innodisk

ARCHITECT INTELLIGENCE

# INNODISK 2026 셀렉션 가이드

# 목차


# INNODISK — 지능의 건축가

Innodisk는 **엣지 AI 솔루션** 분야의 글로벌 리더로서, 업계 최고의 구성 요소와 고급 컴퓨팅 플랫폼을 결합하여 엣지 인텔리전스의 미래를 설계합니다.

**대만에 본사를 두고** 20년 이상의 경험을 바탕으로 구축된 당사의 엔지니어링 팀, 전 세계 운영망 및 글로벌 파트너십은 다양한 **산업 및 엔터프라이즈 애플리케이션** 전반에 걸쳐 신뢰할 수 있는 서비스, 확실한 제조 품질 및 장기적인 지원을 제공합니다.

**200명 이상의** 전문
사내 R&D 엔지니어

**유연한** 제품
설계 및 협업 방식

**원활한 통합**
기능

수직 시장 및
애플리케이션에 대한
**전문 지식**

4,000+

**4,000개 이상의**
**글로벌 고객** 경험

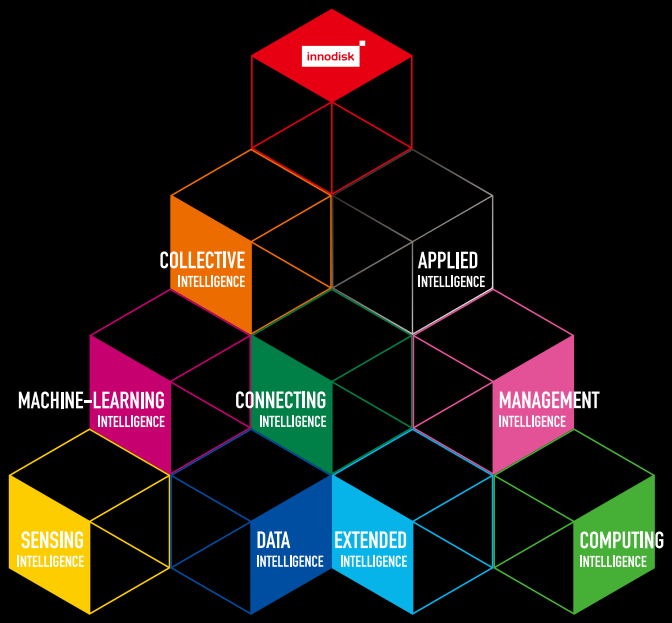
**글로벌** 기술 및
서비스 네트워크

**자세히 알아보기**

# INNODISK
# 엣지 AI 빌딩 블록

Innodisk는 포괄적인 제품 및 솔루션 포트폴리오를 기반으로 엣지 AI의 필수 빌딩 블록을 제공함으로써 **ARCHITECT INTELIGENCE** 를 실현합니다.

맞춤형 및 완벽한 호환성을 갖춘 기술로 엣지 AI 시대 전반에 걸쳐 분산되고 다양하며 빠르게 진화하는 애플리케이션을 연결하여 실질적인 엣지 인텔리전스를 구현합니다.




## 포괄적인 포트폴리오

| | | |
|---|---|---|
| 클라우드 관리 | 클라우드 AI | iCAP (Innodisk 클라우드 관리 플랫폼) |
| 소프트웨어 / 펌웨어 | iSeries 소프트웨어 | iSMART / iTracker / iOPAL / iRAID |
| | Innodisk AI SDK | AccelTune / AccelBrain / iVIT |
| 엣지 AI 컴퓨팅 | AI 가속기 |  NVIDIA Qualcomm Intel |
| | 엣지 AI 시스템 |  Innodisk APEX 시리즈 |
| 핵심 구성 요소 및 주변 기기 | Flash |  |
| | DRAM |  |
| | 디스플레이 |  |
| | 네트워킹 |  |
| | 스토리지 |  |
| | Wi-Fi |  |
| 센서 | 카메라 |  |
| | 공기 센서 |  |

# 산업계 전반에 걸친 솔루션

당사는 업계 인사이트와 가시적인 성과 사이의 간극을 메우고 있습니다 .

## 제조

AI 솔루션은 정확하고 즉각적인 의사 결정으로 효율성 , 안전성 및 공장 생산량을 향상시킵니다 .

■ 자율 이동 로봇(AMR) ■ 휴머노이드 로봇
■ 자동 광학 검사(AOI) ■ 스마트 팩토리

## 통신

당사의 솔루션은 과부하 상황에서 중요한 통신 인프라에 대해 높은 안정적인 성능을 보장합니다 .

■ 5G 기지국 ■ 레코딩 및 방송 시스템

## 교통

당사의 솔루션은 EV( 전기차 ), 버스 , 지하철 등의 작동 , 관리 및 보안을 강화합니다 .

■ EV 충전 ■ 자율주행 차량

## 헬스케어

첨단 솔루션으로 헬스케어 분야에 AI 를 통합하여 엄격한 의료 수요를 충족하고 있습니다 .

■ 스마트 간호 시스템 ■ 포장 및 검사

## 감시 및 안전

당사의 솔루션은 최신 보안 감시 요구에 맞는 고급 분석 및 즉각적 대응을 제공합니다 .

■ 스마트 가로등 ■ PPE 감지


## 엔터테인먼트

디바이스 수명을 연장하고 데이터를 보호하며 엔터테인먼트 기준을 충족하는 솔루션을 제공합니다 .

■ 카지노

## 데이터센터

증가하는 데이터 문제에 대처하고 제품 수명을 연장하며 서버와 데이터센터의 전력을 절감합니다 .

■ 클라우드 스토리지 시스템 ■ 엣지 컴퓨팅 서버
■ AI 트레이닝 서버

## 항공우주

당사는 항공우주 산업의 고유 난제에 맞춰진 최첨단 솔루션을 개발합니다 .

■ 미션 크리티컬 ■ 러기드 시스템

## 소매 및 물류

효율성과 보안을 강화하여 쇼핑 , 주문 , 배송을 개선하는 스마트 리테일을 주도합니다 .

■ 스마트 자동판매기 ■ 셀프 체크아웃 시스템

# 기술 및 혁신

이노디스크는 신뢰성 , 내구성 , 성능에 중점을 둔 산업용 기술을 개발합니다 . 포괄적인 하드웨어 , 펌웨어 및 소프트웨어 통합을 통해 까다로운 환경에서도 작동하도록 설계된 지능형 솔루션을 제공합니다 . 당사의 맞춤화 기능을 통해 각 솔루션이 산업용 애플리케이션 요구 사항을 정확하게 충족하도록 보장합니다 .

