E)                                                                     |
|                                 | Max. Frequency                   | 5.1GHz                                                                            |
| <b>AI Accelerator</b>           | AI Engine                        | Qualcomm Cloud AI 100 Ultra                                                       |
|                                 | Form Factor (Interface)          | 11.1cm H x 23.8cm L, single slot, full height (PCIe Gen 4 x16)                    |
|                                 | Computing Power                  | 870 TOPS (INT8)<br>288 TFLOPS (FP16)                                              |
|                                 | GPU memory                       | 128GB LPDDR4x (w/ECC)                                                             |
| <b>Memory</b>                   | Technology / Socket              | DDR5 4400MT/s <sup>*1</sup> / 4 x 288-pin DDR5 UDIMM                              |
|                                 | Max. Capacity                    | up to 192GB (4 x 48GB, total 192GB pre-installed)                                 |
| <b>Displays</b>                 | HDMI 2.0 (4K@30Hz)               | 1                                                                                 |
|                                 | DP++ 1.4 (4K@60Hz)               | 2                                                                                 |
|                                 | VGA                              | 1 (optional, share the same connector with GPIO/DIO)                              |
| <b>Ethernet</b>                 | LAN (Marvell AQC113 10Gbps)      | 1                                                                                 |
|                                 | LAN (Intel I226 2.5Gbps)         | 3 x (LAN2/3 support 802.at with 30W PoE)                                          |
| <b>Expansion Slots</b>          | M.2 2280 M Key                   | 2 x (PCIe Gen 4 x4), 1 x 2TB M.2 SSD pre-installed                                |
|                                 | M.2 2230 E Key                   | 1 x (PCIe Gen 3 x1/USB 2.0)                                                       |
|                                 | M.2 3052 B Key                   | 1 x (USB 3.2), with Nano SIM socket                                               |
|                                 | PCIe x16                         | 1 x (Gen 4 x16 signal), Cloud AI 100 Ultra pre-installed or 1 x (Gen 4 x8 signal) |
|                                 | PCIe x16                         | 1 x (Gen 4 x8 signal) <sup>*2</sup>                                               |
|                                 | PCIe x16                         | 1 x (Gen 3 x4 signal)                                                             |
|                                 | PCIe x4                          | 1 x (Gen 3 x4 signal)                                                             |
|                                 | PCIe x1                          | 1 x (Gen 3 x1 signal)                                                             |
| <b>External I/O</b>             | COM1                             | RS232/422/485                                                                     |
|                                 | COM2                             | RS232/422/485                                                                     |
|                                 | COM3                             | RS485 (RJ45)                                                                      |
|                                 | USB 3.2 Gen 2 x2 (20Gbps) Type-C | 1                                                                                 |
|                                 | USB 3.2 Gen 2 x1 (10Gbps)        | 8                                                                                 |
|                                 | Buttons                          | 1 x Power (with LED)                                                              |
|                                 | Audio (Realtek ALC888S)          | Mic-in x 1, Line-out x 1                                                          |
|                                 | GPIO/DIO                         | 8 bits (4 in/ 4 out)                                                              |
| <b>Power</b>                    | Power Input Voltage              | DC 24~48V (±5%)                                                                   |
|                                 | Power Consumption                | 24V@14A (with i7-13700E/ 2TB SSD/ 192GB DRAM/ Qualcomm Cloud AI 100 Ultra)        |
| <b>Environment</b>              | Operating Temperature            | 0°C ~ 40°C (with Qualcomm Cloud AI 100 Ultra)                                     |
| <b>Miscellaneous</b>            | LED Indicator                    | 2 x Power LED, 2 x Fan LED, 2 x Temp LED                                          |
| <b>Physical Characteristics</b> | Dimension L x W x H (mm)         | 340 x 279 x 215                                                                   |
|                                 | Net Weight / Gross Weight (KG)   | 10 / 16                                                                           |
|                                 | Mount                            | Wall Mount / Desk mount                                                           |
|                                 | Antenna Holes                    | 6                                                                                 |
| <b>Regulation</b>               | Safety                           | CE/FCC/UKCA                                                                       |

<sup>\*1</sup> by Intel CPU limitation <sup>\*2</sup> When enabled, will downclock speed from Gen 4 x16 to Gen 4 x8





### Qualcomm-Based AI System with IQ-9075

- Powered by Qualcomm Dragonwing™ IQ-9075, up to 100 TOPS AI computing power.
- 128GB UFS 3.1 storage, 36GB onboard memory; 2 x 2.5G Ethernet, 4 x 4-lane MIPI CSI-2.
- Longevity: Chipset supported through 2038.
- Accelerates AGV, AMR, and LLM applications at the edge with unparalleled performance.

|                                 |                                  |                                                                       |
|---------------------------------|----------------------------------|-----------------------------------------------------------------------|
| <b>Platform</b>                 | CPU                              | Qualcomm Dragonwing™ IQ-9075 SoC                                      |
|                                 | Max. Frequency                   | 2.36GHz                                                               |
|                                 | Module Form Factor               | COM-HPC Mini                                                          |
| <b>AI Accelerator</b>           | AI Engine                        | 100 TOPS (Dense) / 200 TOPS (Sparse) via 2 x Hexagon Tensor Processor |
| <b>Memory</b>                   | Technology/ Socket               | LPDDR5X                                                               |
|                                 | Max. Capacity                    | 36GB (Onboard)                                                        |
| <b>Storage</b>                  | UFS 3.1                          | 128GB (Pre-installed)                                                 |
| <b>Graphics</b>                 | Controller                       | Adreno 663                                                            |
| <b>Displays</b>                 | DP++ 1.2 (4K@60Hz)               | 2                                                                     |
| <b>Ethernet</b>                 | LAN ( Realtek RTL8221 2.5G)      | 2                                                                     |
| <b>Expansion</b>                | M.2 2280 M Key                   | 1 x PCIe Gen 4 x4                                                     |
|                                 | M.2 3052 B Key                   | 1 x (USB 3.2/USB2.0)                                                  |
|                                 | M.2 2230 E Key                   | 1 x (PCIe Gen 4 x2/USB 2.0)                                           |
| <b>External I/O</b>             | COM1                             | RS232/422/485                                                         |
|                                 | USB 3.2 Gen 2 x1 (10Gbps)        | 3                                                                     |
|                                 | USB 3.2 Gen 2 x1 (10Gbps) Type-C | 1 (OTG support)                                                       |
|                                 | USB 2.0                          | 2                                                                     |
|                                 | Buttons                          | 1 x Power, 1 x Reset                                                  |
|                                 | Audio (Cirrus Logic WM8904)      | Mic-in x 1, Line-out x 1                                              |
|                                 | CAN FD                           | 1                                                                     |
| <b>Power</b>                    | Power Input Voltage              | DC 9~36V (±5%)                                                        |
| <b>Environment</b>              | Operating Temperature            | -40°C ~ 70°C                                                          |
| <b>Security</b>                 | TPM 2.0                          | dTPM2.0 (Hardware, Infineon:SLM9670AQ2.0)                             |
| <b>Physical Characteristics</b> | Dimension L x W x H (mm)         | 180 x 108.7 x 69                                                      |
|                                 | Net Weight/Gross Weight (KG)     | 1.7                                                                   |
| <b>Operating System</b>         | Operating System                 | Yocto Linux (Kernel 6.6); Ubuntu 24.04 (Kernel 6.8)                   |
| <b>Regulation</b>               | Safety                           | CE/FCC                                                                |



## Intel AI Box PC with Integrated NPU

- Equipped with a built-in NPU delivering up to 36 TOPS, with GPU and CPU support for AMR/AGV, AI surveillance, and visual inspection.
- Integrated with Intel Core Ultra CPU, and 16GB DDR5 DRAM and 512GB NVMe SSD pre-installed.
- Supports dual MIPI over Type-C cameras by Innodisk.

| Platform                 | Intel CPU                      | Core Ultra 7 165HL                                         | Core Ultra 5 135HL   | Core Ultra 3 105UL  |
|--------------------------|--------------------------------|------------------------------------------------------------|----------------------|---------------------|
|                          | Cores (P + E + LPE)            | 16C (6P + 8E + 2LPE)                                       | 14C (4P + 8E + 2LPE) | 8C (2P + 4E + 2LPE) |
|                          | Max. Frequency                 | 5.0GHz                                                     | 4.6GHz               | 4.2GHz              |
| AI Accelerator           | AI Engine                      | Intel AI Boost up to 36 TOPS via (CPU+GPU+TPU)             |                      |                     |
| Memory                   | Technology / Socket            | DDR5 5600MT/s / 2 x 262-pin DDR5 SODIMM                    |                      |                     |
|                          | Max. Capacity                  | up to 96GB (1 x 16GB, total 16GB pre-installed)            |                      |                     |
| Displays                 | HDMI 2.1 (8K@30Hz)             | 2                                                          |                      |                     |
| Ethernet                 | LAN (Intel I226 2.5Gbps)       | 2                                                          |                      |                     |
| Expansion Slots          | M.2 2230 E Key                 | 1 x (PCIe Gen 3 x1 / USB 2.0)                              |                      |                     |
|                          | M.2 2280 M Key                 | 1 x (PCIe Gen 4 x4 / SATAIII); 512GB M.2 SSD pre-installed |                      |                     |
| External I/O             | COM1                           | RS232/422/485                                              |                      |                     |
|                          | USB 3.2 Gen2 x1 (10Gbps)       | 2                                                          |                      |                     |
|                          | USB 3.2 Gen1 (5Gbps)           | 2                                                          |                      |                     |
|                          | USB 2.0                        | 2                                                          |                      |                     |
|                          | Buttons                        | 1 x Power                                                  |                      |                     |
|                          | Audio (Realtek ALC888S)        | Mic-in x 1, Line-out x 1                                   |                      |                     |
|                          | MIPI over Type-C               | 2                                                          |                      |                     |
| Power                    | Power Input Voltage            | DC 12V (±5%)                                               |                      |                     |
|                          | Power Consumption              | 12V@12.5A (with Ultra 7 165HL/ 1T SSD/ 32GB DRAM)          |                      |                     |
| Environment              | Operating Temperature          | -20°C ~ 60°C                                               |                      |                     |
| Miscellaneous            | LED Indicator                  | 1 x Power LED                                              |                      |                     |
| Physical Characteristics | Dimension L x W x H (mm)       | 188 x 140 x 56                                             |                      |                     |
|                          | Net Weight / Gross Weight (KG) | 1.6 / 2.1                                                  |                      |                     |
|                          | Mount                          | Wall Mount                                                 |                      |                     |
|                          | Antenna Holes                  | 2                                                          |                      |                     |
| Regulation               | Safety                         | CE/FCC/UKCA                                                |                      |                     |

# 應用情境

## iCAP AIR

## 空氣品質管理解決方案

### 全方位智慧 空氣品質管理 解決方案



#### 高靈敏度

通過 SHS、FCC、CE、RoHS、NCC、BSMI 等多項國際認證。



#### 群組管理

針對不同地點與裝置種類，進行分類管理。



#### 自定義平面圖

可自行上傳樓層平面圖，直觀管理不同場域的空气品質裝置。



#### 臨界值與警報設定

針對不同空氣因子自訂臨界值，並發出即時警示。



#### 自動觸發機制

根據即時空氣品質自動啟動排風設備，或透過自訂排程觸發。



Air Sensor

### iCAP Air 規格表

| Air Sensor Model | Temperature | Humidity | PM2.5 | PM10 | CO2 | TVOC | HCHO*        | NO2* | O3* | SO2* | CO* | NH3* | H2S* |
|------------------|-------------|----------|-------|------|-----|------|--------------|------|-----|------|-----|------|------|
| iAeris74         | •           | •        | •     |      | •   |      |              |      |     |      |     |      |      |
| iAeris76         | •           | •        | •     | •    | •   | •    |              |      |     |      |     |      |      |
|                  |             |          |       |      |     |      | Customizable |      |     |      |     |      |      |

### iAeris

Air Sensor



|                        |                                                                                    |
|------------------------|------------------------------------------------------------------------------------|
| Operating Environment  | -10°C ~ 50°C, below 90% RH                                                         |
| Storage Temperature    | -20°C ~ 70°C, below 90% RH                                                         |
| Screen                 | 2.23" OLED                                                                         |
| Control interface      | modbus-RTU or DO (Dry Contact)                                                     |
| Communication Protocol | RS485 (Modbus-RTU) / Wi-Fi (Modbus-TCP, HTTP, MQTT) (Optional) / BLE4.0 (Optional) |
| Power Supply           | DC 5V/1.0A or DC12-24V/0.5A                                                        |
| Power Consumption      | Max 5W                                                                             |
| Safety Standards       | CE / FCC / NCC / BSMI                                                              |
| Dimension              | 114mm(L) x 96mm(W) x 36mm(H)                                                       |
| Weight                 | 142g                                                                               |

### ABOX-5120

Air Quality Server

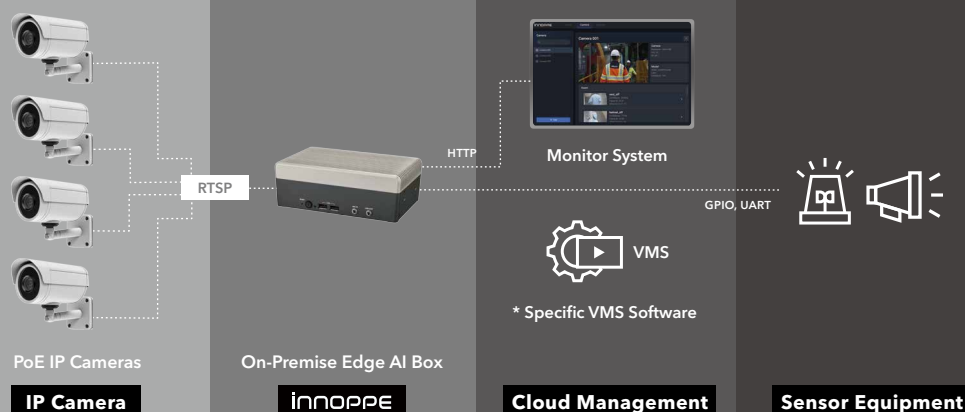


|                            |                                                         |
|----------------------------|---------------------------------------------------------|
| CPU                        | Intel® Celeron® Processor 7305E                         |
| Memory                     | 32GB - DDR5 4800MT/s                                    |
| Storage                    | 512GB                                                   |
| OS                         | Linux / Ubuntu 22.04.3 LTS                              |
| Operating Temperature      | -20°C ~ 60°C                                            |
| Storage Temperature        | -40°C ~ 85°C                                            |
| Operating Humidity         | Relative humidity: 5% to 95%, non-condensing            |
| Vibration During Operation | With SSD: 3G, IEC 60068-2-64, random, 5~500Hz, 1hr/axis |
| Shock During Operation     | With SSD: 30G, IEC 60068-2-27, half sine, 11ms duration |
| Dimension                  | 182.17mm x 108.64mm x 63.16mm                           |

\*The air quality server is bundled with iCAP Air and is not available for separate purchase.

## 高彈性、智慧化的 AI 辨識

以邊緣 AI 主機為核心，完美串聯前端 IP 相機與後端管理平台，輕鬆實現智慧化辨識。



\* InnoPPE 不包括 VMS 軟體。此圖僅用於說明 InnoPPE 可將偵測事件傳送至相容的 VMS 軟體以進行警示通知。



## 彈性架構

利用現有 IP 相機即可實現精準的防護裝備辨識。



## 高效部署

單台邊緣 AI 主機即可支援多台 IP 相機，節省導入成本。



## 即時事件警示

即時記錄違規事件，並與現場警示系統整合，立即發送通知。



## 智慧圍籬

提供區域偵測設定功能，可針對未經授權的闖入或徘徊事件，發出即時警示。



## 高彈性 ODM 服務

針對實際應用情境，提供專屬客製化 AI 模型，確保最佳辨識效能。



## 第三方軟體整合

整合 Nx Witness VMS 平台，可進行事件通知並記錄關鍵影像片段。

## InnoPPE 硬體 / 軟體規格

## HARDWARE



|                       |                                                            |
|-----------------------|------------------------------------------------------------|
| CPU                   | i5-1245UE                                                  |
| AI Accelerator        | Hailo-8                                                    |
| Memory                | 16GB DDR5 SODIMM                                           |
| Storage               | 512GB                                                      |
| Power Requirement     | 9~36V DC Power supply                                      |
| Temperature           | Operation: -20°C ~ 60°C (Ta)<br>Storage: -40°C ~ 85°C (Ta) |
| Certification         | CE/FCC class A                                             |
| Dimension (L x W x H) | 182.17mm x 108.64mm x 63.16mm                              |
| Regulation            | CE/FCC Class B/RoHS/UKCA                                   |
| Warranty              | 1 Year                                                     |

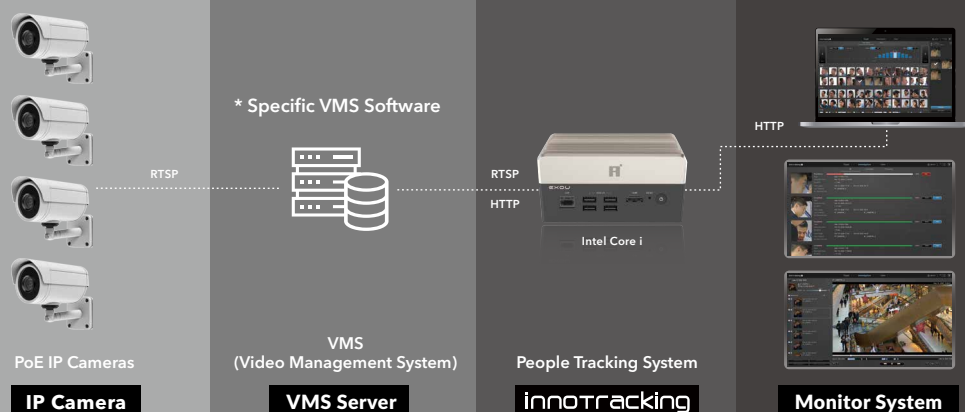
## SOFTWARE



|                             |                                                                    |
|-----------------------------|--------------------------------------------------------------------|
| Image Sources               | Supports RTSP-compatible network cameras / VMS / DVR / NVR systems |
| Video Format                | H.264                                                              |
| Image Resolution            | 1080P / 720P / 640P                                                |
| Recognition Objects         | Human / Hard Helmet / Reflective Vest                              |
| FPS per Channel             | 5~10 fps (Varies based on channel numbers or resolution)           |
| Support Max. Channel Number | 4                                                                  |
| Data Output Type            | .csv / .db / .html                                                 |
| Support Browser             | Chrome / Firefox / Edge                                            |
| Smart Fence                 | Supports multiple polygonal ROIs                                   |
| Web API                     | MQTT Protocol                                                      |
| OS Support                  | Linux (Kernel 5.15 and later)                                      |

\* Customized adjustment services for related hardware and software are also available.

## 方案概覽



\* InnoTracking 需接收特定 VMS 軟體提供的串流影像。InnoTracking 方案本身不包含 VMS 軟體。



精準的 AI 臉部比對與搜尋



無需預先登錄臉部資訊



簡易直覺的追蹤可疑目標



整合場域既有相機



節省能源與成本



強固耐用：耐高溫與震動

## InnoTracking 硬體規格



**ABOX-5120**

Edge Server

|                                   |                                                            |
|-----------------------------------|------------------------------------------------------------|
| <b>CPU</b>                        | Intel® Celeron® Processor 7305E                            |
| <b>Memory</b>                     | 32GB - DDR5 4800MT/s                                       |
| <b>Storage</b>                    | 512GB                                                      |
| <b>Display</b>                    | 1 x USB 3.2 Gen1 Type C<br>1 x mini DP<br>1 x HDMI         |
| <b>Power</b>                      | Input: Single 9 ~ 36 V<br>Power Consumption: Max. 90W      |
| <b>OS</b>                         | Linux / Ubuntu 22.04.3 LTS                                 |
| <b>Operating Temperature</b>      | -20°C ~ 60°C                                               |
| <b>Storage Temperature</b>        | -40°C ~ 85°C                                               |
| <b>Operating Humidity</b>         | 5% to 95% Relative humidity, non-condensing                |
| <b>Vibration During Operation</b> | With SSD: 3G, IEC 60068-2-64, random, 5 ~ 500Hz, 1hr/axis  |
| <b>Shock During Operation</b>     | With SSD: 30G, IEC 60068-2-27, half sine, 11ms duration    |
| <b>Dimension</b>                  | 182.17 x 108.64 x 63.16/mm                                 |
| <b>Others</b>                     | Support InnoAgent out-of-band remote management (Optional) |

\* This edge server is bundled with the InnoTracking solution and is not available for separate purchase.

innodisk

# DATA INTELLIGENCE



## DATA INTELLIGENCE

我們提供強固可靠的工業級記憶體與儲存解決方案，為高效運算與安全的資料儲存賦能。



# 記憶體模組產品線

## IC 分級

|           |                                   |                                                |
|-----------|-----------------------------------|------------------------------------------------|
| 原廠 IC     | 原廠 IC (Innodisk)                  | - 經過各大 IC 供應商全面測試                              |
| eTT       | 經過有效測試的 DRAM (Effectively Tested) | - 經過有效測試，但測試模式因供應商而異<br>- 未標註 Logo，僅標註序號或製造商資訊 |
| uTT       | 未經完整測試的 DRAM (Untested)           | - 未通過完整測試流程<br>- 未標註 Logo，僅標註序號或製造商資訊          |
| Downgrade | 次級品 (Downgrade)                   | - 由良率極低的晶圓或裸晶製成，存在嚴重的相容性與功能問題                  |

## 加值服務特點

●: 支援項目 ▲: 可選項目

|                   |                              | 寬溫支援 | 抗硫化技術 | 30μ" 增厚金手指 | 固定鎖孔 | 連接器 | iRAM | iSMART / iCAP | 敷形塗層技術 | U 型強固技術 |
|-------------------|------------------------------|------|-------|------------|------|-----|------|---------------|--------|---------|
| CXL Memory Module |                              |      |       |            |      |     |      |               |        |         |
| CXL AIC           |                              |      |       |            |      |     |      |               |        |         |
| DDR5              | MRDIMM                       |      | ●     | ●          |      |     |      | ▲             | ▲      | ▲       |
|                   | LPDDR5X CAMM2                |      | ●     |            |      |     |      | ▲             | ▲      | ▲       |
|                   | CAMM2                        |      | ●     |            |      |     |      | ▲             | ▲      | ▲       |
|                   | CUDIMM                       | ●    | ●     | ●          |      |     |      | ▲             | ▲      | ▲       |
|                   | CSODIMM                      | ●    | ●     | ●          |      |     |      | ▲             | ▲      | ▲       |
|                   | UDIMM                        | ●    | ●     | ●          |      |     |      | ▲             | ▲      | ▲       |
|                   | SODIMM                       | ●    | ●     | ●          |      |     |      | ▲             | ▲      | ▲       |
|                   | ECC UDIMM                    | ●    | ●     | ●          |      |     |      | ▲             | ▲      | ▲       |
|                   | ECC SODIMM                   | ●    | ●     | ●          |      |     |      | ▲             | ▲      | ▲       |
|                   | RDIMM                        | ●    | ●     | ●          |      |     |      | ▲             | ▲      | ▲       |
|                   | SODIMM                       |      | ●     | ●          |      |     |      | ▲             | ▲      | ▲       |
|                   | UDIMM ULP                    | ●    | ●     | ●          |      |     |      | ▲             | ▲      | ▲       |
|                   | ECC UDIMM VLP                | ●    | ●     | ●          |      |     |      | ▲             | ▲      | ▲       |
|                   | RDIMM VLP                    | ●    | ●     | ●          |      |     |      | ▲             | ▲      | ▲       |
|                   | UDIMM Ultra Temperature      | ●    | ●     | ● (45μ")   |      |     |      | ▲             | ▲      | ●       |
|                   | SODIMM Ultra Temperature     | ●    | ●     | ● (45μ")   |      |     |      | ▲             | ▲      | ●       |
| DDR4              | UDIMM                        | ●    | ●     |            |      |     |      | ▲             | ▲      | ▲       |
|                   | SODIMM                       | ●    | ●     |            |      |     |      | ▲             | ▲      | ▲       |
|                   | ECC UDIMM                    | ●    | ●     | ●          |      |     | ●    | ▲             | ▲      | ▲       |
|                   | ECC SODIMM                   | ●    | ●     | ●          |      |     | ●    | ▲             | ▲      | ▲       |
|                   | RDIMM                        | ●    | ●     | ●          |      |     | ●    | ▲             | ▲      | ▲       |
|                   | UDIMM VLP                    | ●    | ●     |            |      |     |      | ▲             | ▲      | ▲       |
|                   | SODIMM VLP                   |      | ●     |            |      |     |      | ▲             | ▲      | ▲       |
|                   | ECC UDIMM VLP                | ●    | ●     | ●          |      |     | ●    | ▲             | ▲      | ▲       |
|                   | ECC SODIMM VLP               | ●    | ●     | ●          |      |     | ●    | ▲             | ▲      | ▲       |
|                   | Mini ECC VLP                 |      | ●     | ●          |      |     | ●    | ▲             | ▲      | ▲       |
|                   | RDIMM VLP                    | ●    | ●     | ●          |      |     | ●    | ▲             | ▲      | ▲       |
|                   | Mini RDIMM VLP               |      | ●     | ●          |      |     | ●    | ▲             | ▲      | ▲       |
|                   | XR-DIMM                      |      | ●     |            | ●    | ●   | ●    | ▲             | ▲      | ▲       |
|                   | Rugged DIMM                  | ●    | ●     |            | ●    |     |      | ▲             | ▲      | ▲       |
|                   | SODIMM Ultra Temperature     | ●    | ●     | ● (45μ")   |      |     |      | ▲             | ▲      | ●       |
|                   | ECC SODIMM Ultra Temperature | ●    | ●     | ● (45μ")   |      |     |      | ▲             | ▲      | ●       |
| DDR3              | UDIMM                        | ●    |       |            |      |     |      | ▲             | ▲      | ▲       |
|                   | SODIMM                       | ●    |       |            |      |     |      | ▲             | ▲      | ▲       |
|                   | ECC UDIMM                    | ●    |       | ●          |      |     | ●    | ▲             | ▲      | ▲       |
|                   | ECC SODIMM                   | ●    |       | ●          |      |     | ●    | ▲             | ▲      | ▲       |
|                   | RDIMM                        |      |       | ●          |      |     | ●    | ▲             | ▲      | ▲       |
| DDR2              | UDIMM                        |      |       |            |      |     |      | ▲             | ▲      | ▲       |
|                   | SODIMM                       | ●    |       |            |      |     |      | ▲             | ▲      | ▲       |
|                   | ECC UDIMM                    |      |       | ●          |      |     | ●    | ▲             | ▲      | ▲       |
| DDR1              | UDIMM                        |      |       |            |      |     |      | ▲             | ▲      | ▲       |
|                   | SODIMM                       |      |       |            |      |     |      | ▲             | ▲      | ▲       |
| SDRAM             | SODIMM                       |      |       |            |      |     |      | ▲             | ▲      | ▲       |

# 記憶體模組



## CXL 記憶體解決方案

| Model Name            | CXL Memory Module         | CXL AIC                   |
|-----------------------|---------------------------|---------------------------|
| CXL Compliance        | CXL 1.1 & CXL 2.0         | CXL 1.1 & CXL 2.0         |
| CXL Protocol          | Type 3 (CXL.mem & CXL.io) | Type 3 (CXL.mem & CXL.io) |
| Interface             | PCIe Gen 5 x8             | PCIe Gen 5 x8             |
| DRAM IC Generation    | DDR5                      | DDR5                      |
| Form Factor           | E3.S 2T                   | PCIe HHHL                 |
| Connector             | EDSFF 2C (84 pin)         | PCIe 5.0 *8 Connector     |
| Density               | 64GB                      | up to 256GB               |
| Operation Temperature | 0°C ~ 70°C                | 0°C ~ 70°C                |



