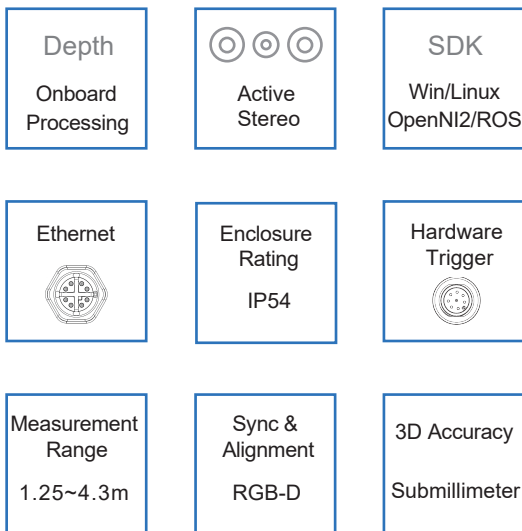


# Percipio Industrial 3D Camera

# PM802-E1



## Overview

Percipio's 3D smart camera uses innovative active stereo vision technology with core patents to obtain more depth details and more robust environmental adaptability than traditional binocular vision.

PM802-E1 combines the structured light with the mature RGB sensor technology to provide real-time RGB and depth images.

With reliable measurement results and the carbon-fiber body, PM802-E1 is an ideal solution for robotics, logistics, inspection and other applications.

## Advantages

PM802-E1 includes two infrared (IR) sensors, one RGB sensor and several structured-light projectors. Comparing to traditional binocular cameras, PM801-E1 provides:

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

### Industrial Sensor

PM802-E1 is splash, water, and dust resistant and has been tested under controlled laboratory conditions with a rating of IP54 under IEC standard 60529.

### Trigger Mode

PM802-E1 supports the software trigger and hardware trigger. The customers can synchronize multi-cameras to capture images with the hardware trigger.

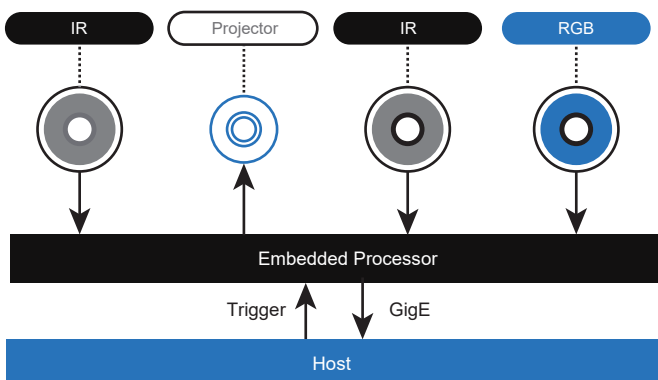
### High Accuracy

With the innovative multi-laser projecting system, PM802-E1 provides high measurement accuracy in its large working range and wide FOV.

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



### Structured-light Projector

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

### Infrared Sensor

Receive the structured light reflected from the objects surface.

### RGB Sensor

Capture RGB images.

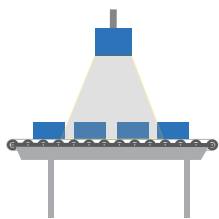
### Embedded Processor

Process infrared and RGB images:

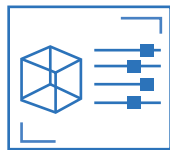
- Calculate depth data and achieve alignment and synchronization with RGB images.
- Upload data through Gigabit Ethernet (GigE).
- Receive trigger signal from the host or the hardware trigger source.

# Applications

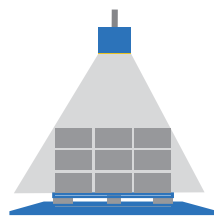
PM802-E1 is suitable for and not limited to the following fields:



Integrity Check



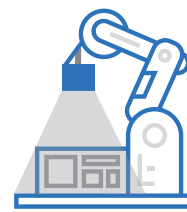
3D Content Generation



Palletizing / De-palletizing



Volume Measurement



Industrial Sorting

## Features

The main features of PM802-E1 are shown as follows:

### Dimension&Weight

L x H x W	538.4 mm × 85.5 mm × 89.6 mm
Weight	2.2 kg

### Measurement

Measurement Range (mm)	1250 ~ 4300
FOV (mm)	1500 x 1080 @ 1250
	3980 x 3630 @ 4300
Z Accuracy (mm)	1.0 @ 1500; 1.5 @ 2000; 3.5 @ 3000
X/Y Accuracy (mm)	3.5 @ 1500; 5.0 @ 2000; 7.0 @ 3000

### Software

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

### Performance

Depth	1 fps @ 1280×960
	1 fps @ 640×480
	1 fps @ 320×240

RGB-D Sync&Alignment

Output Data Point cloud, depth, infrared and RGB images

### Interface

Power&Trigger	8-pin aviation plug
Ethernet	M12 X-Coding

### Electronics

Supply Voltage	DC 24 V
	IEEE802.3at POE
Power (Idle Mode)	6.0 W
Power (Continuous Mode)	16.0 W
Power (Trigger Mode)	14.0 W

### Ambient Data

Operating Temperature	0°C ~ 45°C
Storage Temperature	-10°C ~ 55°C
Enclosure Rating	IP54

Note:

The specs and dimension may change without notice.



For purchase or business cooperation, please email us:

For technical support, please email us:

For more information about Percipio 3D cameras, please visit :

For online documentation, please visit :

[info@percipio.xyz](mailto:info@percipio.xyz)

[support@percipio.xyz](mailto:support@percipio.xyz)

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