## 데이터 최적화

### iDATA GUARD
효율적인 전력 순환과 데이터 무결성을 보장합니다 .

### iPOWER GUARD
SSD 를 보호하고 전원 불안정성을 방지합니다 .

### iRETENTION
지능형 알고리즘을 활용하여 온도 및 P/E 사이클 데이터를 모니터링합니다 .

### 엔드투엔드 데이터 경로 보호 (ETEP)
모든 단계에서 데이터 무결성을 보장합니다 .

## 보안

### PLP (iCELL)
SSD 가 미션 크리티컬 데이터를 확실하게 보호하고 데이터 손실을 확실하게 방지합니다 .

### AES
AES 암호화는 기밀 데이터를 보호합니다 .

### 쓰기 방지
플래시 스토리지에 저장된 데이터를 안전하게 보호합니다 .

## 내구성

### 광범위한 온도
-40° C ~ 85° C 의 작동 온도를 지원합니다 .

### 초고온
극한 환경의 경우 , 최대 105° C / 125° C 의 작동 온도를 지원하는 DRAM 모듈을 선택하십시오 .

### 황산화 방지
극심한 환경에서도 유황 부식에 강한 면을 보입니다 .

### 컨포멀 코팅
산 , 먼지 및 기타 유해 물질로부터 DRAM PCB 를 보호합니다 .

### 러기드 클립
모듈 안정성과 고충격 강도를 강화합니다 .

### 히트 스프레더
과열을 방지하고 제품 수명을 연장합니다 .

### 사이드 필
칩과 보드 사이의 연결을 강화합니다 .

## 수명

### iSLC / 울트라 iSLC
디바이스의 수명을 연장하고 전반적인 성능을 향상시킵니다 .

### 웨어 레벨링
디바이스 수명 전반에 걸쳐 블록을 고르게 사용할 수 있도록 보장합니다 .

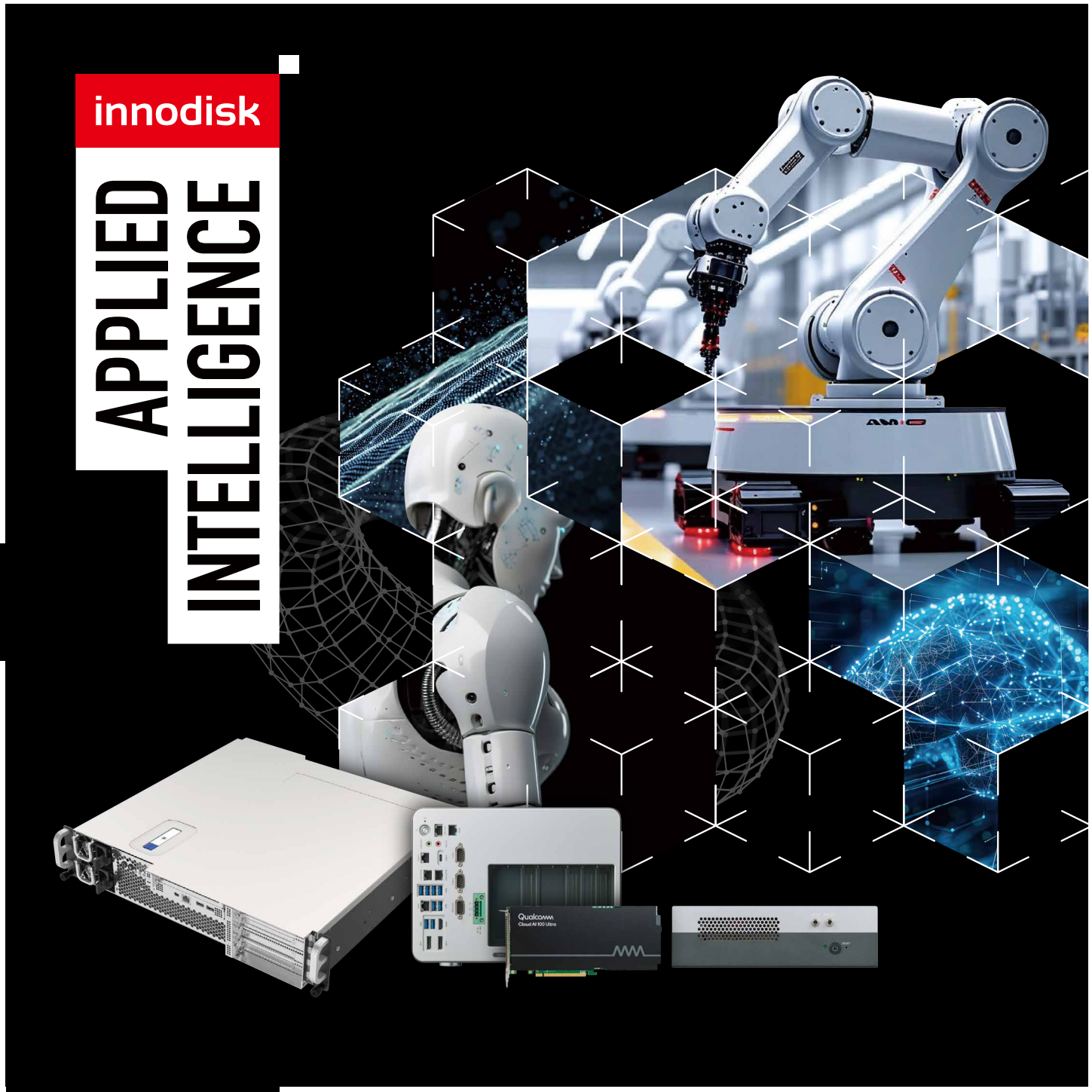
### 가비지 컬렉션 및 TRIM
불필요한 데이터를 제거하고 스토리지의 수명을 연장합니다 .

## 복구

### InnoOSR
InnoOSR 의 특허받은 펌웨어 기술 덕분에 클릭 한 번으로 복구가 가능합니다 .

### 클라우드 복구
운영자가 클라우드를 통해 원격으로 디바이스를 복구할 수 있습니다 .

### 로컬 복구
현장 디바이스 복구를 지원합니다 .




## APPLIED INTELLIGENCE

NVIDIA, Qualcomm 및 Intel 기반의 **엣지 AI 시스템**과 특정 **애플리케이션 시나리오**를 위한 턴키 AI 솔루션을 통해 , 구성 가능한 애플리케이션 인텔리전스를 활용하여 나만의 성공 이야기를 만들어 보세요 .

# 엣지 AI 시스템 랜드스케이프

## 세계 최고의 엣지 AI 코어로 혁신을 주도

**NVIDIA**

**RTX 시리즈 AI 가속기**는 고성능 그래픽, 긴 수명 및 다목적 AI 컴퓨팅을 제공합니다.

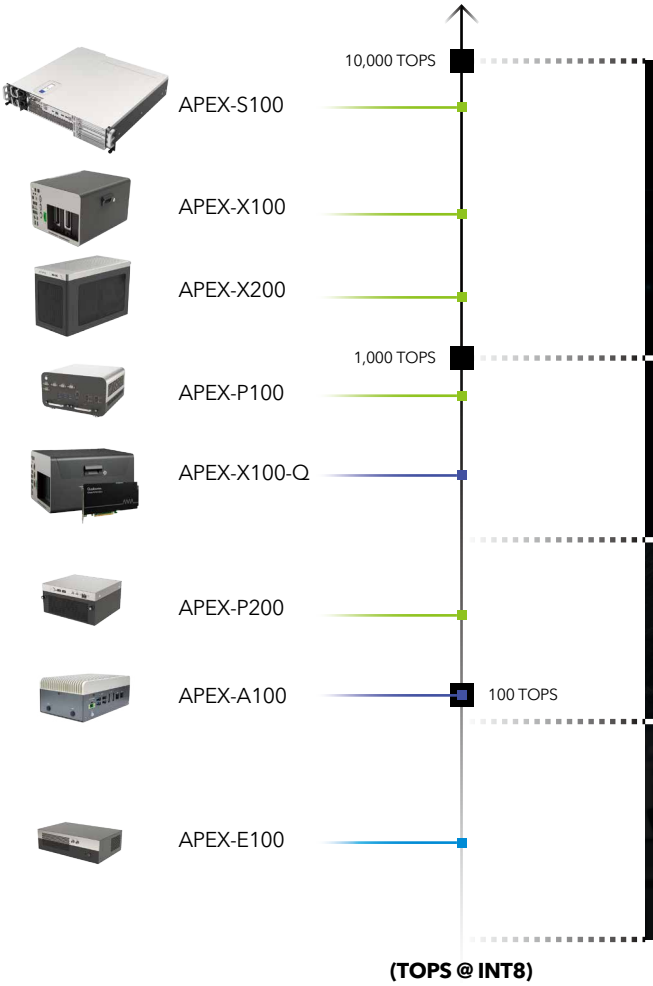
**Qualcomm**

온-프레미스 LLM을 위한 **Cloud AI 100 Ultra 가속기**; 확장 가능한 엣지 AI를 위한 **Dragonwing IQ 시리즈**.

**Intel**

내장 NPU가 탑재된 **Core Ultra 프로세서**는 필수적인 AI 컴퓨팅 파워를 제공하며, **Intel x86 플랫폼**은 다양한 사용 사례에 대한 호환성을 제공합니다.

## 산업 및 엔터프라이즈 애플리케이션을 위한 포괄적인 AI 컴퓨팅




# 엣지 AI 시스템 랜드스케이프

# APEX-S100

## NVIDIA SOLUTION

## 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.

| | | | | |
|---|---|---|---|---|
| **Platform** | Intel CPU | Xeon 6731P | Xeon 6730P | Xeon 6736P |
| | Cores | 32C | 32C | 36C |
| | Max. Frequency | 4.1GHz | 3.8GHz | 4.1GHz |
| **AI Accelerator** | 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<br>(FP16 / BFLOAT16 Tensor core) |
| | GPU memory | 48GB GDDR6 (w/ECC) | 96GB GDDR7 (w/ECC) | 141GB HBM3e (w/ECC) |
| **Memory** | Technology / Socket | DDR5 6400 MT/s, 8 x 288-pin DDR5 RDIMM<br>DDR5 8000 MT/s, 8 x 288-pin DDR5 MRDIMM<br>(support ECC, 128GB per DIMM) | | |
| | Max. Capacity | up to 1T | | |
| **Displays** | Mini DP (Full HD@60Hz) | 1 | | |
| **BMC** | BMC | 1 x 1Gbps by AST2600 (BMC management only, no Internet access) | | |
| **Ethernet** | Ethernet | 2 x 10Gbps by Intel X710-T2L | 2 x 10Gbps by Intel X710-T2L or<br>2 x 25Gbps by Intel E810-XXVDA2 | 2 x 200Gbps by NVIDIA BlueField-3 B3220 |
| **Expansion Slots** | 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)[*1] | | |
| **External I/O** | USB 2.0 | 2 | | |
| **Power** | Power Input Voltage | AC 220–240V, 47–63Hz | | |
| | Power Connector Type | IEC 60320 C13 (1+1 Redundant CRPS, 2 × 2,000W Titanium) | | |
| **Environment** | Operating Temperature | 0°C ~ 30°C (with accelerator) | | |
| **Security** | TPM 2.0 | dTPM2.0 (Hardware, Infineon:SLM9670AQ2.0) | | |
| **Miscellaneous** | LED Indicator | 1 x HDD, 1 x UID, 1 x Power, 1 x LAN, 1 x Info | | |
| **Physical Characteristics** | Dimension L x W x H (mm) | 438 x 420 x 88 | | |
| | Net Weight / Gross Weight (KG) | TBA | | |
| | Mount | Rackmount | | |
| **Operating System** | Operating System | Linux Ubuntu Server<br>Microsoft Windows Server 2019/2022 | | |
| **Regulation** | Safety | CE/FCC | | |

[*1] Dual accelerators installed will occupy this slot

# APEX-X100

## NVIDIA SOLUTION

## 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[*1] / 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)[*2] | | |
| | 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 | | |

[*1] by Intel CPU limitation [*2] When enabled, will downclock speed from Gen 4 x16 to Gen 4 x8

