

X6a-Thor



NVIDIA® Jetson Thor™
Edge AI Compact Fanless Embedded System

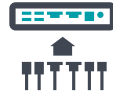


KEY FEATURES



Nvidia Edge AI engine

NVIDIA® Jetson Thor™ module
(max. 2070 TFLOPs)



Rich I/O

1 QSPF, 2 GbE LAN, 4 USB 3.2 Gen2, USB type C,
2 HDMI, CAN FD



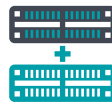
Wide Temperature

Ruggedized fanless design with -20 ~ 50°C
operating temperature



Optional Wireless Expansions

WiFi 6E, 4G/5G



Optional Expansions

· Optional 8 x GMSL Camera Interface
· Optional 8 x USB or 8 x PoE



OOB Support

Optional OOB (out-of-band) support



SPECIFICATION

SYSTEM	SOM	NVIDIA Jetson T5000™ NVIDIA Jetson T4000™
	Processor	14/12-core Arm® Neoverse®-V3AE 64-bit CPU
	GPU	2560-core NVIDIA Blackwell architecture GPU with fifth-gen Tensor Cores Multi-Instance GPU (MIG) with 10 TPCs
		1536-core NVIDIA Blackwell architecture GPU with fifth-gen Tensor Cores Multi-Instance GPU (MIG) with six TPCs
Memory	128/64GB 256-bit LPDDR5X	
WATCHDOG TIMER	Output & Interval	Built-in NVIDIA® Jetson Thor
GRAPHICS	Display	2 x HDMI
STORAGE	Internal	2 x M.2 2280 M key (NVMe)
EXPANSION	Onboard	1 x M.2 Key E 2230 slot (USB 2 + PCIe1 signal) for Wi-Fi 6E 1 x M.2 Key B 3042/3052 slot (USB3 signal) for 5G/LTE with Nano SIM
	Optional USB x 8	8 x USB3.2 Type-A
	Optional PoE x 8	8 x PoE port
	Optional GMSL x 8	8 x GMSL2 (MIPI SerDes)
ETHERNET	Controller	2x GbE RJ-45 1x QSFP (4x 25 GbE)
LED	Indicators	1 x Power
FRONT I/O	Ethernet	2 x RJ45 GbE connector
		1 x QSFP (4x 25 GbE)
	USB	4 x USB 3.2 Gen2
		1 x USB 3.2 Gen2 Type C (supports Nvidia Jetson flashing)
Display	2 x HDMI	
DC in	1 x 3-pin power terminal block	
SIDE I/O	USB	USB 2.0 Type C Connector (Debug UART)
	Buttons	1 x Power, 1 x recovery
	SIM	2 x Micro SIM card socket
	CAN FD	2x10 Terminal Block 1x CAN-FD
	Audio	3.5mm audio Jack
Antenna	Antenna	6 x antenna holes
POWER	Type	9~36V DC
	Connector	1x DC terminal block
	Ignition control	ACC IN / IGN Control (ACC optional, via switch)
	RTC Battery	Yes
OS SUPPORT	Linux	Jetpack 6.2
MECHANISM	Mounting	Wall mount (mounting brackets and screws)
	Dimensions (W x H x D)	Approx. 221mm x L: 200mm x H: 90mm
	Weight	4.8kg
ENVIRONMENT	Operating Temperature	-20°C to 50°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