

102991897 | reCamera 2002w 64GB - Open Source AI Camera

SKU: 102991897

Product Overview

reCamera is a modular AI camera with an open-source design. It has 1 TOPS @INT8 processing power, built-in YOLOv11 and Node-RED, runs on Linux, supports custom AI models, and includes a 5MP camera.

Features

Object Classification

Objection Detection

Pose Detection

Instance Segmentation reCamera includes an Ultralytics commercial license, you can directly use the built-in YOLO models for commercial or personal projects.

Hardware: module board documentation is fully open, including 3D files, schematic, PCB files

AI Functions: inference pipeline, NPU runtime integration, YOLO11n models, and Node-RED AI nodes are fully open.

Applications: Node-RED flows, C++ SDK, RTSP examples, and Web UI resources are openly provided.

System: Buildroot, U-Boot, Linux Kernel, device trees, drivers, and system services are open-sourced.

Object Classification: Classify the entire image

Parking Occupancy Detection: Identify available and occupied parking spaces

People Counting: Detect and count foot traffic in crowded areas such as subways and malls.

Restricted Area Intrusion Detection: Detect unauthorized entry into hazardous areas

PPE Detection: Verify whether workers are wearing required personal protective equipment

Product Image



Product image

Specifications

reCamera 200x Series	reCamera 2002	reCamera 2002w	reCamera Gimbal	reCamera HQ PoE
Processor System	AI Performance	ni1TOPS@Int8		
SOC	SG2002			
CPU	C906@1GHz + C906@700MHz			
MCU	8051@8KB SRAM			
Memory	256MB			
Video Encode	5MP @ 30Fps			
Camera	Sensor	OV5647	GC2053	
Resolution	5M(25921944) Pixels	2MPixels		
Chip	1/4" CMOS Sensor	1/2.9" CMOS Sensor		
Pixel Size	1.4um	2.7um		
Output Format	RAW 10			
Maximum Frame Rate	full size: 15fps	full size: 30fps		
Aperture	F2.8			
Equivalent Focal Length	3.46mm	2.9mm		

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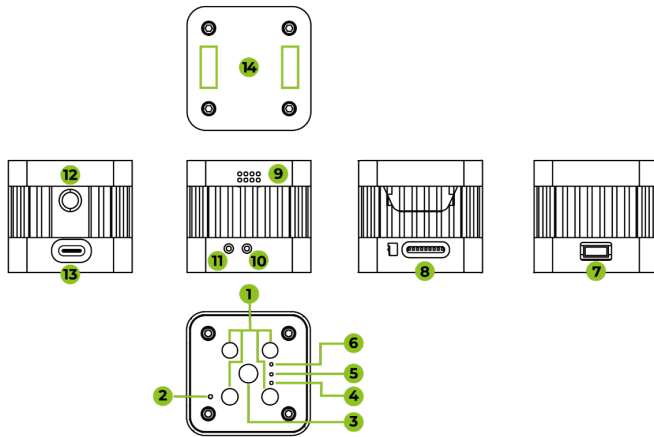
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reCamera 200x Series	reCamera 2002	reCamera 2002w	reCamera Gimbal	reCamera HQ PoE
Field of View	65°	DFOV 93° HFOV 84° VFOV 54°		
Distortion	<1%			
Lens structure	5P			
Storage	eMMC	8GB/64GB		
Expansion	removable TF card (up to 2TB, not included)			
I/O	Ethernet	100Mbps	100Mbps with PoE	
Wireless	/	WiFi2.4G/5G BT4.2/5.0	WiFi2.4G/5G BT4.2/5.0	/
USB	USB Type-C(2.0)			
Button	1x Reset Button, 1x Boot Button			
Fill Light	0.3w White Light	/		
LED Indicator	1x Power indicator, 1x eMMC status indicator, 1x CPU status(User LED)			
I/O Port	/	3 I/O Ports 487,488,490		
Audio	Mic	On-board Mic		
Speaker	External Speaker			
Motor	/	MS3008/MS3506	/	
Dimension	40x40x36.5mm	68x112x71mm	40x40x45.8mm 40x40x53.1mm with lens	
Power	5V/1A USB Type C			
Operation Temperature	2050degC			
Operation Humidity	95%			

Hardware Overview



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|--------------|----------------|--------------------|
| 1 White LEDs | 6 Disk(B) | 11 Reboot |
| 2 Mic | 7 Ethernet | 12 J/4" Screw Hole |
| 3 Camera | 8 TF Card Slot | 13 USB Type-C |
| 4 User(R) | 9 Speaker | 14 Magnet built-in |
| 5 Power(G) | 10 User | |

Hardware overview image