# APEX-X200

## NVIDIA SOLUTION

### 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.

| | | | |
|---|---|---|---|
| **Platform** | 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 |
| **AI Accelerator** | 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 | |
| **Memory** | Technology / Socket | DDR5 6400MT/s[*1] / 2 x 262-pin DDR5 CSODIMM | |
| | Max. Capacity | up to 96GB (2 x 32GB, total 64GB pre-installed) | |
| **Displays** | HDMI 2.1 (8K@60Hz) | 1 | |
| | DP++ 2.1 (8K@60Hz) | 1 | |
| | LAN (Intel I226 2.5Gbps) | 2 | |
| **Expansion Slots** | 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) | |
| **Power** | Power Input Voltage | AC 100-240V | |
| | Power Consumption | TBC | |
| **Environment** | Operating Temperature | 0°C ~ 45°C (with RTX 5080) | |
| **Miscellaneous** | LED Indicator | 2 x Power LED, 2 x Fan LED, 2 x Temp LED | |
| **Physical Characteristics** | 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 | |
| **Regulation** | Safety | CE/FCC/UKCA | |

[*1] by Intel CPU limitation

# APEX-P100

## NVIDIA SOLUTION

## 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.

| | | |
|---|---|---|
| **Platform** | Intel CPU | Core i7-13700E |
| | Cores (P + E + LPE) | 16C (8P + 8E) |
| | Max. Frequency | 5.1GHz |
| **AI Accelerator** | 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) |
| **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** | DP++ 1.4 (4K@60Hz) | 5 |
| **Ethernet** | LAN (Intel I226 2.5Gbps) | 5 |
| **Expansion Slots** | 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 |
| **External I/O** | 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) |
| **Power** | Power Input Voltage | DC 24V (±5%) |
| | Power Consumption | Wall Mount |
| **Environment** | Operating Temperature | 0°C ~ 50°C (with NVIDIA RTX 5000 Ada) |
| **Physical Characteristics** | Dimension L x W x H (mm) | 280 x 270 x 148.2 |
| | Net Weight / Gross Weight (KG) | 5.7 / 8 |
| | Mount | Wall Mount |
| **Regulation** | Safety | CE/FCC |

# APEX-P200

## NVIDIA SOLUTION

TAIWAN EXCELLENCE 2026

## 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 |

# APEX-X100-Q

## QUALCOMM SOLUTION


## 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.

| | | |
|---|---|---|
| **Platform** | Intel CPU | Core i7-13700E |
| | Cores (P + E + LPE) | 16C (8P + 8E) |
| | Max. Frequency | 5.1GHz |
| **AI Accelerator** | 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) |
| **Memory** | Technology / Socket | DDR5 4400MT/s[*1] / 4 x 288-pin DDR5 UDIMM |
| | Max. Capacity | up to 192GB (4 x 48GB, total 192GB 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 |
| | 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)[*2] |
| | 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@14A (with i7-13700E/ 2TB SSD/ 192GB DRAM/ Qualcomm Cloud AI 100 Ultra) |
| **Environment** | Operating Temperature | 0°C ~ 40°C (with Qualcomm Cloud AI 100 Ultra) |
| **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) | 10 / 16 |
| | Mount | Wall Mount / Desk mount |
| | Antenna Holes | 6 |
| **Regulation** | Safety | CE/FCC/UKCA |

[*1] by Intel CPU limitation [*2] When enabled, will downclock speed from Gen 4 x16 to Gen 4 x8

# APEX-A100

## QUALCOMM SOLUTION

## 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.

| | | |
|---|---|---|
| **Platform** | CPU | Qualcomm Dragonwing™ IQ-9075 SoC |
| | Max. Frequency | 2.36GHz |
| | Module Form Factor | COM-HPC Mini |
| **AI Accelerator** | AI Engine | 100 TOPS (Dense) / 200 TOPS (Sparse) via 2 x Hexagon Tensor Processor |
| **Memory** | Technology/ Socket | LPDDR5X |
| | Max. Capacity | 36GB (Onboard) |
| **Storage** | UFS 3.1 | 128GB (Pre-installed) |
| **Graphics** | Controller | Adreno 663 |
| **Displays** | DP++ 1.2 (4K@60Hz) | 2 |
| **Ethernet** | LAN ( Realtek RTL8221 2.5G) | 2 |
| **Expansion** | 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) |
| **External I/O** | 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 |
| **Power** | Power Input Voltage | DC 9~36V (±5%) |
| **Environment** | Operating Temperature | -40°C ~ 70°C |
| **Security** | TPM 2.0 | dTPM2.0 (Hardware, Infineon:SLM9670AQ2.0) |
| **Physical Characteristics** | Dimension L x W x H (mm) | 180 x 108.7 x 69 |
| | Net Weight/Gross Weight (KG) | 1.7 |
| **Operating System** | Operating System | Yocto Linux (Kernel 6.6); Ubuntu 24.04 (Kernel 6.8) |
| **Regulation** | Safety | CE/FCC |

# APEX-E100

## INTEL SOLUTION

## Intel AI Box PC with Integrated NPU

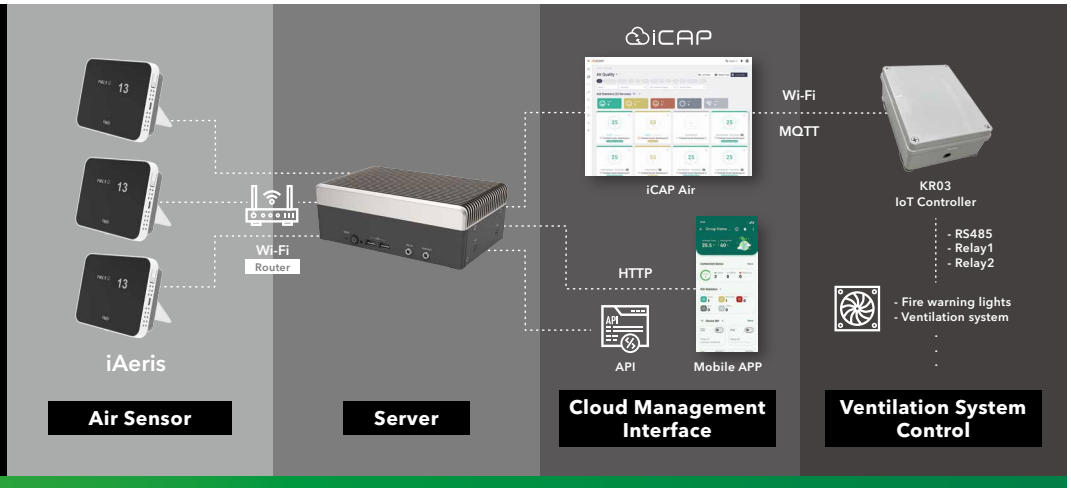
- Equipped with a built-in NPU delivering up to 36 TOPS, with GPU and CPU support for AMR/AGV, AI surveillance, and visual inspection.
- Integrated with Intel Core Ultra CPU, and 16GB DDR5 DRAM and 512GB NVMe SSD pre-installed.
- Supports dual MIPI over Type-C cameras by Innodisk.

| | | | | |
|---|---|---|---|---|
| **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 | | |

# 애플리케이션 시나리오

## iCAP AIR 공기 품질 관리 솔루션

### 포괄적이고 지능적인 공기 품질 관리 솔루션




**높은 감도**
SHS, FCC, CE, RoHS, NCC, BSMI 및 기타 국제 인증을 획득.

**그룹 관리**
다양한 장소와 기기에 대해 분류하여 관리를 수행.

**맞춤형 평면도**
평면도를 업로드하여 다양한 장소의 기기를 관리

**임계값 및 알림**
다양한 공기 요인에 대한 임계값을 설정하고 즉각적인 알림을 발송.

**자동 트리거**
실시간 공기 질에 따라 환기 장비를 작동시키거나 일정에 따라 트리거 설정.

Air Sensor

## iCAP Air Specification Table

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

## iAeris
Air Sensor

WORKS WITH WELL

| | |
|---|---|
| **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

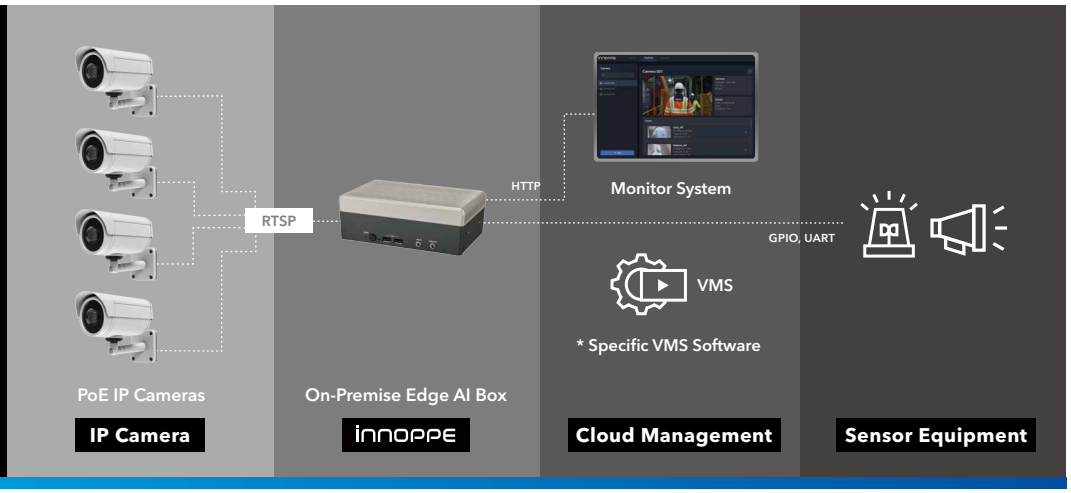
| | |
|---|---|
| **CPU** | Intel® Celeron® Processor 7305E |
| **Memory** | 32GB - DDR5 4800MT/s |
| **Storage** | 512GB |
| **OS** | Linux / Ubuntu 22.04.3 LTS |
| **Operating Temperature** | -20°C ~ 60°C |
| **Storage Temperature** | -40°C ~ 85°C |
| **Operating Humidity** | Relative humidity: 5% 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.

