

### FWJ100-BB

#### Nvidia Jetson carrier board

FWJ100-BB is a carrier board that can mount Jetson Orin Nano, Jetson Orin NX modules. MIPI CSI-2 interface which is suitable for camera integration. With two Gigabit Ethernet ports, it is ideal for application of separated network applications, and USB 3.2 ports (Type-C x 1EA, Type-A x 2EA) are built-in to connect USB storage devices. In addition, it supports NVMe (M.2 2280 x 1EA, M.2 2230 x 1EA) slot, so you can use it for MiniNVR by installing high-speed, large-capacity SSD. The board provides an optimal solution for an edge device such as smart farms, smart factories, image analysis devices, AI development, video analysis, and medical devices.

#### **Product Features**

- Mount Jetson Orin Nano, Jetson Orin NX Module available (260-pin SO-DIMM connector)
- 1 x USB 3.2 Port (C Type)
- 2 x USB 3.2 Port (A Type)
- 1 x NVMe M.2 2280
- 1 x NVMe M.2 2230
- 2 x Gigabit Ethernet Ports
- 1 x Debugging Port
- 1 x Micro HDMI (D Type)
- Camera Connection
  - 3 x Double Row Board to Board Connector (1 x Reserved)
- 1 x 3.5mm 4-Pole Audio Jack
- 1 x CAN BUS Pin Header (2.54mm, 4pin/NC)
- Recovery Switch
- · Factory Default Switch
- Status LED (2 x Ethernet, 1 x Power)
- 1 x DC Power Jack (DC 12V/5A)





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### **Tech Notes**

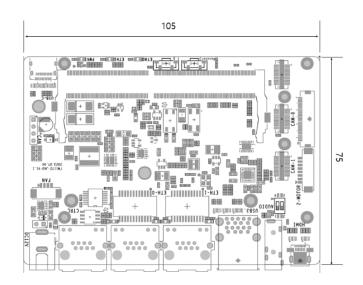
#### \* Support high-speed mass storage interface

It supports NVMe by default, so it is ideal for data storage and utilization by mounting an SSD.



# FWJ100-BB

## Technical Specifications



Connection	
Target	Jetson Orin Nano or Jetson Orin NX
Connector	260-pin SO-DIMM
USB	
USB 3.2 (Gen2)	1 x C Type (Front)
USB 3.2 (Gen2)	2 x A Type (Back)
M.2	
NVMe	1 x 2280
NVMe	1 x 2230
Network	
Wired Network	2 x Gigabit Ethernet Ports (RJ45 with LED)
Debugging	1 x Debugging Port (on Automation Header)
Video	
Interface	1 x Micro HDMI (D Type)
Camera Connection	
Connector	3 x Double Row Board to Board 30Pin
	(0.5mm pitch)
	MIPI CSI-2 v2.0
	WIPT CSI-2 V2.0
Interface	2 x Double Row Board to Board 4 Lane MIPI CSI-
Interface	
Interface	2 x Double Row Board to Board 4 Lane MIPI CSI-
Interface	2 x Double Row Board to Board 4 Lane MIPI CSI- 2 (Include Camera Control Port)
	2 x Double Row Board to Board 4 Lane MIPI CSI- 2 (Include Camera Control Port) 1 x Double Row Board to Board (Reserved)
Support	2 x Double Row Board to Board 4 Lane MIPI CSI- 2 (Include Camera Control Port) 1 x Double Row Board to Board (Reserved)
Support Audio	2 x Double Row Board to Board 4 Lane MIPI CSI- 2 (Include Camera Control Port) 1 x Double Row Board to Board (Reserved) Camera CLK, I2C, Control
Support Audio Interface	2 x Double Row Board to Board 4 Lane MIPI CSI- 2 (Include Camera Control Port) 1 x Double Row Board to Board (Reserved) Camera CLK, I2C, Control
Support Audio Interface CAN BUS	2 x Double Row Board to Board 4 Lane MIPI CSI- 2 (Include Camera Control Port) 1 x Double Row Board to Board (Reserved) Camera CLK, I2C, Control 1 x 3.5mm 4-Pole Audio Jack (PJ-328C)
Support Audio Interface CAN BUS Pin Header	2 x Double Row Board to Board 4 Lane MIPI CSI- 2 (Include Camera Control Port) 1 x Double Row Board to Board (Reserved) Camera CLK, I2C, Control 1 x 3.5mm 4-Pole Audio Jack (PJ-328C)
Support Audio Interface CAN BUS Pin Header H/W	2 x Double Row Board to Board 4 Lane MIPI CSI- 2 (Include Camera Control Port) 1 x Double Row Board to Board (Reserved)  Camera CLK, I2C, Control  1 x 3.5mm 4-Pole Audio Jack (PJ-328C)  1 x 2.54mm, 4pin/NC
Support Audio Interface CAN BUS Pin Header H/W Switch	2 x Double Row Board to Board 4 Lane MIPI CSI- 2 (Include Camera Control Port) 1 x Double Row Board to Board (Reserved) Camera CLK, I2C, Control  1 x 3.5mm 4-Pole Audio Jack (PJ-328C)  1 x 2.54mm, 4pin/NC  Recovery, Factory Default
Support Audio Interface CAN BUS Pin Header H/W Switch Status LED Fan Connector	2 x Double Row Board to Board 4 Lane MIPI CSI- 2 (Include Camera Control Port) 1 x Double Row Board to Board (Reserved) Camera CLK, I2C, Control  1 x 3.5mm 4-Pole Audio Jack (PJ-328C)  1 x 2.54mm, 4pin/NC  Recovery, Factory Default 2 x Ethernet, 1 x Power
Support Audio Interface CAN BUS Pin Header H/W Switch Status LED	2 x Double Row Board to Board 4 Lane MIPI CSI- 2 (Include Camera Control Port) 1 x Double Row Board to Board (Reserved) Camera CLK, I2C, Control  1 x 3.5mm 4-Pole Audio Jack (PJ-328C)  1 x 2.54mm, 4pin/NC  Recovery, Factory Default 2 x Ethernet, 1 x Power 5V, PWM, Tach
Support Audio Interface CAN BUS Pin Header H/W Switch Status LED Fan Connector	2 x Double Row Board to Board 4 Lane MIPI CSI- 2 (Include Camera Control Port) 1 x Double Row Board to Board (Reserved)  Camera CLK, I2C, Control  1 x 3.5mm 4-Pole Audio Jack (PJ-328C)  1 x 2.54mm, 4pin/NC  Recovery, Factory Default 2 x Ethernet, 1 x Power  5V, PWM, Tach  DC 12V/5A

Accessory (Jetson Orin Nano)	
SoM	Jetson Orin Nano
CPU	A78AE ARMv8.2 (64-bit) Heterogeneous Multi-Processing (HMP) CPU Architecture
GPU	NVIDIA Ampere GPU
Accessory (Jetson Orin NX	)
SoM	Jetson Orin NX
CPU	A78AE Armv8.2 (64-bit) Heterogeneous Multi-Processing (HMP) CPU Architecture
GPU	NVIDIA Ampere GPU
Accessory (Fan & Heatsink	x)

### Appearance





Compatible	Jetson Orin Nano or Orin NX
Fan	DC 5V (11000rpm, 58x39x18mm)
Heatsink	Aluminum (Form bound to FAN)
Size	58(W) x 39(D) x 18(H) mm
Weight	Approx. 50g