

NVIDIA® AI Edge Computer

WTK-3821T / WTK-3721T

WTK-3821T- NVIDIA® Jetson Orin™ NX-16/8GB, 2xLAN, 1xHDMI, 4DI+4DO, 1xRS232, 1xRS232/422/485, 128GBSSD
WTK-3721T- NVIDIA® Jetson Orin™ Nano-8/4GB, 2xLAN, 1xHDMI, 4DI+4DO, 1xRS232, 1xRS232/422/485, 128GBSSD

The **WTK-3821T**, powered by the **NVIDIA® Jetson Orin™ NX** module, delivers up to **100 TOPS** of computing performance, while the **WTK-3721T** integrates the **NVIDIA® Jetson Orin™ Nano** module, providing **40 TOPS**. Both models feature a **1024-core NVIDIA® CUDA® GPU with 32 Tensor Cores** and come pre-installed with **JetPack 6.2**, supporting a broad range of AI frameworks. Built with a **fanless, wide-temperature industrial design**, they offer extensive I/O connectivity and support for **5G, 4G, and Wi-Fi** expansion, enabling seamless communication with a variety of terminal devices.



Features & Benefits

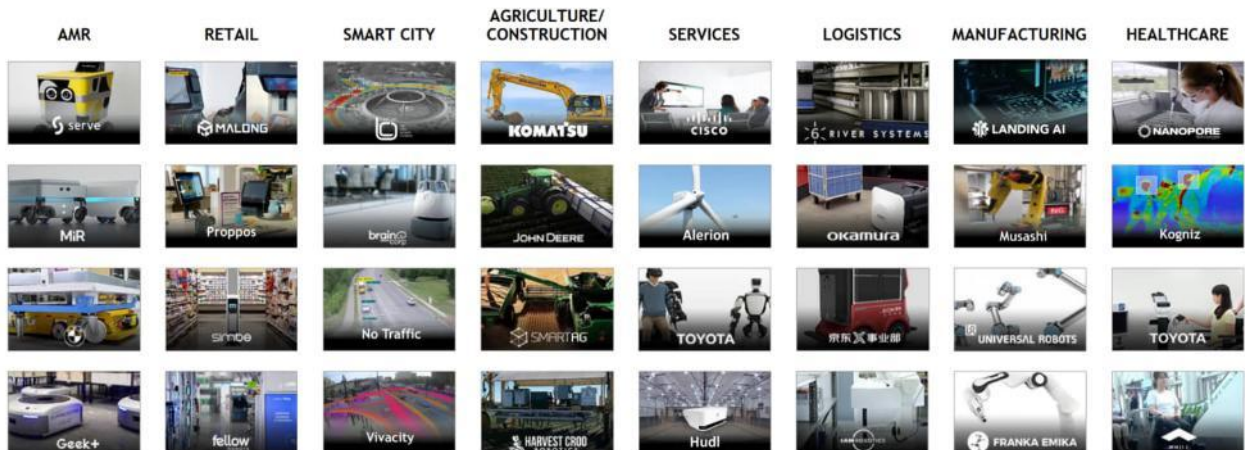
Powerful Platform

- WTK-3821T-16GB: Jetson Orin NX 16GB Eight-Core - Ampere GPU + Arm CortexA78AE v8.2 64-bit CPU + 16 GB LPDDRS (100Tops)
- WTK-3821T-8GB: Jetson Orin NX 8GB Six-Core - Ampere GPU + Arm CortexA78AE v8.2 64-bit CPU + 8 GB LPDDRS (70Tops)
- WTK-3721T: Powerful CPU with 1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores
- WTK-3721T: 8GB / 40 TOPS and 4GB / 20 TOPS (INT8)
- JetPack 6.2 AI frameworks including Tensorflow, Caffe, PyTorch, Paddlepaddle, TensorRT, DeepStream SDK tools