## DDR5 記憶體模組

| Module Type           | DDR5 MRDIMM                          | LPDDR5X CAMM2  | DDR5 CAMM2                | DDR5 CUDIMM                       |
|-----------------------|--------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------|
| Speed                 | 8800MT/s (Gen 1), 12800 MT/s (Gen 2) | 8533 MT/s                                                                                         | 6400 MT/s                 | 6400 MT/s, 7200 MT/s              |
| Density               | 32GB, 64GB, 96GB                     | 32GB, 64GB                                                                                        | 32GB, 64GB                | 8GB, 16GB, 24GB, 32GB, 48GB, 64GB |
| Function              | Registered Memory with ECC           | Non-ECC Unbuffered Memory                                                                         | Non-ECC Unbuffered Memory | Non-ECC Unbuffered Memory         |
| Pin Number            | 287pin                               | 666pin                                                                                            | 644pin                    | 288pin                            |
| Bus Width             | x80                                  | x128                                                                                              | x128                      | x64                               |
| Voltage               | 1.1V                                 | 1.05V                                                                                             | 1.1V                      | 1.1V                              |
| PCB Height            | 1.23 Inches                          | 1.30 Inches                                                                                       | 1.57 Inches               | 1.23 Inches                       |
| Operating Temperature | 0°C ~ 95°C (Tc)                      | 0°C ~ 85°C (Tc)                                                                                   | 0°C ~ 95°C (Tc)           | 0°C ~ 95°C (Tc)                   |

| Module Type           | DDR5 CSODIMM                      | DDR5 UDIMM                  | DDR5 SODIMM                 | DDR5 ECC UDIMM         |
|-----------------------|-----------------------------------|-----------------------------|-----------------------------|------------------------|
| Speed                 | 6400MT/s, 7200 MT/s               | 4800 MT/s, 5600 MT/s        | 4800 MT/s, 5600 MT/s        | 4800 MT/s, 5600 MT/s   |
| Density               | 8GB, 16GB, 24GB, 32GB, 48GB, 64GB | 8GB, 16GB, 24GB, 32GB, 48GB | 8GB, 16GB, 24GB, 32GB, 48GB | 16GB, 24GB, 32GB, 48GB |
| Function              | Non-ECC Unbuffered Memory         | Non-ECC Unbuffered Memory   | Non-ECC Unbuffered Memory   | ECC Unbuffered Memory  |
| Pin Number            | 262pin                            | 288pin                      | 262pin                      | 288pin                 |
| Bus Width             | x64                               | x64                         | x64                         | x72                    |
| Voltage               | 1.1V                              | 1.1V                        | 1.1V                        | 1.1V                   |
| PCB Height            | 1.18 Inches                       | 1.23 Inches                 | 1.18 Inches                 | 1.23 Inches            |
| Operating Temperature | 0°C ~ 95°C (Tc)                   | 0°C ~ 95°C (Tc)             | 0°C ~ 95°C (Tc)             | 0°C ~ 95°C (Tc)        |

| Module Type           | DDR5 ECC SODIMM        | DDR5 RDIMM                                | DDR5 SORDIMM                  | DDR5 UDIMM ULP            |
|-----------------------|------------------------|-------------------------------------------|-------------------------------|---------------------------|
| Speed                 | 4800 MT/s, 5600 MT/s   | 4800 MT/s, 5600MT/s, 6400MT/s, 7200 MT/s  | 4800 MT/s, 5600MT/s, 6400MT/s | 4800 MT/s, 5600 MT/s      |
| Density               | 16GB, 24GB, 32GB, 48GB | 16GB, 24GB, 32GB, 48GB, 64GB, 96GB, 128GB | 16GB, 24GB, 32GB              | 16GB, 32GB                |
| Function              | ECC Unbuffered Memory  | Registered Memory with ECC                | Registered Memory with ECC    | Non-ECC Unbuffered Memory |
| Pin Number            | 262pin                 | 288pin                                    | 262pin                        | 288pin                    |
| Bus Width             | x72                    | x80                                       | x80                           | x64                       |
| Voltage               | 1.1V                   | 1.1V                                      | 1.1V                          | 1.1V                      |
| PCB Height            | 1.18 Inches            | 1.23 Inches                               | 1.18 Inches                   | 0.7 Inches                |
| Operating Temperature | 0°C ~ 95°C (Tc)        | 0°C ~ 95°C (Tc)                           | 0°C ~ 95°C (Tc)               | 0°C ~ 95°C (Tc)           |

| Module Type           | DDR5 ECC UDIMM VLP    | DDR5 RDIMM VLP                 | DDR5 UDIMM WT               | DDR5 SODIMM WT              |
|-----------------------|-----------------------|--------------------------------|-----------------------------|-----------------------------|
| Speed                 | 4800 MT/s, 5600 MT/s  | 4800 MT/s, 5600 MT/s, 6400MT/s | 4800 MT/s, 5600 MT/s        | 4800 MT/s, 5600 MT/s        |
| Density               | 16GB, 32GB            | 16GB, 24GB, 32GB, 48GB, 64GB   | 8GB, 16GB, 24GB, 32GB, 48GB | 8GB, 16GB, 24GB, 32GB, 48GB |
| Function              | ECC Unbuffered Memory | Registered Memory with ECC     | Non-ECC Unbuffered Memory   | Non-ECC Unbuffered Memory   |
| Pin Number            | 288pin                | 288pin                         | 288pin                      | 262pin                      |
| Bus Width             | x72                   | x80                            | x64                         | x64                         |
| Voltage               | 1.1V                  | 1.1V                           | 1.1V                        | 1.1V                        |
| PCB Height            | 0.738 Inches          | 0.738 Inches                   | 1.23 Inches                 | 1.18 Inches                 |
| Operating Temperature | 0°C ~ 95°C (Tc)       | 0°C ~ 95°C (Tc)                | -40°C ~ 95°C (Tc)           | -40°C ~ 95°C (Tc)           |

| Module Type           | DDR5 ECC SODIMM WT     | DDR5 ECC UDIMM WT      | DDR5 RDIMM WT                 | DDR5 UDIMM ULP WT         |
|-----------------------|------------------------|------------------------|-------------------------------|---------------------------|
| Speed                 | 4800 MT/s, 5600 MT/s   | 4800 MT/s, 5600 MT/s   | 4800 MT/s, 5600MT/s, 6400MT/s | 4800 MT/s, 5600MT/s       |
| Density               | 16GB, 24GB, 32GB, 48GB | 16GB, 24GB, 32GB, 48GB | 16GB, 24GB, 32GB, 48GB        | 16GB, 32GB                |
| Function              | ECC Unbuffered Memory  | ECC Unbuffered Memory  | Registered Memory with ECC    | Non-ECC Unbuffered Memory |
| Pin Number            | 262pin                 | 288pin                 | 288pin                        | 288pin                    |
| Bus Width             | x72                    | x72                    | x80                           | x64                       |
| Voltage               | 1.1V                   | 1.1V                   | 1.1V                          | 1.1V                      |
| PCB Height            | 1.18 Inches            | 1.23 Inches            | 1.23 Inches                   | 0.7 Inches                |
| Operating Temperature | -40°C ~ 95°C (Tc)      | -40°C ~ 95°C (Tc)      | -40°C ~ 95°C (Tc)             | -40°C ~ 95°C (Tc)         |

| Module Type           | DDR5 ECC UDIMM VLP WT | DDR5 RDIMM VLP WT               | DDR5 SODIMM Ultra Temperature | DDR5 UDIMM Ultra Temperature |
|-----------------------|-----------------------|---------------------------------|-------------------------------|------------------------------|
| Speed                 | 4800 MT/s, 5600 MT/s  | 4800 MT/s, 5600 MT/s, 6400 MT/s | 4800 MT/s, 5600 MT/s          | 4800 MT/s, 5600 MT/s         |
| Density               | 16GB, 32GB            | 32GB                            | 8GB, 16GB, 32GB               | 16GB, 32GB                   |
| Function              | ECC Unbuffered Memory | Registered Memory with ECC      | Non-ECC Unbuffered Memory     | Non-ECC Unbuffered Memory    |
| Pin Number            | 288pin                | 288pin                          | 262pin                        | 288pin                       |
| Bus Width             | x72                   | x80                             | x64                           | x64                          |
| Voltage               | 1.1V                  | 1.1V                            | 1.1V                          | 1.1V                         |
| PCB Height            | 0.738 Inches          | 0.738 Inches                    | 1.18 Inches                   | 1.23 Inches                  |
| Operating Temperature | -40°C ~ 95°C (Tc)     | -40°C ~ 95°C (Tc)               | -40°C ~ 105°C                 | -40°C ~ 105°C                |



## DDR4 記憶體模組

| Module Type           | DDR4 UDIMM                                            | DDR4 SODIMM                                           | DDR4 ECC UDIMM                                        | DDR4 ECC SODIMM                                       |
|-----------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| Speed                 | 2133 MT/s, 2400 MT/s, 2666 MT/s, 2933 MT/s, 3200 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s, 2933 MT/s, 3200 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s, 2933 MT/s, 3200 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s, 2933 MT/s, 3200 MT/s |
| Density               | 4GB, 8GB, 16GB, 32GB                                  | 2GB, 4GB, 8GB, 16GB, 32GB                             | 4GB, 8GB, 16GB, 32GB                                  | 2GB, 4GB, 8GB, 16GB, 32GB                             |
| Function              | Non-ECC Unbuffered Memory                             | Non-ECC Unbuffered Memory                             | ECC Unbuffered Memory                                 | ECC Unbuffered Memory                                 |
| Pin Number            | 288pin                                                | 260pin                                                | 288pin                                                | 260pin                                                |
| Bus Width             | x64                                                   | x64                                                   | x72                                                   | x72                                                   |
| Voltage               | 1.2V                                                  | 1.2V                                                  | 1.2V                                                  | 1.2V                                                  |
| PCB Height            | 1.23 Inches                                           | 1.18 Inches                                           | 1.23 Inches                                           | 1.18 Inches                                           |
| Operating Temperature | 0°C ~ 95°C (Tc)                                       | 0°C ~ 95°C (Tc)                                       | 0°C ~ 95°C (Tc)                                       | 0°C ~ 95°C (Tc)                                       |

| Module Type           | DDR4 RDIMM                                            | DDR4 UDIMM VLP                  | DDR4 SODIMM VLP                 | DDR4 ECC UDIMM VLP                                    |
|-----------------------|-------------------------------------------------------|---------------------------------|---------------------------------|-------------------------------------------------------|
| Speed                 | 2133 MT/s, 2400 MT/s, 2666 MT/s, 2933 MT/s, 3200 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s, 2933 MT/s, 3200 MT/s |
| Density               | 4GB, 8GB, 16GB, 32GB, 64GB, 128GB                     | 4GB, 8GB, 16GB                  | 4GB, 8GB                        | 4GB, 8GB, 16GB, 32GB                                  |
| Function              | Registered Memory with ECC                            | Non-ECC Unbuffered Memory       | Non-ECC Unbuffered Memory       | ECC Unbuffered Memory                                 |
| Pin Number            | 288pin                                                | 288pin                          | 260pin                          | 288pin                                                |
| Bus Width             | x72                                                   | x64                             | x64                             | x72                                                   |
| Voltage               | 1.2V                                                  | 1.2V                            | 1.2V                            | 1.2V                                                  |
| PCB Height            | 1.23 Inches                                           | 0.738 Inches                    | 0.7 Inches                      | 0.738 Inches                                          |
| Operating Temperature | 0°C ~ 95°C (Tc)                                       | 0°C ~ 95°C (Tc)                 | 0°C ~ 95°C (Tc)                 | 0°C ~ 95°C (Tc)                                       |

| Module Type           | DDR4 ECC SODIMM VLP             | DDR4 Mini ECC VLP               | DDR4 RDIMM VLP                                        | DDR4 Mini RDIMM VLP         |
|-----------------------|---------------------------------|---------------------------------|-------------------------------------------------------|-----------------------------|
| Speed                 | 2133 MT/s, 2400 MT/s, 2666 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s, 2933 MT/s, 3200 MT/s | 2133MT/s,2400 MT/s,2666MT/s |
| Density               | 4GB, 8GB                        | 4GB, 8GB, 16GB, 32GB            | 4GB, 8GB, 16GB, 32GB                                  | 4GB, 8GB,16GB               |
| Function              | ECC Unbuffered Memory           | ECC Unbuffered Memory           | Registered Memory with ECC                            | Registered Memory with ECC  |
| Pin Number            | 260pin                          | 288pin                          | 288pin                                                | 288pin                      |
| Bus Width             | x72                             | x72                             | x72                                                   | x72                         |
| Voltage               | 1.2V                            | 1.2V                            | 1.2V                                                  | 1.2V                        |
| PCB Height            | 0.7 Inches                      | 0.738 Inches                    | 0.738 Inches                                          | 0.738 Inches                |
| Operating Temperature | 0°C ~ 95°C (Tc)                 | 0°C ~ 95°C (Tc)                 | 0°C ~ 95°C (Tc)                                       | 0°C ~ 95°C (Tc)             |

| Module Type           | DDR4 XR-DIMM          | DDR4 UDIMM WT                              | DDR4 SODIMM WT                             | DDR4 ECC UDIMM WT                          |
|-----------------------|-----------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| Speed                 | 2400 MT/s,2666 MT/s   | 2133 MT/s, 2400 MT/s, 2666 MT/s, 3200 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s, 3200 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s, 3200 MT/s |
| Density               | 8GB, 16GB             | 4GB, 8GB, 16GB, 32GB                       | 4GB, 8GB, 16GB, 32GB                       | 4GB, 8GB, 16GB, 32GB                       |
| Function              | ECC Unbuffered Memory | Non-ECC Unbuffered Memory                  | Non-ECC Unbuffered Memory                  | ECC Unbuffered Memory                      |
| Pin Number            | 300pin                | 288pin                                     | 260pin                                     | 288pin                                     |
| Bus Width             | x72                   | x64                                        | x64                                        | x72                                        |
| Voltage               | 1.2V                  | 1.2V                                       | 1.2V                                       | 1.2V                                       |
| PCB Height            | 1.18 Inches           | 1.23 Inches                                | 1.18 Inches                                | 1.23 Inches                                |
| Operating Temperature | 0°C ~ 95°C (Tc)       | -40°C ~ 95°C (Tc)                          | -40°C ~ 95°C (Tc)                          | -40°C ~ 95°C (Tc)                          |

| Module Type           | DDR4 ECC SODIMM WT                         | DDR4 RDIMM WT                              | DDR4 UDIMM VLP WT         | DDR4 ECC UDIMM VLP                                    |
|-----------------------|--------------------------------------------|--------------------------------------------|---------------------------|-------------------------------------------------------|
| Speed                 | 2133 MT/s, 2400 MT/s, 2666 MT/s, 3200 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s, 3200 MT/s | 2400 MT/s                 | 2133 MT/s, 2400 MT/s, 2666 MT/s, 2933 MT/s, 3200 MT/s |
| Density               | 4GB, 8GB, 16GB, 32GB                       | 4GB, 8GB, 16GB, 32GB, 64GB, 128GB          | 8GB, 16GB                 | 8GB, 16GB, 32GB                                       |
| Function              | ECC Unbuffered Memory                      | Registered Memory with ECC                 | Non-ECC Unbuffered Memory | ECC Unbuffered Memory                                 |
| Pin Number            | 260pin                                     | 288pin                                     | 288pin                    | 288pin                                                |
| Bus Width             | x72                                        | x72                                        | x64                       | x72                                                   |
| Voltage               | 1.2V                                       | 1.2V                                       | 1.2V                      | 1.2V                                                  |
| PCB Height            | 1.18 Inches                                | 1.23 Inches                                | 0.738 Inches              | 0.738 Inches                                          |
| Operating Temperature | -40°C ~ 95°C (Tc)                          | -40°C ~ 95°C (Tc)                          | -40°C ~ 95°C (Tc)         | -40°C ~ 95°C (Tc)                                     |

| Module Type           | DDR4 ECC SODIMM VLP WT                     | DDR4 RDIMM VLP WT                          | DDR4 Rugged DIMM          |
|-----------------------|--------------------------------------------|--------------------------------------------|---------------------------|
| Speed                 | 2133 MT/s, 2400 MT/s, 2666 MT/s, 3200 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s, 3200 MT/s | 2400 MT/s                 |
| Density               | 8GB                                        | 4GB, 8GB, 16GB, 32GB                       | 16GB                      |
| Function              | ECC Unbuffered Memory                      | Registered Memory with ECC                 | Non-ECC Unbuffered Memory |
| Pin Number            | 260pin                                     | 288pin                                     | 260pin                    |
| Bus Width             | x72                                        | x72                                        | x64                       |
| Voltage               | 1.2V                                       | 1.2V                                       | 1.2V                      |
| PCB Height            | 0.7 Inches                                 | 0.738 Inches                               | 1.18 Inches               |
| Operating Temperature | -40°C ~ 95°C (Tc)                          | -40°C ~ 95°C (Tc)                          | -40°C ~ 95°C (Tc)         |

| Module Type           | DDR4 SODIMM Ultra Temperature                         | DDR4 ECC SODIMM Ultra Temperature                     |
|-----------------------|-------------------------------------------------------|-------------------------------------------------------|
| Speed                 | 2133 MT/s, 2400 MT/s, 2666 MT/s, 2933 MT/s, 3200 MT/s | 2133 MT/s, 2400 MT/s, 2666 MT/s, 2933 MT/s, 3200 MT/s |
| Density               | 8GB, 16GB, 32GB                                       | 8GB, 16GB, 32GB                                       |
| Function              | Non-ECC Unbuffered Memory                             | ECC Unbuffered Memory                                 |
| Pin Number            | 260pin                                                | 260pin                                                |
| Bus Width             | x64                                                   | x72                                                   |
| Voltage               | 1.2V                                                  | 1.2V                                                  |
| PCB Height            | 1.18 Inches                                           | 1.18 Inches                                           |
| Operating Temperature | -40°C ~ 125°C (Tc)                                    | -40°C ~ 125°C (Tc)                                    |



### DDR3 記憶體模組

| Module Type           | DDR3 UDIMM                                 | DDR3 SODIMM                                | DDR3 ECC UDIMM                             | DDR3 ECC SODIMM                            | DDR3 RDIMM                      |
|-----------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|---------------------------------|
| Speed                 | 1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s | 1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s | 1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s | 1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s | 1333 MT/s, 1600 MT/s, 1866 MT/s |
| Density               | 2GB, 4GB, 8GB                              | 1GB, 2GB, 4GB, 8GB                         | 2GB, 4GB, 8GB                              | 2GB, 4GB, 8GB                              | 2GB, 4GB, 8GB                   |
| Function              | Non-ECC Unbuffered Memory                  | Non-ECC Unbuffered Memory                  | ECC Unbuffered Memory                      | ECC Unbuffered Memory                      | Registered Memory with ECC      |
| Pin Number            | 240pin                                     | 204pin                                     | 240pin                                     | 204pin                                     | 240pin                          |
| Bus Width             | x64                                        | x64                                        | x72                                        | x72                                        | x72                             |
| Voltage               | 1.5V, 1.35V                                | 1.5V, 1.35V                                | 1.5V, 1.35V                                | 1.5V, 1.35V                                | 1.5V, 1.35V                     |
| PCB Height            | 1.18 Inches                                | 1.18 Inches                                | 1.18 Inches                                | 1.18 Inches                                | 1.18 Inches                     |
| Operating Temperature | 0°C ~ 85°C                                 | 0°C ~ 85°C                                 | 0°C ~ 85°C                                 | 0°C ~ 85°C                                 | 0°C ~ 85°C                      |

| Module Type           | DDR3 UDIMM WT                              | DDR3 SODIMM WT                             | DDR3 ECC UDIMM WT                          | DDR3 ECC SODIMM WT                         |
|-----------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| Speed                 | 1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s | 1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s | 1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s | 1066 MT/s, 1333 MT/s, 1600 MT/s, 1866 MT/s |
| Density               | 2GB, 4GB, 8GB                              | 2GB, 4GB, 8GB                              | 2GB, 4GB, 8GB                              | 2GB, 4GB, 8GB                              |
| Function              | Non-ECC Unbuffered Memory                  | Non-ECC Unbuffered Memory                  | ECC Unbuffered Memory                      | ECC Unbuffered Memory                      |
| Pin Number            | 240pin                                     | 204pin                                     | 240pin                                     | 204pin                                     |
| Bus Width             | x64                                        | x64                                        | x72                                        | x72                                        |
| Voltage               | 1.5V, 1.35V                                | 1.5V, 1.35V                                | 1.5V, 1.35V                                | 1.5V, 1.35V                                |
| PCB Height            | 1.18 Inches                                | 1.18 Inches                                | 1.18 Inches                                | 1.18 Inches                                |
| Operating Temperature | -40°C ~ 85°C                               | -40°C ~ 85°C                               | -40°C ~ 85°C                               | -40°C ~ 85°C                               |

## DDR2 記憶體模組

| Module Type           | DDR2 UDIMM                   | DDR2 SODIMM                  | DDR2 ECC UDIMM        | DDR2 SODIMM WT               |
|-----------------------|------------------------------|------------------------------|-----------------------|------------------------------|
| Speed                 | 533 MT/s, 667 MT/s, 800 MT/s | 533 MT/s, 667 MT/s, 800 MT/s | 667 MT/s, 800 MT/s    | 533 MT/s, 667 MT/s, 800 MT/s |
| Density               | 1GB, 2GB                     | 512MB, 1GB, 2GB              | 1GB, 2GB              | 1GB, 2GB                     |
| Function              | Non-ECC Unbuffered Memory    | Non-ECC Unbuffered Memory    | ECC Unbuffered Memory | Non-ECC Unbuffered Memory    |
| Pin Number            | 240pin                       | 200pin                       | 240pin                | 200pin                       |
| Bus Width             | x64                          | x64                          | x72                   | x64                          |
| Voltage               | 1.8V                         | 1.8V                         | 1.8V                  | 1.8V                         |
| PCB Height            | 1.18 Inches                  | 1.18 Inches                  | 1.18 Inches           | 1.18 Inches                  |
| Operating Temperature | 0°C ~ 85°C                   | 0°C ~ 85°C                   | 0°C ~ 85°C            | -40°C ~ 85°C                 |

## DDR1 記憶體模組

| Module Type           | DDR1 UDIMM                | DDR1 SODIMM               |
|-----------------------|---------------------------|---------------------------|
| Speed                 | 333 MT/s, 400 MT/s        | 333 MT/s, 400 MT/s        |
| Density               | 512MB, 1GB                | 256MB, 512MB, 1GB         |
| Function              | Non-ECC Unbuffered Memory | Non-ECC Unbuffered Memory |
| Pin Number            | 184pin                    | 200pin                    |
| Bus Width             | x64                       | x64                       |
| Voltage               | 2.6V                      | 2.6V                      |
| PCB Height            | 1.16 inches               | 1.25 Inches               |
| Operating Temperature | 0°C ~ 70°C                | 0°C ~ 70°C                |

## SDRAM 記憶體模組

| Module Type           | SDRAM SODIMM              |
|-----------------------|---------------------------|
| Speed                 | 100 MT/s, 133 MT/s        |
| Density               | 128MB, 256MB, 512MB       |
| Function              | Non-ECC Unbuffered Memory |
| Pin Number            | 144pin                    |
| Bus Width             | x64                       |
| Voltage               | 3.3V                      |
| PCB Height            | 1.25 Inches               |
| Operating Temperature | 0°C ~ 70°C                |



# FLASH 儲存裝置



## PCIe - M.2

| Model name                    | M.2 (P30) 4TE2                        |                                       | M.2 (P30) 4IE2                        | M.2 (P30) 4TE3                        | M.2 (P30) 4IE3                        |
|-------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Connector                     | M Key                                 | A+E Key                               | M Key                                 | M Key                                 | M Key                                 |
| Interface                     | PCIe Gen 4 x4                         | PCIe Gen 3 x2                         | PCIe Gen 4 x4                         | PCIe Gen 4 x4                         | PCIe Gen 4 x4                         |
| Flash Type                    | 3D TLC                                | 3D TLC                                | iSLC (3D TLC)                         | 3D TLC                                | iSLC (3D TLC)                         |
| Capacity                      | 128GB ~ 1TB                           | 128GB ~ 1TB                           | 40GB ~ 320GB                          | 128GB ~ 1TB                           | 40GB ~ 160GB                          |
| Max. Channel                  | 2                                     | 2                                     | 2                                     | 2                                     | 2                                     |
| Sequential R/W (MB/sec, max.) | 1750/1550                             | 1750/1550                             | 1750/1550                             | 1800/1450                             | 1800/1450                             |
| Max. Power consumption        | 3.1W                                  | 3.1W                                  | 4.1W                                  | 3.1W                                  | 3.3W                                  |
| External DRAM Buffer          | N                                     |                                       | N                                     | N                                     | N                                     |
| iData Guard                   | Y                                     |                                       | Y                                     | Y                                     | Y                                     |
| iPower Guard                  | Y                                     |                                       | Y                                     | N                                     | N                                     |
| PLP (iCell)                   | N                                     |                                       | N                                     | N                                     | N                                     |
| AES                           | Y                                     |                                       | Y                                     | Y                                     | Y                                     |
| TCG Opal                      | Y                                     |                                       | Y                                     | Y                                     | Y                                     |
| S.M.A.R.T.                    | Y                                     |                                       | Y                                     | Y                                     | Y                                     |
| Dimension (WxLxH/mm)          | ST: 22 x 30 x 3.5<br>WT: 25 x 30 x 15 | ST: 22 x 30 x 3.5<br>WT: 25 x 30 x 15 | ST: 22 x 30 x 3.5<br>WT: 25 x 30 x 15 | ST: 22 x 30 x 3.5<br>WT: 25 x 30 x 15 | ST: 22 x 30 x 3.5<br>WT: 25 x 30 x 15 |

| Model name                    | M.2 (P42) 3TE4                       |               | M.2 (P42) 3TE8                          |               | M.2 (P42) 3IE8                          |               |
|-------------------------------|--------------------------------------|---------------|-----------------------------------------|---------------|-----------------------------------------|---------------|
| Connector                     | M Key                                | B+M Key       | M Key                                   | B+M Key       | M Key                                   | B+M Key       |
| Interface                     | PCIe Gen 3 x4                        | PCIe Gen 3 x2 | PCIe Gen 3 x4                           | PCIe Gen 3 x2 | PCIe Gen 3 x4                           | PCIe Gen 3 x2 |
| Flash Type                    | 3D TLC                               |               | 3D TLC                                  |               | iSLC (3D TLC)                           |               |
| Capacity                      | 128GB ~ 1TB                          |               | 128GB ~ 1TB                             |               | 40GB ~ 320GB                            |               |
| Max. Channel                  | 4                                    |               | 4                                       |               | 4                                       |               |
| Sequential R/W (MB/sec, max.) | 2600/1800                            | 1750/1500     | 3350/2600                               | 1750/1650     | 3350/1950                               | 1750/1650     |
| Max. Power consumption        | 4.0W                                 | 3.3W          | 4.2W                                    | 3.0W          | 4.1W                                    | 3.1W          |
| External DRAM Buffer          | N                                    |               | N                                       |               | N                                       |               |
| iData Guard                   | N                                    |               | Y                                       |               | Y                                       |               |
| iPower Guard                  | Y                                    |               | Y                                       |               | Y                                       |               |
| PLP (iCell)                   | N                                    |               | N                                       |               | N                                       |               |
| AES                           | Y                                    |               | Y                                       |               | Y                                       |               |
| TCG Opal                      | Y                                    |               | Y                                       |               | Y                                       |               |
| S.M.A.R.T.                    | Y                                    |               | Y                                       |               | Y                                       |               |
| Dimension (WxLxH/mm)          | ST: 22 x 42 x 3<br>WT: 22 x 42 x 3.6 |               | ST: 22 x 42 x 2.8<br>WT: 25 x 42 x 14.5 |               | ST: 22 x 42 x 2.8<br>WT: 25 x 42 x 14.5 |               |

| Model name                       | M.2 (P42) 4TE2                          |                                       | M.2 (P42) 4IE2                          | M.2 (P42) 4TE3                          | M.2 (P42) 4IE3                          |
|----------------------------------|-----------------------------------------|---------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|
| Connector                        | M Key                                   | M Key                                 | M Key                                   | M Key                                   | M Key                                   |
| Interface                        | PCIe Gen 4 x4                           | PCIe Gen 3 x4                         | PCIe Gen 4 x4                           | PCIe Gen 4 x4                           | PCIe Gen 4 x4                           |
| Flash Type                       | 3D TLC                                  | 3D TLC                                | iSLC (3D TLC)                           | 3D TLC                                  | iSLC (3D TLC)                           |
| Capacity                         | 128GB ~ 2TB                             | 4TB                                   | 40GB ~ 640GB                            | 128GB ~ 2TB                             | 40GB ~ 640GB                            |
| Max. Channel                     | 4                                       | 4                                     | 4                                       | 4                                       | 4                                       |
| Sequential R/W<br>(MB/sec, max.) | 3550/2950                               | 3500/3100                             | 3550/2950                               | 3600/3150                               | 3500/3000                               |
| Max. Power consumption           | 5.0W                                    | 5.1W                                  | 4.8W                                    | 4.8W                                    | 4.8W                                    |
| External DRAM Buffer             | N                                       | N                                     | N                                       | N                                       | N                                       |
| iData Guard                      | Y                                       | Y                                     | Y                                       | Y                                       | Y                                       |
| iPower Guard                     | Y                                       | Y                                     | Y                                       | Y                                       | Y                                       |
| PLP (iCell)                      | Y                                       | N                                     | N                                       | N                                       | N                                       |
| AES                              | Y                                       | Y                                     | Y                                       | Y                                       | Y                                       |
| TCG Opal                         | Y                                       | Y                                     | Y                                       | Y                                       | Y                                       |
| S.M.A.R.T.                       | Y                                       | Y                                     | Y                                       | Y                                       | Y                                       |
| Dimension<br>(WxLxH/mm)          | ST: 22 x 42 x 3.5<br>WT: 25 x 42 x 14.5 | ST: 22 x 42 x 6<br>WT: 25 x 42 x 14.5 | ST: 22 x 42 x 3.5<br>WT: 25 x 42 x 14.5 | ST: 22 x 42 x 3.5<br>WT: 25 x 42 x 14.5 | ST: 22 x 42 x 3.5<br>WT: 25 x 42 x 14.5 |

