IDS-AiS-AGX_ORIN Carrier Board

Industrial Carrier Board for NVIDIA Jetson AGX ORIN Module

1. Overview

The IDS-AiS-AGX_ORIN Carrier Board is a compact industrial-grade platform with dual Ethernet designed for NVIDIA Jetson AGX ORIN modules. It provides high-speed connectivity, industrial interfaces, and extended temperature support in a 92 × 104 mm form factor, which is almost dimensions of the module.

For full hardware interface functionality, installation of the manufacturer's BSP package is provided.

2. Key Features

- Supports Jetson AGX ORIN modules
- 2 × Gigabit Ethernet (RJ45)
- PCIe Gen4 NVMe support (M.2 Key M 2280)
- 120-pin Camera Expansion Connector - MIPI CSI camera interface
- Industrial interfaces (CAN, UART, GPIO, RS232)
- Wide input voltage range: 12–26 VDC (24V nominal)
- Extended operating temperature: –40 °C to +80 °C
- Compact 92 × 104 mm design

3. Technical Specifications

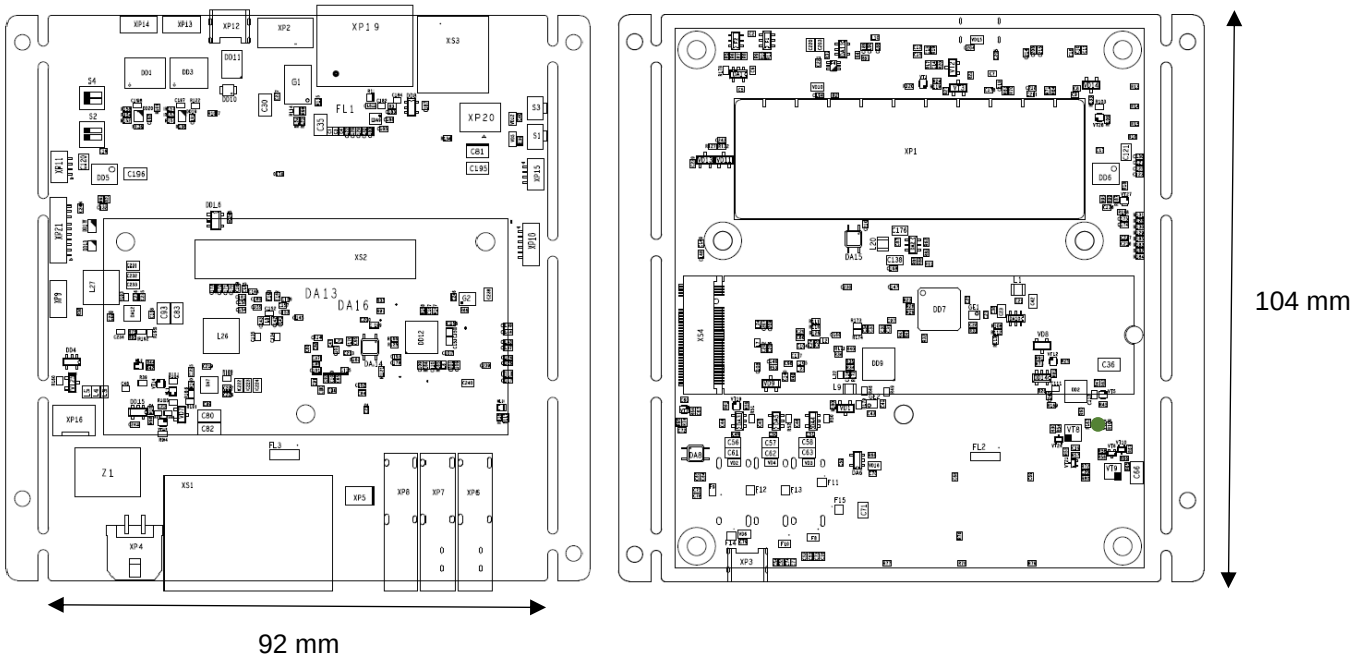
Processor Modules	Nvidia Jetson AGX Orin
Ethernet	2 × Gigabit RJ45
USB	3× USB 3.0/2.0 Type-A 1× 4-pin USB 2.0 header

