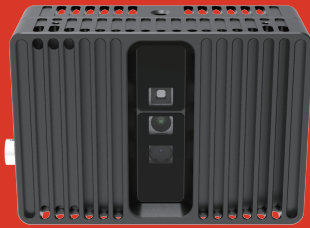


# PERCIPIO 3D CAMERA TM461-E2



## I Overview

Percipio TM461-E2 adopts the time-of-flight method of measurement, and uses embedded processor to calculate depth images. Meanwhile, it supports the third-party SoC development.

TM461-E2 provides an ideal solution for various industrial applications, like volume measurement, 3D inspection and AGV.



## I Advantages

### Time of Flight (ToF)

ToF technology featuring one laser projector, one ToF sensor and one RGB sensor. Compare to active stereo cameras, it offers:

- + Stable accuracy less affected by distance.
- + Distinct identification of small objects in the short range, like cables and cones.

### Configurable Depth Quality


Supports setting the quality of depth images in three grades (BASIC/MEDIUM/HIGH) according to the applications. Setting to the HIGH grade, the camera provides a better depth quality, but a lower frame rate than the BASIC grade.

### Easy to Integrate

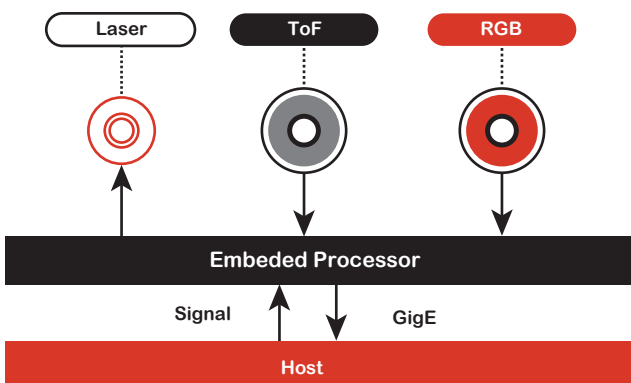
Due to its compact and lightweight housing, TM460-E2 is easy to integrate into various applications.

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.

Depth Onboard Processing	ToF Measuring Principle	SDK Win/Linux OpenNI2/ROS
Ethernet 	Accuracy Millimeter	Compact Easy to Integrate
Measurement Range 0.1~10.0m	Alignment RGB-D	RGB 2M Pixels

## Principle



### Laser Projector

Consecutively project the modulated light to the object surface.

### ToF Sensor

Receive the modulated light reflected from the object surface.

### RGB Sensor

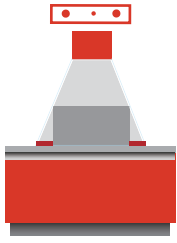
Capture RGB images.

### Embedded Processor

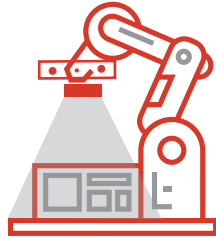
Process RGB images and the data from the ToF sensor.

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

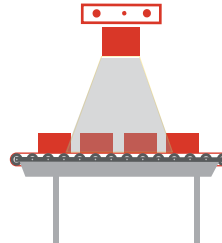
# I Applications



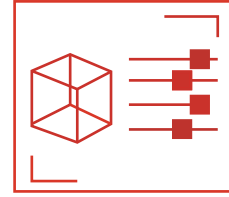
Volume Measurement



Robot Recognition,  
Positioning and Grabbing



3D Inspection



3D Content Generation

# I Features

## Dimensions&Weight

L x H x W (excluding interfaces)	96.4 mm x 67.5 mm x 35.8 mm
Weight	315 g

## Measurement

Measurement Range (m)	0.1 ~ 10.0
FOV (H/V)	65°/50°
Z Accuracy (mm)	±5+1% of depth [400, 2200] ±15+1% of depth (2200, 4300]

## Software

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

## Performance

Depth images	640×480	RGB Images	29 fps @ 1920×1080
	320×240		29 fps @ 1280×720
	160×120		29 fps @ 640×360
Depth Quality	Basic; Medium; High	RGB-D Alignment	√
Output Data	Point cloud, depth, infrared and RGB images		

Note:  
The specs and dimension may change without notice.

## Interface

Power&Trigger	HR10A-7P-6S (HRS)
Ethernet	RJ45

## Electronics

Supply Voltage	DC 12 V / 24 V
Power (Idle Mode)	1.5 W
Power (Continuous Mode)	6.3 W

## Ambient Data

Operating Temperature	0°C ~ 45°C
Storage Temperature	-10°C ~ 55°C
Enclosure Rating	IP50



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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