

innodisk

ARCHITECT  
INTELLIGENCE



**INNODISK 2026  
SELECTION GUIDE**



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# INNODISK — ARCHITECTS OF INTELLIGENCE

Innodiskは、エッジAIソリューションのグローバルリーダーであり、業界をリードするコンポーネントと高度なコンピューティングプラットフォームを融合させ、エッジインテリジェンスの未来を創造します。

台湾に本社を置き、20年以上の実績を誇るエンジニアリングチーム、世界各国の事業拠点、そしてグローバルパートナーシップにより、多様な産業およびエンタープライズアプリケーションにおいて、信頼性の高いサービス、確かな製造品質そして長期的なサポートを提供しています。



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グローバルな技術  
と  
サービスネットワーク



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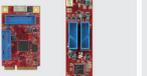
# INNODISK EDGE AI BUILDING BLOCKS

Innodisk では、包括的な製品とソリューションのポートフォリオでサポートされるエッジAIの重要な構成要素を提供することで、**ARCHITECT INTELLIGENCE** を実現します。

カスタマイズ可能で互換性のあるテクノロジーにより、エッジAI時代全体にわたって分散型で多様かつ急速に進化するアプリケーションを橋渡しします。



## Comprehensive Portfolio

クラウド管理	Cloud AI	iCAP (Innodisk Cloud Administration Platform)				
ソフトウェア / ファームウェア	iSeries Software	iSMART / iTracker / iOPAL / iRAID				
	Innodisk AI SDK	AccelTune / AccelBrain / iVIT				
エッジAI コンピューティング	AI Accelerator	 NVIDIA	 Qualcomm		 Intel	
	Edge AI Systems	 Innodisk APEX Series				
主要コンポーネント および周辺機器	Flash	DRAM	Display	Networking	Storage	Wi-Fi
						
センサー	Camera				Air Sensor	
						

# SOLUTIONS ACROSS INDUSTRIES

We bridge the gap between industry insights and tangible outcomes.



## MANUFACTURING

AI ソリューションは正確で瞬時の意思決定で、効率、安全性、工場の生産性を向上させます。

- 自律移動ロボット (AMR)
- 自動光学検査 (AOI) ■ スマートファクトリー



## COMMUNICATION

高負荷下でも重要な通信インフラストラクチャに高い安定したパフォーマンスを提供します。

- 5G基地局 ■ 録画・放送システム



## TRANSPORTATION

EV、バス、地下鉄などの運用、管理、セキュリティを強化します。

- 電気自動車 (EV) 充電 ■ 自動運転車



## HEALTHCARE

高度なソリューションで AI をヘルスケアに統合し、厳しい医療ニーズに応えます。

- スマート看護システム ■ 梱包・検査



## SURVEILLANCE & SAFETY

現代の監視ニーズに応える高度な分析と即時の対応を実現します。

- Smart Street Lights ■ PPE Detection



## ENTERTAINMENT

デバイスの寿命を延ばし、データを保護し、エンターテインメントの基準を満たすソリューションを提供します。

- カジノ



## DATA CENTERS

増大するデータに対処し、製品寿命を延ばし、サーバーとデータセンターの電力を削減します。

- クラウドストレージシステム ■ エッジコンピューティングサーバー
- AIトレーニングサーバー



## AEROSPACE

航空宇宙産業特有の課題に合わせた最先端のソリューションを生み出します。

- ミッションクリティカル ■ 堅牢なシステム



## RETAIL & LOGISTICS

効率性とセキュリティを備えたショッピング、注文、配送を強化し、スマートリテールを推進します。

- スマート自動販売機 ■ セルフチェックアウトシステム

# TECHNOLOGY AND INNOVATION

Innodisk は信頼性、耐久性、パフォーマンスに重点を置いた産業グレードのテクノロジーを開発しています。ハードウェア、ファームウェア、そしてソフトウェアを包括的に統合することで、過酷な環境でも動作するように設計されたインテリジェントなソリューションを提供します。また、カスタマイズ能力により、各ソリューションがお客様の産業用アプリケーションのニーズに的確にお応えします。

## DATA OPTIMIZATION



### iDATA GUARD

効率的な電源サイクルとデータの整合性を提供します。



### iPOWER GUARD

SSD を保護し、不安定な電源を防止します。



### iRETENTION

インテリジェントなアルゴリズムを使用して、温度と P/E サイクルデータを監視します。



### END-TO-END DATA PATH PROTECTION (ETEP)

あらゆるステップでデータの整合性を確保します。

## SECURITY



### PLP (iCELL)

SSD がミッションクリティカルなデータを保護し、データ損失を防止できるようにします。



### AES

AES 暗号化により機密データが保護されます。



### WRITE PROTECT

フラッシュストレージに保存されているデータを保護します。

## ENVIRONMENTAL PROTECTION



### WIDE TEMPERATURE

-40℃～85℃の動作温度範囲をサポートします。



### ANTI-SULFURATION

過酷な環境でも硫黄腐食から保護します。



### CONFORMAL COATING

DRAM PCB を酸、ほこり、その他の有害物質から保護します。



### RUGGED CLIPS

モジュールの安定性と耐衝撃性を向上させます。



### HEAT SPREADER

過熱を防ぎ、製品寿命を延ばします。



### SIDE FILL

チップとボード間の接続を強化します。

## LONGEVITY



### iSLC / ULTRA iSLC

デバイスの寿命を延ばし、全体的なパフォーマンスを向上させます。



### WEAR LEVELING

デバイスのブロックを均等に使用することができます。



### GARBAGE COLLECTION AND TRIM

不要なデータを削除し、ストレージの寿命を延ばします。

## RECOVERY



### InnoOSR

InnoOSR の特許取得済みファームウェアテクノロジーにより、ワンクリックでリカバリが可能になります。



### CLOUD RECOVERY

オペレーターがクラウド経由でリモートからデバイスを回復できるようにします。

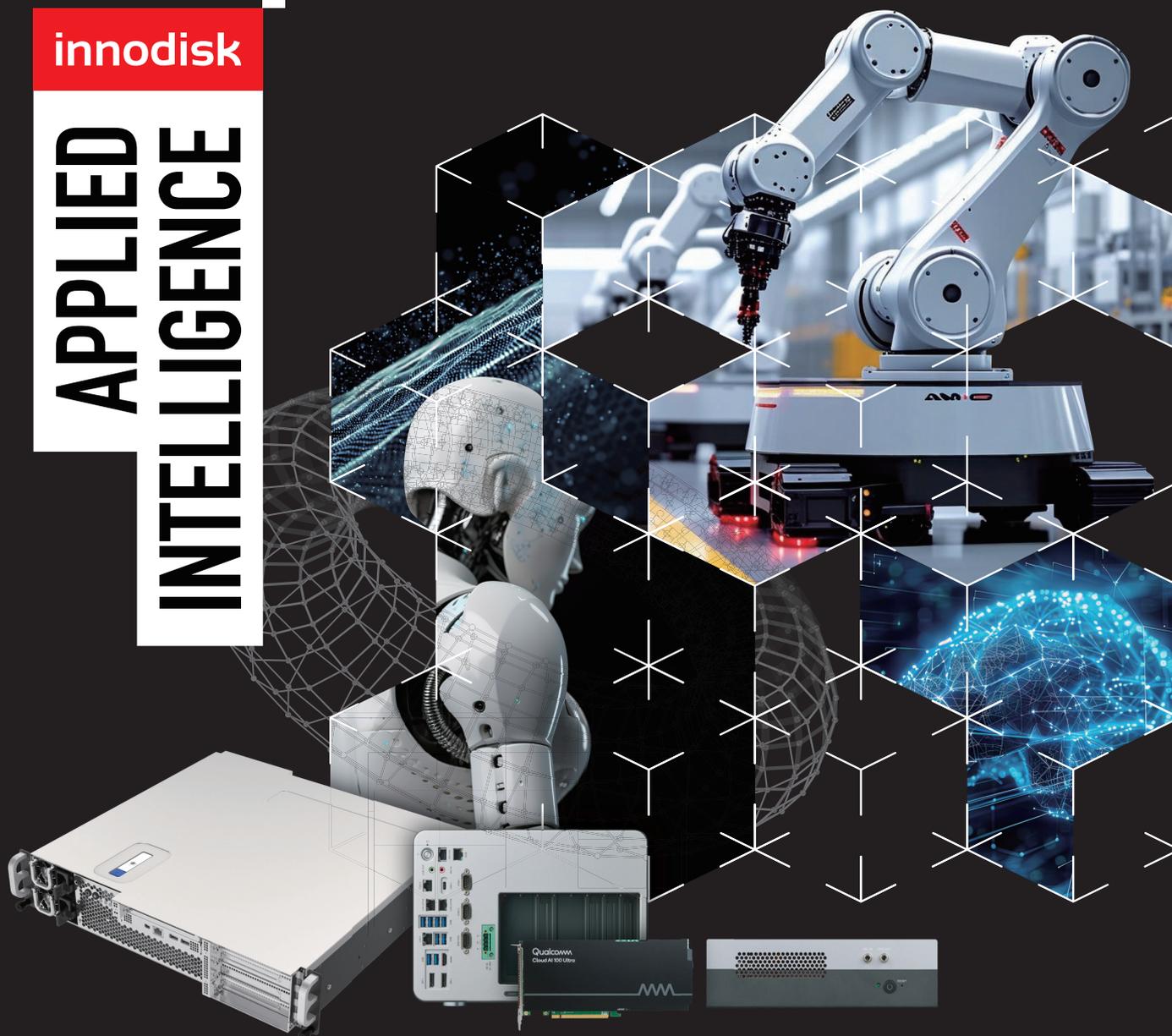


### LOCAL RECOVERY

オンサイトデバイスリカバリを可能にします。

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# APPLIED INTELLIGENCE



## APPLIED INTELLIGENCE

NVIDIA、Qualcomm、Intel が提供するエッジ AI システムと、特定のアプリケーションシナリオ向けのターンキー AI ソリューションを活用して、構成可能な応用インテリジェンスを活用し、独自の成功ストーリーを構築しましょう。

