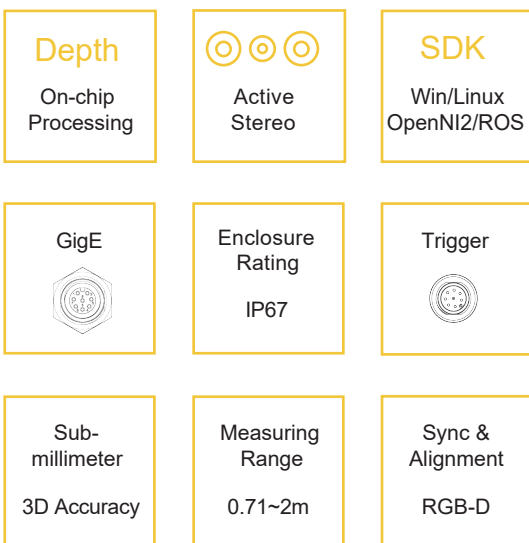


PERCIPIO

Industrial 3D Camera

PS801-E1



Overview

Percipio's PS801-E1 3D camera adopts innovative active stereo vision technology with core patents and uses embedded processor to perform 3D-data calculation for targets.

PS801-E1 achieves highly accurate 3D detection of small stationary objects in application like identification, classification, positioning and so on.

PS801-E1 has a 5 megapixel RGB sensor that provides high-definition RGB images with distinct details.

Advantages

Active Stereo

PS801-E1 adopts active stereo technology featuring two IR sensors, one RGB sensor, one laser projector and one IR floodlighting system.

Comparing to the traditional binocular vision camera, PS801-E1 provides:

- + More depth details
- + More robust to ambient light interference

Industrial Suitability

PS801-E1 is designed for a harsh industrial environment.

- + Its aluminum alloy housing features a robust structure and optimum heat dissipation.
- + It is splash, water and dust resistant and has been tested under controlled laboratory conditions with a rating of IP67 under IEC standard 60529.

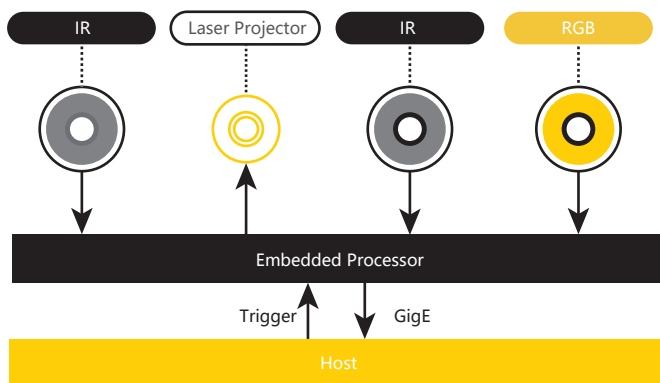
High Accuracy

With its accuracy up to submillimeter, PS801-E1 is applicable to recognize and measure static small objects at short distances, providing an ideal solution for robot guiding, logistics automation, 3D inspection and so on.

Note:

All cameras have been calibrated with intrinsic parameters before delivery. If you need to calibrate multiple cameras with extrinsic parameters, please contact Percipio technical support.

Principle



Laser Projector

Project the structured light to objects for assisting the active stereo system to calculate depth data.

IR Sensor

Receive the structured light reflected from the object surfaces.

RGB Sensor

Capture RGB images.

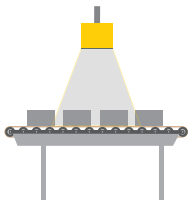
Embedded Processor

Process IR and RGB images:

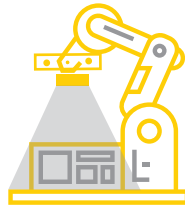
- Calculate depth data and achieve the synchronization and alignment with RGB images.
- Upload data through the GigE interface.
- Receive trigger signal from the host or the external trigger source.

Applications

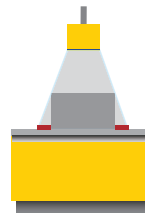
PS801-E1 is suitable for and not limited to the following applications:



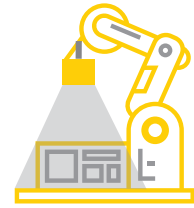
Integrity Check



Robot Guiding



Volume Measurement



Industrial Sorting

Features

The main features of PS801-E1 are as follows:

Dimension&Weight

L x H x W (excluding interfaces)	176.5 mm × 57.0 mm × 63.9 mm
Weight	856 g

Measurement

Measurement Range	710 mm ~ 2000 mm
FOV (mm)	420 × 345 @ 710
	1255 × 930 @ 2000
Z Accuracy (mm)	0.3 @ 700; 1.1 @ 1400; 3.0 @ 2000
X/Y Accuracy (mm)	1.3 @ 700; 2.6 @ 1400; 3.6 @ 2000

Software

OS	Linux/Windows/Android/ROS
Development Platform	Percipio Camport SDK
API	C/C++

Performance

Depth	1 fps @ 1280×960	RGB	8 fps @ 2592×1944
	1 fps @ 640×480		19 fps @ 1280×960
	1 fps @ 320×240		
RGB-D Sync&Alignment	√		
Output Data	Point cloud, depth, IR and RGB images		

Interface

Power & Trigger	M12 A-Coding
Ethernet	M12 A-Coding

Electronics

Supply Voltage	DC 24 V
	IEEE802.3at/af POE
Power (Idle Mode)	4.5 W
Power (Continuous Mode)	10.5 W
Power (Trigger Mode)	6.6 W

Ambient Data

Operating Temperature	0°C ~ 45°C
Storage Temperature	-10°C ~ 55°C
Enclosure Rating	IP67

Note:
The specs and dimension may change without notice.



PERCIPIO.XYZ

For purchase or business cooperation, please email us:
For technical support, please email us:
For more information on Percipio 3D cameras, please visit:
For online documentation, please visit:

info@percipio.xyz
support@percipio.xyz
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