| Model name                       | M.2 (P80) 3TE4                       |               | M.2 (P80) 3TE8                          |               | M.2 (P80) 3IE8                          |               |
|----------------------------------|--------------------------------------|---------------|-----------------------------------------|---------------|-----------------------------------------|---------------|
| Connector                        | M Key                                | B+M Key       | M Key                                   | B+M Key       | M Key                                   | B+M Key       |
| Interface                        | PCIe Gen 3 x4                        | PCIe Gen 3 x2 | PCIe Gen 3 x4                           | PCIe Gen 3 x2 | PCIe Gen 3 x4                           | PCIe Gen 3 x2 |
| Flash Type                       | 3D TLC                               |               | 3D TLC                                  |               | 3D TLC                                  |               |
| Capacity                         | 128GB ~ 2TB                          |               | 128GB ~ 2TB                             |               | 40GB ~ 640GB                            |               |
| Max. Channel                     | 4                                    |               | 4                                       |               | 4                                       |               |
| Sequential R/W<br>(MB/sec, max.) | 2600/1800                            | 1750/1500     | 3400/2750                               | 1750 / 1650   | 3400/2850                               | 1750/1700     |
| Max. Power consumption           | 4.0W                                 | 3.4W          | 4.3W                                    | 3.0W          | 4.6W                                    | 3.1W          |
| External DRAM Buffer             | N                                    |               | N                                       | N             | N                                       | N             |
| iData Guard                      | N                                    |               | Y                                       | Y             | Y                                       | Y             |
| iPower Guard                     | Y                                    |               | Y                                       | N             | Y                                       | N             |
| PLP (iCell)                      | N                                    |               | N                                       | N             | N                                       | N             |
| AES                              | Y                                    |               | Y                                       | Y             | Y                                       | Y             |
| TCG Opal                         | Y                                    |               | Y                                       | Y             | Y                                       | Y             |
| S.M.A.R.T.                       | Y                                    |               | Y                                       | Y             | Y                                       | Y             |
| Dimension<br>(WxLxH/mm)          | ST: 22 x 80 x 3<br>WT: 22 x 80 x 3.6 |               | ST: 22 x 80 x 2.1<br>WT: 25 x 80 x 14.5 |               | ST: 22 x 80 x 2.1<br>WT: 25 x 80 x 14.5 |               |

| Model name                       | InnoOSR M.2 (P80) 3TO8 | M.2 (P80) 4TE2                          | M.2 (P80) 4IE2                          | M.2 (P80) 4TE3                          | M.2 (P80) 4IE3                          |
|----------------------------------|------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|
| Connector                        | M Key                  | M Key                                   | M Key                                   | M Key                                   | M Key                                   |
| Interface                        | PCIe Gen 3 x4          | PCIe Gen 4 x4                           | PCIe Gen 4 x4                           | PCIe Gen 4 x4                           | PCIe Gen 4 x4                           |
| Flash Type                       | 3D TLC                 | 3D TLC                                  | iSLC (3D TLC)                           | 3D TLC                                  | iSLC (3D TLC)                           |
| Capacity                         | 128GB ~ 2TB            | 128GB ~ 2TB                             | 40GB ~ 640GB                            | 128GB ~ 2TB                             | 40GB ~ 640GB                            |
| Max. Channel                     | 4                      | 4                                       | 4                                       | 4                                       | 4                                       |
| Sequential R/W<br>(MB/sec, max.) | 3550/2700              | 3550/3300                               | 3550/3300                               | 3700/3300                               | 3700/3200                               |
| Max. Power consumption           | 5.8W                   | 5.4W                                    | 5.1W                                    | 4.8W                                    | 4.8W                                    |
| External DRAM Buffer             | N                      | N                                       | N                                       | N                                       | N                                       |
| iData Guard                      | Y                      | Y                                       | Y                                       | Y                                       | Y                                       |
| iPower Guard                     | Y                      | Y                                       | Y                                       | Y                                       | Y                                       |
| PLP (iCell)                      | N                      | Y                                       | Y                                       | Y                                       | Y                                       |
| AES                              | Y                      | Y                                       | Y                                       | Y                                       | Y                                       |
| TCG Opal                         | N                      | Y                                       | Y                                       | Y                                       | Y                                       |
| S.M.A.R.T.                       | Y                      | Y                                       | Y                                       | Y                                       | Y                                       |
| Dimension<br>(WxLxH/mm)          | 22 x 80 x 3.5          | ST: 22 x 80 x 3.8<br>WT: 25 x 80 x 14.4 | ST: 22 x 80 x 3.8<br>WT: 25 x 80 x 14.4 | ST: 22 x 80 x 3.5<br>WT: 25 x 80 x 14.4 | ST: 22 x 80 x 3.5<br>WT: 25 x 80 x 14.4 |

| Model name                       | M.2 (P80) 4TG2-P                      | M.2 (P80) 4TS2-P                        | M.2 (P80) 4IG2-P                      | M.2 (P110) 4TG2-P                       |
|----------------------------------|---------------------------------------|-----------------------------------------|---------------------------------------|-----------------------------------------|
| Connector                        | M Key                                 | M Key                                   | M Key                                 | M Key                                   |
| Interface                        | PCIe Gen 4 x4                         | PCIe Gen 4 x4                           | PCIe Gen 4 x4                         | PCIe Gen 4 x4                           |
| Flash Type                       | 3D TLC                                | 3D TLC                                  | iSLC (3D TLC)                         | 3D TLC                                  |
| Capacity                         | 256GB ~ 4TB                           | 200GB ~ 3.2TB                           | 160GB ~ 1.28TB                        | 512GB ~ 8TB                             |
| Max. Channel                     | 8                                     | 8                                       | 8                                     | 8                                       |
| Sequential R/W<br>(MB/sec, max.) | 6950/4700                             | 6950/4700                               | 6900/4350                             | 7100 /5300                              |
| Max. Power consumption           | 10.2W                                 | 9.5W                                    | 10.2W                                 | 10.6W                                   |
| External DRAM Buffer             | Y                                     | Y                                       | Y                                     | Y                                       |
| iData Guard                      | Y                                     | Y                                       | Y                                     | Y                                       |
| iPower Guard                     | Y                                     | Y                                       | Y                                     | Y                                       |
| PLP (iCell)                      | Y                                     | Y                                       | N                                     | Y                                       |
| AES                              | Y                                     | Y                                       | Y                                     | Y                                       |
| TCG Opal                         | Y                                     | Y                                       | Y                                     | Y                                       |
| S.M.A.R.T.                       | Y                                     | Y                                       | Y                                     | Y                                       |
| Dimension<br>(WxLxH/mm)          | ST: 22 x 80 x 4<br>WT: 25 x 80 x 14.4 | ST: 22.0 x 80 x 4<br>WT: 25 x 80 x 14.4 | ST: 22 x 80 x 4<br>WT: 25 x 80 x 14.4 | ST: 22 x 110 x 4<br>WT: 25 x 110 x 14.4 |

| Model name                       | M.2 (P110) 4TS2-P                       | M.2 (P110) 4IG2-P                       |
|----------------------------------|-----------------------------------------|-----------------------------------------|
| Connector                        | M Key                                   | M Key                                   |
| Interface                        | PCIe Gen 4 x4                           | PCIe Gen 4 x4                           |
| Flash Type                       | 3D TLC                                  | iSLC (3D TLC)                           |
| Capacity                         | 400GB ~ 6.4TB                           | 160GB ~ 2.56TB                          |
| Max. Channel                     | 8                                       | 8                                       |
| Sequential R/W<br>(MB/sec, max.) | 7000/5450                               | 7000/5450                               |
| Max. Power<br>consumption        | 10.5W                                   | 10.5W                                   |
| External DRAM Buffer             | Y                                       | Y                                       |
| iData Guard                      | Y                                       | Y                                       |
| iPower Guard                     | Y                                       | Y                                       |
| PLP (iCell)                      | Y                                       | Y                                       |
| AES                              | Y                                       | Y                                       |
| TCG Opal                         | Y                                       | Y                                       |
| S.M.A.R.T.                       | Y                                       | Y                                       |
| Dimension<br>(WxLxH/mm)          | ST: 22 x 110 x 4<br>WT: 25 x 110 x 14.4 | ST: 22 x 110 x 4<br>WT: 25 x 110 x 14.4 |



## PCIe - U.2

| Model name                       | U.2 SSD 4TG2-P   | U.2 SSD 4TS2-P   | U.2 SSD 4IG2-P   | U.2 SSD 5TG-P     | U.2 SSD 5TS-P     |
|----------------------------------|------------------|------------------|------------------|-------------------|-------------------|
| Interface                        | PCIe Gen 4 x4    | PCIe Gen 4 x4    | PCIe Gen 4 x4    | PCIe Gen 5 x4     | PCIe Gen 5 x4     |
| Flash Type                       | 3D TLC           | 3D TLC           | iSLC (3D TLC)    | 3D TLC            | 3D TLC            |
| Capacity                         | 512GB ~ 16TB     | 400GB ~ 12.8TB   | 160GB ~ 1.28TB   | 2TB ~ 8TB         | 1.92TB ~ 7.68TB   |
| Max. Channel                     | 8                | 8                | 8                | 16                | 16                |
| Sequential R/W<br>(MB/sec, max.) | 7150/6150        | 7150/6100        | 7050/5200        | 14000/10000       | 14000/10000       |
| Max. Power<br>consumption        | 13.5W            | 12.6W            | 12.1W            | 22W               | 22W               |
| External DRAM Buffer             | Y                | Y                | Y                | Y                 | Y                 |
| iData Guard                      | Y                | Y                | Y                | Y                 | Y                 |
| iPower Guard                     | Y                | Y                | Y                | Y                 | Y                 |
| PLP (iCell)                      | Y                | Y                | Y                | Y                 | Y                 |
| AES                              | Y                | Y                | Y                | N                 | Y                 |
| TCG Opal                         | Y                | Y                | Y                | N                 | Y                 |
| S.M.A.R.T.                       | Y                | Y                | Y                | Y                 | Y                 |
| Dimension (WxLxH/mm)             | 100 x 69.8 x 6.9 | 100 x 69.8 x 6.9 | 100 x 69.8 x 6.9 | 100 x 69.8 x 14.8 | 100 x 69.8 x 14.8 |

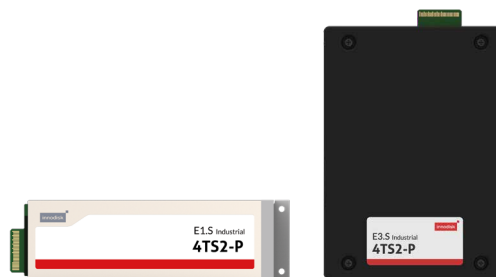


## PCIe - CFexpress

| Model name                       | CFexpress 4TE2    | CFexpress 4TE3    | CFexpress 4IE3    |
|----------------------------------|-------------------|-------------------|-------------------|
| Interface                        | PCIe Gen 3 ×2     | PCIe Gen 3 ×2     | PCIe Gen 3 ×2     |
| Connector                        | 21pin             | 21pin             | 21pin             |
| Flash Type                       | 3D TLC            | 3D TLC            | iSLC (3D TLC)     |
| Capacity                         | 128GB ~ 1TB       | 128GB ~ 2TB       | 40GB ~ 640GB      |
| Max. Channel                     | 4                 | 4                 | 4                 |
| Sequential R/W<br>(MB/sec, max.) | 1750/1650         | 1750/1500         | 1750/1650         |
| Max. Power<br>consumption        | 3.4W              | 3W                | 2.9W              |
| iData Guard                      | Y                 | Y                 | Y                 |
| iPower Guard                     | Y                 | Y                 | Y                 |
| AES                              | Y                 | Y                 | Y                 |
| TCG Opal                         | Y                 | Y                 | Y                 |
| S.M.A.R.T.                       | Y                 | Y                 | Y                 |
| H/W Write Protect                | Y                 | Y                 | Y                 |
| Dimension (WxLxH/mm)             | 29.6 x 38.5 x 3.8 | 29.6 x 38.5 x 3.8 | 29.6 x 38.5 x 3.8 |

| Model name                       | CFexpress 3TE8    | CFexpress 3IE8    |
|----------------------------------|-------------------|-------------------|
| Interface                        | PCIe Gen 3 ×2     | PCIe Gen 3 ×2     |
| Connector                        | 21pin             | 21pin             |
| Flash Type                       | 3D TLC            | iSLC (3D TLC)     |
| Capacity                         | 128GB ~ 1TB       | 40GB ~ 320GB      |
| Max. Channel                     | 4                 | 4                 |
| Sequential R/W<br>(MB/sec, max.) | 1750/1650         | 1750/1650         |
| Max. Power<br>consumption        | 3.2W              | 3.2W              |
| iData Guard                      | Y                 | Y                 |
| iPower Guard                     | Y                 | Y                 |
| AES                              | Y                 | Y                 |
| TCG Opal                         | Y                 | Y                 |
| S.M.A.R.T.                       | Y                 | Y                 |
| H/W Write Protect                | Y                 | Y                 |
| Dimension (WxLxH/mm)             | 29.6 x 38.5 x 3.8 | 29.6 x 38.5 x 3.8 |

## PCIe - EDSFF



| Model name                    | E1.S 4TG2-P                                                                       | E1.S 4TS2-P                                                                       | E3.S 4TS2-P      | E1.S 5TS-P                                                                        | E3.S 5TS-P       |
|-------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------|------------------|
| Interface                     | PCIe Gen 4 ×4                                                                     | PCIe Gen 4 ×4                                                                     | PCIe Gen 4 ×4    | PCIe Gen 5                                                                        | PCIe Gen 5       |
| Flash Type                    | 3D TLC                                                                            | 3D TLC                                                                            | 3D TLC           | 3D TLC                                                                            | 3D TLC           |
| Capacity                      | 512GB ~ 8TB                                                                       | 400GB ~ 6.4TB                                                                     | 400GB ~ 12.8TB   | 1.92TB ~ 7.68TB                                                                   | 1.92TB ~ 7.68TB  |
| Max. Channel                  | 8                                                                                 | 8                                                                                 | 8                | 16                                                                                | 16               |
| Sequential R/W (MB/sec, max.) | 6900/4700                                                                         | 6900/4700                                                                         | 5050/4750        | 14000/10000                                                                       | 14000/10000      |
| Max. Power consumption        | 12W                                                                               | 12W                                                                               | 12W              | <25W                                                                              | <25W             |
| iData Guard                   | Y                                                                                 | Y                                                                                 | Y                | Y                                                                                 | Y                |
| iPower Guard                  | Y                                                                                 | Y                                                                                 | Y                | Y                                                                                 | Y                |
| AES                           | Y                                                                                 | Y                                                                                 | Y                | Y                                                                                 | Y                |
| TCG Opal                      | Y                                                                                 | Y                                                                                 | Y                | Y                                                                                 | Y                |
| S.M.A.R.T.                    | Y                                                                                 | Y                                                                                 | Y                | Y                                                                                 | Y                |
| Dimension (WxLxH/mm)          | 5.9mm: 31.5 x 111.5 x 5.9<br>9.5mm: 33.7 x 118.7 x 9.5<br>15mm: 33.7 x 118.7 x 15 | 5.9mm: 31.5 x 111.5 x 5.9<br>9.5mm: 33.7 x 118.7 x 9.5<br>15mm: 33.7 x 118.7 x 15 | 76 x 112.7 x 7.5 | 5.9mm: 31.5 x 111.5 x 5.9<br>9.5mm: 33.7 x 118.7 x 9.5<br>15mm: 33.7 x 118.7 x 15 | 76 x 112.7 x 7.5 |

## SATA - M.2



| Model name                    | InnoOSR M.2 (S42) 3TO7 | M.2 (S42) 3TEA   | M.2 (S42) 3TE7   | M.2 (S42) 3IE7   | M.2 (S42) 3TEB   |
|-------------------------------|------------------------|------------------|------------------|------------------|------------------|
| Connector                     | B+M Key                | B+M Key          | B+M Key          | B+M Key          | B+M Key          |
| Interface                     | SATA III 6.0Gb/s       | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s |
| Flash Type                    | 3D TLC                 | 3D TLC           | 3D TLC           | iSLC (3D TLC)    | 3D TLC           |
| Capacity                      | 32GB ~ 512GB           | 64GB ~ 2TB       | 32GB ~ 512GB     | 20GB ~ 320GB     | 64GB ~ 2TB       |
| Max. Channel                  | 4                      | 2                | 4                | 4                | 2                |
| Sequential R/W (MB/sec, max.) | 560/330                | 550/500          | 560/330          | 560/530          | 550/510          |
| Max. Power consumption        | 1.6W                   | 1.9W             | 1.6W             | 2.8W             | 1.2W             |
| External DRAM Buffer          | N                      | N                | N                | N                | N                |
| iData Guard                   | Y                      | Y                | Y                | Y                | Y                |
| iPower Guard                  | Y                      | Y                | Y                | Y                | Y                |
| PLP (iCell)                   | N                      | Y                | N                | N                | N                |
| AES                           | N                      | N                | N                | N                | N                |
| TCG Opal                      | N                      | N                | N                | N                | N                |
| S.M.A.R.T.                    | Y                      | Y                | Y                | Y                | Y                |
| Dimension (WxLxH/mm)          | 22 x 42 x 3.5          | 22 x 42 x 3.5    | 22 x 42 x 3.5    | 22 x 42 x 3.5    | 22 x 42 x 3.5    |



| Model name                       | M.2 (S42) 3TG6-P | M.2 (S42) 3SE4   | M.2 (S42) 3ME4   | M.2 (S42) 3IE4   | M.2 (S42) 3SE3   |
|----------------------------------|------------------|------------------|------------------|------------------|------------------|
| Connector                        | B+M Key          | B+M Key          | B+M Key          | B+M Key          | B+M Key          |
| Interface                        | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s |
| Flash Type                       | 3D TLC           | SLC              | MLC              | iSLC (MLC)       | SLC              |
| Capacity                         | 128GB ~ 1TB      | 8GB ~ 64GB       | 8GB ~ 256GB      | 4GB ~ 128GB      | 8GB ~ 32GB       |
| Max. Channel                     | 4                | 2                | 2                | 2                | 4                |
| Sequential R/W<br>(MB/sec, max.) | 560/510          | 520/360          | 530/210          | 530/380          | 210/110          |
| Max. Power consumption           | 2.9W             | 0.6W             | 1.4W             | 0.8W             | 1.2W             |
| External DRAM Buffer             | Y                | N                | N                | N                | N                |
| iData Guard                      | Y                | N                | N                | N                | Y                |
| iPower Guard                     | Y                | Y                | Y                | Y                | N                |
| PLP (iCell)                      | N                | N                | N                | N                | N                |
| AES                              | N                | N                | N                | N                | N                |
| TCG Opal                         | N                | N                | N                | N                | N                |
| S.M.A.R.T.                       | Y                | Y                | Y                | Y                | Y                |
| Dimension (WxLxH/mm)             | 22 x 42 x 3.5    | 22 x 42 x 3.5    | 22 x 42 x 3.2    | 22 x 42 x 3.2    | 22 x 42 x 3.5    |

| Model name                       | M.2 (S42) 3ME3   | M.2 (S42) 3IE3   | M.2 (S42) 3SE2-P | M.2 (S42) 3MG2-P | M.2 (S42) 3IE2-P |
|----------------------------------|------------------|------------------|------------------|------------------|------------------|
| Connector                        | B+M Key          | B+M Key          | B+M Key          | B+M Key          | B+M Key          |
| Interface                        | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s |
| Flash Type                       | MLC              | iSLC (MLC)       | SLC              | MLC              | iSLC (MLC)       |
| Capacity                         | 8GB ~ 128GB      | 8GB ~ 64GB       | 8GB ~ 64GB       | 32GB ~ 256GB     | 16GB ~ 128GB     |
| Max. Channel                     | 2                | 2                | 4                | 4                | 4                |
| Sequential R/W<br>(MB/sec, max.) | 220/80           | 200/80           | 550/330          | 560/340          | 560/450          |
| Max. Power consumption           | 0.8W             | 1.3W             | 1.6W             | 2.6W             | 1.1W             |
| External DRAM Buffer             | N                | N                | Y                | Y                | Y                |
| iData Guard                      | Y                | Y                | Y                | Y                | Y                |
| iPower Guard                     | N                | N                | Y                | Y                | Y                |
| PLP (iCell)                      | N                | N                | N                | N                | N                |
| AES                              | N                | N                | Y                | Y                | Y                |
| TCG Opal                         | N                | N                | Y                | Y                | Y                |
| S.M.A.R.T.                       | Y                | Y                | Y                | Y                | Y                |
| Dimension (WxLxH/mm)             | 22 x 42 x 3.5    | 22 x 42 x 3.5    | 22 x 42 x 3.5    | 22 x 42 x 3.5    | 22 x 42 x 3.5    |

| Model name                       | InnoOSR M.2 (S80) 3TO7 | M.2 (S80) 3TEA   | M.2 (S80) 3TE7   | M.2 (S80) 3IE7   | M.2 (S80) 3TEB   |
|----------------------------------|------------------------|------------------|------------------|------------------|------------------|
| Connector                        | B+M Key                | B+M Key          | B+M Key          | B+M Key          | B+M Key          |
| Interface                        | SATA III 6.0Gb/s       | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s |
| Flash Type                       | 3D TLC                 | 3D TLC           | 3D TLC           | iSLC (3D TLC)    | 3D TLC           |
| Capacity                         | 64GB ~ 2TB             | 64GB ~ 2TB       | 32GB ~ 1TB       | 20GB ~ 640GB     | 64GB ~ 1TB       |
| Max. Channel                     | 4                      | 2                | 4                | 4                | 2                |
| Sequential R/W<br>(MB/sec, max.) | 550/500                | 560/500          | 550/370          | 550/490          | 550/500          |
| Max. Power consumption           | 2.6W                   | 1.9W             | 2.0W             | 2.0W             | 1.2W             |
| External DRAM Buffer             | N                      | N                | N                | N                | N                |
| iData Guard                      | Y                      | Y                | Y                | Y                | Y                |
| iPower Guard                     | Y                      | Y                | Y                | Y                | Y                |
| PLP (iCell)                      | N                      | Y                | N                | N                | N                |
| AES                              | N                      | N                | Y                | Y                | N                |
| TCG Opal                         | N                      | N                | N                | N                | N                |
| S.M.A.R.T.                       | Y                      | Y                | Y                | Y                | Y                |
| Dimension (WxLxH/mm)             | 22 x 80 x 3.5          | 22 x 80 x 3.5    | 22 x 80 x 3.5    | 22 x 80 x 3.5    | 22 x 80 x 3.5    |

| Model name                       | M.2 (S80) 3TS9-P | M.2 (S80) 3TG9-P | M.2 (S80) 3TG6-P | M.2 (S80) 3SE4   | M.2 (S80) 3ME4   |
|----------------------------------|------------------|------------------|------------------|------------------|------------------|
| Connector                        | B+M Key          | B+M Key          | B+M Key          | B+M Key          | B+M Key          |
| Interface                        | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s |
| Flash Type                       | 3D TLC           | 3D TLC           | 3D TLC           | SLC              | MLC              |
| Capacity                         | 240GB ~ 1.92TB   | 4TB              | 128GB ~ 2TB      | 8GB ~ 64GB       | 8GB ~ 256GB      |
| Max. Channel                     | 4                | 4                | 4                | 2                | 2                |
| Sequential R/W<br>(MB/sec, max.) | 550/530          | 500/520          | 560/510          | 520/360          | 530/170          |
| Max. Power consumption           | 2.7W             | 5.5W             | 3.1W             | 1.6W             | 1.3W             |
| External DRAM Buffer             | Y                | Y                | Y                | N                | N                |
| iData Guard                      | Y                | Y                | Y                | N                | N                |
| iPower Guard                     | Y                | Y                | Y                | Y                | Y                |
| PLP (iCell)                      | Y                | N                | Y                | N                | N                |
| AES                              | N                | N                | Y                | N                | N                |
| TCG Opal                         | N                | N                | Y                | N                | N                |
| S.M.A.R.T.                       | Y                | Y                | Y                | Y                | Y                |
| Dimension (WxLxH/mm)             | 22 x 80 x 4.2    | 22 x 80 x 3.5    | 22 x 80 x 3.5    | 22 x 80 x 2.1    | 22 x 80 x 3.2    |

| Model name                       | M.2 (S80) 3IE4   | M.2 (S80) 3SE3   | M.2 (S80) 3SE2-P | M.2 (S80) 3MG2-P |
|----------------------------------|------------------|------------------|------------------|------------------|
| Connector                        | B+M Key          | B+M Key          | B+M Key          | B+M Key          |
| Interface                        | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s |
| Flash Type                       | iSLC (MLC)       | SLC              | SLC              | MLC              |
| Capacity                         | 8GB ~ 128GB      | 32GB ~ 128GB     | 8GB ~ 256GB      | 32GB ~ 1TB       |
| Max. Channel                     | 2                | 4                | 4                | 4                |
| Sequential R/W<br>(MB/sec, max.) | 530/360          | 380/220          | 520/340          | 530/450          |
| Max. Power consumption           | 1.2W             | 2.0W             | 2.2W             | 4.6W             |
| External DRAM Buffer             | N                | N                | Y                | Y                |
| iData Guard                      | N                | Y                | Y                | Y                |
| iPower Guard                     | Y                | N                | Y                | Y                |
| PLP (iCell)                      | N                | N                | Y                | Y                |
| AES                              | N                | N                | Y                | Y                |
| TCG Opal                         | N                | N                | Y                | Y                |
| S.M.A.R.T.                       | Y                | Y                | Y                | Y                |
| Dimension (WxLxH/mm)             | 22 x 80 x 3.2    | 22 x 80 x 3.5    | 22 x 80 x 3.5    | 22 x 80 x 3.5    |

| Model name                       | M.2 (S80) 3IE2-P | M.2 (S30) 3ME4   | M.2 (S60) 3ME3   |
|----------------------------------|------------------|------------------|------------------|
| Connector                        | B+M Key          | B+M Key          | B+M Key          |
| Interface                        | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s |
| Flash Type                       | iSLC (MLC)       | MLC              | MLC              |
| Capacity                         | 32GB ~ 512GB     | 8GB ~ 256GB      | 32GB ~ 512GB     |
| Max. Channel                     | 4                | 2                | 4                |
| Sequential R/W<br>(MB/sec, max.) | 560/450          | 530/170          | 380/200          |
| Max. Power consumption           | 1.4W             | 1.3W             | 1.3W             |
| External DRAM Buffer             | Y                | N                | N                |
| iData Guard                      | Y                | N                | Y                |
| iPower Guard                     | Y                | Y                | N                |
| PLP (iCell)                      | Y                | N                | N                |
| AES                              | Y                | N                | N                |
| TCG Opal                         | Y                | N                | N                |
| S.M.A.R.T.                       | Y                | Y                | Y                |
| Dimension (WxLxH/mm)             | 22 x 80 x 3.5    | 22 x 30 x 3.2    | 22 x 60 x 3.5    |