# InnoPPE 개인 보호 장비 (PPE) 인식 솔루션

## 높은 유연성과 지능적인 솔루션

엣지 AI 호스트를 중심으로 프론트엔드 IP 카메라와 백엔드 관리 플랫폼이 원활하게 연결되어 AI PPE 인식 솔루션을 쉽게 구현할 수 있습니다.




* Video Management System (VMS) software is not included with InnoPPE. The diagram illustrates InnoPPE's capability to send detection events to compatible VMS platforms for alert notifications.

### 유연한 아키텍처

기존 IP 카메라를 활용하여 PPE를 정확하게 감지.

### 효율적인 배포

독립형 엣지 AI 호스트가 여러 IP 카메라를 지원하여 설치 비용을 절감.

### 실시간 이벤트 알림

실시간으로 위반 사항을 기록하고, 현장 경고 시스템과 연동하여 즉각적인 알림 제공.

### 스마트 펜스 경고

구역 감지 기능을 제공하여 무단 침입이나 배회에 대한 실시간 알림 제공.

### 높은 유연성의 ODM 서비스

실제 애플리케이션 환경에 맞춘 독점 맞춤형 AI 모델을 제공하여 최적의 AI 인식 성능을 보장합니다.

### 서드파티 소프트웨어 통합

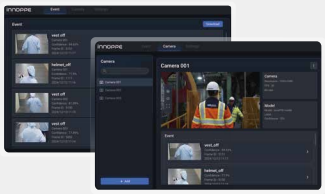
이벤트 알림 수신 및 주요 비디오 세그먼트 녹화를 위해 Nx Witness VMS가 통합되어 있습니다.

## InnoPPE 하드웨어 / 소프트웨어 사양

### 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) |
| | 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

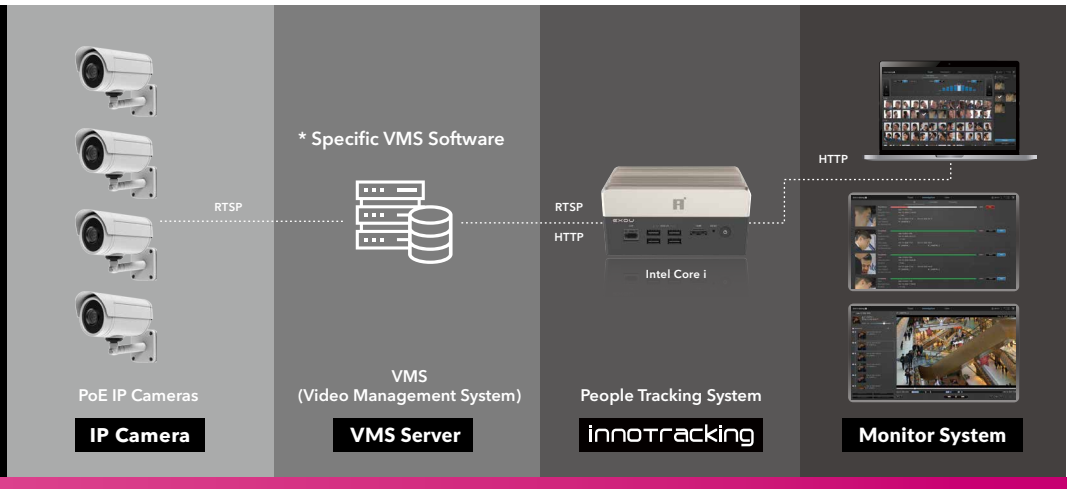


| | |
|---|---|
| **Image Sources** | Supports RTSP-compatible network cameras / VMS / DVR / NVR systems |
| **Video Format** | H.264 |
| **Image Resolution** | 1080P / 720P / 640P |
| **Recognition Objects** | Human / Hard Helmet / Reflective Vest |
| **FPS per Channel** | 5~10 fps (Varies based on 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.

# InnoTracking 사람 추적 솔루션

## 솔루션 한 눈에 보기




* InnoTracking requires receiving video streams from a specific VMS (Video Management System) software as the video source. InnoTracking does not include the VMS software.

**정확한 AI 얼굴 비교 및 검색**

**사전 등록 불필요**

**용의자를 추적하는 쉬운 방법**

**기존 현장 카메라 활용**

**에너지 절약 및 비용 절감**

**견고한 설계: 고온 및 진동에 강한 산업용 PC**

## InnoTracking 하드웨어 사양

**ABOX-5120**

Edge Server

| | |
|---|---|
| **CPU** | Intel® Celeron® Processor 7305E |
| **Memory** | 32GB - DDR5 4800MT/s |
| **Storage** | 512GB |
| **Display** | 1 x USB 3.2 Gen1 Type C<br>1 x mini DP<br>1 x HDMI |
| **Power** | Input: Single 9 ~ 36 V<br>Power Consumption: Max. 90W |
| **OS** | Linux / Ubuntu 22.04.3 LTS |
| **Operating Temperature** | -20°C ~ 60°C |
| **Storage Temperature** | -40°C ~ 85°C |
| **Operating Humidity** | 5% to 95% Relative humidity, 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** | 182.17 x 108.64 x 63.16/mm |
| **Others** | 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

강력하고 안정적인 메모리 및 스토리지 솔루션 . 당사의 산업 등급 제품은 고성능 컴퓨팅과 안전한 데이터 스토리지를 지원하도록 설계되었습니다 .

# DRAM 모듈 제품 라인

## IC 등급 IC 계층

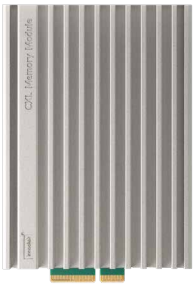
| | | |
|---|---|---|
| **오리지널 IC** | **오리지널 IC (Innodisk)** | - 주요 IC 공급업체에서 완전 테스트 완료 |
| **eTT** | **효과적으로 테스트된 DRAM** | - 효과적으로 테스트되었으나 테스트 패턴은 공급업체마다 다를 수 있음<br>- 로고는 표시되지 않으며 일련번호 또는 제조사 정보만 표시됩니다 |
| **uTT** | **테스트되지 않은 DRAM** | - 완전한 테스트를 통과하지 못했습니다<br>- 로고는 표시되지 않으며 일련번호 또는 제조사 정보만 표시됩니다 |
| **다운그레이드** | **다운그레이드** | - DRAM IC 는 낮은 수율의 웨이퍼와 다이로 제작되었으며 , 심각한 호환성 및 기능 문제를 가지고 있습니다 |

## 부가가치 기능

●: 사용 가능 ▲: 선택 사양

| | | Wide Temperature | Anti-sulfuration | 30μ"Gold Finger | Mounting Hole | Connector | iRAM | iSMART / iCAP | Conformal Coating | Side Fill |
|---|---|---|---|---|---|---|---|---|---|---|
| CXL Memory Module | | | | | | | | | | |
| CXL AIC | | | | | | | | | | |
| DDR5 | MRDIMM | | ● | ● | | | | ▲ | ▲ | ▲ |
| | LPDDR5X CAMM2 | | ● | | | | | ▲ | ▲ | ▲ |
| | CAMM2 | | ● | | | | | ▲ | ▲ | ▲ |
| | CUDIMM | ● | ● | ● | | | | ▲ | ▲ | ▲ |
| | CSODIMM | ● | ● | ● | | | | ▲ | ▲ | ▲ |
| | UDIMM | ● | ● | ● | | | | ▲ | ▲ | ▲ |
| | SODIMM | ● | ● | ● | | | | ▲ | ▲ | ▲ |
| | ECC UDIMM | ● | ● | ● | | | | ▲ | ▲ | ▲ |
| | ECC SODIMM | ● | ● | ● | | | | ▲ | ▲ | ▲ |
| | RDIMM | ● | ● | ● | | | | ▲ | ▲ | ▲ |
| | SORDIMM | | ● | ● | | | | ▲ | ▲ | ▲ |
| | 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 | | | | | | | ▲ | ▲ | ▲ |

