

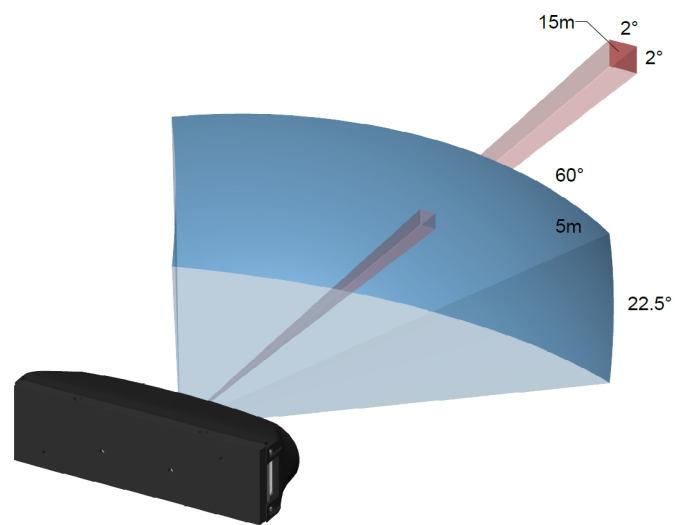
TOF>cam 635

Miniaturized 3D Camera

Preliminary

FEATURES

- ✓ SLAM and collision avoidance
- ✓ Low power consumption
- ✓ Low cost
- ✓ Sunlight tolerant
- ✓ Easy to use
- ✓ Customized versions possible



FUNCTIONAL DESCRIPTION

The TOF>cam 635 is a new design of a miniaturized and cost optimized 3D camera. It is based on the ESPROS proprietary time-of-flight technology using the epc635 TOF chip. The camera controls the illumination and the imager chip to obtain distance and grayscale images. The depth images are compensated against ambient light, temperature and reflectivity of the scene. Thanks to the high performance of the imager chip with the unique ambient light suppression, the camera can be used in many cases under full sunlight condition. The output of the TOF>cam 635 is depth and gray-scale images - allowing a variety of new applications, e.g. for mobile robotics. This module brings you right in front with the latest technology of 3D depth sensing. All the complex engineering and time consuming design tasks regarding optics, illumination and signal processing are already solved.

APPLICATIONS

Gesture Recognition



In-cabin Monitoring



Humanoid and Household Robots



Doors and Gates



People Counting



Industrial Automated Guided Vehicles



SPECIFICATIONS



Range

Wide FOV: 0.1 - 5m
Center beam: 1.0 - 15m



Frame Rate

up to 50fps



Ambient-light

100kLux



Resolution

160x60 Pixel



Interface

UART 10MBit/s



Temperature Range

-20 - +60°C



Accuracy

±2cm (0.1 - 1m)
±2% (1 - 15m)



Data Output

14 bit distance data in mm
2 bit confidence data
12 bit grayscale data
ROS driver upon request



Various

Automatic integration time
Evaluation software and
interface for Windows and
macOS available



Field of View

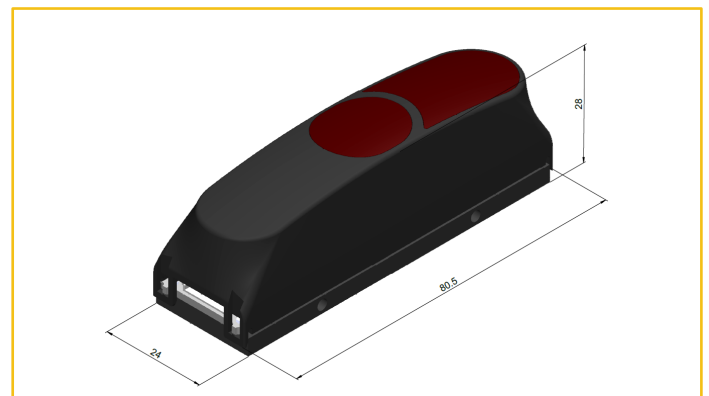
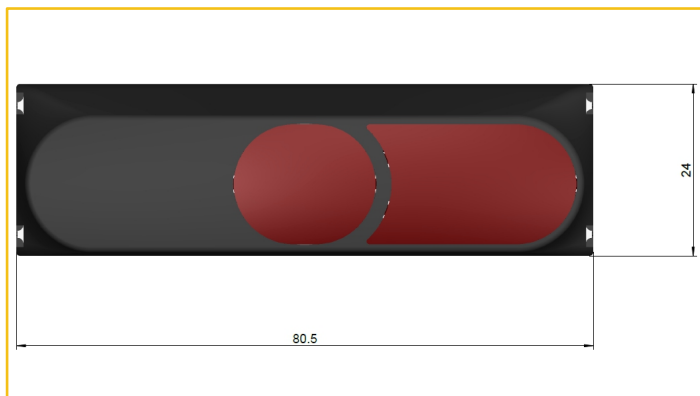
60°x22.5°



Power Consumption

Supply voltage 5V
Approx. 1W, depending
on operation mode

MECHANICAL DIMENSIONS



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