## SATA - 2.5"SSD

| Model name                       | 2.5" SATA SSD 3TEA | 2.5" SATA SSD 3TE7 | 2.5" SATA SSD 3IE7 |
|----------------------------------|--------------------|--------------------|--------------------|
| Interface                        | SATA III 6.0Gb/s   | SATA III 6.0Gb/s   | SATA III 6.0Gb/s   |
| Flash Type                       | 3D TLC             | 3D TLC             | iSLC (3D TLC)      |
| Capacity                         | 128GB ~ 2TB        | 32GB ~ 1TB         | 20GB ~ 320GB       |
| Max. Channel                     | 2                  | 4                  | 4                  |
| Sequential R/W<br>(MB/sec, max.) | 550/500            | 560/525            | 560/525            |
| Max. Power<br>consumption        | 1.5W               | 3.6W               | 3.6W               |
| External DRAM Buffer             | N                  | N                  | N                  |
| iData Guard                      | Y                  | Y                  | Y                  |
| iPower Guard                     | Y                  | Y                  | Y                  |
| PLP (iCell)                      | Y                  | N                  | N                  |
| AES                              | N                  | Y                  | Y                  |
| TCG Opal                         | N                  | N                  | N                  |
| S.M.A.R.T.                       | Y                  | Y                  | Y                  |
| Dimension (WxLxH/mm)             | 69.8 x 100.1 x 6.9 | 69.8 x 100.1 x 6.9 | 69.8 x 100.1 x 6.9 |

| Model name                       | 2.5" SATA SSD 3TEB | 2.5" SATA SSD 3TG9-P | 2.5" SATA SSD 3TS9-P |
|----------------------------------|--------------------|----------------------|----------------------|
| Interface                        | SATA III 6.0Gb/s   | SATA III 6.0Gb/s     | SATA III 6.0Gb/s     |
| Flash Type                       | 3D TLC             | 3D TLC               | 3D TLC               |
| Capacity                         | 128GB~1TB          | 4TB ~ 8TB            | 240GB ~ 1.92TB       |
| Max. Channel                     | 2                  | 4                    | 4                    |
| Sequential R/W<br>(MB/sec, max.) | 550/500            | 480/530              | 550/530              |
| Max. Power<br>consumption        | 4.4W               | 3.9W                 | 3.7W                 |
| External DRAM Buffer             | N                  | Y                    | Y                    |
| iData Guard                      | Y                  | Y                    | Y                    |
| iPower Guard                     | Y                  | Y                    | Y                    |
| PLP (iCell)                      | N                  | Y                    | Y                    |
| AES                              | N                  | N                    | N                    |
| TCG Opal                         | N                  | N                    | N                    |
| S.M.A.R.T.                       | Y                  | Y                    | Y                    |
| Dimension (WxLxH/mm)             | 69.8 x 100.1 x 6.9 | 69.8 x 100.1 x 6.9   | 69.8 x 100.1 x 6.9   |

| Model name                       | 2.5" SATA SSD 3TG6-P | 2.5" SATA SSD 3TS6-P | 2.5" SATA SSD 3IE6-P | 2.5" SATA SSD 3TV6-P |
|----------------------------------|----------------------|----------------------|----------------------|----------------------|
| Interface                        | SATA III 6.0Gb/s     | SATA III 6.0Gb/s     | SATA III 6.0Gb/s     | SATA III 6.0Gb/s     |
| Flash Type                       | 3D TLC               | 3D TLC               | iSLC (3D TLC)        | 3D TLC               |
| Capacity                         | 128GB ~ 4TB          | 200GB ~ 3.2TB        | 80GB ~ 1.28TB        | 128GB ~ 4TB          |
| Max. Channel                     | 4                    | 4                    | 4                    | 4                    |
| Sequential R/W<br>(MB/sec, max.) | 560/510              | 510/460              | 550/510              | 500/460              |
| Max. Power<br>consumption        | 6.0W                 | 5.0W                 | 5.6W                 | 3.5W                 |
| External DRAM Buffer             | Y                    | Y                    | Y                    | Y                    |
| iData Guard                      | Y                    | Y                    | Y                    | Y                    |
| iPower Guard                     | Y                    | Y                    | Y                    | Y                    |
| PLP (iCell)                      | Y                    | Y                    | Y                    | Y                    |
| AES                              | Y                    | Y                    | Y                    | Y                    |
| TCG Opal                         | Y                    | Y                    | Y                    | Y                    |
| S.M.A.R.T.                       | Y                    | Y                    | Y                    | Y                    |
| Dimension (WxLxH/mm)             | 69.8 x 100.1 x 6.9   | 69.8 x 100.1 x 6.9   | 69.8 x 100.1 x 6.9   | 69.8 x 100.1 x 6.9   |

| Model name                       | 2.5" SATA SSD 3TR6-P | 2.5" SATA SSD 3SE4  | 2.5" SATA SSD 3ME4 | 2.5" SATA SSD 3IE4 |
|----------------------------------|----------------------|---------------------|--------------------|--------------------|
| Interface                        | SATA III 6.0Gb/s     | SATA III 6.0Gb/s    | SATA III 6.0Gb/s   | SATA III 6.0Gb/s   |
| Flash Type                       | 3D TLC               | SLC                 | MLC                | iSLC (MLC)         |
| Capacity                         | 128GB ~ 2TB          | 8GB ~ 64GB          | 8GB ~ 256GB        | 8GB ~ 128GB        |
| Max. Channel                     | 4                    | 2                   | 2                  | 2                  |
| Sequential R/W<br>(MB/sec, max.) | 560/510              | 520/360             | 530/210            | 530/380            |
| Max. Power<br>consumption        | 4.2W                 | 1.1W                | 0.8W               | 0.8W               |
| External DRAM Buffer             | Y                    | N                   | N                  | N                  |
| iData Guard                      | Y                    | Y                   | Y                  | Y                  |
| iPower Guard                     | Y                    | Y                   | Y                  | Y                  |
| PLP (iCell)                      | Y                    | N                   | N                  | N                  |
| AES                              | Y                    | N                   | N                  | N                  |
| TCG Opal                         | Y                    | N                   | N                  | N                  |
| S.M.A.R.T.                       | Y                    | Y                   | Y                  | Y                  |
| Dimension (WxLxH/mm)             | 69.8 x 100.1 x 9.5   | 69.85 x 100.1 x 6.9 | 69.8 x 100.1 x 6.9 | 69.8 x 100.1 x 6.9 |

| Model name                       | 2.5" SATA SSD 3SE2-P                                       | 2.5" SATA SSD 3MG2-P                                   | 2.5" SATA SSD 3MR2-P | InnoOSR 2.5" SATA SSD 3TO7 |
|----------------------------------|------------------------------------------------------------|--------------------------------------------------------|----------------------|----------------------------|
| Interface                        | SATA III 6.0Gb/s                                           | SATA III 6.0Gb/s                                       | SATA III 6.0Gb/s     | SATA III 6.0Gb/s           |
| Flash Type                       | SLC                                                        | MLC                                                    | MLC                  | 3D TLC                     |
| Capacity                         | 16GB ~ 256GB                                               | 8GB ~ 2TB                                              | 8GB ~ 2TB            | 32GB ~ 2TB                 |
| Max. Channel                     | 4                                                          | 4                                                      | 4                    | 4                          |
| Sequential R/W<br>(MB/sec, max.) | 520/340                                                    | 520/480                                                | 520/450              | 550/510                    |
| Max. Power<br>consumption        | 4.4W                                                       | 6.0W                                                   | 5.8W                 | 2.5W                       |
| External DRAM Buffer             | Y                                                          | Y                                                      | Y                    | N                          |
| iData Guard                      | Y                                                          | Y                                                      | Y                    | Y                          |
| iPower Guard                     | Y                                                          | Y                                                      | Y                    | Y                          |
| PLP (iCell)                      | Y                                                          | Y                                                      | Y                    | N                          |
| AES                              | Y                                                          | Y                                                      | Y                    | N                          |
| TCG Opal                         | Y                                                          | Y                                                      | Y                    | N                          |
| S.M.A.R.T.                       | Y                                                          | Y                                                      | Y                    | Y                          |
| Dimension (WxLxH/mm)             | 8GB ~ 256GB: 69.8 x 99.8 x 9.2<br>512GB: 69.8 x 99.8 x 9.5 | 8GB ~ 1TB: 69.8 x 100.1 x 6.9<br>2TB: 69.8 x 100 x 9.5 | 69.8 x 99.8 x 9.5    | 69.8 x 100.1 x 6.9         |



## SATA - SATA Slim

| Model name                    | SATA Slim 3TE7   | SATA Slim 3IE7   | SATA Slim 3TG6-P | SATA Slim 3SE4   | SATA Slim 3ME4   | SATA Slim 3IE4   | SATA Slim 3MG2-P |
|-------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Interface                     | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s |
| Flash Type                    | 3D TLC           | iSLC (3D TLC)    | 3D TLC           | SLC              | MLC              | iSLC (MLC)       | MLC              |
| Capacity                      | 32GB ~ 2TB       | 40GB ~ 640GB     | 128GB ~ 512GB    | 8GB ~ 64GB       | 8GB ~ 256GB      | 8GB ~ 128GB      | 8GB ~ 512GB      |
| Max. Channel                  | 4                | 4                | 4                | 2                | 2                | 2                | 4                |
| Sequential R/W (MB/sec, max.) | 550/510          | 550/500          | 550/510          | 520/360          | 530/210          | 530/360          | 520/460          |
| Max. Power consumption        | 2.3W             | 3.0W             | 3.0W             | 1.1 W            | 0.8W             | 0.8W             | 2.6W             |
| External DRAM Buffer          | N                | N                | Y                | N                | N                | N                | Y                |
| iData Guard                   | Y                | Y                | Y                | N                | N                | N                | Y                |
| iPower Guard                  | Y                | Y                | Y                | Y                | Y                | Y                | Y                |
| PLP (iCell)                   | N                | N                | N                | N                | N                | N                | N                |
| AES                           | Y                | Y                | Y                | N                | N                | N                | Y                |
| TCG Opal                      | N                | N                | Y                | N                | N                | N                | Y                |
| S.M.A.R.T.                    | Y                | Y                | Y                | Y                | Y                | Y                | Y                |
| Dimension (WxLxH/mm)          | 54 x 39 x 4      | 54 x 39 x 4      | 54 x 39 x 4      | 54 x 39 x 4      | 54 x 39 x 4      | 54 x 39 x 4      | 54 x 39 x 4      |



## SATA - SATADOM

| Form Factor                   | SATADOM-SV/SH                                | SATADOM-SV/SH                                | SATADOM-SV/SH                                | SATADOM-SV/SH        | SATADOM-SV/SH                                |
|-------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------|----------------------------------------------|
| Model name                    | SATADOM 3TE7                                 | SATADOM 3IE7                                 | SATADOM 3ME4                                 | SATADOM 3IE4         | SATADOM 3SE4                                 |
| Interface                     | SATA III 6.0Gb/s                             | SATA III 6.0Gb/s                             | SATA III 6Gb/s                               | SATA III 6Gb/s       | SATA III 6Gb/s                               |
| Flash Type                    | 3D TLC                                       | iSLC (3D TLC)                                | MLC                                          | iSLC (MLC)           | SLC                                          |
| Capacity                      | 64GB ~ 512GB                                 | 20GB ~ 160GB                                 | 8GB ~ 128GB                                  | 8GB ~ 64GB           | 8GB ~ 32GB                                   |
| Max. Channel                  | 2                                            | 2                                            | 2                                            | 2                    | 2                                            |
| Sequential R/W (MB/sec, max.) | 490/480                                      | 550/510                                      | 530/120                                      | 530/350              | 520/260                                      |
| Max. Power consumption        | 1.5W                                         | 1.6W                                         | 1.3W                                         | 1.3W                 | 1.6W                                         |
| External DRAM Buffer          | N                                            | N                                            | N                                            | N                    | N                                            |
| iData Guard                   | Y                                            | Y                                            | N                                            | N                    | N                                            |
| iPower Guard                  | Y                                            | Y                                            | Y                                            | Y                    | Y                                            |
| PLP (iCell)                   | N                                            | N                                            | N                                            | N                    | N                                            |
| AES                           | Y                                            | Y                                            | N                                            | N                    | N                                            |
| TCG Opal                      | N                                            | N                                            | N                                            | N                    | N                                            |
| S.M.A.R.T.                    | Y                                            | Y                                            | Y                                            | Y                    | Y                                            |
| Dimension (WxLxH/mm)          | SV: 40.4 x 21 x 10.4<br>SH: 32.7 x 18 x 14.1 | SV: 40.4 x 21 x 10.4<br>SH: 32.7 x 18 x 14.1 | SV: 40.4 x 21 x 10.4<br>SH: 32.7 x 18 x 15.1 | SV: 40.4 x 21 x 10.4 | SV: 40.4 x 21 x 10.4<br>SH: 32.7 x 18 x 14.1 |

| Form Factor                      | SATADOM-SL/SH type D                           | SATADOM-SL/SH type D                           | SATADOM-SL/SH type D                                | SATADOM-SL/SH type D | SATADOM-SL/SH type D                           |
|----------------------------------|------------------------------------------------|------------------------------------------------|-----------------------------------------------------|----------------------|------------------------------------------------|
| Model name                       | SATADOM 3TE7                                   | SATADOM 3IE7                                   | SATADOM 3ME4                                        | SATADOM 3IE4         | SATADOM 3SE4                                   |
| Interface                        | SATA III 6.0Gb/s                               | SATA III 6.0Gb/s                               | SATA III 6Gb/s                                      | SATA III 6Gb/s       | SATA III 6Gb/s                                 |
| Flash Type                       | 3D TLC                                         | iSLC (3D TLC)                                  | MLC                                                 | iSLC (MLC)           | SLC                                            |
| Capacity                         | 64GB ~ 512GB                                   | 20GB ~ 80GB                                    | 8GB ~ 128GB                                         | 8GB ~ 64GB           | 8GB ~ 32GB                                     |
| Max. Channel                     | 2                                              | 2                                              | 2                                                   | 2                    | 2                                              |
| Sequential R/W<br>(MB/sec, max.) | 510/140                                        | 550/485                                        | 530/120                                             | 530/350              | 520/260                                        |
| Max. Power<br>consumption        | 1.5W                                           | 1.9W                                           | 1.1W                                                | 1.1W                 | 1.0W                                           |
| External DRAM Buffer             | N                                              | N                                              | N                                                   | N                    | N                                              |
| iData Guard                      | Y                                              | Y                                              | N                                                   | N                    | N                                              |
| iPower Guard                     | Y                                              | Y                                              | Y                                                   | Y                    | Y                                              |
| PLP (iCell)                      | N                                              | N                                              | N                                                   | N                    | N                                              |
| AES                              | Y                                              | Y                                              | N                                                   | N                    | N                                              |
| TCG Opal                         | N                                              | N                                              | N                                                   | N                    | N                                              |
| S.M.A.R.T.                       | Y                                              | Y                                              | Y                                                   | Y                    | Y                                              |
| Dimension (WxLxH/mm)             | SL: 29.6 x 33 x 10.5<br>SH(D):30 x 20.7 x 15.2 | SL: 29.6 x 33 x 10.5<br>SH(D):30 x 20.7 x 15.2 | SL: 29.6 x 33.06 x 10.5<br>SH(D): 30 x 20.79 x 15.2 | SL: 29.6 x 33 x 10.5 | SL: 29.6 x 33 x 10.5<br>SH(D):30 x 20.7 x 15.2 |

| Form Factor                      | SATADOM-SH type C | SATADOM-SH type C | SATADOM-MV         | SATADOM-MV         | SATADOM-ML/MH          |
|----------------------------------|-------------------|-------------------|--------------------|--------------------|------------------------|
| Model name                       | SATADOM 3ME4      | SATADOM 3SE4      | SATADOM 3IE4       | SATADOM 3ME4       | SATADOM 3TG6-P         |
| Interface                        | SATA III 6Gb/s    | SATA III 6.0Gb/s  | SATA III 6Gb/s     | SATA III 6Gb/s     | SATA III 6.0Gb/s       |
| Flash Type                       | MLC               | SLC               | iSLC (MLC)         | MLC                | 3D TLC                 |
| Capacity                         | 8GB ~ 128GB       | 8GB ~ 32GB        | 8GB ~ 64GB         | 8GB ~ 128GB        | 128GB ~ 256GB          |
| Max. Channel                     | 2                 | 2                 | 2                  | 2                  | 4                      |
| Sequential R/W<br>(MB/sec, max.) | 530/120           | 520/260           | 530/340            | 530/120            | 560/290                |
| Max. Power<br>consumption        | 1.1W              | 1.5W              | 1.8W               | 1.1W               | 2.2W                   |
| External DRAM Buffer             | N                 | N                 | N                  | N                  | Y                      |
| iData Guard                      | N                 | N                 | N                  | N                  | Y                      |
| iPower Guard                     | Y                 | Y                 | Y                  | Y                  | Y                      |
| PLP (iCell)                      | N                 | N                 | N                  | N                  | N                      |
| AES                              | N                 | N                 | N                  | N                  | N                      |
| TCG Opal                         | N                 | N                 | N                  | N                  | N                      |
| S.M.A.R.T.                       | Y                 | Y                 | Y                  | Y                  | Y                      |
| Dimension (WxLxH/mm)             | 32.7 x 18 x 14.5  | 32.7 x 18 x 14.5  | 41.5 x 25.2 x 10.4 | 41.5 x 25.2 x 10.4 | ML: 37.1 x 31.5 x 12.6 |

| Form Factor                      | SATADOM-ML/MH          | SATADOM-ML/MH                                    | SATADOM-ML/MH                                    | SATADOM-ML/MH          |
|----------------------------------|------------------------|--------------------------------------------------|--------------------------------------------------|------------------------|
| Model name                       | SATADOM 3MG2-P         | SATADOM 3IE4                                     | SATADOM 3ME4                                     | SATADOM 3SE4           |
| Interface                        | SATA III 6.0Gb/s       | SATA III 6Gb/s                                   | SATA III 6Gb/s                                   | SATA III 6.0Gb/s       |
| Flash Type                       | MLC                    | iSLC (MLC)                                       | MLC                                              | SLC                    |
| Capacity                         | 32GB ~ 256GB           | 16GB ~ 128GB                                     | 32GB ~ 256GB                                     | 8GB ~ 64GB             |
| Max. Channel                     | 4                      | 2                                                | 2                                                | 2                      |
| Sequential R/W<br>(MB/sec, max.) | 560/180                | 530/360                                          | 530/210                                          | 520/360                |
| Max. Power<br>consumption        | 2.7W                   | 0.9W                                             | 0.9W                                             | 1.6W                   |
| External DRAM Buffer             | Y                      | N                                                | N                                                | N                      |
| iData Guard                      | Y                      | Y                                                | N                                                | N                      |
| iPower Guard                     | Y                      | Y                                                | Y                                                | Y                      |
| PLP (iCell)                      | N                      | N                                                | N                                                | N                      |
| AES                              | N                      | N                                                | N                                                | N                      |
| TCG Opal                         | N                      | N                                                | N                                                | N                      |
| S.M.A.R.T.                       | Y                      | Y                                                | Y                                                | Y                      |
| Dimension (WxLxH/mm)             | ML: 37.1 x 31.5 x 12.6 | ML: 31.2 x 36.7 x 10.7<br>MH: 23.5 x 33.6 x 14.8 | ML: 31.2 x 36.7 x 10.7<br>MH: 23.5 x 33.6 x 14.8 | ML: 36.7 x 31.2 x 10.7 |



## SATA - mSATA

| Model name                    | mSATA 3TEA        | mSATA 3TE7        | mSATA 3IE7        | mSATA 3TG6-P      | mSATA 3SE4        | mSATA 3ME4        | mSATA 3IE4        |
|-------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Interface                     | SATA III 6.0Gb/s  | SATA III 6.0Gb/s  | SATA III 6.0Gb/s  | SATA III 6.0Gb/s  | SATA III 6.0Gb/s  | SATA III 6.0Gb/s  | SATA III 6.0Gb/s  |
| Flash Type                    | 3D TLC            | 3D TLC            | iSLC (3D TLC)     | 3D TLC            | SLC               | MLC               | iSLC (MLC)        |
| Capacity                      | 128GB ~ 2TB       | 32GB ~ 2TB        | 20GB ~ 640GB      | 128GB ~ 2TB       | 8GB ~ 64GB        | 8GB ~ 256GB       | 8GB ~ 128GB       |
| Max. Channel                  | 2                 | 4                 | 4                 | 4                 | 2                 | 2                 | 2                 |
| Sequential R/W (MB/sec, max.) | 550/500           | 550/490           | 560 / 500         | 560/520           | 525/350           | 535/210           | 530/365           |
| Max. Power consumption        | 2.3W              | 2.4W              | 1.6W              | 4.8W              | 1.4W              | 0.6W              | 0.6W              |
| External DRAM Buffer          | N                 | N                 | N                 | Y                 | N                 | N                 | N                 |
| iData Guard                   | Y                 | Y                 | Y                 | Y                 | N                 | N                 | N                 |
| iPower Guard                  | Y                 | Y                 | Y                 | Y                 | Y                 | Y                 | Y                 |
| PLP (iCell)                   | Y                 | Y                 | N                 | N                 | N                 | N                 | N                 |
| AES                           | N                 | Y                 | Y                 | Y                 | N                 | N                 | N                 |
| TCG Opal                      | N                 | N                 | N                 | Y                 | N                 | N                 | N                 |
| S.M.A.R.T.                    | Y                 | Y                 | Y                 | Y                 | Y                 | Y                 | Y                 |
| Dimension (WxLxH/mm)          | 29.8 x 50.8 x 3.7 | 29.8 x 50.8 x 3.7 | 29.8 x 50.8 x 3.7 | 29.8 x 50.8 x 3.7 | 29.8 x 50.8 x 3.7 | 29.8 x 50.8 x 3.7 | 29.8 x 50.8 x 3.7 |

| Model name                    | mSATA 3MG2-P      | mSATA mini 3TE7  | mSATA mini 3IE7  | mSATA mini 3SE4  | mSATA mini 3ME4  | mSATA mini 3IE4  |
|-------------------------------|-------------------|------------------|------------------|------------------|------------------|------------------|
| Interface                     | SATA III 6.0Gb/s  | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s |
| Flash Type                    | MLC               | 3D TLC           | iSLC (3D TLC)    | SLC              | MLC              | iSLC (MLC)       |
| Capacity                      | 8GB ~ 1TB         | 32GB ~ 1TB       | 20GB ~ 320GB     | 8GB ~ 64GB       | 8GB ~ 128GB      | 8GB ~ 64GB       |
| Max. Channel                  | 4                 | 4                | 4                | 2                | 2                | 2                |
| Sequential R/W (MB/sec, max.) | 520/335           | 550/520          | 550/490          | 525/360          | 470/125          | 530/340          |
| Max. Power consumption        | 3.4W              | 1.7W             | 1.7W             | 1.3W             | 0.6W             | 0.6W             |
| External DRAM Buffer          | Y                 | N                | N                | N                | N                | N                |
| iData Guard                   | Y                 | Y                | Y                | N                | N                | N                |
| iPower Guard                  | Y                 | Y                | Y                | Y                | Y                | Y                |
| PLP (iCell)                   | N                 | N                | N                | N                | N                | N                |
| AES                           | Y                 | Y                | Y                | N                | N                | N                |
| TCG Opal                      | Y                 | N                | N                | N                | N                | N                |
| S.M.A.R.T.                    | Y                 | Y                | Y                | Y                | Y                | Y                |
| Dimension (WxLxH/mm)          | 29.8 x 50.8 x 3.6 | 30 x 26.8 x 3.6  | 30 x 26.8 x 3.6  | 30 x 26.8 x 3.6  | 30 x 26.8 x 3.4  | 30 x 26.8 x 3.4  |

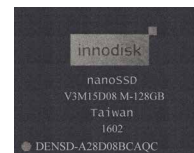




## SATA - CFast

| Model name                       | CFast 3TEA        | CFast 3TE7        | CFast 3IE7        | CFast 3SE4        |
|----------------------------------|-------------------|-------------------|-------------------|-------------------|
| Interface                        | SATA III 6.0Gb/s  | SATA III 6.0Gb/s  | SATA III 6.0Gb/s  | SATA III 6.0Gb/s  |
| Flash Type                       | 3D TLC            | 3D TLC            | iSLC (3D TLC)     | SLC               |
| Capacity                         | 256GB ~ 2TB       | 32GB ~ 1TB        | 20GB ~ 320GB      | 8GB ~ 64GB        |
| Max. Channel                     | 2                 | 4                 | 4                 | 2                 |
| Sequential R/W<br>(MB/sec, max.) | 550/500           | 560/490           | 550/490           | 520/360           |
| Max. Power consumption           | 1.8W              | 2.5W              | 1.8W              | 1.0W              |
| External DRAM Buffer             | N                 | N                 | N                 | N                 |
| iData Guard                      | Y                 | Y                 | Y                 | N                 |
| iPower Guard                     | Y                 | Y                 | Y                 | Y                 |
| PLP (iCell)                      | N                 | N                 | N                 | N                 |
| AES                              | N                 | Y                 | Y                 | N                 |
| TCG Opal                         | N                 | N                 | N                 | N                 |
| S.M.A.R.T.                       | Y                 | Y                 | Y                 | Y                 |
| Dimension (WxLxH/mm)             | 42.8 x 36.4 x 3.6 | 42.8 x 36.4 x 3.6 | 42.8 x 36.4 x 3.6 | 42.8 x 36.4 x 3.6 |

| Model name                       | CFast 3ME4        | CFast 3IE4        | CFast 3MG2-P      |
|----------------------------------|-------------------|-------------------|-------------------|
| Interface                        | SATA III 6.0Gb/s  | SATA III 6.0Gb/s  | SATA III 6.0Gb/s  |
| Flash Type                       | MLC               | iSLC              | MLC               |
| Capacity                         | 8GB ~ 256GB       | 8GB ~ 128GB       | 32GB ~ 256GB      |
| Max. Channel                     | 2                 | 2                 | 4                 |
| Sequential R/W<br>(MB/sec, max.) | 530/210           | 530/360           | 560/350           |
| Max. Power consumption           | 0.9W              | 0.8W              | 2.5W              |
| External DRAM Buffer             | N                 | N                 | Y                 |
| iData Guard                      | N                 | N                 | Y                 |
| iPower Guard                     | Y                 | Y                 | Y                 |
| PLP (iCell)                      | N                 | N                 | N                 |
| AES                              | N                 | N                 | N                 |
| TCG Opal                         | N                 | N                 | N                 |
| S.M.A.R.T.                       | Y                 | Y                 | Y                 |
| Dimension (WxLxH/mm)             | 42.8 x 36.4 x 3.6 | 42.8 x 36.4 x 3.6 | 42.8 x 36.4 x 3.6 |



## SATA - nanoSSD

| Model name                     | nanoSSD 3ME3     | nanoSSD 3IE3     |
|--------------------------------|------------------|------------------|
| Interface                      | SATA III 6.0Gb/s | SATA III 6.0Gb/s |
| Flash Type                     | MLC              | iSLC (MLC)       |
| Capacity                       | 16GB             | 16GB             |
| Max . Channel                  | 4                | 4                |
| Sequential R/W (MB/sec, max .) | 410/140          | 440/260          |
| Max . Power consumption        | 2.3W             | 2.3W             |
| External DRAM Buffer           | N                | N                |
| iData Guard                    | Y                | Y                |
| iPower Guard                   | Y                | Y                |
| PLP (iCell)                    | N                | N                |
| S.M.A.R.T.                     | Y                | Y                |
| Dimension (WxLxH/mm)           | 16 x 20 x 1.7    | 16 x 20 x 1.7    |



## PATA - CF

| Model name                    | iCF 9000                 | iCF 1ME                  | iCF 1ME2           | iCF 1SE3           |
|-------------------------------|--------------------------|--------------------------|--------------------|--------------------|
| Interface                     | PATA                     | PATA                     | PATA               | PATA               |
| Connector                     | 50pin CF connector       | 50pin CF connector       | 50pin CF connector | 50pin CF connector |
| Flash Type                    | SLC                      | MLC                      | MLC                | SLC                |
| Capacity                      | 1GB ~ 64GB               | 8GB ~ 256GB              | 8GB ~ 256GB        | 128MB ~ 64GB       |
| Max. Channel                  | 4                        | 2                        | 2                  | 2                  |
| Sequential R/W (MB/sec, max.) | 110/100                  | 110/110                  | 85/55              | 63/55              |
| Max. Power consumption        | 1.0W (5V)<br>0.7W (3.3V) | 0.8W (5V)<br>0.6W (3.3V) | 0.9W (5V)          | 0.7W (5V)          |
| External DRAM Buffer          | N                        | N                        | N                  | N                  |
| iData Guard                   | N                        | N                        | N                  | N                  |
| iPower Guard                  | N                        | N                        | N                  | N                  |
| PLP (iCell)                   | N                        | N                        | N                  | N                  |
| AES                           | N                        | N                        | N                  | N                  |
| TCG Opal                      | N                        | N                        | N                  | N                  |
| S.M.A.R.T.                    | Y                        | Y                        | Y                  | Y                  |
| Dimension (WxLxH/mm)          | 42.8 x 36.4 x 3.3        | 42.8 x 36.4 x 3.3        | 42.8 x 36.4 x 3.3  | 42.8 x 36.4 x 3.3  |

