

# APPLIED INTELLIGENCE APEX SERIES

innodisk

Preliminary

## APEX-X100

### HIGHLIGHT FEATURES

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

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



### SPECIFICATIONS

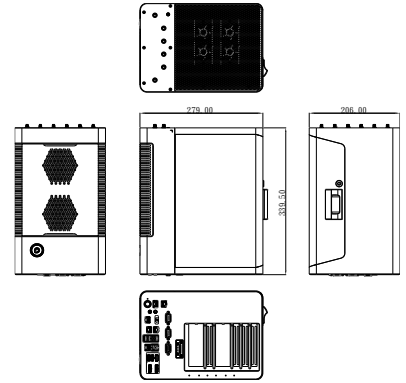
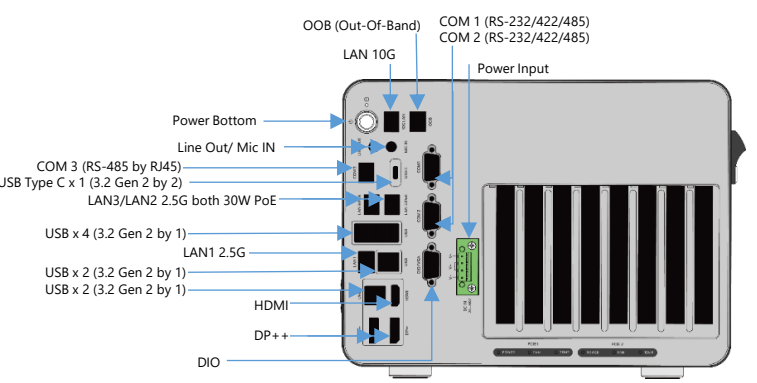
<b>Platform</b>	Intel CPU	Core i9-14900	Core i9-13900E	Core i7-13700E
	Cores (P+E+LPE)	24C (8P + 16E)	24C (8P + 16E)	16C (8P + 8E)
	Threads	32	32	24
	Max. Frequency	5.8GHz	5.2GHz	5.1GHz
	Cache	36MB	30MB	30MB
	CPU TDP	65W	65W	65W
	BIOS	AMI UEFI 256Mbit		
<b>AI Accelerator</b>	AI Engine	NVIDIA RTX PRO 6000 Blackwell Max-Q	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 5 <sup>th</sup> Tensor Cores 188 x NVIDIA 4 <sup>th</sup> RT Cores	18,176 x NVIDIA Ada Lovelace CUDA Cores 568 x NVIDIA 4 <sup>th</sup> Tensor Cores 142 x NVIDIA 3 <sup>th</sup> 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 288pin	DDR5 UDIMM	
	Max. Capacity	up to 192GB (4 x 48GB, total 192GB pre-installed)	up to 192GB (4 x 32GB, total 128GB pre-installed)	up to 192GB (2 x 32GB, total 64GB pre-installed)
<b>Graphics</b>	Controller	Intel UHD Graphics 770		
	Graphic Engine	Hardware encode: H.265/HEVC, H.264/MPEG-4 AVC, MPEG-2, JPEG/MJPEG and VP8 Hardware decode: H.265/HEVC, H.264/MPEG-4 AVC, MPEG-2, VC-1/WMV9, JPEG/MJPEG, VP8 and VP9		
<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	1 x (PCIe Gen 4 x4), 2TB M.2 SSD pre-installed	1 x (PCIe Gen 4 x4), 1TB M.2 SSD pre-installed	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)		
	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 (Gen4 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 2x2 (20Gbps) Type C	1		
	USB 3.2 Gen 2x1 (10Gbps)	8		
	Buttons	1 x Power (with LED)		

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

<b>External I/O</b>	Audio (Realtek ALC888S)	Mic-in x 1, Line-out x 1
	GPIO/DIO	Default 8-bit (4 in/ 4 out)
<b>Internal I/O</b>	SATA	4 x 2.5" SATA III SSD/HDD (RAID 0/1/5/10)
	Power Input Voltage	DC 24~48V (±5%)
<b>Power</b>	Power Consumption (Max.)	24V@25A (with i9-13900E/ 1TB SSD/ 128GB DRAM/ NVIDIA RTX6000 Ada)
	Connector Type	4 pin terminal block
	Operating Temperature	0°C~40°C (with accelerator)
	Storage Temperature	-40°C~85°C
<b>Environment</b>	Operating Humidity	5~90% Relative humidity, non-condensing
	Operating Vibration	1Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 1hr/axis, with SSD (operation, without AI accelerator)
	Operating Shock	10G, IEC 60068-2-27, half sine, 11ms duration, with SSD (operation, without AI accelerator)
<b>Watchdog Timer</b>	Interval	Programmable from 1 to 255 Seconds
<b>Security</b>	TPM 2.0	dTPM2.0 (Hardware, Infineon:SLM9670AQ2.0)
	Out-of-band (OOB)	1 x InnoAgent (RJ45)
<b>Miscellaneous</b>	LED Indicator	2 x Power LED, 2 x Fan LED, 2 x Temp LED
	Dimension L x W x H (mm)	340 x 279 x 215
<b>Physical Characteristics</b>	Net Weight / Gross Weight (KG)	11 / 17
	Mount	Wall Mount / Desk mount
	Antenna Holes	6
<b>Operating System</b>	Operating System	Linux Ubuntu 20.04/22.04/24.04 Microsoft Windows 10 IoT Enterprise 2021 LTSC, Microsoft Windows 11
	<b>Regulation</b>	Safety

## ORDER INFORMATION

Part No.	Intel CPU	Accelerator	COM	LAN	USB	SATA	Display	Storage	Memory	M.2	Operating Temp.
APEX-X100-A00	Core i7-13700E	RTX 6000 Ada						512GB	64GB		
APEX-X100-A01	Core i9-13900E		3	4	9	4	3	1TB	128GB	4 (2M+E+B)	0°C~40°C
APEX-X100-A11	Core i9-14900	RTX PRO 6000 Blackwell Max-Q						2TB	192GB		



## PACKING LIST

Part Number	Description	Q'ty
	APEX-X100 System	1
	600W -40~70°C Adapter (280 x 144 x 48.5mm) L x W x H	1
APEX-X100-A00	AC Power Cable, 300mm	1
APEX-X100-A01	DC Power Cable, 1000mm	1
APEX-X100-A11	Wall Mount Bracket	2
	Stopper Bracket PCIe Card	2
	GPU Holding Rubber	12
	Circle Key Lock	1
	2.5" SSD Screw	16

## OPTIONAL ACCESSORIES

P/N	Description
7W8000000070	Power Cord, Standards (UK), 1.8m
7W8000000080	Power Cord, Standards (EU), 1.8m
7W8000000090	Power Cord, Standards (US), 1.8m

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