

# JNX110 NVIDIA Jetson OrinNano/NX carrier board



## with Pixhawk Autopilot Bus standard connector

### Overview

This carrier board is designed to be a drone platform powered by the **NVIDIA Jetson Orin Nano or NX**, offering a robust foundation for onboard AI processing and autonomy.

The **JNX110 carrier board**, specifically designed to interface seamlessly with both the Jetson module and the **Pixhawk flight controller (Pixhawk Autopilot Bus standard connector)** allows for easy integration for a compact, high-performance architecture that supports demanding real-time applications.

The design features an integrated **5-port 100 Mbit Ethernet switch**. All standard **PX4 autopilot functions** are supported, including an **STM32F103 I/O controller** for reliable and low-latency signal handling.

Please take a look at the **JNX120S** and **JNX120M** if you are looking for **more compact** and **lightweight solution**, if you only need the **flight controller without the Jetson carrier**, have a look at the **D112**.

Connectivity options between the Jetson module and flight controller (FC) include:

- **UART, CAN, and 100Mbit Ethernet**

This board includes the following features:

- Pixhawk Autopilot Bus (PAB) standard connector
- up to 4x UART (Jetson)
- 2x CSI-2 (4 lanes)
- integrated 5 port 100Mbit Ethernet switch with 3x JST-GH (4 pin) plus internal connections to Jetson and FC
- M.2 key M 2280 SSD
- M.2 key E 2230 Wifi (USB 2.0 and PCIe)
- CAN1 and CAN2: connectors each for feed through
- CAN3 (NXP only)
- an integrated USB 2.0 hub (3x JST-GH 4 pin)
- multiple PWM outputs 8x FMU, 4x FMU, 8x I/O (NXP only)
- DC power in: 12V
- flight controller: internal Ethernet connection

An NDAA compliant variant is also available to guarantee compliance with the requirements of the **U.S. National Defense Authorization Act (NDAA) Section 889 (a)(1)(A) and (a)(1)(B)**, which prohibits the use, procurement, or contracting of certain telecommunications and video surveillance equipment or services from specified Chinese entities.

For more information please request our **NDAA Section 889 Compliance Certification Form** for the JNX110.

### Technical Specification

Feature	JNX110
Compatible modules	Orin Nano/NX
Super mode support	✓ (with Jetpack 6.2)
Pixhawk Autopilot Bus standard connector	✓
M.2 key E	2230 PCIe x1 + USB 2.0 (Wifi)
M.2 key M	2280 SSD (PCIe x4)
USB	3x 2.0 (JST-GH 4 pin)
Fan connector	5V, PWM
UART	4x 3.3V
I2C	2x
MIPI CSI-2	2x
CAN	2x (2x FC and and 1x Jetson)
System management	MCU
Ethernet	100Mbit (JST-GH 4 pin)
Power in	12V
TPM chip	✓ (SLB9670VQ20FW785XTMA1)
Size	145mm x 55mm
PCB Weight	65 grams
Model number	38736
SKU	70848

### Carrier Board Variations

SKU	Part
70848-3	JNX110 rev 3
70848-NDAA	JNX110 rev 3 NDAA compliant

### Cooling solutions

SKU	Part
70812	FAN integrated heatsink
70812-C	Heatsink industrial
70812-P	Passive heatsink
70696	Leaf spring kit
70606	Heatspreader
70798-OK	Cooling kit
70810-OK	Cooling kit industrial
70810-CP	Super mode copper heatsink kit*

\*recommended when using the super mode



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## JNX110 NVIDIA Jetson OrinNano/NX carrier board

JNX110

JNX110 top



JNX110 bot