# EDGE AI SYSTEMS LANDSCAPE

## 世界最先端のAIコアによるイノベーション

### NVIDIA

RTX シリーズAIアクセラレータは、高性能グラフィックス、長寿命、多用途のAIコンピューティングを実現します。

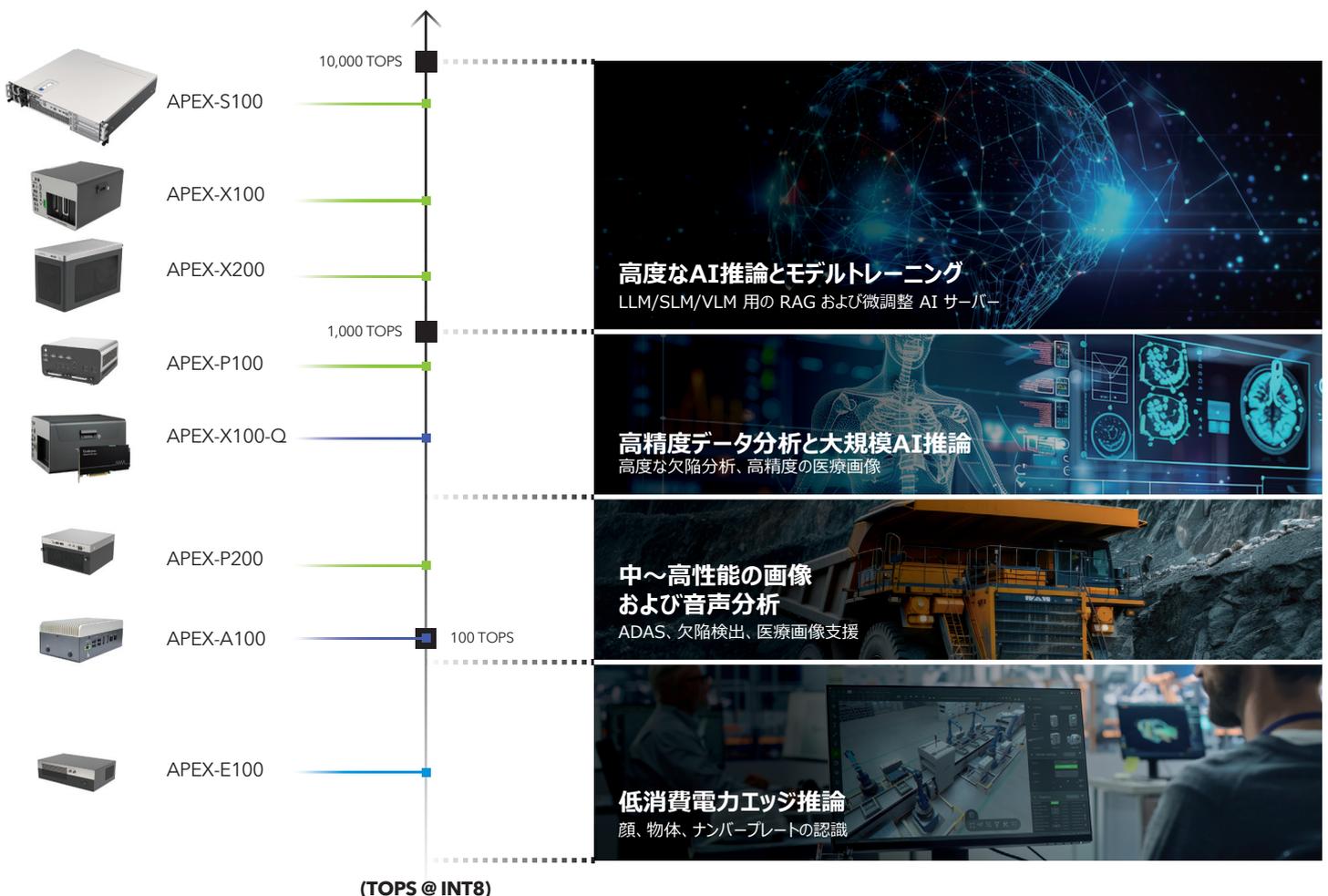
### Qualcomm

オンプレミスLLM向けのCloud AI 100 Ultraアクセラレータ、スケラブルなエッジAI向けのDragonwing IQシリーズ。

### Intel

NPUを内蔵した Core Ultraプロセッサは、必須のAIコンピューティング能力を提供し、Intel x86プラットフォームはさまざまなユースケースに対応する互換性を提供します。

## 産業およびエンタープライズアプリケーション向けの包括的なAIコンピューティング





## NVIDIA MGX モジュラー AI サーバーを強化する 2U ショートデプス設計

- NVIDIA H200NVL、RTX PRO 6000 Blackwell Server Edition、L40S アクセラレータをサポート
- Support Intel Xeon 6 processor, up to 768GB DDR5 6400 MT/s RDIMM, 4 x 4T E1.S, 2 x 2TB M.2 SSD.
- Intel Xeon 6 プロセッサ、最大 768GB DDR5 6400 MT/s RDIMM、4 x 4T E1.S、2 x 2TB M.2 SSD をサポート
- エッジ AI トレーニング、ディープラーニングワークロード、LLM/SLM 推論と微調整、RAG パイプライン向けに最適化

<b>Platform</b>	Intel CPU	Xeon 6731P	Xeon 6730P	Xeon 6736P
	Cores	32C	32C	36C
	Max. Frequency	4.1GHz	3.8GHz	4.1GHz
<b>AI Accelerator</b>	AI Engine	up to 2 x L40S	up to 2 x RTX PRO 6000 Blackwell Server Edition	up to 2 x H200 NVL
	Form Factor (Interface)	11.2cm H x 26.7cm L, dual slot, full height (PCIe Gen 5 x16)		
	Cores / Computational power	18,176 x Ada CUDA Cores 568 x fourth-generation Tensor Cores 142 x third-generation RT Cores	24,064 x Blackwell CUDA Cores 752 x fifth-generation Tensor Cores 188 x fourth-generation RT Cores	1,671 TFLOPS (FP16 / BFLOAT16 Tensor core)
	GPU memory	48GB GDDR6 (w/ECC)	96GB GDDR7 (w/ECC)	141GB HBM3e (w/ECC)
<b>Memory</b>	Technology / Socket	DDR5 6400 MT/s, 8 x 288-pin DDR5 RDIMM DDR5 8000 MT/s, 8 x 288-pin DDR5 MRDIMM (support ECC, 128GB per DIMM)		
	Max. Capacity	up to 1T		
<b>Displays</b>	Mini DP (Full HD@60Hz)	1		
<b>BMC</b>	BMC	1 x 1Gbps by AST2600 (BMC management only, no Internet access)		
<b>Ethernet</b>	Ethernet	2 x 10Gbps by Intel X710-T2L	2 x 10Gbps by Intel X710-T2L or 2 x 25Gbps by Intel E810-XXVDA2	2 x 200Gbps by NVIDIA BlueField-3 B3220
<b>Expansion Slots</b>	M.2 2280/22110 M Key	2 x (PCIe Gen 5 x4) support RAID 0/1		
	E1.S	4 x (PCIe Gen 5 x4) support RAID 0/1/5/10, hot-swappable, limit height 15mm		
	PCIe x16 (FHFL)	2 x (PCIe Gen 5 x16) accelerator default support NVLink Bridge		
	PCIe x16 (FHHL)	1 x (PCIe Gen 5 x16) NIC default		
	PCIe x8 (FHFL)	1 x (PCIe Gen 5 x8) <sup>11</sup>		
<b>External I/O</b>	USB 2.0	2		
<b>Power</b>	Power Input Voltage	AC 220-240V, 47-63Hz		
	Power Connector Type	IEC 60320 C13 (1+1 Redundant CRPS, 2 x 2,000W Titanium)		
<b>Environment</b>	Operating Temperature	0°C ~ 30°C (with accelerator)		
<b>Security</b>	TPM 2.0	dTPM2.0 (Hardware, Infineon:SLM9670AQ2.0)		
<b>Miscellaneous</b>	LED Indicator	1 x HDD, 1 x UID, 1 x Power, 1 x LAN, 1 x Info		
<b>Physical Characteristics</b>	Dimension L x W x H (mm)	438 x 420 x 88		
	Net Weight / Gross Weight (KG)	TBA		
	Mount	Rackmount		
<b>Operating System</b>	Operating System	Linux Ubuntu Server Microsoft Windows Server 2019/2022		
<b>Regulation</b>	Safety	CE/FCC		

<sup>11</sup> Dual accelerators installed will occupy this slot

# APEX-X100



## NVIDIA SOLUTION

### NVIDIA PRO 6000 Blackwell Max-Q / 6000 Ada アクセラレータを搭載した Intel ベースの AI システム

- AI LLM/SLM アプリケーション向けに、最大 24,064 個の CUDA コア、752 個の Tensor コア、および 188 個の RT コアと 96GB GDDR7 メモリをサポート
- 最大 192GB DDR5 DRAM と 2TB NVMe SSD がプリインストールされ、Intel 第 14 世代 Core i9 CPU までサポート

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

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

# APEX-X200

## NVIDIA SOLUTION



### NVIDIA GeForce RTX 5080 アクセラレータを搭載した Intel ベースの AI システム

- AI LLM/SLM アプリケーション向けに、16GB GDDR7 メモリを搭載した 10,752 個の CUDA コア、336 個の Tensor コア、84 個の RT コアをサポート
- Intel 第 15 世代 Ultra9/7CPU を統合し、最大 96GB DDR5 DRAM および 1TB SSD がプリインストール

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

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



### NVIDIA RTX 5000Ada アクセラレータを搭載した Intel ベースの AI システム

- 向上の AOI および AI 医療画像認識向けに、16GB GDDR6 メモリを搭載した 9,728 個の CUDA コア、304 個の Tensor コア、76 個の RT コアをサポート
- Intel 第 13 世代 Core i7 CPU を搭載し、32GB DDR5 DRAM と 512GB NVMe SSD がプリインストール

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

# APEX-P200

## NVIDIA SOLUTION



### NVIDIA RTX2000Ada アクセラレータを搭載した Intel ベースの AI システム

- AI 医療画像診断および物体検出用に、8GB GDDR6 メモリを搭載した 3,072 個の CUDA コア、96 個の Tensor コア、24 個の RT コアをサポート
- Intel 第 13 世代 Core i7 CPU を搭載し、32GB DDR5 DRAM と 512GB NVMe SSD がプリインストール
- スペースを効率的に使用できる、寸法 182mm x 158.6mm x 90mm のコンパクトな設計

<b>Platform</b>	Intel CPU	Core i7-13800HE
	Cores (P + E + LPE)	14C (6P + 8E)
	Max. Frequency	5GHz
<b>AI Accelerator</b>	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 96 x NVIDIA fourth-generation Tensor Cores 24 x NVIDIA third-generation RT Cores
	GPU memory	8GB GDDR6 (w/ECC)
<b>Memory</b>	Technology / Socket	DDR5 5200MT/s / 2 x 262-pin DDR5 SODIMM
	Max. Capacity	up to 64GB (2 x 16GB, total 32GB pre-installed)
<b>Displays</b>	HDMI 2.1 (8K@60Hz)	1
<b>Ethernet</b>	LAN (Intel I226 2.5Gbps)	3x (LAN 2/3 support 802.at with 30W PoE)
<b>Expansion Slots</b>	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
<b>External I/O</b>	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
<b>Power</b>	Power Input Voltage	DC 19V (±5%)
	Power Consumption	19W@10.5A (with i7-13800HE/ 512GB SSD/ 32GB DRAM/ NVIDIA RTX 2000 Ada)
<b>Environment</b>	Operating Temperature	-20°C ~ 60°C (with NVIDIA RTX 2000 Ada)
<b>Miscellaneous</b>	LED Indicator	1 x HDD LED
<b>Physical Characteristics</b>	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
<b>Regulation</b>	Safety	CE/FCC/UKCA