Rugged compact flexible design

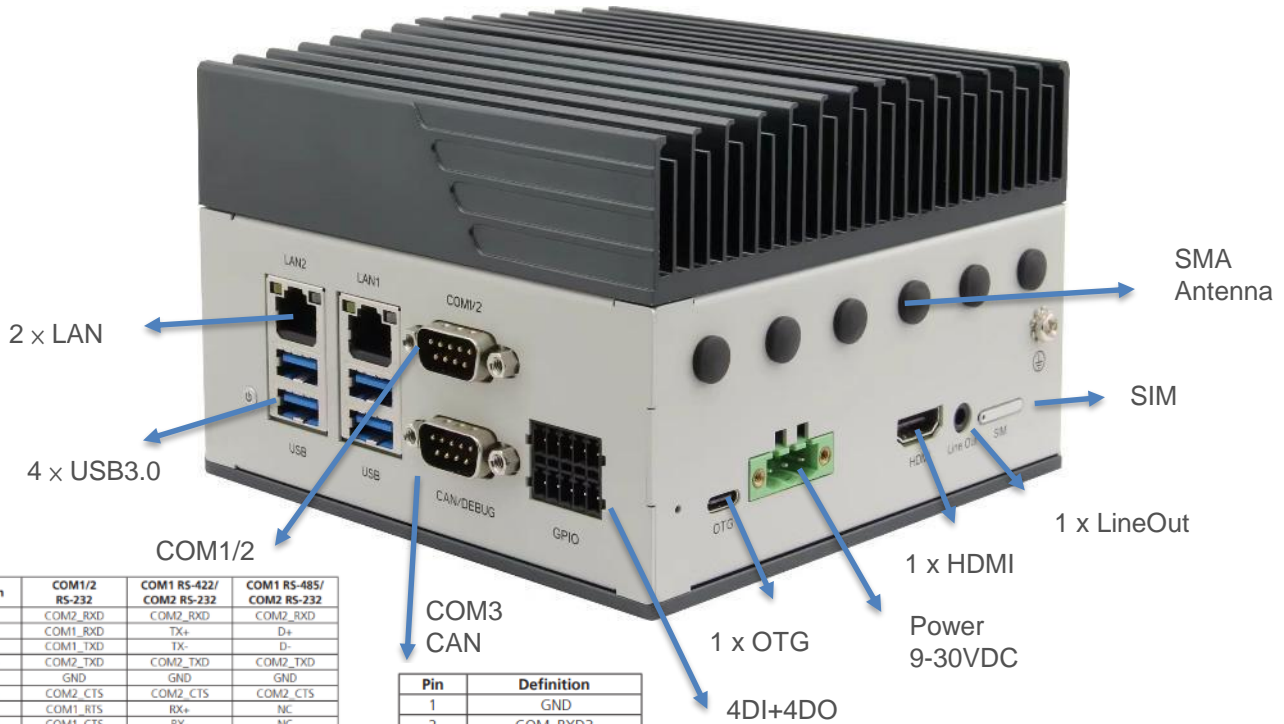
- Fan-less embedded design, and DC9-30V voltage input
- Rich expansion capabilities support 5G、4G、Wi-Fi expansion
- Designed for wall hanging and Din-rail installation

