

Compact & Light-weight Ruggedized 3D Stereo Camera for Robotics & Edge-AI

LIPsEdge™ AE430



LIPsEdge™ AE430 is a compact and light-weight ruggedized 3D Stereo Camera designed for industrial use. With only 280 grams of weight, compact form factor, GigE/PoE support, built-in heatsink, and IP67 dust & water-proof, LIPsEdge™ AE430 is an excellent 3D camera choice for the robotic hand-eye and factory automation applications. LIPsEdge™ AE430 can satisfy strict limitations in robotic arm carrying weight and space constraint while providing fast and tight PoE connectivity with M12 locked-cable to withstand robotic arm twists and turns.

LIPsEdge™ AE430 features RGB-D sensor with the highest depth quality per degree and enhanced depth image quality with improved optics. It also features persistent network connection to ensure data reliability. LIPsEdge™ AE430 supports wide range of industrial 3D framework such as ROS/ROS2, NVIDIA Isaac, OpenNI, OpenCV, HALCON, and more. Better yet, LIPsEdge™ AE430 supports an edge-AI SOC performing up to 5.0 TOPS and is the perfect combination of features, practicalities, and performance to power your robotic applications.

Product Highlights and Features

- Compact form factor (118 x 60 x 32mm), light-weight (280g), and ruggedized casing (IP67 compliant)
- Features RGB-D sensor with the highest depth quality per degree and enhanced depth image quality with improved optics
- Supports GigE with PoE that allows data transmission and power supply (802.3at) up to 100 meters
- Provide persistent network connection to remain in the same network session even after occasional disconnection (up to 15 seconds) from the network to ensure data reliability
- Built-in heatsink to withstand higher working temperature in a factory environment
- Features edge computing with AI SOC for additional Neural Network applications to run at 5.0 TOPS
- Supports industrial 3D framework such as ROS, NVIDIA Isaac, OpenNI, OpenCV, and HALCON
- Compatible with LIPS® comprehensive middleware portfolio

Application use-cases

Workplace Safety / Access Control



Facial Recognition



PPE
(Personal Protection Equipment)



Tracking worker



Robotic Arm
Collision Avoidance

VGR (Vision Guided Robotic)



Surface Processing



Pick & Place

Agriculture & Livestock Farming



Growth and Activity
Analysis of Livestock



Plant Phenotyping &
Green House Automation

3D Measurement & Inspection



Object Dimensioning



Packing Completeness



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Specifications

Depth	Technology	Active Stereo
	Ideal Working Distance	4 m
	Minimum Depth Distance	~45 cm
	XY Resolution	1280x720@30fps, 640x480@60fps
	Frame Rate	Up to 60fps
	Shutter Type	Rolling Shutter
	FoV (H x V x D)	65° x 40° x 72°
	Z Accuracy	≤ 2% (up to 2 meters and 80% of FoV) *The Accuracy will vary with distance.
RGB	Resolution	1920x1080@15fps, 1280x720@30fps, 640x480@60fps
	FoV (H x V x D)	69.4° x 42.5° x 77°
Illumination	Type	Infrared
	Wavelength	850nm
A.I. Processor	A311D	Quad Core ARM Corex-A73, paired with Dual Core Cortex A-53 CPU, ARM Mali-G52 GPU
General	Dimension (mm)	118 x 32 x 60 mm
	Weight(g)	Approximately 280 g
	Ambient Temperature	0 ~ 40°C
	Storage Temperature	-40 ~ 60°C
	Output Interface	M12 to Gigabit Ethernet cable for power and data
	Power	PoE (IEEE 802.3 at/af); Power wire (12V, 1A)
	Working Environment	Indoor / Outdoor
SDK	· Multiple Frameworks supported: OpenNI, NVIDIA Isaac, ROS	
OS	· Windows 10 · Ubuntu 18.04 / 20.04 LTS	
Environment	Indoor / Outdoor	