## Qualcomm Cloud AI 100 UltraAccelerator を搭載した Intel ベースの AI システム

- SLM、LLM、生成 AI アプリケーション向けに 128GB LPDDR4x メモリを搭載し、870TOPS をサポート
- Intel 第 13 世代 Core i7 CPU、192GB DDR5 DRAM、2TB NVMe SSD がプリインストール

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

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

# APEX-A100

## ■ QUALCOMM SOLUTION

### IQ-9075 を搭載した Qualcomm ベースの AI システム



- Qualcomm Dragonwing™ IQ-9075 を搭載し、最大 100TOPS の AI コンピューティングパワーを発揮
- 128GB UFS3.1 ストレージ、36GB オンボードメモリ、2x2.5G イーサネット、4x4 レーン MIPI CSI-2
- 寿命：チップセットは 2038 年までサポート
- 比類のないパフォーマンスでエッジの AGV、AMR、LLM アプリケーションを加速

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



### NPU を統合した Intel AI ボックス PC

- 最大 36 TOPS を実現する内蔵 NPU を搭載し、AMR/AGV、AI 監視、目視検査用の GPU と CPU をサポート
- Intel Core Ultra CPU を統合し、16GB DDR5 DRAM と 512GB NVMe SSD がプリインストール
- Innodisk の Type-C カメラ経由のデュアル MIPI をサポート

	Intel CPU	Core Ultra 7 165HL	Core Ultra 5 135HL	Core Ultra 3 105UL
<b>Platform</b>	Cores (P + E + LPE)	16C (6P + 8E + 2LPE)	14C (4P + 8E + 2LPE)	8C (2P + 4E + 2LPE)
	Max. Frequency	5.0GHz	4.6GHz	4.2GHz
	<b>AI Accelerator</b>	AI Engine	Intel AI Boost up to 36 TOPS via (CPU+GPU+TPU)	
<b>Memory</b>	Technology / Socket	DDR5 5600MT/s / 2 x 262-pin DDR5 SODIMM		
	Max. Capacity	up to 96GB (1 x 16GB, total 16GB pre-installed)		
<b>Displays</b>	HDMI 2.1 (8K@30Hz)	2		
<b>Ethernet</b>	LAN (Intel I226 2.5Gbps)	2		
<b>Expansion Slots</b>	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		
<b>External I/O</b>	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		
<b>Power</b>	Power Input Voltage	DC 12V (±5%)		
	Power Consumption	12V@12.5A (with Ultra 7 165HL/ 1T SSD/ 32GB DRAM)		
<b>Environment</b>	Operating Temperature	-20°C ~ 60°C		
<b>Miscellaneous</b>	LED Indicator	1 x Power LED		
<b>Physical Characteristics</b>	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		
<b>Regulation</b>	Safety	CE/FCC/UKCA		

# APPLICATION SCENARIOS

## iCAP AIR

## 大気質管理ソリューション

包括的  
インテリジェント  
空気質管理  
ソリューション



### High Sensitivity

SHS, FCC, CE, RoHS, NCC, BSMI, その他の国際規格の認定



### Group Management

さまざまな場所やデバイスを分類して管理



### Personalized Floor Plan

フロアプランをアップロードして、さまざまな場所にあるデバイスを管理



### Thresholds and Alarms

さまざまな空気要因のしきい値をカスタマイズし、即時アラートを発行



### Automatic Trigger

リアルタイムの空気質に基づいて換気装置を作動させるか、スケジュールに従って作動



Air Sensor

## iCAP Air Specification Table

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

**Customizable**

### iAeris

Air Sensor



### ABOX-5120

Air Quality Server



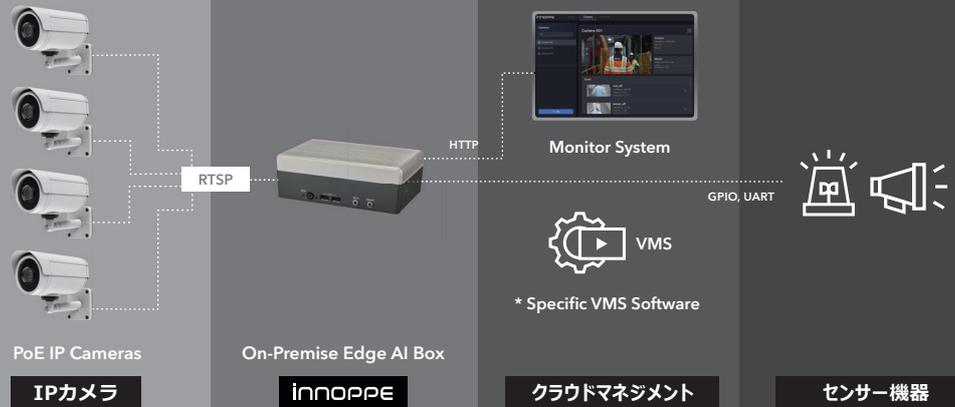
<b>Operating Environment</b>	-10°C ~ 50°C, below 90% RH
<b>Storage Temperature</b>	-20°C ~ 70°C, below 90% RH
<b>Screen</b>	2.23" OLED
<b>Control interface</b>	modbus-RTU or DO (Dry Contact)
<b>Communication Protocol</b>	RS485 (Modbus-RTU) / Wi-Fi (Modbus-TCP, HTTP, MQTT) (Optional) / BLE4.0 (Optional)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

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

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

## 非常に柔軟でインテリジェントなソリューション

エッジ AI ホストを中心に、フロントエンド IP カメラとバックエンド管理プラットフォームをシームレスに接続して、AI PPE 認識ソリューションを簡単に実装



\* 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.



### Flexible Architecture

既存のIPカメラを活用しPPEを正確に検出



### Efficient Deployment

独立したエッジ AI ホストは複数の IP カメラをサポートし、セットアップコストを削減



### Real-time Event Alerts

違反をリアルタイムで記録し、オンサイト警告システムと統合して即時通知



### Smart Fence Warning

ゾーン検出機能を提供し、不正な侵入や徘徊に対してリアルタイムの警告を可能



### High-Flexibility ODM Services

最適なAI認識/パフォーマンスを確保するために、実際のアプリケーション環境向けにカスタマイズされた専用のAIモデルを提供



### Third-Party Software Integration

Nx Witness VMS は、イベント通知を受信し、重要なビデオセグメントを記録するために統合

## InnoPPE Hardware / Software Specifications

### 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

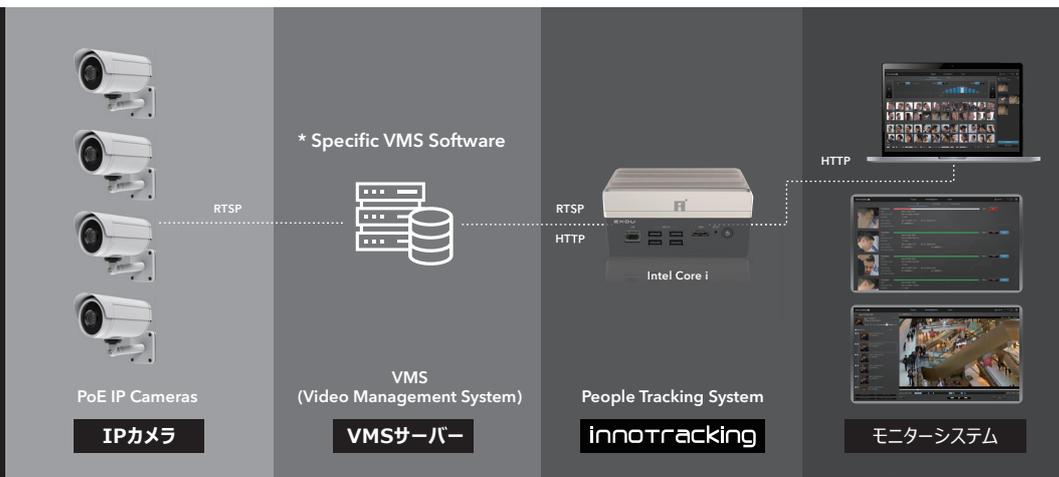
### SOFTWARE



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.

## ソリューション概要



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



正確なAI顔認識  
比較と検索



事前登録不要



人物追跡する簡単な方法



既存の現場カメラを活用



省エネ  
とコスト削減



耐久性に優れた設計：  
高温・耐振動  
産業用PC

## InnoTracking Hardware Specifications



**ABOX-5120**

Edge Server

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

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

innodisk

DATA  
INTELLIGENCE



## DATA INTELLIGENCE

堅牢で信頼性の高いメモリおよびストレージソリューション

当社の産業グレード製品は、高性能コンピューティングと安全なデータストレージを実現するように設計されています。

# DRAM MODULE PRODUCT LINE

## IC Grade IC Hierarchy

<b>Original IC</b>	<b>Original IC (Innodisk)</b> - DRAM メーカーにより完全にテスト済み
<b>eTT</b>	<b>Effectively Tested DRAM</b> - 効果的にテストを行っているが、テスト方法はサプライヤーによって異なる - ロゴマークなし、または一部の IC 部品番号のみが付いている
<b>uTT</b>	<b>Untested DRAM</b> - 完全なテストに合格していない - ロゴは表示されておらず、シリアル番号または製造元情報のみが記載
<b>Downgrade</b>	<b>Downgrade</b> - DRAM IC は歩留まりの悪いウエハーと die で作られており、互換性と機能に重大な問題がある

## Value Added Features

● : Available ▲ : Optional

	Wide Temperature	Anti-sulfuration	30μm 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	●	●	● (45μm)			▲	▲	●
SODIMM Ultra Temperature	●	●	● (45μm)			▲	▲	●	
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	●	●	● (45μm)			▲	▲	●
ECC SODIMM Ultra Temperature	●	●	● (45μm)			▲	▲	●	
DDR3	UDIMM	●					▲	▲	▲
	SODIMM	●					▲	▲	▲
	ECC UDIMM	●		●		●	▲	▲	▲
	ECC SODIMM	●		●		●	▲	▲	▲
	RDIMM			●		●	▲	▲	▲
DDR2	UDIMM						▲	▲	▲
	SODIMM	●					▲	▲	▲
	ECC UDIMM			●		●	▲	▲	▲
DDR1	UDIMM						▲	▲	▲
	SODIMM						▲	▲	▲
SDRAM							▲	▲	

# DRAM MODULE



## 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 HDDL
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 	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 SODIMM	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)			

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

# FLASH STORAGE



## 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 WT: 25 x 30 x 15	ST: 22 x 30 x 3.5 WT: 25 x 30 x 15	ST: 22 x 30 x 3.5 WT: 25 x 30 x 15	ST: 22 x 30 x 3.5 WT: 25 x 30 x 15	ST: 22 x 30 x 3.5 WT: 25 x 30 x 15

