3D Depth Camera P008G

PolarizationVCSELDot Projector

Polarizer

RGB Camera

Infrared Camera
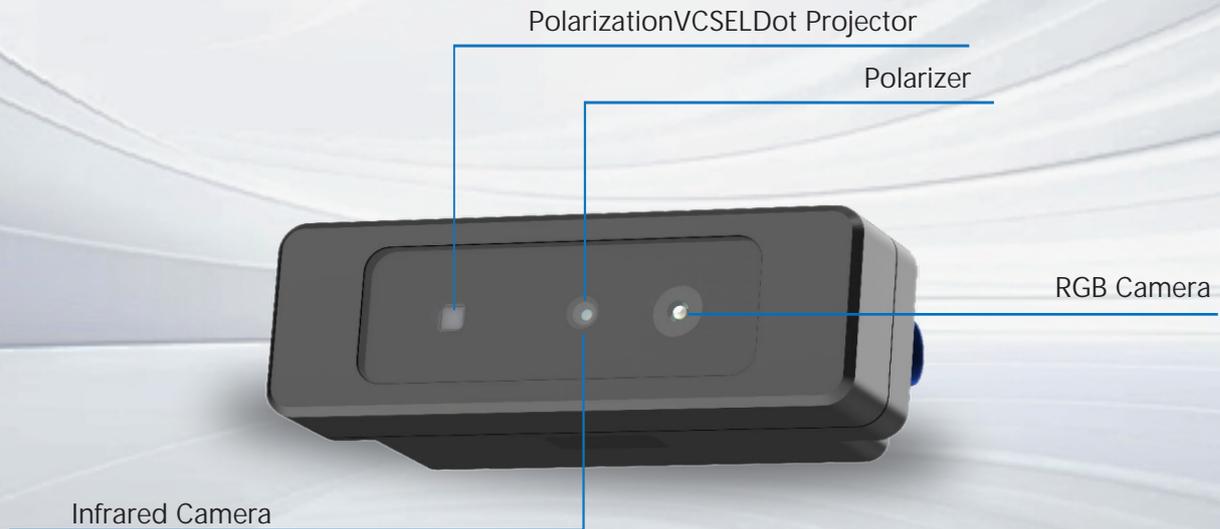
Product Introduction

P008G is a measurement device designed specifically for short-range 3D image acquisition, utilizing structured light and polarization technology. Its active structured light 3D reconstruction technology enables ultra-high precision measurement, capable of capturing millimeter-level objects. The lightweight design facilitates easy installation in confined spaces, while the polarization technology provides excellent anti-interference capabilities, allowing it to perform well even in reflective or structurally complex working conditions.

The product comprises optical components, image processing hardware, and software, offering high-precision depth maps. All depth calculations are performed within the module, eliminating the need for backend platform computing power support.

Core Function

Delivers high-precision depth information within a working range of 0.075 m to 1.0 m, with the ability to simultaneously output accurate depth maps and high-definition color images.

Application Scenarios

P008G Technical Specifications Table

Product Specification	Product Model	P008G	
	Baseline	16mm	
	Dimensions	70×23.5×30mm	
	Measuring Distance	0.08m-1.0m	
	Depth Accuracy	1%	
	Power Consumption	2.5W	
	Interface	Fakra/Type-C	
	Power Supply	POC 12V	
	Wavelength	940nm	
	Operating Temperature	-10°C- 45°C	
	Color Image Output	Resolution/Frame Rate	1920x1080@30fps
		Image Encoding Format	YUV2
		FOV	102°(±3°)x64°(±3°)
	Depth	Resolution/frame rate	1280x800@30fps
		Image Format	Raw16
		FOV	77°(±3°)x54.7°(±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	
	Laser Safety Class	Class1	
Receiver Module Specifications	Resolution/Frame rate	1280x800@30fps	
	Shutter Type	GlobalShutter	
	Focus Mode	FF	
	Lens Distortion	<1.5%	
Color Camera Specifications	Resolution/ Frame Rate	Maximum support 1920x1080@30fps	
	Shutter Type	RollingShutter	
	Focus Mode	FF	
	Lens Distortion	<1%	
	Image Encoding Format	MJPEG	
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+)		