其他 – USB



| Form Factor                        | USB Drive         | USB Drive         |
|------------------------------------|-------------------|-------------------|
| Model name                         | USB Drive 3SE     | USB Drive 3ME     |
| Interface                          | USB 3.0           | USB 3.0           |
| Connector                          | Type A            | Type A            |
| Flash Type                         | SLC               | MLC               |
| Capacity                           | 4GB ~ 32GB        | 8GB ~ 64GB        |
| Ma x . Channel                     | 1                 | 1                 |
| Sequential R/W<br>(MB/sec, ma x .) | 100/85            | 100/50            |
| Ma x . Power<br>consumption        | 0.7W              | 0.7W              |
| External DRAM Buffer               | N                 | N                 |
| iData Guard                        | N                 | N                 |
| iPower Guard                       | Y                 | N                 |
| PLP (iCell)                        | N                 | N                 |
| AES                                | N                 | N                 |
| TCG Opal                           | N                 | N                 |
| S.M.A.R.T.                         | Y                 | Y                 |
| Dimension (WxLxH/mm)               | 16.6 x 48.5 x 7.6 | 16.6 x 48.5 x 7.6 |

| Form Factor                        | USB Drive         | USB EDC Horizontal                                                                 |
|------------------------------------|-------------------|------------------------------------------------------------------------------------|
| Model name                         | USB Drive 3IE4    | USB EDC H 2ME3                                                                     |
| Interface                          | USB 3.0           | USB 2.0                                                                            |
| Connector                          | Type A            | Standard, 9pin, 2.54mm<br>Low profile, 9pin, 2.00mm                                |
| Flash Type                         | iSLC (3D TLC)     | MLC                                                                                |
| Capacity                           | 16GB ~ 128GB      | 8GB ~ 128GB                                                                        |
| Ma x . Channel                     | 2                 | 1                                                                                  |
| Sequential R/W<br>(MB/sec, ma x .) | 330/125           | 35/35                                                                              |
| Ma x . Power<br>consumption        | 1.3W              | 0.7W                                                                               |
| External DRAM Buffer               | N                 | N                                                                                  |
| iData Guard                        | Y                 | Y                                                                                  |
| iPower Guard                       | Y                 | Y                                                                                  |
| PLP (iCell)                        | N                 | N                                                                                  |
| AES                                | N                 | N                                                                                  |
| TCG Opal                           | N                 | N                                                                                  |
| S.M.A.R.T.                         | Y                 | N                                                                                  |
| Dimension (WxLxH/mm)               | 16.6 x 48.5 x 7.6 | 26.6 x 36.9 x 6.3<br>(Pin Pitch 2.00mm)<br>26.6 x 36.9 x 9.8<br>(Pin Pitch 2.54mm) |

| Form Factor                        | USB EDC Horizontal                                                                 | USB EDC Vertical        | USB EDC Vertical        |
|------------------------------------|------------------------------------------------------------------------------------|-------------------------|-------------------------|
| Model name                         | USB EDC H 3IE4                                                                     | USB EDC V 3SE           | USB EDC V 3ME           |
| Interface                          | USB 3.0                                                                            | USB 3.0                 | USB 3.0                 |
| Connector                          | Standard, 9pin, 2.54mm<br>Low profile, 9pin, 2.00mm                                | Standard, 20pin, 2.00mm | Standard, 20pin, 2.00mm |
| Flash Type                         | iSLC (3D TLC)                                                                      | SLC                     | MLC                     |
| Capacity                           | 16GB ~ 128GB                                                                       | 4GB ~ 32GB              | 8GB ~ 64GB              |
| Ma x . Channel                     | 2                                                                                  | 1                       | 1                       |
| Sequential R/W<br>(MB/sec, ma x .) | 330/125                                                                            | 110/85                  | 100/50                  |
| Ma x . Power<br>consumption        | 1.3W                                                                               | 0.8W                    | 0.8W                    |
| External DRAM Buffer               | N                                                                                  | N                       | N                       |
| iData Guard                        | Y                                                                                  | N                       | N                       |
| iPower Guard                       | Y                                                                                  | N                       | Y                       |
| PLP (iCell)                        | N                                                                                  | N                       | N                       |
| AES                                | N                                                                                  | N                       | N                       |
| TCG Opal                           | N                                                                                  | N                       | N                       |
| S.M.A.R.T.                         | Y                                                                                  | Y                       | Y                       |
| Dimension (WxLxH/mm)               | 26.6 x 36.9 x 6.3<br>(Pin Pitch 2.00mm)<br>26.6 x 36.9 x 9.8<br>(Pin Pitch 2.54mm) | 24 x 22 x 5             | 24 x 22 x 5             |



### 其他 – SD

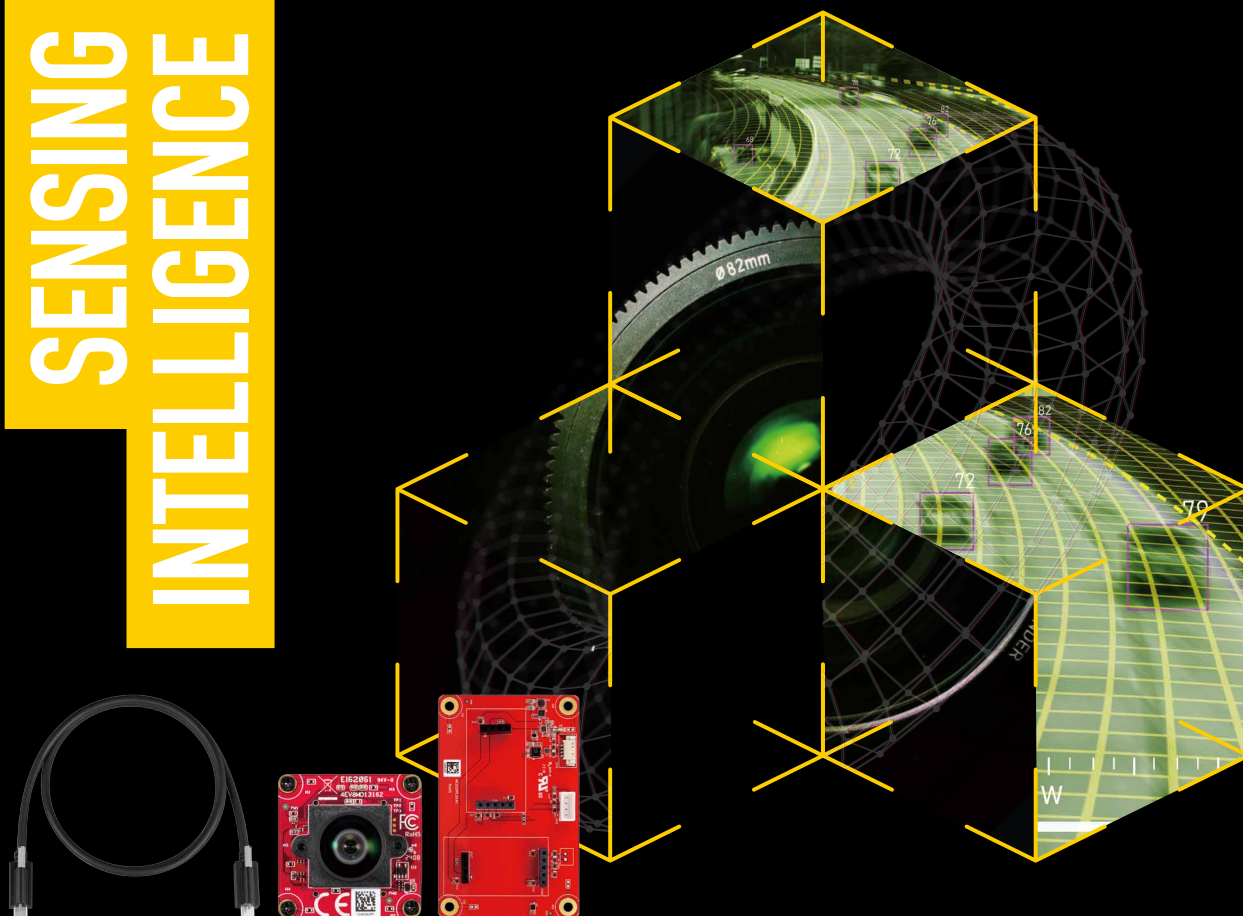
| Model name                       | MicroSD 3TE4 | MicroSD 3IE4  | MicroSD 3SE3 | MicroSD 3ME3 | MicroSD 3ME2 |
|----------------------------------|--------------|---------------|--------------|--------------|--------------|
| Interface                        | SD 3.0/6.1   | SD 3.0/6.1    | SD 3.0       | SD 3.0       | SD 3.0       |
| Flash Type                       | 3D TLC       | iSLC (3D TLC) | SLC          | MLC          | MLC          |
| Capacity                         | 32GB ~ 512GB | 8GB ~ 128GB   | 4GB ~ 8GB    | 8GB ~ 64GB   | 8GB ~ 64GB   |
| Max. Channel                     | 1            | 1             | 1            | 1            | 1            |
| Sequential R/W<br>(MB/sec, max.) | 95/85        | 95/85         | 30/23        | 76/52        | 76/32        |
| Max. Power<br>consumption        | 0.6W         | 0.4W          | 0.2W         | 0.5W         | 0.7W         |
| External DRAM Buffer             | N            | N             | N            | N            | N            |
| iData Guard                      | N            | N             | N            | N            | N            |
| iPower Guard                     | N            | N             | N            | N            | N            |
| PLP (iCell)                      | N            | N             | N            | N            | N            |
| AES                              | N            | N             | N            | N            | N            |
| TCG Opal                         | N            | N             | N            | N            | N            |
| S.M.A.R.T.                       | Y            | Y             | Y            | Y            | Y            |
| Dimension (WxLxH/mm)             | 11 x 15 x 1  | 11 x 15 x 1   | 11 x 15 x 1  | 11 x 15 x 1  | 11 x 15 x 1  |

| Model name                       | MicroSD 3IE2 | Industrial MicroSD Card | SD Card 3TE4  | SD Card 3IE4  |
|----------------------------------|--------------|-------------------------|---------------|---------------|
| Interface                        | SD 3.0       | SD 1.0/2.0              | SD 3.0/6.1    | SD 3.0/6.1    |
| Flash Type                       | iSLC (MLC)   | SLC                     | 3D TLC        | iSLC (3D TLC) |
| Capacity                         | 4GB ~ 32GB   | 1GB ~ 8GB               | 32GB ~ 256GB  | 8GB ~ 64GB    |
| Max. Channel                     | 1            | 1                       | 1             | 1             |
| Sequential R/W<br>(MB/sec, max.) | 79/45        | 20/16                   | 95/85         | 95/85         |
| Max. Power<br>consumption        | 0.7W         | 0.2W                    | 0.5W          | 0.4W          |
| External DRAM Buffer             | N            | N                       | N             | N             |
| iData Guard                      | N            | N                       | N             | N             |
| iPower Guard                     | N            | N                       | N             | N             |
| PLP (iCell)                      | N            | N                       | N             | N             |
| AES                              | N            | N                       | N             | N             |
| TCG Opal                         | N            | N                       | N             | N             |
| S.M.A.R.T.                       | Y            | Y                       | Y             | Y             |
| Dimension (WxLxH/mm)             | 11 x 15 x 1  | 11 x 15 x 1             | 24 x 32 x 2.1 | 24 x 32 x 2.1 |

| Model name                       | SD Card 3SE6  | SD Card 3SE3  | SD Card 3ME3  | SD Card 3IE3  |
|----------------------------------|---------------|---------------|---------------|---------------|
| Interface                        | SD 2.0        | SD 3.0        | SD 3.0        | SD 3.0        |
| Flash Type                       | SLC           | SLC           | MLC           | iSLC (MLC)    |
| Capacity                         | 512MB ~ 2GB   | 4GB ~ 32GB    | 8GB ~ 128GB   | 4GB ~ 64GB    |
| Max. Channel                     | 1             | 1             | 1             | 1             |
| Sequential R/W<br>(MB/sec, max.) | 23/20         | 37/31         | 80/46         | 79/70         |
| Max. Power<br>consumption        | 0.3W          | 0.4W          | 0.5W          | 0.5W          |
| External DRAM Buffer             | N             | N             | N             | N             |
| iData Guard                      | N             | N             | N             | N             |
| iPower Guard                     | N             | N             | N             | N             |
| PLP (iCell)                      | N             | N             | N             | N             |
| AES                              | N             | N             | N             | N             |
| TCG Opal                         | N             | N             | N             | N             |
| S.M.A.R.T.                       | Y             | Y             | Y             | Y             |
| Dimension (WxLxH/mm)             | 24 x 32 x 2.1 | 24 x 32 x 2.1 | 24 x 32 x 2.1 | 24 x 32 x 2.1 |

innodisk

# SENSING INTELLIGENCE

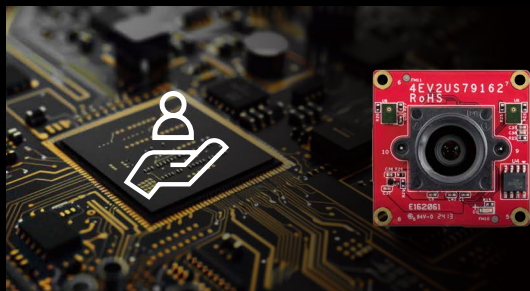


## SENSING INTELLIGENCE

從實際環境中捕捉精準可靠的影像與資訊。我們的模組可成為開啟邊緣智慧應用的起點。

# 相機模組

## 相機設計服務



硬體 (PCBA、尺寸)



多元鏡頭選項



影像品質校正



平台整合服務



### USB2.0

| Model Name                   | EV2U-SGR1-MMC1                           | EV2U-RMR1-UMCB                           | EV2U-RMR2-MMC1                           | EV2U-SSM1-RLCF                                |
|------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|-----------------------------------------------|
| Module Type                  | USB 2.0 2MP Fixed Focus Camera Module    | USB 2.0 2MP Fixed Focus Camera Module    | USB 2.0 2MP Fixed Focus Camera Module    | USB 2.0 2MP Fixed Focus Camera Module         |
| Resolution (Max.)            | 2MP                                      | 2MP                                      | 2MP                                      | 2MP                                           |
| Frame Rate (Max. Resolution) | 30fps                                    | 30fps                                    | 30fps                                    | 30fps                                         |
| Output I/F                   | USB 2.0                                  | USB 2.0                                  | USB 2.0                                  | USB 2.0                                       |
| Sensor                       | GalaxyCore GC2053                        | OmniVision OV2740                        | OmniVision OV2732                        | Sony IMX307                                   |
| Shutter                      | Rolling                                  | Rolling                                  | Rolling                                  | Rolling                                       |
| Video Format                 | YUV422, MJPEG                            | YUV422, MJPEG                            | YUV422, MJPEG                            | YUV422, MJPEG                                 |
| Power Consumption            | Approximate 1W (MJPEG @Max. Resolution ) | Approximate 1W (MJPEG @Max. Resolution ) | Approximate 1W (MJPEG @Max. Resolution ) | Approximate 1W (MJPEG @Max. Resolution )      |
| Operating Temperature        | -20°C ~ 70°C                             | -20°C ~ 70°C                             | -20°C ~ 70°C                             | -20°C ~ 70°C                                  |
| Sensor Size                  | 1/2.9"                                   | 1/6"                                     | 1/6"                                     | 1/2.8"                                        |
| Pixel Size                   | 2.8μm                                    | 1.4μm                                    | 1.4μm                                    | 2.9μm                                         |
| Chroma Type                  | Color                                    | Color                                    | Color                                    | Color                                         |
| Lens Type                    | Fixed Focus (M12)                        | Fixed Focus (M5)                         | Fixed Focus (M12)                        | Fixed Focus (M12)                             |
| Dimension (WxLxH/mm)         | 38 x 38 x 26.6                           | 60 x 8 x 3.85                            | 58 x 25 x 27                             | 38 x 38 x 26.6<br>41.4 x 41.4 x TBC (Housing) |
| Lens FOV(D/H/V)              | 121° / 102° / 54°                        | 77° / 69° / 42°                          | 86° / 72° / 38°                          | 121° / 102° / 54°                             |
| OS Support                   | Windows / Linux / Android / macOS        | Windows / Linux / Android / macOS        | Windows / Linux / Android / macOS        | Windows / Linux / Android / macOS             |
| Housing                      | Board Level                              | Board Level                              | Board Level                              | Board Level, Housing                          |
| Features                     | Low Light, DMIC                          | DMIC                                     | DMIC                                     | Low Light, DMIC, External Trigger             |
| Warranty                     | 3 Years                                  | 3 Years                                  | 3 Years                                  | 3 Years                                       |

For detailed resolution and frame rate combined application, please refer to product datasheet.

| Model Name                   | EV2U-LOM1-RHCF                                                      | EV2U-LOM2-GSCF                               | EV8U-LSM1-RLCF                               | EV8U-LSM1-RLCN                               |
|------------------------------|---------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| Module Type                  | USB 2.0 2MP Fixed Focus Camera Module                               | USB 2.0 2MP Fixed Focus Camera Module        | USB 2.0 8MP Fixed Focus Camera Module        | USB 2.0 8MP Fixed Focus Camera Module        |
| Resolution (Max.)            | 2MP                                                                 | 2MP                                          | 8MP                                          | 8MP                                          |
| Frame Rate (Max. Resolution) | 30fps                                                               | 60fps                                        | 30fps                                        | 30fps                                        |
| Output I/F                   | USB 2.0                                                             | USB 2.0                                      | USB 2.0                                      | USB 2.0                                      |
| Sensor                       | onsemi AR0246                                                       | onsemi AR0234                                | Sony IMX415                                  | Sony IMX415                                  |
| Shutter                      | Rolling                                                             | Global                                       | Rolling                                      | Rolling                                      |
| Video Format                 | YUV422, MJPEG                                                       | YUV422, MJPEG                                | YUV422, MJPEG                                | YUV422, MJPEG                                |
| Power Consumption            | Approximate 1W (MJPEG @Max. Resolution )                            | Approximate TBD W (MJPEG @Max. Resolution )  | Approximate 1W (MJPEG @Max. Resolution )     | Approximate 1W (MJPEG @Max. Resolution )     |
| Operating Temperature        | 0°C ~ 70°C                                                          | 0°C ~ 70°C                                   | 0°C ~ 70°C                                   | 0°C ~ 70°C                                   |
| Sensor Size                  | 1/4"                                                                | 1/2.6"                                       | 1/2.8"                                       | 1/2.8"                                       |
| Pixel Size                   | 2.0µm                                                               | 3.0µm                                        | 1.45µm                                       | 1.45µm                                       |
| Chroma Type                  | Color                                                               | Color                                        | Color                                        | Color                                        |
| Lens Type                    | Fixed Focus (M12)                                                   | Fixed Focus (M12)                            | Fixed Focus (M12)                            | Fixed Focus (M12)                            |
| Dimension (WxLxH/mm)         | 38 x 38 x 21.88<br>32 x 32 x 21.88<br>41.4 x 41.4 x 37.68 (Housing) | 38 x 38 x TBC<br>41.4 x 41.4 x TBC (Housing) | 38 x 38 x 28<br>41.4 x 41.4 x 44.8 (Housing) | 38 x 38 x 29<br>41.4 x 41.4 x 44.6 (Housing) |
| Lens FOV(D/H/V)              | 96° / 88° / 57°                                                     | 97° / 87° / 61°                              | 89° / 81° / 51°                              | 89° / 81° / 51°                              |
| OS Support                   | Windows / Linux / Android / macOS                                   | Windows / Linux / Android / macOS            | Windows / Linux / Android / macOS            | Windows / Linux / Android / macOS            |
| Housing                      | Board Level, Housing                                                | Board Level, Enclosure                       | Board Level, Housing                         | Board Level, Housing                         |
| Features                     | HDR, DMIC                                                           | Global Shutter                               | Low Light, DMIC                              | Low Light, Night Vision                      |
| Warranty                     | 3 Years                                                             | 3 Years                                      | 3 Years                                      | 3 Years                                      |

For detailed resolution and frame rate combined application, please refer to product datasheet.

| Model Name                   | EV8U-LSM1-RLCA                               | EV8U-LSN1-RSCA                           |
|------------------------------|----------------------------------------------|------------------------------------------|
| Module Type                  | USB 2.0 8MP Auto Focus Camera Module         | USB 2.0 8MP Auto Focus Camera Module     |
| Resolution (Max.)            | 8MP                                          | 8MP                                      |
| Frame Rate (Max. Resolution) | 30fps                                        | 20fps                                    |
| Output I/F                   | USB 2.0                                      | USB 2.0                                  |
| Sensor                       | Sony IMX415                                  | Sony IMX179                              |
| Shutter                      | Rolling                                      | Rolling                                  |
| Video Format                 | YUV422, MJPEG                                | YUV422, MJPEG                            |
| Power Consumption            | Approximate 1W (MJPEG @Max. Resolution )     | Approximate 2W (MJPEG @Max. Resolution ) |
| Operating Temperature        | 0°C ~ 70°C                                   | 0°C ~ 60°C                               |
| Sensor Size                  | 1/2.8"                                       | 1/3.2"                                   |
| Pixel Size                   | 1.45µm                                       | 1.4µm                                    |
| Chroma Type                  | Color                                        | Color                                    |
| Lens Type                    | Fixed Focus (M12)                            | Auto Focus (M5)                          |
| Dimension (WxLxH/mm)         | 38 x 38 x 29<br>41.4 x 41.4 x 44.6 (Housing) | 62 x 9.5 x 6.5                           |
| Lens FOV(D/H/V)              | 89° / 81° / 51°                              | 72° / 61° / 47°                          |
| OS Support                   | Windows / Linux / Android/ macOS             | Windows / Linux / Android / macOS        |
| Housing                      | Board Level, Housing                         | Board Level                              |
| Features                     | Low Light, DMIC                              | Auto Focus                               |
| Warranty                     | 3 Years                                      | 3 Years                                  |

For detailed resolution and frame rate combined application, please refer to product datasheet.



## MIPI CSI-2



| Model Name                   | EV2M-OOM3-RHCF                                         | EV2M-OOM1-UHCA                                             | EV2M-ZOM1-GSCV                                 | EV2M-CSM1-RHCF                              |
|------------------------------|--------------------------------------------------------|------------------------------------------------------------|------------------------------------------------|---------------------------------------------|
| Module Type                  | MIPI CSI-2 2MP Fixed Focus Camera Module               | MIPI CSI-2 2.3MP Fixed Focus Camera Module                 | MIPI CSI-2 2.3MP Varifocal Focus Camera Module | MIPI CSI-2 2MP Fixed Focus Camera Module    |
| Resolution (Max.)            | 2MP                                                    | 2.3MP                                                      | 2.3MP                                          | 2MP                                         |
| Frame Rate (Max. Resolution) | 30fps                                                  | 60fps                                                      | 60fps                                          | 120fps                                      |
| Output I/F                   | MIPI CSI-2                                             | MIPI CSI-2                                                 | MIPI CSI-2                                     | MIPI CSI-2                                  |
| Sensor                       | onsemi AR0246                                          | onsemi AR0234                                              | onsemi AR0234                                  | Sony IMX290                                 |
| Shutter                      | Rolling                                                | Global                                                     | Global                                         | Rolling                                     |
| Video Format                 | YUV422                                                 | YUV422                                                     | YUV422                                         | YUV422                                      |
| Power Consumption            | Approximate 1W (YUV422 @Max. Resolution )              | Approximate 1W (YUV422 @Max. Resolution )                  | Approximate 2W (YUV422 @Max. Resolution )      | Approximate 1.5W (YUV422 @Max. Resolution ) |
| Operating Temperature        | -30°C ~ 70°C                                           | -30°C ~ 70°C                                               | -20°C ~ 65°C                                   | -20°C ~ 65°C                                |
| Sensor Size                  | 1/4"                                                   | 1/2.6"                                                     | 1/2.6"                                         | 1/2.8"                                      |
| Pixel Size                   | 2.0μm                                                  | 3.0μm                                                      | 3.0μm                                          | 2.9μm                                       |
| Chroma Type                  | Color                                                  | Color                                                      | Color                                          | Color                                       |
| Lens Type                    | Fixed Focus (M12)                                      | Fixed Focus (M12)                                          | Varifocal                                      | Fixed Focus (M12)                           |
| Dimension (WxLxH/mm)         | 30 x 30 x TBC<br>39 x 39 x TBC<br>(Open Front Housing) | 38 x 38 x 26.75<br>46 x 46 x 26.75<br>(Open Front Housing) | 42 x 42 x 77.7                                 | 46 x 46 x 40.6<br>(Open Front Housing)      |
| Lens FOV(D/H/V)              | 96° / 88° / 57°                                        | 104° / 86° / 46°                                           | W: 128° / 103° / 60°<br>T: 39° / 33° / 21°     | 106° / 92° / 51°                            |
| OS Support                   | NVIDIA Jetson Orin, Intel                              | NVIDIA Jetson Orin, Intel                                  | NVIDIA Jetson Orin                             | NVIDIA Jetson Orin                          |
| Housing                      | Board Level, Open Front Housing                        | Board Level, Open Front Housing                            | Board Level                                    | Open Front Housing                          |
| Features                     | HDR, External Trigger                                  |                                                            |                                                | HDR, Low light                              |
| Warranty                     | 3 Years                                                | 3 Years                                                    | 3 Years                                        | 3 Years                                     |

For detailed resolution and frame rate combined application, please refer to product datasheet.  
For more platform support, please contact our local sales.

| Model Name                   | EV5M-CSM1-RTCF                              | EV8M-CSM1-RTCF                              | EV8M-OOM1-RHCF                                           | EVDM-OOM1-RHCF                                           |
|------------------------------|---------------------------------------------|---------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|
| Module Type                  | MIPI CSI-2 5MP Fixed Focus Camera Module    | MIPI CSI-2 8MP Fixed Focus Camera Module    | MIPI CSI-2 8MP Fixed Focus Camera Module                 | MIPI CSI-2 13MP Fixed Focus Camera Module                |
| Resolution (Max.)            | 5MP                                         | 8MP                                         | 8MP                                                      | 13MP                                                     |
| Frame Rate (Max. Resolution) | 30fps                                       | 30fps                                       | 30fps                                                    | 20fps                                                    |
| Output I/F                   | MIPI CSI-2                                  | MIPI CSI-2                                  | MIPI CSI-2                                               | MIPI CSI-2                                               |
| Sensor                       | Sony IMX335                                 | Sony IMX415                                 | onsemi AR0822                                            | onsemi AR1335                                            |
| Shutter                      | Rolling                                     | Rolling                                     | Rolling                                                  | Rolling                                                  |
| Video Format                 | YUV422                                      | YUV422                                      | YUV422                                                   | YUV422                                                   |
| Power Consumption            | Approximate 1.6W (YUV422 @Max. Resolution ) | Approximate 1.9W (YUV422 @Max. Resolution ) | Approximate 1W (YUV422 @Max. Resolution )                | Approximate 1W (YUV422 @Max. Resolution )                |
| Operating Temperature        | -20°C ~ 65°C                                | -20°C ~ 65°C                                | -30°C ~ 70°C                                             | -30°C ~ 70°C                                             |
| Sensor Size                  | 1/2.8"                                      | 1/2.8"                                      | 1/1.8"                                                   | 1/3.2"                                                   |
| Pixel Size                   | 2.0μm                                       | 1.45μm                                      | 2.0μm                                                    | 1.1μm                                                    |
| Chroma Type                  | Color                                       | Color                                       | Color                                                    | Color                                                    |
| Lens Type                    | Fixed Focus (M12)                           | Fixed Focus (M12)                           | Fixed Focus (M12)                                        | Fixed Focus (M12)                                        |
| Dimension (WxLxH/mm)         | 46 x 46 x 40.6<br>(Open Front Housing)      | 46 x 46 x 40.6<br>(Open Front Housing)      | 30 x 30 x 41.2<br>39 x 39 x 41.2<br>(Open Front Housing) | 30 x 30 x 40.5<br>39 x 39 x 40.5<br>(Open Front Housing) |
| Lens FOV(D/H/V)              | 130° / 100° / 73°                           | 148° / 125° / 67°                           | 107° / 100° / 67°                                        | 91° / 71° / 52°                                          |
| OS Support                   | NVIDIA Jetson Orin                          | NVIDIA Jetson Orin                          | NVIDIA Jetson Orin, Intel                                | NVIDIA Jetson Orin, Intel                                |
| Housing                      | Open Front Housing                          | Open Front Housing                          | Board Level, Open Front Housing                          | Board Level, Open Front Housing                          |
| Features                     | HDR, Low light                              | HDR, Low light                              | HDR, External Trigger                                    | HDR                                                      |
| Warranty                     | 3 Years                                     | 3 Years                                     | 3 Years                                                  | 3 Years                                                  |

For detailed resolution and frame rate combined application, please refer to product datasheet.  
For more platform support, please contact our local sales.