Model name	M.2 (P42) 3TE4		M.2 (P42) 3TE8		M.2 (P42) 3IE8	
Connector	M Key	B+M Key	M Key	B+M Key	M Key	B+M Key
Interface	PCIe Gen 3 x4	PCIe Gen 3 x2	PCIe Gen 3 x4	PCIe Gen 3 x2	PCIe Gen 3 x4	PCIe Gen 3 x2
Flash Type	3D TLC		3D TLC		iSLC (3D TLC)	
Capacity	128GB ~ 1TB		128GB ~ 1TB		40GB ~ 320GB	
Max. Channel	4		4		4	
Sequential R/W (MB/sec, max.)	2600/1800	1750/1500	3350/2600	1750/1650	3350/1950	1750/1650
Max. Power consumption	4.0W	3.3W	4.2W	3.0W	4.1W	3.1W
External DRAM Buffer	N		N		N	
iData Guard	N		Y		Y	
iPower Guard	Y		Y		Y	
PLP (iCell)	N		N		N	
AES	Y		Y		Y	
TCG Opal	Y		Y		Y	
S.M.A.R.T.	Y		Y		Y	
Dimension (WxLxH/mm)	ST: 22 x 42 x 3 WT: 22 x 42 x 3.6		ST: 22 x 42 x 2.8 WT: 25 x 42 x 14.5		ST: 22 x 42 x 2.8 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 WT: 25 x 42 x 14.5	ST: 22 x 42 x 6 WT: 25 x 42 x 14.5	ST: 22 x 42 x 3.5 WT: 25 x 42 x 14.5	ST: 22 x 42 x 3.5 WT: 25 x 42 x 14.5	ST: 22 x 42 x 3.5 WT: 25 x 42 x 14.5

Model name	M.2 (P80) 3TE4		M.2 (P80) 3TE8		M.2 (P80) 3IE8	
Connector	M Key	B+M Key	M Key	B+M Key	M Key	B+M Key
Interface	PCIe Gen 3 x4	PCIe Gen 3 x2	PCIe Gen 3 x4	PCIe Gen 3 x2	PCIe Gen 3 x4	PCIe Gen 3 x2
Flash Type	3D TLC		3D TLC		3D TLC	
Capacity	128GB ~ 2TB		128GB ~ 2TB		40GB ~ 640GB	
Max. Channel	4		4		4	
Sequential R/W (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 WT: 22 x 80 x 3.6		ST: 22 x 80 x 2.1 WT: 25 x 80 x 14.5		ST: 22 x 80 x 2.1 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 WT: 25 x 80 x 14.4	ST: 22 x 80 x 3.8 WT: 25 x 80 x 14.4	ST: 22 x 80 x 3.5 WT: 25 x 80 x 14.4	ST: 22 x 80 x 3.5 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 WT: 25 x 80 x 14.4	ST: 22.0 x 80 x 4 WT: 25 x 80 x 14.4	ST: 22 x 80 x 4 WT: 25 x 80 x 14.4	ST: 22 x 110 x 4 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 WT: 25 x 110 x 14.4	ST: 22 x 110 x 4 WT: 25 x 110 x 14.4



## PCIe - U.2

Model name	U.2 SSD 4TG2-P	U.2 SSD 4TS2-P	U.2 SSD 4IG2-P	U.2 SSD 5TG-P	U.2 SSD 5TS-P
Interface	PCIe Gen 4 x4	PCIe Gen 4 x4	PCIe Gen 4 x4	PCIe Gen 5 x4	PCIe Gen 5 x4
Flash Type	3D TLC	3D TLC	iSLC (3D TLC)	3D TLC	3D TLC
Capacity	512GB ~ 16TB	400GB ~ 12.8TB	160GB ~ 1.28TB	2TB ~ 8TB	1.92TB ~ 7.68TB
Max. Channel	8	8	8	16	16
Sequential R/W (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 × 38.5 × 3.8	29.6 × 38.5 × 3.8	29.6 × 38.5 × 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 × 38.5 × 3.8	29.6 × 38.5 × 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 9.5mm: 33.7 x 118.7 x 9.5 15mm: 33.7 x 118.7 x 15	5.9mm: 31.5 x 111.5 x 5.9 9.5mm: 33.7 x 118.7 x 9.5 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 9.5mm: 33.7 x 118.7 x 9.5 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				
Interface	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				
Interface	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				

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				
Interface	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			

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 512GB: 69.8 x 99.8 x 9.5	8GB ~ 1TB: 69.8 x 100.1 x 6.9 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						
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						



## 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 SH: 32.7 x 18 x 14.1	SV: 40.4 x 21 x 10.4 SH: 32.7 x 18 x 14.1	SV: 40.4 x 21 x 10.4 SH: 32.7 x 18 x 15.1	SV: 40.4 x 21 x 10.4	SV: 40.4 x 21 x 10.4 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 SH(D):30 x 20.7 x 15.2	SL: 29.6 x 33 x 10.5 SH(D):30 x 20.7 x 15.2	SL: 29.6 x 33.06 x 10.5 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 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 MH: 23.5 x 33.6 x 14.8	ML: 31.2 x 36.7 x 10.7 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						
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						

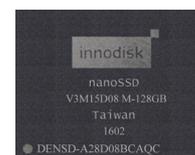
Model name	mSATA 3MG2-P	mSATA mini 3TE7	mSATA mini 3IE7	mSATA mini 3SE4	mSATA mini 3ME4	mSATA mini 3IE4
Interface	SATA III 6.0Gb/s	SATA III 6.0Gb/s	SATA III 6.0Gb/s	SATA III 6.0Gb/s	SATA III 6.0Gb/s	SATA III 6.0Gb/s
Flash Type	MLC	3D TLC	iSLC (3D TLC)	SLC	MLC	iSLC (MLC)
Capacity	8GB ~ 1TB	32GB ~ 1TB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



## SATA - CFast

Model name	CFast 3TEA	CFast 3TE7	CFast 3IE7	CFast 3SE4
Interface	SATA III 6.0Gb/s	SATA III 6.0Gb/s	SATA III 6.0Gb/s	SATA III 6.0Gb/s
Flash Type	3D TLC	3D TLC	iSLC (3D TLC)	SLC
Capacity	256GB ~ 2TB	32GB ~ 1TB	20GB ~ 320GB	8GB ~ 64GB
Max. Channel	2	4	4	2
Sequential R/W (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			

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) 0.7W (3.3V)	0.8W (5V) 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 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 (Pin Pitch 2.00mm) 26.6 x 36.9 x 9.8 (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 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
Max. Channel	2	1	1
Sequential R/W (MB/sec, max.)	330/125	110/85	100/50
Max. 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 (Pin Pitch 2.00mm) 26.6 x 36.9 x 9.8 (Pin Pitch 2.54mm)	24 x 22 x 5	24 x 22 x 5



## Others - SD

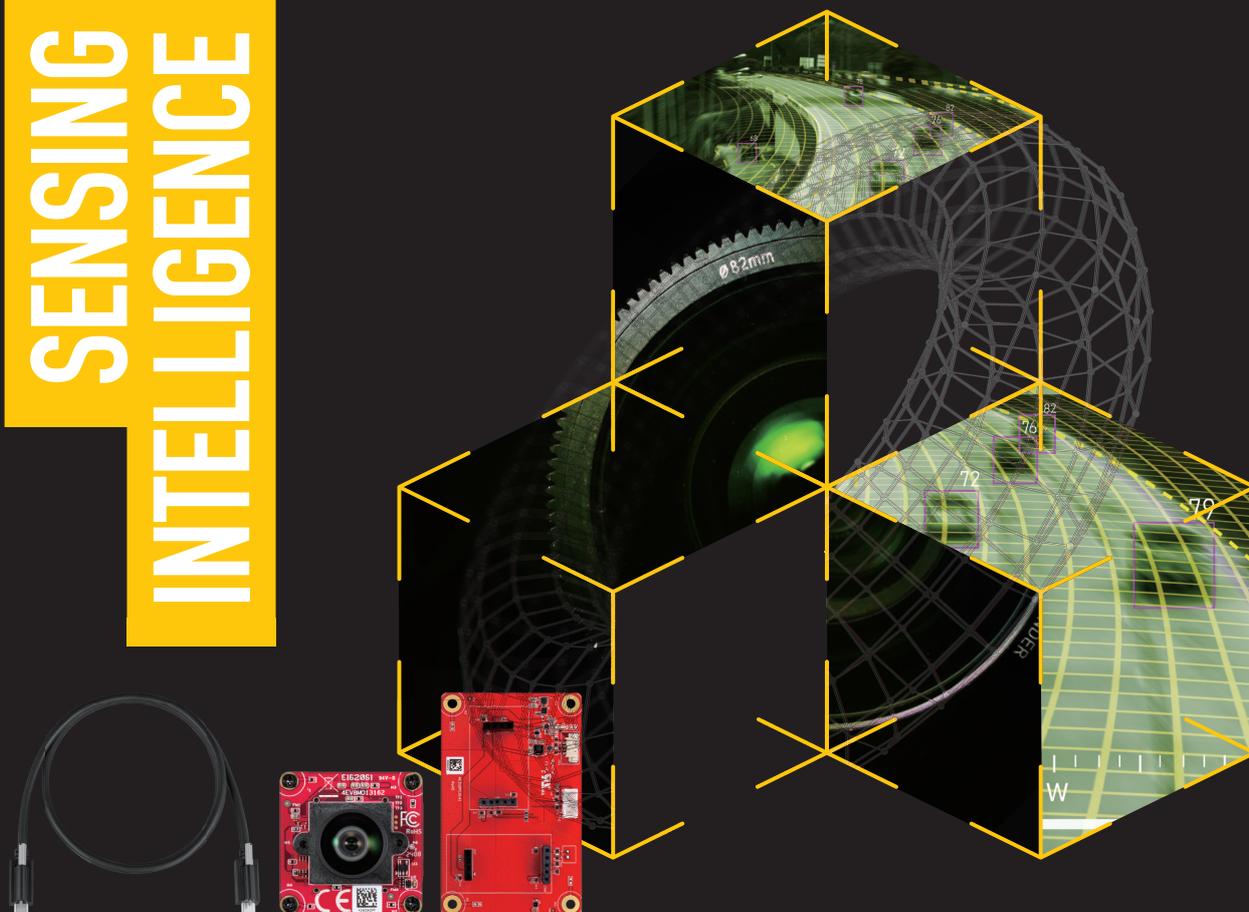
Model name	MicroSD 3TE4	MicroSD 3IE4	MicroSD 3SE3	MicroSD 3ME3	MicroSD 3ME2
Interface	SD 3.0/6.1	SD 3.0/6.1	SD 3.0	SD 3.0	SD 3.0
Flash Type	3D TLC	iSLC (3D TLC)	SLC	MLC	MLC
Capacity	32GB ~ 512GB	8GB ~ 128GB	4GB ~ 8GB	8GB ~ 64GB	8GB ~ 64GB
Max. Channel	1	1	1	1	1
Sequential R/W (MB/sec, max.)	95/85	95/85	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			

innodisk

SENSING  
INTELLIGENCE

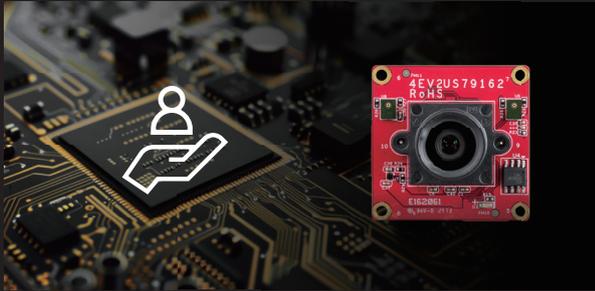


## SENSING INTELLIGENCE

物理環境から正確かつ信頼性の高い画像とデータを取得します。当社のモジュールは、エッジでインテリジェンスアプリケーションを起動します。

# CAMERA MODULE

# CAMERA DESIGN SERVICE



Hardware (PCBA, Size)



