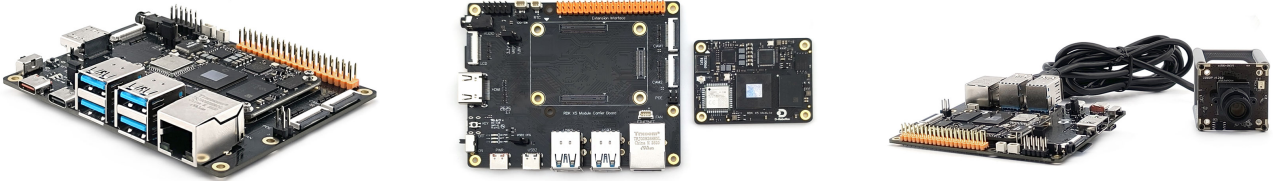


10 TOPS Edge AI Vision and Robotics Kit - Overview



Power your next-generation AI and robotics projects with this all-in-one 10 TOPS Edge AI development kit, powered by the cutting-edge Sunrise 5 Intelligent Computing Architecture. The core SoM module delivers outstanding AI performance, supporting advanced workloads such as Transformer-based language models, RWKV sequence processing, 3D occupancy networks for spatial awareness, and stereo perception for depth sensing and binocular vision.

The carrier board offers a rich set of interfaces—including USB 3.0, HDMI, Ethernet, MIPI CSI, MIPI DSI, and a 40-pin connector—enabling seamless integration with cameras, sensors, displays, actuators, and other peripherals. It is ideal for applications such as smart robotics, intelligent vision systems, AI-powered drones, industrial automation, and advanced AIoT solutions.

This comprehensive development kit allows you to prototype, test, and deploy complex AI models at the edge more efficiently, accelerating the transition from concept to real-world intelligent applications.

We also provide customization services for the RDK X5 carrier board to meet specific application requirements, including interface modifications, form factor adjustments, and peripheral integration. For customization inquiries, please contact us.

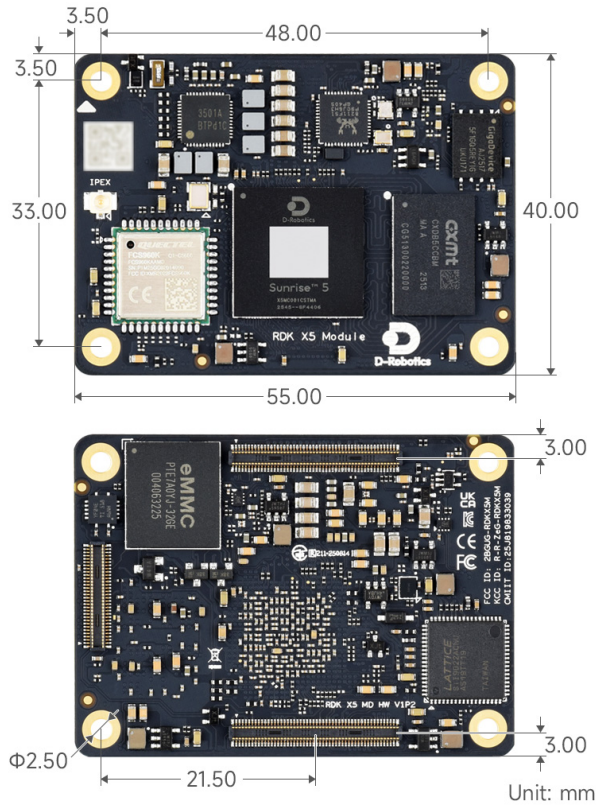
<u>Technical Specifications</u>	
RDK-X5 SoM Module	
8-core ARM® Cortex®-A55 processor, 32 GFLOPS GPU performance	
10 TOPS BPU computing power	
Supports 4K@60 H.264/H.265/M-JPEG video encoding and decoding	
ISP: 4K@60FPS, supports HDR/3DNR/WDR/PDAF	
Optional onboard RAM capacities: 2GB, 4GB, 8GB	
Optional onboard eMMC capacities: 0GB, 16GB, 32GB, 64GB	
Operating System: Ubuntu 22.04, Compatible with ROS 2	

<u>Technical Specifications</u>	
Carrier Board	
2 × 4lane MIPI CSI interfaces	
1 × HDMI interface (Up to 1080P@60FPS)	
1 × 4lane MIPI DSI interface, compliant with MIPI V1.2 protocol	
1 x 3.5mm headphone jack audio input/output	
1 × Gigabit Ethernet PHY, supporting Network Time Protocol (NTP) and IEEE 1588	
4 x USB 3.0 HOST interfaces (TYPE A)/ 1 x USB 2.0 Device interface (TYPE C)	
1 x CAN FD	
28 GPIOs (Reusable support 5 x UART, 8 x PWM, 3 x I2C, 2 x SPI, 1 x I2S)	
Optional dual-band 2.4/5 GHz wireless module supporting Wi-Fi 6 and Bluetooth 5.4	



Dimensions

RDK-X5 SoM Module



Carrier Board