# DRAM 모듈



## CXL Memory Module

| 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 DRAM Module

| Module Type | DDR5 MRDIMM | LPDDR5X CAMM2 TAIWAN EXCELLENCE 2026 | 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 DRAM Module

| 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 DRAM Module

| 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 DRAM Module

| 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 |

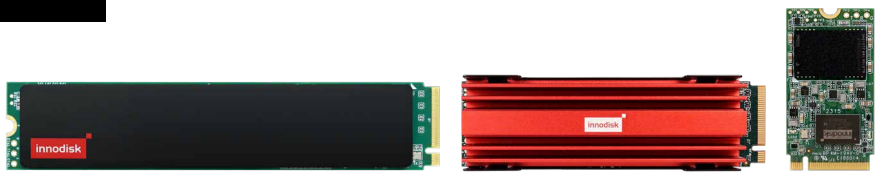
## DDR1 DRAM Module

| 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 DRAM Module

| 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 |

# 플래시 스토리지




## 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 ×4 | PCIe Gen 3 ×2 | PCIe Gen 3 x4 | PCIe Gen 3 ×2 | PCIe Gen 3 x4 | PCIe Gen 3 ×2 |
| 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 (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 (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 ×4 | PCIe Gen 3 ×2 | PCIe Gen 3 x4 | PCIe Gen 3 ×2 | PCIe Gen 3 x4 | PCIe Gen 3 ×2 |
| Flash Type | 3D TLC | | 3D TLC | | 3D TLC | |
| Capacity | 128GB ~ 2TB | | 128GB ~ 2TB | | 40GB ~ 640GB | |
| Max. Channel | 4 | | 4 | | 4 | |
| Sequential R/W (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 (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 (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 (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 (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 (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 (MB/sec, max.) | 7000/5450 | 7000/5450 |
| Max. Power 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 (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 ×4 | PCIe Gen 4 ×4 | PCIe Gen 4 ×4 | PCIe Gen 5 ×4 | PCIe Gen 5 ×4 |
| 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 (MB/sec, max.) | 7150/6150 | 7150/6100 | 7050/5200 | 14000/10000 | 14000/10000 |
| Max. Power 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 (MB/sec, max.) | 1750/1650 | 1750/1500 | 1750/1650 |
| Max. Power 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 (MB/sec, max.) | 1750/1650 | 1750/1650 |
| Max. Power 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 (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 (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 (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 (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 (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 (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 (MB/sec, max.) | 550/500 | 560/525 | 560/525 |
| Max. Power 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 (MB/sec, max.) | 550/500 | 480/530 | 550/530 |
| Max. Power 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 (MB/sec, max.) | 560/510 | 510/460 | 550/510 | 500/460 |
| Max. Power 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 (MB/sec, max.) | 560/510 | 520/360 | 530/210 | 530/380 |
| Max. Power 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 (MB/sec, max.) | 520/340 | 520/480 | 520/450 | 550/510 |
| Max. Power 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 (MB/sec, max.) | 510/140 | 550/485 | 530/120 | 530/350 | 520/260 |
| Max. Power 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 |

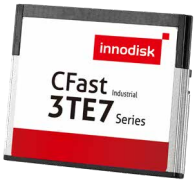
| Form Factor | SATADOM-SH type C | SATADOM-SH type C | SATADOM-MV | SATADOM-MV | SATADOM-ML/MH |
|---|---|---|---|---|---|
| Model name | SATADOM 3ME4 | SATADOM 3SE4 | SATADOM 3IE4 | SATADOM 3ME4 | SATADOM 3TG6-P |
| Interface | SATA III 6Gb/s | SATA III 6.0Gb/s | SATA III 6Gb/s | SATA III 6Gb/s | SATA 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 (MB/sec, max.) | 530/120 | 520/260 | 530/340 | 530/120 | 560/290 |
| Max. Power 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 (MB/sec, max.) | 560/180 | 530/360 | 530/210 | 520/360 |
| Max. Power 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 |

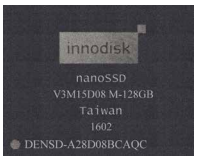
| Model name | mSATA 3MG2-P | mSATA mini 3TE7 | mSATA mini 3IE7 | mSATA mini 3SE4 | mSATA mini 3ME4 | mSATA mini 3IE4 |
|---|---|---|---|---|---|---|
| Interface | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s | SATA III 6.0Gb/s |
| Flash Type | MLC | 3D 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 x3.6 | 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 (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 (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 |


## Others - 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 (MB/sec, ma x .) | 100/85 | 100/50 |
| Ma x . Power 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 (MB/sec, ma x .) | 330/125 | 35/35 |
| Ma x . Power 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 (MB/sec, ma x .) | 330/125 | 110/85 | 100/50 |
| Ma x . Power 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 |


## Others - SD

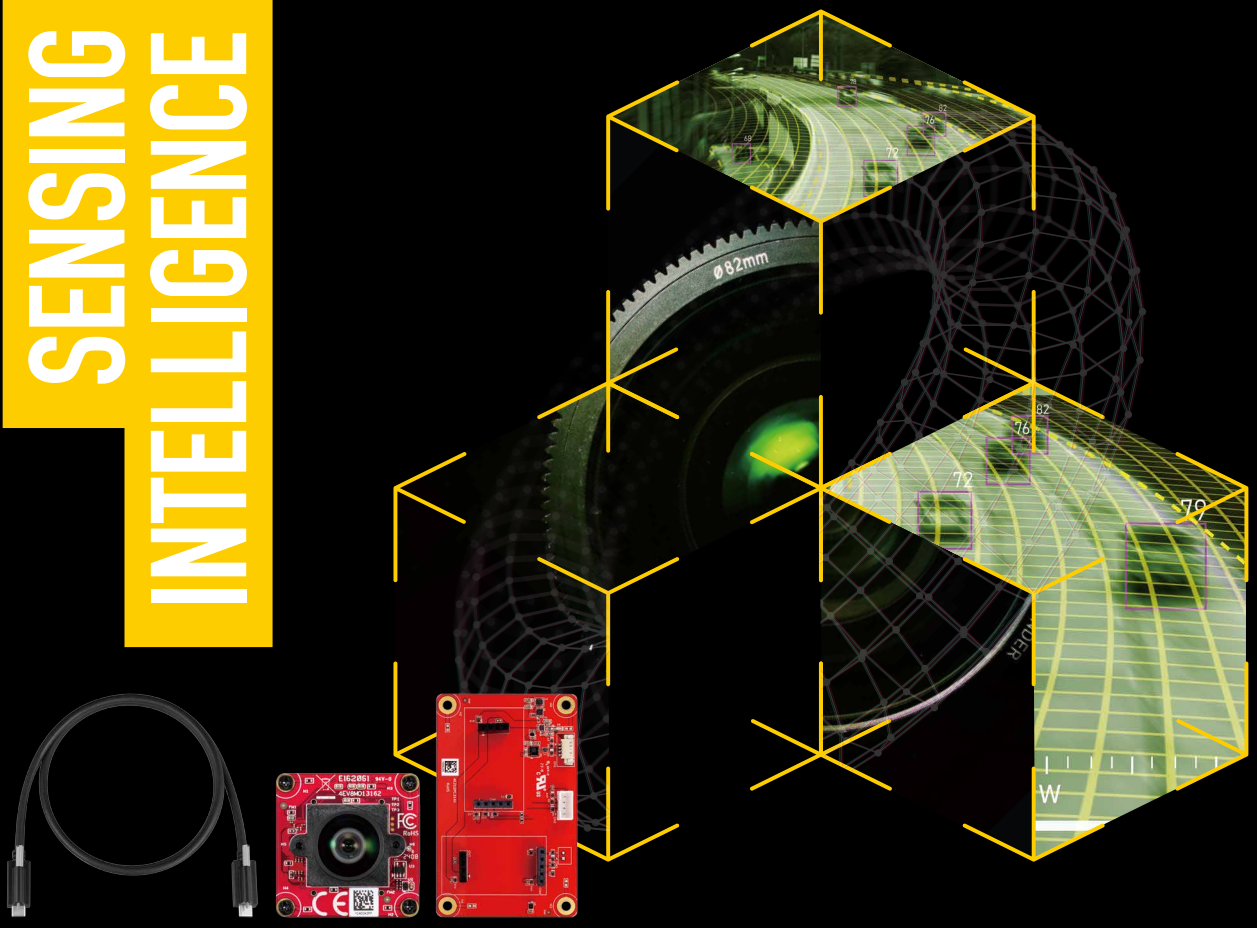
| Model name | MicroSD 3TE4 | MicroSD 3IE4 | MicroSD 3SE3 | MicroSD 3ME3 | MicroSD 3ME2 |
|---|---|---|---|---|---|
| Interface | SD 3.0/6.1 | SD 3.0/6.1 | SD 3.0 | SD 3.0 | SD 3.0 |
| Flash Type | 3D TLC | iSLC (3D TLC) | SLC | MLC | MLC |
| Capacity | 32GB ~ 512GB | 8GB ~ 128GB | 4GB ~ 8GB | 8GB ~ 64GB | 8GB ~ 64GB |
| Max. Channel | 1 | 1 | 1 | 1 | 1 |
| Sequential R/W (MB/sec, max.) | 95/85 | 95/85 | 30/23 | 76/52 | 76/32 |
| Max. Power 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 (MB/sec, max.) | 79/45 | 20/16 | 95/85 | 95/85 |
| Max. Power 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 (MB/sec, max.) | 23/20 | 37/31 | 80/46 | 79/70 |
| Max. Power 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

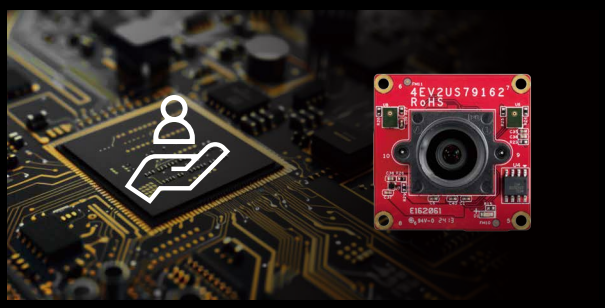
SENSING INTELLIGENCE




## SENSING INTELLIGENCE

물리적 환경에서 정확하고 신뢰할 수 있는 이미지와 데이터를 캡처합니다 . 지능형 모듈은 엣지에서 인텔리전스 애플리케이션을 시작합니다 .

