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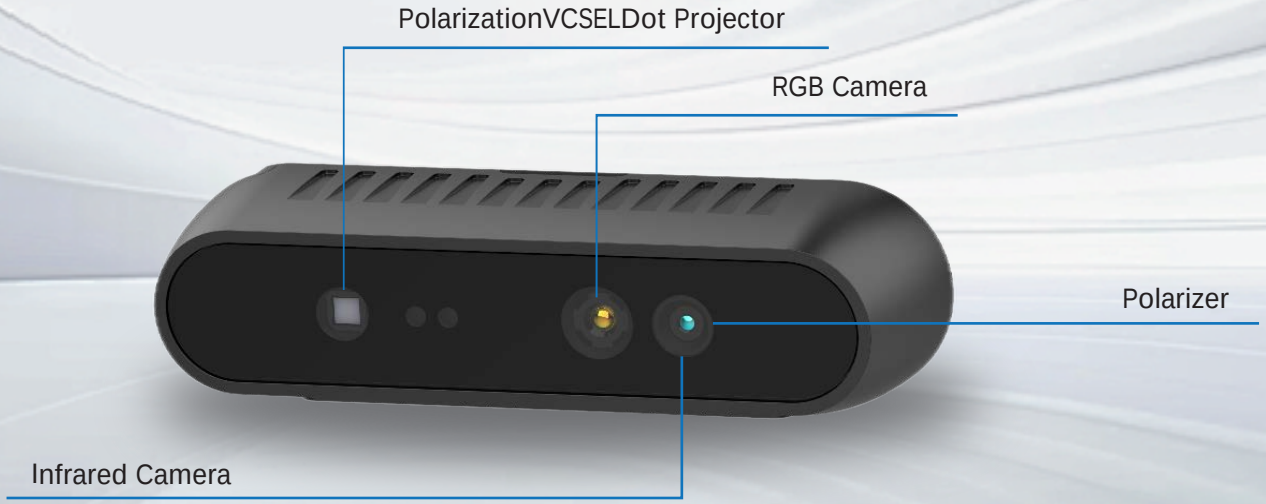
Polarimetric 3D Depth Camera P100R



Product Introduction

P100R is a 3D depth camera based on Berxel structured light and polarization technology, designed specifically for high-precision three-dimensional imaging applications. It excels in depth noise processing and close-range measurement, making it suitable for scenarios requiring high accuracy.

The product consists of optics, image processing hardware, and software, providing high-precision depth maps and high-definition color images. It supports pixel alignment between depth maps and RGB images. All depth calculations are completed within the module, eliminating the need for backend platform computing power support.

Core Function

Provides high-precision depth data within a measuring range of 0.3 m to 8.0 m, with simultaneous output of accurate depth maps and high-definition color images.

Application Scenarios

Elderly care robot

Intelligent robotic arm

Humanoid robot

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P100R Technical Specifications Table

Product Specification	Product Model	P100R	
	Baseline	40mm	
	Dimensions	90x25x25mm	
	Measuring Distance	0.3-8.0m	
	Depth Accuracy	±1mm@60cm	
	Power Consumption	2.5W	
	Interface	Type-C	
	Power Supply	USB5V	
	Operating Temperature	-10°C-60°C	
	Weight	72g	
	Color Image Output	Resolution@Frame Rate	640x400@30fps
		Image Encoding Format	MJPEG
		FOV	72°(±3°)x50.5°(±3°)
	Depth	Resolution@Frame Rate	640x400@30fps
		Image Format	Raw16bit
		Depth Field of View (FOV)	72°(±3°)x50.5°(±3°)
	Firmware Capabilities	Support output color map, depth map, support depth & color pixel alignment , firmware upgrade support OTA, auto-restart after firmware upgrade	
Emitter Module Specifications	Laser Type	VCSEL	
	Wavelength	940nm	
	FOV	83.1°（H）x56.9°（V）	
	Laser Safety Class	Class1	
Receiver Module Specifications	Resolution@Frame Rate	640x400@30fps	
	Image Format	Raw10	
	Shutter Type	GlobalShutter	
	FOV	74°（H） x 50.5°（V）	
	Focus Mode	FF	
	Lens Distortion	<1.5%	
Color Camera Specifications	Resolution@Frame Rate	Maximum support1920x1080@30fps	
	Shutter Type	RollingShutter	
	FOV	88°（H）x56.8°（V）	
	Focus Mode	FF	
	Lens Distortion	<1%	
Software Development Kit (SDK)	1、Provides a general SDK with API, sample code, documentation, and tools		
	2、Compatible with Windows (7+), Android (5.1+), and Linux (Ubuntu 14+)		

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official account