## MIPI over Type-C



| Model Name                   | EV2C-OOM3-RHCF                                 | EV8C-OOM1-RHCF  |
|------------------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Module Type                  | MIPI over Type-C 2MP Fixed Focus Camera Module | MIPI over Type-C 8MP Fixed Focus Camera Module                                                     |
| Resolution (Max.)            | 2MP                                            | 8MP                                                                                                |
| Frame Rate (Max. Resolution) | 30fps                                          | 30fps                                                                                              |
| Output I/F                   | MIPI over Type-C                               | MIPI over Type-C                                                                                   |
| Sensor                       | onsemi AR0246                                  | onsemi AR0822                                                                                      |
| Shutter                      | Rolling                                        | Rolling                                                                                            |
| Video Format                 | YUV422                                         | YUV422                                                                                             |
| Power Consumption            | Approximate 1W (YUV422 @Max. Resolution )      | Approximate 1W (YUV422 @Max. Resolution )                                                          |
| Operating Temperature        | -30°C ~ 70°C                                   | -30°C ~ 70°C                                                                                       |
| Sensor Size                  | 1/4"                                           | 1/1.8"                                                                                             |
| Pixel Size                   | 2.0μm                                          | 2.0μm                                                                                              |
| Chroma Type                  | Color                                          | Color                                                                                              |
| Lens Type                    | Fixed Focus (M12)                              | Fixed Focus (M12)                                                                                  |
| Dimension (WxLxH/mm)         | 30 x 30 x TBC<br>41.4 x 41.4 x TBC (Housing)   | 30 x 30 x TBC<br>41.4 x 41.4 x TBC (Housing)                                                       |
| Lens FOV(D/H/V)              | 96°/88°/57°                                    | 107°/100°/67°                                                                                      |
| OS Support                   | NVIDIA Jetson Orin, Intel                      | NVIDIA Jetson Orin, Intel                                                                          |
| Housing                      | Board Level, Housing                           | Board Level, Housing                                                                               |
| Features                     | HDR                                            | HDR                                                                                                |
| Warranty                     | 3 Years                                        | 3 Years                                                                                            |

For detailed resolution and frame rate combined application, please refer to product datasheet.  
For more platform support, please contact our local sales.



## GMSL2

| Model Name                   | EV2F-OOM3-RHCF                              | EV2F-OOM4-GSCF                      | EV3F-ZSM1-RXCF                              | EV2F-COM1-GSCF                              |
|------------------------------|---------------------------------------------|-------------------------------------|---------------------------------------------|---------------------------------------------|
| Module Type                  | GMSL2 2MP Fixed Focus Camera Module         | GMSL2 2MP Fixed Focus Camera Module | GMSL2 3MP Fixed Focus Camera Module         | GMSL2 2MP Fixed Focus Camera Module         |
| Resolution (Max.)            | 2MP                                         | 2.3MP                               | 3MP                                         | 2.3MP                                       |
| Frame Rate (Max. Resolution) | 30fps                                       | 120fps                              | 60fps                                       | 60fps                                       |
| Output I/F                   | GMSL2                                       | GMSL2                               | GMSL2                                       | GMSL2                                       |
| Sensor                       | onsemi AR0246                               | onsemi AR0235CS                     | SONY ISX031                                 | onsemi AR0234                               |
| Serializer                   | MAX9295A                                    | MAX9295A                            | MAX9295A                                    | MAX9295A                                    |
| Shutter                      | Rolling                                     | Global                              | Rolling                                     | Global                                      |
| Video Format                 | YUV422                                      | YUV422                              | YUV422                                      | YUV422                                      |
| Power Consumption            | Approximate 1.2W (YUV422 @Max. Resolution ) | TBC                                 | Approximate 1.2W (YUV422 @Max. Resolution ) | Approximate 1.5W (YUV422 @Max. Resolution ) |
| Operating Temperature        | -30°C ~ 70°C                                | -30°C ~ 70°C                        | -40°C ~ 85°C                                | -30°C ~ 65°C                                |
| Sensor Size                  | 1/4"                                        | 1/2.8"                              | 1/2.42"                                     | 1/2.6"                                      |
| Pixel Size                   | 2μm                                         | 2.8μm                               | 3μm                                         | 3.0μm                                       |
| Chroma Type                  | Color                                       | Color                               | Color                                       | Color                                       |
| Lens Type                    | Fixed Focus (M12)                           | Fixed Focus (M12)                   | Fixed Focus (M12)                           | Fixed Focus (M12)                           |
| Dimension (WxLxH/mm)         | 42 x 41 x 64                                | 42 x 41 x TBC                       | 25 x 25 x 57                                | 42 x 41 x 55.6                              |
| Lens FOV (D / H / V)         | 72° / 64° / 39°                             | TBC                                 | 80° / 64° / 41°                             | 148°/118°/70°                               |
| Platform Support             | NVIDIA Jetson Orin                          | NVIDIA Jetson Orin                  | NVIDIA Jetson Orin                          | NVIDIA Jetson Orin                          |
| Housing                      | IP67 Housing                                | IP67 Housing                        | IP69K Housing                               | IP67 Housing                                |
| Features                     | HDR                                         |                                     | LFM, HDR                                    |                                             |
| Warranty                     | 3 Years                                     | 3 Years                             | 3 Years                                     | 3 Years                                     |

For detailed resolution and frame rate combined application, please refer to product datasheet.  
For more platform support, please contact our local sales.

| Model Name                   | EV5F-CSM1-RTCF                                 | EV8F-CSM1-RTCF                                 | EV8F-OOM1-RHCF                      |
|------------------------------|------------------------------------------------|------------------------------------------------|-------------------------------------|
| Module Type                  | GMSL2 5MP Fixed Focus Camera Module            | GMSL2 8MP Fixed Focus Camera Module            | GMSL2 8MP Fixed Focus Camera Module |
| Resolution (Max.)            | 5MP                                            | 8MP                                            | 8MP                                 |
| Frame Rate (Max. Resolution) | 30fps                                          | 30fps                                          | 30fps                               |
| Output I/F                   | GMSL2                                          | GMSL2                                          | GMSL2                               |
| Sensor                       | SONY IMX335                                    | SONY IMX415                                    | onsemi AR0822                       |
| Serializer                   | MAX9295A                                       | MAX9295A                                       | MAX9295A                            |
| Shutter                      | Rolling                                        | Rolling                                        | Rolling                             |
| Video Format                 | YUV422                                         | YUV422                                         | YUV422                              |
| Power Consumption            | Approximate 1.5W<br>(YUV422 @Max. Resolution ) | Approximate 1.9W<br>(YUV422 @Max. Resolution ) | TBC                                 |
| Operating Temperature        | -30°C ~ 65°C                                   | -30°C ~ 65°C                                   | -30°C ~ 70°C                        |
| Sensor Size                  | 1/2.8"                                         | 1/2.8"                                         | 1/1.8"                              |
| Pixel Size                   | 2.0µm                                          | 1.45µm                                         | 2.0 um                              |
| Chroma Type                  | Color                                          | Color                                          | Color                               |
| Lens Type                    | Fixed Focus (M12)                              | Fixed Focus (M12)                              | Fixed Focus (M12)                   |
| Dimension (WxLxH/mm)         | 42 x 41 x 55.6                                 | 42 x 41 x 56.9                                 | 42 x 41 x TBC                       |
| Lens FOV (D / H / V)         | 139°/105°/76°                                  | 148°/125°/67°                                  | 119°/110°/72°                       |
| Platform Support             | NVIDIA Jetson Orin                             | NVIDIA Jetson Orin                             | NVIDIA Jetson Orin                  |
| Housing                      | IP67 Housing                                   | IP67 Housing                                   | IP67 Housing                        |
| Features                     | HDR, Low Light                                 | HDR, Low Light                                 | HDR                                 |
| Warranty                     | 3 Years                                        | 3 Years                                        | 3 Years                             |

For detailed resolution and frame rate combined application, please refer to product datasheet.  
For more platform support, please contact our local sales.

| Model Name                   | EV8F-NSM1-RXCF                      | EVDF-OOM1-RHCF                            |
|------------------------------|-------------------------------------|-------------------------------------------|
| Module Type                  | GMSL2 8MP Fixed Focus Camera Module | GMSL2 13MP Fixed Focus Camera Module      |
| Resolution (Max.)            | 8MP                                 | 13MP                                      |
| Frame Rate (Max. Resolution) | 30fps                               | 20fps                                     |
| Output I/F                   | GMSL2                               | GMSL2                                     |
| Sensor                       | SONY IMX728                         | onsemi AR1335                             |
| Serializer                   | MAX9295A                            | MAX9295A                                  |
| Shutter                      | Rolling                             | Rolling                                   |
| Video Format                 | YUV422                              | YUV422                                    |
| Power Consumption            | TBC                                 | Approximate 1W (YUV422 @Max. Resolution ) |
| Operating Temperature        | -40°C ~ 85°C                        | -30°C ~ 70°C                              |
| Sensor Size                  | 1/1.72"                             | 1/3.2"                                    |
| Pixel Size                   | 2.1µm                               | 1.1µm                                     |
| Chroma Type                  | Color                               | Color                                     |
| Lens Type                    | Fixed Focus (M12)                   | Fixed Focus (M12)                         |
| Dimension (WxLxH/mm)         | TBC                                 | 42 x 41 x 53.3                            |
| Lens FOV (D / H / V)         | TBC                                 | 91° / 71° / 52°                           |
| Platform Support             | NVIDIA Jetson Orin                  | NVIDIA Jetson Orin                        |
| Housing                      | IP67 Housing                        | IP67 Housing                              |
| Features                     | LFM, HDR                            | HDR                                       |
| Warranty                     | 3 Years                             | 3 Years                                   |

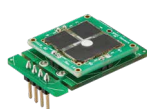
For detailed resolution and frame rate combined application, please refer to product datasheet.  
For more platform support, please contact our local sales.

# 空氣感測模組

## 空氣感測器



| Model                         | IAGM2                     | IAGCO2                                   | IAGM1                    | IAGNO2                 |
|-------------------------------|---------------------------|------------------------------------------|--------------------------|------------------------|
| Detection                     | PM2.5 , PM10              | Carbon dioxide (CO2)                     | Formaldehyde (HCHO)      | Nitrogen dioxide (NO2) |
| Principle                     | Optical scattering(Laser) | Non-dispersive infrared (NDIR)           | Electrochemical          | Electrochemical        |
| Measurement range             | 0 ~ 1000 µg/m3            | 0 ~ 5000 ppm                             | 0.01 ~ 5 ppm             | 0 ~ 20 ppm             |
| Resolution                    | 1 µg/m3                   | 1 ppm                                    | 0.01 ppm                 | 0.1 ppm                |
| Accuracy                      | ±10±10% of reading µg/m3  | ±30±3% of reading ppm                    | ±0.02±10% of reading ppm | ±2% FS ppm             |
| Response Time(T90)<br>(sec)   | <10 sec                   | <120 sec                                 | <30 sec                  | <30 sec                |
| Operation Temperature(°C)     | -10°C ~ 50°C              | -10°C ~ 50°C                             | -10°C ~ 50°C             | -10°C ~ 50°C           |
| Operation Humidity<br>(% RH)  | 15 to 90 %RH              | 15 to 90 %RH                             | 15 to 90 %RH             | 15 to 90 %RH           |
| Expected Operating Fife(year) | 3 Years                   | 3 Years                                  | 3 Years                  | 2 Years                |
| Power Supply(V)               | 4.75 ~ 5.25 V             | VDD : 4.8 ~ 5.2 V<br>VDDIO : 3.1 ~ 3.5 V | 3.1 ~ 3.5V               | 3.1 ~ 3.5V             |
| Power Consumption(mW)         | 110 mW                    | 150 mW                                   | <100 mW                  | <100 mW                |
| Interface                     | I²C                       | I²C                                      | I²C                      | I²C                    |
| Dimension(mm)                 | 58(L) 48(W) 15.5(H)       | 37(L) 21(W) 14(H)                        | 32(L) 25(W) 10(H)        | 32(L) 21(W) 21(H)      |



| Model                         | IAGO3                   | IAGSO2               | IAGVOC                                  | IAGCO                |
|-------------------------------|-------------------------|----------------------|-----------------------------------------|----------------------|
| Detection                     | Ozone (O3)              | Sulfur dioxide (SO2) | Total volatile organic compounds (TVOC) | carbon monoxide (CO) |
| Principle                     | Electrochemical         | Electrochemical      | MEMS                                    | Electrochemical      |
| Measurement range             | 0 ~ 5 ppm               | 0 ~ 20 ppm           | 0 ~ 60 ppm                              | 0 ~ 1000 ppm         |
| Resolution                    | 0.01 ppm                | 0.1 ppm              | 0.01 ppm                                | 0.1 ppm              |
| Accuracy                      | ±0.1±10% of reading ppm | ±5% FS ppm           | ±0.1±10% of reading ppm                 | ±5±5% of reading ppm |
| Response Time(T90)<br>(sec)   | <60 sec                 | <30 sec              | <10 sec                                 | <30 sec              |
| Operation Temperature(°C)     | -10°C ~ 50°C            | -10°C ~ 50°C         | -10°C ~ 50°C                            | -10°C ~ 50°C         |
| Operation Humidity<br>(% RH)  | 15 to 90 %RH            | 15 to 90 %RH         | 15 to 90 %RH                            | 15 to 90 %RH         |
| Expected Operating Fife(year) | 3 Years                 | 2 Years              | 1 Year                                  | 3 Years              |
| Power Supply(V)               | 3.1 ~ 3.5V              | 3.1 ~ 3.5V           | 3.1 ~ 3.5V                              | 3.1 ~ 3.5V           |
| Power Consumption(mW)         | <100 mW                 | <100                 | <100                                    | <100                 |
| Interface                     | I²C                     | I²C                  | I²C                                     | I²C                  |
| Dimension(mm)                 | 32(L) 21(W) 8(H)        | 32(L) 21(W) 21(H)    | 32(L) 21(W) 7(H)                        | 32(L) 21(W) 11(H)    |

規格表

| Measurement Index | Operating Range | Resolution | Accuracy (*)             | Detection Method | Response Time | Warmup Time |
|-------------------|-----------------|------------|--------------------------|------------------|---------------|-------------|
| Temperature       | -40°C ~ 125°C   | 0.1°C      | ±0.5°C                   | MEMS             | 30sec         | 60sec       |
| Humidity          | 0~100% RH       | 1% RH      | ±5%RH                    | MEMS             | 30sec         | 60sec       |
| CO2               | 0~5,000 ppm     | 1 ppm      | ±30 ppm±3% of reading    | NDIR             | 120sec        | 60sec       |
| PM2.5             | 0~1000 µg/m3    | 1 µg/m3    | ±10 µg/m3±10% of reading | Optical          | 10sec         | 300sec      |
| PM10              | 0~1000 µg/m3    | 1 µg/m3    | ±10 µg/m3±10% of reading | Optical          | 10sec         | 300sec      |
| TVOC              | 0~60 ppm        | 0.01 ppm   | ±0.1 ppm±10% of reading  | MEMS             | 10sec         | 300sec      |
| CO                | 0~1,000 ppm     | 0.1 ppm    | ±5 ppm±5% of reading     | Electrochemical  | 30sec         | 60sec       |
| HCHO              | 0.01~5 ppm      | 0.01 ppm   | ±0.02 ppm±10% of reading | Electrochemical  | 30sec         | 300sec      |
| O3                | 0~5 ppm         | 0.01 ppm   | ±0.1 ppm±10% of reading  | Electrochemical  | 60sec         | 600sec      |
| NO2               | 0~20 ppm        | 0.1 ppm    | ±2% FS                   | Electrochemical  | 30sec         | 600sec      |
| SO2               | 0~20 ppm        | 0.1 ppm    | ±5% FS                   | Electrochemical  | 30sec         | 600sec      |

(\*) Testing conditions at 25°C environment

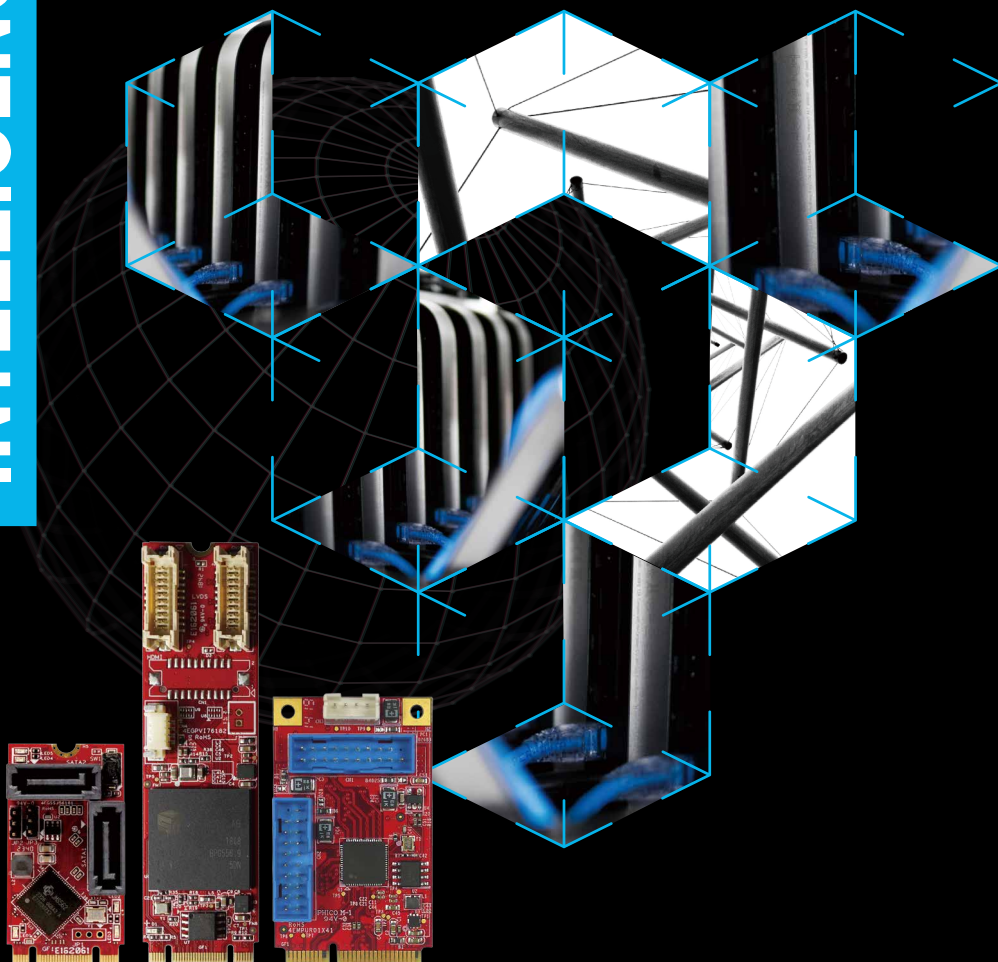


感測器轉接板

| Model                    | EZU2-I301                                                             |             |
|--------------------------|-----------------------------------------------------------------------|-------------|
| Key Features             | USB to I2C Sensor Carrier Board                                       |             |
| Form-Factor              | Other                                                                 |             |
| Input I/F                | USB 2.0 Full Speed                                                    |             |
| Output I/F               | I2C (3.3V)                                                            |             |
| Output connector         | P2.54mm Pin Header x4 (CN4+CN5, CN6+CN7)<br>P2.0mm Connector x1 (CN2) |             |
| Power Consumption        | MAX: 0.695W (3.3V, 139mA)                                             |             |
| Dimension (WxLxH/mm)     | 50 x 80 x 8.82                                                        |             |
| Temperature              | Operation: STD: -40°C ~ 85°C<br>Storage: -55°C ~ 95°C                 |             |
| Order info.              | EZU2-I301-W1                                                          |             |
| Detection                | Temperature                                                           | Humidity    |
| Principle                | MEMS                                                                  | MEMS        |
| Measurement range        | -40°C ~ 125°C                                                         | 0 ~ 100% RH |
| Resolution               | 0.1°C                                                                 | 1% RH       |
| Accuracy                 | ±0.5°C                                                                | ±5% RH      |
| Response time(T90) (sec) | <30 sec                                                               | <30 sec     |

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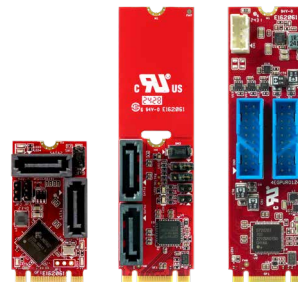
# EXTENDED INTELLIGENCE



## EXTENDED INTELLIGENCE

透過我們的周邊擴充元件，建構相互串聯的應用場景，向外擴展您的系統能力。

## 儲存與磁碟陣列



| Model                | EMPS-3401                     | EGPS-3401               | EMPU-3201                                       | EMPU-3401                                       |
|----------------------|-------------------------------|-------------------------|-------------------------------------------------|-------------------------------------------------|
| Description          | mPCIe to Four SATA III Module | M.2 to Four SATA Module | mPCIe to Dual USB 3.0 Module                    | mPCIe to Four USB 3.0 Module                    |
| Form Factor          | mPCIe                         | M.2 3042                | mPCIe                                           | mPCIe                                           |
| Input I/F            | PCI Express 2.0               | PCI Express 2.0 x1      | PCI Express 2.0                                 | PCI Express 2.0                                 |
| Input Connector      | mPCIe                         | M.2 B+M Key             | mPCIe                                           | mPCIe                                           |
| Output I/F           | SATA III x4                   | SATA III x4             | USB 3.0 x2                                      | USB 3.0 x4                                      |
| Output Connector     | SATA 7 Pin x 4                | SATA 7 Pin x 4          | 19 Pin box header x 1                           | 19 Pin box header x 2                           |
| Dimension (WxLxH/mm) | 30 x 50.9 x 10.9              | 30 x 42 x 10.4          | 30.0 x 50.9 x 8.45                              | 30.0 x 50.9 x 8.45                              |
| Temperature          | Wide temp: -40°C ~ 85°C       | STD temp: 0°C ~ 70°C    | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C |
| Order info.          | EMPS-3401-W1                  | EGPS-3401-C1            | EMPU-3201-C1<br>EMPU-3201-W1                    | EMPU-3401-C1<br>EMPU-3401-W1                    |

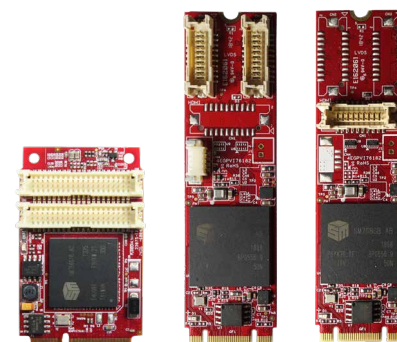
| Model                | EGPU-3201                                                  | EMPS-32R1                          | E2SS-32R1                          | E2SS-32R2                        |
|----------------------|------------------------------------------------------------|------------------------------------|------------------------------------|----------------------------------|
| Description          | M.2 to Dual USB 3.0 Module                                 | mPCIe to Dual SATA III RAID Module | 2.5" SSD to Dual mSATA RAID Module | 2.5" SSD to Dual M.2 RAID Module |
| Form Factor          | M.2 2260/2280                                              | mPCIe                              | 2.5" SSD                           | 2.5" SSD                         |
| Input I/F            | PCI Express 2.0                                            | PCI Express 2.0                    | SATA III                           | SATA III                         |
| Input Connector      | M.2 B+M Key                                                | mPCIe                              | SATA 7+15 Pin                      | SATA 7+15 Pin                    |
| Output I/F           | USB 3.0 x2                                                 | SATA III x2                        | SATA III x2                        | SATA III x2                      |
| Output Connector     | 19 Pin box header x 1                                      | SATA 7 Pin x 2                     | mSATA x 2                          | M.2 2242/2260/2280 x 2           |
| Dimension (WxLxH/mm) | 22.0 x 60.0 x 8.4<br>22.0 x 80.0 x 8.4                     | 30 x 50.9 x 10.7                   | 69.85 x 100.1 x 11                 | 69.85 x 100.1 x 11               |
| Temperature          | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C            | STD temp: 0°C ~ 70°C               | STD temp: 0°C ~ 70°C               | STD temp: 0°C ~ 70°C             |
| Order info.          | EGPU-3201-C1 / EGPU-3201-C2<br>EGPU-3201-W1 / EGPU-3201-W2 | EMPS-32R1-C1                       | E2SS-32R1-C1                       | E2SS-32R2-C1                     |

| Model                | EGSS-32R2                                      | EGPS-32R1                                                                    | EGPU-3401                    |
|----------------------|------------------------------------------------|------------------------------------------------------------------------------|------------------------------|
| Description          | M.2 2242/2280 to Dual SATA III RAID Module     | M.2 2242/2280 to Dual SATA III RAID Module                                   | M.2 to Four USB 3.0 Module   |
| Form Factor          | M.2 2242/2280                                  | M.2 2242/2280                                                                | M.2 2280 B+M Key             |
| Input I/F            | SATA III                                       | PCI Express 2.0                                                              | PCI Express 2.0              |
| Input Connector      | M.2 B+M Key                                    | M.2 B+M Key                                                                  | M.2 B+M Key                  |
| Output I/F           | SATA III                                       | SATA III                                                                     | USB 3.0                      |
| Output Connector     | SATA 7pin x 2                                  | SATA 7pin x 2                                                                | 19 Pin box header x 2        |
| Dimension (WxLxH/mm) | C1: 22 x 42 x 11<br>C2: 22 x 80 x 11           | 22 x 42(80) x 10.85                                                          | 22 x 80 x 8.45               |
| Temperature          | Operation: 0°C ~ 70°C<br>Storage: -55°C ~ 95°C | Operation: 0°C ~ 70°C<br>Storage: -55°C ~ 95°C<br>Controller Tc: 25°C ~ 85°C | STD temp: 0°C ~ 70°C         |
| Order info.          | EGSS-32R2-C1<br>EGSS-32R2-C2                   | EGPS-32R1-C1<br>EGPS-32R1-C2                                                 | EGPU-3401-C1<br>EGPU-3401-W1 |



## 測試工具

| Model                | EMXX-0102                  |
|----------------------|----------------------------|
| Description          | mPCIe to M.2 B Key Module  |
| Form Factor          | mPCIe                      |
| Input I/F            | PCI Express, USB 2.0, SATA |
| Input Connector      | mPCIe                      |
| Output I/F           | PCI Express, USB 2.0, SATA |
| Output Connector     | M.2 Key B                  |
| Dimension (WxLxH/mm) | 30 x 54.4 x 6.4            |
| Temperature          | Wide temp: -40°C ~ 85°C    |
| Order info.          | EMXX-0102-W1               |