# 카메라 모듈 카메라 설계 서비스



Hardware (PCBA, Size)

Versatile Lens Selection

Image Quality Tuning

Platform Integration

## 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.

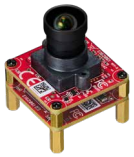
## MIPI CSI-2

| 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 TAIWAN EXCELLENCE 2026 |
|---|---|---|
| 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 (YUV422 @Max. Resolution ) | Approximate 1.9W (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 |

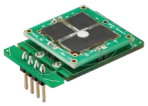
For detailed resolution and frame rate combined application, please refer to product datasheet.
For more platform support, please contact our local sales.

# 에어 센서

## Air Sensor




| 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) (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 (% 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 | $I^2C$ | $I^2C$ | $I^2C$ | $I^2C$ |
| 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) (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 (% 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 | $I^2C$ | $I^2C$ | $I^2C$ | $I^2C$ |
| 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) |

## Specification

| 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 |

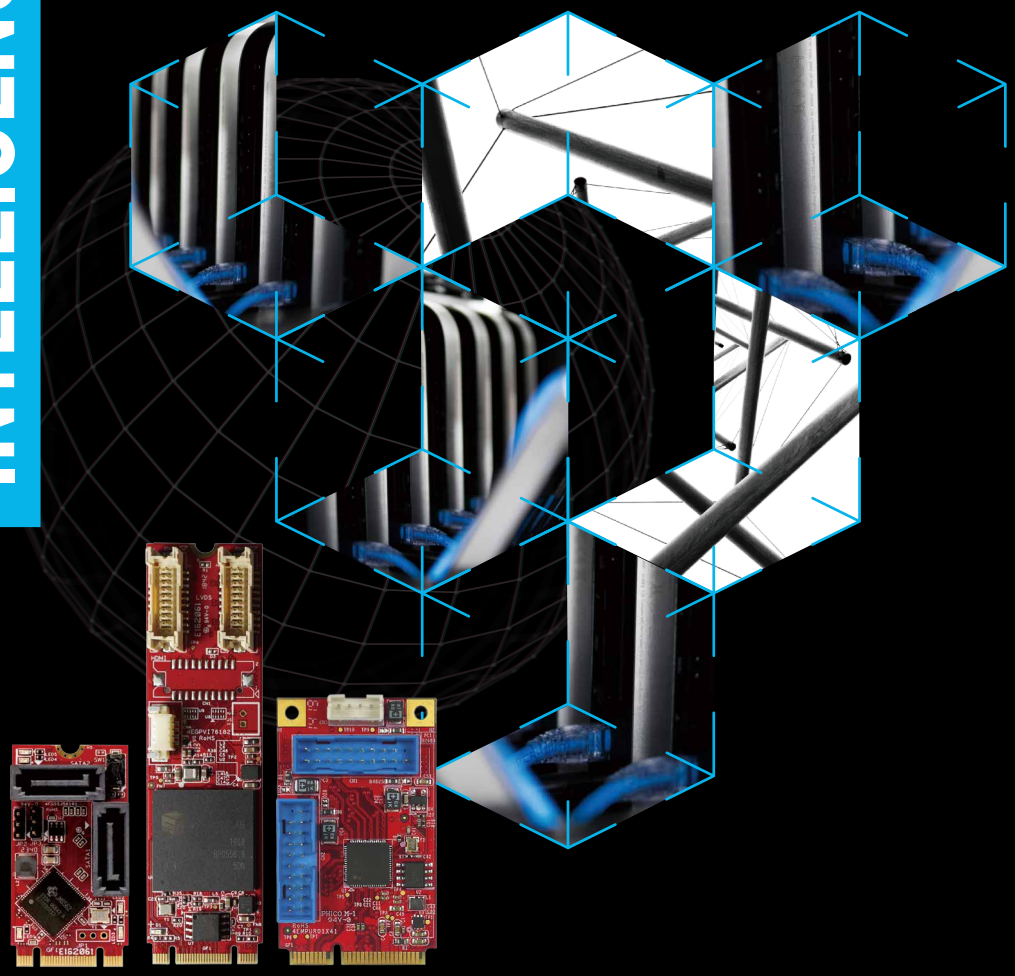
(*) Testing conditions at 25°C environment

## Sensor Carrier Board

| 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 |

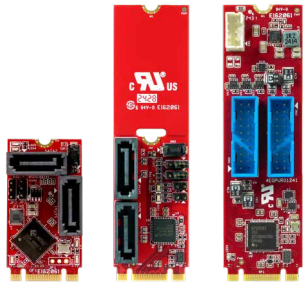
innodisk

EXTENDED INTELLIGENCE



## EXTENDED INTELLIGENCE

주변 기기로 상호 연결된 애플리케이션 시나리오를 구축하여 시스템의 기능을 확장합니다 .



## Storage and Disk Array

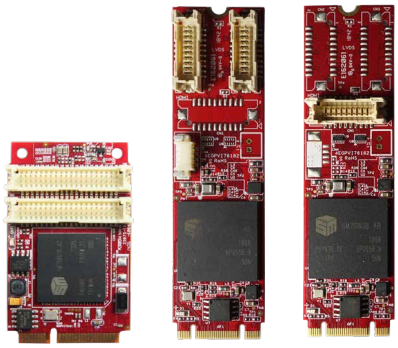
| Model | EMPS-3401 | EGPS-3401 | EMPU-3201 | EMPU-3401 |
|---|---|---|---|---|
| Description | mPCIe to Four SATA III Module | M.2 to Four SATA Module | mPCIe to Dual USB 3.0 Module | mPCIe to Four USB 3.0 Module |
| Form Factor | mPCIe | M.2 3042 | mPCIe | mPCIe |
| Input I/F | PCI Express 2.0 | PCI 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 |

## Testing Tool

| 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 |

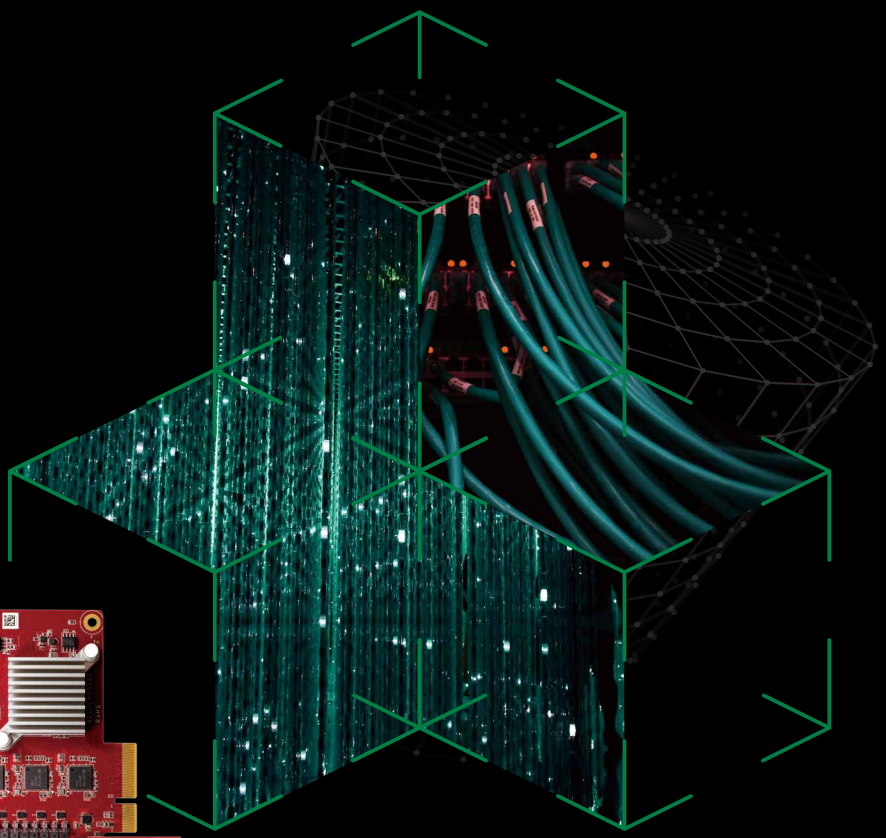


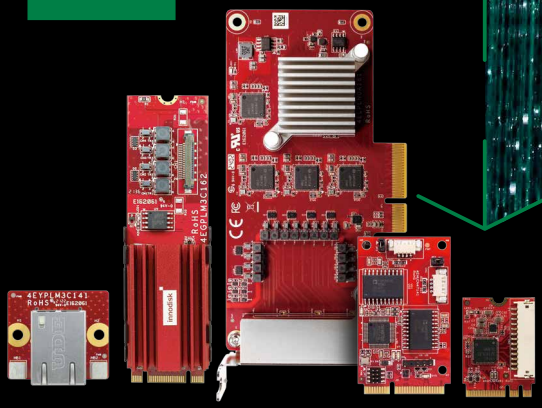
## Display

| 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<br>(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.) |

innodisk

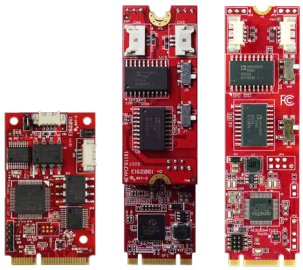
# CONNECTING INTELLIGENCE





## CONNECTING INTELLIGENCE

실시간 데이터 전송을 위해 원활하게 연결합니다 . 동시 작동을 능숙하게 처리하여 산업 시스템에 안정적인 대역폭을 제공합니다 .



