

X6a-AGX



NVIDIA® Jetson Orin
Edge AI Compact Fanless Embedded System

KEY FEATURES



Nvidia Edge AI engine

NVIDIA® Jetson Orin AGX™ module
(max. 275 TOPs)



Rich I/O

1 10GLAN, 1G LAN, 2 USB 3.2 Gen1,
1 USB type B, 1 HDMI, 1 MicroSD, 1 CAN bus



Wide Temperature

Ruggedized fanless design with -20 ~ 60°C
operating temperature



Optional Wireless Expansions

WiFi 6E, 4G/5G



Optional Video Capture

1 x SDI, 1 x HDMI



OOB Support

Optional OOB (out-of-band) support



PANEL



Back View



Side View

SPECIFICATION

SYSTEM	SOM	NVIDIA® Jetson Orin AGX™ Industrial NVIDIA® Jetson Orin AGX™ 64GB NVIDIA® Jetson Orin AGX™ 32GB
	Processor	8/12-core Arm® Cortex®-A78AE v8.2 64-bit CPU
	GPU	2048-core NVIDIA Ampere architecture GPU with 64 Tensor Cores 1792-core NVIDIA Ampere c GPU with 56 Tensor Cores
	Memory	64/32GB 256-bit LPDDR5
WATCHDOG TIMER	Output & Interval	Built-in NVIDIA® Jetson Orin™
GRAPHICS	Display	HDMI
STORAGE	Internal	M.2 2242/2280 M key (NVMe) micro-SD card slot
EXPANSION	Onboard	1 x M.2 Key E 2230 slot (USB 2 + PCIe x1 signal) for Wi-Fi 6E 1 x M.2 Key B 3042/3052 slot (USB3 signal) for 5G/LTE with Nano SIM
ETHERNET	Controller	1x GbE RJ-45 1x 10G RJ-45
LED	Indicators	1 x Power
CAMERA/ VIDEO INTERFACE	Video Capture (M.2 expansion)	1 x SDI 1 x HDMI
	Camera Interface	8 x GMSL2 (MIPI SerDes)
FRONT I/O	Ethernet	1 x RJ45 GbE connector 1 x RJ45 10G ethernet connector
	USB	2 x USB 3.2 Gen1
	Display	1 x HDMI
	DC in	1 x 2-pin power terminal block
SIDE I/O	USB	USB type B for OTG recovery
	Buttons	1 x Power, 1 x recovery
	SD	1 x MicroSD
	CAN bus	3-pin terminal block with transceiver
Antenna	Antenna	6 x antenna holes
POWER	Type	12~54V DC
	Connector	1x DC Jack with lock
	RTC Battery	Yes
OS SUPPORT	Linux	Jetpack 6.2
MECHANISM	Mounting	Wall mount (mounting brackets and screws)
	Dimensions	Approx. 221mm x L: 200mm x H: 80mm
	Weight	4.2kg
ENVIRONMENT	Operating Temperature	-20°C to 60°C
	Storage Temperature	-40°C to 85°C
	Relative Humidity	5 to 95% RH (non-condensing)
STANDARDS AND CERTIFICATIONS	Shock	Operation: IEC 60068-2-27 Test Ea: Shock test Half-sine, 3G @ 11ms, 18 Shock ±X, ±Y, ±Z (each axis 3 times) Non- Operation: IEC 60068-2-27 Test Ea: Shock test Half-sine, 5G @ 11ms, 18 Shock ±X, ±Y, ±Z (each axis 3 times)
	Vibration	Operation: IEC 60068-2-64 Test Fh: Vibration board-band random test Random, 2Grms @ 5~500 Hz, 30min. Non- Operation: IEC 60068-2-6 Test Fc: Vibration Sinusoidal Test Sweep sine, 3Grms @ 10~500Hz, 30min.
	Certification	CE, FCC Class A, RoHS