Versatile Lens Selection

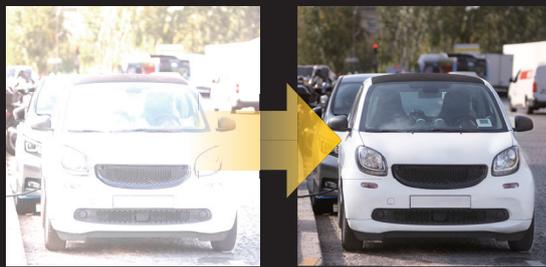


Image Quality Tuning



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			
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 )			
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 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			
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-L0M1-RHCF	EV2U-L0M2-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 32 x 32 x 21.88 41.4 x 41.4 x 37.68 (Housing)	38 x 38 x TBC 41.4 x 41.4 x TBC (Housing)	38 x 38 x 28 41.4 x 41.4 x 44.8 (Housing)	38 x 38 x 29 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 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 39 x 39 x TBC (Open Front Housing)	38 x 38 x 26.75 46 x 46 x 26.75 (Open Front Housing)	42 x 42 x 77.7	46 x 46 x 40.6 (Open Front Housing)
Lens FOV(D/H/V)	96° / 88° / 57°	104° / 86° / 46°	W: 128° / 103° / 60° 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 (Open Front Housing)	46 x 46 x 40.6 (Open Front Housing)	30 x 30 x 41.2 39 x 39 x 41.2 (Open Front Housing)	30 x 30 x 40.5 39 x 39 x 40.5 (Open Front Housing)
Lens FOV(D/H/V)	130° / 100° / 73°	148° / 125° / 67°	107° / 100° / 67°	91° / 71° / 52°
OS Support	NVIDIA Jetson Orin	NVIDIA Jetson Orin	NVIDIA Jetson Orin, Intel	NVIDIA Jetson Orin, Intel
Housing	Open Front Housing	Open Front Housing	Board Level, Open Front Housing	Board Level, Open Front Housing
Features	HDR, Low light	HDR, Low light	HDR, External Trigger	HDR
Warranty	3 Years	3 Years	3 Years	3 Years

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

## MIPI over Type-C



Model Name	EV2C-OOM3-RHCF	EV8C-OOM1-RHCF 
Module Type	MIPI over Type-C 2MP Fixed Focus Camera Module	MIPI over Type-C 8MP Fixed Focus Camera Module
Resolution (Max.)	2MP	8MP
Frame Rate (Max. Resolution)	30fps	30fps
Output I/F	MIPI over Type-C	MIPI over Type-C
Sensor	onsemi AR0246	onsemi AR0822
Shutter	Rolling	Rolling
Video Format	YUV422	YUV422
Power Consumption	Approximate 1W (YUV422 @Max. Resolution )	Approximate 1W (YUV422 @Max. Resolution )
Operating Temperature	-30°C ~ 70°C	-30°C ~ 70°C
Sensor Size	1/4"	1/1.8"
Pixel Size	2.0µm	2.0µm
Chroma Type	Color	Color
Lens Type	Fixed Focus (M12)	Fixed Focus (M12)
Dimension (WxLxH/mm)	30 x 30 x TBC 41.4 x 41.4 x TBC (Housing)	30 x 30 x TBC 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.

# AIR SENSOR MODULE



## 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 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 <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C
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)

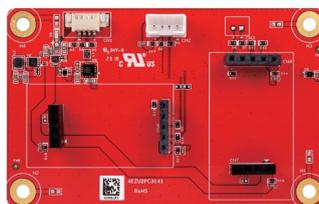


Model	IAGO3	IAGSO2	IAGVOC	IAGCO
Detection	Ozone (O3)	Sulfur dioxide (SO2)	Total volatile organic compounds (TVOC)	carbon monoxide (CO)
Principle	Electrochemical	Electrochemical	MEMS	Electrochemical
Measurement range	0 ~ 5 ppm	0 ~ 20 ppm	0 ~ 60 ppm	0 ~ 1000 ppm
Resolution	0.01 ppm	0.1 ppm	0.01 ppm	0.1 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 <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C
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

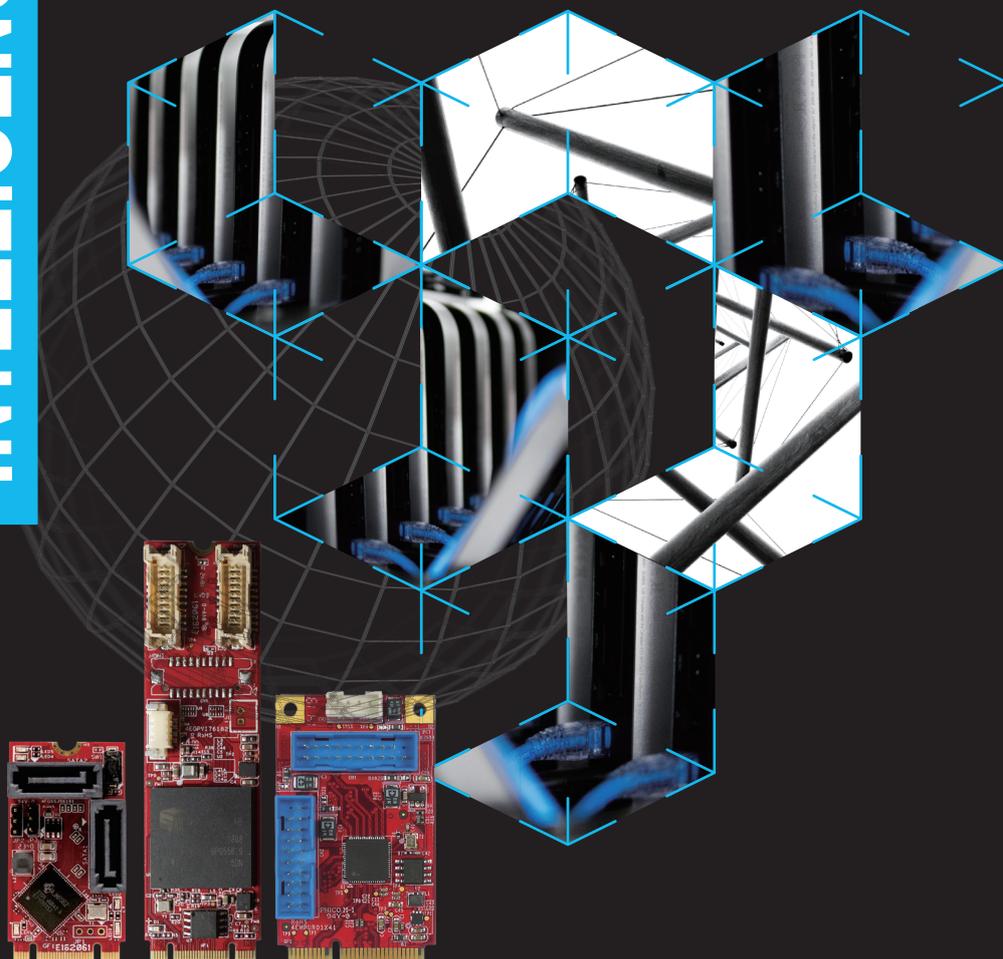


## Sensor Carrier Board

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) 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 Storage: -55°C ~ 95°C	
Order info.	EZU2-I301-W1	
Detection	Temperature	Humidity
Principle	MEMS	MEMS
Measurement range	-40°C ~ 125°C	0 ~ 100% RH
Resolution	0.1°C	1% RH
Accuracy	±0.5°C	±5% RH
Response time(T90) (sec)	<30 sec	<30 sec

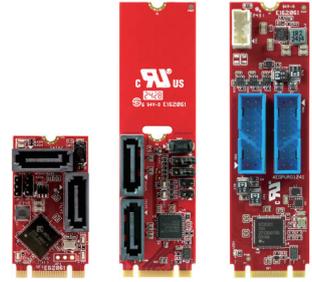
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INTELLIGENCE



## EXTENDED INTELLIGENCE

当社の周辺機器を使用して相互接続されたアプリケーション シナリオを構築し、システムの機能を拡張します。



## 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 Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C
Order info.	EMPS-3401-W1	EGPS-3401-C1	EMPU-3201-C1 EMPU-3201-W1	EMPU-3401-C1 EMPU-3401-W1

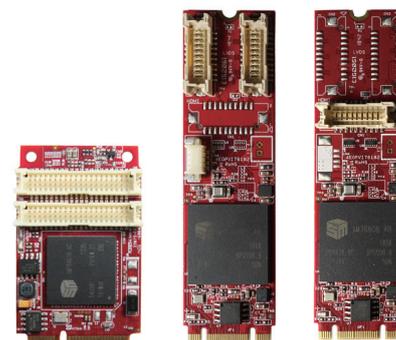
Model	EGPU-3201	EMPS-32R1	E2SS-32R1	E2SS-32R2
Description	M.2 to Dual USB 3.0 Module	mPCIe to Dual SATA III RAID Module	2.5" SSD to Dual mSATA RAID Module	2.5" SSD to Dual M.2 RAID Module
Form Factor	M.2 2260/2280	mPCIe	2.5" SSD	2.5" SSD
Input I/F	PCI Express 2.0	PCI Express 2.0	SATA III	SATA III
Input 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 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 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 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 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 Storage: -55°C ~ 95°C	Operation: 0°C ~ 70°C Storage: -55°C ~ 95°C Controller Tc: 25°C ~ 85°C	STD temp: 0°C ~ 70°C
Order info.	EGSS-32R2-C1 EGSS-32R2-C2	EGPS-32R1-C1 EGPS-32R1-C2	EGPU-3401-C1 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