## CAN Bus Modules

| 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<br>(J1939, CANopen) | EGPC-B1S1-W1<br>EGPC-B1S1-W2<br>(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<br>(J1939, CANopen) | EMPC-B2S1-W1<br>EMPC-B2S1-W2<br>(J1939, CANopen) | EMUC-B2S3-W1<br>EMUC-B2S3-W2<br>(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

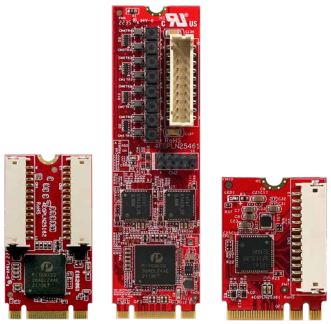
| Model | EMPL-G101 | EMPL-G201 | EMPL-G102 | EMPL-G202 |
|---|---|---|---|---|
| Description | mPCIe to Single Isolated GbE LAN Module | mPCIe to Dual Isolated GbE LAN Module + Cable | mPCIe to Single Isolated GbE LAN Horizontal Module | mPCIe to Dual Isolated GbE LAN Horizontal Module |
| Form Factor | 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<br>(Mounting hole)<br>EGPL-G401-C2<br>(PCIe low profile bracket)<br>EGPL-G401-C3<br>(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) |

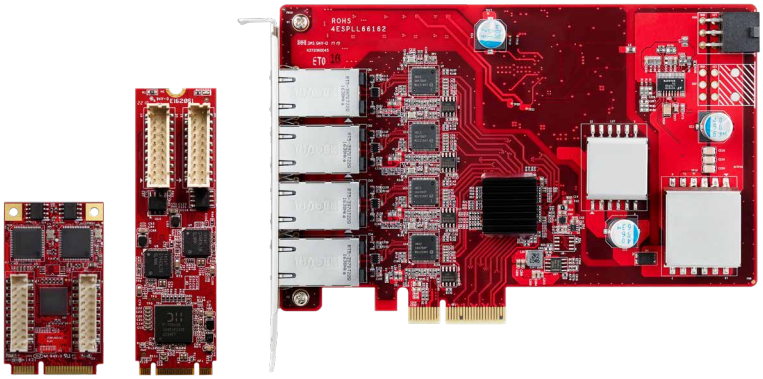
| Model | EGPL-21S1 | EGPL-22S1 | EGPL-21S2 | EGPL-22S2 |
|---|---|---|---|---|
| Description | M.2 to Single Isolated 2.5GbE LAN Module | mPCIe to Dual Isolated 2.5GbE LAN Module | M.2 to Single Isolated 2.5GbE LAN Module | M.2 to Dual Isolated 2.5GbE LAN Module |
| Form Factor | M.2 2280 | M.2 2280 | 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

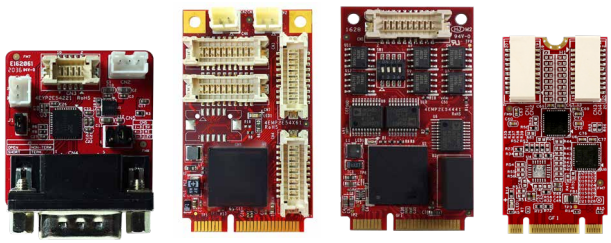
| Model | EGPL-T102 |
|---|---|
| Description | M.2 2280 to Single 10GbE LAN Module |
| Form Factor | M.2 2280 B+M |
| Input I/F | PCI Express 3.0 x2 |
| Input Connector | M.2 B+M Key |
| Output I/F | Single 10 GbE LAN |
| Output Connector | RJ45 x 1 |
| Dimension (WxLxH/mm) | M.2 Board: 22 x 80 x 14.5<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 heade)<br>EGPL-G2P1-C6 (Bracket, 4pin heade)<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) |

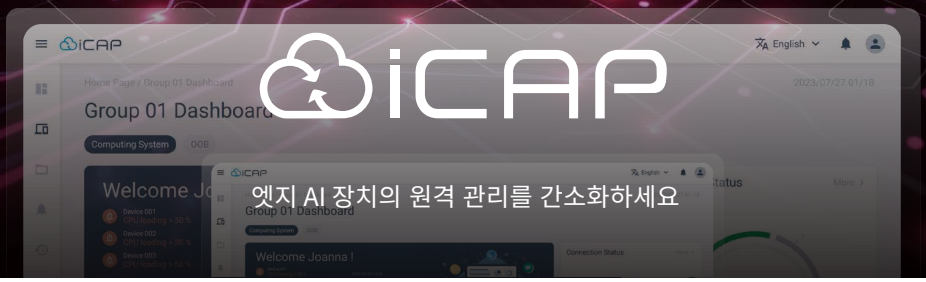
innodisk

# MANAGEMENT INTELLIGENCE


## MANAGEMENT INTELLIGENCE

우리의 고급 소프트웨어와 서비스를 통해 실제 애플리케이션에서 손쉽게 관리할 수 있어 , 모든 단계에서 최적의 성능을 보장합니다 .

# iCAP 클라우드 관리 플랫폼




iCAP, 이노디스크 클라우드 관리 플랫폼,은 원격 장치 및 AI 모델 관리를 간소화합니다. 모든 브라우저를 통해 접근할 수 있으며, 시스템 건강 상태를 실시간으로 모니터링하고, 저장 수명에 대한 맞춤형 알림을 제공합니다.

iCAP은 또한 원활한 AI 모델 배포를 지원하며, 효율적이고 사용자 친화적인 클라우드 관리 솔루션을 제공합니다.


## iCAP 장점

### 다양한 호환성

WINDOWS
LINUX
ANDROID APP

iCAP 에이전트는 Windows와 Linux 플랫폼 모두와 호환되며, 다양한 웹 브라우저를 통해 원활하게 접근할 수 있습니다. 또한, 모바일 앱을 지원하여 사용자가 원격으로 장치를 모니터링하고 제어할 수 있으며, 아웃오브밴드(OOB) 재부팅 기능도 제공합니다.

### OTA 기반 통합 AI 모델 및 시스템 배포

iCAP의 OTA(Over-the-Air) 업데이트 기능은 원스톱 AI 모델 배포를 지원합니다. 기존의 BIOS 및 펌웨어 업데이트를 넘어, iVIT 모델 라이브러리에서 훈련된 AI 모델을 관리 대상 장치나 지정된 그룹으로 간편하게 배포할 수 있습니다. 이러한 통합 접근 방식은 시스템 펌웨어와 AI 모델을 분리하여, 모든 엣지 디바이스의 시스템 소프트웨어와 AI 인텔리전스를 효율적이고 안정적이며 중앙 집중적으로 관리할 수 있게 합니다.

### 원격 재해 복구

iCAP은 인밴드 및 아웃오브밴드 관리를 완벽하게 지원하며, 원키 복구 기능을 통해 장애가 발생한 장치를 신속하게 정상 상태로 복구합니다.

### 효율적인 이벤트 추적기

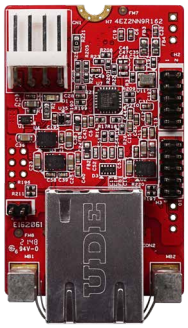
이벤트 알림 추적기는 모든 변경 사항을 기록하고 사용자에게 실시간으로 정보를 제공하여 발생할 수 있는 문제를 신속하게 해결할 수 있도록 지원합니다.

### AI 챗봇 / 에이전트 어시스턴트

통합 AI 챗봇은 대화형 관리 기능과 선제적인 문제 해결 솔루션을 제공합니다. 사용자는 자연어를 이용해 즉각적으로 장치 관련 문의를 수행하고, 규칙(Rules) 및 스케줄러(Scheduler) 동작을 신속하게 구성할 수 있습니다. 또한 기반이 되는 에이전트 AI(Agentic AI)는 중요 이벤트를 분석하고 즉시 실행 가능한 해결책을 제안함으로써, 단순한 알림 제공을 넘어 능동적인 인텔리전스 수준으로 지원을 격상시킵니다.

### 스토리지/DRAM 모니터링

iCAP은 스토리지/DRAM 모니터링을 지원하여 사용자가 iSMART 스토리지/DRAM 정보와 모듈 예측을 원격으로 확인할 수 있도록 제공합니다.



## 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/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) |

innodisk

# MACHINE-LEARNING INTELLIGENCE

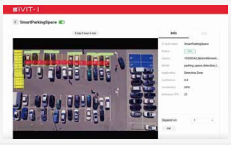

## MACHINE-LEARNING INTELLIGENCE

AI 학습 및 추론 기능으로 데이터 인사이트의 잠재력을 최대한 활용합니다 .

