

AIB-NINX-SC

Ultra Compact Business Card Size AI Edge Platform



Product Features

- Powered by NVIDIA® Jetson Orin™ NX up to 100 / 70 TOPS
- Business Card Size (90mm×55mm)
- 1×USB3.2 Gen2
- 1×Mini DisplayPort

Specification

System Information

System Memory NVIDIA Jetson Orin™ NX 8GB
8GB LPDDR5/
NVIDIA Jetson Orin™ NX 16GB
16GB LPDDR5

Processor NVIDIA Jetson Orin™ NX 8GB
6-Core Arm® Cortex®-A78AE v8.2 64-Bit CPU
1.5MB L2 + 4MB L3 /
NVIDIA Jetson Orin™ NX 16GB
8-Core Arm® Cortex®-A78AE v8.2 64-Bit CPU
2MB L2 + 4MB L3

AI Performance

AI Performance NVIDIA Jetson Orin™ NX 8GB
70 TOPS/
NVIDIA Jetson Orin™ NX 16GB
100 TOPS

Storage

M.2 1×M.2 2230 M Key PCIe Gen4×2 Slot
1×M.2 2230 E Key PCIe Gen4×1 Slot

Storage 128GB NVMe
1×Micro SD Card Slot

Ethernet

Ethernet Interface 1×RJ45 for 10/100/1000Mbps Ethernet
DHCP Client

Development Environment

OS Ubuntu: 20.04

Kernal 5.10.104-tegra or Higher

BSP Linux for Tegra(L4T) R35.3.1 or Higher

SDK JetPack 5.1.1 or Higher

External I/O connector

USB 1×USB3.2 Gen2 (Type-C)

Network 1×RJ45 for 10/100/1000Mbps Ethernet
DHCP Client

Display 1×Mini DP1.4

MIPI Default:
2×4MIPI CSI-2 Lanes (D-PHY 2.1, Support MIPI Camera, Capture Card)
Option:
4×2MIPI CSI-2 Lanes (D-PHY 2.1, Support MIPI Camera, Capture Card)

Peripheral Communication

- 10 Pin Header
- 1×USB2.0
- 4×GPIO
- 1×I2C

- 3 Pin Header
- 1×UART

- 2×6 Pin Header
- 3×GPIO
- 1×RS485
- 1×I2C

- 8 Pin Phoenix Connector
- 1×GPIO
- 1×RS232
- 1×I2C

Misc. Features Firmware Upgradable

Mechanical & Environmental

Dimension of main case 94.4 mm x 66 mm x 69.8 mm

Dimension of main board 90 mm x 55 mm

Power Requirement DC 9~24V

Operating Temp. Standard Version: 0~60。 C with Airflow

Storage Temp. -20~80。 C

Optional Product Features Extension by Daughter Board

| | |
|--------------------------------------|---|
| SDK / Software | By request |
| 4K60 12G-SDI | 1×12G-SDI In & Loop |
| 12G-SDI QL 1×4K60 / 2×4K30 / 4×HD60 | 1×12G-SDI 2×6G-SDI 4×3G-SDI In Single-Link, Dual-Link, Quad-Link Support |
| 4K60 HDMI2.1 | 1×HDMI2.1 In&Loop |
| 4K60 HDMI2.0 | 1×HDMI2.0 In&Loop |
| HD60 GMSL2 and CAN Bus (PCIe) (MIPI) | 4×GMSL2 In 1×CAN Bus |
| 4×TVI | 4×TVI In |
| HD60 4×HDMI | 4×HDMI |
| 4×USB3.2-A | 1×USB3.2 Gen2, 4×USB3.2 Gen1 |
| 2×GIGE | 2×GIGE In, PSE Support |
| OOB MK.2 | <p>**Out-Of-Band Management Functions:</p> <p>Allxon swiftDR for Power Cycling: Edge Device Force Shutdown Edge Device Power Switch ON/OFF Edge Device Power ON/OFF Detection Edge Device Reset</p> <p>Extension I/O: 1×I2C 1×UART 1×GPIO</p> <p>*Out-Of-Band Management Network Interface: Ethernet: 1-port 10/100 Mbps RJ45 Port Wireless: Support 4G LTE Module with SIM Card Slot & Wi-Fi USB Dongle</p> |
| I/O | <p>"Capture Card (Optional) 1×DVI-I, 1×YPbPr, 1×VGA 4×3G-SDI 4×HDMI 4×TVI / AHD 1×12G-SDI 1×HDMI2.0"</p> |

Assured Systems

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