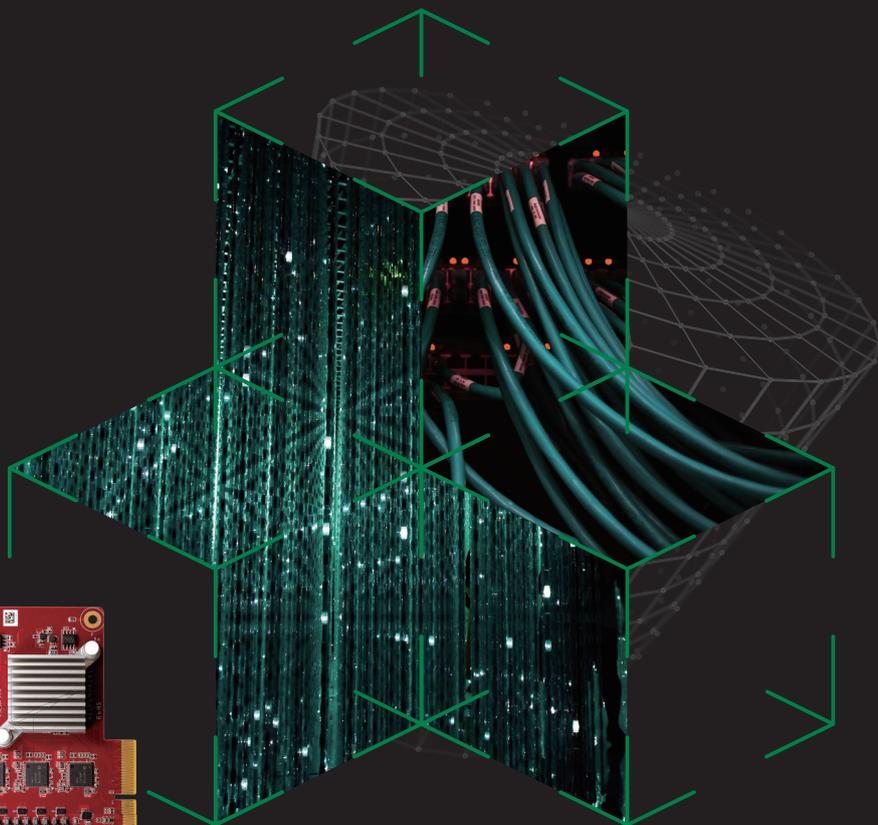
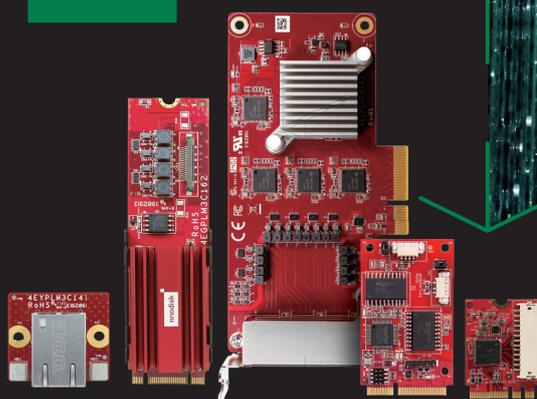


## Display

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 (40DP-1.25)	20 pin x 1 (HDMI) 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 Wide temp: -40°C ~ 85°C
Order info.	EMPV-1201-C1	EGPV-1101-C1 (HDMI, Standard Temp.) EGPV-1101-W1 (HDMI, Wide Temp.) EGPV-1101-C2 (LVDS, Standard Temp.) EGPV-1101-W2 (LVDS, Wide Temp.) EGPV-1101-C3 (with HDMI Cable, Standard Temp.) EGPV-1101-W3 (with HDMI Cable, Wide Temp.)

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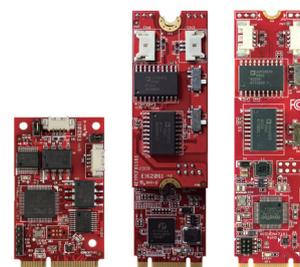
# CONNECTING INTELLIGENCE



## CONNECTING INTELLIGENCE

シームレスに接続し、リアルタイムのデータ転送を実現します。当社の製品は同時操作の処理に優れており、産業システムに安定した帯域幅を提供します。

## 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 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) EMUC-B202-W2 (J1939) EMUC-B202-W3 (CANopen)	EGPC-B201-W1 (2260, CAN2.0B) EGPC-B201-W2 (2280, CAN2.0B) EGPC-B201-W3 (2260, J1939) EGPC-B201-W4 (2280, J1939) EGPC-B201-W5 (2260, CANopen) EGPC-B201-W6 (2280, CANopen)	EGPC-B4S1-W1 EGPC-B4S1-W2 (J1939, CANopen)	EGPC-B1S1-W1 EGPC-B1S1-W2 (J1939, CANopen)

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

Model	EGUC-F2S3	EGUC-F4S3	ESPC-F2S3	ESPC-F4S3
Description	M.2 2280 to Dual Isolated CAN FD Module	M.2 2280 to Four Isolated CAN FD Module	PCIe to Dual Isolated CAN FD Module	PCIe to Dual Isolated CAN FD Module
Form Factor	M.2 2280	M.2 2280	PCIe x 4	PCIe x 4
Input I/F	USB 2.0 High Speed (480Mbps)	USB 2.0 High Speed (480Mbps)	PCI Express 2.0 x1	PCI Express 2.0 x1
Input Connector	M.2 B+M Key	M.2 B+M Key	PCIe x 4	PCIe x 4
Output I/F	CAN FD	CAN FD	CAN FD	CAN FD
Output Connector	DB-9 x 2	DB-9 x 4	DB-9 x 2	DB-9 x 4
Dimension (WxLxH/mm)	22 x 80 x 5.55	22 x 80 x 12.65	111.5 x 110 x 16.79	111.5 x 110 x 16.79
Temperature	Wide temp: -40°C ~ 85°C	Wide temp: -40°C ~ 85°C	Wide temp: -40°C ~ 85°C	Wide temp: -40°C ~ 85°C
Order info.	EGUC-F2S3-W1	EGUC-F4S3-W1	ESPC-F2S3-W1 ESPC-F2S3-W2 (with M.2 slot)	ESPC-F4S3-W1 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			
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 Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C
Order info.	EMPL-G101-C3 EMPL-G101-W3 EMPL-G101-C4 (with bracket) EMPL-G101-W4 (with bracket)	EMPL-G201-C3 EMPL-G201-W3 EMPL-G201-C4 (with bracket) EMPL-G201-W4 (with bracket)	EMPL-G102-C3 EMPL-G102-W3 EMPL-G102-C4 (with bracket) EMPL-G102-W4 (with bracket)	EMPL-G202-C3 EMPL-G202-W3 EMPL-G202-C4 (with bracket) EMPL-G202-W4 (with bracket)

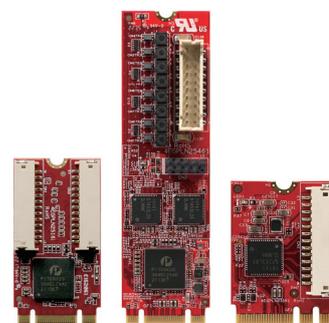
Model	EGPL-G101	EGPL-G201	EGPL-G102	EGPL-G202
Description	M.2 to Single Isolated GbE LAN Module	M.2 to Dual Isolated GbE LAN Module	M.2 to Single Isolated GbE LAN Module	M.2 to Dual Isolated GbE LAN Module
Form Factor	M.2 2280	M.2 2280	M.2 2242	M.2 2242
Input I/F	PCI Express 2.1 x2			
Input Connector	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 Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C
Order info.	EGPL-G101-C3 EGPL-G101-W3 EGPL-G101-C4 (with bracket) EGPL-G101-W4 (with bracket)	EGPL-G201-C3 EGPL-G201-W3 EGPL-G201-C4 (with bracket) EGPL-G201-W4 (with bracket)	EGPL-G102-C3 EGPL-G102-W3 EGPL-G102-C4 (with bracket) EGPL-G102-W4 (with bracket)	EGPL-G202-C3 EGPL-G202-W3 EGPL-G202-C4 (with bracket) 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 Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C
Order info.	EMPL-G103-C3 EMPL-G103-W3	EMPL-G203-C3 EMPL-G203-W3	EGPL-G104-C1 EGPL-G104-W1	EGPL-G105-C1 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 Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C
Order info.	EGPL-G205-C1 EGPL-G205-W1	EGPL-G1N3-C1 EGPL-G1N3-W1	EGPL-G2N3-C1 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 M.2 2280 B+M Key	M.2 2242 B+M Key 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 Daughter board: 41.9 x 64.27 x 21	W1:22 x 80 x 3.75 W2:22 x 42 x 3.75	W1:22 x 80 x 3.75 W2:22 x 42 x 3.75
Temperature	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	Operation : 0°C ~ 55°C Storage : -55°C ~ 95°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C
Order info.	ELPL-G401-C1 ELPL-G401-W1	EGPL-G401-C1 (Mounting hole) EGPL-G401-C2 (PCIe low profile bracket) EGPL-G401-C3 (PCIe standard bracket)	EGPL-G1F1-W1 EGPL-G1F1-W2	EGPL-G2F1-W1 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			
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 Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C
Order info.	EMPL-21S1-C1 EMPL-21S1-W1 EMPL-21S1-C2 (with bracket) EMPL-21S1-W2 (with bracket)	EMPL-22S1-C1 EMPL-22S1-W1 EMPL-22S1-C2 (with bracket) EMPL-22S1-W2 (with bracket)	EMPL-21S2-C1 EMPL-21S2-W1 EMPL-21S2-C2 (with bracket) EMPL-21S2-W2 (with bracket)	EMPL-22S2-C1 EMPL-22S2-W1 EMPL-22S2-C2 (with bracket) 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 Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C
Order info.	EGPL-21S1-C1 EGPL-21S1-W1 EGPL-21S1-C2 (with bracket) EGPL-21S1-W2 (with bracket)	EGPL-22S1-C1 EGPL-22S1-W1 EGPL-22S1-C2 (with bracket) EGPL-22S1-W2 (with bracket)	EGPL-21S2-C1 EGPL-21S2-W1	EGPL-22S2-C1 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 Daughter board: 50 x 28 x 19.75	Main board: 22 x 42 x 5.95 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 Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C
Order info.	EGPL-21S4-C1 EGPL-21S4-W1	EGPL-22S4-C1 EGPL-22S4-W1	EMPL-21N1-C1 EMPL-21N1-W1	EMPL-22N1-C1 EMPL-22N1-W1

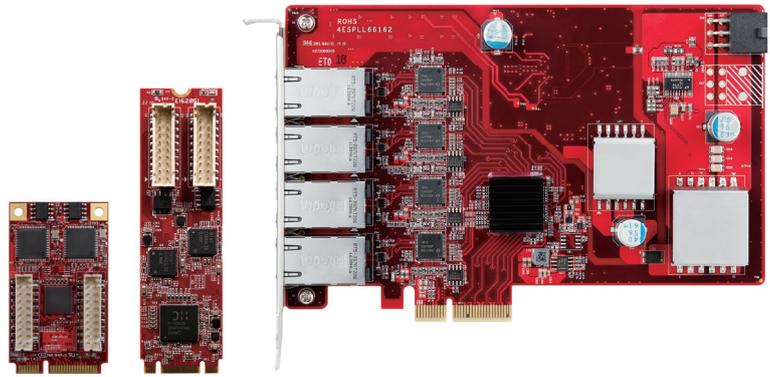
Model	EGPL-21N1	EGPL-22N1	EGPL-21S3	ESPL-2401
Description	M.2 to Single 2.5GbE LAN Module	M.2 to Dual 2.5GbE LAN Module	M.2 2230 to Single Isolated 2.5GbE LAN Module	PCIe to Four 2.5GbE LAN Module
Form Factor	M.2 2280	M.2 2280	M.2 2230	PCIe x4
Input I/F	PCI Express 2.1 x2	PCI Express 2.1 x1	PCI Express 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 x4
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 Daughter board: 32 x 28 x 19.2	169.55 x 111.15 x 19.6
Temperature	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C	STD temp: 0°C ~ 70°C Wide temp: -40°C ~ 85°C
Order info.	EGPL-21N1-C1 EGPL-21N1-W1	EGPL-22N1-C1 EGPL-22N1-W1	EGPL-21S3-C1 EGPL-21S3-W1	ESPL-2401-C1 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 Daughter Board: 31.75 x 28 x 17.7
Temperature	Operation: -20°C ~ 60°C Storage: -55°C ~ 95°C
Order info.	EGPL-T102-C1 EGPL-T102-C2 (Standard Bracket) EGPL-T102-C3 (Low-profile Bracket)