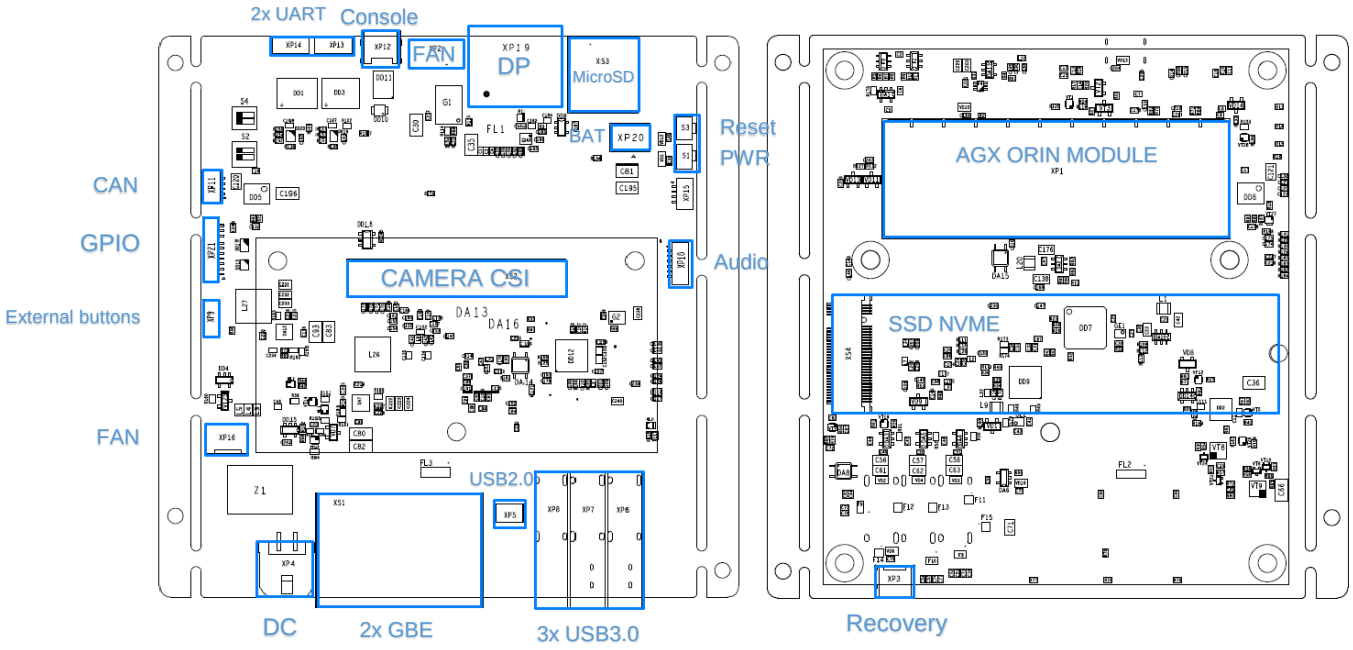
Recovery	1× Micro USB (Recovery)
Console	1× Micro USB (Console)
Display	1× DisplayPort (DP out)
Storage	1× M.2 Key M 2280 (PCIe x4 Gen4 NVMe) 1 × microSD
Camera	120-pin Camera Expansion Connector: CSI up to 4 × 4 lane or 6 × 2 lane - The connector used on the carrier board is a Samtec QSH-060-01-H-D-A The mating connector is a Samtec QTH-060-0x-H-D-A (x is for the height).
Industrial interfaces	1× CAN 2x UART 3,3V or 2x RS232/485 4× GPIO (Pins 8, 17, 27, 35)
FAN	1x 4 pin 5V PWM FAN 1x 3 pin 12V FAN (managed)
Audio	Stereo speakers out and microphones in connector
Input Voltage	12–26 VDC (24V nominal)
DC connector type	MOLEX Micro-Fit
Operating Temperature	–40 °C to +80 °C
Dimensions	92 × 104 mm

4. Typical Applications

- Industrial AI systems
- Machine vision
- Robotics and automation
- Edge AI gateways
- Smart transportation systems
- Embedded AI control systems

5. Dimension size and Connector Map





Noted: The manufacturer has the right to make adjustments, corrections, and substitutions of components, provided this does not lead to a deterioration in functional characteristics.

6. Ordering Information

Part Number	Description	Notes
IDS-AiS-AGX_ORIN	Carrier Board for NVIDIA Jetson AGX ORIN, 2x UART	Industrial carrier board, 92 × 104 mm, 2x UART 3,3V
IDS-AiS-AGX_ORIN-RS	Carrier Board for NVIDIA Jetson AGX ORIN, 2x RS232/485	Industrial carrier board, 92 × 104 mm, 2x RS232/485
RTS-Xavier-HS02	Cooling Fan for Jetson AGX Xavier/AGX Orin module	87x100x20 mm, 164g, PWM
IDS-AiS-AO-CASE	Safety case	On request

Jetson Modules

Part Number	Description
900-13701-0050-000	Jetson AGX Orin 64GB
900-13701-0040-000	Jetson AGX Orin 32GB
900-13701-0080-000	Jetson AGX Orin Industrial

Power and Interface Accessories

Part Number	Description	Notes
IDS-AiS-AO -PSU-24V	Industrial power adapter with DC Jack connector	24V, 3.75A, 90W, Molex 0430250400 plug
IDS-AiS-AO -PWR-CBL	Power cable assembly	Molex 0430250400 plug + 0430300012 receptacle → DC Jack
IDS-AiS-AO –CBLKIT	Cable harness kit	for GPIO / RS232 / CAN / KEY, 200 mm
IDS-AiS-AO –AUDIO	Cable harness kit	6pin, 200 mm