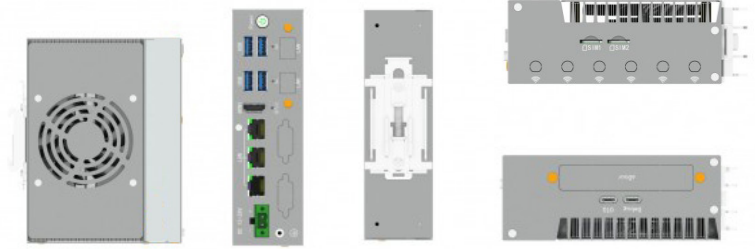


WBP-NVJ03 series

NVIDIA Jetson Orin AI BOX-PC Edge System

Features

- Fanless Edge AI System with NVIDIA® Jetson™ Orin SO-DIMM SoM
- High-performance AI controller up to 157 TOPS
- Onboard 3 GbE and 4 USB 3.0
- Optional 16bit GPIO, 4 RS-232/485
- 12-28V DC Input
- Support DIN Rail and Desktop Mount



Embedded BOX-PC

Specifications

	SOM	Orin Nano 4GB	Orin Nano 8GB	Orin NX 8GB	Orin NX 16GB
Core Modules	AI Performance	20 TOPS / 34 TOPS (Super)	40 TOPS / 67 TOPS (Super)	70 TOPS / 117 TOPS (Super)	100 TOPS / 157 TOPS (Super)
	GPU	512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	
	GPU Max Frequency	625 MHz / 1020 MHz (Super)		765 MHz / 1173 MHz (Super)	918 MHz / 1173 MHz (Super)
	CPU	6-core Arm® Cortex® A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3		6-core Arm® Cortex® A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	8-core Arm® Cortex® A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3
	CPU Max Frequency	1.5 GHz / 1.7 GHz (Super)		2 GHz / 2 GHz (Super)	
	Memory	4GB 64-bit LPDDR5 34 GB/s / 4GB 64-bit LPDDR5 51 GB/s (Super)	8GB 128-bit LPDDR5 68 GB/s / 8GB 128-bit LPDDR5 102.4 GB/s (Super)	8GB 128-bit LPDDR5 102.4 GB/s	16GB 128-bit LPDDR5 102.4 GB/s
	TDP	MAXN 10W / 25W (Super)	MAXN 15W / 25W (Super)	MAXN 20W / 40W (Super)	MAXN 25W / 40W (Super)
Ethernet	Controller	1 * GbE LAN Chip (LAN signal from System-on-Module), 10/100/1000 Mbps 2 * Intel® I210-AT, 10/100/1000 Mbps			
Expansion Slots	M.2	1 * M.2 Key-M (NVMe SSD, 2280)			
	Mini PCIe	1 * Mini PCIe Slot (PCIe x1 + USB 2.0, with 1 * Nano SIM Card)			
	M.2	1 * M.2 Key-E Slot (PCIe x1 + USB 2.0, 2230)			
Front I/O	M.2	1 * M.2 Key-B Slot (USB 5Gbps + USB 2.0, 3052, with 1 * Nano SIM Card)			
	Ethernet	3 * GbE (RJ45)			
	USB	4 * USB 5Gbps (Type-A)			
	Display	1 * HDMI, Max resolution up to 4096*2304@30Hz (Type-A)			
	Button	1 * Power Button + Power LED 1 * System Reset Button 1 * System Recovery button			
Side I/O	OTG	1 * USB 2.0 (Type-C, Flashing Port)			
	Debug	1 * USB 2.0 (Type-C, Debug Port)			
	SIM	2 * Nano SIM			
Internal I/O	Serial	optional 4 * RS232/RS485 (wafer, Jumper Switch) 1 * TTL (wafer)			
	1 * TTL (wafer)	1 * TTL (wafer)			
	CAN Bus	2 * CAN FD (wafer)			
	GPIO	1 * 16 bits DIO (wafer)			
	Audio	1 * Audio (Line-Out + MIC, wafer) 1 * Amplifier, 5-W (per channel) into a 8-Ω Loads (wafer)			
	USB	2 * USB 2.0 (wafer)			
	CSI	8 lanes MIPI CSI-2 (Optional expansion of 4 * GMSL2 camera interfaces (FAKRA-Z), wafer)			
	FAN	1 * System Fan (wafer)			
Power Supply	Type	DC, AT			
	Power Input Voltage	12~28V DC			
	Connector	Terminal block, 2Pin, P=5.00/5.08			
OS Support	RTC Battery	CR2032 Coin Cell			
	Linux	Jetpack 6.2 (Ubuntu 22.04)			
Mechanical	Enclosure Material	Radiator: Aluminum alloy, Box: SGCC			
	Dimensions	150.7mm(L) * 114.5mm(W) * 45mm(H) (Mounting Hardware Not Included)			
	Mounting	Ear Mounting, DIN Rail Mounting (Shipping Option)			
Environment	Heat Dissipation System	Active Fan Cooling			
	Operating Temperature	-20~60°C with 0.7 m/s airflow			
	Storage Temperature	-40~80°C			
	Relative Humidity	10 to 95% (non-condensing)			
	Vibration	3Grms@5~500Hz, random, 1hr/axis (IEC 60068-2-64)			
	Shock	10G, half sine, 11ms (IEC 60068-2-27)			