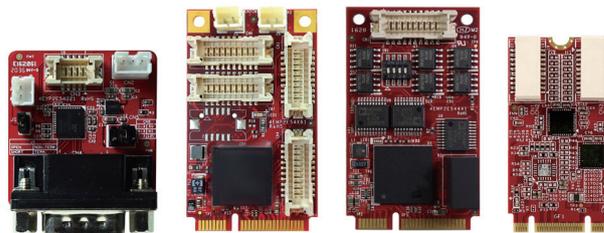
## PoE



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 Daughter Board: 58.2 x 72.7 x 23.8	Main Board: 30 x 50.9 x 9.2 Daughter Board: 58.2 x 72.7 x 23.8
Temperature	STD temp: 0° ~ 70°C Wide temp: -40° ~ 85°C	STD temp: 0° ~ 70°C Wide temp: -40° ~ 85°C
Order info.	EMPL-G2P1-C5 (Mounting hole, 4pin header) EMPL-G2P1-W5 (Mounting hole, 4pin header) EMPL-G2P1-C6 (Bracket, 4pin header) EMPL-G2P1-W6 (Bracket, 4pin header) EMPL-G2P1-C7 (Mounting hole, DC Jack) EMPL-G2P1-W7 (Mounting hole, DC Jack) EMPL-G2P1-C8 (Bracket, DC Jack) EMPL-G2P1-W8 (Bracket, DC Jack)	EGPL-G2P1-C5 (Mounting hole, 4pin header) EGPL-G2P1-W5 (Mounting hole, 4pin header) EGPL-G2P1-C6 (Bracket, 4pin header) EGPL-G2P1-W6 (Bracket, 4pin header) EGPL-G2P1-C7 (Mounting hole) EGPL-G2P1-W7 (Mounting hole, DC Jack) EGPL-G2P1-C8 (Bracket, DC Jack) 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 Wide temp: -40°C ~ 85°C	STD temp: 0° ~ 70°C Wide temp: -40° ~ 85°C
Order info.	ESPL-G4P1-C1 ESPL-G4P1-W1	ESPL-24P1-C1 ESPL-24P1-W1

## Serial



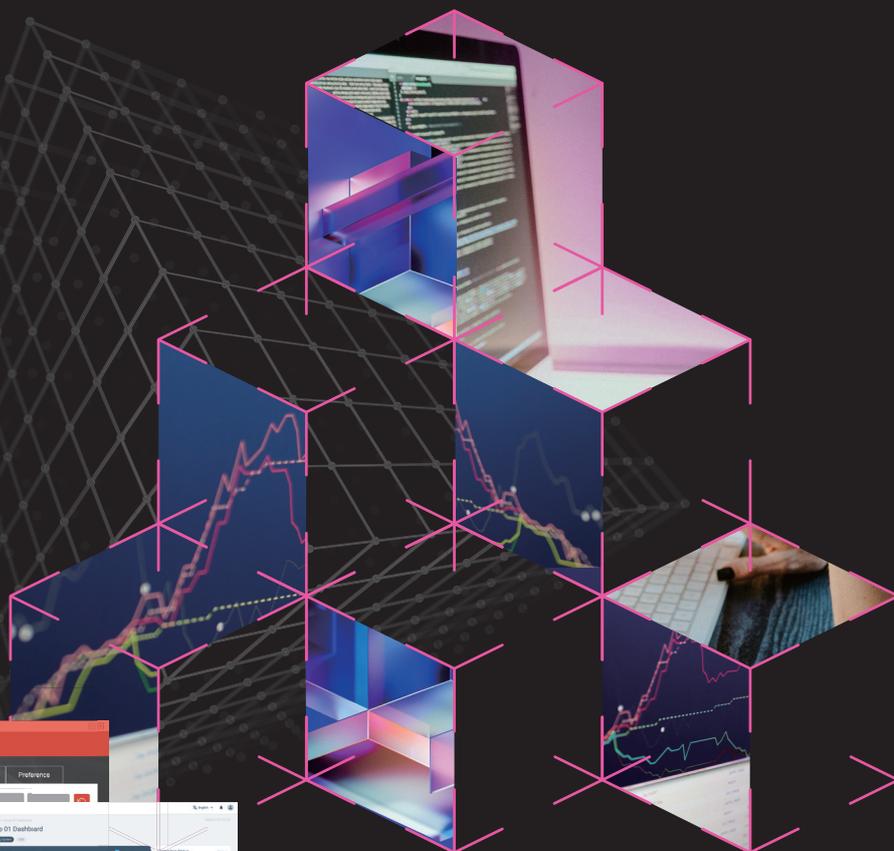
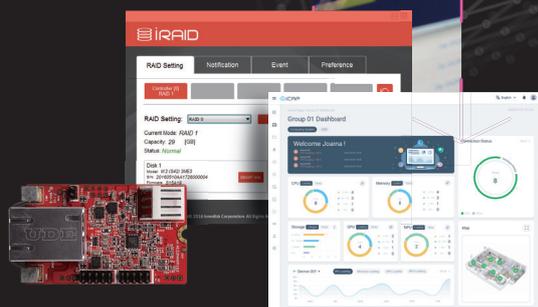
Model	EMP2-X202	EMP2-X402	EMP2-X203	EMP2-X403	EMP2-X404
<b>Description</b>	mPCIe to Dual RS-422/485 Module	mPCIe to Four RS-422/485 Module	mPCIe to Dual RS-232 Module	mPCIe to Four RS-232 Module	mPCIe to Four RS-232/422/485 Module
<b>Form Factor</b>	mPCIe	mPCIe	mPCIe	mPCIe	mPCIe
<b>Input I/F</b>	PCI Express 2.0	PCI Express 2.0	PCI Express 2.0	PCI Express 2.0	PCI Express 2.0
<b>Input Connector</b>	mPCIe	mPCIe	mPCIe	mPCIe	mPCIe
<b>Output I/F</b>	RS-422/485 x 2	RS-422/485 x 4	RS-232 x 2	RS-232 x 4	RS-232/422/485 x 4
<b>Output Connector</b>	DB-9 x 2	DB-9 x 4	DB-9 x 2	DB-9 x 4	DB-9 x 4
<b>Dimension (WxLxH/mm)</b>	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
<b>Temperature</b>	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
<b>Order info.</b>	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
<b>Description</b>	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
<b>Form Factor</b>	mPCIe	mPCIe	mPCIe	mPCIe	M.2 2242
<b>Input I/F</b>	PCI Express 2.0	PCI Express 2.0	PCI Express 2.0	PCI Express 2.0	PCI Express 2.0 x1
<b>Input Connector</b>	mPCIe	mPCIe	mPCIe	mPCIe	M.2 B+M Key
<b>Output I/F</b>	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
<b>Output Connector</b>	DB-9 x 8	DB-9 x 2	DB-9 x 4	DB-9 x 4	DB-9 x 4
<b>Dimension (WxLxH/mm)</b>	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 Horizontal: 22 x 42 x 7.65
<b>Temperature</b>	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
<b>Order info.</b>	EMP2-X801-W1	EMP2-X2S1-W1	EMP2-X4S1-W1	EMP2-X4S2-W1	EGP2-x401-W1 (Vertical connector) EGP2-x401-W2 (Horizontal connector)

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

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MANAGEMENT  
INTELLIGENCE



## MANAGEMENT INTELLIGENCE

当社の高度なソフトウェアとサービスにより、あらゆる段階で最適なパフォーマンスを確保しながら、実際のアプリケーションでの管理を容易に体験できます。



Innodiskクラウド管理プラットフォームであるiCAPは、リモートデバイスとAIモデルの管理を簡素化します。あらゆるブラウザからアクセスでき、システムの健全性をリアルタイムで監視し、ストレージ寿命に関するアラートをカスタマイズできます。

iCAPはシームレスなAIモデルの展開もサポートし、効率的でユーザーフレンドリーなクラウド管理ソリューションを提供します。



## iCAP Advantages



### 多様な互換性

iCAPエージェントはWindowsとLinuxの両方のプラットフォームと互換性があり、様々なWebブラウザからシームレスにアクセスできます。さらに、モバイルアプリもサポートしており、ユーザーはアウトオブバンド（OOB）再起動機能などを含みリモートでのデバイスの監視と制御が可能です。



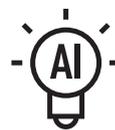
### 効果的なイベントトラッカーとスケジューラー

イベントトラッカーは、システム変更をすべて記録し、迅速な問題解決を実現します。スケジューラーと連携することで、メンテナンスやOTAアップデートなどのアクションを自動かつ正確にスケジュール設定できます。この組み合わせにより、受動的なアラート管理から、プロアクティブな自動制御へと移行できます。



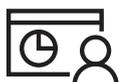
### OTA 経由の統合 AI モデルとシステムの展開

iCAPのOTA（Over-the-Air）アップデートは、ワンストップのAIモデルの導入をサポートします。従来のBIOSやファームウェアのアップデートに加え、iMITモデルライブラリから学習済みのAIモデルを管理対象デバイスや事前定義されたグループに容易に配布できます。この統合アプローチにより、AIモデルとシステムファームウェアが分離され、あらゆるエッジデバイスにおいて、システムソフトウェアとAIインテリジェンスの両方を効率的かつ信頼性の高い方法で一元的に管理できます。



### AIチャットボット/エージェントアシスタント

統合されたAIチャットボットは、会話型の管理とプロアクティブな解決を実現します。ユーザーは自然言語を使ってデバイスに関する問い合わせを即座に行い、ルール/スケジューラーのアクションを迅速に設定できます。さらに、基盤となるAgentic AIは重要なイベントを分析し、即座に実行できる解決策を提案することで、サポートを単なるアラートからアクティブなインテリジェンスへと進化させます。



