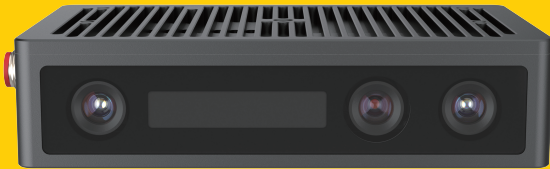


Percipio Industrial 3D Camera

FM855-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.

FM855-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, FM855-E1 is an ideal solution for robotics, logistics, inspection and other applications.

Advantages

Depth Onboard Processing	Active Stereo	SDK Linux/Windows/ ROS/Android
GigE	Enclosure Rating IP65	Hardware Trigger
Measurement Range 0.4~8.0m	Sync & Alignment RGB-D	3D Accuracy Millimeter

FM855-E1 includes two infrared (IR) sensors, one RGB sensor and one structured-light projector. Comparing to the traditional binocular cameras, FM855-E1 provides:

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

Industrial Sensor

FM855-E1 is splash, water, and dust resistant and has been tested under controlled laboratory conditions with a rating of IP65 under IEC standard 60529.

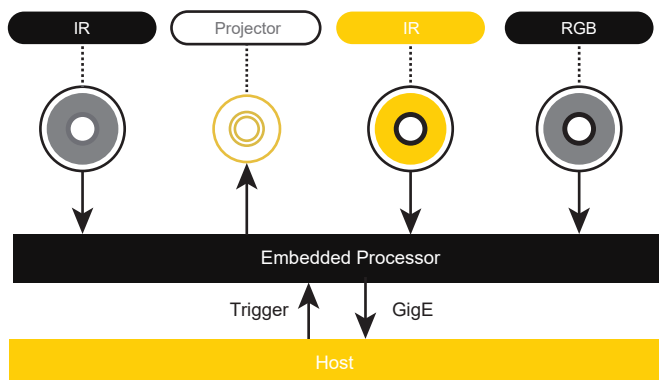
Trigger Mode

FM855-E1 supports the software and hardware trigger. Customers can synchronize multi-cameras to capture images with the hardware trigger.

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

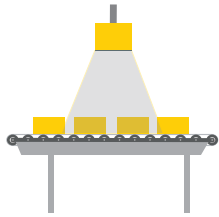
Capture RGB images.

Embedded Processor

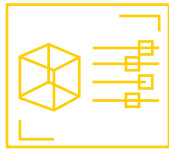
Process infrared and RGB images:

- 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.

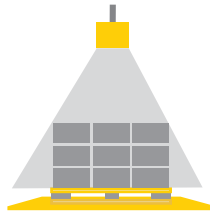
Applications



Integrity Check



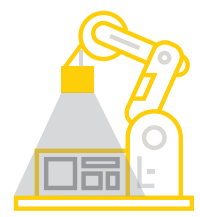
3D Content Generation



Palletizing / Depalletizing



Static Volume Measurement



Industrial Sorting

Features

Dimensions&Weight

L x H x W (excluding interfaces)	145.0 mm × 35.0 mm × 90.0 mm
Weight	620 g

Measurement

Measurement range(mm)	400 ~ 8000
FOV (H/V)	60°/48°
Z Accuracy(mm)	0.69mm@800mm
X/Y Accuracy(mm)	6.86mm@1500mm

Software

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

Ambient Data

Operating temperature	-10℃ ~ 50℃
Storage temperature	-20℃ ~ 55℃
Enclosure rating	IP 65

Performance

Depth	16 fps @ 1280 x 960
	24 fps @ 640×480
	24 fps @ 320×240
RGB	4 fps @ 2560 x 1920 @ YUYV
	7 fps @ 1920x1440 @YUYV
	16 fps @ 1280 x 960 @ YUYV
	30 fps @ 640 x 480 @ YUYV
RGB-D Sync&Alignment	6 fps @ 2560 x 1920 @ CSI BAYER12GBRG
	√
Output data	Point cloud, depth, infrared and RGB images

Interface

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

Electronics

Supply voltage	DC 12-24V 3A;IEEE802.3AF/AT POE
Power consumption (idle)	5.0 W
Power consumption (continuous)	9.0 W

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 :

info@percipio.xyz

support@percipio.xyz

www.percipio.xyz

doc.percipio.xyz/cam/last/