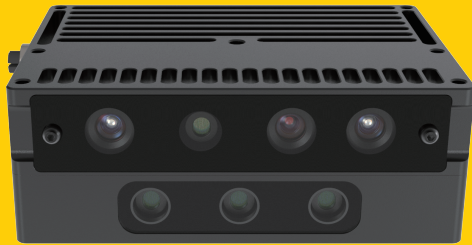


Percipio Industrial 3D Camera

FM811-IX-E1



Depth

Onboard
Processing



Active
Stereo

SDK

Win/Linux
OpenNI2/ROS

GigE



Enclosure
Rating

IP65

Hardware
Trigger



Measurement
Range

0.7~3.5m

Sync &
Alignment

RGB-D

3D Accuracy

Millimeter

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.

FM811-IX-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 aluminum alloy body, FM811-IX-E1 becomes an ideal solution for robotics, logistics, inspection and other applications.

Advantages

FM811-IX-E1 includes two infrared (IR) sensors, one RGB sensor and several structured-light projectors. Comparing to the traditional binocular cameras, FM811-IX-E1 provides:

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

Industrial Sensor

FM811-IX-E1 is splash, water, and dust resistant and has been tested under controlled laboratory conditions with a rating of IP65 under IEC standard 60529.

Trigger Mode

FM811-IX-E1 supports the software and hardware trigger. The customers can synchronize multi-cameras to capture images with the hardware trigger.

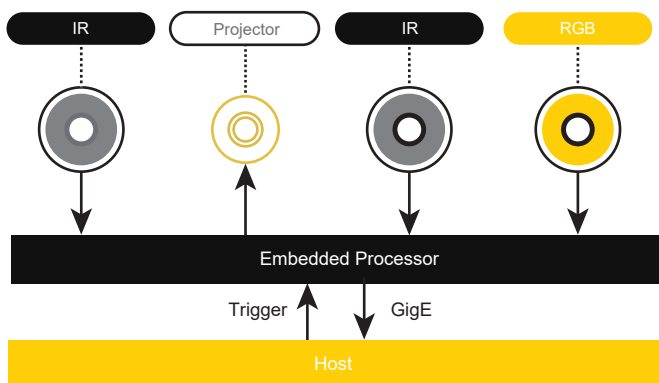
High Accuracy

With the innovative multi-laser projecting system and compact package size, FM811-IX-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

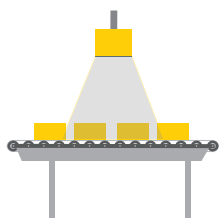
Capture RGB images.

Embedded Processor

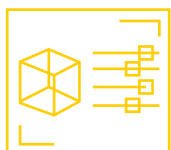
Process infrared and RGB images:

- 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.

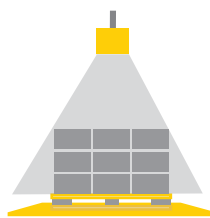
Applications



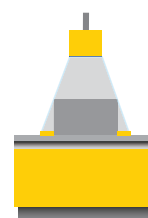
Integrity Check



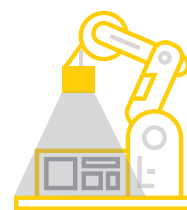
3D Content Generation



Palletizing / De-palletizing



Static Volume Measurement



Industrial Sorting

Features

Dimensions&Weight

L x H x W (excluding interfaces)	140.0 mm × 51.4 mm × 96.0 mm
Weight	860 g

Measurement

Measurement range(mm)	700 ~ 3500
FOV (H/V)	60°/48°
Z Accuracy(mm)	4.85mm@2000mm
X/Y Accuracy(mm)	8.23mm@2000mm

Software

OS	Linux/Windows/Android/ROS
Development platform	Percipio Camport SDK
API	C/C++、C#、Python、Java

Electronics

Supply voltage	DC 24V ; IEEE802.3at/af POE
Power consumption (idle)	2.9 W
Power consumption (continuous)	5.2 W

Performance

Depth	5 fps @ 1280×960
	5 fps @ 640×480
	5 fps @ 320×240
RGB	16 fps @ 1280×960
	30 fps @ 640×480
	30 fps @ 320×240
RGB-D Sync&Alignment	√
Output data	Point cloud, depth, infrared and RGB images

Interface

Power&Trigger	6-pin aviation plug
Ethernet	M12 X-Coding

Ambient Data

Operating temperature	0℃ ~ 45℃
Storage temperature	-10℃ ~ 55℃
Enclosure rating	IP 65

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 about Percipio 3D cameras, please visit :

For online documentation, please visit :

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doc.percipio.xyz/cam/last/