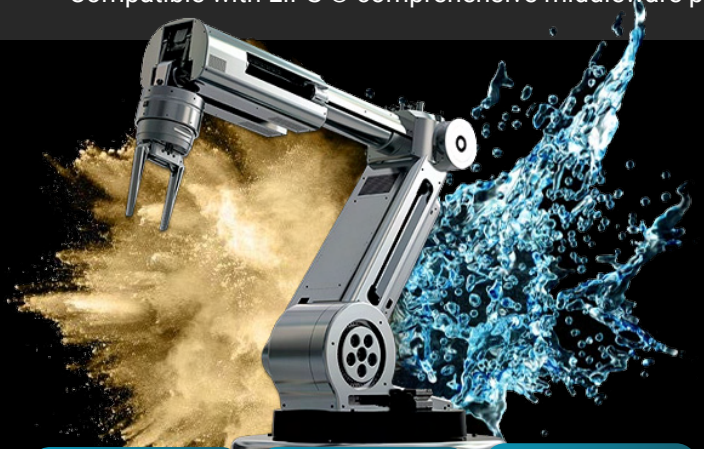
Compact & Light-weight Ruggedized 3D Stereo Camera for Robotics & Edge-AI

LIPSedge™ AE470

LIPSedge™ AE470 is an excellent 3D camera choice for the robotic hand-eye and factory automation, and many other applications which require long-range distances captures and detection.
With a bit more than 300 grams of weight, it comes as a compact form factor, GigE/PoE support, edge-AI SOC, and IP67 dust & water-proof.

Product Highlights and Features

- Compact form factor, light-weight 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/ROS2, NVIDIA Isaac, OpenNI, OpenCV, and HALCON
- Compatible with LIPS ® comprehensive middleware portfolio



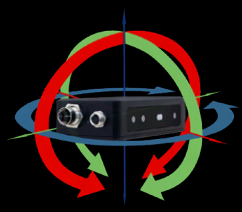
VGR (Vision Guided Robotic)
- Surface Processing
- Pick & Place

Agriculture & Livestock Farming
- Growth and Activity Analysis of Livestock
- Plant Phenotyping & Green House Automation

3D Measurement & Inspection
- Object Dimensioning
- Packing Completeness

Open-root with Edge Computing

Run neural network applications at 5.0 TOPS with edge-AI SOC as open-root



An IMU inside

The LIPSedge™ AE470 comes with a built-in 6 axis Inertial Measurement Unit (IMU), which allows precision and accuracy for its position and movement location details.

Long Range

The LIPSedge™ AE470 is best suitable for detections that require long distances and enhanced range 3D depth mapping

Persistent Connection

Supports GigE with PoE that allows data transmission and power supply (802.3 at) up to 100 meters
Remain in the same network session even after occasional disconnection (<15 seconds) from the network without restarting

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LIPS

Specifications

Depth	Technology	Active Stereo
	Ideal Working Distance	0.6 ~ 6 m
	Minimum Depth Distance	0.52 m
	Baseline	95mm
	Frame Rate	1280x720@30fps
	Shutter Type	Global Shutter
	FoV (H x V x D)	87° x 58° x 95°
	Z Accuracy	≤ 2% (up to 4 meters and 80% of FoV) *The Accuracy will vary with distance.
RGB	Resolution	1280x800@30fps
	Shutter Type	Global Shutter
	FoV (H x V x D)	90° x 65° x 98°
Illumination	Type	Infrared
	Wavelength	850nm
	Pattern Type	Static
	Illumating Component	Vertical-cavity surface-emitting laser (VCSEL)
Inertial Measurement Unit	Type	Infrared
	Wavelength	850nm
A.I. Processor	ARM Cortex	Quad Core ARM Corex-A73, paired with Dual Core Cortex A-53 CPU, ARM Mali-G52 GPU
General	Dimension (mm)	130 x 32 x 66 mm
	Weight(g)	340 gr (Approx.)
	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 af/at); Power wire (12V, 1.2A)
	Working Environment	Indoor / Outdoor
SDK	· Multiple Frameworks supported: OpenNI, NVIDIA Isaac, ROS	
OS	· Windows 10 · Ubuntu 18.04/20.04 LTS	
Environment	Indoor / Outdoor	

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