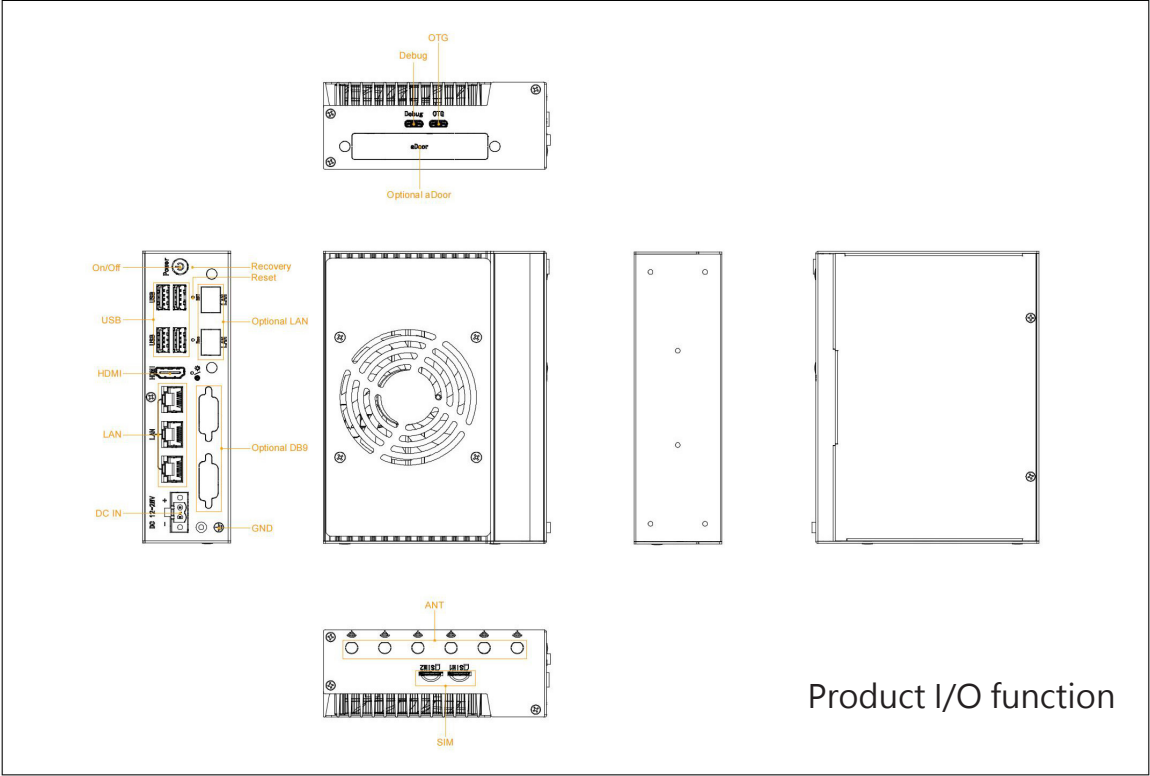
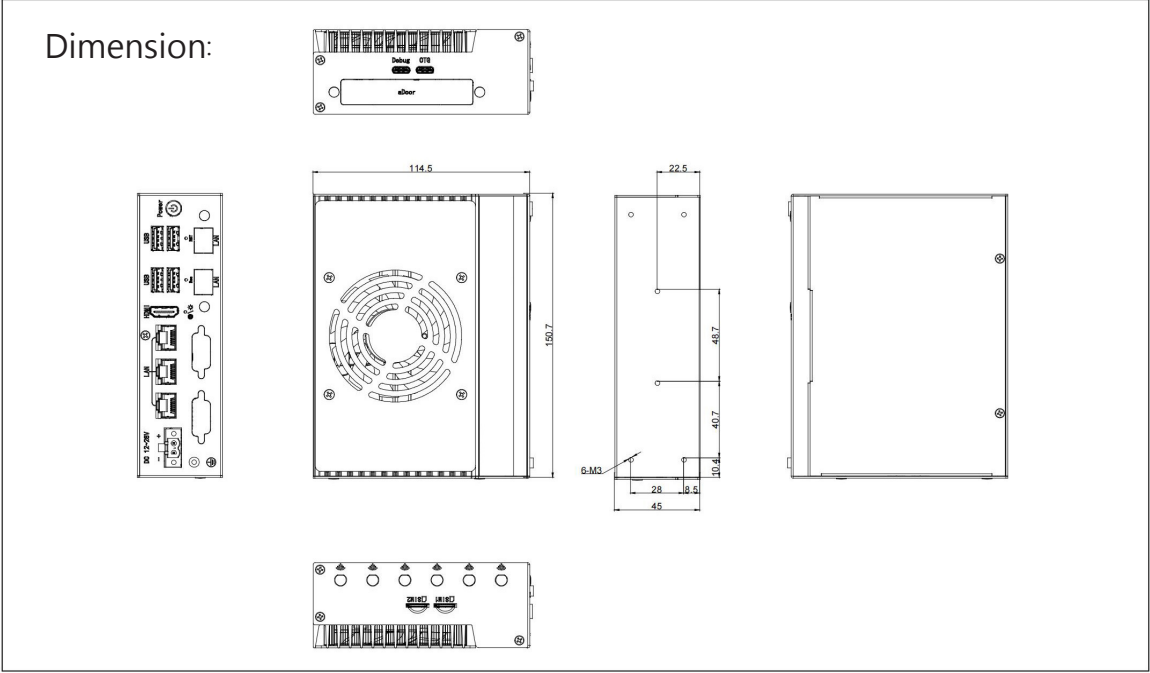
4U SETUP PC

