

iSBX-A2000X

6/8-Core NVIDIA Arm Cortex A78AE v8.2 64-bit processor, 2.0MB L2+4 MB L3, 1024-core NVIDIA Ampere GPU with 32 Tensor, 100 TOPS, 16GB memory, 3x GLAN, 4x USB Ports, 1x HDMI



FEATURES

- 6/8 Cores NVIDIA Arm Cortex A78AE v8.2 64-bit processor, 2Ghz
- 1024 core NVIDIA Ampere GPU with 16/32 Tensor Core, 765 Mhz/918 Mhz
- AI performance 70/100 TOPS, support super mode to 117/157 TOPS;
- Orin NX 8GB/16GB, 1x M.2 Key-M 2280 NVMe SSD slot
- 3x GLAN, 2x USB3.1, 2x USB3.0, 1x HDMI, DC, OTG
- 1x M.2 B-key 3052 slot, 1x Mini-PCIe slot, 1x M.2 E-key slot, 2x Nano Sim card slot
- Industrial operating temp. -20 ~ +60 °C

Introduction

The SINETIC iSBX-A2000X is a high-performance AI edge computing platform powered by the NVIDIA Jetson Orin NX System-on-Module (SOM) from the iSBX-A2000X modular AI edge computing family. It delivers up to 70–100 TOPS of AI accelerated computing performance, enabling the system to run modern neural networks and process data from multiple high-resolution sensors for advanced AI workloads. The platform also supports Super Mode, allowing higher AI performance to meet the demands of more complex AI models and real-time edge analytics.

Designed for industrial and automation environments, the iSBX-A2000X provides rich connectivity and flexible integration with various devices and sensors. Key interfaces includes 3x Gigabit LAN, 4x USB 3.0, 1x HDMI display output.

With its high AI computing capability, industrial-grade design, and flexible I/O connectivity, the SINETIC iSBX-A2000X provides a powerful and scalable solution for next-generation AI edge computing applications

Specification

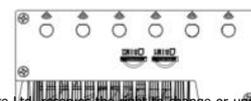
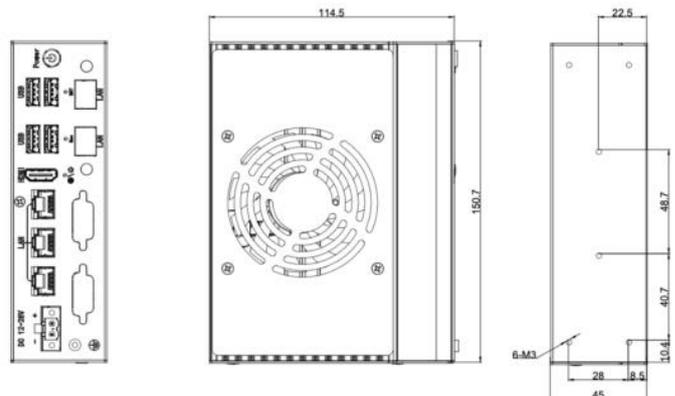
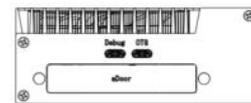
System	
Processor	• 6/8 cores NVIDIA ARM Cortex A78AE v8.2 64-bit CPU, 1.5MB L2 + 4MB L3 or 2MB L2 + 4MB L3, 2.0Ghz
Processor Freq	• 2.0Ghz / 2.0Ghz (Super mode)
AI	• 70 TOPS (117 TOPS, super mode) /100 TOPS (157 TOPS, Super mode)
GPU	• 1024-core NVIDIA Ampere GPU with 32 Tensor Cores 765 Mhz (1173 Mhz, super mode; 918 Mhz (1173 Mhz, super mode)
TDP MAX	• 20W (40W, super mode); MAXN 25W (40W, super mode)
Display	• 1x HDMI (Type-A): Max. resolution up to 4096x2304 @30Hz
Memory	• Onboard 8GB 128bit LPDDR5 102.4GB/s; or onboard 16GB 128bit LPDDR5 GB/s 102.4GB/s
Storage	• 1x M.2 2280 Key-M slot (NVMe SSD)
Network	• 1x GbE LAN (From SOM), 2x Intel I210AT GbE LAN
USB	• 2x USB 10Gbps, 2x USB 5Gbps, 2xUSB2.0(Internal, wafer), 1x OTG (Type-C, Flashing port), 1x Debug (Type-C, Debug port)
Internal I/O (wafer)	• 16 bits DIO; • 4x RS232/RS485 (jumper switch); • 1x CAN FD, 1x CAN2.0B; • 1x SPI; 1x System Fan; • 1x BAT; • 1x Front Panel (PWR + Reset+ Recovery) • 1x Audio (Line-out +Mic); • 1x Amplifier 5W (Per channel) into a 8-Ω loads
Power	DC 12~28V (1x 2Pin Terminal)
Expansion	• 1x Mini-PCIe slot (PCIe x1 + USB2.0 signal, with 1x Nano SIM card slot) • 1x M.2 E-key slot (PCIe x1 + USB2.0, 2230) • 1x M.2 E-key slot (PCIe x1 + USB2.0, 2230) • 1x M.2 B-key 3052 slot (USB 5Gbps + USB2.0, with 1x Nano Sim Card slot)
Button/LED	• 1x Power button, with LED light; 1x Recovery Button; 1x System Reset Button
OS	• JetPack 6.2 (Ubuntu 22.04)

Mechanical & Environment

Treatment	• SGCC & Aluminum Alloy, Anodizing and painting
Color	• Iron Grey
Cooling	• Active Fan cooling
Weight	• Around 1.5 kg (Net weight)
Dimension	• 150.7mm (L)x 114.5mm (W) x 45mm (H) (Mounting rack not included)
Mounting	• Desktop mount, Wall mount (optional), Din-Rail mount (Optional)
Operating temp	• -20~60°C (Industrial SSD)
Storage	• -40~80°C
Humidity	• 10%~95%@40°C, non-condensation
Vibration	• 3Grms@5~500Hz · random · 1 hr/axis
Shock	• 10G, half sine (11ms sec)

Ordering Information

iSBX-A2000A	6-Core NVIDIA Arm Cortex A78AE v8.2 64-bit processor, 1.5MB L2+4 MB L3, 1024-core NVIDIA Ampere GPU with 32 Tensor, 70 TOPS, 8GB memory, 3x GLAN, 2x USB 10 Gbps, 2x USB 5Gbps, 1x HDMI, DC 12~28V
iSBX-A2000B	8-Core NVIDIA Arm Cortex A78AE v8.2 64-bit processor, 2.0MB L2+4 MB L3, 1024-core NVIDIA Ampere GPU with 32 Tensor, 100 TOPS, 16GB memory, 3x GLAN, 2x USB 10 Gbps, 2x USB 5Gbps, 1x HDMI, DC 12~28V



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