

AIB-NIAO-S

Highly Integrated AI Server, Provide 275 TOPS and Expandability



Product Features

- Powered by NVIDIA® Jetson AGX Orin™ up to 275 TOPS
- 3×M.2 M Key / 1×M.2 E Key / 1×M.2 B Key
- 2×USB3.2 Gen2
- 2×PCIe Gen3×4
- Fanless Design
- CAN Bus / UART / I2C / SPI

Specification

System Information

NVIDIA Platform	NVIDIA Jetson AGX Orin™ 32GB/64GB
AI Performance	200/275 TOPS
System Memory	32/64GB 256 bit LPDDR5 204.8GB/s

Development Environment

OS	Ubuntu 20.04 / Ubuntu 22.04
Kernal	5.10.104-tegra or Higher
BSP	Linux for Tegra(L4T) R35.1 or Higher
SDK	JetPack 5.1.1 / JetPack 6.2 or Higher
AI SDK GitHub	https://github.com/Avalue-Technology/repositories.directory

Storage

Storage	64GB eMMC 5.1 (On NVIDIA Jetson AGX Orin™ Module)
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I/O

USB Port	2×USB3.2 Gen1 (Type A) 2×USB2.0 (Type A)
LAN Port	2 x RJ45 for 10/100/1000Mbps Ethernet (DHCP Client)
HDMI	2×HDMI2.0
DP	1×DP
MIPI (Internal)	16×MIPI CSI 2 Lanes (D PHY 2.1, 4×4 3×4+2×2 2×4+4×2 1×4+5×2 6×2 MIPI Lanes, Support MIPI Camera, Capture Card)
Antenna	2 x Antenna Mounting with Dust Protection Cover
AC/DC Input	1 x DC Jack
Audio	1×3.5mm Line In 1×3.5mm Line Out

Expansion

PCIe	1×PCIe Gen3×4 Slot(Slot(*) 1×PCIe Gen3×4 Slot(**) Please select either 1×PCIe Gen3×4 Slot or 1×M.2 2280 M Key PCIe Gen4×4 Slot to use Please select either 1×PCIe Gen3×4 Slot or 1×M.2 3080 M Key PCIe Gen4×4 Slot to use
M.2	1×M.2 2230 E Key PCIe Gen4*1/USB2.0/SDIO Slot 1×M.2 2280 M Key PCIe Gen4×4 Slot 1×M.2 2280 M Key PCIe Gen4×4 Slot(*) 1×M.2 3080 M Key PCIe Gen4×4 Slot(**) 1×M.2 3042 B Key USB3.2 Gen2 (10G) Slot * Please select either 1×PCIe Gen3×4 Slot or 1×M.2 2280 M Key PCIe Gen4×4 Slot to use ** Please select either 1×PCIe Gen3×4 Slot or 1×M.2 3080 M Key PCIe Gen4×4 Slot to use

Mechanical & Environmental

Power Requirement	DC input : 12 ~28 V
Operating Temperature	Standard Version: 0~60。 C with Airflow
Storage Temperature	-20~80。 C
Dimension (W x L x H)	265.08mm×186.70mm×105.29mm
Weight	4200g

Ordering Information

Ordering Information	AIB-NIAO-S32X-A1R:Orin AGX 32GB/64GB SSD/HDMI2.0/Ubuntu 20.04,Jetpack 5.1.1 / Jetpack 6.2 AIB-NIAO-S64X-A1R:Orin AGX 64GB/64GB SSD/HDMI2.0/Ubuntu 20.04,Jetpack 5.1.1 / Jetpack 6.2 AIB-NIAO-S32E-A1R:Orin AGX 32GB/64GB SSD/PSE/Ubuntu 20.04,Jetpack 5.1.1 / Jetpack 6.2 AIB-NIAO-S64E-A1R:Orin AGX 64GB/64GB SSD/PSE/Ubuntu 20.04,Jetpack 5.1.1 / Jetpack 6.2
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Capture Card (Optional)

PCIe Model	4×HDMI2.0 4×12G-SDI 16×TVI / AHD 8×GMSL2 4×HDMI 4×6G-SDI
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M.2 Model	1×HDMI2.0 1×12G-SDI 1×DVI-I 1×YPbPr 1×VGA
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Optional Product Features Extension by Daughter Board

SDK / Software	By request
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AGX 5G	5G Mobility Network (Supports 5G / 4G / 3G SIM Module)
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AGX PSE	**IP Camera 8×RJ45 for 10 / 100 / 1000Mbps Ethernet with IEEE802.3af Compliant *PSE Power Supply 8×15W (IEEE802.3af)"
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