LIPS®
Sense The World

Powerful Active Stereo with Ambarella CV2 for Edge Computing

LIPSedge™ S205p

Overview

LIPSedge™ S205p is the next-generation 3D stereo camera that can support up to 720p high resolution RGB-D for 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
  - NVIDIA® Isaac, and more
  - MVTec® Halcon
  - ROS, ROS2

Workplace Safety & Personal Protection Equipment

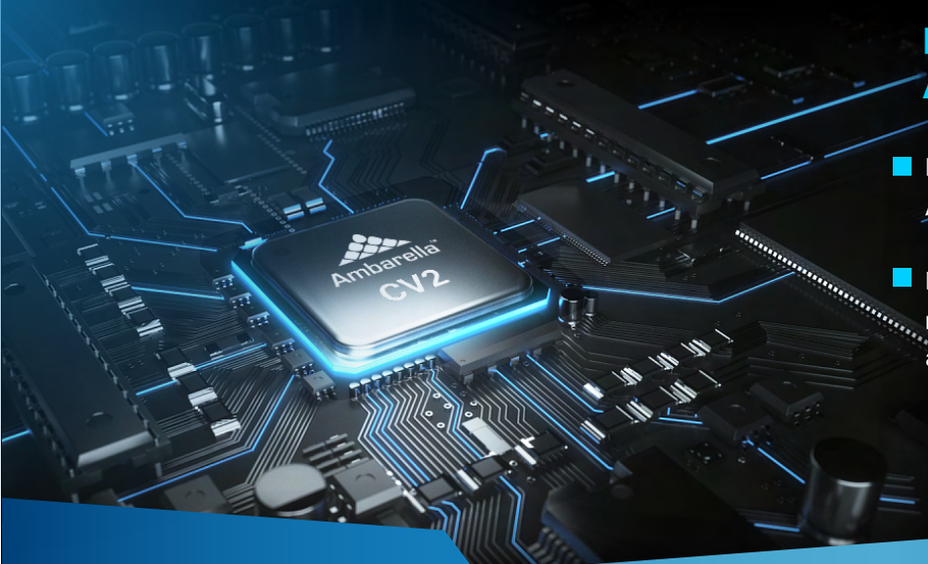
Livestock Analysis & Growth and Activity

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

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Specifications

Image		Description
Depth	Technology	Active Stereo
	Ideal Range	Up to 6m
	Mini. Working Distance	0.52 m
	Baseline	95 mm
	Resolution/Frame Rate	1280 x 720 @ 30 FPS
	Shutter Type	Global shutter
	FoV(H × V x D)	87° x 58° x 95° (±3°)
	Z Accuracy	<2% at 4 m
RGB	Resolution/Frame Rate	1280 x 800 @ 30FPS
	FoV(H × V x 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 x 66 x 32 mm
	Weight(g)	320g (unit) / 526g (with packing)
	Ambient Operating Temperature	0 ~ 40˚C (Device)
	Storage Temperature	-20 ~ 70˚C
	Output Interface	M12 x-code
	Power	PoE (IEEE 802.3 af/at)
	Supported OS	Windows 10, Linux Ubuntu 18.04 /20.04 /22.04 LTS
	Working Environment	Indoor / Outdoor

Build Once, Deploy Unlimitedly

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

Developer Friendly

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

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