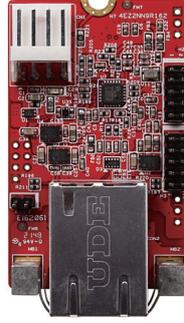
### リモート災害復旧

iCAP は、ワンキーリカバリによるインバンドおよびアウトオブバンド管理を完全にサポートし、故障したデバイスを即座に正常な状態に戻します。



### ストレージ/DRAM監視

iCAP はストレージ/DRAM 監視をサポートし、ユーザーに iSMART ストレージ/DRAM 情報およびモジュール予測へのリモート アクセスを提供します。



## 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) 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) EZ2N-0XL1-W3 (Private Cloud: with Standard Bracket) EZ2N-0XL1-W4 (Private Cloud: with Low-profile Bracket)

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# MACHINE-LEARNING INTELLIGENCE

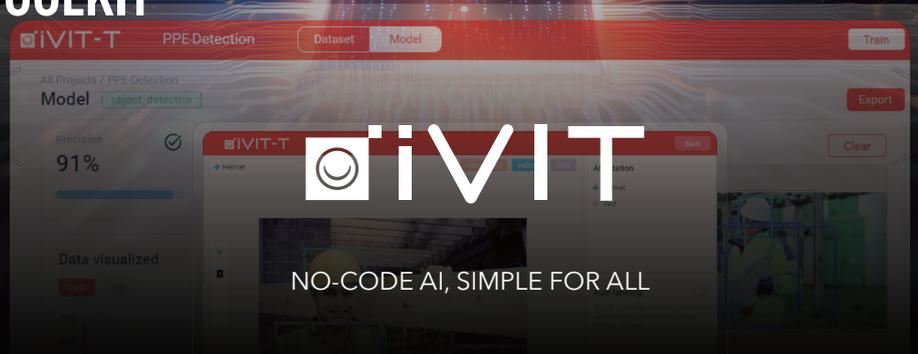


## MACHINE-LEARNING INTELLIGENCE

AI トレーニングおよび推論機能を活用して、データ洞察の可能性を最大限に引き出します。

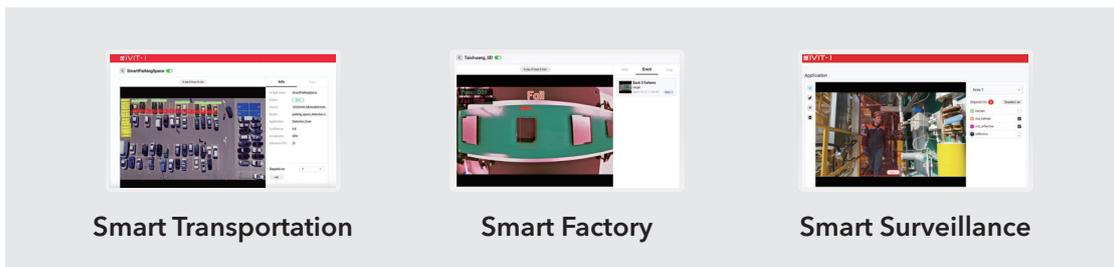


# VISION INTELLIGENCE TOOLKIT



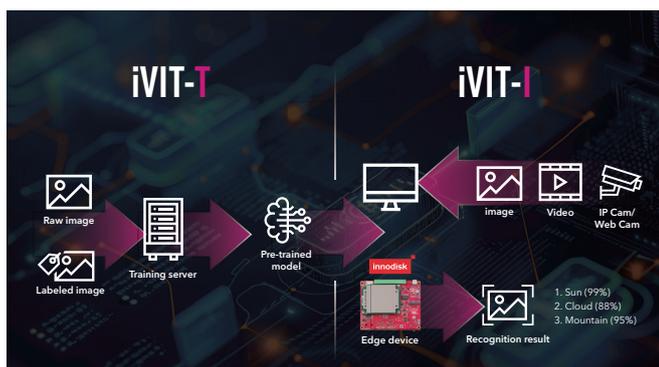
Innodisk Vision Intelligence Toolkit (iVIT) は、AIモデルのトレーニングと推論を高効率で合理化します。主流のディープラーニングフレームワークを統合することで、開発者は製品のプロトタイプを迅速に作成し、カスタマイズされたAIモデルを構築できます。

- No Code
- AI Model Deployment
- Camera Streaming
- Event Logging

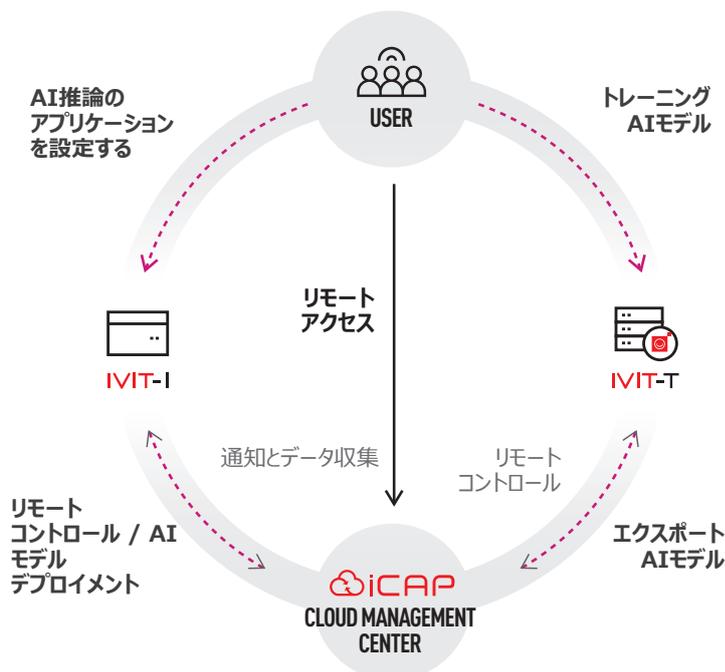


## カスタマイズされたソリューションのための AI 開発の調和

iVITソリューションには、AIモデルのトレーニング用のiVIT-Tとモデル推論用のiVIT-Iが含まれています。これらを組み合わせることで、あらゆるマシンビジョンアプリケーションの要件を満たすAIモデルのシームレスなカスタマイズが可能になります。

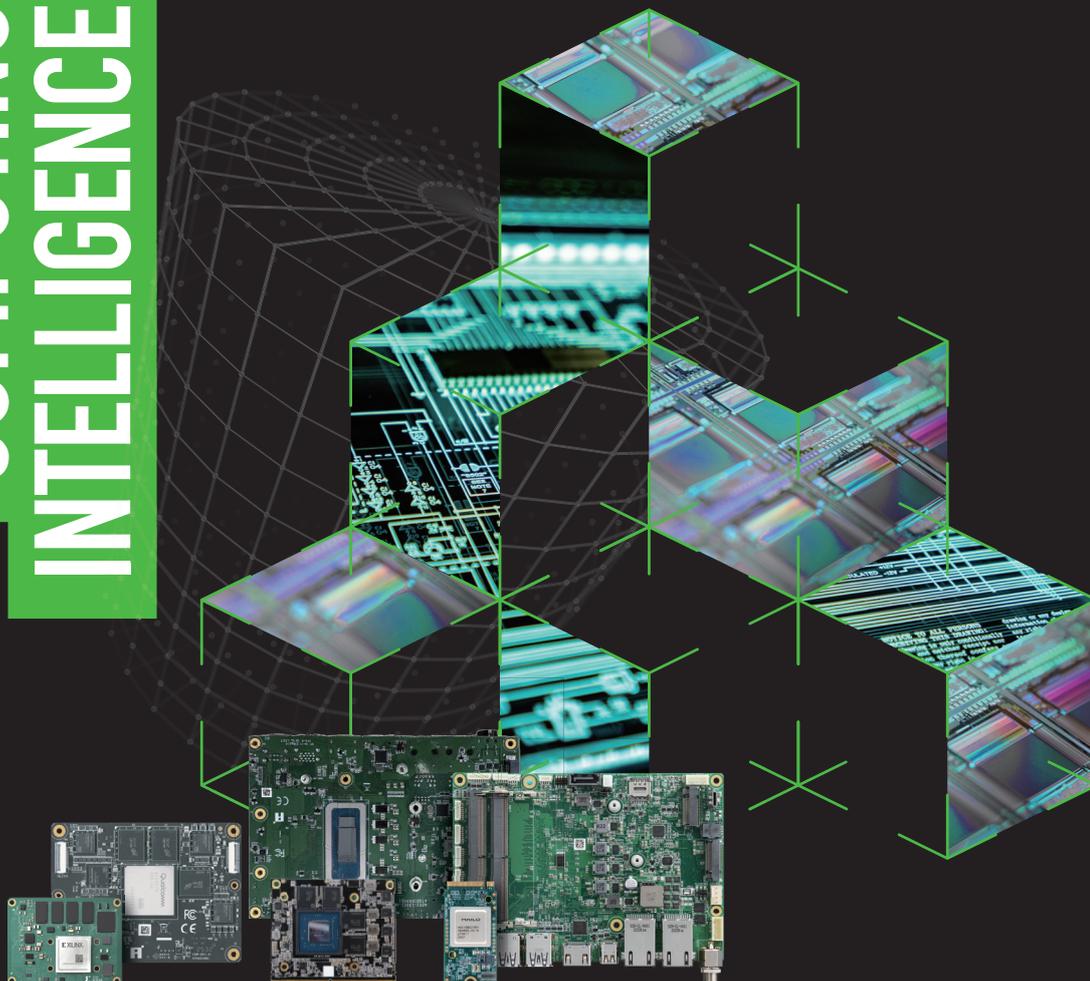


## iVITとiCAPの相乗効果でAIの可能性を解放



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# COMPUTING INTELLIGENCE



## COMPUTING INTELLIGENCE

当社の AI アクセラレーションコンピューティングシステムにより、エッジでのデータ処理と分析に革命をもたらします。



## 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 I <sup>2</sup> S for Headphone / AMP
I/O Interfaces	2 x USB 3.2 Gen 2 x1 (10Gbps)
	4 x USB 2.0
	2 x UART (1 with CTS / RTS)
	1 x COM (RS232 / 422 / 485, on module)
	1 x SPI (General SPI)
	1 x CAN FD
	4 x I <sup>2</sup> C (1 x on module, 3.3V)
	12 x GPIO
Power	8 ~ 20V DC Power Supply
Security	TPM 2.0
OS Support	Yocto Linux (Kernel 6.6); Ubuntu 24.04 (Kernel 6.8)
Environment	Temperature: Operating : -40°C ~ 85°C (Ta) Storage : -40°C ~ 95°C (Ta)
	Humidity: Operating & Storage : 5% to 95%, Non-condensing
Certification	CE / FCC Class B
Dimensions (W x L/mm)	95 x 70



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

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# COLLECTIVE INTELLIGENCE



## COLLECTIVE INTELLIGENCE

業界リーダーとのパートナーシップを通じて、インテリジェンス・エコシステムを協働的に構築し、エッジ AI アプリケーションの無限の可能性を解き放ちます。

さらに、サプライヤー、世界中のお客様、そして従業員と連携し、環境問題への取り組み、社会的責任の遂行、そして社会貢献活動に取り組んでいます。





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# 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](http://www.innodisk.com)