3U SETUP PC

2U SETUP PC

Panel PC

Touch Monitor



Product I/O function

Ordering Information

Model name	Description
WBP-NVJ03-Orin Nano 4GB	Fanless edge AI system with NVIDIA® Jetson™ Jetson Orin Nano 4GB SoM, 1 HDMI, 3 GbE LAN, 4 USB3.0 and USB 2.0 OTG 20TOPS
WBP-NVJ03-Orin Nano 8GB	Fanless edge AI system with NVIDIA® Jetson™ Jetson Orin Nano 8GB SoM, 1 HDMI, 3 GbE LAN, 4 USB3.0 and USB 2.0 OTG 40TOPS
WBP-NVJ03-Orin NX 8GB	Fanless edge AI system with NVIDIA® Jetson™ Jetson Orin NX 8GB SoM, 1 HDMI, 3 GbE LAN, 4 USB3.0 and USB 2.0 OTG 70TOPS
WBP-NVJ03-Orin NX 16GB	Fanless edge AI system with NVIDIA® Jetson™ Jetson Orin NX 16GB SoM, 1 HDMI, 3 GbE LAN, 4 USB3.0 and USB 2.0 OTG 100TOPS

Model name	Description
WBP-NVJ03-Orin Nano 4GB	Fanless edge AI system with NVIDIA® Jetson™ Jetson Orin Nano 4GB SoM, 1 HDMI, 3 GbE LAN, 4 USB3.0 and USB 2.0 OTG 34 TOPS (Super)
WBP-NVJ03-Orin Nano 8GB	Fanless edge AI system with NVIDIA® Jetson™ Jetson Orin Nano 8GB SoM, 1 HDMI, 3 GbE LAN, 4 USB3.0 and USB 2.0 OTG 67 TOPS (Super)
WBP-NVJ03-Orin NX 8GB	Fanless edge AI system with NVIDIA® Jetson™ Jetson Orin NX 8GB SoM, 1 HDMI, 3 GbE LAN, 4 USB3.0 and USB 2.0 OTG 117 TOPS (Super)
WBP-NVJ03-Orin NX 16GB	Fanless edge AI system with NVIDIA® Jetson™ Jetson Orin NX 16GB SoM, 1 HDMI, 3 GbE LAN, 4 USB3.0 and USB 2.0 OTG 157 TOPS (Super)