AI Edge Computer Applications





Interfaces

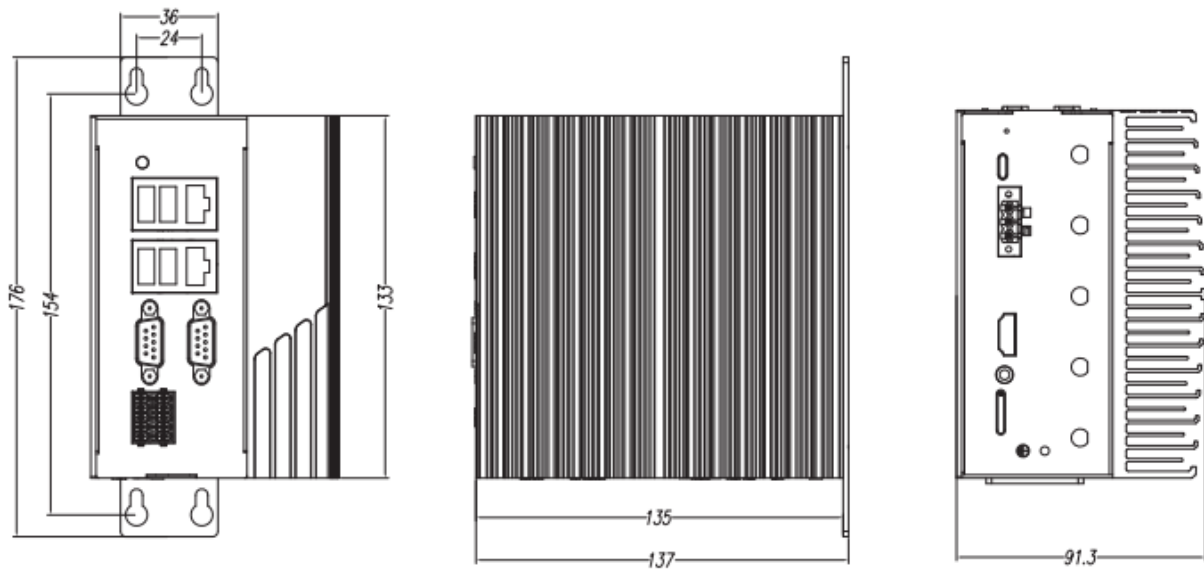


Pin	COM1/2 RS-232	COM1 RS-422/ COM2 RS-232	COM1 RS-485/ COM2 RS-232
1	COM2_RXD	COM2_RXD	COM2_RXD
2	COM1_RXD	TX+	D+
3	COM1_TXD	TX-	D-
4	COM2_TXD	COM2_TXD	COM2_TXD
5	GND	GND	GND
6	COM2_CTS	COM2_CTS	COM2_CTS
7	COM1_RTS	RX+	NC
8	COM1_CTS	RX-	NC
9	COM2_RTS	COM2_RTS	COM2_RTS

Pin	Definition
1	GND
2	COM_RXD3
3	COM_TXD3
4	GND
5	GND
6	CAN0_H
7	N/A
8	CAN0_L
9	N/A



Dimensions

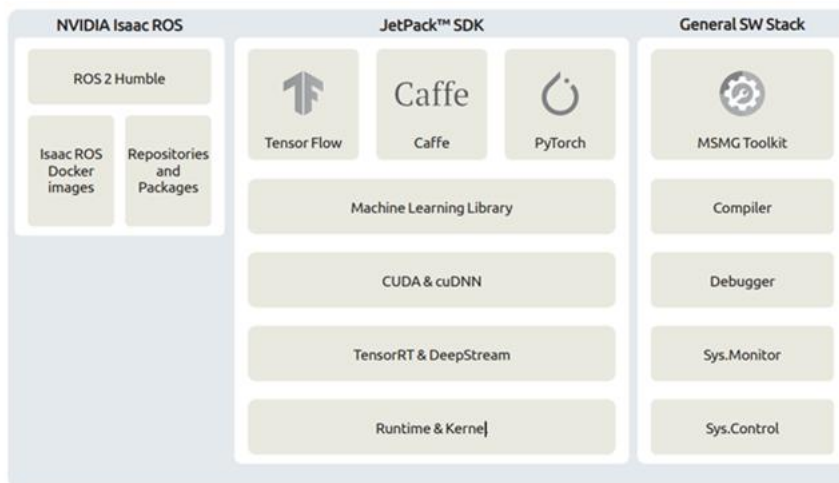


91.3mm (W) x 137mm (D) x 176mm (H)



✓ Complete JetPack SDK for development

JetPack is an integrated AI and robotics platform combining NVIDIA Isaac ROS, JetPack SDK, and essential tools like TensorFlow, CUDA, and TensorRT



