

# Y-C7-DEV Development System



## Key Feature

- Jetson™ Orin NX: 157/117 TOPS, 16/8GB LPDDR5
- Jetson™ Orin Nano: 67/34 TOPS, 8/4GB LPDDR5
- Jetson™ Xavier NX: 21 TOPS, 16/8GB LPDDR4x, 16GB eMMC
- Jetson™ TX2 NX: 1.33 TFLOPS, 4GB LPDDR4, 16GB eMMC
- Jetson™ Nano: 0.5 TFLOPS, 4GB LPDDR4, 16GB eMMC
- Rich I/O: HDMI, USB3.0 Type-C, Micro USB, USB2.0, RTC, GPIO, RS232
- Expansion Slots: miniPCIe, M.2 E 2242
- Camera: 1× 2-Lane MIPI CSI
- Operating Temperature: -25°C ~ +65°C
- Input Voltage: DC 9V ~ 24V
- Pre-installed Ubuntu

## Introduction

Y-C7-DEV is an industrial-grade edge AI computing development kit supporting NVIDIA® Jetson™ Nano/TX2 NX/Xavier NX/Orin Nano/Orin NX system-on-modules, offering graded AI performance from 0.5 TFLOPS to 117 TOPS. With a compact size of 80mm × 60mm × 35.2mm, it features low cost, small size and high integration, ideal for drone inspection, environmental perception, emergency rescue and logistics delivery.

The kit uses flexible cable interfaces with stress relief structure to improve anti-vibration stability during flight. It supports MIPI CSI and multiple video formats including CVBS, SDI and HDMI. miniPCIe and M.2 E-Key slots enable modular function expansion and customization.



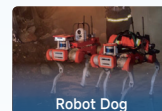
Website



Intelligent Patrol



Smart Park



Robot Dog



Intelligent logistics

## Specifications

Module	Jetson Nano	Jetson TX2 NX	Xavier NX 16/8GB	Jetson Orin Nano 8GB	Jetson Orin Nano 4GB	Jetson Orin NX 16GB	Jetson Orin NX 8GB
<b>AI Performance</b>	0.5 TFLOPS	1.33 TFLOPS	21TOPS	67 TOPS	34 TOPS	157 TOPS	117 TOPS
<b>GPU</b>	128-core NVIDIA Maxwell™ architecture GPU	256-core NVIDIA Pascal™ architecture GPU	384-core NVIDIA Ampere architecture GPU with 48 Tensor Cores	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	
<b>CPU</b>	Quad-core ARM® Cortex®-A57 MPCore processor	A57 MPCore processor Dual-core NVIDIA Denver™ 2 64-bit CPU and 4 cores Arm® Cortex®-A57 MPCore processor	6-core NVIDIA CarmelArm®v8.2 64-bit CPU 6MB L2 + 4MB L3	6-core Arm® Cortex® -A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3		8-core Arm®Cortex® -A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	6-core Arm®Cortex® -A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3
<b>Memory</b>	4GB 64-bit LPDDR4 25.6GB/s	4GB 128-bit LPDDR4 25.6GB/s	16/8GB 128 -bit LPDDR4x 59.7GB/s	8GB 128-bit LPDDR5 102 GB/s	4GB 64-bit LPDDR5 51 GB/s	16GB 128-bit LPDDR5 102.4GB/s	8GB 128-bit LPDDR5 102.4GB/s
<b>Storage</b>	16GB eMMC			(Supports external NVMe)			
<b>Video Encode</b>	1x 4K30 (H.265) 2x 1080p60 (H.265)	1x 4K60 (H.265) 3x 4K30 (H.265) 4x 1080p60 (H.265)	2x 4K60 (H.265) 4x 4K30 (H.265) 10x 1080p60 (H.265) 22x 1080p30 (H.265)	1080p30 supported by 1-2 CPU cores		1x 4K60 (H.265), 3x 4K30 (H.265) 6x 1080p60 (H.265), 12x 1080p30 (H.265)	
<b>Video Decode</b>	1x 4K60 (H.265) 4x 1080p60 (H.265)	2x 4K60 (H.265) 7x 1080p60 (H.265) 14x 1080p30 (H.265)	2x 8K30 (H.265) 6x 4K60 (H.265) 12x 4K30 (H.265) 22x 1080p60 (H.265) 44x 1080p30 (H.265)	1x 4K60 (H.265), 2x 4K30 (H.265) 5x 1080p60 (H.265), 11x 1080p30 (H.265)		1x 8K30 (H.265), 2x 4K60 (H.265) 4x 4K30 (H.265), 9x 1080p60 (H.265) 18x 1080p30 (H.265)	
<b>Display</b>	1 x HDMI						
<b>USB</b>	1x Micro USB、1x USB3.0 Type-C、1x USB 2.0						
<b>Networking</b>	1x Ethernet Connector						
<b>Camera</b>	1x 2 Lane MIPI CSI						
<b>Expansion</b>	1x miniPCIe	1x miniPCIe、1x M.2 Key E (2242)					
<b>Functional Signals</b>	4x GPIO、1x I2C	1x CAN、4x GPIO、1x I2C					
<b>Serial Ports</b>	1x RS232、1x TTL						
<b>Temperature</b>	-25°C~+65°C						
<b>Dimensions</b>	80mm × 60mm × 35.2mm						
<b>Power</b>	DC+9V~ +24V						
<b>Weight</b>	120g						

## Interfaces