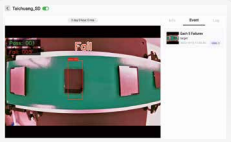
# iVIT 비전 인텔리전스 툴킷


iVIT, 인노디스크 비전 인텔리전스 툴킷은 AI 모델 학습과 추론을 높은 효율로 간소화합니다. 주요 딥러닝 프레임워크를 통합하여 개발자가 제품 프로토타입을 빠르게 제작하고 맞춤형 AI 모델을 구축할 수 있도록 지원합니다.

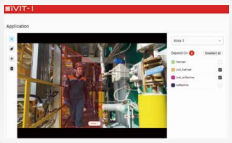
**코드 불필요** | **AI 모델 배포** | **카메라 스트리밍** | **이벤트 로깅**



스마트 교통



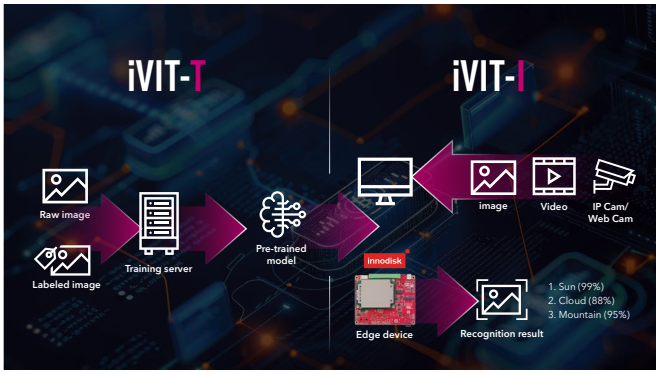
스마트 팩토리



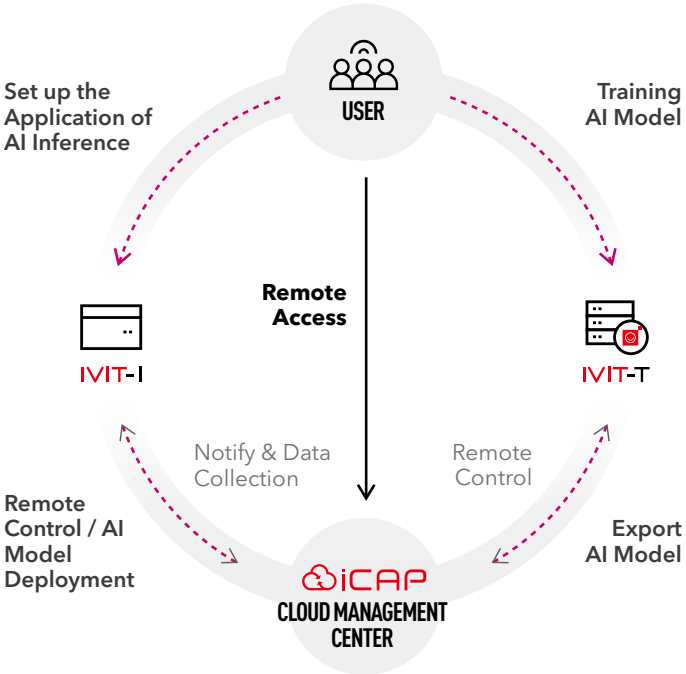
스마트 감시

## 맞춤형 솔루션을 위한 AI 개발 조화

iVIT 솔루션은 AI 모델 학습을 위한 iVIT-T와 모델 추론을 위한 iVIT-I를 포함합니다. 이 두 가지를 함께 사용하면 머신 비전 애플리케이션의 정확한 요구 사항에 맞게 AI 모델을 원활하게 맞춤화할 수 있습니다.

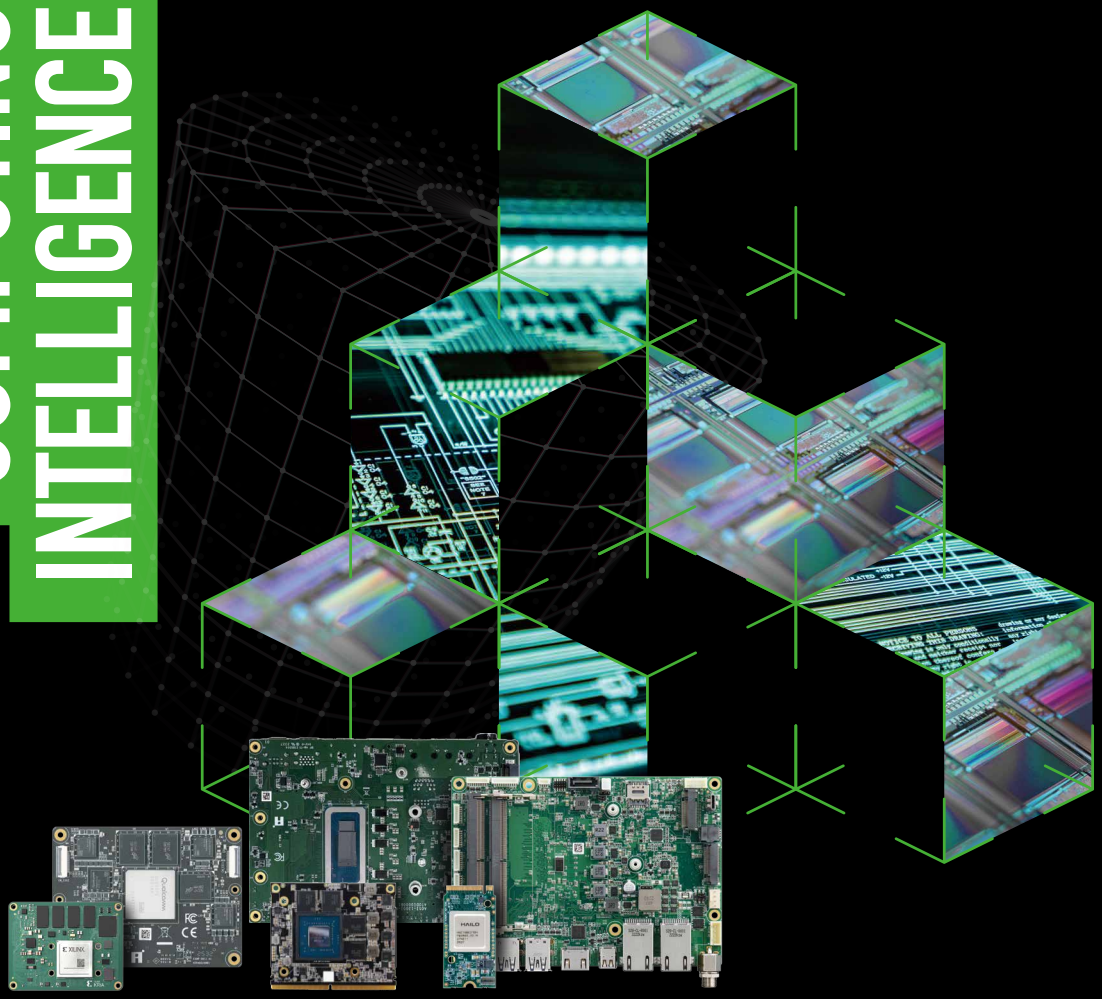



## iVIT와 iCAP 시너지를 통한 AI 잠재력 발휘



innodisk

# COMPUTING INTELLIGENCE



## COMPUTING INTELLIGENCE

AI 가속 컴퓨팅 시스템으로 엣지에서 데이터 처리 및 분석을 혁신합니다 .

## Qualcomm

| 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 I²S 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 I²C (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 Contorl, 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 | |

innodisk

# COLLECTIVE INTELLIGENCE

## COLLECTIVE INTELLIGENCE

업계 리더들과 협력하여 지능형 생태계를 구축하고 엣지 AI 애플리케이션의 무한한 가능성을 열어드립니다 .

또한 , 우리는 공급업체 , 글로벌 고객 , 직원들과 협력하여 환경 문제를 해결하고 사회적 책임을 다하며 긍정적인 영향을 추구합니다 .

innodisk

# ARCHITECT INTELLIGENCE

## HEADQUARTERS

**Innodisk Corporation Taiwan**

TEL: +886-2-7703-3000
E-mail: sales@innodisk.com

## EUROPE

**Innodisk Europe B.V.**

TEL: +31-40-3045-400
E-mail: eusales@innodisk.com

**Innodisk France**

TEL: +33(0)1-34-89-50-28
E-mail: fr_sales@innodisk.com

**Innodisk Germany GmbH**

TEL: +49 (0) 7243-3430180
E-mail: dach_sales@innodisk.com

## USA

**Innodisk USA Corporation**

TEL: +1-510-770-9421
E-mail: usasales@innodisk.com

**US Central Office**

TEL: +1-510-770-9421

**US East Coast Office**

TEL: +1-510-770-9421

## JAPAN

**Innodisk Japan Corporation**

TEL: +81-3-6667-0161
E-mail: jp_sales@innodisk.com

## CHINA

**Innodisk Shenzhen Corporation**

TEL: +86-755-2167-3689
+86-755-2167-3690
E-mail: sales_cn@innodisk.com

**Beijing Office**

TEL: +86-010-82458120
+86-010-82458130

**Shanghai Office**

TEL: +86-21-64198038
+86-21-64195356

**Chengdu Office**

TEL: +86-28-67197490

For more warranty details, please contact the Innodisk Sales Department or visit our website:
**www.innodisk.com**