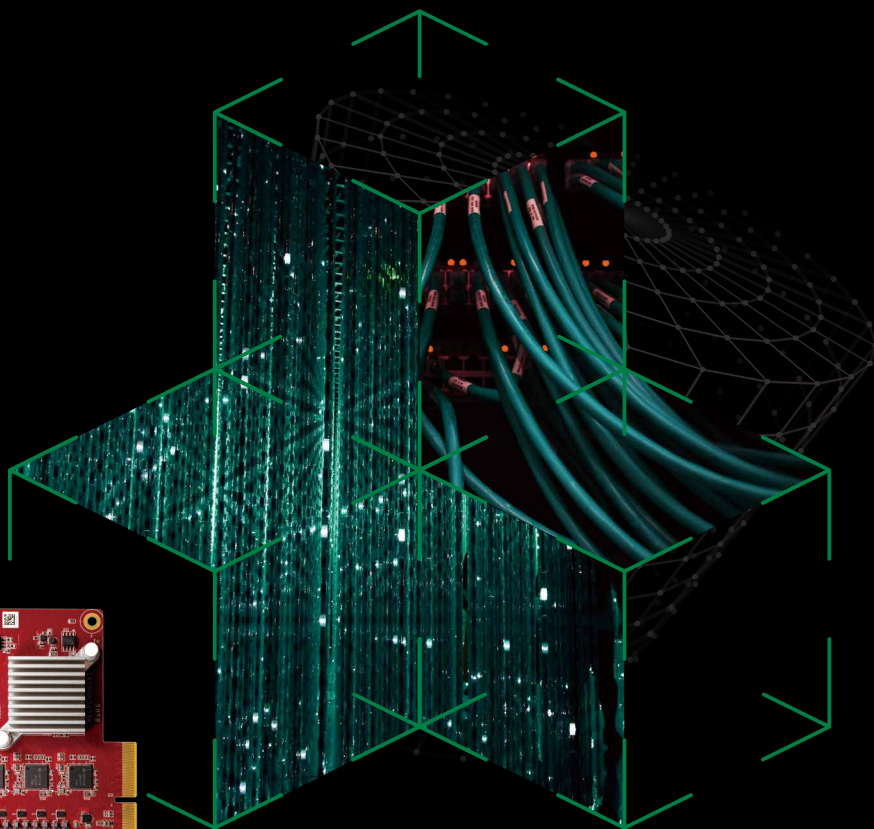
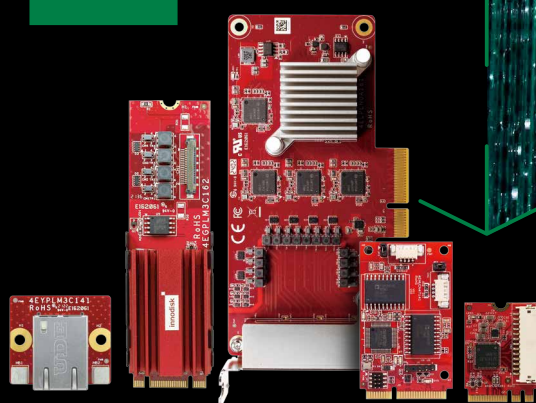
## 顯示模組

| Model                | EMPV-1201                         | EGPV-1101                                                                                                                                                                                                                                        |
|----------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description          | mPCIe to Dual VGA and HDMI Module | M.2 to Single HDMI or DVI-D Module                                                                                                                                                                                                               |
| Form Factor          | mPCIe                             | M.2 2280                                                                                                                                                                                                                                         |
| Input I/F            | PCI Express 1.0                   | PCI Express 2.0 x2                                                                                                                                                                                                                               |
| Input Connector      | mPCIe                             | M.2 B+M Key                                                                                                                                                                                                                                      |
| Output I/F           | VGA x 2, HDMI x 1                 | HDMI, Single & Dual LVDS                                                                                                                                                                                                                         |
| Output Connector     | 40pin 1.25mm x 2 (40DP-1.25)      | 20 pin x 1 (HDMI)<br>20 pin x 2 (LVDS)                                                                                                                                                                                                           |
| Dimension (WxLxH/mm) | 31.5 x 50.9 x 8.2                 | 22 x 80 x 7.1                                                                                                                                                                                                                                    |
| Temperature          | STD temp: 0°C ~ 70°C              | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                                                                                                                                                                                  |
| Order info.          | EMPV-1201-C1                      | EGPV-1101-C1 (HDMI, Standard Temp.)<br>EGPV-1101-W1 (HDMI, Wide Temp.)<br>EGPV-1101-C2 (LVDS, Standard Temp.)<br>EGPV-1101-W2 (LVDS, Wide Temp.)<br>EGPV-1101-C3 (with HDMI Cable, Standard Temp.)<br>EGPV-1101-W3 (with HDMI Cable, Wide Temp.) |



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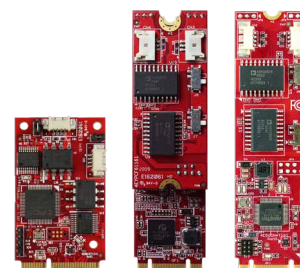
# CONNECTING INTELLIGENCE



## CONNECTING INTELLIGENCE

實現無縫串聯，達成即時資料傳輸。我們的產品擅長處理多工運算，可為您的工業系統提供穩定的頻寬保障。

## CAN Bus 模組



| Model                | EMUC-B202                                                                 | EGPC-B201                                                                                                                                                                                | EGPC-B4S1                                     | EGPC-B1S1                                     |
|----------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Description          | USB to Dual Isolated CAN Bus 2.0B/J1939 Module                            | M.2 to Dual Isolated CAN Bus 2.0B/J1939 Module                                                                                                                                           | M.2 to Four Isolated CAN Bus 2.0B Module      | M.2 to Single Isolated CAN Bus 2.0B Module    |
| Form Factor          | mPCIe                                                                     | M.2 2260/2280                                                                                                                                                                            | M.2 2280                                      | M.2 2242                                      |
| Input I/F            | USB 2.0                                                                   | PCI Express 2.0 x1                                                                                                                                                                       | PCI Express 1.1 x1                            | PCI Express 1.1 x1                            |
| Input Connector      | mPCIe or 5 Pin Header                                                     | M.2 B+M Key                                                                                                                                                                              | M.2 B+M Key                                   | M.2 B+M Key                                   |
| Output I/F           | CAN Bus 2.0B/J1939 /CANopen x2                                            | CAN Bus 2.0B/J1939 /CANopen x2                                                                                                                                                           | CAN Bus 2.0B/J1939 /CANopen x4                | CAN Bus 2.0B/J1939 /CANopen x1                |
| Output Connector     | DB-9 x 2                                                                  | DB-9 x 2                                                                                                                                                                                 | DB-9 x 4                                      | DB-9 x 1                                      |
| Dimension (WxLxH/mm) | 30 x 50.9 x 8.35                                                          | 22 x 60 x 8.05<br>22 x 80 x 8.05                                                                                                                                                         | 22 x 80 x 12.9                                | 22 x 42 x 4.8                                 |
| Temperature          | Wide temp: -40°C ~ 85°C                                                   | Wide temp: -40°C ~ 85°C                                                                                                                                                                  | Wide temp: -40°C ~ 85°C                       | Wide temp: -40°C ~ 85°C                       |
| Order info.          | EMUC-B202-W1 (CAN 2.0B)<br>EMUC-B202-W2 (J1939)<br>EMUC-B202-W3 (CANopen) | EGPC-B201-W1 (2260, CAN2.0B)<br>EGPC-B201-W2 (2280, CAN2.0B)<br>EGPC-B201-W3 (2260, J1939)<br>EGPC-B201-W4 (2280, J1939)<br>EGPC-B201-W5 (2260, CANopen)<br>EGPC-B201-W6 (2280, CANopen) | EGPC-B4S1-W1<br>EGPC-B4S1-W2 (J1939, CANopen) | EGPC-B1S1-W1<br>EGPC-B1S1-W2 (J1939, CANopen) |

| Model                | EGPC-B2S1                                              | EMPC-B2S1                                                | EMUC-B2S3                                            | EMUC-F2S3                            |
|----------------------|--------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------|--------------------------------------|
| Description          | M.2 to Dual Isolated CAN Bus 2.0B/J1939/CANopen Module | mPCIe to Dual Isolated CAN Bus 2.0B/J1939/CANopen Module | mPCIe to Dual Isolated CAN 2.0B/J1939/CANopen Module | mPCIe to Dual Isolated CAN FD Module |
| Form Factor          | M.2 2280                                               | mPCIe                                                    | mPCIe                                                | mPCIe                                |
| Input I/F            | PCI Express 1.1 x1                                     | PCI Express 1.1 x1                                       | USB 2.0 High Speed (480Mbps)                         | USB 2.0 High Speed (480Mbps)         |
| Input Connector      | M.2 B+M Key                                            | mPCIe                                                    | USB 2.0                                              | USB 2.0                              |
| Output I/F           | CAN Bus 2.0B/J1939 /CANopen x2                         | CAN Bus 2.0B/J1939 /CANopen x2                           | CAN Bus 2.0B/J1939 /CANopen x2                       | CAN FD                               |
| Output Connector     | DB-9 x 2                                               | DB-9 x 2                                                 | DB-9 x 2                                             | DB-9 x 2                             |
| Dimension (WxLxH/mm) | 22 x 80 x 4.85                                         | 30 x 50.9 x 8.25                                         | 30 x 50.9 x 8.35                                     | 30 x 50.9 x 8.35                     |
| Temperature          | Wide temp: -40°C ~ 85°C                                | Wide temp: -40°C ~ 85°C                                  | Wide temp: -40°C ~ 85°C                              | Wide temp: -40°C ~ 85°C              |
| Order info.          | EGPC-B2S1-W1<br>EGPC-B2S1-W2 (J1939, CANopen)          | EMPC-B2S1-W1<br>EMPC-B2S1-W2 (J1939, CANopen)            | EMUC-B2S3-W1<br>EMUC-B2S3-W2 (J1939, CANopen)        | EMUC-F2S3-W1                         |

| Model                | EGUC-F2S3                               | EGUC-F4S3                               | ESPC-F2S3                                    | ESPC-F4S3                                    |
|----------------------|-----------------------------------------|-----------------------------------------|----------------------------------------------|----------------------------------------------|
| Description          | M.2 2280 to Dual Isolated CAN FD Module | M.2 2280 to Four Isolated CAN FD Module | PCIe to Dual Isolated CAN FD Module          | PCIe to Dual Isolated CAN FD Module          |
| Form Factor          | M.2 2280                                | M.2 2280                                | PCIe x 4                                     | PCIe x 4                                     |
| Input I/F            | USB 2.0 High Speed (480Mbps)            | USB 2.0 High Speed (480Mbps)            | PCI Express 2.0 x1                           | PCI Express 2.0 x1                           |
| Input Connector      | M.2 B+M Key                             | M.2 B+M Key                             | PCIe x 4                                     | PCIe x 4                                     |
| Output I/F           | CAN FD                                  | CAN FD                                  | CAN FD                                       | CAN FD                                       |
| Output Connector     | DB-9 x 2                                | DB-9 x 4                                | DB-9 x 2                                     | DB-9 x 4                                     |
| Dimension (WxLxH/mm) | 22 x 80 x 5.55                          | 22 x 80 x 12.65                         | 111.5 x 110 x 16.79                          | 111.5 x 110 x 16.79                          |
| Temperature          | Wide temp: -40°C ~ 85°C                 | Wide temp: -40°C ~ 85°C                 | Wide temp: -40°C ~ 85°C                      | Wide temp: -40°C ~ 85°C                      |
| Order info.          | EGUC-F2S3-W1                            | EGUC-F4S3-W1                            | ESPC-F2S3-W1<br>ESPC-F2S3-W2 (with M.2 slot) | ESPC-F4S3-W1<br>ESPC-F4S3-W2 (with M.2 slot) |

## 1G LAN



| Model                | EMPL-G101                                                                                  | EMPL-G201                                                                                  | EMPL-G102                                                                                  | EMPL-G202                                                                                  |
|----------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Description          | mPCIe to Single Isolated GbE LAN Module                                                    | mPCIe to Dual Isolated GbE LAN Module + Cable                                              | mPCIe to Single Isolated GbE LAN Horizontal Module                                         | mPCIe to Dual Isolated GbE LAN Horizontal Module                                           |
| Form Factor          | mPCIe                                                                                      | mPCIe                                                                                      | mPCIe                                                                                      | mPCIe                                                                                      |
| Input I/F            | PCI Express 2.1 x1                                                                         | PCI Express 2.1 x1                                                                         | PCI Express 2.1 x1                                                                         | PCI Express 2.1 x1                                                                         |
| Input Connector      | mPCIe                                                                                      | mPCIe                                                                                      | mPCIe                                                                                      | mPCIe                                                                                      |
| Output I/F           | GbE LAN x 1                                                                                | GbE LAN x 2                                                                                | GbE LAN x 1                                                                                | GbE LAN x 2                                                                                |
| Output Connector     | RJ45 x 1                                                                                   | RJ45 x 2                                                                                   | RJ45 x 1                                                                                   | RJ45 x 2                                                                                   |
| Dimension (WxLxH/mm) | 30 x 50.9 x 9.2                                                                            | 30 x 50.9 x 9.2                                                                            | 30 x 50.9 x 5.8                                                                            | 30 x 50.9 x 5.8                                                                            |
| Temperature          | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            |
| Order info.          | EMPL-G101-C3<br>EMPL-G101-W3<br>EMPL-G101-C4 (with bracket)<br>EMPL-G101-W4 (with bracket) | EMPL-G201-C3<br>EMPL-G201-W3<br>EMPL-G201-C4 (with bracket)<br>EMPL-G201-W4 (with bracket) | EMPL-G102-C3<br>EMPL-G102-W3<br>EMPL-G102-C4 (with bracket)<br>EMPL-G102-W4 (with bracket) | EMPL-G202-C3<br>EMPL-G202-W3<br>EMPL-G202-C4 (with bracket)<br>EMPL-G202-W4 (with bracket) |

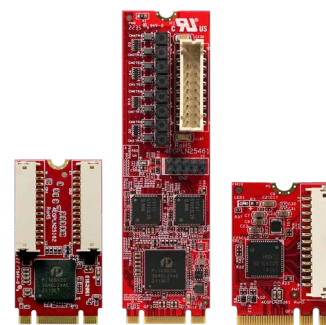
| Model                | EGPL-G101                                                                                  | EGPL-G201                                                                                  | EGPL-G102                                                                                  | EGPL-G202                                                                                  |
|----------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Description          | M.2 to Single Isolated GbE LAN Module                                                      | M.2 to Dual Isolated GbE LAN Module                                                        | M.2 to Single Isolated GbE LAN Module                                                      | M.2 to Dual Isolated GbE LAN Module                                                        |
| Form Factor          | M.2 2280                                                                                   | M.2 2280                                                                                   | M.2 2242                                                                                   | M.2 2242                                                                                   |
| Input I/F            | PCI Express 2.1 x2                                                                         | PCI Express 2.1 x2                                                                         | PCI Express 2.1 x2                                                                         | PCI Express 2.1 x2                                                                         |
| Input Connector      | M.2 B+M Key                                                                                | M.2 B+M Key                                                                                | M.2 B+M Key                                                                                | M.2 B+M Key                                                                                |
| Output I/F           | Gbe LAN x 1                                                                                | Gbe LAN x 2                                                                                | Gbe LAN x 1                                                                                | Gbe LAN x 2                                                                                |
| Output Connector     | RJ45 x 1                                                                                   | RJ45 x 2                                                                                   | RJ45 x 1                                                                                   | RJ45 x 2                                                                                   |
| Dimension (WxLxH/mm) | 22 x 80 x 9.3                                                                              | 22 x 80 x 9.3                                                                              | 22 x 42 x 9.15                                                                             | 22 x 42 x 9.15                                                                             |
| Temperature          | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            |
| Order info.          | EGPL-G101-C3<br>EGPL-G101-W3<br>EGPL-G101-C4 (with bracket)<br>EGPL-G101-W4 (with bracket) | EGPL-G201-C3<br>EGPL-G201-W3<br>EGPL-G201-C4 (with bracket)<br>EGPL-G201-W4 (with bracket) | EGPL-G102-C3<br>EGPL-G102-W3<br>EGPL-G102-C4 (with bracket)<br>EGPL-G102-W4 (with bracket) | EGPL-G202-C3<br>EGPL-G202-W3<br>EGPL-G202-C4 (with bracket)<br>EGPL-G202-W4 (with bracket) |

| Model                | EMPL-G103                                       | EMPL-G203                                       | EGPL-G104                                             | EGPL-G105                                             |
|----------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| Description          | mPCIe to Single GbE LAN Module                  | mPCIe to Dual GbE LAN Module                    | M.2 2230 to Single Isolated GbE LAN Horizontal Module | M.2 2242 to Single Isolated GbE LAN Horizontal Module |
| Form Factor          | mPCIe                                           | mPCIe                                           | M.2 2230                                              | M.2 2242                                              |
| Input I/F            | PCI Express 2.1 x1                              | PCI Express 2.1 x1                              | PCI Express 2.1 x1                                    | PCI Express 2.1 x2                                    |
| Input Connector      | mPCIe                                           | mPCIe                                           | M.2 A+E Key                                           | M.2 2242 B+M Key                                      |
| Output I/F           | GbE LAN x 1                                     | GbE LAN x 2                                     | GbE LAN x 1                                           | GbE LAN x 1                                           |
| Output Connector     | RJ45 x 1                                        | RJ45 x 2                                        | RJ45 x 1                                              | RJ45 x 1                                              |
| Dimension (WxLxH/mm) | 30 x 50.9 x 9.3                                 | 30 x 50.9 x 9.3                                 | 22 x 30 x 5.4                                         | 22 x 42 x 5.4                                         |
| Temperature          | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C       | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C       |
| Order info.          | EMPL-G103-C3<br>EMPL-G103-W3                    | EMPL-G203-C3<br>EMPL-G203-W3                    | EGPL-G104-C1<br>EGPL-G104-W1                          | EGPL-G105-C1<br>EGPL-G105-W1                          |

| Model                | EGPL-G205                                           | EGPL-G1N3                                       | EMPL-G2N3                                       |
|----------------------|-----------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Description          | M.2 2242 to Dual Isolated GbE LAN Horizontal Module | M.2 to Single GbE LAN Module                    | M.2 to Dual GbE LAN Module                      |
| Form Factor          | M.2 2242                                            | M.2 2280                                        | M.2 2280                                        |
| Input I/F            | PCI Express 2.1 x2                                  | PCI Express 2.1 x2                              | PCI Express 2.1 x1                              |
| Input Connector      | M.2 2242 B+M Key                                    | M.2 B+M Key                                     | M.2 B+M Key                                     |
| Output I/F           | GbE LAN x 1                                         | GbE LAN x 1                                     | GbE LAN x 2                                     |
| Output Connector     | RJ45 x 2                                            | RJ45 x 1                                        | RJ45 x 2                                        |
| Dimension (WxLxH/mm) | 22 x 42 x 5.4                                       | 22 x 80 x 9                                     | 30 x 50.9 x 7.6                                 |
| Temperature          | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C     | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C |
| Order info.          | EGPL-G205-C1<br>EGPL-G205-W1                        | EGPL-G1N3-C1<br>EGPL-G1N3-W1                    | EGPL-G2N3-C1<br>EGPL-G2N3-W1                    |

| Model                | ELPL-G401                                       | EGPL-G401                                                                                                       | EGPL-G1F1                                       | EGPL-G2F1                                       |
|----------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Description          | PCIe to Four Isolated GbE LAN Module            | M.2 2280 to Four Isolated GbE LAN Module                                                                        | M.2 to Single GbE SFP Network Module            | M.2 to Dual GbE SFP Network Module              |
| Form Factor          | Low-Profile PCIe                                | M.2 2280                                                                                                        | M.2 2242 B+M Key<br>M.2 2280 B+M Key            | M.2 2242 B+M Key<br>M.2 2280 B+M Key            |
| Input I/F            | PCI Express 2.1 x4                              | PCI Express 2.1 x2                                                                                              | PCI Express 2 x2                                | PCI Express 2 x2                                |
| Input Connector      | PCIe x 4                                        | M.2 B+M Key                                                                                                     | M.2 B+M Key                                     | M.2 B+M Key                                     |
| Output I/F           | GbE LAN x 4                                     | GbE LAN x 4                                                                                                     | GbE Fiber Optica x 1                            | GbE Fiber Optica x 2                            |
| Output Connector     | RJ45 x 4                                        | RJ45 x 4                                                                                                        | SFP x 1                                         | SFP x 2                                         |
| Dimension (WxLxH/mm) | 131.9 x 56.02 x 19.88                           | Main board: 22 x 80 x 15.3<br>Daughter board: 41.9 x 64.27 x 21                                                 | W1:22 x 80 x 3.75<br>W2:22 x 42 x 3.75          | W1:22 x 80 x 3.75<br>W2:22 x 42 x 3.75          |
| Temperature          | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C | Operation : 0°C ~ 55°C<br>Storage : -55°C ~ 95°C                                                                | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C |
| Order info.          | ELPL-G401-C1<br>ELPL-G401-W1                    | EGPL-G401-C1 (Mounting hole)<br>EGPL-G401-C2 (PCIe low profile bracket)<br>EGPL-G401-C3 (PCIe standard bracket) | EGPL-G1F1-W1<br>EGPL-G1F1-W2                    | EGPL-G2F1-W1<br>EGPL-G2F1-W2                    |

## 2.5G LAN



| Model                | EMPL-21S1                                                                                  | EMPL-22S1                                                                                  | EMPL-21S2                                                                                  | EMPL-22S2                                                                                  |
|----------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Description          | mPCIe to Single Isolated 2.5GbE LAN Module                                                 | mPCIe to Dual Isolated 2.5GbE LAN Module                                                   | mPCIe to Single Isolated 2.5GbE LAN Horizontal Module                                      | mPCIe to Dual Isolated 2.5GbE LAN Horizontal Module                                        |
| Form Factor          | mPCIe                                                                                      | mPCIe                                                                                      | mPCIe                                                                                      | mPCIe                                                                                      |
| Input I/F            | PCI Express 2.1 x1                                                                         | PCI Express 2.1 x1                                                                         | PCI Express 2.1 x1                                                                         | PCI Express 2.1 x1                                                                         |
| Input Connector      | mPCIe                                                                                      | mPCIe                                                                                      | mPCIe                                                                                      | mPCIe                                                                                      |
| Output I/F           | 2.5GbE LAN x 1                                                                             | 2.5GbE LAN x 2                                                                             | 2.5GbE LAN x 1                                                                             | 2.5GbE LAN x 2                                                                             |
| Output Connector     | RJ45 x 1                                                                                   | RJ45 x 2                                                                                   | RJ45 x 1                                                                                   | RJ45 x 2                                                                                   |
| Dimension (WxLxH/mm) | 30 x 50.9 x 9.2                                                                            | 30 x 50.9 x 9.2                                                                            | 30 x 50.9 x 5.8                                                                            | 30 x 50.9 x 5.8                                                                            |
| Temperature          | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            |
| Order info.          | EMPL-21S1-C1<br>EMPL-21S1-W1<br>EMPL-21S1-C2 (with bracket)<br>EMPL-21S1-W2 (with bracket) | EMPL-22S1-C1<br>EMPL-22S1-W1<br>EMPL-22S1-C2 (with bracket)<br>EMPL-22S1-W2 (with bracket) | EMPL-21S2-C1<br>EMPL-21S2-W1<br>EMPL-21S2-C2 (with bracket)<br>EMPL-21S2-W2 (with bracket) | EMPL-22S2-C1<br>EMPL-22S2-W1<br>EMPL-22S2-C2 (with bracket)<br>EMPL-22S2-W2 (with bracket) |

| Model                | EGPL-21S1                                                                                  | EGPL-22S1                                                                                  | EGPL-21S2                                       | EGPL-22S2                                       |
|----------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Description          | M.2 to Single Isolated 2.5GbE LAN Module                                                   | mPCIe to Dual Isolated 2.5GbE LAN Module                                                   | M.2 to Single Isolated 2.5GbE LAN Module        | M.2 to Dual Isolated 2.5GbE LAN Module          |
| Form Factor          | M.2 2280                                                                                   | M.2 2280                                                                                   | M.2 2242                                        | M.2 2242                                        |
| Input I/F            | PCI Express 2.1 x2                                                                         | PCI Express 2.1 x2                                                                         | PCI Express 2.1 x2                              | PCI Express 2.1 x2                              |
| Input Connector      | M.2 B+M Key                                                                                | M.2 B+M Key                                                                                | M.2 B+M Key                                     | M.2 B+M Key                                     |
| Output I/F           | 2.5GbE LAN x 1                                                                             | 2.5GbE LAN x 2                                                                             | 2.5GbE LAN x 1                                  | 2.5GbE LAN x 2                                  |
| Output Connector     | RJ45 x 1                                                                                   | RJ45 x 2                                                                                   | RJ45 x 1                                        | RJ45 x 2                                        |
| Dimension (WxLxH/mm) | 22 x 80 x 9.3                                                                              | 22 x 80 x 9.3                                                                              | 22 x 42 x 9.15                                  | 22 x 42 x 9.15                                  |
| Temperature          | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C                                            | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C |
| Order info.          | EGPL-21S1-C1<br>EGPL-21S1-W1<br>EGPL-21S1-C2 (with bracket)<br>EGPL-21S1-W2 (with bracket) | EGPL-22S1-C1<br>EGPL-22S1-W1<br>EGPL-22S1-C2 (with bracket)<br>EGPL-22S1-W2 (with bracket) | EGPL-21S2-C1<br>EGPL-21S2-W1                    | EGPL-22S2-C1<br>EGPL-22S2-W1                    |

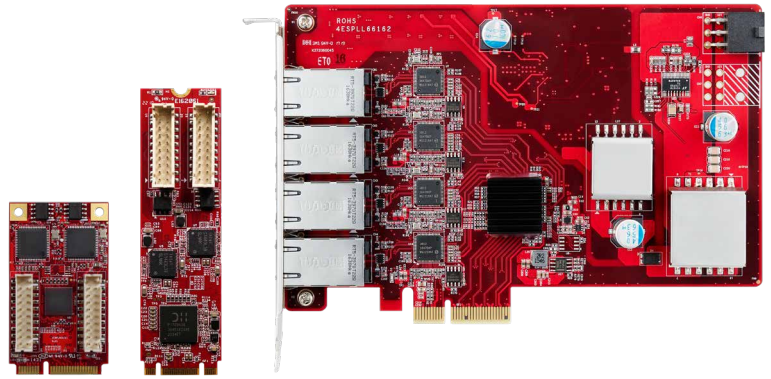
| Model                | EGPL-21S4                                                     | EGPL-22S4                                                     | EMPL-21N1                                       | EMPL-22N1                                       |
|----------------------|---------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Description          | M.2 to Single Isolated 2.5GbE LAN Horizontal Module           | M.2 to Dual Isolated 2.5GbE LAN Horizontal Module             | mPCIe to Single 2.5GbE LAN Module               | mPCIe to Dual 2.5GbE LAN Module                 |
| Form Factor          | M.2 2242                                                      | M.2 2242                                                      | mPCIe                                           | mPCIe                                           |
| Input I/F            | PCI Express 2.1 x2                                            | PCI Express 2.1 x2                                            | PCI Express 2.1 x1                              | PCI Express 2.1 x1                              |
| Input Connector      | M.2 B+M Key                                                   | M.2 B+M Key                                                   | mPCIe                                           | mPCIe                                           |
| Output I/F           | 2.5GbE LAN x 1                                                | 2.5GbE LAN x 2                                                | 2.5GbE LAN x 1                                  | 2.5GbE LAN x 2                                  |
| Output Connector     | RJ45 x 1                                                      | RJ45 x 2                                                      | RJ45 x 1                                        | RJ45 x 2                                        |
| Dimension (WxLxH/mm) | Main board: 22 x 42 x 5.95<br>Daughter board: 50 x 28 x 19.75 | Main board: 22 x 42 x 5.95<br>Daughter board: 50 x 28 x 19.75 | 30 x 50.9 x 9.3                                 | 30 x 50.9 x 9.3                                 |
| Temperature          | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C               | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C               | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C |
| Order info.          | EGPL-21S4-C1<br>EGPL-21S4-W1                                  | EGPL-22S4-C1<br>EGPL-22S4-W1                                  | EMPL-21N1-C1<br>EMPL-21N1-W1                    | EMPL-22N1-C1<br>EMPL-22N1-W1                    |

| Model                | EGPL-21N1                                       | EGPL-22N1                                       | EGPL-21S3                                                    | ESPL-2401                                       |
|----------------------|-------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------|
| Description          | M.2 to Single 2.5GbE LAN Module                 | M.2 to Dual 2.5GbE LAN Module                   | M.2 2230 to Single Isolated 2.5GbE LAN Module                | PCIe to Four 2.5GbE LAN Module                  |
| Form Factor          | M.2 2280                                        | M.2 2280                                        | M.2 2230                                                     | PCIe x4                                         |
| Input I/F            | PCI Express 2.1 x2                              | PCI Express 2.1 x1                              | PCI Express 2.1 x2                                           | PCI Express 2.1 x4                              |
| Input Connector      | M.2 B+M Key                                     | M.2 B+M Key                                     | M.2 A+E Key                                                  | PCIe x 4                                        |
| Output I/F           | 2.5GbE LAN x 1                                  | 2.5GbE LAN x 2                                  | 2.5GbE LAN x 1                                               | 2.5GbE LAN x 4                                  |
| Output Connector     | RJ45 x 1                                        | RJ45 x 2                                        | RJ45 x 1                                                     | RJ45 x 4                                        |
| Dimension (WxLxH/mm) | 22 x 80 x 9                                     | 30 x 50.9 x 7.6                                 | Main board: 22 x 30 x 5.95<br>Daughter board: 32 x 28 x 19.2 | 169.55 x 111.15 x 19.6                          |
| Temperature          | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C              | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C |
| Order info.          | EGPL-21N1-C1<br>EGPL-21N1-W1                    | EGPL-22N1-C1<br>EGPL-22N1-W1                    | EGPL-21S3-C1<br>EGPL-21S3-W1                                 | ESPL-2401-C1<br>ESPL-2401-W1                    |