Specifications

CPU	WTK-3821T-16GB: 8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3 WTK-3821T-8GB: 6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3 WTK-3721T: 6-core Arm® Cortex-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3
GPU	WTK-3821T / WTK-3721T-8G: 1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores WTK-3721T-4G: 512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores
Memory	WTK-3821T-16GB: 16GB 128-bit LPDDR5 4GB/s WTK-3821T-8G: 8GB 128-bit LPDDR5 102.4GB/s WTK-3721T-8GB: 8G: 8GB LPDDR5 WTK-3721T-4GB: 4G: 4GB LPDDR5
I/O Interface - Front	4 × USB3.0 2 × RJ45 LAN 1 × Power on/off switch 1 × GPIO (4DI & 4DO) 2 × COM (1 × RS232/422/485, 1 × RS232 via 1 × DB9) 1 × CAN bus via DB9
I/O Interface - Bottom	1 × HDMI 1 × Power connector 1 × OTG 1 × Recovery 1 × Ground screw hole 1 × Line Out 6 × Antenna holes 1 × SIM slot
Expansion	1 × Micro SD 1 × M.2 E-Key 2230 (supports PCIe x1 /USB2.0 signal) for 1 × M.2 M-Key 2280 (supports PCIe x1 signal) for 1 × M.2 B-Key 3042/52 support 4G/LTE/5G 1 × miniPCIe Full-size slot with mSATA support

Specifications

OS	Ubuntu 20.04, Kernel 5.15
Service Pack	JetPack 6.2
Power Requirement	DC 9 to 30V
Dimensions	91mm (W) x 137mm (D) x 176mm (H)
Installation	wall-mounting and rail installation
Operating Temperature	-10°C to 55°C with air flow
Storage Temperature	-20°C to 80°C
Operation Humidity	40°C, 95% (non-condensing)

Ordering Information

Model	Description
WTK 3821T-16G	NVIDIA® Jetson Orin™ NX-16GB, 2xLAN, 1xHDMI, 1xLin out, 4xDI, 4xDO, 1xRS232, 1xRS232/422/485, 1xOTG & 128GB SSD
WTK 3821T-8G	NVIDIA® Jetson Orin™ NX-8GB, 2xLAN, 1xHDMI, 1xLin out, 4xDI, 4xDO, 1xRS232, 1xRS232/422/485, 1xOTG & 128GB SSD
WTK 3721T-8G	NVIDIA® Jetson Orin™ Nano-8GB, 2xLAN, 1xHDMI, 1xLin out, 4xDI, 4xDO, 1xRS232, 1xRS232/422/485, 1xOTG & 128GB SSD
WTK 3721T-4G	NVIDIA® Jetson Orin™ Nano-4GB, 2xLAN, 1xHDMI, 1xLin out, 4xDI, 4xDO, 1xRS232, 1xRS232/422/485, 1xOTG & 128GB SSD

Optional Accessory

WTK-WLAN5	WiFi 802.11ac/abgn Mini-PCIe WiFi Module and Antennas
WTK-LTE-EU	4G LTE EU Module and Antennas

Model	Core board	CPU	Memory	GPU	Hashrate
WTK-3821T-16GB	Orin NX 16GB	8-core Arm® Cortex®-A78AE 64-bit 2GHz	16 GB	1024-core NVIDIA Ampere GPU with 32 Tensor Cores, 1173MHz	157 TOPS
WTK-3821T-8GB	Orin NX 8GB	6-core Arm® Cortex®-A78AE 64-bit 2GHz	8 GB	1024-core NVIDIA Ampere GPU with 32 Tensor Cores, 1173MHz	117 TOPS
WTK-3721T-8GB	Orin Nano 8GB	6-core Arm® Cortex®-A78AE v8.2 1.7GHz	8 GB	1024-core NVIDIA Ampere GPU with 32 Tensor Cores, 1020MHz	67 TOPS
WTK-3721T-4GB	Orin Nano 4GB	6-core Arm® Cortex®-A78AE v8.2 1.7GHz	4 GB	512-core NVIDIA Ampere GPU with 16 Tensor Cores, 1020MHz	34 TOPS