

28F1E4

Embodied AI Edge AI Box



Key Feature

- Jetson™ Thor T5000/T4000: 2070/1200 FP4 TFLOPS, 128/64GB LPDDR5X
- Rich I/O: HDMI, RJ45, USB Type-C, USB Type-A, isolated GPIO, RTC
- Expansion: Built-in miniPCIe, M.2 M 2280, M.2 B 3050, Nano SIM
- Operating Temperature: -25°C~+65°C
- DC 9V~36V
- Pre-installed Ubuntu

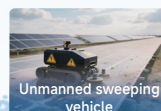
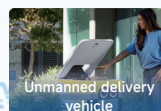
Introduction

The 28F1E4 is a high-performance industrial edge AI computing platform powered by the NVIDIA® Jetson™ Thor system-on-module (SoM), purpose-built for physical AI and humanoid robotics embodied intelligence applications NVIDIA. The Jetson Thor integrates NVIDIA's next-gen Blackwell architecture GPU and 14-core Arm® Neoverse®-V3AE 64-bit CPU, delivering up to 2070 FP4 TFLOPS of AI compute—over 7.5x the performance of AGX Orin—providing robust support for stable edge deployment of complex generative AI models and real-time control algorithms NVIDIA.

The 28F1E4 incorporates stereo microphone input and headphone output, supporting dual 10GbE, 5G, and Wi-Fi expansion. It features extensive industrial I/O including isolated GPIO, isolated UART, CAN, and RS485 interfaces, enabling seamless integration with depth cameras, actuators, sensors, and other peripherals. This platform delivers compute power for real-time multimodal sensor data processing, ideal for AI inference deployment in edge scenarios such as humanoid robot dynamic decision-making, autonomous driving perception, collaborative autonomous machine operation, robotic arm precision control, and industrial defect detection.



Website



Specifications

Module	Jetson Thor T5000	Jetson Thor T4000
AI Performance	2070 FP4 TFLOPS	1200 FP4 TFLOPS
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
CPU	14-core Arm® Neoverse®-V3AE 64-bit CPU 1 MB L2 cache per core 16 MB shared system L3 cache	12-core Arm® Neoverse®-V3AE 64-bit CPU 1 MB L2 cache per core 16 MB shared system L3 cache
Memory	128 GB 256-bit LPDDR5X 273 GB/s	64 GB 256-bit LPDDR5X 273 GB/s
Storage	Supports NVMe through PCIe、Supports SSD through USB3.2	
Video Encode	6x 4Kp60 (H.265)、12x 4Kp30 (H.265)、24x 1080p60 (H.265) 50x 1080p30 (H.265) 48x 1080p30 (H.264)、6x 4Kp60 (H.264)	
Video Decode	4x 8Kp30 (H.265)、10x 4Kp60 (H.265)、22x 4Kp30 (H.265) 46x 1080p60 (H.265)、92x 1080p30 (H.265) 82x 1080p30 (H.264)、4x 4Kp60 (H.264)	
Display	1 x HDMI	
USB	2 x USB Type-C、4 x USB Type-A	
Networking	4x RJ45	
Button	1 x Recovery、1 x Reset、1xPWR	
Expansion	1x miniPCIe、1x M.2 M key (2280)、1x M.2 B key (3050)、1x Nano SIM	1x miniPCIe、1x M.2 M key (2280)、1x M.2 B key (3050)、1x Nano SIM
Other I/O	2 x AUDIO、2 x MIC、4 x Isolated GPIO、4 x CAN	2 x AUDIO、2 x MIC、4 x Isolated GPIO
Serial Ports	2x RS232、2x RS485、3x Isolated UART 3.3V	
Temperature	-25°C ~ +65°C	
Dimensions	187mm x 180mm x 75mm	
Power	DC + 9V~+36V	
Weight	1763g	

Interfaces

