品立科技
PLink-AI

Y-C28-DEV
Development System

Key Feature

- Jetson™ Thor T5000: 2070 FP4 TFLOPS, 128GB LPDDR5X
- Jetson™ AGX Orin: 275/248/200 TOPS, 64/32GB LPDDR5, 64GB eMMC
- Rich I/O: 1xHDMI, 4xRJ45, 2xUSB Type-C, 4xUSB Type-A, 4xUART, RTC
- Camera: 4x4Lane/6x2Lane MIPI CSI
- Expansion Slots: miniPCIe, M.2 M 2280 , M.2 B 3050
- Operating Temperature: -20°C~+65°C / -40°C~+65°C(AGX Orin Industry)
- Pre-installed Ubuntu system

Introduction

Y-C28-DEV is an industrial-grade AI Computing Development Kit powered by the NVIDIA® Jetson™ Thor core module, boasting an AI computing power of up to 2070 FP4 TFLOPS and high-performance real-time processing capability for multi-modal sensor data. Equipped with a high-power cooling fan, it specifically integrates an RTC power connector, enabling clock synchronization in the power-off state when an RTC battery is connected. Meanwhile, the platform is compatible with AGX Orin series core modules, providing flexible computing power configuration options for diverse scenarios.

With a compact structural layout of only 130mm*160mm*75.8mm, the Y-C28-DEV features key interfaces concentrated on one side. It offers rich I/O interfaces, including miniPCIe, M.2 expansion interfaces, supporting 4x4Lane/6x2Lane MIPI CSI camera. It can flexibly expand multiple cameras, Gigabit Ethernet, large-capacity storage, and WIFI/5G modules, meeting the development needs of multi-modal perception fusion, dynamic environment adaptation, and efficient collaborative control in embodied intelligence scenarios. It provides efficient hardware support for AI algorithm implementation and accelerates the development of embodied AI applications—including humanoid robots, autonomous driving, and other autonomous machines—from prototype verification to large-scale deployment.

Website

Specifications

Module	Jetson Thor T5000	Jetson Thor T4000	Jetson AGX Orin 64GB	Jetson AGX Orin 32GB	Jetson AGX Orin Industrial
AI Performance	2070 FP4 TFLOPS	1200 FP4 TFLOPS	275 TOPS	200 TOPS	248 TOPS
GPU	2560-core NVIDIA Blackwell architecture GPU with 96 fifth-gen Tensor Cores Multi-Instance GPU (MIG)with 10 TPCs	1536-core NVIDIA Blackwell architecture GPU with 64 fifth-gen Tensor Cores Multi-Instance GPU (MIG) with 6 TPCs	2048-core NVIDIA Ampere architecture GPU with 64 Tensor Cores	1792-core NVIDIA Ampere c GPU with 56 Tensor Cores	2048-core NVIDIA Ampere architecture GPU with 64 Tensor Cores
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	12-core Arm®Cortex®-A78AE v8.2 64-bit CPU 3MB L2 + 6MB L3	8-core Arm®Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	12-core Arm®Cortex® -A78AE v8.2 64-bit CPU 3MB L2 + 6MB L3
Memory	128 GB 256-bit LPDDR5X 273 GB/s	64 GB 256-bit LPDDR5X 273 GB/s	64GB 256-bit LPDDR5 204.8GB/s	32GB 256-bit LPDDR5 204.8GB/s	64GB 256-bit LPDDR5 (+ECC) 204.8GB/s
Storage	Supports NVMe through PCIe、Supports SSD through USB3.2		64GB eMMC 5.1		
Video Encoding	6x 4Kp60 (H.265)、12x 4Kp30 (H.265)、24x 1080p60 (H.265) 50x 1080p30 (H.265) 48x 1080p30 (H.264)、6x 4Kp60 (H.264)		2x 4K60 (H.265) 4x 4K30 (H.265) 8x 1080p60 (H.265) 16x 1080p30 (H.265)	1x 4K60 (H.265) 3x 4K30 (H.265) 6x 1080p60 (H.265) 12x 1080p30 (H.265)	1x 4K60 (H.265) 3x 4K30 (H.265) 7x 1080p60 (H.265) 15x 1080p30 (H.265)
Video Decoding	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)		1x 8K30 (H.265) 3x 4K60 (H.265) 7x 4K30 (H.265) 11x 1080p60 (H.265) 22x 1080p30 (H.265)	1x 8K30 (H.265) 2x 4K60 (H.265) 4x 4K30 (H.265) 9x 1080p60 (H.265) 18x 1080p30 (H.265)	1x 8K30 (H.265) 3x 4K60 (H.265) 7x 4K30 (H.265) 11x 1080p60 (H.265) 23x 1080p30 (H.265)
Display	1 x HDMI				
USB	2 x USB Type-C、4 x USB Type-A				
Networking	4xGbE(2xRJ45 、2x16pin Header)				
Button	1x Power、1x Recovery、1x Reset				
Camera	6x 2 Lane MIPI CSI /4x 4 Lane MIPI CSI				
Expansion	1x miniPCIe、1x M.2 M key （2280） 1x M.2 B key（3050）、1x nano SIM		1x miniPCIe、1x M.2 B key（3050）、1x nano SIM		
Functional Signals	2 x I2C、1 x I2S、1 x SPI 2 x GPIO、4 x CAN	2 x I2C、1 x I2S 1 x SPI、2 x GPIO	2 x I2C、1 x I2S、1 x SPI、2 x GPIO、2 x CAN		
Serial Ports	4 x UART 3.3V				
Temperature	-25°C ~ +65°C				-40°C ~ +65°C
Dimensions	160mm x 130mm x 75.8mm				
Power	DC + 9V~+36V				
Weight	931g				

Interfaces