



The Robotic Eye for Manipulation

The AC2 is a perception solution from the Active Camera series, designed for robotic operation. As the industry's first integrated super-sensor system that combines a fully solid-state dToF LiDAR, stereo RGB cameras and IMU, the AC2 provides highly accurate depth, image, and motion data—either independently or in fusion. It supports a wide range of applications, including embodied intelligence, robotic arms, industrial equipment, and digital twin modeling, enabling precise motion capture, pose recognition, 3D modeling, and localization in both indoor and outdoor environments.

Powered by RoboSense's proprietary architecture, AC2 delivers leading performance with ultra-high precision (± 5 mm), an ultra-wide $120^\circ \times 90^\circ$ FOV, and robust anti-interference capabilities.

It effectively suppresses crosstalk, overexposure, and missed detections caused by highly reflective materials, ensuring stable and reliable operation under challenging conditions such as sudden light transitions, darkness, and strong ambient light—meeting the requirements of robotic manipulation applications.

In addition, AC2 offers developers a comprehensive suite of tools and algorithms through its advanced AI-Ready ecosystem, empowering them to address complex cognitive challenges in robotic manipulation. This significantly boosts development efficiency and accelerates the commercialization of innovative products.

Advantages



Multi-Sensor Fusion

Supports flexible output of temporally and spatially aligned depth, image, and motion pose data, with synchronization accuracy of less than 1 ms



Millimeter-Level Measurement Accuracy

Fully solid-state dToF with ± 5 mm accuracy within 8m, capturing full 3D details



Robust Anti-Interference Capability

Seamlessly adapts to complex environments such as sudden light transitions, darkness, and reflective surfaces



Ultra-Wide FOV

Ultra-wide fused FOV of $120^\circ \times 90^\circ$, supporting a wider operational range



Human-eye-aligned Interocular Distance

Ensures high precision with imaging that closely reflects how the human brain processes visuals



Developer Friendly

Native connectivity for AI-Ready ecosystems, offering richer tools and algorithms for more efficient development

Product Specifications

Depth	Range	0.1m~8m
	Accuracy	±5mm
	FOV (H×V)	120°×90°
	Resolution	0.5°×0.5°
	Frame rate	10 fps
RGB	FOV (H×V)	120°×90°
	Resolution	RGB 1600×1200 @30 fps
	Baseline	65mm
	Shutter	Global Shutter
IMU	Part #	TDK IIM 42652
Sensor Suite	Dimensions	102×32×45 (mm)
	Data Type	Depth, Color, Point Clouds, Motion Pose, etc.
	Power Consumption	≤8W
	Interface	GMSL2
	Time Synchronization	IMU, RGB, dToF, Synchronization Accuracy < 1 ms
	Storage Temperature	-20°C~+70°C
	Operation Temperature	-10°C~+55°C

Product Dimensions



Generation ROBOTS

Brand of **NGX** ROBOTICS



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