

LIPSedge™ S205p

Powerful Active Stereo with Ambarella CV2 for Edge Computing



Overview

LIPSedge™ S205p is the next-generation 3D stereo camera that can support up to 720p high-resolution RGB-D to support applications that require the combined capabilities of 2D and 3D machine vision

Features

- Industrial Ready with Power-over-Ethernet, GigE and IP67
- Active Stereo camera with up to 720p in RGB-D resolution
- Fusing 2D and 3D in a single camera
- CV2 CVflow® Edge A.I. perception SoC for Edge Computing
- Global Shuttered RGB-D sensor
- Built-in IMU for high-motion robotics and applications
- Supports Industrial Framework with API & Wrappers
 - OpenNI and OpenNI2
 - OpenCV
 - ROS, ROS2
 - Halcon
 - Nvidia Isaac, and more



Workplace Safety & Personal Protection Equipment



Livestock Analysis & Growth and Activity



Plant Phenotyping & Green House Automation



Object Dimensioning



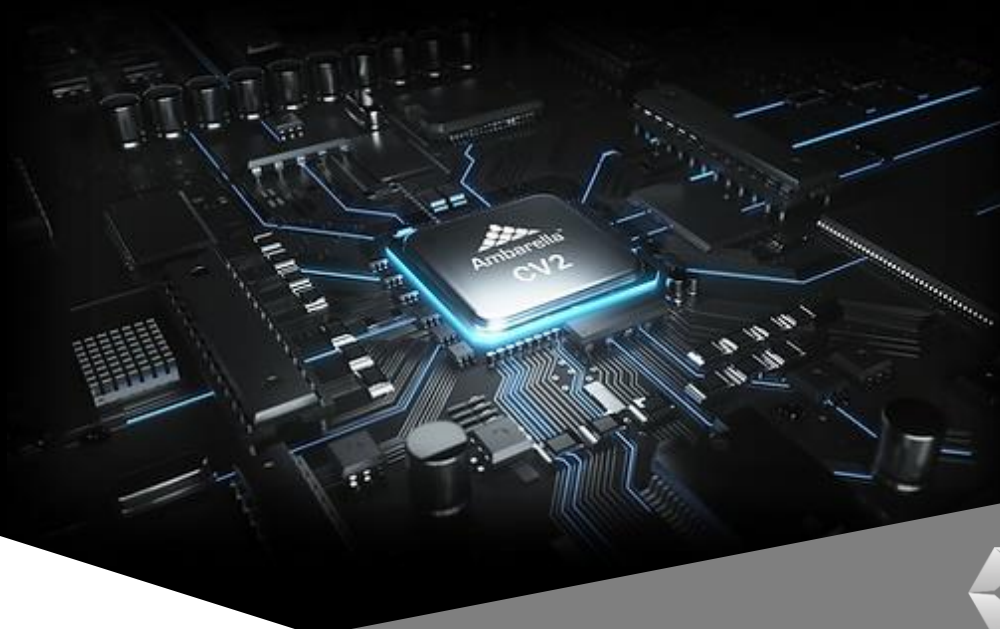
Pick and Place Collision Avoidance Surface Processing



Packing Completeness Analysis

High Performance with Ambarella® CV2 Edge Computing

- Run applications on Edge with 10nm technology on Ambarella's CV2 CVflow® SoC
- Delivering industry-leading image processing, high resolution video encoding, and an optimized CVflow® architecture for high-performance computer vision



Specifications

Image		Description
Depth	Technology	Active Stereo
	Maximum Working Distance	10 m +
	Minimum Working Distance	0.52 m
	Baseline	95 mm
	Resolution/Frame Rate	1280x720 @ 30 FPS
	FoV(H × V × D)	87° * 58° * 95° (+/- 3°)
	Shutter Type	Global shutter
	Z Accuracy	<=1.5%
RGB	Resolution/Frame Rate	1280 x 800 @ 30FPS
	FoV (H × V × D)	90°x 65° x 98°
	Shutter Type	Global shutter
IMU Sensor		3-axis accelerator & 3-axis gyroscope
A.I. Processor for Edge Computing		Ambarella CV2® : Quad-Core ARM® Cortex® A53 up to 1.0Ghz with CVflow® Processor for Deep Learning
Illumination		
Illumination Type		Infrared
IR Wavelength		850 nm
Illuminating Component		Vertical-Cavity Surface-Emitting Laser (VCSEL)
General		
Dimension (mm)		130 * 66* 32
Weight(g)		320g (unit) / 526g (with packing)
Ambient Operating Temperature (C°)		0 – 40 (Device)
Storage Temperature (C°)		-20 ~ 70
Output Interface		M12 x Code
Power		PoE (IEEE 802.3 af/at)
Supported OS		Windows 10, Linux Ubuntu 18.04 /20.04 LTS
Working Environment		Indoor & Outdoor

Specifications are subject to change without prior announcement

Build Once, Deploy Unlimitedly

- Cross-platform OS support on Windows & Linux
- Cross-platform Hardware support on Intel and Nvidia

Developer Friendly

- LIPSedge™ supports widely used industrial 3D framework including ROS, OpenCV, OpenNI, Nvidia Isaac, Halcon as well as LIPS strong middleware portfolio.
- Develop applications with LIPSedge™ using friendly and universal languages with LIPS® samples code including C++, C# and Python