## 10G LAN

| Model                | EGPL-T102                                                                             |
|----------------------|---------------------------------------------------------------------------------------|
| Description          | M.2 2280 to Single 10GbE LAN Module                                                   |
| Form Factor          | M.2 2280 B+M                                                                          |
| Input I/F            | PCI Express 3.0 x2                                                                    |
| Input Connector      | M.2 B+M Key                                                                           |
| Output I/F           | Single 10 GbE LAN                                                                     |
| Output Connector     | RJ45 x 1                                                                              |
| Dimension (WxLxH/mm) | M.2 Board: 22 x 80 x 14.5<br>Daughter Board: 31.75 x 28 x 17.7                        |
| Temperature          | Operation: -20°C ~ 60°C<br>Storage: -55°C ~ 95°C                                      |
| Order info.          | EGPL-T102-C1<br>EGPL-T102-C2 (Standard Bracket)<br>EGPL-T102-C3 (Low-profile Bracket) |



## PoE

| Model                | EMPL-G2P1                                                                                                                                                                                                                                                                                                                    | EGPL-G2P1                                                                                                                                                                                                                                                                                                           |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description          | mPCIe to Dual PoE Module                                                                                                                                                                                                                                                                                                     | M.2 to Dual PoE Module                                                                                                                                                                                                                                                                                              |
| Form Factor          | mPCIe                                                                                                                                                                                                                                                                                                                        | M.2 2280                                                                                                                                                                                                                                                                                                            |
| Input I/F            | PCI Express 2.1 x1                                                                                                                                                                                                                                                                                                           | PCI Express 2.1 x1                                                                                                                                                                                                                                                                                                  |
| Input Connector      | mPCIe                                                                                                                                                                                                                                                                                                                        | M.2 B+M Key                                                                                                                                                                                                                                                                                                         |
| Output I/F           | PoE x 2                                                                                                                                                                                                                                                                                                                      | PoE x 2                                                                                                                                                                                                                                                                                                             |
| Output Connector     | RJ45 x 2                                                                                                                                                                                                                                                                                                                     | RJ45 x 2                                                                                                                                                                                                                                                                                                            |
| Dimension (WxLxH/mm) | Main Board: 30 x 50.9 x 9.2<br>Daughter Board: 58.2 x 72.7 x 23.8                                                                                                                                                                                                                                                            | Main Board: 30 x 50.9 x 9.2<br>Daughter Board: 58.2 x 72.7 x 23.8                                                                                                                                                                                                                                                   |
| Temperature          | STD temp: 0° ~ 70°C<br>Wide temp: -40° ~ 85°C                                                                                                                                                                                                                                                                                | STD temp: 0° ~ 70°C<br>Wide temp: -40° ~ 85°C                                                                                                                                                                                                                                                                       |
| Order info.          | EMPL-G2P1-C5 (Mounting hole, 4pin header)<br>EMPL-G2P1-W5 (Mounting hole, 4pin header)<br>EMPL-G2P1-C6 (Bracket, 4pin header)<br>EMPL-G2P1-W6 (Bracket, 4pin header)<br>EMPL-G2P1-C7 (Mounting hole, DC Jack)<br>EMPL-G2P1-W7 (Mounting hole, DC Jack)<br>EMPL-G2P1-C8 (Bracket, DC Jack)<br>EMPL-G2P1-W8 (Bracket, DC Jack) | EGPL-G2P1-C5 (Mounting hole, 4pin header)<br>EGPL-G2P1-W5 (Mounting hole, 4pin header)<br>EGPL-G2P1-C6 (Bracket, 4pin header)<br>EGPL-G2P1-W6 (Bracket, 4pin header)<br>EGPL-G2P1-C7 (Mounting hole)<br>EGPL-G2P1-W7 (Mounting hole, DC Jack)<br>EGPL-G2P1-C8 (Bracket, DC Jack)<br>EGPL-G2P1-W8 (Bracket, DC Jack) |

| Model                | ESPL-G4P1                                       | ESPL-24P1                                     |
|----------------------|-------------------------------------------------|-----------------------------------------------|
| Description          | PCIe to Four PoE/PoE+ Module                    | PCIe to Four 2.5GbE PoE/PoE+ Module           |
| Form Factor          | Standard PCIe                                   | Standard PCIe                                 |
| Input I/F            | PCI Express 2.1 x4                              | PCI Express 2.1 x4                            |
| Input Connector      | PCIe x 4                                        | PCIe x 4                                      |
| Output I/F           | PoE/PoE+ x 4                                    | 2.5GbE PoE/PoE+ x 4                           |
| Output Connector     | RJ45 x 4                                        | RJ45 x 4                                      |
| Dimension (WxLxH/mm) | 169.55 x 111.15 x 19.6                          | 169.55 x 111.15 x 19.6                        |
| Temperature          | STD temp: 0°C ~ 70°C<br>Wide temp: -40°C ~ 85°C | STD temp: 0° ~ 70°C<br>Wide temp: -40° ~ 85°C |
| Order info.          | ESPL-G4P1-C1<br>ESPL-G4P1-W1                    | ESPL-24P1-C1<br>ESPL-24P1-W1                  |

## Serial



| Model                | EMP2-X202                       | EMP2-X402                       | EMP2-X203                   | EMP2-X403                   | EMP2-X404                           |
|----------------------|---------------------------------|---------------------------------|-----------------------------|-----------------------------|-------------------------------------|
| Description          | mPCIe to Dual RS-422/485 Module | mPCIe to Four RS-422/485 Module | mPCIe to Dual RS-232 Module | mPCIe to Four RS-232 Module | mPCIe to Four RS-232/422/485 Module |
| Form Factor          | mPCIe                           | mPCIe                           | mPCIe                       | mPCIe                       | mPCIe                               |
| Input I/F            | PCI Express 2.0                 | PCI Express 2.0                 | PCI Express 2.0             | PCI Express 2.0             | PCI Express 2.0                     |
| Input Connector      | mPCIe                           | mPCIe                           | mPCIe                       | mPCIe                       | mPCIe                               |
| Output I/F           | RS-422/485 x 2                  | RS-422/485 x 4                  | RS-232 x 2                  | RS-232 x 4                  | RS-232/422/485 x 4                  |
| Output Connector     | DB-9 x 2                        | DB-9 x 4                        | DB-9 x 2                    | DB-9 x 4                    | DB-9 x 4                            |
| Dimension (WxLxH/mm) | 30 x 50.9 x 8.2                 | 30 x 50.9 x 8.2                 | 30 x 50.9 x 6.7             | 30 x 50.9 x 6.7             | 30 x 50.9 x 6.1                     |
| Temperature          | Wide temp: -40°C ~ 85°C         | Wide temp: -40°C ~ 85°C         | Wide temp: -40°C ~ 85°C     | Wide temp: -40°C ~ 85°C     | Wide temp: -40°C ~ 85°C             |
| Order info.          | EMP2-X202-W1                    | EMP2-X402-W1                    | EMP2-X203-W1                | EMP2-X403-W1                | EMP2-X404-W1                        |

| Model                | EMP2-X801                            | EMP2-X2S1                           | EMP2-X4S1                            | EMP2-X4S2                                     | EGP2-X401                                                                      |
|----------------------|--------------------------------------|-------------------------------------|--------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------|
| Description          | mPCIe to Eight RS-232/422/485 Module | mPCIe to Two Isolated RS-232 Module | mPCIe to Four Isolated RS-485 Module | mPCIe to Dual Isolated RS-422 & RS-485 Module | M.2 to Four RS-232/422/485 Module                                              |
| Form Factor          | mPCIe                                | mPCIe                               | mPCIe                                | mPCIe                                         | M.2 2242                                                                       |
| Input I/F            | PCI Express 2.0                      | PCI Express 2.0                     | PCI Express 2.0                      | PCI Express 2.0                               | PCI Express 2.0 x1                                                             |
| Input Connector      | mPCIe                                | mPCIe                               | mPCIe                                | mPCIe                                         | M.2 B+M Key                                                                    |
| Output I/F           | RS-232/422/485 x 8                   | RS-232 x 2                          | RS-485 x 4                           | RS-422 x 2, RS-485 x 2                        | RS-232/422/485 x 4                                                             |
| Output Connector     | DB-9 x 8                             | DB-9 x 2                            | DB-9 x 4                             | DB-9 x 4                                      | DB-9 x 4                                                                       |
| Dimension (WxLxH/mm) | 30 x 50.9 x 6.1                      | 30 x 50.9 x 12.9                    | 30 x 50.9 x 12.55                    | 30 x 50.9 x 12.55                             | Vertical: 22 x 42 x 6.45<br>Horizontal: 22 x 42 x 7.65                         |
| Temperature          | Wide temp: -40°C ~ 85°C              | Wide temp: -40°C ~ 85°C             | Wide temp: -40°C ~ 85°C              | Wide temp: -40°C ~ 85°C                       | Wide temp: -40°C ~ 85°C                                                        |
| Order info.          | EMP2-X801-W1                         | EMP2-X2S1-W1                        | EMP2-X4S1-W1                         | EMP2-X4S2-W1                                  | EGP2-x401-W1<br>(Vertical connector)<br>EGP2-x401-W2<br>(Horizontal connector) |

| Model                | EGP2-X203                                                                      | EGP2-X403                                                                      | EGP2-X4S1                                                                      |
|----------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Description          | M.2 to Dual RS-232 Module                                                      | M.2 to Four RS-232 Module                                                      | M.2 to Four Isolated RS-422 & RS-485 Module                                    |
| Form Factor          | M.2 2242                                                                       | M.2 2242                                                                       | M.2 2280                                                                       |
| Input I/F            | PCI Express 1.1                                                                | PCI Express 1.1                                                                | PCI Express 2.0 x1                                                             |
| Input Connector      | M.2 B+M Key                                                                    | M.2 B+M Key                                                                    | M.2 B+M Key                                                                    |
| Output I/F           | RS-232 x 2                                                                     | RS-232 x 4                                                                     | RS-422 x 4 or RS-485 x 4                                                       |
| Output Connector     | DB-9 x 2                                                                       | DB-9 x 4                                                                       | DB-9 x 4                                                                       |
| Dimension (WxLxH/mm) | Vertical: 22 x 42 x 6.83<br>Horizontal: 22 x 42 x 7.93                         | Vertical: 22 x 42 x 6.83<br>Horizontal: 22 x 42 x 7.93                         | Vertical: 22 x 80 x 6.83<br>Horizontal: 22 x 80 x 7.93                         |
| Temperature          | Wide temp: -40°C ~ 85°C                                                        | Wide temp: -40°C ~ 85°C                                                        | Wide temp: -40°C ~ 85°C                                                        |
| Order info.          | EGP2-X203-W1<br>(Vertical connector)<br>EGP2-X203-W2<br>(Horizontal connector) | EGP2-X403-W1<br>(Vertical connector)<br>EGP2-X403-W2<br>(Horizontal connector) | EGP2-X4S1-W1<br>(Vertical connector)<br>EGP2-X4S1-W2<br>(Horizontal connector) |



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# MANAGEMENT INTELLIGENCE



## MANAGEMENT INTELLIGENCE

透過先進的軟體與服務，在實際應用中體驗便捷的管理模式，並確保運作流程中的每一步皆發揮最佳效能。



Innodisk 自主開發的 iCAP 雲端管理平台簡化了遠端設備與 AI 模型管理。使用者可透過瀏覽器存取，即時監控系統健康狀態，並針對儲存裝置使用壽命自訂警示通知。

iCAP 同時支援無縫的 AI 模型部署，提供高效且使用者友善的雲端管理方案。



## iCAP 核心優勢



### 高度相容性

iCAP Agent 相容於 Windows 與 Linux 平台，可透過各類網頁瀏覽器輕鬆存取。此外，亦支援行動裝置 App，讓使用者可遠端監控設備，並透過頻外管理 (OOB) 功能進行重啟。



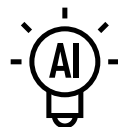
### 高效事件追蹤

事件通知追蹤功能會記錄下所有變更，讓使用者隨時掌握最新動態，確保在問題發生時能迅速排除。



### 透過 OTA 统一部署 AI 模型與系統

iCAP 的 OTA (線上更新) 功能支援一站式 AI 模型部署。除了傳統的 BIOS 與韌體更新，還能將 iMIT 模型庫中的 AI 模型輕鬆派送至指定設備或群組。這種統一管理模式將 AI 模型與系統韌體分離，對所有邊緣設備的軟體進行更高效、集中化的管理。



### AI 聊天機器人 / 智慧代理助理

整合 AI 聊天機器人，提供對話式管理與主動決策方案。使用者可透過自然語言進行設備諮詢，快速設定規則與排程。此外，底層的 Agentic AI (代理型 AI) 會進一步分析關鍵事件並提供修復建議，將支援層級從被動警示提升至主動智慧。



### 遠端災害復原

iCAP 全面支援頻內 (In-band) 與頻外 (OOB) 管理，並具備一鍵還原功能，能讓故障設備在短時間內恢復正常運作。



### 儲存與記憶體監控

iCAP 支援儲存裝置與記憶體監控，讓使用者可遠端存取 iSMART 的儲存與記憶體資訊，並進行模組狀態預測。



## 頻外管理 (OOB)

| Model                    | InnoAgent EZ2N-0XL1                                                                                                                                          |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description              | Out-of-Band Remote Management Module                                                                                                                         |
| Network I/F              | 10/100 Mbps LAN (RJ45)                                                                                                                                       |
| Network Protocol         | MQTT                                                                                                                                                         |
| Host I/F                 | 3.3V UART, RS232 (Pitch 2.0mm Pin Header)                                                                                                                    |
| Remote Control I/O       | 3.3V GPIO x 6 (2 GPIO can be I2C)<br>Power SW x2 (Pitch 2.0mm Pin Header)                                                                                    |
| Power Source             | +5V Standby Power Input (4pin floppy male connector)                                                                                                         |
| Dimensions(W*L*H/<br>mm) | 51 x 31.3 x 19.05                                                                                                                                            |
| Temperature              | -40°C ~ 85°C                                                                                                                                                 |
| Order info.              | EZ2N-0XL1-W1 (Private Cloud: SDK, iCAP 2.0)<br>EZ2N-0XL1-W3 (Private Cloud: with Standard Bracket)<br>EZ2N-0XL1-W4 (Private Cloud: with Low-profile Bracket) |

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# MACHINE-LEARNING INTELLIGENCE



## MACHINE-LEARNING INTELLIGENCE

透過我們的 AI 訓練與推論工具，全面釋放資料洞察的潛能。

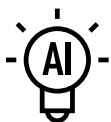


無須程式碼，輕鬆上手的 AI 開發工具

Innodisk 開發的 iVIT 視覺智能套件大幅簡化了 AI 模型的訓練與推論流程。透過整合主流深度學習框架，iVIT 協助開發者快速建立產品原型，打造客製化 AI 模型。



無須程式碼



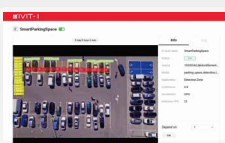
AI 模型部署



相機影像串流



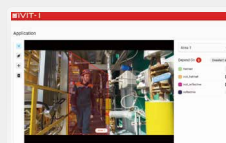
事件日誌記錄



智慧交通



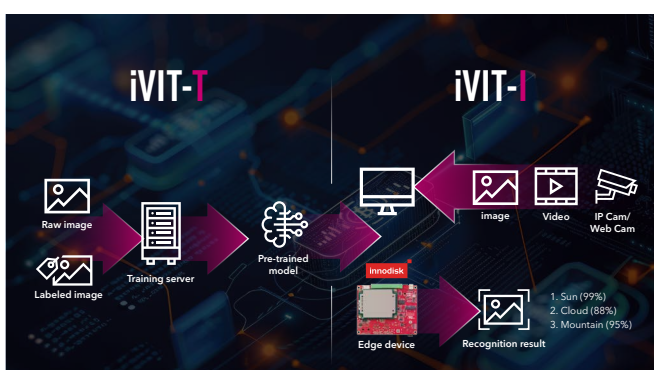
智慧工廠



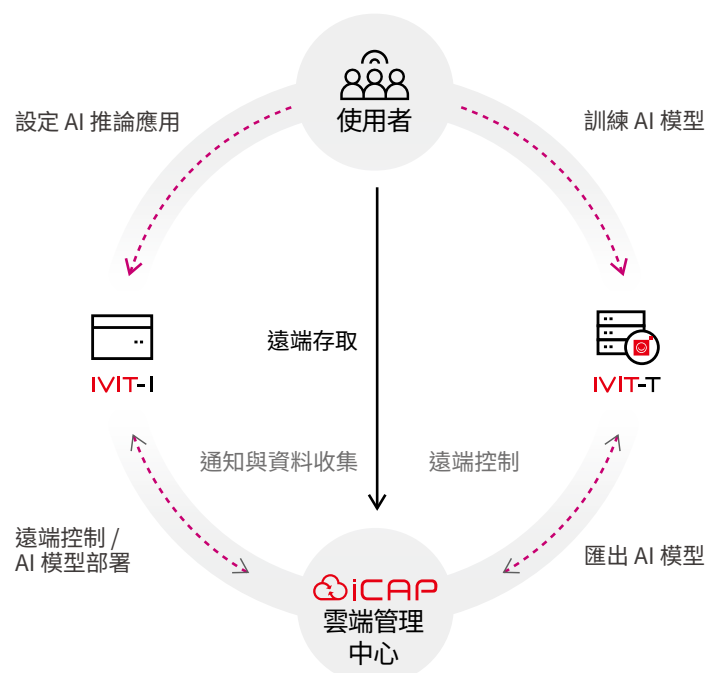
智慧安防

## 整合 AI 開發 打造量身訂製的解決方案

iVIT 解決方案包含用於 AI 模型訓練的 iVIT-T 與用於推論的 iVIT-I。兩者相輔相成，共同實現 AI 模型的高度客製化，滿足各類機器視覺應用的細緻需求。



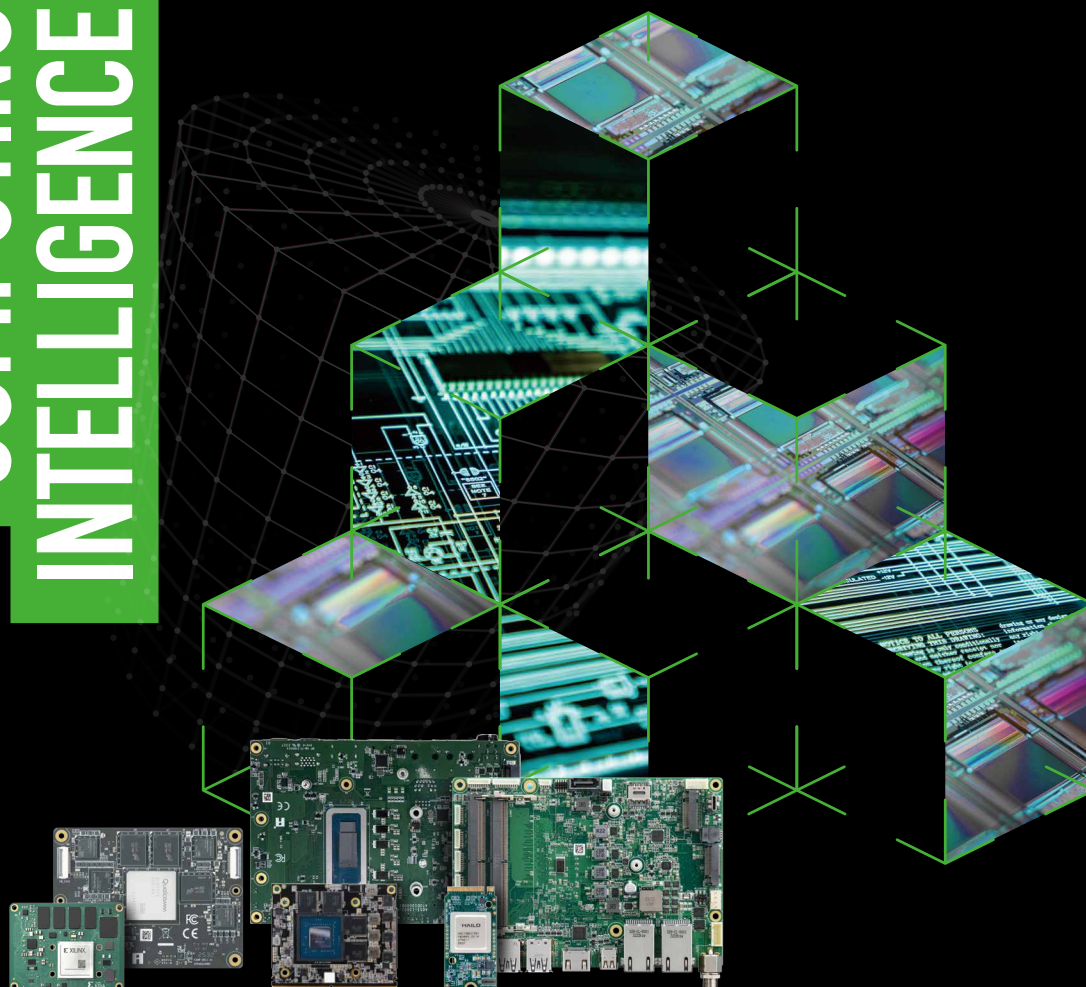
## iVIT 與 iCAP 雙管齊下 釋放 AI 無限潛力





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# COMPUTING INTELLIGENCE



## COMPUTING INTELLIGENCE

透過我們的 AI 加速運算系統，為您的  
邊緣資料處理與分析帶來重大革新。



## 高通 (Qualcomm) 解決方案

| Model Name            | EXMP-Q911                                                                 |
|-----------------------|---------------------------------------------------------------------------|
| Module Form Factor    | COM-HPC Mini                                                              |
| CPU                   | QCS9075 (Octa-core Kryo Gen 6 : 8x Kryo Gold Prime @2.36GHz)              |
| Graphics              | Adreno 663 GPU                                                            |
| Memory                | 36GB LPDDR5X                                                              |
| Storage               | 128GB UFS 3.1                                                             |
| AI Engine             | 100 TOPS (Dense) / 200 TOPS (Sparse) via 2 x Hexagon Tensor Processor     |
| Expansion             | 1 x PCIe Gen 4 x4                                                         |
|                       | 1 x PCIe Gen 4 x2                                                         |
| MIPI                  | 2 x 4-lane MIPI CSI-2 (22pin, P: 0.5, on module)                          |
| Ethernet              | 2 x RJ45 2.5 GbE LAN                                                      |
| Display               | 2 x DP1.2                                                                 |
|                       | 1 x eDP                                                                   |
| Audio                 | 1 x I <sup>2</sup> S for Headphone / AMP                                  |
| I/O Interfaces        | 2 x USB 3.2 Gen 2 x1 (10Gbps)                                             |
|                       | 4 x USB 2.0                                                               |
|                       | 2 x UART (1 with CTS / RTS)                                               |
|                       | 1 x COM (RS232 / 422 / 485, on module)                                    |
|                       | 1 x SPI (General SPI)                                                     |
|                       | 1 x CAN FD                                                                |
|                       | 4 x I <sup>2</sup> C (1 x on module, 3.3V)                                |
|                       | 12 x GPIO                                                                 |
| Power                 | 8 ~ 20V DC Power Supply                                                   |
| Security              | TPM 2.0                                                                   |
| OS Support            | Yocto Linux (Kernel 6.6); Ubuntu 24.04 (Kernel 6.8)                       |
| Environment           | Temperature: Operating : -40°C ~ 85°C (Ta)<br>Storage : -40°C ~ 95°C (Ta) |
|                       | Humidity: Operating & Storage : 5% to 95%, Non-condensing                 |
| Certification         | CE / FCC Class B                                                          |
| Dimensions (W x L/mm) | 95 x 70                                                                   |



| Model Name            | EXEC-Q911                                                                 |                                                                                |
|-----------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Module Form Factor    | COM-HPC Mini                                                              |                                                                                |
| CPU                   | QCS9075 (Octa-core Kryo Gen 6 : 8x Kryo Gold Prime @2.36GHz)              |                                                                                |
| Graphics              | Adreno 663 GPU                                                            |                                                                                |
| Memory                | 36GB LPDDR5X                                                              |                                                                                |
| Storage               | 128GB UFS 3.1                                                             |                                                                                |
| AI Engine             | 100 TOPS (Dense) / 200 TOPS (Sparse) via 2 x NPU Hexagon Tensor Processor |                                                                                |
| Expansion Slots       | M.2 2280 M Key                                                            | 1 x PCIe Gen 4 x4                                                              |
|                       | M.2 3052 B Key                                                            | USB 3.2 Gen2, USB 2.0                                                          |
|                       | M.2 2230 E Key                                                            | 1 x PCIe Gen 4 x2, USB 2.0                                                     |
| MIPI                  | 2 x 4-lane MIPI CSI-2 (22pin, P : 0.5, on module)                         |                                                                                |
| Ethernet              | 2 x 2.5GbE RJ45                                                           |                                                                                |
| Display               | 2 x DP1.2                                                                 |                                                                                |
|                       | 1 x eDP                                                                   |                                                                                |
| Audio                 | MIC In / LINE Out                                                         | Phone Jack 3.5mm                                                               |
|                       | AMP Out                                                                   | Wafer (1 x 4)                                                                  |
| External I/O          | USB 3.2 Gen 2 x1 (10Gbps)                                                 | 3                                                                              |
|                       | USB 3.2 Gen 2 x1 (10Gbps) Type-C                                          | 1 (OTG support)                                                                |
|                       | USB 2.0                                                                   | 2                                                                              |
|                       | Audio Phone Jack                                                          | 1 (MIC In / LINE Out)                                                          |
|                       | DP                                                                        | 2 (DP1.2)** 4K@60hz                                                            |
|                       | LAN                                                                       | 2 (2.5GbE RJ45)                                                                |
| Internal I/O          | Debug Port (UART)                                                         | 1 (1 x 3, P : 2.54, 3.3V)                                                      |
|                       | EDL Jumper                                                                | 1 (1 x 3, P : 2.0)                                                             |
|                       | CPU Fan Connector                                                         | 1 (1 x 4, P : 2.54, for PWM Control, 12V)                                      |
|                       | eDP                                                                       | 1 (40pin, P : 0.5)                                                             |
|                       | GMSL Power                                                                | 1(1 x 4, P: 2.0, 12V 3A)                                                       |
|                       | GPIO                                                                      | 8 (1 x 10, P : 1.0, 0.5A VCC, GND)                                             |
|                       | SPI                                                                       | 1 x General SPI 3.3V, 2 x I2C (2 x 6, P:2.0, 12-pin header)                    |
|                       | I2C                                                                       |                                                                                |
|                       | CAN FD                                                                    | 1 (1 x 3, P : 2.0)                                                             |
|                       | COM                                                                       | 2 (1 x 9 P : 1.0, on module, 1x9 P : 1.0, on carrier board, RS232 / 422 / 485) |
|                       | USB 2.0                                                                   | 1(1 x 8, P : 1.0)                                                              |
|                       |                                                                           |                                                                                |
| Power                 | Power Input Voltage                                                       | DC 9-36V (12V@2.6A)                                                            |
|                       | RTC Battery                                                               | CR2302 Coin Cell                                                               |
| Security              | TPM2.0                                                                    |                                                                                |
| OS Support            | Yocto Linux (Kernel 6.6); Ubuntu 24.04 (Kernel 6.8)                       |                                                                                |
| Temperature           | Operating : -40°C ~ 85°C (Ta)<br>Storage : -40°C ~ 95°C (Ta)              |                                                                                |
| Humidity              | Operating & Storage : 5% to 95%, Non-condensing                           |                                                                                |
| Certification         | CE / FCC Class B                                                          |                                                                                |
| Dimensions (W x L/mm) | 146 x 102 x 56.99                                                         |                                                                                |



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# COLLECTIVE INTELLIGENCE



## COLLECTIVE INTELLIGENCE

我們與業界領導廠商攜手，共同打造智慧生態系，開啟邊緣 AI 應用的無限可能。

此外，我們與供應商、全球客戶及員工緊密串連，共同應對環境挑戰、實踐社會責任，持續發揮正面影響力。





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For more warranty details, please contact the  
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[www.innodisk.com](http://www.innodisk.com)